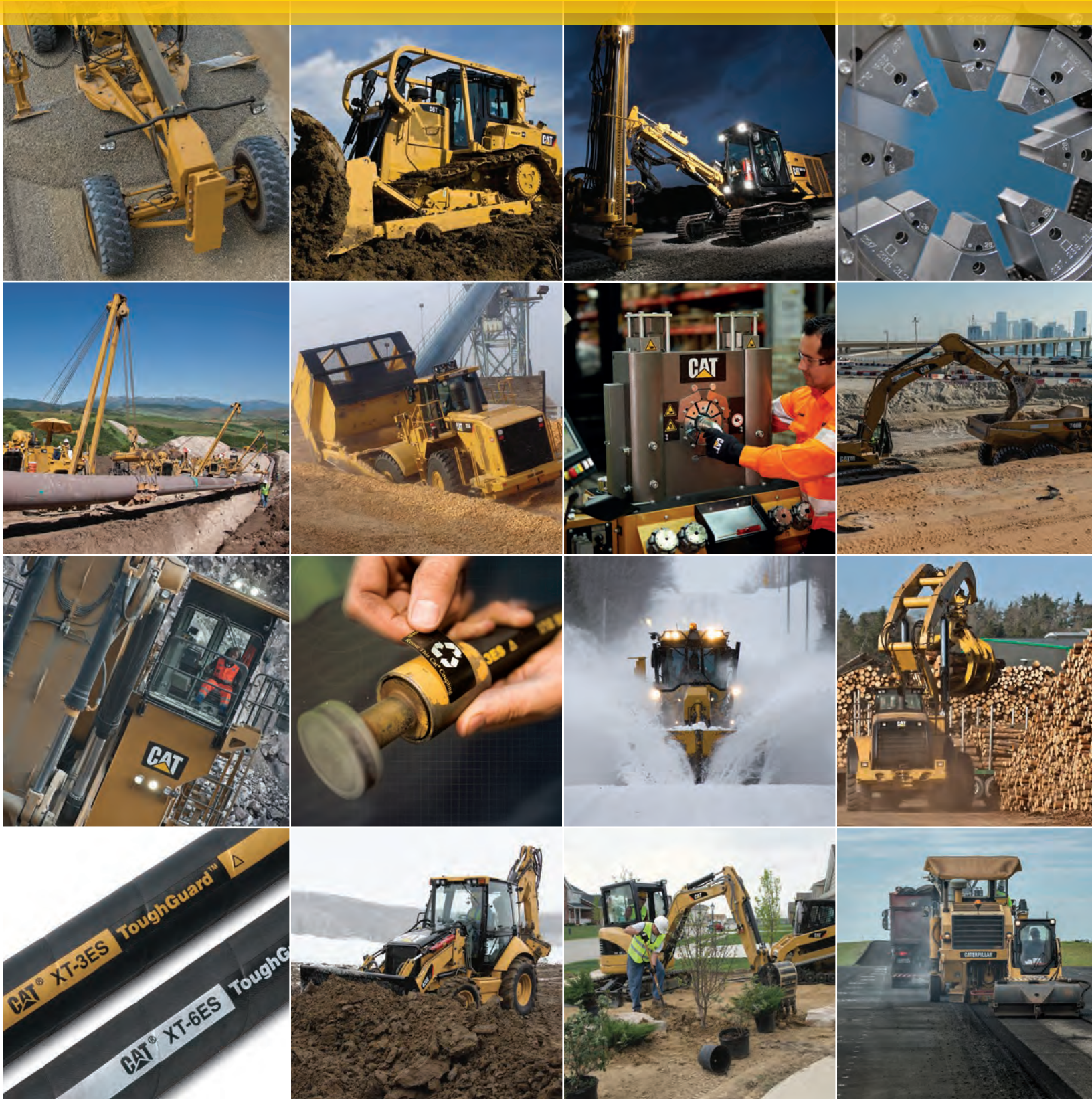


# CAT® HOSE PRODUCTS & TOOLING GUIDE

10.1 EDITION



Comprehensive Industry Solutions





When it comes to hydraulics, you want the safest and most reliable components on your machine.

## THAT'S WHY CATERPILLAR OFFERS SUPERIOR HOSE SOLUTIONS

### 5 Reasons to Choose Cat<sup>®</sup> Hose Assemblies

UNRIVALED EXPERTISE

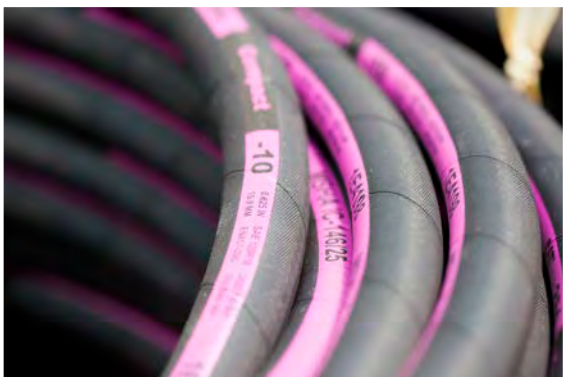
RUGGED DESIGN

METICULOUS MANUFACTURING

RIGOROUS TESTING

UNMATCHED SUPPORT

Learn how each advantage delivers genuine value to help you get the most out of your hydraulic systems—driving greater efficiency and more value to your bottom line.



## UNRIVALED EXPERTISE that instills confidence

### A COMPANY YOU CAN COUNT ON

When it comes to operating your Cat equipment, dependability is a must. That is why we manufacture our own line of hydraulic hose and couplings for your replacement hydraulic hose assemblies. In fact, no other equipment manufacturer is more invested in this business.

### A Longer History of Know-How to Help You

When you rely on Cat hydraulic components, you have half a century of expertise behind you. Caterpillar began designing and manufacturing hose products in the 1960s to meet the high-pressure hydraulic needs of a growing construction market. Since that time—over several decades—our hydraulic hose and couplings have earned and maintained a global reputation for superior performance and reliability.



*Caterpillar entered the hose business in the 1960s primarily out of necessity. The company needed a high-pressure hose that would meet increased productivity demands in the earth-moving industry. However, no such hose was available. That's why, in 1968, Caterpillar designed, tested and began manufacturing its own high-pressure spiral hose. Since that time, over 1 billion feet (300 million meters) of Cat high-pressure spiral hose has been placed in the field.*

*By the 1970s, Caterpillar was a leading manufacturer of high-pressure hose and coupling products, and the company's innovative Cat Spiral Hose had become the industry standard for high-pressure applications.*



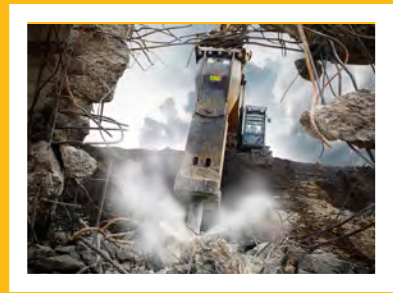
### Higher Standards to Reassure You

To achieve peak performance from your Cat equipment, you need hydraulic replacement parts that are equivalent to your factory-installed components. That's why we engineer our replacement hose products to the same standards as the hose products originally installed on Cat machines. Close attention to routing and pressure requirements are two key elements that differentiate our ability to provide the highest levels of safety and reliability with our hydraulic systems.

# RUGGED DESIGN for endurance in tough applications

## A UNIQUE SYSTEM APPROACH

Cat hose assembly products and tooling are designed to work together as a coordinated system. This is the only way to achieve a reliable connection that helps optimize hydraulic system safety and dependability.

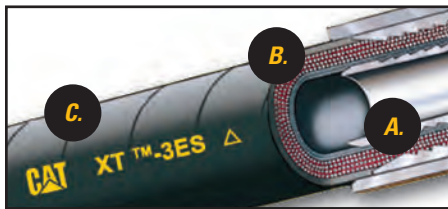


## Cat Hydraulic Hose is Durable and Flexible

The complete offering includes low, medium and high pressure, as well as speciality hoses that meet a wide range of application requirements. Every hose is engineered to surpass industry standards.

## Engineered for Punishing Conditions

Robust, Multiple-Ply Construction Exceeds Industry Standards



- A.** The inner liner and cushion stock of the hose are made from a high-quality rubber formula proprietary to Caterpillar.
- B.** Spiral or braided wire reinforcement is added for strength to surpass pressure requirements.
- C.** Then a tough outer cover is applied to resist oil, weather and abrasion.



## Proprietary Tooling and Software Ensure Exact Assembly

Your Cat dealer uses Caterpillar designed tooling and industry-unique software to construct every hose assembly to exact OEM specifications. This exclusive tooling and software combination ensures precise crimps every time for enhanced safety and reliability.



When extreme abrasion resistance is needed, Caterpillar offers another option. Cat XT ToughGuard™ Hose has an exclusive, Caterpillar designed polyethylene cover that has surpassed two million abrasion test cycles without failure. Not only is this hose superior against abrasion, it is also highly resistant to chemicals and weathering. In addition, it eliminates the need for nylon, plastic and other forms of hose protection in most applications, which can significantly reduce material and labor costs.



## Formulated for Unmatched Flexibility

Cat hydraulic hoses are designed to work at half of the SAE bend radius without sacrificing extreme cold-temperature flex capability or durability. This enables easier routing in the tightest spaces.



## Cat Couplings Ensure a Solid Connection

Our one-piece couplings are designed for superior coupling retention with Cat hose to withstand pressure requirements and allow flexing without fatigue. This results in the most reliable connection and eliminates potential for leaks. For select machine sizes, Caterpillar also offers reusable couplings for large-diameter, high-pressure hose.

# METICULOUS MANUFACTURING for reliable performance

## HOSE ASSEMBLIES BUILT TO EXACT OEM SPECIFICATIONS

Our hydraulic hose assembly solutions are built to same-as-new specifications for Cat equipment. This means every new hose assembly perfectly matches the factory-installed version it is replacing.

### Focused on Quality

Caterpillar uses cutting-edge machinery to produce their own hose products. Stringent quality and contamination control processes ensure consistently manufactured, high-quality components.



*We apply statistical process control to verify that every batch of rubber has been mixed to our exact specifications.*



*Our couplings are forged and machined from high tensile strength steel. Then they are heat treated and plated to ensure maximum durability and corrosion resistance.*



*Before application, the hose is routed through a cooling chamber until it reaches a suitable temperature. This prevents perforation of the hose as the high tensile strength reinforcement wire is applied.*



*Cat hose is carefully monitored to ensure precise inner and outer diameter measurements are maintained. This provides precise coupling retention capability.*

## RIGOROUS TESTING for optimum safety

THE BEST IN THE INDUSTRY

Cat hydraulic hose and couplings are subjected to the most rigorous testing processes in the hose and coupling manufacturing industry.

### An All-in-One Approach Produces Most Reliable Results

Every Cat hose and coupling combination is tested as a system—not as separate components—to ensure a perfect fit that yields maximum safety and dependability.

### Comprehensive Analysis Verifies Critical Standards Are Met

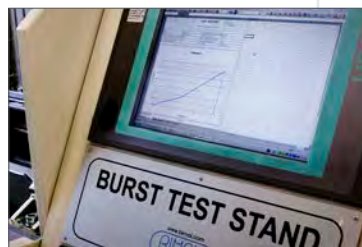
We use an array of measures to evaluate both raw materials and finished components. These include rubber compression and elongation testing; wire tensile-strength testing; hose impulse testing, burst pressure testing, temperature adaptability testing, abrasion testing, flexibility and diameter testing; and coupling salt-spray and metallurgical testing—all of which help ensure unparalleled hydraulics safety and dependability for your machines.



*The number one cause of hose failure is abrasion. Cat ToughGuard hose, designed for severe abrasion applications, features a polyethylene cover that has surpassed two million cycles of abrasion testing without failure. The SAE standard is 39,000 cycles.*



*To simulate punishing conditions, Caterpillar impulse-tests hose assemblies at 130% of operating pressure for one million cycles—double the SAE standard of 500,000 cycles.*



*Cat hose is burst tested by applying pressure at a constant rate until it reaches a burst pressure of four times the normal operating pressure.*

# UNMATCHED SUPPORT for maximum uptime

## THE KEY TO MAINTAINING MACHINE PRODUCTIVITY

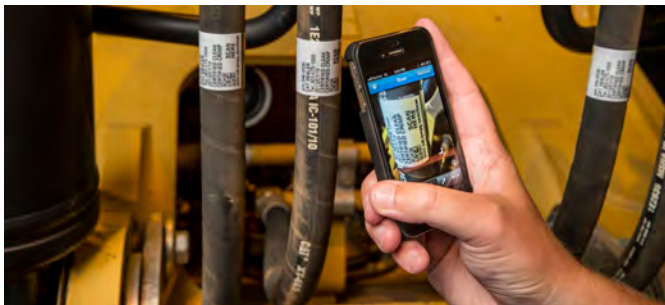
When you need a hose assembly, you need it now. That is why your Cat dealer is uniquely skilled to perform the assembly and installation. Trained dealer technicians use the latest tooling, assembly information, routing standards, inspection techniques and contamination control processes to get your machines up and running—quickly and reliably.

### Solutions That Are Optimal for Your Entire Fleet

Mining, earthmoving, excavation, forestry and compact machines can all benefit from Cat hose and couplings. Our product line meets wide-ranging applications, from the channeling of high-pressure fluids to low-pressure applications, such as fuel or brake lines in any brand machine.

### Unmatched Convenience

The only thing your dealer needs to build an exact replacement Cat hydraulic hose assembly is the Cat part number—and it's right on the hose label. Order by phone and your dealer will have a replacement hose waiting for you when you arrive. If the hose being replaced was built after 2013, your dealer's phone number is printed right on the label, as well as a QR (quick response) code you can scan with a mobile device to be linked to [CatHose.com](http://CatHose.com). From there you can place your order online via [Parts.cat.com](http://Parts.cat.com).



### In-stock Components

Your dealer uses ongoing inventory analysis and management to ensure adequate components for customers' machines are always available. In addition, Caterpillar backs up dealers with a network of strategically placed distribution centers in every part of the world to ensure continued parts availability.



### Cat Dealer Expertise

Your Cat dealer is equipped with proprietary tools and reference materials that are unmatched in the industry. From hose routing guides that eliminate potential for abrasion, to the ability to identify hydraulic-related concerns before failure through inspection of your machine, they are there to ensure your safety and machine dependability are always maintained.

### On-site Service

When a hose failure occurs at a remote location, you expect a quick, reliable repair. A Cat Hose Assembly Mobile Workshop—engineered and stocked to support your machine population—provides the immediate support you need, exactly where you need it. This minimizes your downtime by ensuring that any hose failure can be addressed immediately so your machine is quickly back in operation.



*Every Cat Hose Assembly Mobile Workshop is sealed from outdoor contaminants and features durable, high-density cabinets and other storage solutions designed for clean, efficient storage of parts and tooling.*



# Introduction

## **IMPORTANT: Cat Bulk Hose and Armor Guard Transitioning to Metric Unit of Measure**

With reference to IRM PELJ2260-01 published in June 2018, all bulk hose and armor guard products will be transitioning to a standard unit of measure, centimeter (cm). This transition will result in NEW part numbers for most bulk hose and/or armor guard. For a detailed explanation and timeline breakdown of the part number transition, please refer to the IRM PELJ2260-01.

**NOTE** - The bulk hose and armor guard part numbers displayed in this Hose Products & Tooling Guide reflect the NEW part numbers which will not be available to order until November 2018 and beyond. Below is a table that lists the old and new part numbers as a reference during the time between the release of this product guide publication (June 2018) and the availability of the new part numbers (November 2018 and beyond).

Hose Type	Hose ID	Old Part Number	New Part Number	Page Number
294	6.4	122-6887	456-8432	116
294	7.9	122-6888	456-8433	116
294	9.5	122-6889	456-8434	116
294	12.7	122-6890	456-8435	116
294	15.9	124-7115	456-8436	116
294	19.1	122-6891	456-8437	116
294	25.4	122-6892	456-8438	116
294	31.8	122-6893	456-8439	116
294	38.1	122-6894	456-8440	116
294	50.8	122-6895	456-8441	116
294	63.5	256-1388	456-8442	116
294	76.2	466-8401	541-7099	116
556	4.8	9X-2362	541-7130	168
556	6.4	9X-2363	541-7131	168
556	7.9	9X-2364	541-7132	168
556	10.3	9X-2365	541-7133	168
556	12.7	9X-2366	541-7134	168
556	15.9	9X-2367	541-7135	168
556	22.2	9X-2368	541-7136	168
556	28.6	9X-2369	541-7137	168
556	34.9	9X-2370	541-7138	168
661	38.1	5P-1291	541-7167	204
661	44.5	5P-1292	541-7168	204
661	50.8	5P-1293	541-7169	204
661	57.2	5P-1294	541-7170	204
661	63.5	5P-1295	541-7171	204
661	88.9	5P-1296	541-7172	204
716	6.4	122-6867	456-8409	114
716	9.5	122-6869	456-8410	114
716	12.7	122-6870	456-8416	114
716	15.9	122-6871	456-8420	114
716	19.1	122-6872	456-8421	114
716	25.4	122-6873	456-8422	114
716	31.8	122-6874	456-8423	114
716	38.1	122-6875	456-8424	114
716	50.8	122-6876	456-8425	114
743	4.8	423-1979	456-8506	184
743	6.4	423-1980	456-8507	184

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743	7.9	423-1981	456-8508	184
743	9.5	423-1982	456-8509	184
743	12.7	423-1983	456-8510	184
743	15.9	423-1984	456-8511	184
743	19.1	423-1985	456-8512	184
743	25.4	423-1986	456-8513	184
844	19.1	122-6905	456-8457	119
844	25.4	122-6906	456-8458	119
844	31.8	122-6907	456-8459	119
844	38.1	122-6908	456-8460	119
844	50.8	122-6909	456-8461	119
844	63.5	122-6910	456-8462	119
844	76.2	122-6911	456-8463	119
844	88.9	122-6912	456-8464	119
1028	4.8	9X-2380	541-7122	155
1028	6.4	9X-2381	541-7123	155
1028	7.9	9X-2382	541-7124	155
1028	7.9	9X-2386	541-7128	155
1028	9.5	9X-2383	541-7125	155
1028	9.5	9X-2387	541-7129	155
1028	12.7	9X-2384	541-7126	155
1028	19.1	9X-2385	541-7127	155
1036	19.1	9X-2733	456-8482	63
1036	25.4	9X-2734	456-8483	63
1036	31.8	9X-2735	456-8484	63
1036	38.1	9X-2736	456-8485	63
1036	50.8	9X-2737	456-8486	63
1130	4.8	9X-2371	541-7139	169
1130	6.4	9X-2372	541-7140	169
1130	7.9	9X-2373	541-7141	169
1130	10.3	9X-2374	541-7142	169
1130	12.7	9X-2375	541-7143	169
1130	15.9	9X-2376	541-7144	169
1130	22.2	9X-2377	541-7145	169
1130	28.6	9X-2378	541-7146	169
1130	34.9	9X-2379	541-7147	169
2760	6.4	135-7853	541-7100	160
2760	7.9	135-7854	541-7101	160
2760	9.5	135-7855	541-7102	160
2760	12.7	135-7856	541-7103	160
2786	6.4	166-6137	456-8518	120
2786	9.5	166-6138	456-8519	120
2786	12.7	166-6139	456-8520	120
2786	15.9	166-6140	456-8521	120
2786	19.1	166-6141	456-8522	120
2786	25.4	166-6142	456-8523	120
2786	31.8	166-6143	456-8524	120
2929	4.8	423-1969	456-8514	197
2929	6.4	423-1970	456-8515	197
2929	9.5	423-1971	456-8516	197
2929	12.7	423-1972	456-8517	197

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Hose Type	Hose ID	Old Part Number	New Part Number	Page Number
1543J	7.9	329-9930	541-7161	176
1543J	10.3	329-9931	541-7162	176
1543J	12.7	329-9932	541-7163	176
1543J	15.9	329-9933	541-7164	176
1543J	19.1	329-9934	541-7165	176
2771A	6.4	224-7696	541-7079	189
2771A	7.9	224-7697	541-7080	189
2771A	9.5	224-7698	541-7081	189
2771A	12.7	224-7700	541-7082	189
2771A	15.9	224-7701	541-7083	189
2771A	19.1	297-2798	541-7084	189
2929TG	6.4	308-7530	541-7076	197
2929TG	9.5	278-8507	541-7077	197
2929TG	12.7	308-7531	541-7078	197
294CPT	6.4	423-1973	456-8451	117
294CPT	7.9	n/a	541-7160	117
294CPT	9.5	423-1974	456-8452	117
294CPT	12.7	423-1975	456-8453	117
294CPT	15.9	423-1976	456-8454	117
294CPT	19.1	423-1977	456-8455	117
294CPT	25.4	423-1978	456-8456	117
294CPTG	6.4	303-3092	541-7085	117
294CPTG	9.5	303-3093	541-7086	117
294HT	31.8	213-8687	541-7183	117
294HT	38.1	213-8688	541-7184	117
294HT	50.8	213-8689	456-8449	117
294HT	63.5	213-8690	456-8450	117
294TG	6.4	310-6636	456-8443	116
294TG	9.5	310-6637	456-8444	116
294TG	12.7	310-6638	456-8445	116
294TG	15.9	310-6639	456-8446	116
294TG	19.1	310-6640	456-8447	116
294TG	25.4	310-6641	456-8448	116
515B	15.9	136-1953	456-8660	203
515E	9.5	349-6234	541-7117	203
515E	19.1	8T-9543	541-7121	203
642E	50.8	328-2915	541-7109	204
642E	63.5	328-2916	541-7110	204
642E	76.2	328-2917	541-7111	204
642E	88.9	328-2918	541-7112	204
642E	101.6	328-2919	541-7113	204
642E	114.3	328-2920	541-7114	204
642E	127	328-2921	541-7115	204
642E	139.7	328-2922	541-7116	204
716CPT	6.4	366-6522	456-8538	115
716CPT	9.5	366-6521	456-8539	115
716CPT	12.7	366-6526	456-8540	115
716CPT	15.9	366-6525	456-8541	115
716CPT	19.1	366-6524	456-8542	115
716CPT	25.4	366-6523	456-8543	115
716TG	6.4	213-8702	456-8426	114

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<b>Hose Type</b>	<b>Hose ID</b>	<b>Old Part Number</b>	<b>New Part Number</b>	<b>Page Number</b>
716TG	9.5	213-8703	456-8427	114
716TG	12.7	213-8704	456-8428	114
716TG	15.9	213-8705	456-8429	114
716TG	19.1	213-8706	456-8430	114
716TG	25.4	213-8707	456-8431	114
844C	63.5	153-1950	456-8465	119
844C	76.2	153-1951	541-7180	119
844C	88.9	153-1952	541-7181	119
844C	101.6	153-5522	541-7182	119
Abrasive Sleeving	18	160-2242	541-7087	395
Abrasive Sleeving	25.4	160-2243	541-7088	395
Abrasive Sleeving	28.7	160-2244	541-7089	395
Abrasive Sleeving	31.8	160-2245	541-7090	395
Abrasive Sleeving	40.4	160-2246	541-7091	395
Abrasive Sleeving	44.5	160-2247	541-7092	395
Abrasive Sleeving	52.6	160-2248	541-7093	395
Abrasive Sleeving	60.5	160-2249	541-7094	395
Abrasive Sleeving	64.5	160-2250	541-7095	395
Abrasive Sleeving	72.6	160-2251	541-7096	395
Abrasive Sleeving	84.8	160-2252	541-7097	395
Fire Sleeve	25.4	9X2-081	541-7154	399
Fire Sleeve	31.8	2Q-0604	541-7155	399
Fire Sleeve	44.5	324-9707	541-7156	400
Fire Sleeve	50.8	324-9708	541-7157	400
Fire Sleeve	60.3	2Q-0584	541-7158	400
Fire Sleeve	88.9	2Q-2153	541-7159	400
XT-3ES	9.5	165-0016	456-8466	79
XT-3ES	12.7	165-0017	456-8467	79
XT-3ES	15.9	165-0018	456-8468	79
XT-3ES	19.1	165-0020	456-8469	79
XT-3ES	25.4	165-0021	456-8470	79
XT-3ES	31.8	165-0023	456-8471	79
XT-3ES	38.1	165-0024	456-8472	79
XT-3ES	50.8	165-0025	456-8473	79
XT-3TG	9.5	238-8337	456-8474	79
XT-3TG	12.7	238-8339	456-8475	79
XT-3TG	15.9	238-8340	456-8476	79
XT-3TG	19.1	238-8341	456-8477	79
XT-3TG	25.4	238-8342	456-8478	79
XT-3TG	31.8	245-1420	456-8479	79
XT-3TG	38.1	245-1421	456-8480	79
XT-3TG	50.8	256-1390	456-8481	79
XT-5TG	19.1	293-4616	456-8487	63
XT-5TG	25.4	293-4617	456-8488	63
XT-5TG	31.8	293-4618	456-8489	63
XT-5TG	38.1	293-4619	456-8490	63
XT-6ES	9.5	161-1833	456-8491	36
XT-6ES	12.7	161-1834	456-8492	36
XT-6ES	15.9	171-2532	456-8493	36
XT-6ES	19.1	161-1835	456-8494	36
XT-6ES	25.4	161-1836	456-8495	36

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<b>Hose Type</b>	<b>Hose ID</b>	<b>Old Part Number</b>	<b>New Part Number</b>	<b>Page Number</b>
XT-6ES	31.8	161-1837	456-8496	36
XT-6ES	38.1	161-1838	456-8497	36
XT-6ES	50.8	222-4844	456-8498	36
XT-6TG	9.5	238-8343	456-8499	36
XT-6TG	12.7	238-8344	456-8500	36
XT-6TG	15.9	238-8345	456-8501	36
XT-6TG	19.1	238-8346	456-8502	36
XT-6TG	25.4	238-8347	456-8503	36
XT-6TG	31.8	245-1412	456-8504	36
XT-6TG	38.1	245-1413	456-8505	36



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## Quick Reference - Hose & Couplings

The Society of Automotive Engineers (SAE) has developed standards for hose manufacturers.

These standards address areas like temperature resistance, impulse performance, change in length, etc.

**Cat hose** products are designed, manufactured and tested to **exceed SAE standards**, something that has made them the preferred choice in earthmoving and many other applications.

The following charts illustrate ways Cat hoses exceed the industry requirements.

### CATERPILLAR SPECIFICATIONS VS. INDUSTRY

Cat Hose Type	Temp Range	Applicable Standards	Temp Range
716	-40 to 135 °C -40 to 275 °F	SAE 100R1AT	-40 to 100 °C -40 to 212 °F
		EN 853-1SN	
		ISO 1436-1SN	
294	-40 to 100 °C -40 to 212 °F	SAE 100R2AT	-40 to 100 °C -40 to 212 °F
		EN 853-2SN	
		ISO 1436-2SN	
844	-40 to 135 °C -40 to 275 °F	SAE 100R4	-40 to 100 °C -40 to 212 °F
556	-40 to 121 °C -40 to 250 °F	SAE 100R5	-40 to 100 °C -40 to 212 °F
743	-40 to 135 °C -40 to 275 °F	SAE 100R6	-40 to 100 °C -40 to 212 °F
		ISO 4079-R6	
1028	-40 to 93 °C -40 to 200 °F	SAE 100R7	-40 to 93 °C -40 to 200 °F
XT-3ES	-40 to 121 °C -40 to 250 °F	SAE 100R12	-40 to 121 °C -40 to 250 °F
		EN 856-R12	
		ISO 3862-R12	
XT-5ES	-40 to 121 °C -40 to 250 °F	SAE 100R13	-40 to 121 °C -40 to 250 °F
		EN 856-R13	
		ISO 3862-R13	
2771A	-54 to 232 °C -65 to 450 °F	SAE 100R14	-54 to 204 °C -65 to 400 °F
XT-6ES	-40 to 121 °C -40 to 250 °F	SAE 100R15	-40 to 121 °C -40 to 250 °F
		EN 856-R15	
		ISO 3862-R15	
294CPT	-40 to 100 °C -40 to 212 °F	SAE 100R16	-40 to 100 °C -40 to 212 °F
		EN 857-2SC	
		ISO 11237-2SC	
4636	-40 to 121 °C -40 to 250 °F	SAE 100R19	-40 to 100 °C -40 to 212 °F
		ISO 11237-R19	
716CPT	-40 to 100 °C -40 to 212 °F	EN 857-1SC	-40 to 100 °C -40 to 212 °F
		ISO 11237-1SC	
1130	-40 to 150 °C -40 to 302 °F	SAE J1402 Type All	-40 to 100 °C -40 to 212 °F

# Quick Reference - Hose & Couplings

## IMPULSE CYCLES

Cat Hose Type	Impulse Cycles	Applicable Standards	Impulse Cycles
716	250,000	SAE 100R1AT	150,000
		EN 853-1SN	
		ISO 1436-1SN	
294	200,000	SAE 100R2AT	200,000
		EN 853-2SN	
		ISO 1436-2SN	
XT-3ES	1,000,000	SAE 100R12	500,000
		EN 856-R12	
		ISO 3862-R12	
XT-5ES	1,000,000	SAE 100R13	500,000
		EN 856-R13	
		ISO 3862-R13	
XT-6ES	1,000,000	SAE 100R15	500,000
		EN 856-R15	
		ISO 3862-R15	
294CPT	200,000	SAE 100R16	200,000
		EN 857-2SC	
		ISO 11237-2SC	
4636	1,000,000	SAE 100R19	200,000
		ISO 11237-R19	
716CPT	150,000	EN 857-1SC	150,000
		ISO 11237-1SC	

### Replace Hoses Immediately, If They Are:

- Twisted, kinked, crushed, or flattened
- Cracked, corroded or abraded
- Leaking
- Blistered
- Hard, stiff, heat cracked, or charred

### 7 Reasons Hose Assemblies Fail:

1. Fatigue
2. Abrasion/External Damage
3. Improper Application
4. Improper Assembly
5. Improper Installation
6. Faulty Tooling
7. Faulty Material

Remembering the word — **STAMPED** — can help you consider all the necessary hose replacement criteria.

**Size** – Inside diameter of the hose must be adequate to keep pressure loss to a minimum and avoid damage to the hose.

**Temperature** – Know the normal operating temperature of the hydraulic system.

**Application** – Have an idea of the working conditions and implement cycle times.

**Media** – Know the type of fluid being used.

**Pressure** – Know the maximum operating pressure of the system.

**Ends of Coupling** – Identify correct end connections, threads, and configurations.

**Delivery** – On suction applications know the amount of vacuum/velocity a hose can withstand.

# Hose Identification

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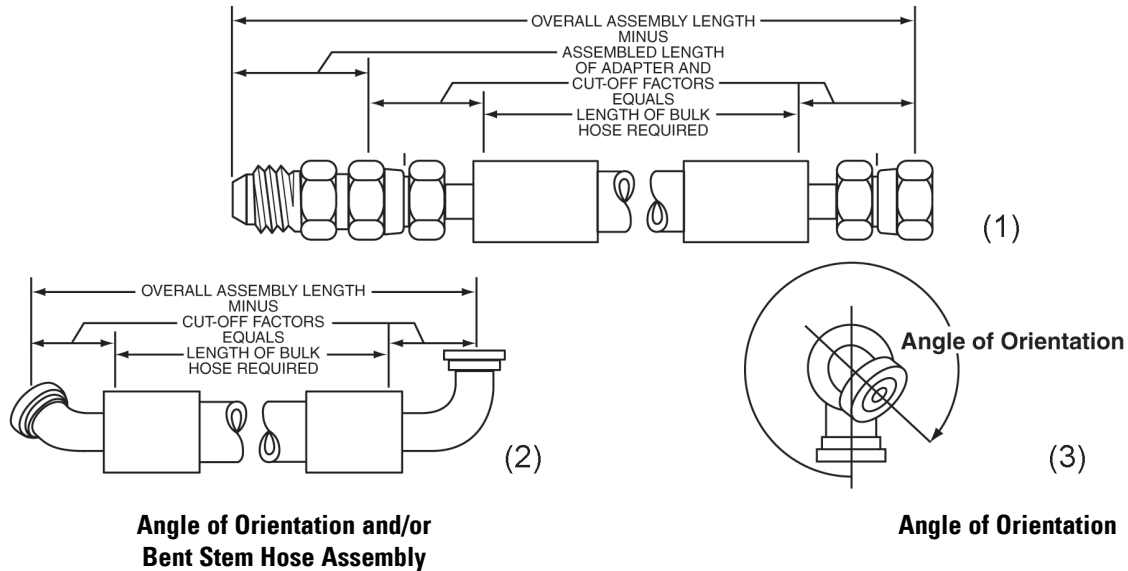
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# Hose, Coupling & Hose Assembly Procedure Checklist

## Step 1- Identify Hose Assembly to be Made

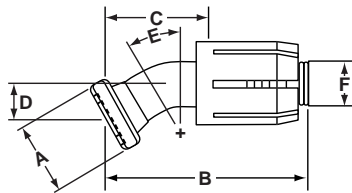
1. Measure total hose assembly length (sealing surface to sealing surface) and record.

### Straight Hose Assembly



2. If applicable, measure angle of orientation and record. Angle of orientation = the angle between the center lines of two bent couplings measured in a clockwise direction from the back coupling to the front coupling.

## Step 2 - Identify Coupling Style & Type



### Coupling Dimensions

- A - Head Diameter & Thickness or Thread Diameter & Pitch
- B - Stem Assembly Length
- C - Cut-Off Factor
- D - Drop Length
- E - Degree of Angle
- F - Hose Inside Diameter

Refer to Coupling Identification Tables

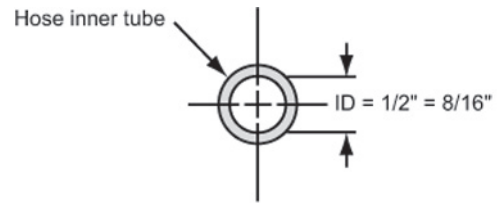
1. Look for markings/part numbers to cross reference.
2. Compare the physical characteristics of the coupling head to the illustration in the Coupling Identification Tables and determine coupling possibilities.
3. Measure the coupling's dimensions in the Coupling Identification Tables to determine coupling head type.
4. Use the part number charts in the product sections to select the Cat coupling that closely matches the measured coupling dimensions.

# Hose, Coupling & Hose Assembly Procedure Checklist

## Step 3 - Identify What Kind of Hose is to be Replaced

Refer to *Hose Selection, Industry Comparison, Working Pressure and Fluid Compatibility*

1. Look at the layline, if legible, for hose type information and/or part number.
2. Investigate hose application requirements:
  - Size: Hose Inside Diameter
  - Temperature Range
  - Application: Machine Type, Machine Origin and Field Work
  - Material being conveyed: Fluid Type and Flow
  - Pressure: Machine Max Working Pressure
3. Cut old hose to determine construction layers and type.
4. Measure hose inside diameter.
5. Compare construction layers to Cat Hose Construction Data Sections, and select Cat hose.



Inside Diameter Measurement

## Step 4 - Build Hose Assembly

Refer to *Hose Assembly & Coupling Recovery: Training Video - PEVN3808*

1. Determine the coupling cut-off factor.
2. Determine the length of bulk hose required by subtracting the combined cut-off factor from the overall assembly length.

### **Total Assembly Length:**

**- Coupling 1 Cut Off Factor**

**- Coupling 2 Cut-Off Factor**

**= Hose Cut Length**

3. Cut the hose to the appropriate length.
4. Skive the cover of the hose, if required.
5. Using the Cat Hose Cleaner Group, select appropriate projectile and clean hose once at each end.
6. If permanent couplings, select the correct dies from the Die Selection Chart.
7. Make sure the die group is lubricated.
8. Crimp the couplings. If reusable coupling, reassemble after proper reclamation process.
  - **Measure Permanent Couplings Crimp Diameter with Caliper Measurement Tool**  
(Consult the crimp diameter chart NEEG2746)
  - **Check the Length of the Assembly**
  - **Check the Angle of Orientation**
9. Clean the hose assembly with the proper projectile from the Hose Cleaner Group.
10. Tag the hose assembly with an identification tag using the appropriate part number.
11. Cap and/or plug the couplings.

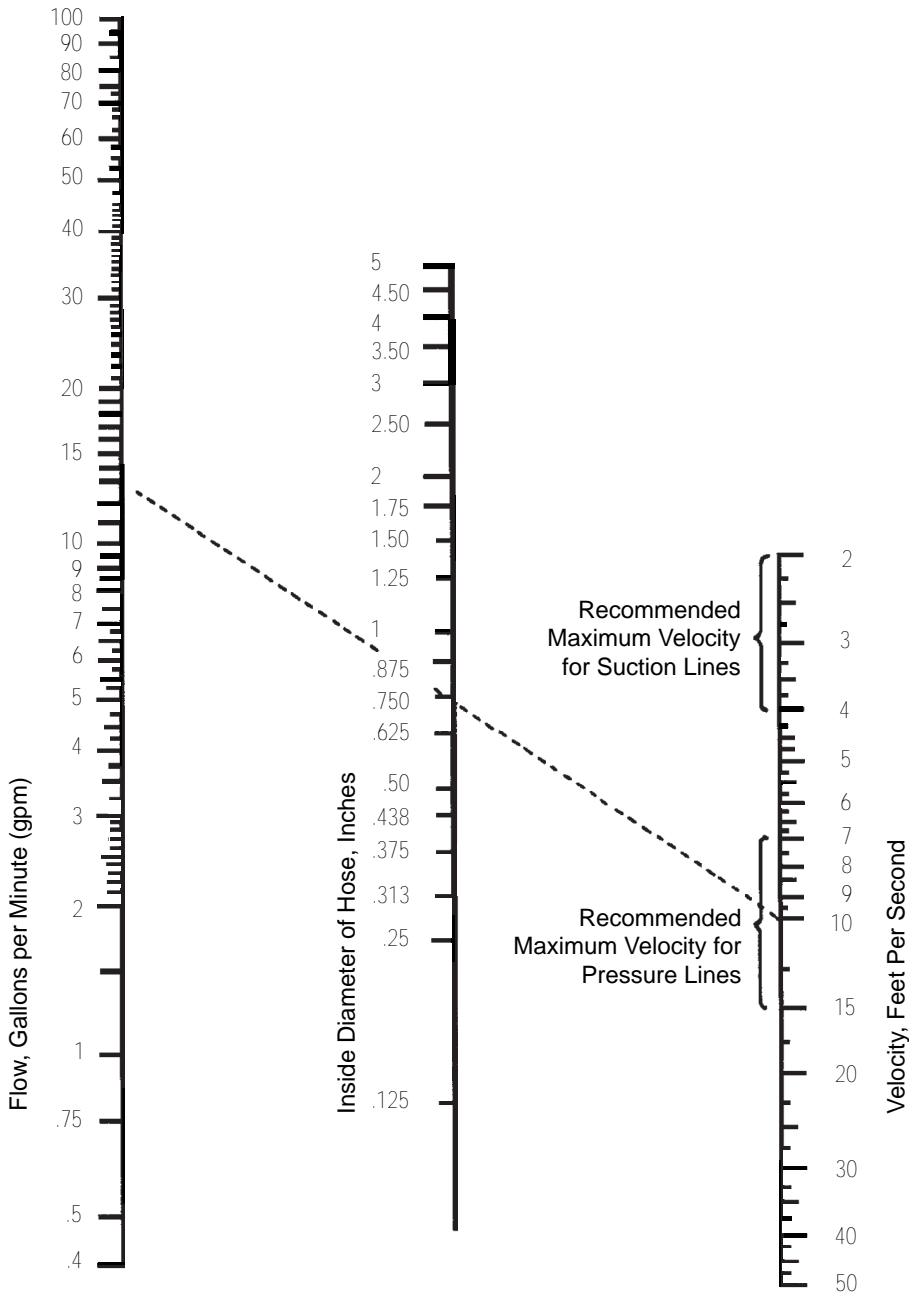
# Flow Capacity Nomograph

## Flow Capacities of Cat Hose at Recommended Flow Velocities

The chart below is designed and provided as an aid in the determination of the correct hose size.

1. Determine flow and velocity of system.
2. Find them on indexes below.
3. Connect line with straight edge to determine correct hose size.

$$\text{AREA (IN}^2\text{)} = \frac{\text{FLOW (GPM)} \times .3208}{\text{VELOCITY (FT/SEC)}}$$





## **Improper Application**

**Symptom:** A hose has burst and random broken wires are present

**Possible Cause:** A high-frequency pressure impulse caused by installing hose that doesn't meet specs.

**Solution:** Replace hose as specified for that equipment.



## **Age**

**Symptom:** Hard, cracked hose.

**Possible Cause:** Heat leached out the plasticizers that give a hose flexibility.

**Solution:** Replace the hose assembly correctly.

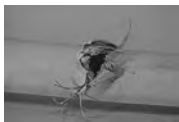


## **Improper Installation**

**Symptom:** Hose is flattened out and kinked or twisted.

**Possible cause:** Improper installation caused hose to torque in one direction.

**Solution:** Replace the hose assembly correctly and check any other parts that have been affected.



## **Improper Application**

**Symptom:** A hose has burst, but there are no broken wires.

**Possible Cause:** Hydraulic system operating pressure has exceeded the maximum operating pressure.

**Solution:** Replace hose assembly, check operating pressure and identify cause for the excess pressure.



## **External Damage**

**Symptom:** A hose has burst, the cover is cut, and wire reinforcement is rusted.

**Possible Cause:** External elements have cut and degraded the cover.

**Solution:** Replace hose assembly and determine what external elements can be controlled to prevent future hose damage.



## **Improper Assembly**

**Symptom:** The hose has burst at the outside bend and is elliptical at the bent section.

**Possible Cause:** The minimum bend radius has been exceeded and points to faulty installation.

**Solution:** Replace hose assembly correctly.



## **Improper Application**

**Symptom:** The hose ID broke away from the reinforcement and collapsed the ID material.

**Possible Cause:** The hose is pulling a vacuum.

**Solution:** If this is a suction line, an inner support or hose using helical wire reinforcement is required.



## **Improper Assembly**

**Symptom:** The hose has burst 6"–8" away from the end of the fitting. The wire reinforcement is rusted.

**Possible Cause:** Improper assembly of the hose and fitting.

**Solution:** Proper replacement that prevents moisture around the fitting.



## **Improper Application**

**Symptom:** Hose is deteriorated, and there is extreme swelling in the liner.

**Possible Cause:** Installation of the wrong hose material for fluid being used.

**Solution:** Install correct hose to match fluid.



## **Faulty Material**

**Symptom:** A thermoplastic hose assembly blew off the fitting.

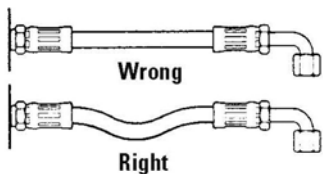
**Possible Cause:** Constant heat that causes hose to soften.

**Solution:** Identify the cause, evaluate the impact and replace the hose assembly.

# Hose Installation

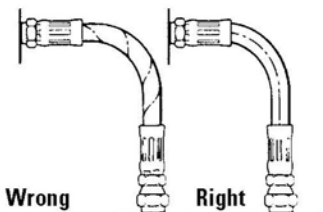
## 1. Provide for length change.

In straight hose installations, allow enough slack in the hose line to provide for changes in length that will occur when pressure is applied. This change in length can be from +2% to -4%.



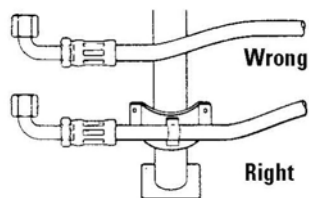
## 2. Avoid twisting and orient properly.

Do not twist hose during installation. This can be determined by the printed layline on the hose. Pressure applied to a twisted hose can cause hose failure or loosening of connections.



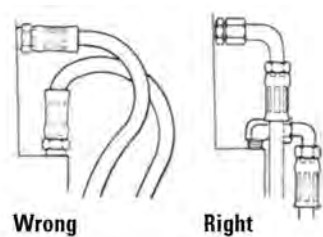
## 3. Protect from hazardous environment.

Keep hose away from hot parts. High ambient temperature will shorten hose life. If you can not route it away from the heat source, insulate it.



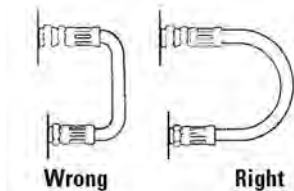
## 4. Avoid mechanical strain.

Use elbows and adapters in the installation to relieve strain on the assembly and to provide easier and neater installations that are accessible for inspection and maintenance.



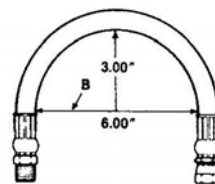
## 5. Use proper bend radius.

Keep the bend radius of the hose as large as possible to avoid collapsing of the hose and restriction of flow. Follow catalog specs on minimum bend radius.



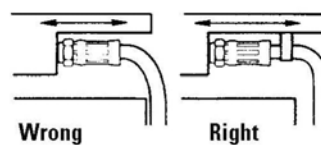
## 6. Use proper bend radius (cont'd).

Minimum bend radius is measured on the inside bend of the hose. To determine minimum bend, divide the total distance between ends (B length) by 2. For example, B=6, minimum bend radius = 3.



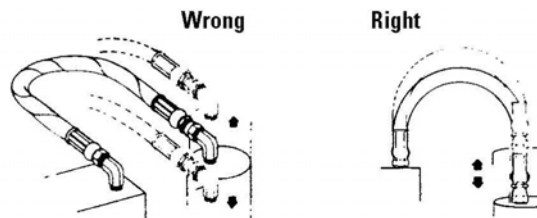
## 7. Secure for protection.

Install hose runs to avoid rubbing or abrasion. Use hose clamps to support long runs of hose or to keep hose away from moving parts. It is important that the clamps not allow the hose to move. This movement will cause abrasion and premature hose failure.



## 8. Avoid improper hose movement.

Make sure relative motion of the machine components produces bending rather than twisting of the hose. Hose should be routed so that the flex is in the same plane as the equipment movement.

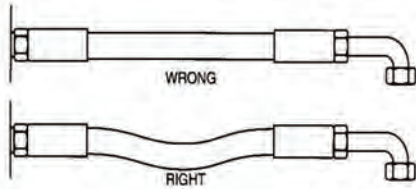




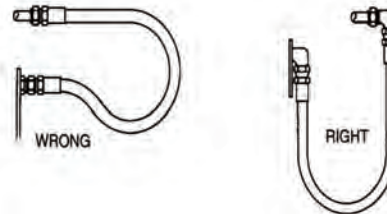
# Hose Assembly Routing Tips

Proper hose installation is essential for satisfactory performance. If hose length is excessive, the appearance of the installation will be unsatisfactory and unnecessary cost of equipment will be involved. If hose assemblies are too short to permit adequate flexing and changes in length due to expansion or contraction, hose service life will be reduced.

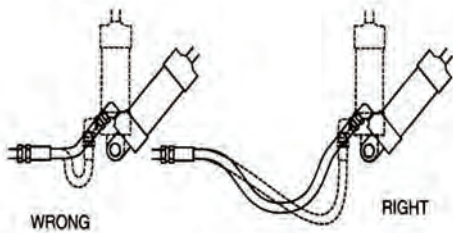
The following diagrams show proper hose installations which provide maximum performance and cost savings. Consider these examples in determining length of a specific assembly.



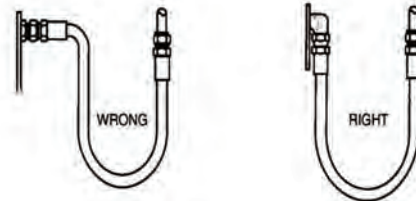
When hose installation is straight, allow enough slack in hose line to provide for length changes which will occur when pressure is applied.



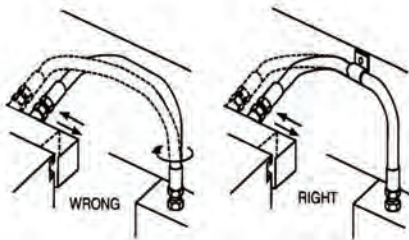
When radius is below the required minimum, use an angle adapter to avoid sharp bends.



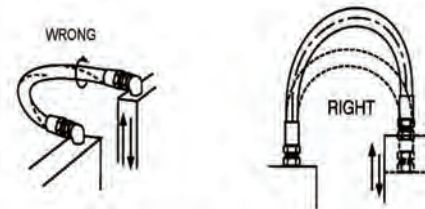
Adequate hose length is necessary to distribute movement on flexing applications and to avoid abrasion.



Use proper angle adapters to avoid tight bend in hose.



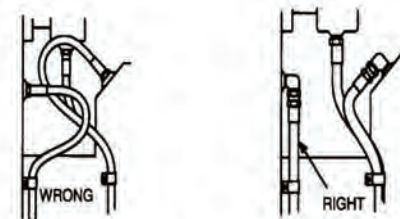
Avoid twisting of hose lines bent in two planes by clamping hose at change of plane.



Prevent twisting and distortion by bending hose in same plane as the motion of the port to which hose is connected.

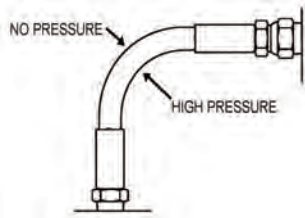


Reduce number of pipe thread joints by using hydraulic adapters instead of pipe fittings.

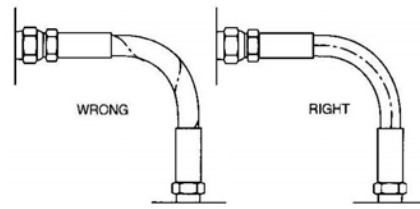


Route hose directly by using 45° and/or 90° adapter and fittings. Avoid excessive hose length to improve appearance.

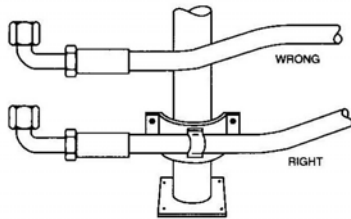
# Hose Assembly Routing Tips



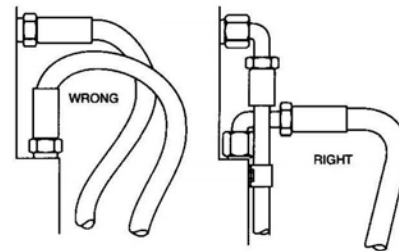
To allow for length changes when hose is pressurized, do not clamp at bends so that curves will absorb changes. Do not clamp high and low pressure lines together.



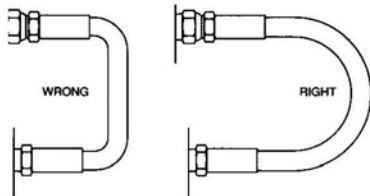
When installing hose, make sure it is not twisted. Pressure applied to a twisted hose can result in hose failure or loosening of connections.



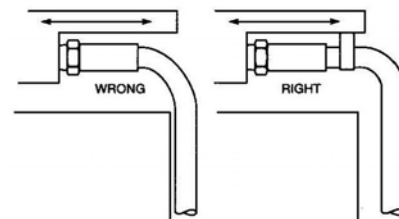
High ambient temperatures shorten hose life, so make sure hose is kept away from hot parts. If this is not possible, insulate hose.



Elbows and adapters should be used to relieve strain on the assembly, and to provide neater installations which will be more accessible for inspection and maintenance.



To avoid hose collapse and flow restriction, keep hose bend radii as large as possible. Refer to hose specification tables for minimum bend radii.



Run hose in the installation so that it avoids rubbing and abrasion. Often, clamps are required to support long hose runs or to keep hose away from moving parts. Use clamps of the correct size. A clamp too large allows hose to move inside the clamp and causes abrasion.

## Conversion Formulas

Pressure Conversion:

1 Bar = 14.5 PSI

1 MPa = 10 BAR

Converting Celsius to Fahrenheit:

$$T (^{\circ}\text{F}) = T (^{\circ}\text{C}) \times 9/5 + 32$$

$$\text{Fahrenheit} = 1.8\text{C} + 32$$

Converting Fahrenheit to Celsius:

$$T (^{\circ}\text{C}) = (T (^{\circ}\text{F}) - 32) \times 5/9$$

$$\text{Celsius} = (\text{F}-32)/1.8$$

# Hose Industry Standard Comparison (SAE EN ISO)

## SAE 100R15 vs XT-6ES™ Hose (2836)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R15 Maximum Working Pressure		XT-6ES Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	-	-	-	-
-4	0.250	6.4	-	-	-	-
-5	0.313	7.9	-	-	-	-
-6	0.375	9.5	42	6092	42	6092
-8	0.500	12.7	42	6092	42	6092
-10	0.625	15.9	-	-	42	6092
-12	0.750	19.1	42	6092	42	6092
-16	1.000	25.4	42	6092	42	6092
-20	1.250	31.8	42	6092	42	6092
-24	1.500	38.1	42	6092	42	6092
-32	2.000	50.8	-	-	42	6092

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

### Impulse Testing

	Test Pressure	Test Temperature	Number of Cycles	Temperature Capabilities
100R15 (All Sizes)	120% of Working Pressure	+250° F (+121° C)	500,000	-40° F to +250° F (-40° C to +121° C)
XT-6ES (All Sizes)	120% of Working Pressure	+250° F (+121° C)	1,000,000	-40° F to +250° F (-40° C to +121° C)

#For this test, XT-6ES hose is aged at +250°F (+121°C) for 150 hours and -25°F (-32°C) for 18 hours prior to impulse testing. In addition, in the middle and at the end of each impulse test, no leaks are allowed after the oil cools to room temperature and the test machine is restarted. SAE does not require aged samples or room temperature leak checks.

## SAE 100R13 vs XT-5ES™ Hose (1036)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R13 Maximum Working Pressure		XT-5ES Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	-	-	-	-
-4	0.250	6.4	-	-	-	-
-5	0.313	7.9	-	-	-	-
-6	0.375	9.5	-	-	-	-
-8	0.500	12.7	-	-	-	-
-10	0.625	15.9	-	-	-	-
-12	0.750	19.1	35	5076	35	5076
-16	1.000	25.4	35	5076	35	5076
-20	1.250	31.8	35	5076	35	5076
-24	1.500	38.1	35	5076	35	5076
-32	2.000	50.8	35	5076	35	5076

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

### Impulse Testing

	Test Pressure	Test Temperature	Number of Cycles	Temperature Capabilities
100R13 (All Sizes)	120% of Working Pressure	+250° F (+121° C)	500,000	-40° F to +250° F (-40° C to +121° C)
XT-5ES (All Sizes)	120% of Working Pressure	+250° F (+121° C)	1,000,000	-40° F to +250° F (-40° C to +121° C)

# For this test XT-5ES hose is aged at +250°F (+121°C) for 150 hours and -25°F (-32°C) for 18 hours prior to impulse testing. In addition, in the middle and at the end of each impulse test, no leaks are allowed after the oil cools to room temperature and the test machine is restarted. SAE does not require aged samples or room temperature leak checks.

# Hose Industry Standard Comparison (SAE EN ISO)

## SAE 100R12 vs XT-3ES™ Hose (736)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R12 Maximum Working Pressure		XT-3ES Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	-	-	-	-
-4	0.250	6.4	-	-	-	-
-5	0.313	7.9	-	-	-	-
-6	0.375	9.5	28	4061	28	4061
-8	0.500	12.7	28	4061	28	4061
-10	0.625	15.9	28	4061	28	4061
-12	0.750	19.1	28	4061	28	4061
-16	1.000	25.4	28	4061	28	4061
-20	1.250	31.8	21	3046	24.1	3495
-24	1.500	38.1	17.5	2538	17.5	2538
-32	2.000	50.8	17.5	2538	17.5	2538

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

### Impulse Testing

	Test Pressure	Test Temperature	Number of Cycles	Temperature Capabilities	Bend Radius
100R12 (All Sizes)	133% of Working Pressure	+250° F (+121° C)	500,000	-40° F to +250° F (-40° C to +121° C)	SAE
XT-3ES (All Sizes)	133% of Working Pressure	+250° F (+121° C)	1,000,000	-40° F to +250° F (-40° C to +121° C)	1/2 SAE

# For this test XT-3ES hose is aged at +250° F(+121° C) for 150 hours and -25° F(-32° C) for 18 hours prior to impulse testing. In addition, in the middle and at the end of each impulse test, no leaks are allowed after the oil cools to room temperature and the test machine is restarted. SAE does not require aged samples or room temperature leak checks.

## SAE 100R1AT vs Cat One-Wire Braid Hose (716)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R1 Maximum Working Pressure		716 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	25	3626	-	-
-4	0.250	6.4	22.5	3263	22.5	3263
-5	0.313	7.9	21.5	3118	-	-
-6	0.375	9.5	18	2611	18	2611
-8	0.500	12.7	16	2321	16	2321
-10	0.625	15.9	13	1885	13	1885
-12	0.750	19.1	10.5	1523	10.5	1523
-16	1.000	25.4	8.8	1276	8.8	1276
-20	1.250	31.8	6.3	914	6.3	914
-24	1.500	38.1	5	725	5	725
-32	2.000	50.8	4	580	4	580

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

# Hose Industry Standard Comparison (SAE EN ISO)

## SAE 100R1AT vs Cat One-Wire Braid Hose (716) (Cont'd.)

Impulse Testing				Temperature Capabilities	
	Test Pressure	Test Temperature	Number of Cycles		
100R1 (-3 to -16)	125% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +212° F (-40° C to +100° C)	
100R1 (-20 to -32)	100% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +212° F (-40° C to +100° C)	
716 (All Sizes)	100% of Working Pressure	+275° F (+135° C)	250,000	-40° F to +275° F (-40° C to +135° C)	
716 (-3 to -16)	125% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +275° F (-40° C to +135° C)	
716 (-20 to -32)	100% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +275° F (-40° C to +135° C)	

# For this test 716 hose is aged at +300° F(+150° C) for 200 hours and -25° F(-32° C) for 18 hours prior to impulse testing. In addition, in the middle and at the end of each impulse test, no leaks are allowed after the oil cools to room temperature and the test machine is restarted. SAE does not require aged samples or room temperature leak checks.

## ISO 1436 1SN vs Cat One-Wire Braid Hose (716)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		1436 1SN Maximum Working Pressure		716 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	25	3626	-	-
-4	0.250	6.4	22.5	3263	22.5	3263
-5	0.313	7.9	21.5	3118	-	-
-6	0.375	9.5	18	2611	18	2611
-8	0.500	12.7	16	2321	16	2321
-10	0.625	15.9	13	1885	13	1885
-12	0.750	19.1	10.5	1523	10.5	1523
-16	1.000	25.4	8.8	1276	8.8	1276
-20	1.250	31.8	6.3	914	6.3	914
-24	1.500	38.1	5	725	5	725
-32	2.000	50.8	4	580	4	580

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing				Temperature Capabilities	
	Test Pressure	Test Temperature	Number of Cycles		
ISO 1436 1SN (-5 to -25)	125% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +212° F (-40° C to +100° C)	
ISO 1436 1SN (-32 to -50)	100% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +212° F (-40° C to +100° C)	
716 (-5 to -25)	125% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +275° F (-40° C to +135° C)	
716 (-32 to -50)	100% of Working Pressure	+212° F (+100° C)	150,000	-40° F to +275° F (-40° C to +135° C)	

# For this test, 716 hose was tested against the ISO 1436 1SN specifications for use in ISO applications.

# Hose Industry Standard Comparison (SAE EN ISO)

## SAE 100R2AT vs Cat Two-Wire Braid Hose (294)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R2 Maximum Working Pressure		294 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	41.5	6019	-	-
-4	0.250	6.4	40	5802	40	5802
-5	0.313	7.9	35	5076	35	5076
-6	0.375	9.5	33	4786	33	4786
-8	0.500	12.7	27.5	3989	27.5	3989
-10	0.625	15.9	25	3626	25	3626
-12	0.750	19.1	21.5	3118	21.5	3118
-16	1.000	25.4	16.5	2393	16.5	2393
-20	1.250	31.8	12.5	1813	12.5	1813
-24	1.500	38.1	9	1305	9	1305
-32	2.000	50.8	8	1160	8	1160
-40	2.500	63.5	7	1015	7	1015
-48	3.000	76.2	-	-	5.9	856

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing				Temperature Capabilities	
	Test Pressure	Test Temperature	Number of Cycles		
100R2 (All Sizes)	133% of Working Pressure	+212° F (+100° C)	200,000	-40° F to +212° F (-40° C to +100° C)	
294 (All Sizes)	133% of Working Pressure	+212° F (+100° C)	500,000	-40° F to +212° F (-40° C to +100° C)	

# For this test, 294 hose is aged at +225° F(+170° C) for 150 hours and -25° F(-32° C) for 18 hours prior to impulse testing. In addition, in the middle and at the end of each impulse test, no leaks are allowed after the oil cools to room temperature and the test machine is restarted. SAE does not require aged samples or room temperature leak checks.

◇ AT designates the thinner cover used on no-skive hose.

## ISO 1436 2SN vs Cat Two-Wire Braid Hose (294)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		1436 2SN Maximum Working Pressure		294 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	41.5	6019	-	-
-4	0.250	6.4	40	5802	40	5802
-5	0.313	7.9	35	5076	35	5076
-6	0.375	9.5	33	4786	33	4786
-8	0.500	12.7	27.5	3989	27.5	3989
-10	0.625	15.9	25	3626	25	3626
-12	0.750	19.1	21.5	3118	21.5	3118
-16	1.000	25.4	16.5	2393	16.5	2393
-20	1.250	31.8	12.5	1813	12.5	1813
-24	1.500	38.1	9	1305	9	1305
-32	2.000	50.8	8	1160	8	1160

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing				Temperature Capabilities	
	Test Pressure	Test Temperature	Number of Cycles		
ISO 1436 2SN (All Sizes)	133% of Working Pressure	+212° F (+100° C)	200,000	-40°F to +212°F (-40°C to +100°C)	
294 (All Sizes)	133% of Working Pressure	+212° F (+100° C)	200,000	-40°F to +212°F (-40°C to +100°C)	

# For this test, 294 hose was tested against the ISO 1436 2SN specifications for use in ISO applications.

# Hose Industry Standard Comparison (SAE EN ISO)

## SAE 100R4 vs Cat Hydraulic Suction Hose (844)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R4 Maximum Working Pressure		844 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	-	-	-	-
-4	0.250	6.4	-	-	-	-
-5	0.313	7.9	-	-	-	-
-6	0.375	9.5	-	-	-	-
-8	0.500	12.7	-	-	-	-
-10	0.625	15.9	-	-	-	-
-12	0.750	19.1	2.1	305	2.1	305
-16	1.000	25.4	1.7	247	1.7	247
-20	1.250	31.8	1.4	203	1.4	203
-24	1.500	38.1	1.05	152	1.1	160
-32	2.000	50.8	0.7	102	0.7	102
-40	2.500	63.5	0.4	58	-	-
-48	3.000	76.2	0.4	58	-	-
-56	3.500	88.9	0.3	44	-	-
-64	4.000	102	0.25	36	-	-

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing				Temperature Capabilities
Test Pressure	Test Temperature	Number of Cycles		
100R4 (All Sizes)	No Impulse Testing Performed			-40°F to +212°F (-40°C to +100°C)
844 (All Sizes)	No Impulse Testing Performed			-40°F to +275°F (-40°C to +135°C)

## SAE 100R7 vs Cat Thermoplastic Hose (1028)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R7 Maximum Working Pressure		1028 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-3	0.188	4.8	21	3046	20.7	3002
-4	0.250	6.4	19.2	2785	19	2756
-5	0.313	7.9	17.5	2538	17.5	2538
-6	0.375	9.5	15.7	2277	15.5	2248
-8	0.500	12.7	14	2031	13.8	2002
-10	0.625	15.9	10.5	1523	-	-
-12	0.750	19.1	8.7	1262	8.6	1247
-16	1.000	25.4	7	1015	-	-
-20	1.250	31.8	-	-	-	-
-24	1.500	38.1	-	-	-	-
-32	2.000	50.8	-	-	-	-

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing				Temperature Capabilities
Test Pressure	Test Temperature	Number of Cycles		
100R7 (All Sizes)	125% of Working Pressure	+200°F (+93°C)	150,000	-40°F to +200°F (-40°C to +93°C)
1028 (All Sizes)	100% of Working Pressure	+200°F (+93°C)	1,000,000	-70°F to +200°F (-56°C to +93°C)
1028 OR	133% of Working Pressure	+200°F (+93°C)	150,000#	-70°F to +200°F (-56°C to +93°C)

# For this test, 1028 hose is aged at +200°F(+93°C) for 150 hours and -25°F(-32°C) for 18 hours prior to impulse testing. In addition, in the middle and at the end of each impulse test, no leaks are allowed after the oil cools to room temperature and the test machine is restarted. SAE does not require aged samples or room temperature leak checks.

# Hose Industry Standard Comparison (SAE EN ISO)

## SAE 100R5 vs Cat One-Wire Braid Hose - Fabric Covered (556)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		100R5 Maximum Working Pressure		556 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-4	0.188	4.8	-	-	20.7	3002
-5	0.250	6.4	21	3046	20.7	3002
-6	0.313	7.9	21	3046	15.5	2248
-8	0.406	10.3	15.7	2277	13.8	2002
-10	0.500	12.7	14	2031	12.1	1755
-12	0.625	15.9	12.2	1769	10.3	1494
-16	0.875	22.2	10.5	1523	5.5	798
-20	1.125	28.6	5.6	812	4.3	624
-24	1.375	34.9	4.3	624	3.4	493
-32	1.813	46	3.5	508	-	-

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing				Temperature Capabilities	
	Test Pressure	Test Temperature	Number of Cycles		
100R5 (-4 to -16)	125% of Working Pressure	+212°F (+100°C)	150,000	-40°F to +212°F (-40°C to +100°C)	
100R5 (-20 to -32)	100% of Working Pressure	+212°F (+100°C)	100,000	-40°F to +212°F (-40°C to +100°C)	
556 (-4 to -16)	125% of Working Pressure	+250°F (+120°C)	150,000#	-40°F to +250°F (-40°C to +121°C)	
556 (-20 to -32)	100% of Working Pressure	+250°F (+120°C)	100,000#	-40°F to +250°F (-40°C to +121°C)	

# For this test 556 hose is aged at +275°F(+135°C) for 200 hours and -25°F(-32°C) for 18 hours prior to impulse testing. In addition, in the middle and at the end of each impulse test, no leaks are allowed after the oil cools to room temperature and the test machine is restarted. SAE does not require aged samples or room temperature leak checks.

## SAE J1402 vs Cat Engine and Air Brake Hose (1130)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		J1402 Maximum Working Pressure		1130 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-4	0.188	4.8	1.5	218	13.8	2002
-5	0.250	6.4	1.5	218	10.3	1494
-6	0.313	7.9	1.5	218	10.3	1494
-8	0.406	10.3	1.5	218	8.6	1247
-10	0.500	12.7	1.5	218	8.6	1247
-12	0.625	15.9	1.5	218	5.2	754
-16	0.875	22.2	1.5	218	2.8	406
-20	1.125	28.6	1.5	218	2.1	305
-24	1.375	34.9	1.5	218	1.7	247
-32	1.813	46	-	-	-	-

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing				Temperature Capabilities	
	Test Pressure	Test Temperature	Number of Cycles		
J1402 (All Sizes)		No Impulse Testing Performed		-40°F to +200°F (-40°C to +93°C)	
1130 (All Sizes)		No Impulse Testing Performed		-40°F to +275°F (-40°C to +135°C)	

# Cat 1130 hose passes a severe hot oil circulation test that exposes the hose liner to +300°F oil for 750 hours with no cracking or leakage permitted; SAE J1402 requires no such test.



# Hose Industry Standard Comparison (SAE EN ISO)

## SAE J3062 Type C vs Cat Air Conditioning Hose (1543)

Working Pressure <sup>(A)</sup>						
Hose Dash Size	Inner Diameter		J3062 Maximum Working Pressure		1543 Maximum Working Pressure	
	(in)	(mm)	(MPa)	(psi)	(MPa)	(psi)
-4	0.188	4.8	-	-	-	-
-5	0.250	6.4	-	-	-	-
-6	0.313	7.9	2.1	305	2.4	348
-8	0.406	10.3	2.1	305	2.4	348
-10	0.500	12.7	2.1	305	2.4	348
-12	0.625	15.9	2.1	305	2.4	348
-14	0.750	19.1	2.1	305	2.4	348
-20	1.125	28.6	-	-	-	-
-24	1.375	34.9	-	-	-	-
-32	1.813	46	-	-	-	-

(A) Minimum burst pressure will always be 4X the maximum working pressure for both Cat and SAE standard hose.

Impulse Testing			Temperature Capabilities
Test Pressure	Test Temperature	Number of Cycles	
J51-D (All Sizes)	No Impulse Testing Performed		-22°F to +248°F (-30°C to +120°C)
1543 (All Sizes)	No Impulse Testing Performed		-22°F to +257°F (-30°C to +125°C)

# 1543 meets SAE standards for type-D hose concerning Freon permeation and moisture ingress. 1543 has a maximum Freon permeation of 5 lbs/ft<sup>2</sup> per year at +300°F (+150°C). 1543 has a maximum moisture ingress of 16 g/100 in<sup>2</sup> per year. This hose can be used with SAE J2064 R134A refrigerant. Maximum permeation rate is 2 lbs/ft<sup>2</sup> per year at +176°F (+80°C).

# Hose Working Pressure & Fluid Compatibility

## Cat Hydraulic Hose Specifications: Maximum Working Pressure (psi, bars, kg/cm<sup>2</sup>)

Cat Hose	Hose Construction	Units	Dash - 3/ ISO 5	Dash -4/ ISO 6/ Nom 6	Dash -5/ ISO 8	Dash -6/ ISO 10/ Nom 9	Dash -8/ ISO 12/ Nom 12	Dash -10/ ISO 16/ Nom 15	Dash -12/ ISO 20/ Nom 19	Dash -16/ ISO 25/ Nom 25	Dash -20/ ISO 32/ Nom 32	Dash -24/ ISO 40/ Nom 38	Dash -32/ ISO 50/ Nom 50
XT-6ES (2836/ 4136)	4 or 6 spiral wire	psi	*	*	*	6092	6092	6092	6092	6092	6092	6092	6092
		bar	*	*	*	420	420	420	420	420	420	420	420
		kg/cm <sup>2</sup>	*	*	*	428	428	428	428	428	428	428	428
XT-5ES (1036)	4 or 6 spiral wire	psi	*	*	*	*	*	*	5076	5076	5076	5076	5076
		bar	*	*	*	*	*	*	350	350	350	350	350
		kg/cm <sup>2</sup>	*	*	*	*	*	*	357	357	357	357	357

Maximum Working Pressure (psi, bar, kg/cm<sup>2</sup>) for the indicated dash size/ISO size/nominal size:

<sup>1</sup> No Cat hose available in this size

## Cat Hydraulic Hose Specifications: Maximum Working Pressure (psi, bars, kg/cm<sup>2</sup>)

Cat Hose	Hose Construction	Units	Dash - 3/ ISO 5	Dash -4/ ISO 6/ Nom 6	Dash -5/ ISO 8	Dash -6/ ISO 10/ Nom 9	Dash -8/ ISO 12/ Nom 12	Dash -10/ ISO 16/ Nom 15	Dash -12/ ISO 20/ Nom 19	Dash -16/ ISO 25/ Nom 25	Dash -20/ ISO 32/ Nom 32	Dash -24/ ISO 40/ Nom 38	Dash -32/ ISO 50/ Nom 50
XT-3ES (736/ 4135)	4 or 6 spiral wire	psi	*	*	*	4061	4061	4061	4061	4061	3495	2538	2538
		bar	*	*	*	280	280	280	280	280	241	175	175
		kg/cm <sup>2</sup>	*	*	*	286	286	286	286	286	245	178	178
716	1 wire braid	psi	*	3263	*	2611	2321	1885	1523	1276	914	725	580
		bar	*	225	*	180	160	130	105	88	63	50	40
		kg/cm <sup>2</sup>	*	229	*	184	163	133	107	90	64	51	41

Maximum Working Pressure (psi, bar, kg/cm<sup>2</sup>) for the indicated dash size/ISO size/nominal size:

<sup>1</sup> No Cat hose available in this size

# Hose Working Pressure & Fluid Compatibility

## Cat Hydraulic Hose Specifications: Maximum Working Pressure (psi, bars, kg/cm<sup>2</sup>)

Cat Hose	Hose Construction	Units	Dash - 3/ ISO 5	Dash -4/ ISO 6/ Nom 6	Dash -5/ ISO 8	Dash -6/ ISO 10/ Nom 9	Dash -8/ ISO 12/ Nom 12	Dash -10/ISO 16/Nom 15	Dash -12/ISO 20/Nom 19	Dash -16/ISO 25/Nom 25	Dash -20/ISO 32/Nom 32	Dash -24/ISO 40/Nom 38	Dash -32/ISO 50/Nom 50
294	2 wire braid	psi	*	5802	5076	4786	3989	3626	3118	2393	1813	1305	1160
		bar	*	400	350	330	275	250	215	165	125	90	80
		kg/cm <sup>2</sup>	*	408	357	336	280	255	219	168	127	92	82
844 (Hydraulic suction)	Helical wire	psi	*	*	*	*	*	*	305	247	203	160	102
		bar	*	*	*	*	*	*	21	17	14	11	7
		kg/cm <sup>2</sup>	*	*	*	*	*	*	21	17	14	11	7

Maximum Working Pressure (psi, bar, kg/cm<sup>2</sup>) for the indicated dash size/ISO size/nominal size:

<sup>1</sup> No Cat hose available in this size

## Cat Hydraulic Hose Specifications: Maximum Working Pressure (psi, bar, kg/cm<sup>2</sup>)

Cat Hose	Hose Construction	Units	-3	-4	-5	-6	-8	-10	-12	-16	-20	-24	-32
1028	Thermoplastic, 2 fiber braid	psi	3002	2756	2495	2248	2002	*	1247	*	*	*	*
		bar	207	190	172	155	138	*	86	*	*	*	*
		kg/cm <sup>2</sup>	211	194	175	158	141	*	88	*	*	*	*
2760	Thermoplastic, 2 fiber braid or wire reinforcement	psi	*	1494	1494	1494	1494	*	*	*	*	*	*
		bar	*	103	103	103	103	*	*	*	*	*	*
		kg/cm <sup>2</sup>	*	105	105	105	105	*	*	*	*	*	*
556	1 wire braid Fabric Covered	psi	3002	3002	2248	2002	*	1755	1494	798	624	493	*
		bar	207	207	155	138	*	121	103	55	43	34	*
		kg/cm <sup>2</sup>	211	211	158	141	*	123	105	56	44	35	*

Maximum Working Pressure (psi, bar, kg/cm<sup>2</sup>) for the indicated dash size:

<sup>1</sup> No Cat hose available in this size

# Hose Fluid Compatibility

AGENT TO BE CARRIED <sup>(1)</sup>	Hose Type <sup>(2)</sup>						
	Chloroprene	Nitrile	Thermoplastic	CPE	EPDM	PTFE	A/C
	XT-6ES, XT-6TG, XT-5ES, XT-5TG, XT-3ES, XT-3TG	294, 556, 661, 662, 716, 743, 844, 844C, 2929, 4024, 4198, 4218, 4219, 4252, 4488, 4636, 4639, 5014	945, 1028, 2760	1130, 4901	2786	2771A	1543J
Acetate Acid, Dilute (10%)	X	X	C	A			X
Acetone	C	X	A	A			X
Air	—	A	A	A			X
Aluminum Chloride	C	A	A	A			X
Aluminum Fluoride 20%	C	A	—	—			X
Aluminum Sulfate	C	A	—	A			X
Ammonia , Aqueous	A	—	—	—			X
Ammonium Nitrate	C	A	—	C			X
Ammonium Phosphate	X	A	X	X			X
Ammonium Sulfate	C	A	—	C			X
Barium Chloride	C	A	—	C			X
Barium Hydroxide	C	A	—	C			X
Benzene, Benzol	X	X	C	A			X
Benzine (Petroleum Ether)	—	X	—	A			X
Benzine (Petroleum Naphtha)	—	X	—	A			X
Boric Acid	X	A	X	X			X
Brake Fluid	C	X	—	X			X
Butyl Alcohol, Butanol	C	A	C	C			X
Calcium Chloride	C	A	C	C			X
Calcium Hydroxide	A	A	—	A			X
Carbon Dioxide	A	A	A	A			X
Carbon Disulfide	X	X	C	C			X
Carbon Monoxide (Hot)	C	A	C	C			X
Castor Oil	—	A	A	A			X
China Wood Oil (Tung)	A	—	—	—			X
Copper Chloride	X	A	X	X			X
Copper Sulfate	X	A	X	X			X
Crude Oil	X	X	X	X			X
Diesel Oil Light	C	A	A	A			X
Ethers	X	C	C	A			X
Ethyl Alcohol	C	A	C	C			X
Ethylene Glycol 2150	A	A	A	A			X
Ferric Chloride	X	A	X	X			X
Ferric Sulfate	X	A	X	X			X
<b>Freon (see Refrigerant)</b>							
Fuel Oil	C	A	A	C			X
Gasoline	X	C	C	C			X
Glycerine, Glycerol	A	A	A	A			X
Grease, Petroleum	C	A	A	A			X
Heptane	A	—	—	A			X
Hexane	A	—	A	A			X

1 **CAUTION:** This chart is meant to offer general guidelines for the use of Cat Hose and Couplings with the substances listed in the chart. Many factors, such as temperature, concentration and length of exposure, are relevant to individual situations. The chart is based on the compatibility of these substances with the couplings and the inner liner of the hose. There may be instances where the outer cover could be adversely affected by substances which would not chemically affect the inner liner. Conversely, some substances which adversely affect the inner liner of Cat Hose may not have a deteriorating effect on the outer cover.

2 A: Acceptable  
 C: Conditional - Under some conditions of temperature and pressure, hose life will be adversely affected. For guidance, consult your Caterpillar dealer hose specialist.  
 X: Unacceptable  
 — Testing Recommended

# Hose Fluid Compatibility

AGENT TO BE CARRIED <sup>(3)</sup>	Hose Type <sup>(4)</sup>						
	Chloroprene	Nitrile	Thermoplastic	CPE	EPDM	PTFE	A/C
	XT-6ES, XT-6TG, XT-5ES, XT-5TG, XT-3ES, XT-3TG	294, 556, 661, 662, 716, 743, 844, 844C, 2929, 4024, 4198, 4218, 4219, 4252, 4488, 4636, 4639, 5014	945, 1028, 2760	1130, 4901	2786	2771A	1543J
<b>Hydraulic Fluids and Lubricating Oils</b>							
Straight Petroleum Base	A	A	A	A			X
Water and Petroleum Emulsion (FR)	C	A	A	A			X
Water and Glycol Solution to 85° C	A	A	A	A			X
Straight Phosphate— Ester (FR)	X	X	—	A			X
<b>Phosphate — Ester and Petroleum Oil</b>							
Blend (FR)	—	X	C	A			X
Ester Blend (MIL-L-7808)	X	X	—	A			X
Hydrogen	C	C	A	X			X
Hydrogen Peroxide (Dilute)	X	X	—	A			X
Isooctane	—	—	A	C			X
Isopropyl Alcohol	—	C	A	A			X
Kerosene	C	—	A	A			X
LPG	—	C	C	X			X
<b>Lubricating Oils (see Hydraulic Fluids)</b>							
Magnesium Chloride	X	A	X	X			X
Magnesium Hydroxide	C	C	—	C			X
Magnesium Sulfate	A	A	—	A			X
Mercury	A	A	A	A			X
Methane	—	C	C	A		A	X
Methyl Alcohol, Methanol	C	A	C	C			X
Methyl Isopropyl-Ketone	—	X	A	X			X
Mineral Oil	—	A	A	A			X
Naphtha	C	—	A	A			X
Naphthalene	X	X	A	A			X
Natural Gas	A	A	C	—		A	X
<b>Petroleum Oils (see Hydraulic Fluids)</b>	A	A	A	A			X
Potassium Chloride	X	A	X	X			X
Potassium Cyanide	A	A	—	A			X
Potassium Hydroxide	X	C	—	C			X
Potassium Sulfate	A	A	—	A			X
Refrigerant R134A	—	—	—	—			A
Sea Water	—	C	X	X			X
Soap Solution	—	A	A	A			X
Soda Ash, Sodium Carbonate	—	A	C	A			X
Sodium Bisulfate	X	A	X	X			X
Sodium Cyanide	—	—	—	A			X
Sodium Hydroxide 50%	X	X	—	A			X
Sodium Nitrate	—	C	—	A			X

3 **CAUTION:** This chart is meant to offer general guidelines for the use of Cat Hose and Couplings with the substances listed in the chart. Many factors, such as temperature, concentration and length of exposure, are relevant to individual situations. The chart is based on the compatibility of these substances with the couplings and the inner liner of the hose. There may be instances where the outer cover could be adversely affected by substances which would not chemically affect the inner liner. Conversely, some substances which adversely affect the inner liner of Cat Hose may not have a deteriorating effect on the outer cover.

4 A: Acceptable  
 C: Conditional - Under some conditions of temperature and pressure, hose life will be adversely affected.  
 For guidance, consult your Caterpillar dealer hose specialist.  
 X: Unacceptable  
 — Testing Recommended

# Hose Fluid Compatibility

AGENT TO BE CARRIED <sup>(5)</sup>	Hose Type <sup>(6)</sup>						
	Chloroprene	Nitrile	Thermoplastic	CPE	EPDM	PTFE	A/C
	XT-6ES, XT-6TG, XT-5ES, XT-5TG, XT-3ES, XT-3TG	294, 556, 661, 662, 716, 743, 844, 844C, 2929, 4024, 4198, 4218, 4219, 4252, 4488, 4636, 4639, 5014	945, 1028, 2760	1130, 4901	2786	2771A	1543J
Sodium Silicate	—	A	—	A			X
Sodium Sulfate	—	A	—	A			X
Sulfur	A	—	A	—			X
Water (over +150° F)	A	C	X	—			X

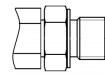
5 **CAUTION:** This chart is meant to offer general guidelines for the use of Cat Hose and Couplings with the substances listed in the chart. Many factors, such as temperature, concentration and length of exposure, are relevant to individual situations. The chart is based on the compatibility of these substances with the couplings and the inner liner of the hose. There may be instances where the outer cover could be adversely affected by substances which would not chemically affect the inner liner. Conversely, some substances which adversely affect the inner liner of Cat Hose may not have a deteriorating effect on the outer cover.

6 A: Acceptable  
 C: Conditional - Under some conditions of temperature and pressure, hose life will be adversely affected. For guidance, consult your Caterpillar dealer hose specialist.  
 X: Unacceptable  
 — Testing Recommended

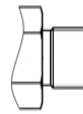
## Pressure Chart (in PSI)

		British Threads											
		G 1/8	G 1/4	G 3/8	G 1/2	G 5/8	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2		
ISO 1179-2 Metric Flat Face (Non-Adj.)	Light Duty	3625	3625	3625	3625	-	2320	1450	1450	1450	-	1450	-
	Heavy Duty	-	9135	9135	5800	-	5800	5800	3625	3625	-	3625	-
	Non-Adj.	4565	4565	4565	3625	-	3625	3625	2320	2320	-	2320	-
ISO 1179-3 British Flat Face (Light Duty)	Adj.	2900	2900	2900	2900	-	2900	2900	2320	2320	-	2320	-
	With O-Ring	-	5800	5800	5075	5075	4565	3625	2900	2320	-	1810	-
ISO 8434-6 60 Degree Cone	Without O-Ring	5075	5075	5075	4565	4565	3625	2900	2320	1810	-	1160	-

		Metric Threads																							
		M8	M10	M12	M14	M16	M18	M20	M22	M24	M26	M27	M30	M33	M36	M42	M45	M48	M52	M60					
ISO 9974-2 Metric Flat Face (Non-Adjustable)	Light Duty	-	3625	3625	3625	3625	3625	-	2320	-	2320	-	-	1450	-	1450	-	1450	-	-	-	-	-	-	
	Heavy Duty	-	-	9135	9135	9135	9135	9135	5800	5800	-	5800	5800	-	5800	3625	-	3625	-	-	-	-	-	-	
	Extra Light Duty	1450	1450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ISO 9974-3 Metric Flat Face (Non-Adjustable)	Light Duty	-	3625	3625	3625	3625	3625	-	2320	-	2320	-	-	1450	-	1450	-	1450	-	-	-	-	-	-	
	Heavy Duty	-	-	5800	5800	5800	5800	5800	5800	-	5800	5800	-	5800	3625	-	3625	-	3625	-	-	-	-	-	
	Non-Adj.	9135	9135	9135	9135	9135	9135	5800	9135	9135	-	5800	5800	-	5800	3625	-	3625	-	3625	-	-	-	-	
ISO 6149-2 Metric STOR (Heavy Duty)	Adjustable	5800	5800	5800	5800	5800	5800	-	5800	-	-	5800	5075	5075	-	3625	-	2900	-	-	-	-	-	-	
	Non-Adj.	5800	5800	5800	5800	4565	4565	4565	2900	-	-	2900	2900	2900	-	2900	-	2320	-	3625	-	-	-	-	
	Adjustable	4565	4565	4565	4565	3625	3625	3625	2320	-	-	2320	2320	2320	-	2320	-	1450	-	-	-	-	-	-	
ISO 8434-1 24 Degree Cone	Extra Light Duty	1450	1450	1450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Light Duty	-	-	3625	3625	3625	3625	-	3625	-	2320	-	2320	-	1450	-	1450	-	1450	-	-	-	-	-	
	Heavy Duty	-	-	-	9135	9135	9135	9135	5800	-	5800	-	5800	5800	5800	3625	-	3625	-	3625	-	-	-	-	



Adjustable



Non-Adjustable

# Coupling Identification

SAE Threads																					
	5/16-24	3/8-24	7/16-20	1/2-20	9/16-18	5/8-18	11/16-16	3/4-16	13/16-16	7/8-14	1-14	1-1/16-12	1-3/16-12	1-5/8-12	1-7/8-12	1-7/16-12	1/11/16-12	2-1/2-12	3-12	3-1/2-12	4-1/2-12
SAE J1926-2 Heavy Duty STOR	-	9135	9135	9135	9135	-	-	9135	-	9135	-	6090	6090	4060	4060	-	-	3045	2535	2535	-
SAE J1926-3 Light Duty STOR	5075	5075	5075	5075	5075	-	-	6090	-	6090	-	3625	3000	2535	2535	-	-	2000	1015	1015	505
SAE J 514/ ISO 8434-2 37 Degree Flare (JIC)	5000	5000	5000	5000	5000	-	-	4500	-	3500	-	3500	3000	2500	2000	-	-	1500	-	-	-
SAE J 514 Flare-less Tube	5000	5000	5000	5000	5000	-	-	4500	-	3500	-	3500	3000	2500	2000	-	-	1500	-	-	-
SAE J 513 45 degree flares	500	500	500	500	-	500	-	500	-	500	-	500	-	-	-	-	-	-	-	-	-
SAE J 1453 ORFS	-	-	-	-	9135	9135	9135	-	9135	-	5800	-	5800	5800	-	5800	3625	3625	-	-	-

SAE Pipe Threads									
	1/8-27	1/4-18	3/8-18	1/2-14	3/4-14	1-11-1/2	1-1/4-11-1/2	1-1/2-11-1/2	2-11-1/2
SAE J 514 - NPTF Male	5000	4000	3000	3000	2500	2000	1150	1000	1000
SAE J 514 - NPSM Swivel Nut	5000	5000	4000	3490	2245	2000	1620	1245	1130



## Thread Guide

Thread Dash Size	Thread Size								
	NPTF <sup>(1)</sup> (in-TPI)	JIC 37° (in-TPI)	SAE 45° (in-TPI)	ORFS <sup>(2)</sup> (in-TPI)	STOR <sup>(3)</sup> (in-TPI)	NPSM <sup>(4)</sup> (in-TPI)	SAE INV. <sup>(5)</sup> (in-TPI)	BSP <sup>(6)</sup> (in-TPI)	GAZ <sup>(7)</sup> (dia x pitch)
-2	1/8 - 27	5/16 - 24	5/16 - 24	—	5/16 - 24	1/8 - 27	5/16 - 28	1/8 - 28	—
-3	—	3/8 - 24	3/8 - 24	—	3/8 - 24	—	3/8 - 24	—	—
-4	1/4 - 18	7/16 - 20	7/16 - 20	9/16 - 18	7/16 - 20	1/4 - 18	7/16 - 24	1/4 - 19	—
-5	—	1/2 - 20	1/2 - 20	—	1/2 - 20	—	1/2 - 20	—	—
-6	3/8 - 18	9/16 - 18	5/8 - 18	11/16 - 16	9/16 - 18	3/8 - 18	5/8 - 18	3/8 - 19	M20 x 1.5
-8	1/2 - 14	3/4 - 16	3/4 - 16	13/16 - 16	3/4 - 16	1/2 - 14	3/4 - 18	1/2 - 14	M24 x 1.5
-10	—	7/8 - 14	7/8 - 14	1 - 14	7/8 - 14	—	7/8 - 18	5/8 - 14	M30 x 1.5
-12	3/4 - 14	1 1/16 - 12	1 1/16 - 14	1 3/16 - 12	1 1/16 - 12	3/4 - 14	1 1/16 - 16	3/4 - 14	M36 x 1.5
-14	—	1 3/16 - 12	1 1/4 - 12	—	1 3/16 - 12	—	—	—	—
-16	1 - 11 1/2	1 5/16 - 12	1 3/8 - 12	1 7/16 - 12	1 5/16 - 12	1 - 11 1/2	—	1 - 11	M45 x 1.5
-20	1 1/4 - 11 1/2	1 5/8 - 12	—	1 11/16 - 12	1 5/8 - 12	1 1/4 - 11 1/2	—	1 1/4 - 11	M52 x 1.5
-24	1 1/2 - 11 1/2	1 7/8 - 12	—	2 - 12	1 7/8 - 12	1 1/2 - 11 1/2	—	1 1/2 - 11	—
-32	2 - 11 1/2	2 1/2 - 12	—	—	2 1/2 - 12	2 - 11 1/2	—	2 - 11	—

(1) NPTF - National Pipe Tapered Fuel (REF. SAE J476)

(5) SAE INV. - SAE Inverted Flare (REF. SAE J512)

(2) ORFS - O-Ring Face Seal (REF. SAE J1453)

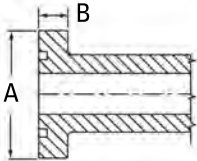
(6) BSP - British Standard Pipe

(3) STOR - SAE Straight Thread O-Ring (REF. SAE J514)

(7) GAZ - French Metric GAZ

(4) NPSM - National Pipe Straight Mechanical

## Flange Head Guide



Flange Dash Size	SAE Code 61* Head Size		SAE Code 61* Head Thkns		SAE Code 62** Head Size		SAE Code 62** Head Thkns		Cat Head Size		Cat Head Thkns	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
-8	1.19	30.2	.265	6.7	1.25	31.8	.305	7.8	—	—	—	—
-10***	1.34	34.0	.265	6.7	—	—	—	—	—	—	—	—
-12	1.50	38.1	.265	6.7	1.63	41.3	.345	8.8	1.63	41.3	.560	14.2
-16	1.75	44.5	.315	8.0	1.88	47.6	.375	9.5	1.88	47.6	.560	14.2
-20	2.00	50.8	.315	8.0	2.13	54.0	.405	10.3	2.13	54.0	.560	14.2
-24	2.38	60.3	.315	8.0	2.50	63.5	.495	12.6	2.50	63.5	.560	14.2
-32	2.81	71.4	.375	9.5	3.13	79.4	.495	12.6	3.13	79.4	.560	14.2
-40	3.31	84.1	.375	9.5	—	—	—	—	—	—	—	—
-48	4.00	101.6	.375	9.5	—	—	—	—	—	—	—	—
-56	4.50	114.3	.375	9.5	—	—	—	—	—	—	—	—

Note 1: Reference charts for split flange part numbers

Note 2: SAE Code 61, ISO Form R, and JIS Type I couplings are interchangeable except for bolt sizes.

Note 3: SAE Code 62, ISO Form S, and JIS Type II couplings are interchangeable except for bolt sizes.

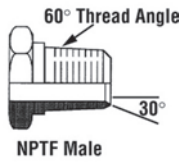
\* All Code 61 flange head hose couplings and adapter fittings meet or exceed SAE J518 Code 61 requirements for hydraulic split flange connections. The Code 61 flange head design can withstand a maximum operating pressure of 3000 to 5000 psi depending on size.

\*\* All couplings having Cat flange heads meet or exceed the performance requirements of SAE J518 Code 62 specifications for hydraulic split flange connections. The thickness of Cat flange heads is greater than Code 62 so that special split flanges are required for proper installation. The Code 62 flange head design can withstand a maximum operating pressure of 6000 psi regardless of size.

\*\*\* Not SAE standard - Komatsu style

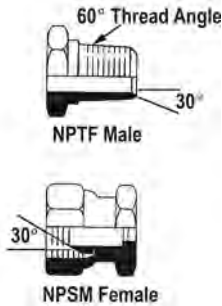
# Coupling Identification

## Thread Identification Table - National Pipe Tapered for Fuels (NPTF)



Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Inside Diameter	Male Thread Outside Diameter
-2	1/8	1/8 - 27	8.7 mm / 0.34 in	10.3 mm / 0.41 in
-4	1/4	1/4 - 18	11.9 mm / 0.47 in	14.3 mm / 0.56 in
-6	3/8	3/8 - 18	15.1 mm / 0.59 in	17.5 mm / 0.69 in
-8	1/2	1/2 - 14	18.3 mm / 0.72 in	21.4 mm / 0.84 in
-12	3/4	3/4 - 14	23.8 mm / 0.94 in	27.0 mm / 1.06 in
-16	1	1 - 11 1/2	30.2 mm / 1.19 in	33.3 mm / 1.31 in
-20	1 1/4	1 1/4 - 11 1/2	38.9 mm / 1.53 in	42.9 mm / 1.69 in
-24	1 1/2	1 1/2 - 11 1/2	44.5 mm / 1.75 in	48.4 mm / 1.91 in
-32	2	2 - 11 1/2	57.2 mm / 2.25 in	60.3 mm / 2.38 in

## Thread Identification Table - National Pipe Straight Mechanical (NPSM)



Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Size Inside Diameter	Male Thread Size Outside Diameter
-2	1/8	1/8 - 27	8.7 mm / 0.34 in	10.3 mm / 0.41 in
-4	1/4	1/4 - 18	11.9 mm / 0.47 in	14.3 mm / 0.56 in
-6	3/8	3/8 - 18	15.9 mm / 0.63 in	17.5 mm / 0.69 in
-8	1/2	1/2 - 14	19.1 mm / 0.75 in	21.4 mm / 0.84 in
-12	3/4	3/4 - 14	24.6 mm / 0.97 in	27.0 mm / 1.06 in
-16	1	1 - 11 1/2	31.0 mm / 1.22 in	33.3 mm / 1.31 in
-20	1 1/4	1 1/4 - 11 1/2	39.7 mm / 1.56 in	42.9 mm / 1.69 in
-24	1 1/2	1 1/2 - 11 1/2	45.2 mm / 1.78 in	48.4 mm / 1.91 in
-32	2	2 - 11 1/2	57.2 mm / 2.25 in	60.3 mm / 2.38 in

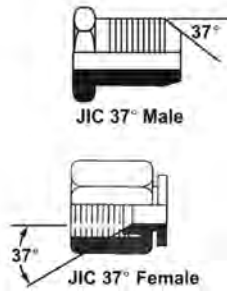
## Thread Identification Table - SAE Straight Thread O-Ring Boss



Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Inside Diameter	Male Thread Outside Diameter
-2	1/8	5/16 - 24	6.9 mm / 0.27 in	7.8 mm / 0.31 in
-3	3/16	3/8 - 24	8.5 mm / 0.34 in	9.4 mm / 0.37 in
-4	1/4	7/16 - 20	9.9 mm / 0.39 in	11.2 mm / 0.44 in
-5	5/16	1/2 - 20	11.5 mm / 0.45 in	12.6 mm / 0.49 in
-6	3/8	9/16 - 18	12.9 mm / 0.51 in	14.1 mm / 0.56 in
-8	1/2	3/4 - 16	17.5 mm / 0.69 in	18.9 mm / 0.74 in
-10	5/8	7/8 - 14	20.5 mm / 0.81 in	22.1 mm / 0.87 in
-12	3/4	1 1/16 - 12	24.9 mm / 0.98 in	26.9 mm / 1.06 in
-14	7/8	1 3/16 - 12	28.1 mm / 1.11 in	30.0 mm / 1.18 in
-16	1	1 5/16 - 12	31.3 mm / 1.23 in	33.1 mm / 1.31 in
-20	1 1/4	1 5/8 - 12	39.2 mm / 1.54 in	41.1 mm / 1.62 in
-24	1 1/2	1 7/8 - 12	45.6 mm / 1.79 in	47.4 mm / 1.87 in
-32	2	2 1/2 - 12	61.4 mm / 2.42 in	63.3 mm / 2.49 in

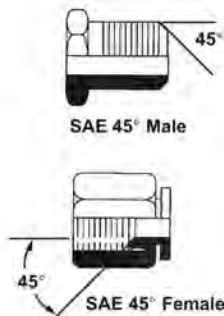
# Coupling Identification

## Thread Identification Table - JIC 37° Flare



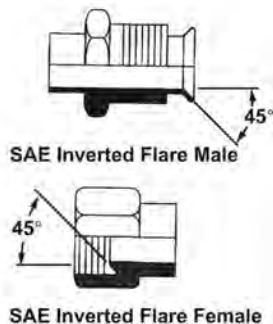
Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Size Inside Diameter	Male Thread Size Outside Diameter
-2	1/8	5/16 - 24	6.9 mm / 0.27 in	7.8 mm / 0.31 in
-3	3/16	3/8 - 24	8.5 mm / 0.34 in	9.4 mm / 0.37 in
-4	1/4	7/16 - 20	9.9 mm / 0.39 in	11.2 mm / 0.44 in
-5	5/16	1/2 - 20	11.5 mm / 0.45 in	12.6 mm / 0.49 in
-6	3/8	9/16 - 18	12.9 mm / 0.51 in	14.1 mm / 0.56 in
-8	1/2	3/4 - 16	17.5 mm / 0.69 in	18.9 mm / 0.74 in
-10	5/8	7/8 - 14	20.5 mm / 0.81 in	22.1 mm / 0.87 in
-12	3/4	1 1/16 - 12	24.9 mm / 0.98 in	26.9 mm / 1.06 in
-14	7/8	1 3/16 - 12	28.1 mm / 1.11 in	30.0 mm / 1.18 in
-16	1	1 5/16 - 12	31.3 mm / 1.23 in	33.1 mm / 1.31 in
-20	1 1/4	1 5/8 - 12	39.2 mm / 1.54 in	41.1 mm / 1.62 in
-24	1 1/2	1 7/8 - 12	45.6 mm / 1.79 in	47.4 mm / 1.87 in
-32	2	2 1/2 - 12	61.4 mm / 2.42 in	63.3 mm / 2.49 in

## Thread Identification Table - SAE 45° Flare



Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Size Inside Diameter	Male Thread Size Outside Diameter
-2	1/8	5/16 - 24	6.9 mm / 0.27 in	7.9 mm / 0.31 in
-3	3/16	3/8 - 24	8.6 mm / 0.34 in	9.6 mm / 0.38 in
-4	1/4	7/16 - 20	9.9 mm / 0.39 in	11.2 mm / 0.44 in
-5	5/16	1/2 - 20	11.4 mm / 0.45 in	12.7 mm / 0.50 in
-6	3/8	5/8 - 18	14.2 mm / 0.56 in	15.7 mm / 0.62 in
-7	7/16	11/16 - 16	15.7 mm / 0.62 in	17.3 mm / 0.68 in
-8	1/2	3/4 - 16	17.0 mm / 0.68 in	19.0 mm / 0.75 in
-10	5/8	7/8 - 14	20.3 mm / 0.80 in	22.3 mm / 0.88 in
-12	3/4	1 1/16 - 14	25.1 mm / 0.99 in	26.9 mm / 1.06 in
-14	7/8	1 1/4 - 12	29.5 mm / 1.16 in	31.7 mm / 1.25 in
-16	1	1 3/8 - 12	32.5 mm / 1.28 in	35.0 mm / 1.38 in

## Thread Identification Table - SAE Inverted 45° Flare



Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Inside Diameter	Male Thread Outside Diameter
-2	1/8	5/16 - 28	6.9 mm / 0.27 in	7.9 mm / 0.31 in
-3	3/16	3/8 - 24	8.6 mm / 0.34 in	9.6 mm / 0.38 in
-4	1/4	7/16 - 24	9.9 mm / 0.39 in	11.2 mm / 0.44 in
-5	5/16	1/2 - 20	11.4 mm / 0.45 in	12.7 mm / 0.50 in
-6	3/8	5/8 - 18	14.2 mm / 0.56 in	15.7 mm / 0.62 in
-7	7/16	11/16 - 18	15.7 mm / 0.62 in	17.3 mm / 0.68 in
-8	1/2	4/4 - 18	17.0 mm / 0.68 in	19.0 mm / 0.75 in
-10	5/8	7/8 - 18	20.3 mm / 0.80 in	22.3 mm / 0.88 in
-12	3/4	1 1/16 - 16	25.1 mm / 0.99 in	26.9 mm / 1.06 in

Note: 42° Flare on male machined adapters

# Coupling Identification

## Thread Identification Table - SAE O-Ring Face Seal (ORFS)



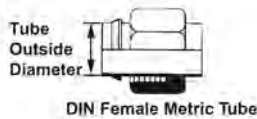
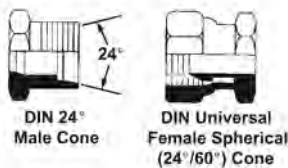
O-ring Face Seal Male



O-ring Face Seal Female

Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Inside Diameter	Male Thread Outside Diameter
-4	1/4	9/16 - 18	12.9 mm / 0.51 in	14.1 mm / 0.56 in
-6	3/8	11/16 - 16	15.9 mm / 0.63 in	17.3 mm / 0.68 in
-8	1/2	13/16 - 16	19.1 mm / 0.75 in	20.5 mm / 0.81 in
-10	5/8	1 - 14	23.6 mm / 0.93 in	25.2 mm / 0.99 in
-12	3/4	1 3/16 - 12	28.1 mm / 1.11 in	30.0 mm / 1.18 in
-16	1	1 7/16 - 12	34.4 mm / 1.36 in	36.3 mm / 1.43 in
-20	1 1/4	1 11/16 - 12	40.8 mm / 1.61 in	42.7 mm / 1.68 in
-24	1 1/2	2 - 12	48.7 mm / 1.92 in	50.6 mm / 1.99 in

## Thread Identification Table - ISO 24° Cone



Metric Thread (dia x pitch)	Female Thread Inside Diameter	Male Thread Outside Diameter	Tube Outside Diameter Light Series	Tube Outside Diameter Heavy Series
M12 x 1.5	10.5 mm / 0.41 in	12 mm / 0.47 in	6 mm / 0.24 in	*
M14 x 1.5	12.5 mm / 0.49 in	14 mm / 0.55 in	8 mm / 0.31 in	6 mm / 0.24 in
M16 x 1.5	14.5 mm / 0.57 in	16 mm / 0.63 in	10 mm / 0.39 in	8 mm / 0.31 in
M18 x 1.5	16.5 mm / 0.65 in	18 mm / 0.71 in	12 mm / 0.47 in	10 mm / 0.39 in
M20 x 1.5	18.5 mm / 0.73 in	20 mm / 0.79 in	*	12 mm / 0.47 in
M22 x 1.5	20.5 mm / 0.81 in	22 mm / 0.87 in	15 mm / 0.59 in	14 mm / 0.55 in
M24 x 1.5	22.5 mm / 0.89 in	24 mm / 0.94 in	*	16 mm / 0.63 in
M26 x 1.5	24.5 mm / 0.96 in	26 mm / 1.02 in	18 mm / 0.71 in	*
M30 x 2.0	27.9 mm / 1.10 in	30 mm / 1.18 in	22 mm / 0.87 in	20 mm / 0.79 in
M36 x 2.0	33.9 mm / 1.33 in	36 mm / 1.42 in	28 mm / 1.10 in	25 mm / 0.98 in
M42 x 2.0	39.9 mm / 1.57 in	42 mm / 1.65 in	*	30 mm / 1.18 in
M45 x 2.0	42.9 mm / 1.69 in	45 mm / 1.77 in	35 mm / 1.38 in	*
M52 x 2.0	49.9 mm / 1.96 in	52 mm / 2.05 in	42 mm / 1.65 in	38 mm / 1.50 in

\* No ISO 24° Cone in this size

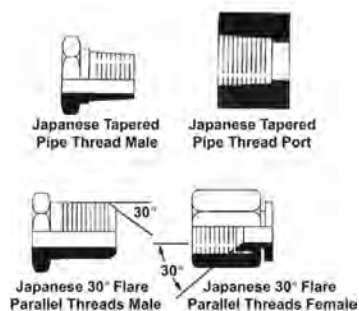
## Thread Identification Table - ISO 60° Cone



Metric Thread (dia x pitch)	Female Thread Inside Diameter	Male Thread Outside Diameter	Tube Outside Diameter 60° Cone
M12 x 1.5	10.5 mm / 0.41 in	12 mm / 0.47 in	6 mm / 0.24 in
M14 x 1.5	12.5 mm / 0.49 in	14 mm / 0.55 in	8 mm / 0.31 in
M16 X 1.5	14.5 mm / 0.57 in	16 mm / 0.63 in	10 mm / 0.39 in
M18 x 1.5	16.5 mm / 0.65 in	18 mm / 0.71 in	12 mm / 0.47 in
M22 x 1.5	20.5 mm / 0.81 in	22 mm / 0.87 in	15 mm / 0.59 in
M26 x 1.5	24.5 mm / 0.96 in	26 mm / 1.02 in	18 mm / 0.71 in
M30 x 1.5	28.5 mm / 1.12 in	30 mm / 1.18 in	22 mm / 0.87 in
M38 x 1.5	36.5 mm / 1.44 in	38 mm / 1.50 in	28 mm / 1.10 in
M45 x 1.5	43.5 mm / 1.71 in	45 mm / 1.77 in	35 mm / 1.38 in
M52 x 1.5	50.5 mm / 1.99 in	52 mm / 2.05 in	42 mm / 1.65 in

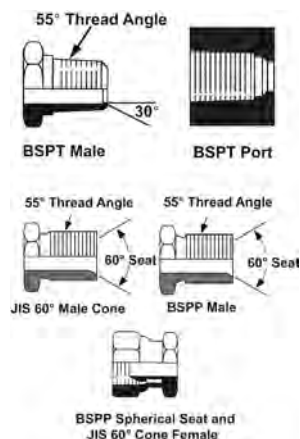
# Coupling Identification

## Thread Identification Table - JIS Tapered Pipe, 30° Flare Parallel Pipe, and 30° Male Inverted Seat



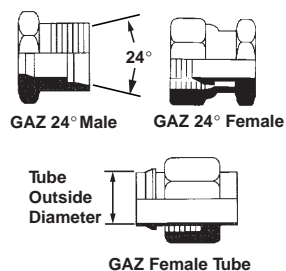
Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Inside Diameter	Male Thread Outside Diameter
-2	1/8	1/8 - 28	8.7 mm / 0.34 in	9.5 mm / 0.38 in
-4	1/4	1/4 - 19	11.9 mm / 0.47 in	13.5 mm / 0.53 in
-6	3/8	3/8 - 19	15.1 mm / 0.59 in	16.7 mm / 0.66 in
-8	1/2	1/2 - 14	19.1 mm / 0.75 in	20.6 mm / 0.81 in
-10	5/8	5/8 - 14	20.6 mm / 0.81 in	23.1 mm / 0.91 in
-12	3/4	3/4 - 14	23.8 mm / 0.94 in	26.2 mm / 1.03 in
-16	1	1 - 11	30.2 mm / 1.19 in	33.3 mm / 1.31 in
-20	1 1/4	1 1/4 - 11	38.9 mm / 1.53 in	42.1 mm / 1.66 in
-24	1 1/2	1 1/2 - 11	45.2 mm / 1.78 in	47.6 mm / 1.88 in
-32	2	2 - 11	56.4 mm / 2.22 in	59.5 mm / 2.34 in

## Thread Identification Table - British Standard Pipe Tapered (BSPT), British Standard Pipe Parallel Spherical Seat (BSPP) and JIS 60° Cone



Dash Size (dash)	Inch Size (in)	Thread Size (in-TPI)	Female Thread Inside Diameter	Male Thread Outside Diameter
-2	1/8	1/8 - 28	8.7 mm / 0.34 in	9.5 mm / 0.38 in
-4	1/4	1/4 - 19	11.1 mm / 0.44 in	13.5 mm / 0.53 in
-6	3/8	3/8 - 19	15.1 mm / 0.59 in	16.7 mm / 0.66 in
-8	1/2	1/2 - 14	18.3 mm / 0.72 in	20.6 mm / 0.81 in
-10	5/8	5/8 - 14	20.6 mm / 0.81 in	23.0 mm / 0.91 in
-12	3/4	3/4 - 14	23.8 mm / 0.94 in	26.2 mm / 1.03 in
-16	1	1 - 11	30.2 mm / 1.19 in	33.3 mm / 1.31 in
-20	1 1/4	1 1/4 - 11	38.9 mm / 1.53 in	42.1 mm / 1.66 in
-24	1 1/2	1 1/2 - 11	45.2 mm / 1.78 in	47.6 mm / 1.88 in
-32	2	2 - 11	56.4 mm / 2.22 in	59.5 mm / 2.34 in

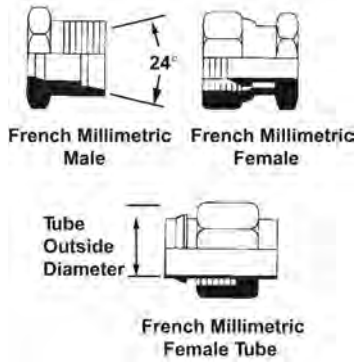
## Thread Identification Table - GAZ (gas series) 24° Cone



Metric Thread (dia x pitch)	Female Thread Inside Diameter	Male Thread Outside Diameter	Tube Outside Diameter 24° Cone
M20 x 1.5	18.5 mm / 0.73 in	20.0 mm / 0.78 in	13.25 mm / 0.52 in
M24 x 1.5	22.5 mm / 0.89 in	24.0 mm / 0.94 in	16.75 mm / 0.66 in
M30 x 1.5	28.5 mm / 1.12 in	30.0 mm / 1.18 in	21.25 mm / 0.83 in
M36 x 1.5	34.5 mm / 1.36 in	36.0 mm / 1.41 in	26.75 mm / 1.05 in
M45 x 1.5	43.5 mm / 1.71 in	45.0 mm / 1.77 in	33.50 mm / 1.32 in
M52 x 1.5	50.5 mm / 1.99 in	52.0 mm / 2.04 in	42.25 mm / 1.66 in

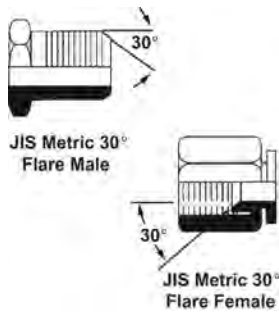
# Coupling Identification

## Thread Identification Table - French Metric



Metric Thread (dia x pitch)	Female Thread Inside Diameter	Male Thread Outside Diameter	Tube Outside Diameter
M12 x 1.0	11.0 mm / 0.43 in	12.0 mm / 0.47 in	6 mm / 0.24 in
M14 x 1.5	12.5 mm / 0.49 in	14.0 mm / 0.55 in	8 mm / 0.31 in
M16 x 1.5	14.5 mm / 0.57 in	16.0 mm / 0.63 in	10 mm / 0.39 in
M18 x 1.5	16.5 mm / 0.65 in	18.0 mm / 0.71 in	12 mm / 0.47 in
M20 x 1.5	18.5 mm / 0.73 in	20.0 mm / 0.79 in	14 mm / 0.55 in
M22 x 1.5	20.5 mm / 0.81 in	22.0 mm / 0.87 in	15 mm / 0.59 in
M24 x 1.5	22.5 mm / 0.89 in	24.0 mm / 0.94 in	16 mm / 0.63 in
M27 x 1.5	25.5 mm / 1.00 in	27.0 mm / 1.06 in	18 mm / 0.71 in
M30 x 1.5	28.5 mm / 1.12 in	30.0 mm / 1.18 in	22 mm / 0.87 in
M33 x 1.5	31.5 mm / 1.24 in	33.0 mm / 1.30 in	25 mm / 0.98 in
M36 x 1.5	34.5 mm / 1.36 in	36.0 mm / 1.42 in	28 mm / 1.10 in
M39 x 1.5	37.5 mm / 1.48 in	39.0 mm / 1.54 in	30 mm / 1.18 in
M42 x 1.5	40.5 mm / 1.59 in	42.0 mm / 1.65 in	32 mm / 1.26 in
M45 x 1.5	43.5 mm / 1.71 in	45.0 mm / 1.77 in	35 mm / 1.38 in
M48 x 1.5	46.5 mm / 1.83 in	48.0 mm / 1.89 in	38 mm / 1.50 in
M52 x 1.5	50.5 mm / 1.99 in	52.0 mm / 2.05 in	40 mm / 1.57 in
M54 x 2.0	51.9 mm / 2.04 in	54.0 mm / 2.13 in	45 mm / 1.77 in

## JIS Metric 30° Flare (Komatsu Style)



Metric Thread (dia x pitch)	Female Thread Inside Diameter	Male Thread Outside Diameter
M18 x 1.5	16.5 mm / 0.65 in	18.0 mm / 0.71 in
M22 x 1.5	20.5 mm / 0.81 in	22.0 mm / 0.87 in
M24 x 1.5	22.5 mm / 0.89 in	24.0 mm / 0.94 in
M30 x 1.5	28.5 mm / 1.12 in	30.0 mm / 1.18 in
M33 x 1.5	31.5 mm / 1.24 in	33.0 mm / 1.30 in
M36 x 1.5	34.5 mm / 1.36 in	36.0 mm / 1.42 in
M42 x 1.5	40.5 mm / 1.59 in	42.0 mm / 1.65 in

## Coupling Series by Hose Type

Hose Type	Coupling Series	Coupling Type	Hose Dash Size
294	MN	Permanent	-4, -5, -6, -8, -10, -12, -16, -20, -24, -32, -40, -48
294TG	MN	Permanent	-4, -6, -8, -10, -12, -16
294CPT	MN	Permanent	-4, -5, -6, -8, -10, -12, -16
	BN	Permanent	-10
294CPTG	MN	Permanent	-4, -6
294HT	MN	Permanent	-20, -24, -32, -40
662	MN	Permanent	-6, -8
716	MN	Permanent	-4, -6, -8, -10, -12, -16, -20, -24, -32
716TG	MN	Permanent	-4, -6, -8, -10, -12, -16
716CPT	MN	Permanent	-4, -6, -8, -10, -12, -16
743	JN	Permanent	-3
	MH	Permanent	-4, -5, -6, -8, -10, -12, -16
844	MN	Permanent	-12, -16, -20, -24, -32, -40, -56
	SW	Permanent	-48
844HP	MN	Permanent	-40, -56
	SW	Permanent	-48, -64
945	JN	Permanent	-3
	MH	Permanent	-5, -6, -8, -12
1028	56	Permanent	-3, -4, -5, -6, -8, -12
CAT A/C (1543J) FC	A/C	Permanent	-6, -8, -10, -12, -14
2760	JN	Permanent	-4, -5, -6, -8
2771A	JN	Permanent	-4, -5, -6, -8, 10, -12
2786	MN	Permanent	-4, -6, -8, -10, -12, -16

Hose Type	Coupling Series	Coupling Type	Hose Dash Size
2929	MH	Permanent	-3, -4, -6, -8
2929TG	MH	Permanent	-4, -6, -8
4636 / 4639	MN	Permanent	-8, -12
	BN	Permanent	-10, -16
4901	MN	Permanent	-4, -6, -8, 10, -12, -16, -20, -24, -32, -40, -48
5014	MN	Permanent	-4, -6, -8, -12
5065	DS4	Permanent	-4, -6
XT-3ES / XT-3ESTG	TR	Reusable	-6, -8, -10, -12, -16
	ESA	Permanent	-10, -12, -16
	S4G	Permanent	-6, -8, -16, -20, -24, -32
	XN	Permanent	-6, -8, -10, -12
	XN4	Permanent	-20, -24
XT-5ES / XT-5ESTG	PL	Reusable	-16
	MCSH	Reusable / Permanent	-16, -20, -24, -32
	MCSX	Permanent	-16, -20, -24
	XN	Permanent	-12, -16
	XN6	Permanent	-20, -24
	XS6	Permanent	-32
XT-6ES / XT-6ESTG	IN	Reusable / Permanent	-16, -20, -24
	MCSM	Permanent	-6, -12, -16, -20, -24
	XN	Permanent	-6, -8, -10, -12, -16
	XN6	Permanent	-20, -24
	XS6	Permanent	-32





# Cat High Pressure Hose & Coupling Products

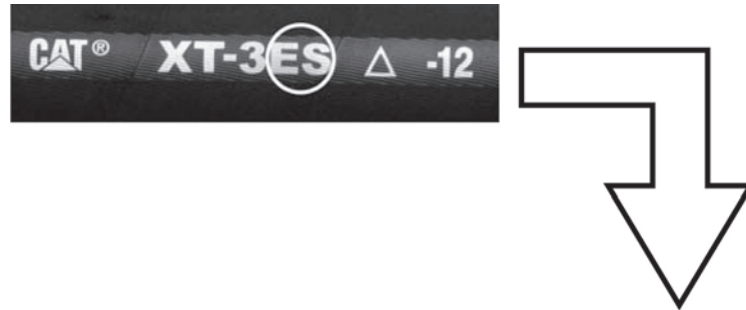
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# Cat High Pressure Hose & Coupling Products

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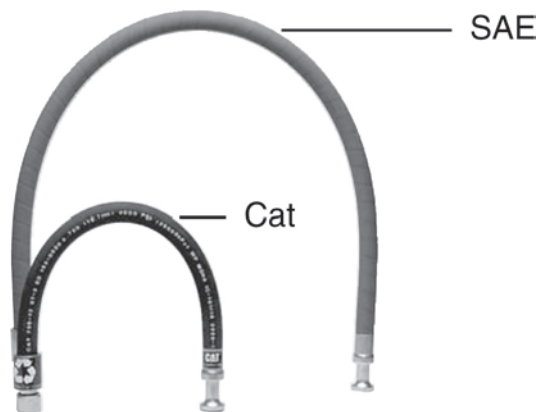
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The Cat XT hose line-up is designed and manufactured for high pressure hydraulic applications. These range from 2500 to 6000 psi (17.5 to 42.0 MPa). ES stands for Enhanced Spiral construction and TG stands for ToughGuard hose cover; both are Caterpillar proprietary designs. Not only is the XT ES hose line-up impulse tested to twice the industry requirement at one million impulse cycles, the XT ES TG hose also features a unique hose cover that surpasses two million abrasion cycles without failure.



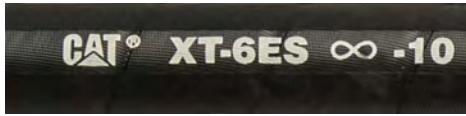
***Enhanced Spiral = Extra Toughness!***

Plus, Cat XT ES hoses are designed to work at half the SAE bend radius. This means they bend better in tight places and substantially reduce hose length requirements without sacrificing force-to-bend ratio.



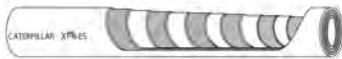
# XT-6ES Hose & Coupling Products

## XT-6ES Hose Features and Benefits



- 1/2 SAE 100R15 Minimum Bend Radius.
- Exceeds the SAE 100R15 Industry Standard
- Superior Abrasion Resistance Cover.
- Aged Impulse Tested to 1 Million Cycles (2 X Industry Standards).
- Working pressure of 6000 psi
- Black hose with a White embossed mylar layline for easy identification.
- Hose is marked with an Infinity (∞) symbol.
- Target Application(s): Hydrostatic Loaders, Differential Steering Track-Type Tractors and Hydraulic Mining Shovels (HMS)

## XT-6ES Hose (2836)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8491	9.5 - .37	19.7 - .78	-6	XN	140.0 - 20305	42.0 - 6092	76 - 2.99
456-8492	12.7 - .50	23.3 - .92	-8	XN	168.0 - 24366	42.0 - 6092	101 - 3.98
456-8493	15.9 - .63	27.3 - 1.07	-10	XN	168.0 - 24366	42.0 - 6092	114 - 4.49
456-8494	19.1 - .75	30.5 - 1.20	-12	XN	168.0 - 24366	42.0 - 6092	133 - 5.24
456-8495	25.4 - 1.00	38.7 - 1.52	-16	IN / XN	168.0 - 24366	42.0 - 6092	165 - 6.50
456-8496	31.8 - 1.25	50.0 - 1.97	-20	IN / XN6	168.0 - 24366	42.0 - 6092	222 - 8.74
456-8497	38.1 - 1.50	58.1 - 2.29	-24	IN / XN6	168.0 - 24366	42.0 - 6092	266 - 10.47
456-8498	50.8 - 2.00	71.1 - 2.80	-32	XS6	168.0 - 24366	42.0 - 6092	660 - 25.98

**Construction:** Fabric reinforced, synthetic rubber tube; four or six plies of spirally-wrapped high tensile steel wire reinforcement, separated by layers of synthetic rubber. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Extremely high-pressure service with petroleum base hydraulic fluids. MSHA approved cover.

**Temperature Range:** -40°F to + 250°F (-40°C to +121°C)

**Couplings:** Collet-type reusable, skive type, IN Series coupling. See XT-6ES Hose Reusable Couplings section. Crimp-on permanent, skive type, XN, XN6 or XS6 Series coupling. See XT-6ES Hose Permanent Couplings section. For related assembly equipment and tooling, see Tooling section.

**Note:** Depending on coupling series, the hose cover may or may not need to be removed before attaching couplings. Please review the coupling series being used prior to hose assembly. Coupling series XN and XN6 are no-skive couplings and do not require the hose cover to be removed. All other coupling series require a specified length of the hose cover to be removed. Reference chart NEEG2956 for for specified Skive Lengths.

<sup>1</sup> Centerline of Hose

## XT-6ES ToughGuard (4136)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8499	9.5 - .37	19.7 - .78	-6	XN	168.0 - 24366	42.0 - 6092	76 - 2.99
456-8500	12.7 - .50	23.3 - .92	-8	XN	168.0 - 24366	42.0 - 6092	101 - 3.98
456-8501	15.9 - .63	27.3 - 1.07	-10	XN	168.0 - 24366	42.0 - 6092	114 - 4.49
456-8502	19.1 - .75	30.5 - 1.20	-12	XN	168.0 - 24366	42.0 - 6092	133 - 5.24
456-8503	25.4 - 1.00	38.7 - 1.52	-16	IN / XN	168.0 - 24366	42.0 - 6092	165 - 6.50
456-8504	31.8 - 1.25	50.0 - 1.97	-20	IN / XN6	168.0 - 24366	42.0 - 6092	222 - 8.74
456-8505	38.1 - 1.50	58.1 - 2.29	-24	IN / XN6	168.0 - 24366	42.0 - 6092	266 - 10.47

**Construction:** Fabric reinforced, synthetic rubber tube; four or six plies of spirally-wrapped high tensile steel wire reinforcement, separated by layers of synthetic rubber. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Extremely high-pressure service with petroleum base hydraulic fluids. MSHA approved cover.

**Temperature Range:** -40°F to + 250°F (-40°C to +121°C)

# XT-6ES Hose & Coupling Products

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## XT-6ES ToughGuard (4136) (Cont'd.)

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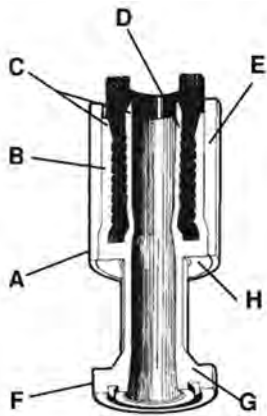
**Couplings:** Collet-type reusable, skive type, IN Series coupling. See XT-6ES Hose Reusable Couplings section. Crimp-on permanent, skive type, XN or XN Series coupling. Ssee XT-6ES Hose Permanent Couplings section. For related assembly equipment and tooling, see Tooling section.

**Note:** Depending on coupling series, the hose cover may or may not need to be removed before attaching couplings. Please review the coupling series being used prior to hose assembly. Coupling series XN and XN6 are no-skive couplings and do not require the hose cover to be removed. All other coupling series require a specified length of the hose cover to be removed. Reference chart NEEG2956 for for specified Skive Lengths.

<sup>1</sup> Centerline of Hose

# XT-6ES Hose Reusable Couplings

## XT-6ES Reusable Couplings Features and Benefits



XT-6ES Hose Couplings have the same advantages found with the XT-5ES and XT-3ES Hose Couplings, plus a heavier stem and head construction to handle 6000 psi (41 MPa) applications.

### EXCLUSIVE REUSABLE DESIGN

Reuse XT Couplings over and over again for the lowest operating cost. In addition, you know you have the right coupling at the right time.

#### (A) Slim, Collet-Type Style

- No bolts or protrusions for easy installation, even in cramped places.

#### (B) Multi-land Fingers

- Grip the wires on the skived hose solidly to prevent coupling blow-off and provide better coupling retention.

#### (C) Tapered Fingers & Stem

- Compressive force is slightly relieved so the hose can flex without failure at the rear of the coupling. This increases hose assembly life.

#### (D) Multi-land Stem

- Keeps fluid sealed in without inner liner damage and provides a positive coupling to hose seal.

#### (E) Hardened Steel Sleeve

- No sleeve bend or distortion so the sleeve retains its original size and shape and can be reused.
- Hose stays firmly compressed in coupling, further aiding coupling retention.

#### (F) Precision Machined O-Ring Head

- To help eliminate hazardous fluid leaks and provide positive coupling head seal.

#### (G) Extruded Stem

- Orients metal grain for more uniform strength and fatigue resistance.

- Braze joint between head and stem is eliminated resulting in leak free performance and excellent coupling assembly life.

#### (H) Extruded Collet

- More uniform strength for excellent coupling performance after repeated reuse.

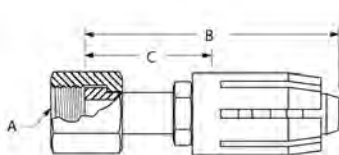
# warning!

TO AVOID SERIOUS PERSONAL INJURY TO THE OPERATOR AND EXTENSIVE DAMAGE TO THE EQUIPMENT, THE FOLLOWING PROCEDURES MUST BE OBSERVED. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY.

- ALWAYS match hose, stem assemblies and sleeves according to markings ( $\Delta$  / + / UHP /  $\infty$ ).
- NEVER interchange XT-3 ES hose, stem assemblies and sleeves marked with a triangle ( $\Delta$ ) with XT-5 ES hose, stem assemblies and sleeves marked with a plus (+), XT-6 hose, stem assemblies and sleeves marked with (UHP) or XT-6 ES hose, stem assemblies and sleeves marked with an infinity sign ( $\infty$ ).

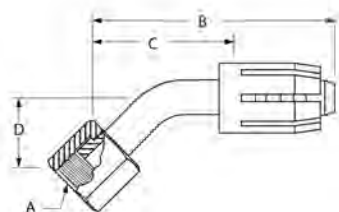


## ORFS Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
153-0866	25.4-1.00	-16	IN	1 7/16-12	-16	107.0-4.21	45.0-1.77	5K-9090

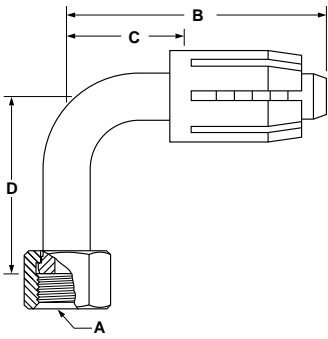
## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0868	25.4-1.00	-16	IN	1 7/16-12	-16	147.0-5.79	85.0-3.35	32.0-1.26	5K-9090

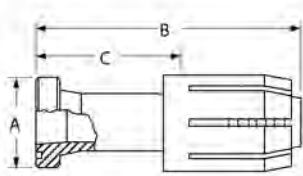
# XT-6ES Hose Reusable Couplings

## ORFS Female Swivel-90° Elbow



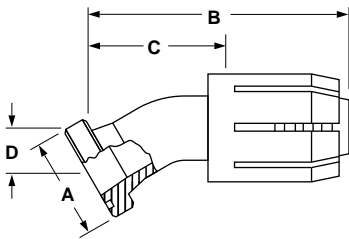
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0870	25.4-1.00	-16	IN	1 7/16-12	-16	140.0-5.51	78.0-3.07	68.0-2.68	5K-9090
153-0872	25.4-1.00	-16	IN	1 7/16-12	-16	140.0-5.51	78.0-3.07	128.0-5.04	5K-9090

## Cat Flange-Str



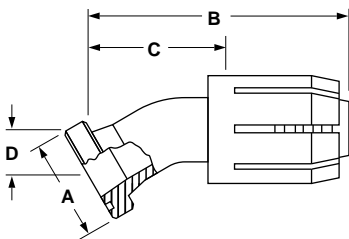
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
153-0835	25.4-1.00	-16	IN	47.6-1.87	-16	153.0-6.02	91.0-3.58	1P-3703
153-0851	25.4-1.00	-16	IN	54.0-2.13	-20	153.0-6.02	91.0-3.58	1P-3704
153-0873	31.8-1.25	-20	IN	54.0-2.13	-20	158.0-6.22	76.0-2.99	1P-3704
153-0882	31.8-1.25	-20	IN	63.5-2.50	-24	158.0-6.22	87.5-3.44	1P-3705
211-2652	38.1-1.50	-24	IN	63.5-2.50	-24	177.0-6.97	84.0-3.31	1P-3705
211-2653	38.1-1.50	-24	IN	63.5-2.50	-24	232.0-9.13	139.0-5.47	1P-3705
268-5969	50.8-2.00	-32	IN	79.4-3.13	-32	242.0-9.53	130.0-5.12	1P-3709

## Cat Flange-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0837	25.4-1.00	-16	IN	47.6-1.87	-16	152.0-5.98	89.0-3.50	17.0-.67	1P-3703
153-0852	25.4-1.00	-16	IN	54.0-2.13	-20	151.0-5.94	89.0-3.50	16.0-.63	1P-3704
153-0874	31.8-1.25	-20	IN	54.0-2.13	-20	182.0-7.17	106.0-4.17	17.0-.67	1P-3704
153-0883	31.8-1.25	-20	IN	63.5-2.50	-24	174.0-6.85	98.0-3.86	17.0-.67	1P-3705

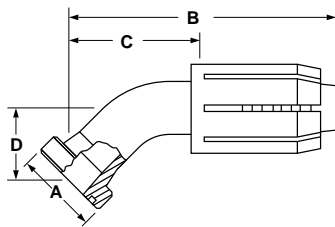
## Cat Flange-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0839	25.4-1.00	-16	IN	47.6-1.87	-16	145.0-5.71	87.0-3.43	23.0-.91	1P-3703
243-1914	25.4-1.00	-16	IN	47.6-1.87	-16	160.0-6.30	98.0-3.86	32.0-1.26	1P-3703
153-0853	25.4-1.00	-16	IN	54.0-2.13	-20	149.0-5.87	87.0-3.43	23.0-.91	1P-3704
153-0875	31.8-1.25	-20	IN	54.0-2.13	-20	180.0-7.09	104.0-4.09	27.0-1.06	1P-3704
153-0884	31.8-1.25	-20	IN	63.5-2.50	-24	175.0-6.89	100.0-3.94	27.0-1.06	1P-3705
211-2654	38.1-1.50	-24	IN	63.5-2.50	-24	225.0-8.86	135.0-5.31	26.5-1.04	1P-3705
268-5970	50.8-2.00	-32	IN	79.4-3.13	-32	342.0-13.46	230.5-9.07	46.0-1.81	1P-3709

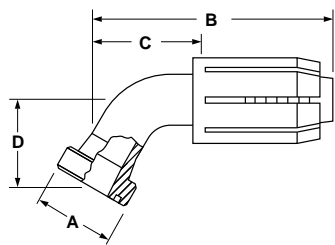
# XT-6ES Hose Reusable Couplings

## Cat Flange-45° Elbow



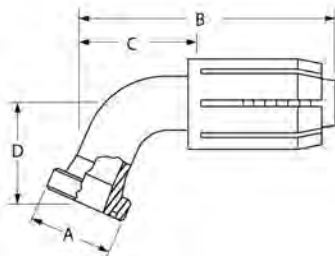
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0842	25.4-1.00	-16	IN	47.6-1.87	-16	142.0-5.59	80.0-3.15	37.0-1.46	1P-3703
243-1916	25.4-1.00	-16	IN	47.6-1.87	-16	154.0-6.06	92.0-3.62	40.0-1.57	1P-3703
153-0855	25.4-1.00	-16	IN	54.0-2.13	-20	142.0-5.59	80.0-3.15	37.0-1.46	1P-3704
243-1915	25.4-1.00	-16	IN	54.0-2.13	-20	154.0-6.06	92.0-3.62	40.0-1.57	1P-3704
153-0876	31.8-1.25	-20	IN	54.0-2.13	-20	191.0-7.52	115.0-4.53	44.0-1.73	1P-3704
153-0885	31.8-1.25	-20	IN	63.5-2.50	-24	188.0-7.40	117.5-4.63	43.0-1.69	1P-3705
211-2655	38.1-1.50	-24	IN	63.5-2.50	-24	219.0-8.62	128.5-5.06	41.0-1.61	1P-3705
211-2656	38.1-1.50	-24	IN	79.4-3.13	-32	229.0-9.02	139.0-5.47	46.0-1.81	1P-3709
268-5971	50.8-2.00	-32	IN	79.4-3.13	-32	334.0-13.15	222.0-8.74	75.0-2.95	1P-3709

## Cat Flange-60° Elbow



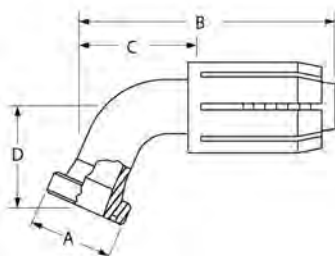
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0844	25.4-1.00	-16	IN	47.6-1.87	-16	145.0-5.71	83.0-3.27	50.0-1.97	1P-3703
243-1917	25.4-1.00	-16	IN	47.6-1.87	-16	167.0-6.57	105.0-4.13	55.0-2.17	1P-3703
153-0856	25.4-1.00	-16	IN	54.0-2.13	-20	145.0-5.71	83.0-3.27	50.0-1.97	1P-3704
243-1918	25.4-1.00	-16	IN	54.0-2.13	-20	167.0-6.57	105.0-4.13	55.0-2.17	1P-3704
153-0877	31.8-1.25	-20	IN	54.0-2.13	-20	221.0-8.70	145.0-5.71	60.0-2.36	1P-3704
211-2657	38.1-1.50	-24	IN	63.5-2.50	-24	207.0-8.15	117.0-4.61	54.5-2.15	1P-3705
268-5972	50.8-2.00	-32	IN	79.4-3.13	-32	309.0-12.17	197.0-7.76	100.0-3.94	1P-3709

## Cat Flange-67 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0845	25.4-1.00	-16	IN	47.6-1.87	-16	139.0-5.47	77.0-3.03	56.0-2.20	1P-3703
153-0857	25.4-1.00	-16	IN	54.0-2.13	-20	139.0-5.47	77.0-3.03	56.0-2.20	1P-3704
153-0878	31.8-1.25	-20	IN	54.0-2.13	-20	171.0-6.73	95.0-3.74	60.0-2.36	1P-3704
153-0887	31.8-1.25	-20	IN	63.5-2.50	-24	171.0-6.73	95.0-3.74	60.0-2.36	1P-3705
153-0886	31.8-1.25	-20	IN	63.5-2.50	-24	221.0-8.70	150.2-5.91	60.0-2.36	1P-3705

## Cat Flange-80° Elbow

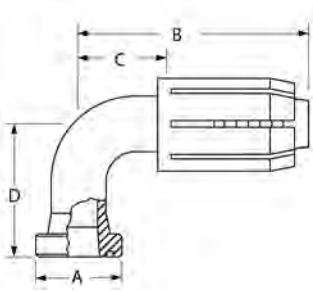


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
257-9359	50.8-2.00	-32	IN	79.4-3.13	-32	276.0-10.87	163.8-6.45	134.8-5.31	1P-3709



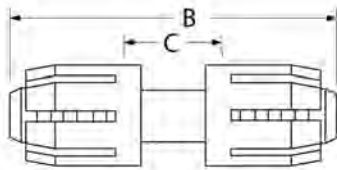
# XT-6ES Hose Reusable Couplings

## Cat Flange-90° Elbow



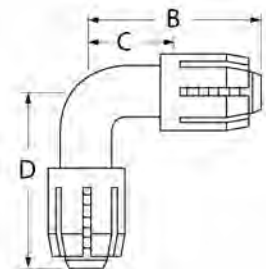
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
153-0847	25.4-1.00	-16	IN	47.6-1.87	-16	139.0-5.47	77.0-3.03	74.0-2.91	1P-3703
243-1931	25.4-1.00	-16	IN	47.6-1.87	-16	140.0-5.51	77.0-3.03	83.0-3.27	1P-3703
153-0849	25.4-1.00	-16	IN	47.6-1.87	-16	139.0-5.47	77.0-3.03	132.0-5.20	1P-3703
243-1920	25.4-1.00	-16	IN	47.6-1.87	-16	133.0-5.24	71.0-2.80	150.0-5.91	1P-3703
153-0859	25.4-1.00	-16	IN	54.0-2.13	-20	139.0-5.47	77.0-3.03	74.0-2.91	1P-3704
243-1930	25.4-1.00	-16	IN	54.0-2.13	-20	140.0-5.51	77.0-3.03	83.0-3.27	1P-3704
153-0860	25.4-1.00	-16	IN	54.0-2.13	-20	139.0-5.47	77.0-3.03	150.0-5.91	1P-3704
153-0879	31.8-1.25	-20	IN	54.0-2.13	-20	189.0-7.44	118.0-4.65	82.0-3.23	1P-3704
153-0880	31.8-1.25	-20	IN	54.0-2.13	-20	177.0-6.97	106.0-4.17	92.1-3.63	1P-3704
153-0881	31.8-1.25	-20	IN	54.0-2.13	-20	165.0-6.50	94.3-3.71	150.0-5.91	1P-3704
153-0888	31.8-1.25	-20	IN	63.5-2.50	-24	188.0-7.40	117.1-4.61	82.0-3.23	1P-3705
243-1925	31.8-1.25	-20	IN	63.5-2.50	-24	194.0-7.64	118.0-4.65	86.0-3.39	1P-3705
153-0889	31.8-1.25	-20	IN	63.5-2.50	-24	165.0-6.50	94.3-3.71	135.0-5.31	1P-3705
211-2658	38.1-1.50	-24	IN	63.5-2.50	-24	183.0-7.20	88.0-3.46	87.0-3.43	1P-3705
213-8720	38.1-1.50	-24	IN	63.5-2.50	-24	186.0-7.32	92.0-3.62	106.0-4.17	1P-3705
268-5973	50.8-2.00	-32	IN	79.4-3.13	-32	249.0-9.80	137.0-5.39	147.0-5.79	1P-3709

## Double Collet-Str



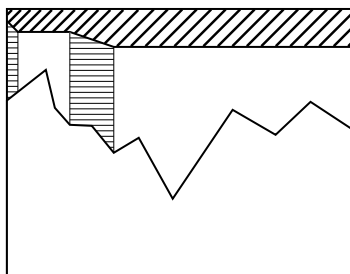
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
153-0861	25.4-1.00	-16	IN	177.0-6.97	53.0-2.09
153-0890	31.8-1.25	-20	IN	189.0-7.44	118.0-4.65

## Double Collet-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
153-0891	31.8-1.25	-20	IN	161.0-6.34	90.3-3.56	163.0-6.42

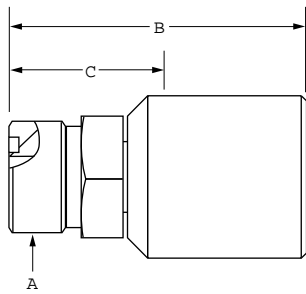
## XT-6 ES Sleeve Information



Part Number	HOSE I.D. (mm - in)	DASH SIZE
230-9999	25.4 - 1.00	-16
153-0895	31.8 - 1.25	-20
211-2659	38.1 - 1.50	-24
222-9073	50.8 - 2.00	-32

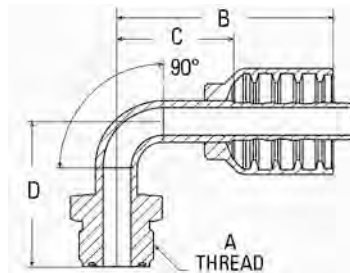
# XT-6ES Hose Permanent Couplings

## ORFS Male-Str



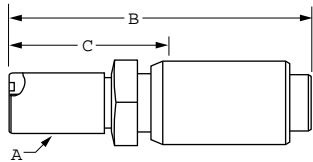
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6174	9.5-.37	-6	XN	11/16-16	-6	62.0-2.44	28.5-1.12	6V-8397
323-6175	9.5-.37	-6	XN	13/16-16	-8	65.0-2.56	31.1-1.22	6V-8398
323-6176	9.5-.37	-6	XN	1-14	-10	67.0-2.64	33.9-1.33	7J-9108
328-9108	12.7-.50	-8	XN	13/16-16	-8	66.0-2.60	32.0-1.26	6V-8398
331-3273	12.7-.50	-8	XN	1-14	-10	69.0-2.72	34.7-1.37	7J-9108
397-1935	15.9-.63	-10	XN	1-14	-10	101.0-3.98	55.0-2.17	7J-9108
397-1933	15.9-.63	-10	XN	1-14	-10	82.0-3.23	35.0-1.38	7J-9108
397-1936	15.9-.63	-10	XN	1 3/16-12	-12	101.0-3.98	55.0-2.17	6V-9746
432-2025	19.1-.75	-12	XN	1 3/16-12	-12	91.0-3.58	37.0-1.46	6V-9746
499-1157	25.4-1.00	-16	XN	1 7/16-12	-16	114.0-4.49	49.0-1.93	5K-9090

## ORFS Male-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
331-3274	12.7-.50	-8	XN	1-14	-10	73.0-2.87	39.5-1.56	49.3-1.94	7J-9108
397-1934	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	53.0-2.09	7J-9108
432-2026	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	57.0-2.24	6V-9746

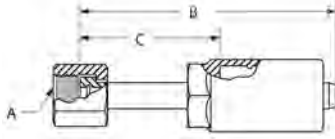
## ORFS Male Bulkhead-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6177	9.5-.37	-6	XN	11/16-16	-6	81.0-3.19	47.3-1.86	6V-8397
333-9956	12.7-.50	-8	XN	13/16-16	-8	83.0-3.27	49.2-1.94	6V-8398

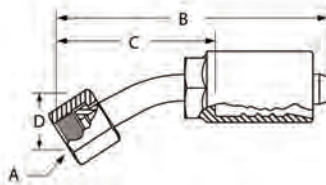
# XT-6ES Hose Permanent Couplings

## ORFS Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6156	9.5-.37	-6	XN	9/16-18	-4	60.0-2.36	26.1-1.03	4J-5477
323-6157	9.5-.37	-6	XN	11/16-16	-6	62.0-2.44	28.3-1.11	6V-8397
323-6158	9.5-.37	-6	XN	13/16-16	-8	66.0-2.60	32.3-1.27	6V-8398
323-6159	9.5-.37	-6	XN	1-14	-10	68.0-2.68	34.8-1.37	7J-9108
328-9089	12.7-.50	-8	XN	11/16-16	-6	67.0-2.64	32.4-1.28	6V-8397
328-9090	12.7-.50	-8	XN	13/16-16	-8	67.0-2.64	33.1-1.30	6V-8398
328-9091	12.7-.50	-8	XN	1-14	-10	70.0-2.76	35.6-1.40	7J-9108
328-9092	12.7-.50	-8	XN	1 3/16-12	-12	72.0-2.83	38.1-1.50	6V-9746
397-1924	15.9-.63	-10	XN	1-14	-10	92.0-3.62	46.0-1.81	7J-9108
397-1937	15.9-.63	-10	XN	1 3/16-12	-12	95.0-3.74	48.0-1.89	6V-9746
432-2022	19.1-.75	-12	XN	1-14	-10	102.0-4.02	48.0-1.89	7J-9108
432-2008	19.1-.75	-12	XN	1 3/16-12	-12	104.0-4.09	50.0-1.97	6V-9746
432-2019	19.1-.75	-12	XN	1 7/16-12	-16	104.0-4.09	51.0-2.01	5K-9090
499-1141	25.4-1.00	-16	XN	1 3/16-12	-12	112.0-4.41	47.0-1.85	6V-9746
499-1142	25.4-1.00	-16	XN	1 7/16-12	-16	118.0-4.65	53.0-2.09	5K-9090
499-1154	25.4-1.00	-16	XN	1 11/16-12	-20	118.0-4.65	53.0-2.09	6V-8400
442-5599	31.8-1.25	-20	XN6	1 11/16-12	-20	133.0-5.24	61.0-2.40	6V-8400

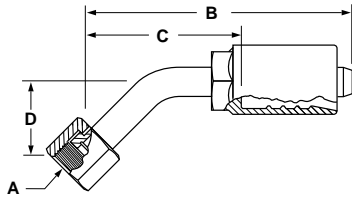
## ORFS Female Swivel-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6173	9.5-.37	-6	XN	11/16-16	-6	78.0-3.07	44.2-1.74	11.2-.44	6V-8397
328-9107	12.7-.50	-8	XN	13/16-16	-8	86.0-3.39	51.8-2.04	13.7-.54	6V-8398
397-1926	15.9-.63	-10	XN	1-14	-10	107.0-4.21	61.0-2.40	16.0-.63	7J-9108
432-2010	19.1-.75	-12	XN	1 3/16-12	-12	111.0-4.37	57.0-2.24	13.0-.51	6V-9746
432-2011	19.1-.75	-12	XN	1 3/16-12	-12	119.0-4.69	65.0-2.56	18.0-.71	6V-9746
432-2012	19.1-.75	-12	XN	1 3/16-12	-12	133.0-5.24	78.0-3.07	26.0-1.02	6V-9746
499-1144	25.4-1.00	-16	XN	1 7/16-12	-16	145.0-5.71	75.0-2.95	19.0-.75	5K-9090
442-5600	31.8-1.25	-20	XN6	1 11/16-12	-20	182.0-7.17	103.3-4.07	17.0-.67	6V-8400

# XT-6ES Hose Permanent Couplings

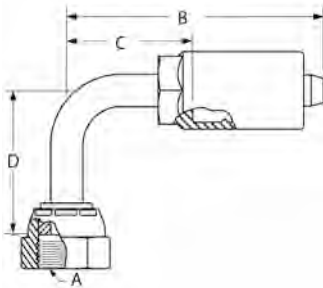
## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6160	9.5-.37	-6	XN	11/16-16	-6	72.0-2.83	37.6-1.48	10.9-.43	6V-8397
323-6161	9.5-.37	-6	XN	11/16-16	-6	75.0-2.95	41.6-1.64	15.0-.59	6V-8397
323-6162	9.5-.37	-6	XN	11/16-16	-6	78.0-3.07	44.1-1.74	17.5-.69	6V-8397
323-6163	9.5-.37	-6	XN	13/16-16	-8	75.0-2.95	41.7-1.64	15.0-.59	6V-8398
328-9093	12.7-.50	-8	XN	13/16-16	-8	80.0-3.15	45.2-1.78	15.0-.59	6V-8398
328-9094	12.7-.50	-8	XN	13/16-16	-8	86.0-3.39	51.9-2.04	21.6-.85	6V-8398
328-9095	12.7-.50	-8	XN	1-14	-10	81.0-3.19	46.7-1.84	16.5-.65	7J-9108
328-9096	12.7-.50	-8	XN	1-14	-10	86.0-3.39	51.8-2.04	21.6-.85	7J-9108
397-1927	15.9-.63	-10	XN	1-14	-10	98.0-3.86	52.0-2.05	16.0-.63	7J-9108
397-1928	15.9-.63	-10	XN	1-14	-10	108.0-4.25	61.0-2.40	25.0-.98	7J-9108
432-2023	19.1-.75	-12	XN	1-14	-10	113.0-4.45	60.0-2.36	21.0-.83	7J-9108
432-2013	19.1-.75	-12	XN	1 3/16-12	-12	113.0-4.45	60.0-2.36	21.0-.83	6V-9746
432-2014	19.1-.75	-12	XN	1 3/16-12	-12	120.0-4.72	67.0-2.64	28.0-1.10	6V-9746
432-2020	19.1-.75	-12	XN	1 7/16-12	-16	116.0-4.57	62.0-2.44	24.0-.94	5K-9090
499-1145	25.4-1.00	-16	XN	1 7/16-12	-16	142.0-5.59	71.8-2.83	24.5-.96	5K-9090
499-1146	25.4-1.00	-16	XN	1 7/16-12	-16	145.0-5.71	80.0-3.15	33.0-1.30	5K-9090
499-1155	25.4-1.00	-16	XN	1 11/16-12	-20	145.0-5.71	80.0-3.15	33.0-1.30	6V-8400
442-5601	31.8-1.25	-20	XN6	1 11/16-12	-20	171.0-6.73	98.0-3.86	28.0-1.10	6V-8400

# XT-6ES Hose Permanent Couplings

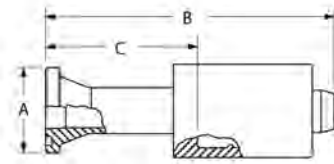
## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6164	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	22.9-.90	6V-8397
323-6167	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	35.1-1.38	6V-8397
323-6165	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	38.1-1.50	6V-8397
323-6166	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	54.1-2.13	6V-8397
323-6168	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	69.1-2.72	6V-8397
323-6169	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	79.0-3.11	6V-8397
323-6170	9.5-.37	-6	XN	13/16-16	-8	68.0-2.68	34.2-1.35	29.0-1.14	6V-8398
323-6171	9.5-.37	-6	XN	13/16-16	-8	68.0-2.68	34.2-1.35	40.9-1.61	6V-8398
323-6172	9.5-.37	-6	XN	13/16-16	-8	68.0-2.68	34.2-1.35	64.0-2.52	6V-8398
328-9097	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	29.2-1.15	6V-8398
328-9098	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	41.2-1.62	6V-8398
328-9100	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	43.4-1.71	6V-8398
328-9099	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	63.8-2.51	6V-8398
328-9101	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	83.1-3.27	6V-8398
328-9102	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	91.4-3.60	6V-8398
328-9103	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.5-1.56	32.3-1.27	7J-9108
328-9106	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.6-1.56	43.4-1.71	7J-9108
328-9104	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.5-1.56	47.0-1.85	7J-9108
328-9105	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.5-1.56	70.1-2.76	7J-9108
397-1929	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	32.0-1.26	7J-9108
397-1930	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	47.0-1.85	7J-9108
397-1931	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	53.0-2.09	7J-9108
397-1932	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	96.0-3.78	7J-9108
397-1938	15.9-.63	-10	XN	1 3/16-12	-12	94.0-3.70	47.0-1.85	47.0-1.85	6V-9746
432-2024	19.1-.75	-12	XN	1-14	-10	107.0-4.21	53.0-2.09	48.0-1.89	7J-9108
432-2015	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	48.0-1.89	6V-9746
432-2016	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	58.0-2.28	6V-9746
432-2017	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	96.0-3.78	6V-9746
432-2018	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	107.0-4.21	6V-9746
432-2021	19.1-.75	-12	XN	1 7/16-12	-16	107.0-4.21	53.0-2.09	56.0-2.20	5K-9090
499-1148	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	56.0-2.20	5K-9090
499-1149	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	68.0-2.68	5K-9090
499-1150	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	105.0-4.13	5K-9090
499-1151	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	115.0-4.53	5K-9090
499-1152	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	125.0-4.92	5K-9090
499-1153	25.4-1.00	-16	XN	1 7/16-12	-16	140.0-5.51	69.6-2.74	148.0-5.83	5K-9090
499-1156	25.4-1.00	-16	XN	1 11/16-12	-20	135.0-5.31	70.0-2.76	68.0-2.68	6V-8400
442-5602	31.8-1.25	-20	XN6	1 11/16-12	-20	167.0-6.57	95.0-3.74	64.0-2.52	6V-8400
442-5603	31.8-1.25	-20	XN6	1 11/16-12	-20	173.0-6.81	94.5-3.72	129.0-5.08	6V-8400

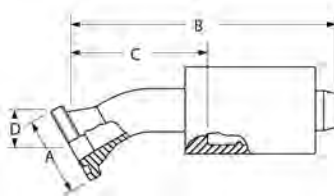
# XT-6ES Hose Permanent Couplings

## Code 61 Flange-Str



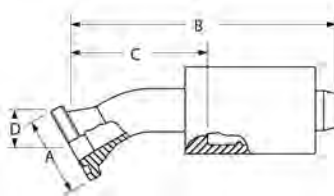
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6214	9.5-.37	-6	XN	30.2-1.19	-8	79.0-3.11	45.3-1.78	4J-5140
328-9137	12.7-.50	-8	XN	30.2-1.19	-8	84.0-3.31	49.7-1.96	4J-5140
328-9138	12.7-.50	-8	XN	38.1-1.50	-12	84.0-3.31	49.7-1.96	4J-5267
432-2070	19.1-.75	-12	XN	38.1-1.50	-12	124.0-4.88	70.0-2.76	4J-5267
432-2083	19.1-.75	-12	XN	44.5-1.75	-16	124.0-4.88	70.0-2.76	4J-0520
432-2093	19.1-.75	-12	XN	50.8-2.00	-20	124.0-4.88	70.0-2.76	4J-0522
497-8283	25.4-1.00	-16	XN	44.5-1.75	-16	147.0-5.79	82.0-3.23	4J-0520
498-0775	25.4-1.00	-16	XN	50.8-2.00	-20	147.0-5.79	82.0-3.23	4J-0522
498-8389	25.4-1.00	-16	XN	60.3-2.37	-24	151.0-5.94	86.0-3.39	4J-0524
442-5552	31.8-1.25	-20	XN6	44.5-1.75	-16	158.0-6.22	85.0-3.35	4J-0520
442-5553	31.8-1.25	-20	XN6	50.8-2.00	-20	158.0-6.22	85.0-3.35	4J-0522
442-5554	31.8-1.25	-20	XN6	60.3-2.37	-24	157.0-6.18	84.0-3.31	4J-0524
505-3904	38.1-1.50	-24	XN6	60.3-2.37	-24	145.0-5.71	67.0-2.64	4J-0524
505-3905	38.1-1.50	-24	XN6	71.4-2.81	-32	145.0-5.71	67.0-2.64	4J-0527
561-8112	50.8-2.00	-32	XS6	71.4-2.81	-32	221.0-8.70	115.0-4.53	4J0-527

## Code 61 Flange-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9139	12.7-.50	-8	XN	30.2-1.19	-8	82.0-3.23	48.4-1.91	8.9-.35	4J-5140
328-9140	12.7-.50	-8	XN	38.1-1.50	-12	83.0-3.27	48.4-1.91	8.9-.35	4J-5267
432-2071	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	62.0-2.44	12.0-.47	4J-5267
432-2084	19.1-.75	-12	XN	44.5-1.75	-16	116.0-4.57	62.0-2.44	12.0-.47	4J-0520
497-8285	25.4-1.00	-16	XN	44.5-1.75	-16	131.0-5.16	66.0-2.60	11.0-.43	4J-0520
498-0776	25.4-1.00	-16	XN	50.8-2.00	-20	131.0-5.16	66.0-2.60	11.0-.43	4J-0522

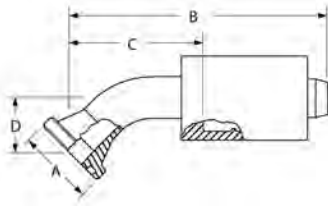
## Code 61 Flange-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9141	12.7-.50	-8	XN	30.2-1.19	-8	84.0-3.31	49.6-1.95	12.4-.49	4J-5140
328-9142	12.7-.50	-8	XN	38.1-1.50	-12	84.0-3.31	49.6-1.95	12.4-.49	4J-5267
432-2072	19.1-.75	-12	XN	38.1-1.50	-12	114.0-4.49	61.0-2.40	15.0-.59	4J-5267
432-2085	19.1-.75	-12	XN	44.5-1.75	-16	114.0-4.49	61.0-2.40	15.0-.59	4J-0520
497-8287	25.4-1.00	-16	XN	44.5-1.75	-16	134.0-5.28	69.0-2.72	16.0-.63	4J-0520
498-0777	25.4-1.00	-16	XN	50.8-2.00	-20	134.0-5.28	69.0-2.72	16.0-.63	4J-0522

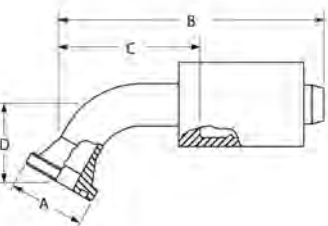
# XT-6ES Hose Permanent Couplings

## Code 61 Flange-45° Elbow



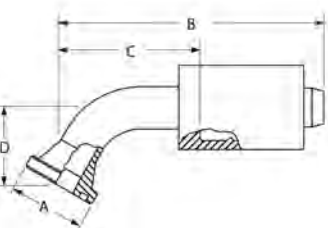
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6215	9.5-.37	-6	XN	30.2-1.19	-8	78.0-3.07	44.2-1.74	17.5-.69	4J-5140
328-9143	12.7-.50	-8	XN	30.2-1.19	-8	84.0-3.31	50.1-1.97	19.8-.78	4J-5140
328-9144	12.7-.50	-8	XN	38.1-1.50	-12	84.0-3.31	50.1-1.97	19.8-.78	4J-5267
328-9146	12.7-.50	-8	XN	38.1-1.50	-12	88.0-3.46	54.2-2.13	23.9-.94	4J-5267
328-9145	12.7-.50	-8	XN	44.5-1.75	-16	84.0-3.31	50.1-1.97	19.8-.78	4J-0520
432-2073	19.1-.75	-12	XN	38.1-1.50	-12	117.0-4.61	63.0-2.48	25.0-.98	4J-5267
432-2086	19.1-.75	-12	XN	44.5-1.75	-16	117.0-4.61	63.0-2.48	25.0-.98	4J-0520
583-1251	19.1-.75	-12	XN	44.5-1.75	-16	129.5-5.10	70.9-2.79	32.0-1.26	4J-0520
497-8288	25.4-1.00	-16	XN	44.5-1.75	-16	139.0-5.47	74.0-2.91	27.0-1.06	4J-0520
498-0779	25.4-1.00	-16	XN	50.8-2.00	-20	139.0-5.47	74.0-2.91	27.0-1.06	4J-0522
442-5558	31.8-1.25	-20	XN6	50.8-2.00	-20	182.0-7.17	103.5-4.07	32.0-1.26	4J-0522
442-5559	31.8-1.25	-20	XN6	60.3-2.37	-24	176.0-6.93	104.0-4.09	32.0-1.26	4J-0524
505-3908	38.1-1.50	-24	XN6	60.3-2.37	-24	200.0-7.87	123.0-4.84	44.0-1.73	4J-0524

## Code 61 Flange-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9147	12.7-.50	-8	XN	30.2-1.19	-8	83.0-3.27	48.7-1.92	27.4-1.08	4J-5140
328-9148	12.7-.50	-8	XN	38.1-1.50	-12	83.0-3.27	48.7-1.92	27.4-1.08	4J-5267
432-2074	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	63.0-2.48	35.0-1.38	4J-5267
432-2087	19.1-.75	-12	XN	44.5-1.75	-16	116.0-4.57	63.0-2.48	35.0-1.38	4J-0520
583-1250	19.1-.75	-12	XN	44.5-1.75	-16	127.1-5.00	68.5-2.70	44.0-1.73	4J-0520
497-8290	25.4-1.00	-16	XN	44.5-1.75	-16	141.0-5.55	76.0-2.99	39.0-1.54	4J-0520
498-0781	25.4-1.00	-16	XN	50.8-2.00	-20	141.0-5.55	76.0-2.99	39.0-1.54	4J-0522
505-3910	38.1-1.50	-24	XN6	60.3-2.37	-24	199.0-7.83	116.1-4.57	50.0-1.97	4J-0524

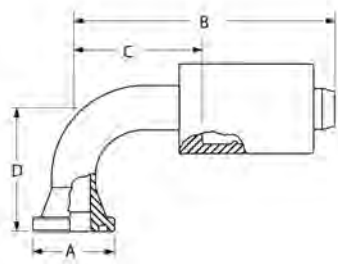
## Code 61 Flange-67 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9149	12.7-.50	-8	XN	30.2-1.19	-8	81.0-3.19	47.3-1.86	31.5-1.24	4J-5140
328-9150	12.7-.50	-8	XN	38.1-1.50	-12	81.0-3.19	47.3-1.86	31.5-1.24	4J-5267
328-9151	12.7-.50	-8	XN	44.5-1.75	-16	81.0-3.19	47.3-1.86	31.5-1.24	4J-0520
432-2075	19.1-.75	-12	XN	38.1-1.50	-12	115.0-4.53	62.0-2.44	41.0-1.61	4J-5267
432-2088	19.1-.75	-12	XN	44.5-1.75	-16	115.0-4.53	62.0-2.44	41.0-1.61	4J-0520
432-2094	19.1-.75	-12	XN	50.8-2.00	-20	115.0-4.53	62.0-2.44	41.0-1.61	4J-0522
497-8291	25.4-1.00	-16	XN	44.5-1.75	-16	141.0-5.55	76.0-2.99	44.0-1.73	4J-0520
498-0782	25.4-1.00	-16	XN	50.8-2.00	-20	141.0-5.55	76.0-2.99	44.0-1.73	4J-0522

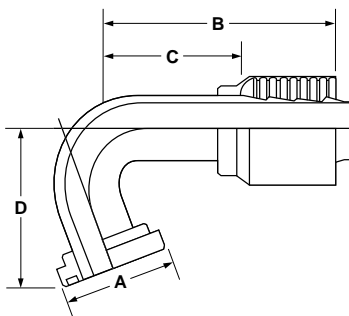
# XT-6ES Hose Permanent Couplings

## Code 61 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6216	9.5-.37	-6	XN	30.2-1.19	-8	68.0-2.68	34.2-1.35	35.6-1.40	4J-5140
323-6217	9.5-.37	-6	XN	30.2-1.19	-8	68.0-2.68	34.2-1.35	40.9-1.61	4J-5140
328-9152	12.7-.50	-8	XN	30.2-1.19	-8	74.0-2.91	39.5-1.56	41.4-1.63	4J-5140
328-9153	12.7-.50	-8	XN	30.2-1.19	-8	74.0-2.91	39.5-1.56	82.5-3.25	4J-5140
328-9154	12.7-.50	-8	XN	38.1-1.50	-12	74.0-2.91	39.5-1.56	41.4-1.63	4J-5267
328-9155	12.7-.50	-8	XN	38.1-1.50	-12	74.0-2.91	39.5-1.56	73.1-2.88	4J-5267
328-9156	12.7-.50	-8	XN	44.5-1.75	-16	74.0-2.91	39.5-1.56	41.2-1.62	4J-0520
432-2076	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	54.0-2.13	4J-5267
432-2077	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	96.0-3.78	4J-5267
432-2078	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	127.0-5.00	4J-5267
432-2089	19.1-.75	-12	XN	44.5-1.75	-16	107.0-4.21	53.0-2.09	54.0-2.13	4J-0520
432-2090	19.1-.75	-12	XN	44.5-1.75	-16	107.0-4.21	53.0-2.09	79.0-3.11	4J-0520
432-2095	19.1-.75	-12	XN	50.8-2.00	-20	107.0-4.21	53.0-2.09	54.0-2.13	4J-0522
497-0465	25.4-1.00	-16	XN	38.1-1.50	-12	126.0-4.96	61.0-2.40	54.0-2.13	4J-5267
497-8292	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	54.0-2.13	4J-0520
497-8293	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	61.0-2.40	4J-0520
497-8294	25.4-1.00	-16	XN	44.5-1.75	-16	140.0-5.51	69.6-2.74	110.0-4.33	4J-0520
497-8295	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	118.0-4.65	4J-0520
497-8297	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	140.0-5.51	4J-0520
498-0783	25.4-1.00	-16	XN	50.8-2.00	-20	135.0-5.31	70.0-2.76	61.0-2.40	4J-0522
498-0784	25.4-1.00	-16	XN	50.8-2.00	-20	135.0-5.31	70.0-2.76	118.0-4.65	4J-0522
498-8392	25.4-1.00	-16	XN	60.3-2.37	-24	135.0-5.31	69.0-2.72	61.0-2.40	4J-0524
498-8393	25.4-1.00	-16	XN	60.3-2.37	-24	140.0-5.51	69.6-2.74	108.0-4.25	4J-0524
442-5564	31.8-1.25	-20	XN6	44.5-1.75	-16	162.0-6.38	84.4-3.32	63.0-2.48	4J-0520
442-5565	31.8-1.25	-20	XN6	50.8-2.00	-20	175.0-6.89	98.0-3.86	70.0-2.76	4J-0522
442-5566	31.8-1.25	-20	XN6	60.3-2.37	-24	170.0-6.69	98.0-3.86	70.0-2.76	4J-0524
505-3912	38.1-1.50	-24	XN6	60.3-2.37	-24	179.0-7.05	101.0-3.98	91.0-3.58	4J-0524
588-1176	38.1-1.50	-24	XN6	71.4-2.81	-32	184.3-7.26	101.4-3.99	88.8-3.50	4J-0527

## Code 61 Flange-110° Elbow

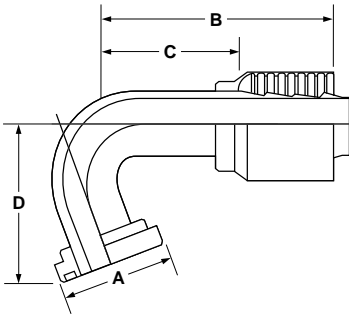


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9157	12.7-.50	-8	XN	38.1-1.50	-12	63.0-2.48	28.3-1.11	49.5-1.95	4J-5267
432-2080	19.1-.75	-12	XN	38.1-1.50	-12	95.0-3.74	41.0-1.61	64.0-2.52	4J-5267
497-8300	25.4-1.00	-16	XN	44.5-1.75	-16	125.0-4.92	59.0-2.32	73.0-2.87	4J-0520
498-0785	25.4-1.00	-16	XN	50.8-2.00	-20	125.0-4.92	59.0-2.32	73.0-2.87	4J-0522
442-5570	31.8-1.25	-20	XN6	50.8-2.00	-20	165.0-6.50	86.3-3.40	84.0-3.31	4J-0522



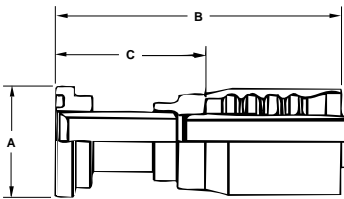
# XT-6ES Hose Permanent Couplings

## Code 61 Flange-135° Elbow



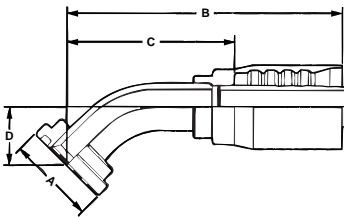
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9158	12.7-.50	-8	XN	30.2-1.19	-8	42.0-1.65	7.7-.30	54.1-2.13	4J-5140
432-2081	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	63.0-2.48	69.0-2.72	4J-5267
432-2092	19.1-.75	-12	XN	44.5-1.75	-16	115.0-4.53	62.0-2.44	70.0-2.76	4J-0520
497-0466	25.4-1.00	-16	XN	38.1-1.50	-12	113.0-4.45	48.0-1.89	70.0-2.76	4J-5267
497-8301	25.4-1.00	-16	XN	44.5-1.75	-16	101.0-3.98	36.0-1.42	88.0-3.46	4J-0520

## Code 62 Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6218	9.5-.37	-6	XN	31.8-1.25	-8	79.0-3.11	45.3-1.78	4J-5140
328-9161	12.7-.50	-8	XN	31.8-1.25	-8	87.0-3.43	52.8-2.08	4J-5140
328-9162	12.7-.50	-8	XN	41.3-1.63	-12	87.0-3.43	52.8-2.08	4J-5267
397-1949	15.9-.63	-10	XN	31.8-1.25	-8	86.0-3.39	50.0-1.97	4J-5140
397-1952	15.9-.63	-10	XN	41.3-1.63	-12	100.0-3.94	54.0-2.13	1P-3702
432-2099	19.1-.75	-12	XN	41.3-1.63	-12	129.0-5.08	76.0-2.99	4J-5267
486-9601	19.1-.75	-12	XN	47.6-1.87	-16	130.0-5.12	77.0-3.03	4J-0520
498-8394	25.4-1.00	-16	XN	41.3-1.63	-12	145.0-5.71	80.0-3.15	4J-5267
498-8396	25.4-1.00	-16	XN	47.6-1.87	-16	154.0-6.06	69.0-2.72	4J-0520
498-8405	25.4-1.00	-16	XN	54.0-2.13	-20	154.0-6.06	89.0-3.50	4J-0522
516-9131	31.8-1.25	-20	XN6	47.6-1.87	-16	177.0-6.97	104.0-4.09	4J-0520
442-5572	31.8-1.25	-20	XN6	54.0-2.13	-20	157.0-6.18	85.0-3.35	4J-0522
442-5573	31.8-1.25	-20	XN6	63.5-2.50	-24	157.0-6.18	85.0-3.35	4J-0524
505-3891	38.1-1.50	-24	XN6	54.0-2.13	-20	155.0-6.10	77.0-3.03	4J-0522
505-3892	38.1-1.50	-24	XN6	63.5-2.50	-24	206.0-8.11	129.0-5.08	4J-0524
505-3893	38.1-1.50	-24	XN6	79.4-3.13	-32	180.0-7.09	103.0-4.06	4J-0527
561-8115	50.8-2.00	-32	XS6	71.4-2.81	-32	221.0-8.70	116.0-4.57	4J0-527

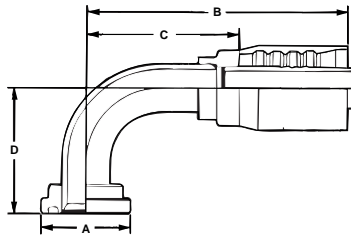
## Code 62 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9163	12.7-.50	-8	XN	31.8-1.25	-8	87.0-3.43	52.4-2.06	22.1-.87	4J-5140
397-1953	15.9-.63	-10	XN	41.3-1.63	-12	107.0-4.21	60.0-2.36	24.0-.94	1P-3702
432-2100	19.1-.75	-12	XN	41.3-1.63	-12	121.0-4.76	67.0-2.64	29.0-1.14	4J-5267
432-2102	19.1-.75	-12	XN	47.6-1.87	-16	121.0-4.76	68.0-2.68	29.0-1.14	4J-0520
559-9498	25.4-1.00	-16	XN	41.3-1.63	-12	136.0-5.35	71.0-2.80	26.0-1.02	4J5-267
498-8399	25.4-1.00	-16	XN	47.6-1.87	-16	145.0-5.71	79.0-3.11	32.0-1.26	4J-0520
498-8408	25.4-1.00	-16	XN	54.0-2.13	-20	145.0-5.71	79.0-3.11	32.0-1.26	4J-0522
442-5574	31.8-1.25	-20	XN6	54.0-2.13	-20	188.0-7.40	114.0-4.49	38.0-1.50	4J-0522
442-5575	31.8-1.25	-20	XN6	63.5-2.50	-24	188.0-7.40	114.0-4.49	38.0-1.50	4J-0524
505-3896	38.1-1.50	-24	XN6	63.5-2.50	-24	195.0-7.68	117.0-4.61	41.0-1.61	4J-0524

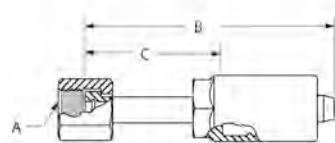
# XT-6ES Hose Permanent Couplings

## Code 62 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6220	9.5-.37	-6	XN	31.8-1.25	-8	68.0-2.68	34.2-1.35	44.4-1.75	4J-5140
328-9164	12.7-.50	-8	XN	31.8-1.25	-8	74.0-2.91	39.5-1.56	44.4-1.75	4J-5140
397-1951	15.9-.63	-10	XN	31.8-1.25	-8	93.0-3.66	47.0-1.85	45.0-1.77	4J-5140
397-1954	15.9-.63	-10	XN	41.3-1.63	-12	94.0-3.70	47.0-1.85	48.0-1.89	1P-3702
432-2101	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	55.0-2.17	4J-5267
432-2103	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	59.0-2.32	4J-0520
498-8395	25.4-1.00	-16	XN	41.3-1.63	-12	126.0-4.96	61.0-2.40	59.0-2.32	4J-5267
498-8403	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	70.0-2.76	4J-0520
498-8411	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	70.0-2.76	4J-0522
442-5577	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	82.0-3.23	4J-0522
481-8280	31.8-1.25	-20	XN6	54.0-2.13	-20	187.0-7.36	108.9-4.29	100.0-3.94	4J-0522
442-5634	31.8-1.25	-20	XN6	54.0-2.13	-20	187.0-7.36	108.9-4.29	140.0-5.51	4J-0522
442-5578	31.8-1.25	-20	XN6	63.5-2.50	-24	181.0-7.13	109.0-4.29	82.0-3.23	4J-0524
578-6951	31.8-1.25	-20	XN6	63.5-2.50	-24	186.7-7.35	108.9-4.29	120.0-4.72	4J-0524
505-3902	38.1-1.50	-24	XN6	63.5-2.50	-24	180.0-7.09	104.0-4.09	87.0-3.43	4J-0524
578-6960	38.1-1.50	-24	XN6	63.5-2.50	-24	184.7-7.27	104.2-4.10	200.0-7.87	4J-0524
578-6966	50.8-2.0	-32	XS6	71.4-2.81	-32	278.1-10.95	166.6-6.56	150.0-5.91	4J-0524

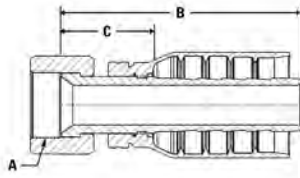
## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6180	9.5-.37	-6	XN	7/16-20	-4	55.0-2.17	31.5-1.24
323-6181	9.5-.37	-6	XN	9/16-18	-6	54.0-2.13	20.0-.79
323-6182	9.5-.37	-6	XN	3/4-16	-8	66.0-2.60	22.0-.87
328-9110	12.7-.50	-8	XN	3/4-16	-8	156.0-6.14	121.9-4.80
328-9109	12.7-.50	-8	XN	3/4-16	-8	57.0-3.24	23.0-.91
333-9957	12.7-.50	-8	XN	7/8-14	-10	156.0-6.14	122.0-4.80
328-9111	12.7-.50	-8	XN	7/8-14	-10	58.0-2.28	24.0-.94
328-9112	12.7-.50	-8	XN	1 1/16-12	-12	58.0-2.28	24.0-.94
397-1940	15.9-.63	-10	XN	7/8-14	-10	94.0-3.70	47.0-1.85
397-1943	15.9-.63	-10	XN	1 1/16-12	-12	95.0-3.74	48.0-1.89
432-2039	19.1-.75	-12	XN	7/8-14	-10	89.0-3.50	35.0-1.38
432-2028	19.1-.75	-12	XN	1 1/16-12	-12	90.0-3.54	36.0-1.42
432-2035	19.1-.75	-12	XN	1 5/16-12	-16	94.0-3.70	40.0-1.57
499-1158	25.4-1.00	-16	XN	1 5/16-12	-16	102.0-4.02	37.0-1.46
499-1169	25.4-1.00	-16	XN	1 5/8-12	-20	105.0-4.13	40.0-1.57
442-5607	31.8-1.25	-20	XN6	1 5/8-12	-20	122.0-4.80	49.0-1.93

# XT-6ES Hose Permanent Couplings

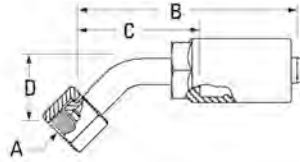
## JIC 37° Female Swivel-Str High Pressure



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
592-1114	25.4-1.00	-16	XN	1 5/16-12	-16	111.0-4.37	46.0-1.81

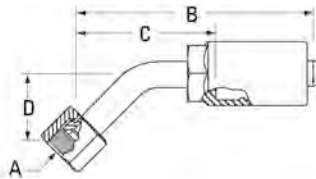
**Note:** Oversized Hex nut for High Pressure Rating

## JIC 37° Female Swivel-30° Elbow



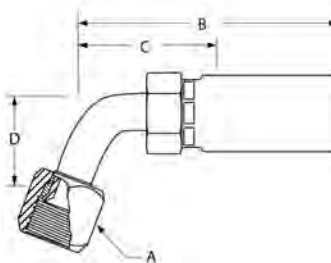
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
499-1159	25.4-1.00	-16	XN	1 5/16-12	-16	155.0-6.10	89.0-3.50	27.0-1.06

## JIC 37° Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6183	9.5-.37	-6	XN	9/16-18	-6	70.0-2.76	36.6-1.44	9.9-.39
323-6184	9.5-.37	-6	XN	9/16-18	-6	75.0-2.95	41.7-1.64	15.0-.59
323-6185	9.5-.37	-6	XN	9/16-18	-6	88.0-3.46	54.7-2.15	27.9-1.10
323-6187	9.5-.37	-6	XN	3/4-16	-8	78.0-3.07	44.2-1.74	17.5-.69
323-6188	9.5-.37	-6	XN	3/4-16	-8	88.0-3.46	54.2-2.13	27.4-1.08
328-9113	12.7-.50	-8	XN	3/4-16	-8	78.0-3.07	44.3-1.74	14.0-.55
328-9115	12.7-.50	-8	XN	3/4-16	-8	93.0-3.66	59.0-2.32	28.6-1.13
328-9117	12.7-.50	-8	XN	7/8-14	-10	87.0-3.43	52.7-2.07	22.4-.88
328-9118	12.7-.50	-8	XN	7/8-14	-10	93.0-3.66	59.3-2.33	29.0-1.14
397-1941	15.9-.63	-10	XN	7/8-14	-10	105.0-4.13	58.0-2.28	22.0-.87
432-2029	19.1-.75	-12	XN	1 1/16-12	-12	124.0-4.88	71.0-2.80	32.0-1.26
432-2036	19.1-.75	-12	XN	1 5/16-12	-16	119.0-4.69	65.0-2.56	27.0-1.06
499-1160	25.4-1.00	-16	XN	1 5/16-12	-16	142.0-5.59	77.0-3.03	30.0-1.18
499-1161	25.4-1.00	-16	XN	1 5/16-12	-16	155.0-6.10	89.0-3.50	42.0-1.65

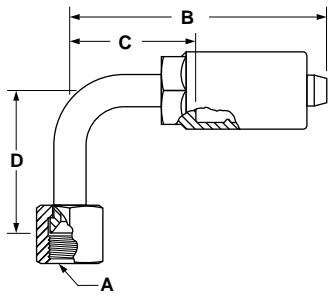
## JIC 37° Female Swivel-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
328-9130	12.7-.50	-8	XN	7/8-14	-10	89.0-3.50	55.2-2.17	38.6-1.52
432-2030	19.1-.75	-12	XN	1 1/16-12	-12	121.0-4.76	68.0-2.68	44.0-1.73

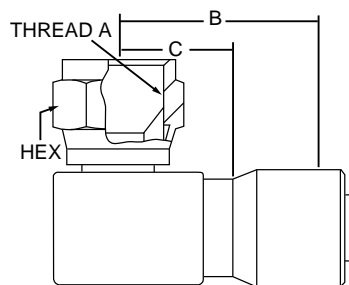
# XT-6ES Hose Permanent Couplings

## JIC 37° Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6189	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	21.8-.86
323-6193	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	46.0-1.81
323-6191	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	55.6-2.19
323-6194	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	82.6-3.25
323-6196	9.5-.37	-6	XN	3/4-16	-8	68.0-2.68	34.2-1.35	35.1-1.38
323-6198	9.5-.37	-6	XN	3/4-16	-8	68.0-2.68	34.2-1.35	46.0-1.81
323-6199	9.5-.37	-6	XN	3/4-16	-8	68.0-2.68	34.2-1.35	82.6-3.25
328-9119	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	27.7-1.09
328-9120	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	35.1-1.38
328-9122	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	53.6-2.11
328-9121	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	63.5-2.50
328-9123	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	92.0-3.62
328-9124	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	114.1-4.49
328-9125	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	31.2-1.23
328-9128	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	54.1-2.13
328-9129	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	82.6-3.25
333-9958	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	114.1-4.49
397-1942	15.9-.63	-10	XN	7/8-14	-10	94.0-3.70	47.0-1.85	47.0-1.85
397-1944	15.9-.63	-10	XN	1 1/16-12	-12	93-3.66	47-1.85	52-2.05
432-2031	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	46.0-1.81
432-2032	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	52.0-2.05
432-2033	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	65.0-2.56
432-2034	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	92.0-3.62
432-2037	19.1-.75	-12	XN	1 5/16-12	-16	107.0-4.21	54.0-2.13	64.0-2.52
432-2038	19.1-.75	-12	XN	1 5/16-12	-16	107.0-4.21	54.0-2.13	80.0-3.15
499-1164	25.4-1.00	-16	XN	1 5/16-12	-16	135.0-5.31	70.0-2.76	66.0-2.60
499-1166	25.4-1.00	-16	XN	1 5/16-12	-16	135.0-5.31	70.0-2.76	112.0-4.41

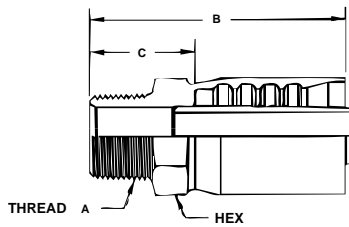
## JIC 37° Female Swivel Block-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6200	9.5-.37	-6	XN	9/16-18	-6	58.0-2.28	24.0-.94	20.7-.81

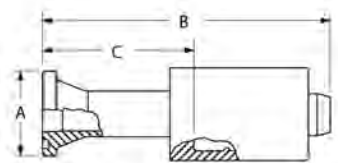
# XT-6ES Hose Permanent Couplings

## NPTF Male-Str



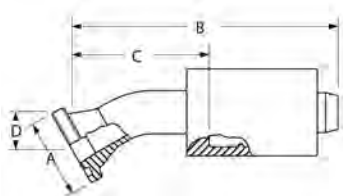
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6208	9.5-.37	-6	XN	1/4-18	-4	64.0-2.52	30.8-1.21
323-6209	9.5-.37	-6	XN	3/8-18	-6	65.0-2.56	31.8-1.25
323-6210	9.5-.37	-6	XN	1/2-14	-8	70.0-2.76	36.4-1.43
328-9133	12.7-.50	-8	XN	3/8-18	-6	67.0-2.64	32.5-1.28
328-9134	12.7-.50	-8	XN	1/2-14	-8	71.0-2.80	37.3-1.47
328-9135	12.7-.50	-8	XN	3/4-14	-12	73.0-2.87	39.1-1.54
397-1947	15.9-.63	-10	XN	1/2-14	-8	84.0-3.31	38.0-1.50
397-1948	15.9-.63	-10	XN	3/4-14	-12	87.0-3.43	40.0-1.57
432-2124	19.1-.75	-12	XN	3/4-14	-12	94.0-3.70	40.0-1.57
432-2125	19.1-.75	-12	XN	1-11 1/2	-16	102.0-4.02	48.0-1.89
499-1185	25.4-1.00	-16	XN	3/4-14	-12	107.0-4.21	42.0-1.65
499-1177	25.4-1.00	-16	XN	1-11 1/2	-16	115.0-4.53	49.0-1.93

## Cat Flange-Str



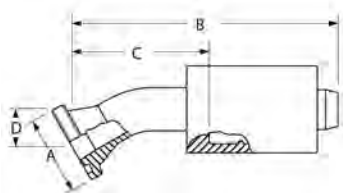
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
328-9165	12.7-.50	-8	XN	41.3-1.63	-12	86.0-3.39	52.2-2.06	1P-3702
432-2105	19.1-.75	-12	XN	41.3-1.63	-12	138.0-5.43	84.0-3.31	1P-3702
432-2116	19.1-.75	-12	XN	47.6-1.87	-16	138.0-5.43	84.0-3.31	1P-3703
496-2307	25.4-1.00	-16	XN	47.6-1.87	-16	150.0-5.91	85.0-3.35	1P-3703
496-9725	25.4-1.00	-16	XN	54.0-2.13	-20	150.0-5.91	85.0-3.35	1P-3704
442-5579	31.8-1.25	-20	XN6	54.0-2.13	-20	158.0-6.22	85.0-3.35	1P-3704
442-5580	31.8-1.25	-20	XN6	63.5-2.50	-24	158.0-6.22	85.0-3.35	1P-3705
447-1258	38.1-1.50	-24	XN6	63.5-2.50	-24	206.0-8.11	129.0-5.08	1P-3705
476-7236	50.8-2.00	-32	XS6	63.5-2.50	-24	241.0-9.49	136.0-5.35	1P-3705
456-3393	50.8-2.00	-32	XS6	79.4-3.13	-32	298.0-11.73	193.0-7.60	1P-3709

## Cat Flange-10° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
463-0977	50.8-2.00	-32	XS6	79.4-3.13	-32	298.0-11.73	193.0-7.60	14.0-.55	1P-3709

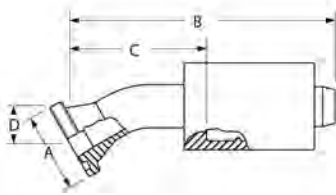
## Cat Flange-15° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
520-0071	25.4-1.00	-16	XN	47.6-1.87	-16	252.0-9.92	181.5-7.15	26.0-1.02	1P-3703
505-3885	38.1-1.50	-24	XN6	63.5-2.50	-24	204.0-8.03	128.0-5.04	17.0-.67	1P-3705

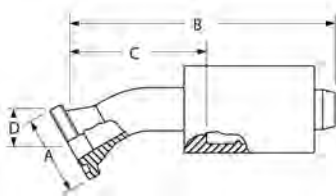
# XT-6ES Hose Permanent Couplings

## Cat Flange-22 1/2° Elbow



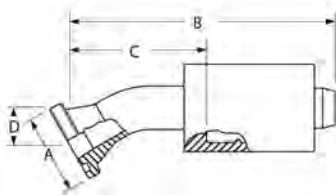
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2106	19.1-.75	-12	XN	41.3-1.63	-12	128.0-5.04	74.0-2.91	17.0-.67	1P-3702
432-2117	19.1-.75	-12	XN	47.6-1.87	-16	128.0-5.04	74.0-2.91	17.0-.67	1P-3703
496-2310	25.4-1.00	-16	XN	47.6-1.87	-16	148.0-5.83	83.0-3.27	18.0-.71	1P-3703
496-9726	25.4-1.00	-16	XN	54.0-2.13	-20	148.0-5.83	83.0-3.27	18.0-.71	1P-3704
442-5581	31.8-1.25	-20	XN6	54.0-2.13	-20	190.0-7.48	118.0-4.65	17.0-.67	1P-3704
442-5582	31.8-1.25	-20	XN6	63.5-2.50	-24	190.0-7.48	118.0-4.65	17.0-.67	1P-3705
505-3886	38.1-1.50	-24	XN6	63.5-2.50	-24	204.0-8.03	127.0-5.00	18.0-.71	1P-3705
461-2698	50.8-2.00	-32	XS6	79.4-3.13	-32	295-11.61	190-7.48	33-1.30	1P-3709

## Cat Flange-25° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
501-0431	19.1-.75	-12	XN	41.3-1.63	-12	250.0-9.84	197.0-7.76	42.0-1.65	1P-3702

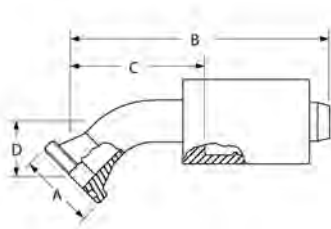
## Cat Flange-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2107	19.1-.75	-12	XN	41.3-1.63	-12	127.0-5.00	73.0-2.87	22.0-.87	1P-3702
432-2118	19.1-.75	-12	XN	47.6-1.87	-16	127.0-5.00	73.0-2.87	22.0-.87	1P-3703
496-2311	25.4-1.00	-16	XN	47.6-1.87	-16	146.0-5.75	81.0-3.19	23.0-.91	1P-3703
496-9727	25.4-1.00	-16	XN	54.0-2.13	-20	146.0-5.75	81.0-3.19	23.0-.91	1P-3704
442-5583	31.8-1.25	-20	XN6	54.0-2.13	-20	187.0-7.36	115.0-4.53	27.0-1.06	1P-3704
442-5584	31.8-1.25	-20	XN6	63.5-2.50	-24	187.0-7.36	115.0-4.53	27.0-1.06	1P-3705
447-1259	38.1-1.50	-24	XN6	63.5-2.50	-24	202.0-7.95	125.0-4.92	27.0-1.06	1P-3705
588-1530	38.1-1.50	-24	XN6	79.4-3.13	-32	202.6-7.98	118.7-4.67	29.3-1.15	1P-3709
476-7238	50.8-2.00	-32	XS6	63.5-2.50	-24	288.0-11.34	183.0-7.20	39.0-1.54	1P-3705
456-3394	50.8-2.00	-32	XS6	79.4-3.13	-32	290.0-11.42	185.0-7.28	46.0-1.81	1P-3709

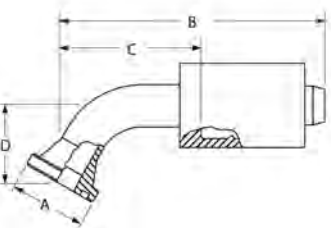
# XT-6ES Hose Permanent Couplings

## Cat Flange-45° Elbow



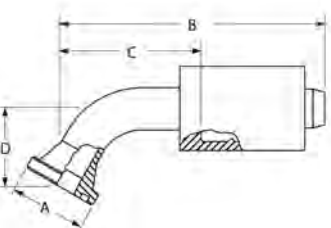
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2108	19.1-.75	-12	XN	41.3-1.63	-12	127.0-5.00	73.0-2.87	35.0-1.38	1P-3702
432-2119	19.1-.75	-12	XN	47.6-1.87	-16	127.0-5.00	73.0-2.87	35.0-1.38	1P-3703
496-2313	25.4-1.00	-16	XN	47.6-1.87	-16	149.0-5.87	83.0-3.27	36.0-1.42	1P-3703
496-2314	25.4-1.00	-16	XN	47.6-1.87	-16	175.0-6.89	109.0-4.29	62.0-2.44	1P-3703
545-7807	25.4-1.00	-16	XN	47.6-1.87	-16	230.0-9.06	158.6-6.24	62.0-2.44	1P-3703
496-2315	25.4-1.00	-16	XN	47.6-1.87	-16	190.0-7.48	125.0-4.92	78.0-3.07	1P-3703
496-9728	25.4-1.00	-16	XN	54.0-2.13	-20	148.0-5.83	83.0-3.27	36.0-1.42	1P-3704
442-5585	31.8-1.25	-20	XN6	54.0-2.13	-20	190.0-7.48	118.0-4.65	42.0-1.65	1P-3704
442-5636	31.8-1.25	-20	XN6	54.0-2.13	-20	265.0-10.43	192.0-7.56	110.0-4.33	1P-3705
442-5586	31.8-1.25	-20	XN6	63.5-2.50	-24	190.0-7.48	118.0-4.65	42.0-1.65	1P-3705
447-1260	38.1-1.50	-24	XN6	63.5-2.50	-24	194.0-7.64	118.0-4.65	41.0-1.61	1P-3705
588-1114	38.1-1.50	-24	XN6	63.5-2.50	-24	212.6-8.37	128.8-5.07	54.9-2.16	1P-3705
588-1467	38.1-1.50	-24	XN6	79.4-3.13	-32	204.8-8.06	120.9-4.76	46.0-1.81	1P-3709
476-7239	50.8-2.00	-32	XS6	63.5-2.50	-24	276.0-10.87	171.0-6.73	61.0-2.40	1P-3705
456-3395	50.8-2.00	-32	XS6	79.4-3.13	-32	337.0-13.27	222.0-8.74	73.0-2.87	1P-3709

## Cat Flange-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2109	19.1-.75	-12	XN	41.3-1.63	-12	123.0-4.84	70.0-2.76	47.0-1.85	1P-3702
432-2120	19.1-.75	-12	XN	47.6-1.87	-16	123.0-4.84	70.0-2.76	47.0-1.85	1P-3703
496-2316	25.4-1.00	-16	XN	47.6-1.87	-16	149.0-5.87	84.0-3.31	53.0-2.09	1P-3703
496-9729	25.4-1.00	-16	XN	54.0-2.13	-20	155.0-6.10	84.1-3.31	53.0-2.09	1P-3704
442-5587	31.8-1.25	-20	XN6	54.0-2.13	-20	191.0-7.52	118.0-4.65	60.0-2.36	1P-3704
589-9955	31.8-1.25	-20	XN6	63.5-2.50	-24	187.1-7.37	109.2-4.30	57.5-2.26	1P-3705
588-1135	38.1-1.50	-24	XN6	63.5-2.50	-24	210.4-8.28	126.5-4.98	73.9-2.91	1P-3705
505-3888	38.1-1.50	-24	XN6	63.5-2.50	-24	221.0-8.70	144.0-5.67	83.0-3.27	1P-3705
588-1506	38.1-1.50	-24	XN6	79.4-3.13	-32	203.2-8.00	119.4-4.70	63.5-2.50	1P-3709
456-3396	50.8-2.00	-32	XS6	79.4-3.13	-32	306.0-12.05	201.0-7.91	100.0-3.94	1P-3709

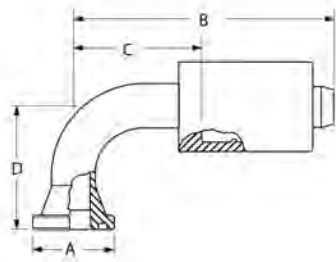
## Cat Flange-67 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2110	19.1-.75	-12	XN	41.3-1.63	-12	120.0-4.72	67.0-2.64	53.0-2.09	1P-3702
496-2317	25.4-1.00	-16	XN	47.6-1.87	-16	145.0-5.71	80.0-3.15	56.0-2.20	1P-3703
496-9730	25.4-1.00	-16	XN	54.0-2.13	-20	145.0-5.71	80.0-3.15	56.0-2.20	1P-3704
496-9731	25.4-1.00	-16	XN	54.0-2.13	-20	150.0-5.91	85.0-3.35	69.0-2.72	1P-3704
347-9724	25.4-1.00	-16	IN	54.0-2.13	-20	183.0-7.20	125.0-4.92	64.5-2.54	1P-3704
442-5590	31.8-1.25	-20	XN6	54.0-2.13	-20	188.0-7.40	116.0-4.57	60.0-2.36	1P-3704
442-5591	31.8-1.25	-20	XN6	54.0-2.13	-20	195.0-7.68	123.0-4.84	80.0-3.15	1P-3704
461-2699	50.8-2.00	-32	XS6	79.4-3.13	-32	294.0-11.57	189.0-7.44	113.0-4.45	1P-3709

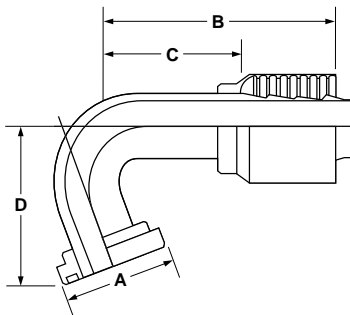
# XT-6ES Hose Permanent Couplings

## Cat Flange-90° Elbow



Part Number	HOSE I. D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D ko DROP (mm-in)	O-RING SEAL
328-9166	12.7-.50	-8	XN	41.3-1.63	-12	74.0-2.91	39.5-1.56	41.2-1.62	1P-3702
333-9959	12.7-.50	-8	XN	41.3-1.63	-12	74.0-2.91	39.5-1.56	55.1-2.17	1P-3702
397-1955	15.9-.63	-10	XN	41.3-1.63	-12	94.0-3.70	47.0-1.85	50.0-1.97	1P-3702
432-2111	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	68.0-2.68	1P-3702
432-2112	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	85.0-3.35	1P-3702
432-2113	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	120.0-4.72	1P-3702
432-2114	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	129.0-5.08	1P-3702
432-2121	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	68.0-2.68	1P-3703
432-2122	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	100.0-3.94	1P-3703
432-2123	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	128.0-5.04	1P-3703
496-2318	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	73.0-2.87	1P-3703
496-2319	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	82.0-3.23	1P-3703
496-2320	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	132.0-5.20	1P-3703
581-4022	25.4-1.00	-16	XN	47.6-1.87	-16	162.1-6.38	91.6-3.61	110.0-4.33	1P-3703
496-9732	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	73.0-2.87	1P-3704
496-9733	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	82.0-3.23	1P-3704
496-9734	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	150.0-5.91	1P-3704
442-5593	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	82.0-3.23	1P-3704
442-5594	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	92.0-3.62	1P-3704
524-0034	31.8-1.25	-20	XN6	54.0-2.13	-20	217.0-8.54	138.9-5.47	120.0-4.72	1P-3704
442-5595	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	150.0-5.91	1P-3704
442-5596	31.8-1.25	-20	XN6	63.5-2.50	-24	181.0-7.13	109.0-4.29	82.0-3.23	1P-3705
442-5597	31.8-1.25	-20	XN6	63.5-2.50	-24	181.0-7.13	109.0-4.29	135.0-5.31	1P-3705
583-4393	38.1-1.50	-24	XN6	54.0-2.13	-20	178.6-7.03	96.2-3.79	95.5-3.76	1P-3704
447-1261	38.1-1.50	-24	XN6	63.5-2.50	-24	181.0-7.13	104.0-4.09	87.0-3.43	1P-3705
447-1262	38.1-1.50	-24	XN6	63.5-2.50	-24	181.0-7.13	104.0-4.09	106.0-4.17	1P-3705
581-4024	38.1-1.50	-24	XN6	63.5-2.50	-24	234.0-9.21	151.8-5.98	180.0-7.09	1P-3705
582-9218	38.1-1.50	-24	XN6	79.4-3.13	-32	186.7-7.35	103.7-4.09	140.0-5.51	1P-3709
583-4749	50.8-2.00	-32	XS6	63.5-2.50	-24	250.0-9.84	138.5-5.45	175.0-6.89	1P-3705
456-3397	50.8-2.00	-32	XS6	79.4-3.13	-32	242.0-9.53	137.0-5.39	147.0-5.79	1P-3709

## Cat Flange-100° Elbow

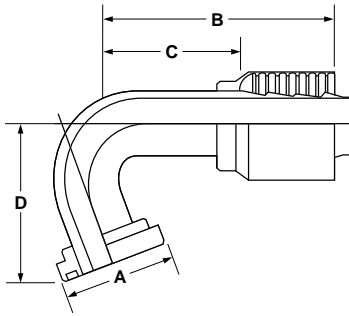


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
463-0979	50.8-2.00	-32	XS6	79.4-3.13	-32	240.0-9.45	135.0-5.31	200.0-7.87	1P-3709



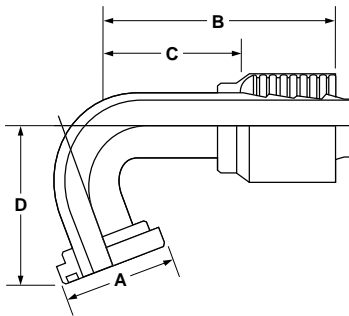
# XT-6ES Hose Permanent Couplings

## Cat Flange-105° Elbow



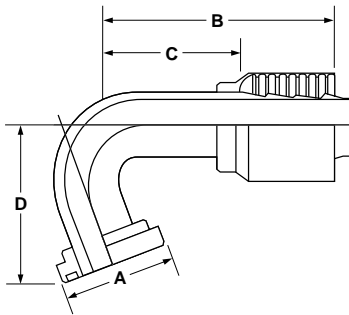
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
583-4906	38.1-1.50	-24	XN6	63.5-2.50	-24	229.3-9.03	147.2-5.80	155.0-6.10	1P-3705
463-0980	50.8-2.00	-32	XS6	79.4-3.13	-32	233.0-9.17	118.0-4.65	204.0-8.03	1P-3709

## Cat Flange-110° Elbow



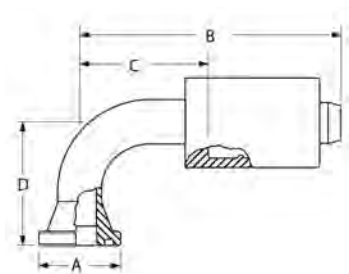
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
496-2323	25.4-1.00	-16	XN	47.6-1.87	-16	120.0-4.72	55.0-2.17	85.0-3.35	1P-3703
496-9735	25.4-1.00	-16	XN	54.0-2.13	-20	120.0-4.72	55.0-2.17	85.0-3.35	1P-3704
581-4025	38.1-1.50	-24	XN6	63.5-2.50	-24	210.8-8.30	128.6-5.06	160.0-6.30	1P-3705
583-4122	38.1-1.50	-24	XN6	79.4-3.13	-32	202.0-7.95	119.5-4.70	187.0-7.36	1P-3709

## Cat Flange-120° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
581-4023	38.1-1.50	-24	XN6	63.5-2.50	-24	178.0-7.00	95.9-3.78	185.0-7.28	1P-3705

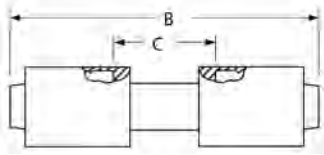
## Cat Flange-High Vibration Coupling-90° Elbow Deg



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
347-9725	25.4-1.00	-16	IN	54.0-2.13	-20	175.0-6.89	116.0-4.57	82.0-3.23	1P-3704

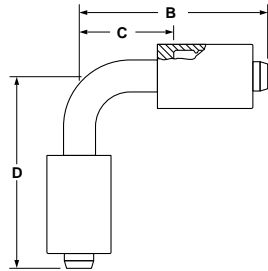
# XT-6ES Hose Permanent Couplings

## Double Collet-Str



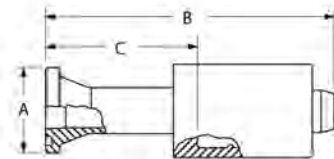
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
332-1650	9.5-.37	-6	XN	113.0-4.45	45.5-1.79
328-9183	12.7-.50	-8	XN	114.0-4.49	45.5-1.79
471-6416	19.1-.75	-12	XN	157.0-6.18	53.0-2.09
499-1175	25.4-1.00	-16	XN	192.0-7.56	52.0-2.05

## Double Collet-90° Elbow



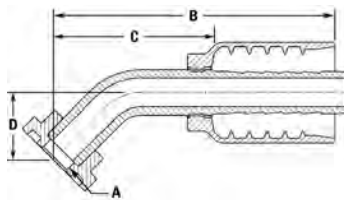
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
328-9185	12.7-.50	-8	XN	123.0-4.84	83.0-3.27	85.0-3.35
328-9184	12.7-.50	-8	XN	85.0-3.35	45.0-1.77	85.0-3.35
432-2135	19.1-.75	-12	XN	115.0-4.53	62.0-2.44	115.0-4.53
499-1176	25.4-1.00	-16	XN	135.0-5.31	70.0-2.76	60.0-2.36
591-1736	31.8-1.25	-20	XN6	172.0-6.77	89.4-3.52	172.0-6.77
505-3890	38.1-1.50	-24	XN6	187.0-7.36	104.0-4.09	85.0-3.35

## Komatsu Style Flange-Str



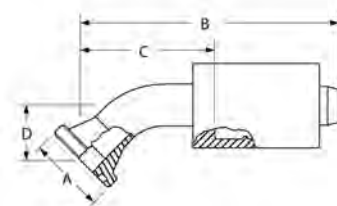
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
328-9167	12.7-.50	-8	XN	-10	34.0-1.34	84.0-3.31	49.7-1.96	4J-8996
397-1966	15.9-.63	-10	XN	-10	34.1-1.34	96.0-3.78	49.7-1.96	4J-8996

## Komatsu Style Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
416-2094	15.9-.63	-10	XN	-10	34.1-1.34	108.2-4.26	61.8-2.4	25.9-1.0	4J-8996

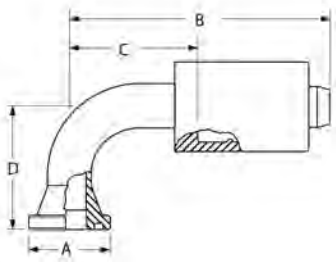
## Komatsu Style Flange-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9169	12.7-.50	-8	XN	-10	34.0-1.34	83.0-3.27	48.7-1.92	27.4-1.08	4J-8996

# XT-6ES Hose Permanent Couplings

## Komatsu Style Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9170	12.7-.50	-8	XN	-10	34.0-1.34	74.0-2.91	39.5-1.56	41.4-1.63	4J-8996
397-1967	15.9-.63	-10	XN	-10	34.1-1.34	93.5-3.68	47.1-1.85	55.1-2.17	4J-8996

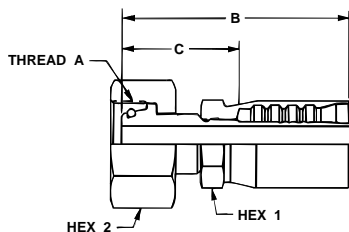
## Metric Female Swivel 24° Taper w/O-Ring-45° Elbow (Light)

Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
503-7988	9.5-.37	-6	XN	M18 x 1.5	12.0-0.47	78-3.07	45-1.77	19-0.75	8U-0598
503-4448	12.7-.50	-8	XN	M22 x 1.5	15.0-0.59	83-3.27	50-1.97	20-0.79	3E-4298

## Metric Male 24° Taper-Str (Heavy)

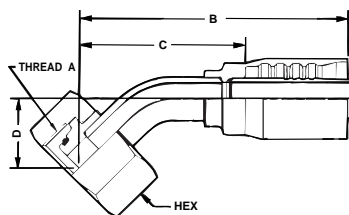
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
397-1965	15.9-.63	-10	XN	M30 x 2.0	86.0-3.39	40.0-1.57
541-4980	25.4-1.00	-16	XN	M42 x 2.0	115.0-4.53	45.6-1.80
501-1380	31.8-1.25	-20	XN6	M52 x 2.0	134.0-5.28	56.1-2.21

## Metric Female Swivel 24° Taper w/O-Ring-Str (Heavy)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6232	9.5-.37	-6	XN	M20 x 1.5	12.0-0.47	64.0-2.52	30.9-1.22	3E-4297
323-6233	9.5-.37	-6	XN	M22 x 1.5	14.0-0.55	68.0-2.68	34.4-1.35	7T-0508
328-9179	12.7-.50	-8	XN	M24 x 1.5	16.0-0.63	70.0-2.76	36.2-1.43	3E-4298
397-1962	15.9-.63	-10	XN	M30 x 2.0	20.0-0.79	99.0-3.90	53.0-2.09	3E-4299
432-2128	19.1-.75	-12	XN	M36 x 2.0	25.0-0.98	110.0-4.33	56.0-2.20	3E-6762
499-1171	25.4-1.00	-16	XN	M36 x 2.0	25.0-0.98	122.0-4.80	57.0-2.24	3E-6762
499-1172	25.4-1.00	-16	XN	M42 x 2.0	30.0-1.18	124.0-4.88	59.0-2.32	3E-6763
442-5611	31.8-1.25	-20	XN6	M52 x 2.0	38.0-1.50	143.0-5.63	64.8-2.55	3E-6764

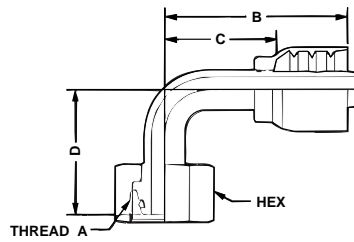
## Metric Female Swivel 24° Taper w/O-Ring-45° Elbow (Heavy)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2129	19.1-.75	-12	XN	M36 x 2.0	25.0-0.98	122-4.80	69-2.72	30-1.18	3E-6762
499-1173	25.4-1.00	-16	XN	M42 x 2.0	30.0-1.18	150-5.91	85-3.35	38-1.50	3E-6733

# XT-6ES Hose Permanent Couplings

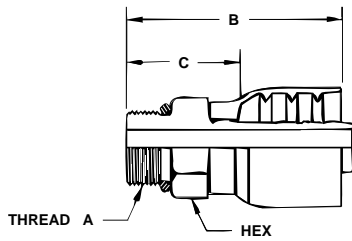
## Metric Female Swivel 24° Taper w/O-Ring-90° Elbow (Heavy)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6236	9.5-.37	-6	XN	M20 x 1.5	12.0-0.47	68.0-2.68	34.2-1.35	37.6-1.48	3E-4297
323-6237	9.5-.37	-6	XN	M22 x 1.5	14.0-0.55	68.0-2.68	34.2-1.35	37.6-1.48	7T-0508
431-9024	9.5-.37	-6	XN	M18 - 1.5	12.0-0.47	68.0-2.68	34.0-1.34	38.0-1.50	3E-4296
328-9181	12.7-.50	-8	XN	M24 x 1.5	16.0-0.63	74.0-2.91	39.5-1.56	43.9-1.73	3E-4298
397-1964	15.9-.63	-10	XN	M30 x 2.0	20.0-0.79	88-3.46	47-1.85	55-2.17	3E-4299
432-2130	19.1-.75	-12	XN	M36 x 2.0	25.0-0.98	107-4.21	53-2.09	58-2.28	3E-6762
499-1174	25.4-1.00	-16	XN	M42 x 2.0	30.0-1.18	135.0-5.31	70.0-2.76	76.0-2.99	3E-6763

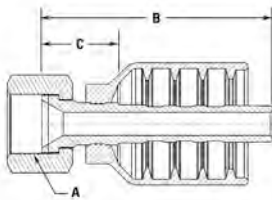
# XT-6ES Hose Permanent Couplings

## STOR Male-Str



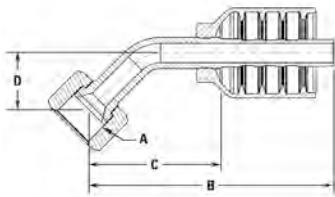
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6212	9.5-.37	-6	XN	9/16-18	-6	59.0-2.32	25.9-1.02	3J-1907
328-9136	12.7-.50	-8	XN	3/4-16	-8	65.0-2.56	30.9-1.22	3K-0360
416-2095	15.9-.63	-10	XN	7/8-14	-10	78.0-3.07	32.0-1.26	2M-9780
432-2141	19.1-.75	-12	XN	1 1/16-12	-12	89.0-3.50	36.0-1.42	3D-2824
499-1187	25.4-1.00	-16	XN	1 5/16-12	-16	107.0-4.21	42.0-1.65	7M-8485

## JIS 30° Flare Female Swivel-Str



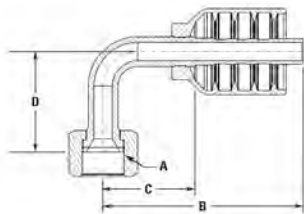
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
519-4716	9.5-.37	-6	XN	3/8-19	-6	53-2.09	20-0.79
519-3997	12.7-.50	-8	XN	1/2-14	-8	57-2.24	24-0.94
397-1956	15.9-.63	-10	XN	M24 x 1.5	-10	87-3.42	35-1.38
519-4009	19.1-.75	-12	XN	3/4-14	-12	91-3.58	38-1.50
580-4113	25.4-1.00	-16	XN	1-11	-16	107-4.21	36-1.42

## JIS 30° Flare Female Swivel-45° Elbow



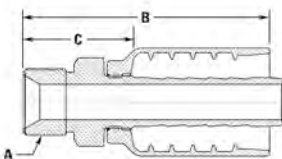
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
519-4717	9.5-.37	-6	XN	3/8-19	-6	80-3.15	47-1.85	20-0.79
519-3998	12.7-.50	-8	XN	1/2-14	-8	84-3.31	50-1.97	22-0.87
519-4010	19.1-.75	-12	XN	3/4-14	-12	120-4.72	68-2.68	29-1.14
580-4114	25.4-1.00	-16	XN	1-11	-16	160-6.30	89-3.50	35-1.38

## JIS 30° Flare Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
519-4718	9.5-.37	-6	XN	3/8-19	-6	67-2.64	34-1.34	37-1.46
519-3999	12.7-.50	-8	XN	1/2-14	-8	73-2.87	40-1.57	41-1.61
519-4011	19.1-.75	-12	XN	3/4-14	-12	106-4.17	53-2.09	58-2.28
580-4115	25.4-1.00	-16	XN	1-11	-16	140-5.51	69-2.72	70-2.76

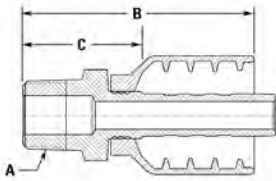
## JIS 60° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
518-0280	19.1-.75	-12	XN	3/4-14	-12	97-3.82	44-1.73
518-0281	25.4-1.00	-16	XN	1-11	-16	112-4.41	46-1.81

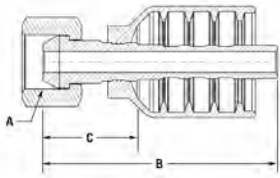
# XT-6ES Hose Permanent Couplings

## JIS Male Tapered Pipe-Str



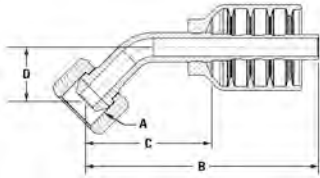
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
513-4472	12.7-.50	-8	XN	1/2-14	-8	70-2.76	36-1.42
513-4473	19.1-.75	-12	XN	3/4-14	-12	95-3.74	42-1.65
513-4474	25.4-1.00	-16	XN	1-11	-16	110-4.33	45-1.77

## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



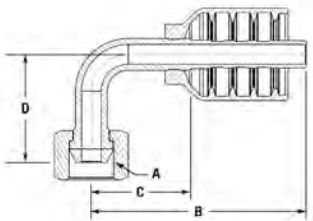
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
518-3997	9.5-.37	-6	XN	3/8-19	-6	67.0-2.64	27.2-1.07
518-0821	12.7-.50	-8	XN	1/2-14	-8	68.0-2.68	27.6-1.09
554-6965	15.9-.63	-10	XN	5/8-14	-10	87.5-3.44	36.0-1.42
554-6966	15.9-.63	-10	XN	3/4-14	-12	87.5-3.44	36.0-1.42
502-2106	19.1-.75	-12	XN	3/4-14	-12	96.5-3.80	37.9-1.49
499-1179	25.4-1.00	-16	XN	1-11	-16	113.0-4.45	42.5-1.67
499-1182	25.4-1.00	-16	XN	1 1/4-11	-20	123.5-4.86	53.0-2.09
502-5110	31.8-1.25	-20	XN6	1 1/4-11	-20	140.0-5.51	62.1-2.44

## ISO 8434-6 BSPP Conical Seat-Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
518-3998	9.5-.37	-6	XN	3/8-19	-6	86.6-3.41	46.8-1.84	20.0-0.79
518-0822	12.7-.50	-8	XN	1/2-14	-8	90.8-3.57	50.3-1.98	20.0-0.79
554-6967	15.9-.63	-10	XN	5/8-14	-10	103.91-4.09	57.5-2.26	21.6-0.85
502-2107	19.1-.75	-12	XN	3/4-14	-12	126.1-4.96	67.5-2.66	29.0-1.14
499-1180	25.4-1.00	-16	XN	1-11	-16	152.8-6.02	82.3-3.24	35.0-1.38
499-1183	25.4-1.00	-16	XN	1 1/4-11	-20	156.8-6.17	86.3-3.40	39.0-1.54
502-5111	31.8-1.25	-20	XN6	1 1/4-11	-20	188.75-7.43	110.5-4.35	40.0-1.57

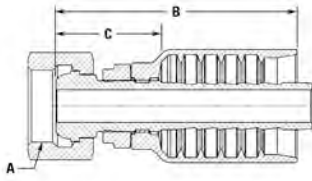
## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
518-3999	9.5-.37	-6	XN	3/8-19	-6	73.9-2.91	34.1-1.34	37.0-1.46
518-0823	12.7-.50	-8	XN	1/2-14	-8	80.0-3.15	39.5-1.56	41.0-1.61
554-6968	15.9-.63	-10	XN	5/8-14	-10	93.47-3.68	41.7-1.64	43.8-1.72
502-2108	19.1-.75	-12	XN	3/4-14	-12	112.0-4.41	53.4-2.10	58.0-2.28
499-1181	25.4-1.00	-16	XN	1-11	-16	140.1-5.52	69.6-2.74	70.0-2.76
499-1184	25.4-1.00	-16	XN	1 1/4-11	-20	140.1-5.52	69.6-2.74	76.0-2.99
502-5112	31.8-1.25	-20	XN6	1 1/4-11	-20	172.75-6.80	94.5-3.72	85.0-3.35

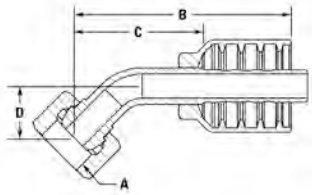
# XT-6ES Hose Permanent Couplings

## BSPP Spherical Seat-Female Swivel-Str



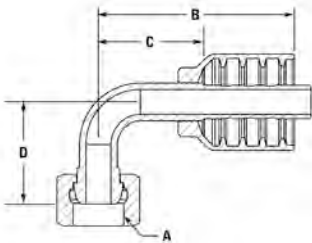
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6221	9.5-.37	-6	XN	3/8-19	-6	61.9-2.44	22.5-0.89
323-6223	9.5-.37	-6	XN	1/2-14	-8	56.6-2.23	23.1-0.91
328-9171	12.7-.50	-8	XN	1/2-14	-8	57.3-2.26	23.2-0.91
397-1960	15.9-.63	-10	XN	5/8-14	-10	87.5-3.44	36.0-1.42
397-1961	15.9-.63	-10	XN	3/4-14	-12	87.5-3.44	36.0-1.42

## BSPP Spherical Seat-Female Swivel-45° Elbow



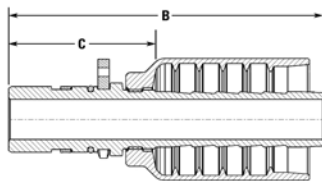
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6224	9.5-.37	-6	XN	3/8-19	-6	80.3-3.16	46.8-1.84	20.1-0.79
328-9172	12.7-.50	-8	XN	1/2-14	-8	84.5-3.33	50.4-1.98	20.1-0.79
416-2091	15.9-.63	-10	XN	5/8-14	-10	109.0-4.29	57.5-2.26	21.6-0.85

## BSPP Spherical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6225	9.5-.37	-6	XN	3/8-19	-6	67.7-2.67	34.2-1.35	37.1-1.46
328-9173	12.7-.50	-8	XN	1/2-14	-8	73.6-2.90	39.6-1.56	38.1-1.50
416-2093	15.9-.63	-10	XN	5/8-14	-10	98.6-3.88	47.1-1.85	43.7-1.72

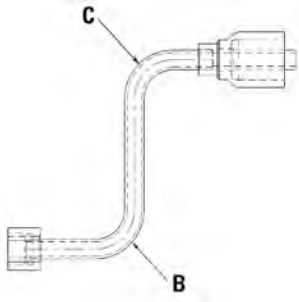
## WEO Plug-In Coupling



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
505-1188	19.1 - 0.75	-12	XN	-12 - 0.47	110 - 4.33	51 - 2.00	8U-5951
583-7081	19.1 - 0.75	-12	XN	-12 - 0.47	110 - 4.33	51 - 2.00	-

# XT-6ES Hose Permanent Couplings

## ORFS HFL-Multibend (Used on Backhoe Loaders)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	FLANGE DASH SIZE	O-RING SEAL	BEND (B & C)	WORKING PRESSURE (kPa)	MIN. BURST PRESSURE (kPa)
202-0998	12.7-.50	-8	XN	13/16-16	6V-8398	90.0°	31,000	93,276
202-1002	12.7-.50	-8	XN	13/16-16	6V-8398	44.3°	31,000	93,276
202-2377	12.7-.50	-8	XN	13/16-16	6V-8398	90.0°	31,000	93,276
202-1000	15.9-.63	-10	XN	1-14	7J9108	62.8°	24,000	72,216
202-1006	15.9-.63	-10	XN	1-14	7J-9108	64.3°	24,000	72,216
202-1004	19.1-.75	-12	XN	1 3/16-12	6V-9746	43.1°	25,750	77,628
203-4695	19.1-.75	-12	XN	1 3/16-12	6V-9746	78.1°	25,750	77,628



# XT-5ES Hose & Coupling Products

## XT-5ES Hose Features and Benefits



- 1/2 SAE 100R13 Minimum Bend Radius.
- Exceeds the SAE 100R13 Industry Standard
- Superior Abrasion Resistance Cover.
- Aged Impulse Tested to 1 Million Cycles (2 X Industry Standards).
- Working pressure of 5000 psi
- Black hose with a Red embossed mylar layline for easy identification.
- Hose is marked with a Plus (+) symbol.
- Target Application(s): Excavators

## XT-5ES Hose (1036)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8482	19.1 - .75	33.3 - 1.31	-12	XN	140.0 - 20305	35.0 - 5076	120 - 4.72
456-8483	25.4 - 1.00	39.8 - 1.57	-16	PL / MCSH / XN	140.0 - 20305	35.0 - 5076	157 - 6.18
456-8484	31.8 - 1.25	51.3 - 2.02	-20	MCSH	140.0 - 20305	35.0 - 5076	210 - 8.27
456-8485	38.1 - 1.50	58.8 - 2.31	-24	MCSH / XN6	140.0 - 20305	35.0 - 5076	255 - 10.04
456-8486	50.8 - 2.00	72.7 - 2.86	-32	XS6	140.0 - 20305	35.0 - 5076	635 - 25.00

**Construction:** Fabric reinforced, synthetic rubber tube; four or six plies of spirally-wrapped high tensile steel wire reinforcement, separated by layers of synthetic rubber. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Extremely high-pressure service with petroleum base hydraulic fluids. MSHA approved cover.

**Temperature Range:** -40°F to + 250°F (-40°C to +121°C)

**Couplings:** Collet-type reusable, skive type, PL or MCSH Series coupling. See XT-5ES Hose Reusable Couplings section. Crimp-on permanent, skive type, MCSH, XN, XN6 or XS6 Series coupling. See XT-5ES Hose Permanent Couplings section. For related assembly equipment and tooling, see Tooling section.

**Note:** Depending on coupling series, the hose cover may or may not need to be removed before attaching couplings. Please review the coupling series being used prior to hose assembly. Coupling series XN and XN6 are no-skive couplings and do not require the hose cover to be removed. All other coupling series require a specified length of the hose cover to be removed. Reference chart NEEG2956 for for specified Skive Lengths.

<sup>1</sup> Centerline of Hose

## XT-5ES ToughGuard (4199)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8487	19.1 - .75	33.3 - 1.31	-12	XN	140.0 - 20305	35.0 - 5076	120 - 4.72
456-8488	25.4 - 1.00	39.8 - 1.57	-16	PL / MCSH / XN	140.0 - 20305	35.0 - 5076	157 - 6.18
456-8489	31.8 - 1.25	51.2 - 2.02	-20	MCSH	140.0 - 20305	35.0 - 5076	210 - 8.27
456-8490	38.1 - 1.50	58.8 - 2.31	-24	MCSH / XN6	140.0 - 20305	35.0 - 5076	255 - 10.04

**Construction:** Fabric reinforced, synthetic rubber tube; four or six plies of spirally-wrapped high tensile steel wire reinforcement, separated by layers of synthetic rubber. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Extremely high-pressure service with petroleum base hydraulic fluids. MSHA approved cover.

**Temperature Range:** -40°F to + 250°F (-40°C to +121°C)

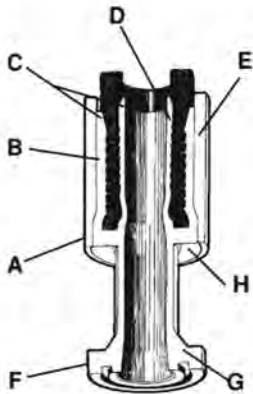
**Couplings:** Collet-type reusable, skive type, PL or MCSH Series coupling. See XT-5ES Hose Reusable Couplings section. Crimp-on permanent, skive type, MCSH, XN or XN6 Series coupling. See XT-5ES Hose Permanent Couplings section. For related assembly equipment and tooling, see Tooling section.

**Note:** Depending on coupling series, the hose cover may or may not need to be removed before attaching couplings. Please review the coupling series being used prior to hose assembly. Coupling series XN and XN6 are no-skive couplings and do not require the hose cover to be removed. All other coupling series require a specified length of the hose cover to be removed. Reference chart NEEG2956 for for specified Skive Lengths.

<sup>1</sup> Centerline of Hose

# XT-5ES Hose Reusable Couplings

## XT-5ES Reusable Couplings Features and Benefits



XT-5ES Hose Couplings have the same advantages as XT-3ES Hose Couplings as well as these added features for 5000 psi (34 MPa) application.

### EXCLUSIVE REUSABLE DESIGN

Reuse XT Couplings over and over again for the lowest operating cost. In addition, you know you have the right coupling at the right time.

#### (A) Slim, Collet-Type Style

- No bolts or protrusions for easy installation, even in cramped places.

#### (B) Multi-land Fingers

- Grip the wires on the skived hose solidly to prevent coupling blow-off and provide better coupling retention.

#### (C) Tapered Fingers & Stem

- Compressive force is slightly relieved so the hose can flex without failure at the rear of the coupling. This increases hose assembly life.

#### (D) Multi-land Stem

- Keeps fluid sealed in without inner liner damage and provides a positive coupling to hose seal.

#### (E) Hardened Steel Sleeve

- No sleeve bend or distortion so the sleeve retains its original size and shape and can be reused.
- Hose stays firmly compressed in coupling, further aiding coupling retention.

#### (F) Precision Machined O-Ring Head

- To help eliminate hazardous fluid leaks and provide positive coupling head seal.

#### (G) Extruded Stem

- Orients metal grain for more uniform strength and fatigue resistance.
- Braze joint between head and stem is eliminated resulting in leak free performance and excellent coupling assembly life.

#### (H) Extruded Collet

- More uniform strength for excellent coupling

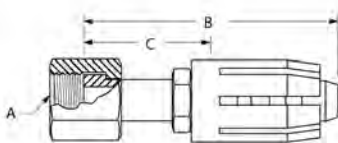
# warning!

TO AVOID SERIOUS PERSONAL INJURY TO THE OPERATOR AND EXTENSIVE DAMAGE TO THE EQUIPMENT, THE FOLLOWING PROCEDURES MUST BE OBSERVED. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY.

- ALWAYS match hose, stem assemblies and sleeves according to markings ( $\Delta$  / + / UHP /  $\infty$ ).
- NEVER interchange XT-3 ES hose, stem assemblies and sleeves marked with a triangle ( $\Delta$ ) with XT-5 ES hose, stem assemblies and sleeves marked with a plus (+), XT-6 hose, stem assemblies and sleeves marked with (UHP) or XT-6 ES hose, stem assemblies and sleeves marked with an infinity sign ( $\infty$ ).

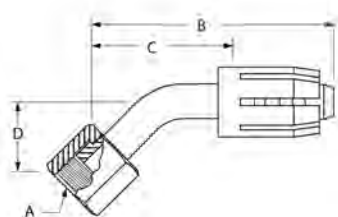


## ORFS Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
7X-1452	25.4-1.00	-16	PL	1 7/16-12	-16	112.0-4.41	45.1-1.78	5K-9090

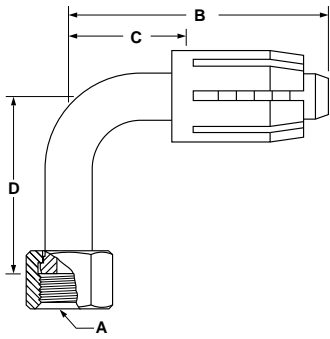
## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
7X-4814	25.4-1.00	-16	PL	1 7/16-12	-16	168.0-6.61	101.0-3.98	32.0-1.26	5K-9090

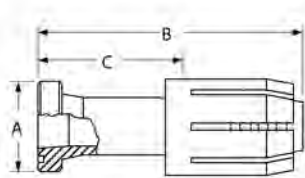
# XT-5ES Hose Reusable Couplings

## ORFS Female Swivel-90° Elbow



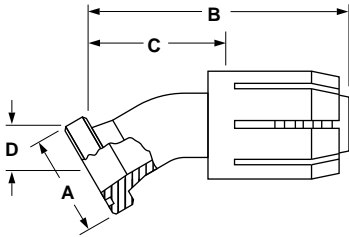
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
7X-4815	25.4-1.00	-16	PL	1 7/16-12	-16	130.0-5.12	62.8-2.47	68.0-2.68	5K-9090
7X-4816	25.4-1.00	-16	PL	1 7/16-12	-16	130.0-5.12	62.8-2.47	128.0-5.04	5K-9090

## Code 61 Flange-Str



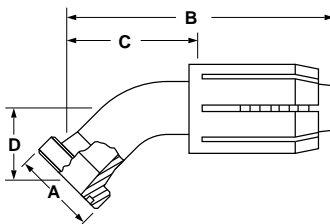
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
155-2866	25.4-1.00	-16	PL	44.5-1.75	-16	151.0-5.94	83.8-3.30	4J-0520
155-2876	25.4-1.00	-16	PL	44.5-1.75	-16	152.0-5.98	85.1-3.35	4J-0520
155-2867	31.8-1.25	-20	PL	50.8-2.00	-20	163.0-6.42	85.9-3.38	4J-0522
8T-7978	38.1-1.50	-24	PL	60.3-2.37	-24	162.0-6.38	79.0-3.11	4J-0524
8C-5234	38.1-1.50	-24	PL	71.4-2.81	-32	162.0-6.38	79.5-3.13	4J-0527

## Code 61 Flange-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
7X-1431	38.1-1.50	-24	PL	60.3-2.37	-24	213.0-8.39	130.5-5.14	17.0-.67	4J-0524
8T-7979	38.1-1.50	-24	PL	60.3-2.37	-24	213.0-8.39	130.5-5.14	23.5-.93	4J-0524

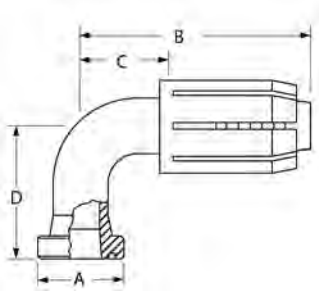
## Code 61 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
155-2869	25.4-1.00	-16	PL	44.5-1.75	-16	144.0-5.67	76.8-3.02	27.0-1.06	4J-0520
155-2870	31.8-1.25	-20	PL	50.8-2.00	-20	168.0-6.61	90.8-3.57	30.5-1.20	4J-0522
8T-7980	38.1-1.50	-24	PL	60.3-2.37	-24	207.0-8.15	124.7-4.91	37.5-1.48	4J-0524
155-2871	38.1-1.50	-24	PL	71.4-2.81	-32	219.0-8.62	136.5-5.37	43.0-1.69	4J-0527

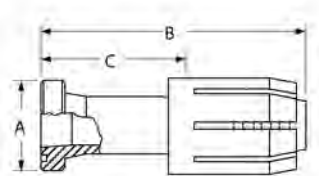
# XT-5ES Hose Reusable Couplings

## Code 61 Flange-90° Elbow



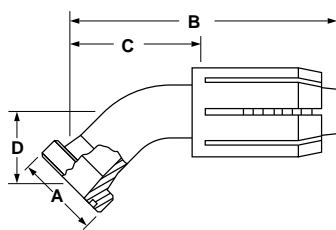
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
155-2872	25.4-1.00	-16	PL	44.5-1.75	-16	151.0-5.94	83.8-3.30	60.5-2.38	4J-0520
155-2873	31.8-1.25	-20	PL	50.8-2.00	-20	184.0-7.24	106.9-4.21	86.3-3.40	4J-0522
3E-6822	38.1-1.50	-24	PL	60.3-2.37	-24	162.0-6.38	79.0-3.11	80.9-3.19	4J-0524
155-2874	38.1-1.50	-24	PL	71.4-2.81	-32	170.0-6.69	87.5-3.44	88.8-3.50	4J-0527

## Code 62 Flange-Str



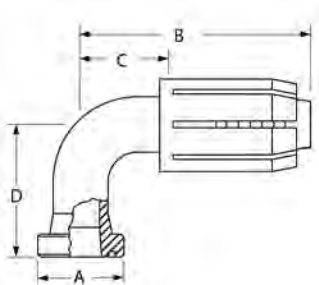
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
155-2877	31.8-1.25	-20	PL	54.0-2.13	-20	160.0-6.30	82.5-3.25	4J-0522	4J-0522
155-2878	38.1-1.50	-24	PL	63.5-2.50	-24	165.0-6.50	82.4-3.24	4J-0524	4J-0524
155-2879	50.8-2.00	-32	PL	79.4-3.13	-32	206.0-8.11	109.0-4.29	4J-0527	4J-0527

## Code 62 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
155-2881	25.4-1.00	-16	PL	47.6-1.87	-16	143.0-5.63	75.5-2.97	33.2-1.31	4J-0520
155-2882	31.8-1.25	-20	PL	54.0-2.13	-20	161.0-6.34	83.4-3.28	34.2-1.35	4J-0522
155-2883	38.1-1.50	-24	PL	63.5-2.50	-24	216.0-8.50	133.8-5.27	40.4-1.59	4J-0524
155-2884	50.8-2.00	-32	PL	79.4-3.13	-32	276.0-10.87	179.0-7.05	58.0-2.28	4J-0527

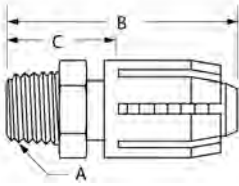
## Code 62 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
155-2886	25.4-1.00	-16	PL	47.6-1.87	-16	131.0-5.16	64.2-2.53	69.3-2.73	4J-0520
155-2887	31.8-1.25	-20	PL	54.0-2.13	-20	147.0-5.79	69.4-2.73	73.0-2.87	4J-0522
155-2888	38.1-1.50	-24	PL	63.5-2.50	-24	170.0-6.69	87.5-3.44	85.0-3.35	4J-0524
155-2889	50.8-2.00	-32	PL	79.4-3.13	-32	209.0-8.23	112.0-4.41	123.0-4.84	4J-0527

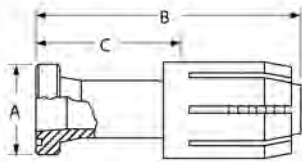
# XT-5ES Hose Reusable Couplings

## NPTF Male-Str



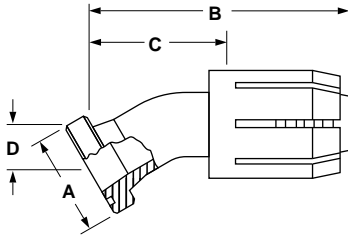
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
6V-2448	25.4-1.00	-16	PL	1-11 1/2	-16	131.0-5.16	63.3-2.49

## Cat Flange-Str



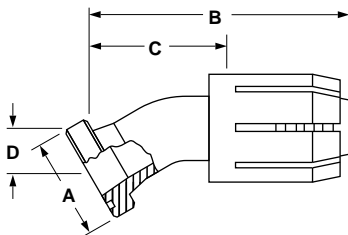
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
5P-1125	25.4-1.00	-16	PL	47.6-1.87	-16	157.0-6.18	89.8-3.54	1P-3703
5P-1131	25.4-1.00	-16	PL	54.0-2.13	-20	157.0-6.18	89.8-3.54	1P-3704
2P-6733	31.8-1.25	-20	PL	54.0-2.13	-20	164.0-6.46	86.4-3.40	1P-3704
2P-1416	31.8-1.25	-20	PL	63.5-2.50	-24	164.0-6.46	86.4-3.40	1P-3705
5P-3093	38.1-1.50	-24	PL	63.5-2.50	-24	167.0-6.57	84.0-3.31	1P-3705
8T-1009	38.1-1.50	-24	PL	63.5-2.50	-24	222.0-8.74	139.5-5.49	1P-3705
5P-3101	38.1-1.50	-24	PL	79.4-3.13	-32	167.0-6.57	84.0-3.31	1P-3709
193-1047	50.8-2.00	-32	PL	63.5-2.50	-24	246.0-9.69	149.0-5.87	1P-3705
5P-7886	50.8-2.00	-32	PL	79.4-3.13	-32	207.0-8.15	110.2-4.34	1P-3709

## Cat Flange-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5P-1126	25.4-1.00	-16	PL	47.6-1.87	-16	141.0-5.55	73.8-2.91	16.5-.65	1P-3703
5P-1132	25.4-1.00	-16	PL	54.0-2.13	-20	141.0-5.55	73.8-2.91	16.5-.65	1P-3704
2P-6728	31.8-1.25	-20	PL	54.0-2.13	-20	155.0-6.10	77.9-3.07	17.0-.67	1P-3704
2P-1424	31.8-1.25	-20	PL	63.5-2.50	-24	155.0-6.10	77.9-3.07	16.5-.65	1P-3705
5P-6451	38.1-1.50	-24	PL	63.5-2.50	-24	219.0-8.62	136.5-5.37	17.0-.67	1P-3705
155-5471	50.8-2.00	-32	PL	79.4-3.13	-32	291.0-11.46	194.4-7.65	26.5-1.04	1P-3709

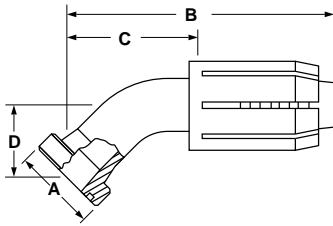
## Cat Flange-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5P-1127	25.4-1.00	-16	PL	47.6-1.87	-16	144.0-5.67	76.3-3.00	23.0-.91	1P-3703
5P-1133	25.4-1.00	-16	PL	54.0-2.13	-20	144.0-5.67	76.3-3.00	23.0-.91	1P-3704
2P-6729	31.8-1.25	-20	PL	54.0-2.13	-20	158.0-6.22	80.4-3.17	23.5-.93	1P-3704
2P-1415	31.8-1.25	-20	PL	63.5-2.50	-24	158.0-6.22	80.4-3.17	23.5-.93	1P-3705
5P-4877	38.1-1.50	-24	PL	63.5-2.50	-24	218.0-8.58	135.0-5.31	26.5-1.04	1P-3705
6V-1074	38.1-1.50	-24	PL	79.4-3.13	-32	231.0-9.09	148.5-5.85	29.3-1.15	1P-3709
5P-7968	50.8-2.00	-32	PL	79.4-3.13	-32	287.0-11.30	190.1-7.48	36.9-1.45	1P-3709

# XT-5ES Hose Reusable Couplings

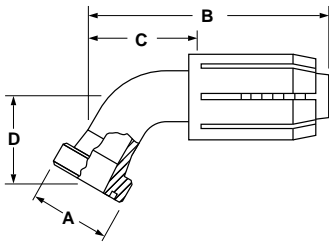
## Cat Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5P-1128	25.4-1.00	-16	PL	47.6-1.87	-16	146.0-5.75	78.3-3.08	36.5-1.44	1P-3703
5P-1134	25.4-1.00	-16	PL	54.0-2.13	-20	146.0-5.75	78.3-3.08	36.5-1.44	1P-3704
2P-6730	31.8-1.25	-20	PL	54.0-2.13	-20	164.0-6.46	86.9-3.42	37.0-1.46	1P-3704
2P-1422	31.8-1.25	-20	PL	63.5-2.50	-24	161.0-6.34	83.4-3.28	37.0-1.46	1P-3705
5P-3094	38.1-1.50	-24	PL	63.5-2.50	-24	211.0-8.31	128.5-5.06	41.0-1.61	1P-3705
111-7660	38.1-1.50	-24	PL	63.5-2.50	-24	231.0-9.09	148.3-5.84	54.9-2.16	1P-3705
5P-3102	38.1-1.50	-24	PL	79.4-3.13	-32	222.0-8.74	139.0-5.47	46.0-1.81	1P-3709
5P-7959	50.8-2.00	-32	PL	79.4-3.13	-32	277.0-10.91	180.1-7.09	59.4-2.34	1P-3709

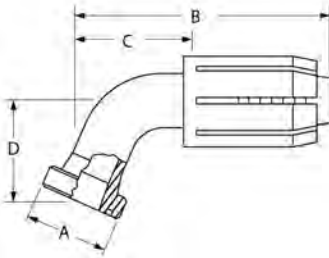
# XT-5ES Hose Reusable Couplings

## Cat Flange-60° Elbow



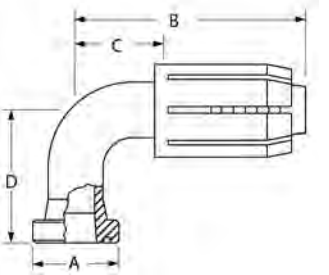
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5P-1129	25.4-1.00	-16	PL	47.6-1.87	-16	145.0-5.71	77.3-3.04	50.0-1.97	1P-3703
5P-1135	25.4-1.00	-16	PL	54.0-2.13	-20	145.0-5.71	77.3-3.04	50.0-1.97	1P-3704
2P-6731	31.8-1.25	-20	PL	54.0-2.13	-20	160.0-6.30	82.4-3.24	51.5-2.03	1P-3704
2P-1418	31.8-1.25	-20	PL	63.5-2.50	-24	160.0-6.30	82.4-3.24	51.5-2.03	1P-3705
5P-3096	38.1-1.50	-24	PL	63.5-2.50	-24	200.0-7.87	117.0-4.61	54.5-2.15	1P-3705
111-7661	38.1-1.50	-24	PL	63.5-2.50	-24	215.0-8.46	132.7-5.22	73.9-2.91	1P-3705
5P-7956	50.8-2.00	-32	PL	79.4-3.13	-32	260.0-10.24	163.0-6.42	82.6-3.25	1P-3709

## Cat Flange-67 1/2° Elbow



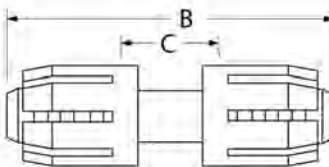
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5P-2620	25.4-1.00	-16	PL	47.6-1.87	-16	156.0-6.14	88.3-3.48	56.5-2.22	1P-3703
5P-2621	25.4-1.00	-16	PL	54.0-2.13	-20	156.0-6.14	88.3-3.48	56.5-2.22	1P-3704
5P-2599	31.8-1.25	-20	PL	54.0-2.13	-20	171.0-6.73	93.4-3.68	58.5-2.30	1P-3704
5P-2622	31.8-1.25	-20	PL	63.5-2.50	-24	171.0-6.73	93.4-3.68	58.5-2.30	1P-3705

## Cat Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5P-1130	25.4-1.00	-16	PL	47.6-1.87	-16	132.0-5.20	64.3-2.53	73.5-2.89	1P-3703
5P-1136	25.4-1.00	-16	PL	54.0-2.13	-20	132.0-5.20	64.3-2.53	73.5-2.89	1P-3704
2P-6732	31.8-1.25	-20	PL	54.0-2.13	-20	148.0-5.83	70.4-2.77	77.0-3.03	1P-3704
7X-1478	31.8-1.25	-20	PL	54.0-2.13	-20	148.0-5.83	70.4-2.77	150.0-5.91	1P-3704
2P-1420	31.8-1.25	-20	MCSH	63.5-2.50	-24	148.0-5.83	70.4-2.77	77.0-3.03	1P-3705
5P-3099	38.1-1.50	-24	PL	63.5-2.50	-24	170.0-6.69	87.5-3.44	86.5-3.41	1P-3705
111-7662	38.1-1.50	-24	PL	63.5-2.50	-24	170.0-6.69	87.5-3.44	105.5-4.15	1P-3705
5P-3105	38.1-1.50	-24	PL	79.4-3.13	-32	170.0-6.69	87.0-3.43	93.5-3.68	1P-3709
5P-7903	50.8-2.00	-32	PL	79.4-3.13	-32	208.0-8.19	111.4-4.39	125.0-4.92	1P-3709

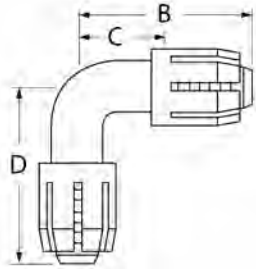
## Double Collet-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
5P-5000	25.4-1.00	-16	PL	183.0-7.20	48.6-1.91
5P-4937	31.8-1.25	-20	PL	206.0-8.11	51.3-2.02
5P-2825	38.1-1.50	-24	PL	222.0-8.74	55.0-2.17

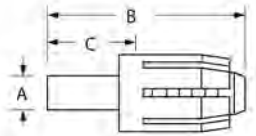
# XT-5ES Hose Reusable Couplings

## Double Collet-90° Elbow



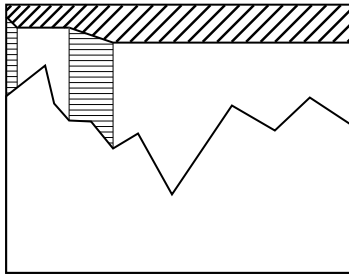
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
5P-1307	25.4-1.00	-16	PL	136.0-5.35	68.3-2.69	135.5-5.33
5P-1308	31.8-1.25	-20	PL	167.0-6.57	89.4-3.52	166.5-6.56

## Braze On-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
4Z-8154	38.1-1.50	-24	PL	113.0-4.45	30.4-1.20

## XT-5 ES Sleeve Information

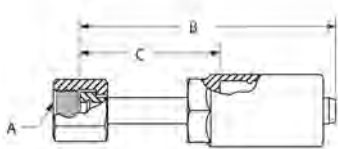


Part Number	HOSE I.D. (mm - in)	DASH SIZE
5P-1027	19.1 - 0.75	-12
5P-1010	25.4 - 1.00	-16
5P-0477	31.8 - 1.25	-20
5P-3106	38.1 - 1.50	-24
5P-7884	50.8 - 2.00	-32



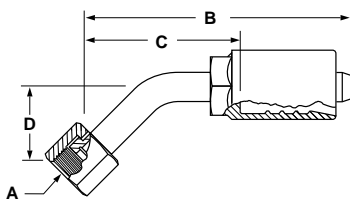
# XT-5ES Hose Permanent Couplings

## ORFS Female Swivel-Str



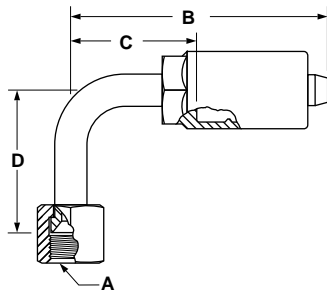
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
432-2022	19.1-.75	-12	XN	1-14	-10	102.0-4.02	48.0-1.89	7J-9108
432-2008	19.1-.75	-12	XN	1 3/16-12	-12	104.0-4.09	50.0-1.97	6V-9746
432-2019	19.1-.75	-12	XN	1 7/16-12	-16	104.0-4.09	51.0-2.01	5K-9090
499-1141	25.4-1.00	-16	XN	1 3/16-12	-12	112.0-4.41	47.0-1.85	6V-9746
499-1142	25.4-1.00	-16	XN	1 7/16-12	-16	118.0-4.65	53.0-2.09	5K-9090
499-1154	25.4-1.00	-16	XN	1 11/16-12	-20	118.0-4.65	53.0-2.09	6V-8400
442-5599	31.8-1.25	-20	XN6	1 11/16-12	-20	133.0-5.24	61.0-2.40	6V-8400

## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2023	19.1-.75	-12	XN	1-14	-10	113.0-4.45	60.0-2.36	21.0-.83	7J-9108
432-2013	19.1-.75	-12	XN	1 3/16-12	-12	113.0-4.45	60.0-2.36	21.0-.83	6V-9746
432-2014	19.1-.75	-12	XN	1 3/16-12	-12	120.0-4.72	67.0-2.64	28.0-1.10	6V-9746
432-2020	19.1-.75	-12	XN	1 7/16-12	-16	116.0-4.57	62.0-2.44	24.0-.94	5K-9090
499-1145	25.4-1.00	-16	XN	1 7/16-12	-16	142.0-5.59	71.8-2.83	24.5-.96	5K-9090
499-1146	25.4-1.00	-16	XN	1 7/16-12	-16	145.0-5.71	80.0-3.15	33.0-1.30	5K-9090
499-1155	25.4-1.00	-16	XN	1 11/16-12	-20	145.0-5.71	80.0-3.15	33.0-1.30	6V-8400
442-5601	31.8-1.25	-20	XN6	1 11/16-12	-20	171.0-6.73	98.0-3.86	28.0-1.10	6V-8400

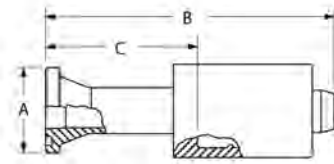
## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2024	19.1-.75	-12	XN	1-14	-10	107.0-4.21	53.0-2.09	48.0-1.89	7J-9108
432-2015	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	48.0-1.89	6V-9746
432-2016	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	58.0-2.28	6V-9746
432-2017	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	96.0-3.78	6V-9746
432-2018	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	107.0-4.21	6V-9746
432-2021	19.1-.75	-12	XN	1 7/16-12	-16	107.0-4.21	53.0-2.09	56.0-2.20	5K-9090
499-1148	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	56.0-2.20	5K-9090
499-1149	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	68.0-2.68	5K-9090
499-1150	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	105.0-4.13	5K-9090
499-1151	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	115.0-4.53	5K-9090
499-1152	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	125.0-4.92	5K-9090
499-1153	25.4-1.00	-16	XN	1 7/16-12	-16	140.0-5.51	69.6-2.74	148.0-5.83	5K-9090
499-1156	25.4-1.00	-16	XN	1 11/16-12	-20	135.0-5.31	70.0-2.76	68.0-2.68	6V-8400
442-5602	31.8-1.25	-20	XN6	1 11/16-12	-20	167.0-6.57	95.0-3.74	64.0-2.52	6V-8400
442-5603	31.8-1.25	-20	XN6	1 11/16-12	-20	173.0-6.81	94.5-3.72	129.0-5.08	6V-8400

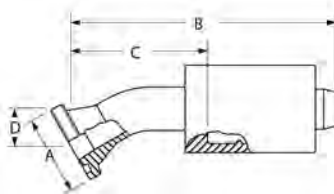
# XT-5ES Hose Permanent Couplings

## Code 61 Flange-Str



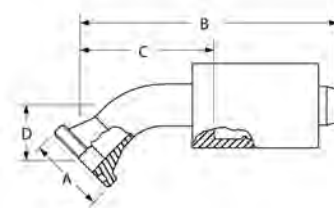
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
432-2070	19.1-.75	-12	XN	38.1-1.50	-12	124.0-4.88	70.0-2.76	4J-5267
432-2083	19.1-.75	-12	XN	44.5-1.75	-16	124.0-4.88	70.0-2.76	4J-0520
432-2093	19.1-.75	-12	XN	50.8-2.00	-20	124.0-4.88	70.0-2.76	4J-0522
497-8283	25.4-1.00	-16	XN	44.5-1.75	-16	147.0-5.79	82.0-3.23	4J-0520
498-0775	25.4-1.00	-16	XN	50.8-2.00	-20	147.0-5.79	82.0-3.23	4J-0522
498-8389	25.4-1.00	-16	XN	60.3-2.37	-24	151.0-5.94	86.0-3.39	4J-0524
442-5552	31.8-1.25	-20	XN6	44.5-1.75	-16	158.0-6.22	85.0-3.35	4J-0520
442-5553	31.8-1.25	-20	XN6	50.8-2.00	-20	158.0-6.22	85.0-3.35	4J-0522
442-5554	31.8-1.25	-20	XN6	60.3-2.37	-24	157.0-6.18	84.0-3.31	4J-0524
505-3904	38.1-1.50	-24	XN6	60.3-2.37	-24	145.0-5.71	67.0-2.64	4J-0524
505-3905	38.1-1.50	-24	XN6	71.4-2.81	-32	145.0-5.71	67.0-2.64	4J-0527
274-2247	38.1-1.50	-24	MCSH	71.4-2.81	-32	182.0-7.17	105.4-4.15	4J-0527
561-8112	50.8-2.00	-32	XS6	71.4-2.81	-32	221.0-8.70	115.0-4.53	4J0-527

## Code 61 Flange-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9139	12.7-.50	-8	XN	30.2-1.19	-8	82.0-3.23	48.4-1.91	8.9-.35	4J-5140
328-9140	12.7-.50	-8	XN	38.1-1.50	-12	83.0-3.27	48.4-1.91	8.9-.35	4J-5267
432-2071	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	62.0-2.44	12.0-.47	4J-5267
432-2084	19.1-.75	-12	XN	44.5-1.75	-16	116.0-4.57	62.0-2.44	12.0-.47	4J-0520
497-8285	25.4-1.00	-16	XN	44.5-1.75	-16	131.0-5.16	66.0-2.60	11.0-.43	4J-0520
498-0776	25.4-1.00	-16	XN	50.8-2.00	-20	131.0-5.16	66.0-2.60	11.0-.43	4J-0522

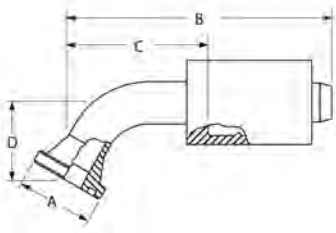
## Code 61 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2073	19.1-.75	-12	XN	38.1-1.50	-12	117.0-4.61	63.0-2.48	25.0-.98	4J-5267
432-2086	19.1-.75	-12	XN	44.5-1.75	-16	117.0-4.61	63.0-2.48	25.0-.98	4J-0520
583-1251	19.1-.75	-12	XN	44.5-1.75	-16	129.5-5.10	70.9-2.79	32.0-1.26	4J-0520
497-8288	25.4-1.00	-16	XN	44.5-1.75	-16	139.0-5.47	74.0-2.91	27.0-1.06	4J-0520
498-0779	25.4-1.00	-16	XN	50.8-2.00	-20	139.0-5.47	74.0-2.91	27.0-1.06	4J-0522
442-5558	31.8-1.25	-20	XN6	50.8-2.00	-20	182.0-7.17	103.5-4.07	32.0-1.26	4J-0522
442-5559	31.8-1.25	-20	XN6	60.3-2.37	-24	176.0-6.93	104.0-4.09	32.0-1.26	4J-0524
274-2246	31.8-1.25	-20	MCSH	60.3-2.37	-24	201.0-7.91	128.4-5.06	36.6-1.44	4J-0524
505-3908	38.1-1.50	-24	XN6	60.3-2.37	-24	200.0-7.87	123.0-4.84	44.0-1.73	4J-0524

# XT-5ES Hose Permanent Couplings

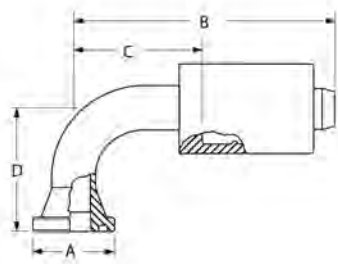
## Code 61 Flange-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2074	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	63.0-2.48	35.0-1.38	4J-5267
432-2087	19.1-.75	-12	XN	44.5-1.75	-16	116.0-4.57	63.0-2.48	35.0-1.38	4J-0520
583-1250	19.1-.75	-12	XN	44.5-1.75	-16	127.1-5.00	68.5-2.70	44.0-1.73	4J-0520
497-8290	25.4-1.00	-16	XN	44.5-1.75	-16	141.0-5.55	76.0-2.99	39.0-1.54	4J-0520
498-0781	25.4-1.00	-16	XN	50.8-2.00	-20	141.0-5.55	76.0-2.99	39.0-1.54	4J-0522
442-5560	31.8-1.25	-20	XN6	50.8-2.00	-20	187.8-7.39	109.5-4.31	45.0-1.77	4J-0522
442-5561	31.8-1.25	-20	XN6	60.3-2.37	-24	187.8-7.39	109.5-4.31	45.0-1.77	4J-0524
588-1166	38.1-1.50	-24	XN4	50.8-2.00	-20	165.0-6.50	107.9-4.25	51.5-2.03	4J-0522
505-3910	38.1-1.50	-24	XN6	60.3-2.37	-24	199.0-7.83	116.1-4.57	50.0-1.97	4J-0524
579-5138	50.8-2.00	-32	XS6	71.4-2.81	-32	270.0-10.63	158.5-6.24	78.0-3.07	4J-0527

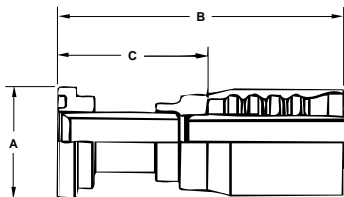
# XT-5ES Hose Permanent Couplings

## Code 61 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2076	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	54.0-2.13	4J-5267
432-2077	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	96.0-3.78	4J-5267
432-2078	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	127.0-5.00	4J-5267
432-2089	19.1-.75	-12	XN	44.5-1.75	-16	107.0-4.21	53.0-2.09	54.0-2.13	4J-0520
432-2090	19.1-.75	-12	XN	44.5-1.75	-16	107.0-4.21	53.0-2.09	79.0-3.11	4J-0520
432-2095	19.1-.75	-12	XN	50.8-2.00	-20	107.0-4.21	53.0-2.09	54.0-2.13	4J-0522
497-0465	25.4-1.00	-16	XN	38.1-1.50	-12	126.0-4.96	61.0-2.40	54.0-2.13	4J-5267
497-8292	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	54.0-2.13	4J-0520
497-8293	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	61.0-2.40	4J-0520
497-8294	25.4-1.00	-16	XN	44.5-1.75	-16	140.0-5.51	69.6-2.74	110.0-4.33	4J-0520
497-8295	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	118.0-4.65	4J-0520
497-8297	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	140.0-5.51	4J-0520
498-0783	25.4-1.00	-16	XN	50.8-2.00	-20	135.0-5.31	70.0-2.76	61.0-2.40	4J-0522
498-0784	25.4-1.00	-16	XN	50.8-2.00	-20	135.0-5.31	70.0-2.76	118.0-4.65	4J-0522
498-8392	25.4-1.00	-16	XN	60.3-2.37	-24	135.0-5.31	69.0-2.72	61.0-2.40	4J-0524
498-8393	25.4-1.00	-16	XN	60.3-2.37	-24	140.0-5.51	69.6-2.74	108.0-4.25	4J-0524
442-5564	31.8-1.25	-20	XN6	44.5-1.75	-16	162.0-6.38	84.4-3.32	63.0-2.48	4J-0520
442-5565	31.8-1.25	-20	XN6	50.8-2.00	-20	175.0-6.89	98.0-3.86	70.0-2.76	4J-0522
442-5566	31.8-1.25	-20	XN6	60.3-2.37	-24	170.0-6.69	98.0-3.86	70.0-2.76	4J-0524
505-3912	38.1-1.50	-24	XN6	60.3-2.37	-24	179.0-7.05	101.0-3.98	91.0-3.58	4J-0524
588-1176	38.1-1.50	-24	XN6	71.4-2.81	-32	184.3-7.26	101.4-3.99	88.8-3.50	4J-0527

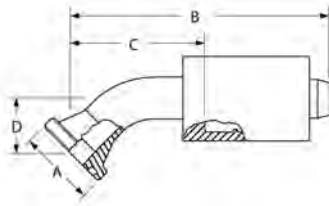
## Code 62 Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
432-2099	19.1-.75	-12	XN	41.3-1.63	-12	129.0-5.08	76.0-2.99	4J-5267
486-9601	19.1-.75	-12	XN	47.6-1.87	-16	130.0-5.12	77.0-3.03	4J-0520
498-8394	25.4-1.00	-16	XN	41.3-1.63	-12	145.0-5.71	80.0-3.15	4J-5267
498-8396	25.4-1.00	-16	XN	47.6-1.87	-16	154.0-6.06	69.0-2.72	4J-0520
498-8405	25.4-1.00	-16	XN	54.0-2.13	-20	154.0-6.06	89.0-3.50	4J-0522
516-9131	31.8-1.25	-20	XN6	47.6-1.87	-16	177.0-6.97	104.0-4.09	4J-0520
442-5572	31.8-1.25	-20	XN6	54.0-2.13	-20	157.0-6.18	85.0-3.35	4J-0522
442-5573	31.8-1.25	-20	XN6	63.5-2.50	-24	157.0-6.18	85.0-3.35	4J-0524
505-3891	38.1-1.50	-24	XN6	54.0-2.13	-20	155.0-6.10	77.0-3.03	4J-0522
505-3892	38.1-1.50	-24	XN6	63.5-2.50	-24	206.0-8.11	129.0-5.08	4J-0524
505-3893	38.1-1.50	-24	XN6	79.4-3.13	-32	180.0-7.09	103.0-4.06	4J-0527
274-2220	38.1-1.50	-24	MCSH	79.4-3.13	-32	182.0-7.17	105.4-4.15	4J-0527
561-8115	50.8-2.00	-32	XS6	71.4-2.81	-32	221.0-8.70	116.0-4.57	4J0-527

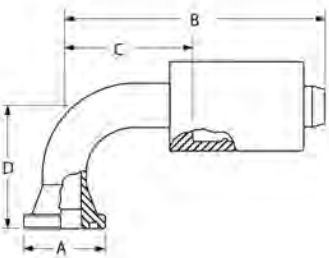
# XT-5ES Hose Permanent Couplings

## Code 62 Flange-45° Elbow



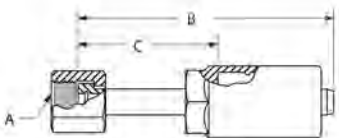
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2100	19.1-.75	-12	XN	41.3-1.63	-12	121.0-4.76	67.0-2.64	29.0-1.14	4J-5267
432-2102	19.1-.75	-12	XN	47.6-1.87	-16	121.0-4.76	68.0-2.68	29.0-1.14	4J-0520
559-9498	25.4-1.00	-16	XN	41.3-1.63	-12	136.0-5.35	71.0-2.80	26.0-1.02	4J5-267
498-8399	25.4-1.00	-16	XN	47.6-1.87	-16	145.0-5.71	79.0-3.11	32.0-1.26	4J-0520
498-8408	25.4-1.00	-16	XN	54.0-2.13	-20	145.0-5.71	79.0-3.11	32.0-1.26	4J-0522
442-5574	31.8-1.25	-20	XN6	54.0-2.13	-20	188.0-7.40	114.0-4.49	38.0-1.50	4J-0522
442-5575	31.8-1.25	-20	XN6	63.5-2.50	-24	188.0-7.40	114.0-4.49	38.0-1.50	4J-0524
505-3896	38.1-1.50	-24	XN6	63.5-2.50	-24	195.0-7.68	117.0-4.61	41.0-1.61	4J-0524

## Code 62 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2101	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	55.0-2.17	4J-5267
432-2103	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	59.0-2.32	4J-0520
498-8395	25.4-1.00	-16	XN	41.3-1.63	-12	126.0-4.96	61.0-2.40	59.0-2.32	4J-5267
498-8403	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	70.0-2.76	4J-0520
498-8411	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	70.0-2.76	4J-0522
442-5577	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	82.0-3.23	4J-0522
481-8280	31.8-1.25	-20	XN6	54.0-2.13	-20	187.0-7.36	108.9-4.29	100.0-3.94	4J-0522
442-5634	31.8-1.25	-20	XN6	54.0-2.13	-20	187.0-7.36	108.9-4.29	140.0-5.51	4J-0522
442-5578	31.8-1.25	-20	XN6	63.5-2.50	-24	181.0-7.13	109.0-4.29	82.0-3.23	4J-0524
578-6951	31.8-1.25	-20	XN6	63.5-2.50	-24	186.7-7.35	108.9-4.29	120.0-4.72	4J-0524
505-3902	38.1-1.50	-24	XN6	63.5-2.50	-24	180.0-7.09	104.0-4.09	87.0-3.43	4J-0524
578-6960	38.1-1.50	-24	XN6	63.5-2.50	-24	184.7-7.27	104.2-4.10	200.0-7.87	4J-0524
578-6966	50.8-2.0	-32	XS6	71.4-2.81	-32	278.1-10.95	166.6-6.56	150.0-5.91	4J-0524

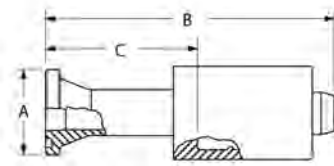
## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
432-2039	19.1-.75	-12	XN	7/8-14	-10	89.0-3.50	35.0-1.38
432-2028	19.1-.75	-12	XN	1 1/16-12	-12	90.0-3.54	36.0-1.42
432-2035	19.1-.75	-12	XN	1 5/16-12	-16	94.0-3.70	40.0-1.57
499-1158	25.4-1.00	-16	XN	1 5/16-12	-16	102.0-4.02	37.0-1.46
499-1169	25.4-1.00	-16	XN	1 5/8-12	-20	105.0-4.13	40.0-1.57
442-5607	31.8-1.25	-20	XN6	1 5/8-12	-20	122.0-4.80	49.0-1.93

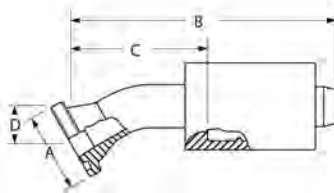
# XT-5ES Hose Permanent Couplings

## Cat Flange-Str



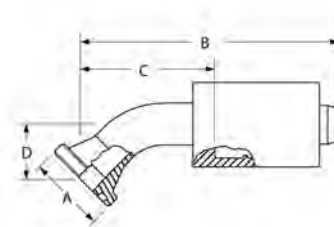
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
432-2105	19.1-.75	-12	XN	41.3-1.63	-12	138.0-5.43	84.0-3.31	1P-3702
432-2116	19.1-.75	-12	XN	47.6-1.87	-16	138.0-5.43	84.0-3.31	1P-3703
496-2307	25.4-1.00	-16	XN	47.6-1.87	-16	150.0-5.91	85.0-3.35	1P-3703
496-9725	25.4-1.00	-16	XN	54.0-2.13	-20	150.0-5.91	85.0-3.35	1P-3704
442-5579	31.8-1.25	-20	XN6	54.0-2.13	-20	158.0-6.22	85.0-3.35	1P-3704
442-5580	31.8-1.25	-20	XN6	63.5-2.50	-24	158.0-6.22	85.0-3.35	1P-3705
447-1258	38.1-1.50	-24	XN6	63.5-2.50	-24	206.0-8.11	129.0-5.08	1P-3705
456-3393	50.8-2.00	-32	XS6	79.4-3.13	-32	298.0-11.73	193.0-7.60	1P-3709

## Cat Flange-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2107	19.1-.75	-12	XN	41.3-1.63	-12	127.0-5.00	73.0-2.87	22.0-.87	1P-3702
432-2118	19.1-.75	-12	XN	47.6-1.87	-16	127.0-5.00	73.0-2.87	22.0-.87	1P-3703
496-2311	25.4-1.00	-16	XN	47.6-1.87	-16	146.0-5.75	81.0-3.19	23.0-.91	1P-3703
496-2312	25.4-1.00	-16	XN	47.6-1.87	-16	171.0-6.73	100.6-3.96	34.0-1.34	1P-3703
496-9727	25.4-1.00	-16	XN	54.0-2.13	-20	146.0-5.75	81.0-3.19	23.0-.91	1P-3704
442-5583	31.8-1.25	-20	XN6	54.0-2.13	-20	187.0-7.36	115.0-4.53	27.0-1.06	1P-3704
442-5584	31.8-1.25	-20	XN6	63.5-2.50	-24	187.0-7.36	115.0-4.53	27.0-1.06	1P-3705
447-1259	38.1-1.50	-24	XN6	63.5-2.50	-24	202.0-7.95	125.0-4.92	27.0-1.06	1P-3705
588-1530	38.1-1.50	-24	XN6	79.4-3.13	-32	202.6-7.98	118.7-4.67	29.3-1.15	1P-3709

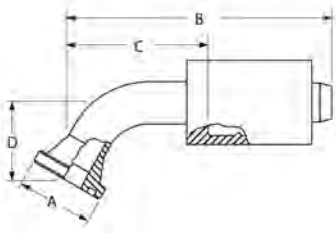
## Cat Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2108	19.1-.75	-12	XN	41.3-1.63	-12	127.0-5.00	73.0-2.87	35.0-1.38	1P-3702
432-2119	19.1-.75	-12	XN	47.6-1.87	-16	127.0-5.00	73.0-2.87	35.0-1.38	1P-3703
496-2313	25.4-1.00	-16	XN	47.6-1.87	-16	149.0-5.87	83.0-3.27	36.0-1.42	1P-3703
496-2314	25.4-1.00	-16	XN	47.6-1.87	-16	175.0-6.89	109.0-4.29	62.0-2.44	1P-3703
545-7807	25.4-1.00	-16	XN	47.6-1.87	-16	230.0-9.06	158.6-6.24	62.0-2.44	1P-3703
496-2315	25.4-1.00	-16	XN	47.6-1.87	-16	190.0-7.48	125.0-4.92	78.0-3.07	1P-3703
496-9728	25.4-1.00	-16	XN	54.0-2.13	-20	148.0-5.83	83.0-3.27	36.0-1.42	1P-3704
442-5585	31.8-1.25	-20	XN6	54.0-2.13	-20	190.0-7.48	118.0-4.65	42.0-1.65	1P-3704
442-5636	31.8-1.25	-20	XN6	54.0-2.13	-20	265.0-10.43	192.0-7.56	110.0-4.33	1P-3704
442-5586	31.8-1.25	-20	XN6	63.5-2.50	-24	190.0-7.48	118.0-4.65	42.0-1.65	1P-3705
447-1260	38.1-1.50	-24	XN6	63.5-2.50	-24	194.0-7.64	118.0-4.65	41.0-1.61	1P-3705
588-1114	38.1-1.50	-24	XN6	63.5-2.50	-24	212.6-8.37	128.8-5.07	54.9-2.16	1P-3705
588-1467	38.1-1.50	-24	XN6	79.4-3.13	-32	204.8-8.06	120.9-4.76	46.0-1.81	1P-3709

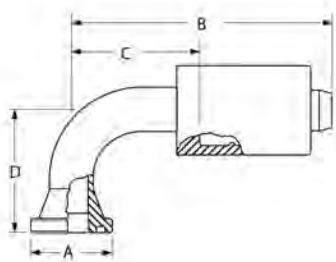
# XT-5ES Hose Permanent Couplings

## Cat Flange-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2109	19.1-.75	-12	XN	41.3-1.63	-12	123.0-4.84	70.0-2.76	47.0-1.85	1P-3702
432-2120	19.1-.75	-12	XN	47.6-1.87	-16	123.0-4.84	70.0-2.76	47.0-1.85	1P-3703
496-2316	25.4-1.00	-16	XN	47.6-1.87	-16	149.0-5.87	84.0-3.31	53.0-2.09	1P-3703
496-9729	25.4-1.00	-16	XN	54.0-2.13	-20	155.0-6.10	84.1-3.31	53.0-2.09	1P-3704
442-5587	31.8-1.25	-20	XN6	54.0-2.13	-20	191.0-7.52	118.0-4.65	60.0-2.36	1P-3704
442-5588	31.8-1.25	-20	XN6	63.5-2.50	-24	196.0-7.72	118.4-4.66	60.0-2.36	1P-3705
505-3887	38.1-1.50	-24	XN6	63.5-2.50	-24	205.0-8.07	122.3-4.81	56.0-2.20	1P-3705
505-3888	38.1-1.50	-24	XN6	63.5-2.50	-24	221.0-8.70	144.0-5.67	83.0-3.27	1P-3705
456-3396	50.8-2.00	-32	XS6	79.4-3.13	-32	306.0-12.05	201.0-7.91	100.0-3.94	1P-3709

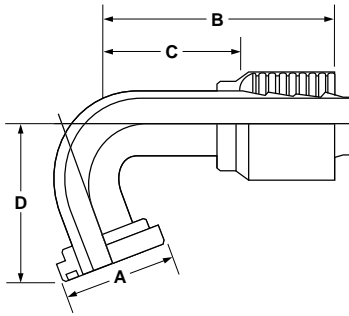
## Cat Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2111	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	68.0-2.68	1P-3702
432-2112	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	85.0-3.35	1P-3702
432-2113	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	120.0-4.72	1P-3702
432-2114	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	129.0-5.08	1P-3702
432-2121	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	68.0-2.68	1P-3703
432-2122	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	100.0-3.94	1P-3703
432-2123	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	128.0-5.04	1P-3703
496-2318	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	73.0-2.87	1P-3703
496-2319	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	82.0-3.23	1P-3703
496-2320	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	132.0-5.20	1P-3703
496-9732	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	73.0-2.87	1P-3704
496-9733	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	82.0-3.23	1P-3704
496-9734	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	150.0-5.91	1P-3704
581-4022	25.4-1.00	-16	XN	47.6-1.87	-16	162.1-6.38	91.6-3.61	110.0-4.33	1P-3703
442-5593	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	82.0-3.23	1P-3704
442-5594	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	92.0-3.62	1P-3704
524-0034	31.8-1.25	-20	XN6	54.0-2.13	-20	217.0-8.54	138.9-5.47	120.0-4.72	1P-3704
442-5595	31.8-1.25	-20	XN6	54.0-2.13	-20	181.0-7.13	109.0-4.29	150.0-5.91	1P-3704
442-5596	31.8-1.25	-20	XN6	63.5-2.50	-24	181.0-7.13	109.0-4.29	82.0-3.23	1P-3705
442-5597	31.8-1.25	-20	XN6	63.5-2.50	-24	181.0-7.13	109.0-4.29	135.0-5.31	1P-3705
583-4393	38.1-1.50	-24	XN6	54.0-2.13	-20	178.6-7.03	96.2-3.79	95.5-3.76	1P-3704
582-9218	38.1-1.50	-24	XN6	79.4-3.13	-32	186.7-7.35	103.7-4.09	140.0-5.51	1P-3709
447-1261	38.1-1.50	-24	XN6	63.5-2.50	-24	181.0-7.13	104.0-4.09	87.0-3.43	1P-3705
447-1262	38.1-1.50	-24	XN6	63.5-2.50	-24	181.0-7.13	104.0-4.09	106.0-4.17	1P-3705
581-4024	38.1-1.50	-24	XN6	63.5-2.50	-24	234.0-9.21	151.8-5.98	180.0-7.09	1P-3705
583-4749	50.8-2.00	-32	XS6	63.5-2.50	-24	250.0-9.84	138.5-5.45	175.0-6.89	1P-3705

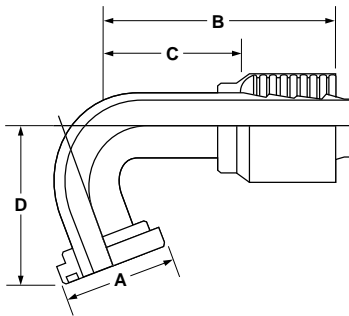
# XT-5ES Hose Permanent Couplings

## Cat Flange-105° Elbow



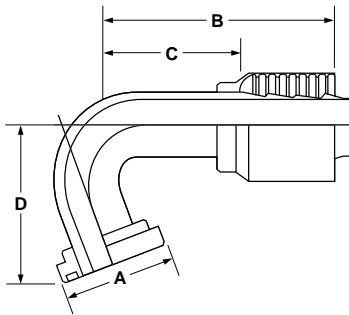
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
583-4906	38.1-1.50	-24	XN6	63.5-2.50	-24	229.3-9.03	147.2-5.80	155.0-6.10	1P-3705
463-0980	50.8-2.00	-32	XS6	79.4-3.13	-32	233.0-9.17	118.0-4.65	204.0-8.03	1P-3709

## Cat Flange-110° Elbow



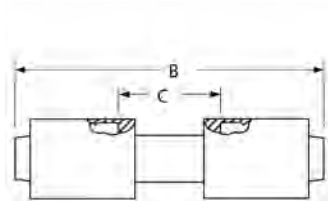
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
496-2323	25.4-1.00	-16	XN	47.6-1.87	-16	120.0-4.72	55.0-2.17	85.0-3.35	1P-3703
496-9735	25.4-1.00	-16	XN	54.0-2.13	-20	120.0-4.72	55.0-2.17	85.0-3.35	1P-3704
581-4025	38.1-1.50	-24	XN6	63.5-2.50	-24	210.8-8.30	128.6-5.06	160.0-6.30	1P-3705
583-4122	38.1-1.50	-24	XN6	79.4-3.13	-32	202.0-7.95	119.5-4.70	187.0-7.36	1P-3709

## Cat Flange-120° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
581-4023	38.1-1.50	-24	XN6	63.5-2.50	-24	178.0-7.00	95.9-3.78	185.0-7.28	1P-3705

## Double Collet-Str

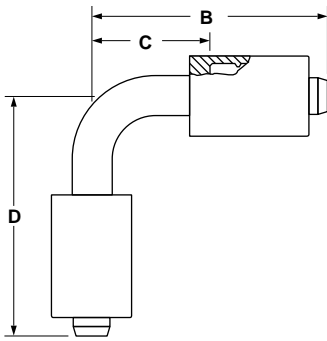


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
471-6416	19.1-.75	-12	XN	157.0-6.18	53.0-2.09
499-1175	25.4-1.00	-16	XN	192.0-7.56	52.0-2.05



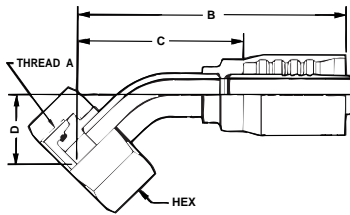
# XT-5ES Hose Permanent Couplings

## Double Collet-90° Elbow



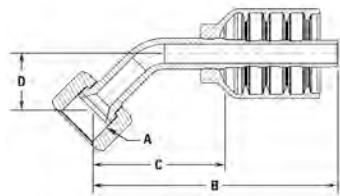
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
432-2135	19.1-.75	-12	XN	115.0-4.53	62.0-2.44	115.0-4.53
499-1176	25.4-1.00	-16	XN	135.0-5.31	70.0-2.76	60.0-2.36
591-1736	31.8-1.25	-20	XN6	172.0-6.77	89.4-3.52	172.0-6.77
505-3890	38.1-1.50	-24	XN6	187.0-7.36	104.0-4.09	85.0-3.35

## Metric Female Swivel 24° Taper w/O-Ring-45° Elbow (Heavy)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2129	19.1-.75	-12	XN	M36 x 2.0	25.0-0.98	122-4.80	69-2.72	30-1.18	3E-6762
499-1173	25.4-1.00	-16	XN	M42 x 2.0	30.0-1.18	150-5.91	85-3.35	38-1.50	3E-6733

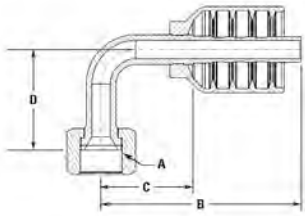
## JIS 30° Flare Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
519-4010	19.1-.75	-12	XN	3/4-14	-12	120-4.72	68-2.68	29-1.14

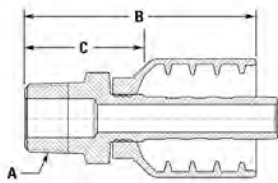
# XT-5ES Hose Permanent Couplings

## JIS 30° Flare Female Swivel-90° Elbow



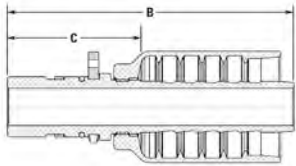
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
519-4011	19.1-.75	-12	XN	3/4-14	-12	106-4.17	53-2.09	58-2.28

## JIS Male Tapered Pipe-Str



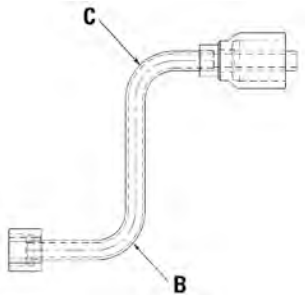
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
513-4473	19.1-.75	-12	XN	3/4-14	-12	95-3.74	42-1.65
513-4474	25.4-1.00	-16	XN	1-11	-16	110-4.33	45-1.77

## WEO Plug-In Coupling



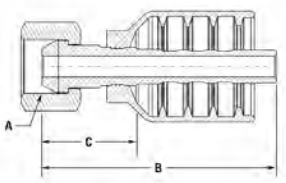
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
505-1188	19.1 - 0.75	-12	XN	-12 - 0.47	110 - 4.33	51 - 2.00	8U-5951
583-7081	19.1 - 0.75	-12	XN	-12 - 0.47	110 - 4.33	51 - 2.00	-

## ORFS HFL-Multibend (Used on Backhoe Loaders)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	FLANGE DASH SIZE	O-RING SEAL	BEND (B & C)	WORKING PRESSURE (kPa)	MIN. BURST PRESSURE (kPa)
202-0998	12.7-.50	-8	XN	13/16-16	6V-8398	90.0°	31,000	93,276
202-1002	12.7-.50	-8	XN	13/16-16	6V-8398	44.3°	31,000	93,276
202-2377	12.7-.50	-8	XN	13/16-16	6V-8398	90.0°	31,000	93,276
202-1000	15.9-.63	-10	XN	1-14	7J9108	62.8°	24,000	72,216
202-1006	15.9-.63	-10	XN	1-14	7J-9108	64.3°	24,000	72,216
202-1004	19.1-.75	-12	XN	1 3/16-12	6V-9746	43.1°	25,750	77,628
203-4695	19.1-.75	-12	XN	1 3/16-12	6V-9746	78.1°	25,750	77,628

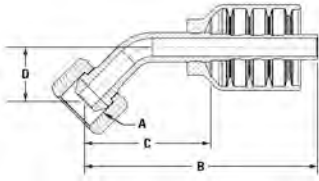
## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
502-2106	19.1-.75	-12	XN	3/4-14	-12	96.5-3.80	37.9-1.49
499-1179	25.4-1.00	-16	XN	1-11	-16	113.0-4.45	42.5-1.67
499-1182	25.4-1.00	-16	XN	1 1/4-11	-20	123.5-4.86	53.0-2.09
502-5110	31.8-1.25	-20	XN6	1 1/4-11	-20	140.0-5.51	62.1-2.44

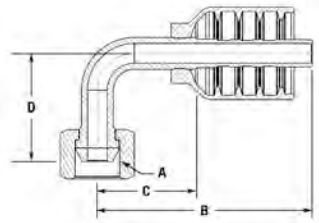
# XT-5ES Hose Permanent Couplings

## ISO 8434-6 BSPP Conical Seat-Female Swivel-45° Elbow



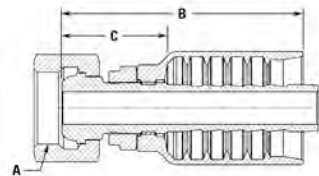
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
502-2107	19.1-.75	-12	XN	3/4-14	-12	126.1-4.96	67.5-2.66	29.0-1.14
499-1180	25.4-1.00	-16	XN	1-11	-16	152.8-6.02	82.3-3.24	35.0-1.38
499-1183	25.4-1.00	-16	XN	1 1/4-11	-20	156.8-6.17	86.3-3.40	39.0-1.54
502-5111	31.8-1.25	-20	XN6	1 1/4-11	-20	188.75-7.43	110.5-4.35	40.0-1.57

## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



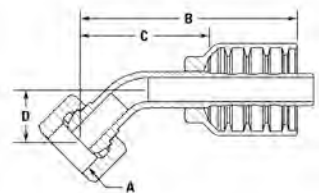
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
518-3999	9.5-.37	-6	XN	3/8-19	-6	73.9-2.91	34.1-1.34	37.0-1.46
518-0823	12.7-.50	-8	XN	1/2-14	-8	80.0-3.15	39.5-1.56	41.0-1.61
554-6968	15.9-.63	-10	XN	5/8-14	-10	93.47-3.68	41.7-1.64	43.8-1.72
502-2108	19.1-.75	-12	XN	3/4-14	-12	112.0-4.41	53.4-2.10	58.0-2.28
499-1181	25.4-1.00	-16	XN	1-11	-16	140.1-5.52	69.6-2.74	70.0-2.76
499-1184	25.4-1.00	-16	XN	1 1/4-11	-20	140.1-5.52	69.6-2.74	76.0-2.99
502-5112	31.8-1.25	-20	XN6	1 1/4-11	-20	172.75-6.80	94.5-3.72	85.0-3.35

## BSPP Spherical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6221	9.5-.37	-6	XN	3/8-19	-6	61.9-2.44	22.5-0.89
323-6223	9.5-.37	-6	XN	1/2-14	-8	56.6-2.23	23.1-0.91
397-1960	15.9-.63	-10	XN	5/8-14	-10	87.5-3.44	36.0-1.42

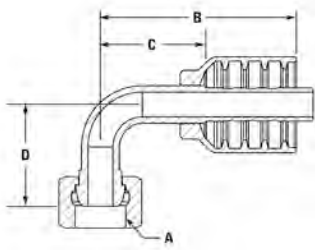
## BSPP Spherical Seat-Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6224	9.5-.37	-6	XN	3/8-19	-6	80.3-3.16	46.8-1.84	20.1-0.79

# XT-5ES Hose Permanent Couplings

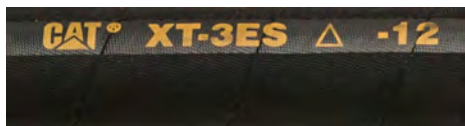
## BSPP Spherical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6225	9.5-.37	-6	XN	3/8-19	-6	67.7-2.67	34.2-1.35	37.1-1.46
416-2093	15.9-.63	-10	XN	5/8-14	-10	98.6-3.88	47.1-1.85	43.7-1.72

# XT-3ES Hose & Coupling Products

## XT-3ES Hose Features and Benefits



- 1/2 SAE 100R12 Minimum Bend Radius.
- Exceeds the SAE 100R12 Industry Standard
- Superior Abrasion Resistance Cover.
- Aged Impulse Tested to 1 Million Cycles (2 X Industry Standards).
- Working pressure between 2500 to 4000 psi
- Black hose with a Yellow embossed mylar layline for easy identification.
- Hose is marked with a Triangle/Delta (Δ) symbol.
- Target Application(s): Small Medium Size Wheel Loaders, Small Track-Type Tractors and Backhoe Loaders

## XT-3ES Hose (736)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8466	9.5 - .37	20.5 - .81	-6	TR / S4G / XN	112.0 - 16244	28.0 - 4061	64 - 2.52
456-8467	12.7 - .50	23.8 - .94	-8	TR / S4G / XN	112.0 - 16244	28.0 - 4061	89 - 3.50
456-8468	15.9 - .63	27.4 - 1.08	-10	TR / ESA / XN	112.0 - 16244	28.0 - 4061	102 - 4.02
456-8469	19.1 - .75	30.9 - 1.22	-12	TR / ESA / XN	112.0 - 16244	28.0 - 4061	121 - 4.76
456-8470	25.4 - 1.00	38.2 - 1.50	-16	TR / ESA / S4G	112.0 - 16244	28.0 - 4061	153 - 6.02
456-8471	31.8 - 1.25	47.0 - 1.85	-20	S4G / XN4	96.4 - 13982	24.1 - 3495	210 - 8.27
456-8472	38.1 - 1.50	53.5 - 2.11	-24	S4G / XN4	70.0 - 10153	17.5 - 2538	254 - 10.00
456-8473	50.8 - 2.00	66.7 - 2.63	-32	S4G	70.0 - 10153	17.5 - 2538	318 - 12.52

**Construction:** Fabric reinforced, synthetic rubber tube; four plies of spirally-wrapped high tensile steel wire reinforcement, separated by layers of synthetic rubber. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Extremely high-pressure service with petroleum base hydraulic fluids. MSHA approved cover.

**Temperature Range:** -40°F to + 250°F (-40°C to +121°C)

**Couplings:** Collet-type reusable, skive type, TR Series coupling. See XT-3ES Hose Reusable Couplings section. Crimp-on permanent, skive type, ESA, S4G, XN or XN4 Series coupling. See XT-3ES Hose Permanent Couplings section. For related assembly equipment and tooling, see Tooling section.

**Note:** Depending on coupling series, the hose cover may or may not need to be removed before attaching couplings. Please review the coupling series being used prior to hose assembly. Coupling series XN and XN4 are no-skive couplings and do not require the hose cover to be removed. All other coupling series require a specified length of the hose cover to be removed. Reference chart NEEG2956 for for specified Skive Lengths.

<sup>1</sup> Centerline of Hose

## XT-3ES ToughGuard (4135)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8474	9.5 - .37	20.5 - .81	-6	TR / S4G / XN	112.0 - 16244	28.0 - 4061	64 - 2.52
456-8475	12.7 - .50	23.8 - .94	-8	TR / S4G / XN	112.0 - 16244	28.0 - 4061	89 - 3.50
456-8476	15.9 - .63	27.4 - 1.08	-10	TR / ESA / XN	112.0 - 16244	28.0 - 4061	102 - 4.02
456-8477	19.1 - .75	30.9 - 1.22	-12	TR / ESA / XN	112.0 - 16244	28.0 - 4061	121 - 4.76
456-8478	25.4 - 1.00	38.2 - 1.50	-16	TR / ESA / S4G	112.0 - 16244	28.0 - 4061	153 - 6.02
456-8479	31.8 - 1.25	47.0 - 1.85	-20	S4G / XN4	96.4 - 13982	24.1 - 3495	210 - 8.27

# XT-3ES Hose & Coupling Products

## XT-3ES ToughGuard (4135) (Cont'd.)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8480	38.1 - 1.50	53.5 - 2.11	-24	S4G / XN4	70.0 - 10153	17.5 - 2538	254 - 10.00
456-8481	50.8 - 2.00	66.7 - 2.63	-32	S4G	70.0 - 10153	17.5 - 2538	318 - 12.52

**Construction:** Fabric reinforced, synthetic rubber tube; four plies of spirally-wrapped high tensile steel wire reinforcement, separated by layers of synthetic rubber. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Extremely high-pressure service with petroleum base hydraulic fluids. MSHA approved cover.

**Temperature Range:** -40°F to + 250°F (-40°C to +121°C)

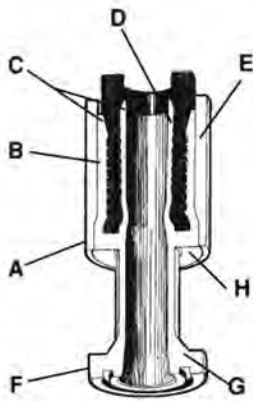
**Couplings:** Collet-type reusable, skive type, TR Series coupling. See XT-3ES Hose Reusable Couplings section. Crimp-on permanent, skive type, ESA, S4G, XN or XN4 Series coupling. See XT-3ES Hose Permanent Couplings section. For related assembly equipment and tooling, see Tooling section.

**Note:** Depending on coupling series, the hose cover may or may not need to be removed before attaching couplings. Please review the coupling series being used prior to hose assembly. Coupling series XN and XN4 are no-skive couplings and do not require the hose cover to be removed. All other coupling series require a specified length of the hose cover to be removed. Reference chart NEEG2956 for for specified Skive Lengths.

<sup>1</sup> Centerline of Hose

# XT-3ES Hose Reusable Couplings

## XT-3ES Reusable Couplings Features and Benefits



XT-3 ES Hose Couplings have the same advantages as XT-5 ES Hose Couplings as well as these added features for 2500 to 4000 psi (17 to 28 MPa) application.

### EXCLUSIVE REUSABLE DESIGN

Reuse XT Couplings over and over again for the lowest operating cost. In addition, you know you have the right coupling at the right time.

#### (A) Slim, Collet-Type Style

- No bolts or protrusions for easy installation, even in cramped places.

#### (B) Multi-land Fingers

- Grip the wires on the skived hose solidly to prevent coupling blow-off and provide better coupling retention.

#### (C) Tapered Fingers & Stem

- Compressive force is slightly relieved so the hose can flex without failure at the rear of the coupling. This increases hose assembly life.

#### (D) Multi-land Stem

- Keeps fluid sealed in without inner liner damage and provides a positive coupling to hose seal.

#### (E) Hardened Steel Sleeve

- No sleeve bend or distortion so the sleeve retains its original size and shape and can be reused.
- Hose stays firmly compressed in coupling, further aiding coupling retention.

#### (F) Precision Machined O-Ring Head

- To help eliminate hazardous fluid leaks and provide positive coupling head seal.

#### (G) Extruded Stem

- Orients metal grain for more uniform strength and fatigue resistance.
- Braze joint between head and stem is eliminated resulting in leak free performance and excellent coupling assembly life.

#### (H) Extruded Collet

- More uniform strength for excellent coupling performance after repeated reuse.

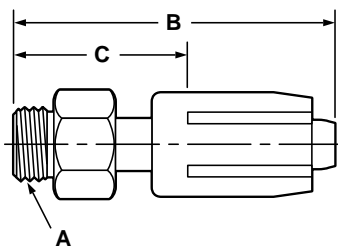
# warning!

TO AVOID SERIOUS PERSONAL INJURY TO THE OPERATOR AND EXTENSIVE DAMAGE TO THE EQUIPMENT, THE FOLLOWING PROCEDURES MUST BE OBSERVED. FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY.

- ALWAYS match hose, stem assemblies and sleeves according to markings ( $\Delta$  / + / UHP /  $\infty$ ).
- NEVER interchange XT-3 ES hose, stem assemblies and sleeves marked with a triangle ( $\Delta$ ) with XT-5 ES hose, stem assemblies and sleeves marked with a plus (+), XT-6 hose, stem assemblies and sleeves marked with (UHP) or XT-6 ES hose, stem assemblies and sleeves marked with an infinity sign ( $\infty$ ).

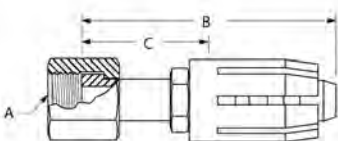


## ORFS Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
184-7202	31.8-1.25	-20	TR	1 11/16-12	-20	125.0-4.92	68.0-2.68	6V-8400

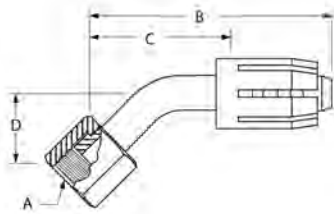
## ORFS Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
6V-9957	25.4-1.00	-16	TR	1 7/16-12	-16	95.0-3.74	45.1-1.78	5K-9090
155-2857	31.8-1.25	-20	TR	1 11/16-12	-20	110.0-4.33	50.3-1.98	6V-8400
155-2858	38.1-1.50	-24	TR	2-12	-24	120.0-4.72	53.8-2.12	8T-0315

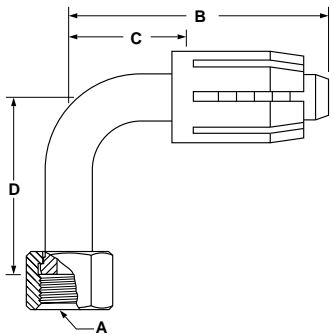
# XT-3ES Hose Reusable Couplings

## ORFS Female Swivel-45° Elbow



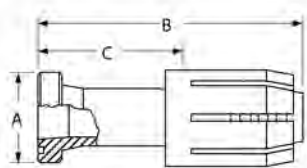
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
6V-9958	25.4-1.00	-16	TR	1 7/16-12	-16	143.0-5.63	93.1-3.67	32.0-1.26	5K-9090
155-2860	31.8-1.25	-20	TR	1 11/16-12	-20	170.0-6.69	110.3-4.34	35.0-1.38	6V-8400
155-2861	38.1-1.50	-24	TR	2-12	-24	197.0-7.76	130.3-5.13	38.0-1.50	8T-0315

## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
6V-9959	25.4-1.00	-16	TR	1 7/16-12	-16	111.0-4.37	60.6-2.39	67.5-2.66	5K-9090
6V-9960	25.4-1.00	-16	TR	1 7/16-12	-16	110.0-4.33	60.1-2.37	125.0-4.92	5K-9090
155-2863	31.8-1.25	-20	TR	1 11/16-12	-20	130.0-5.12	70.3-2.77	73.7-2.90	6V-8400
155-2864	38.1-1.50	-24	TR	2-12	-24	153.0-6.02	86.3-3.40	81.7-3.22	8T-0315

## Code 61 Flange-Str

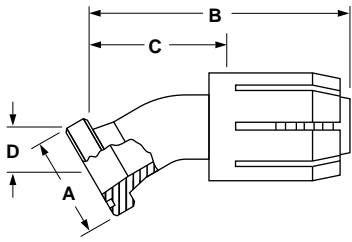


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
3S-8496	25.4-1.00	-16	TR	44.5-1.75	-16	105.0-4.13	55.1-2.17	4J-0520
2P-1801	25.4-1.00	-16	TR	44.5-1.75	-16	115.0-4.53	65.1-2.56	4J-0520
7S-0570	25.4-1.00	-16	TR	50.8-2.00	-20	105.0-4.13	55.1-2.17	4J-0522
6V-1404	25.4-1.00	-16	TR	50.8-2.00	-20	135.0-5.31	85.1-3.35	4J-0522
2P-1313	25.4-1.00	-16	TR	60.3-2.37	-24	105.0-4.13	55.1-2.17	4J-0524
3S-8567	31.8-1.25	-20	TR	50.8-2.00	-20	123.0-4.84	62.8-2.47	4J-0522
1P-1219	31.8-1.25	-20	TR	50.8-2.00	-20	139.0-5.47	79.0-3.11	4J-0522
5S-3779	31.8-1.25	-20	TR	60.3-2.37	-24	123.0-4.84	62.8-2.47	4J-0524
1P-7931	31.8-1.25	-20	TR	60.3-2.37	-24	225.0-8.86	165.3-6.51	4J-0524
1P-7929	31.8-1.25	-20	TR	71.4-2.81	-32	135.0-5.31	75.3-2.96	4J-0527
1P-1238	38.1-1.50	-24	TR	60.3-2.37	-24	149.0-5.87	83.2-3.28	4J-0524
7S-9370	38.1-1.50	-24	TR	71.4-2.81	-32	134.0-5.28	67.3-2.65	4J-0527
4S-7492	50.8-2.00	-32	TR	71.4-2.81	-32	140.0-5.51	67.7-2.67	4J-0527
147-2027	50.8-2.00	-32	TR	71.4-2.81	-32	188.0-7.40	115.7-4.56	4J-0527



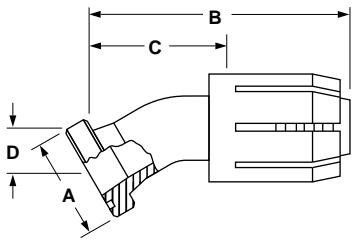
# XT-3ES Hose Reusable Couplings

## Code 61 Flange-22 1/2° Elbow



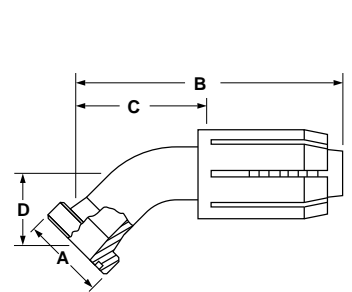
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
3S-8497	25.4-1.00	-16	TR	44.5-1.75	-16	123.0-4.84	73.1-2.88	11.0-.43	4J-0520
7S-0571	25.4-1.00	-16	TR	50.8-2.00	-20	123.0-4.84	73.1-2.88	11.0-.43	4J-0522
5P-1706	25.4-1.00	-16	TR	60.3-2.37	-24	157.0-6.18	106.6-4.20	11.0-.43	4J-0524
3S-8568	31.8-1.25	-20	TR	50.8-2.00	-20	130.0-5.12	70.3-2.77	12.5-.49	4J-0522
3S-8569	31.8-1.25	-20	TR	50.8-2.00	-20	129.0-5.08	68.8-2.71	18.0-.71	4J-0522
5S-3784	31.8-1.25	-20	TR	60.3-2.37	-24	131.0-5.16	70.8-2.79	12.5-.49	4J-0524
3S-9327	38.1-1.50	-24	TR	60.3-2.37	-24	164.0-6.46	97.3-3.83	15.5-.61	4J-0524
3S-9328	38.1-1.50	-24	TR	60.3-2.37	-24	161.0-6.34	94.8-3.73	22.5-.89	4J-0524
9S-0284	38.1-1.50	-24	TR	71.4-2.81	-32	164.0-6.46	97.3-3.83	15.5-.61	4J-0527
4S-7493	50.8-2.00	-32	TR	71.4-2.81	-32	184.0-7.24	111.7-4.40	22.0-.87	4J-0527

## Code 61 Flange-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
3S-8498	25.4-1.00	-16	TR	44.5-1.75	-16	110.0-4.33	60.1-2.37	16.0-.63	4J-0520
7S-0572	25.4-1.00	-16	TR	50.8-2.00	-20	110.0-4.33	60.1-2.37	16.0-.63	4J-0522
8S-1396	31.8-1.25	-20	TR	60.3-2.37	-24	129.0-5.08	68.8-2.71	18.5-.73	4J-0524
1P-4948	31.8-1.25	-20	TR	60.3-2.37	-24	176.0-6.93	116.3-4.58	43.5-1.71	4J-0524
1P-1708	38.1-1.50	-24	TR	71.4-2.81	-32	161.0-6.34	94.8-3.73	22.5-.89	4J-0527
4S-7494	50.8-2.00	-32	TR	71.4-2.81	-32	182.0-7.17	110.2-4.34	32.0-1.26	4J-0527

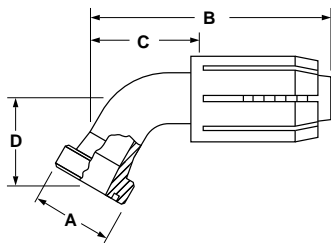
## Code 61 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
3S-8499	25.4-1.00	-16	TR	44.5-1.75	-16	117.0-4.61	67.1-2.64	27.0-1.06	4J-0520
7S-0573	25.4-1.00	-16	TR	50.8-2.00	-20	117.0-4.61	67.1-2.64	27.0-1.06	4J-0522
3S-8570	31.8-1.25	-20	TR	50.8-2.00	-20	138.0-5.43	77.8-3.06	30.5-1.20	4J-0522
5S-3778	31.8-1.25	-20	TR	60.3-2.37	-24	135.0-5.31	75.3-2.96	30.0-1.18	4J-0524
3S-9329	38.1-1.50	-24	TR	60.3-2.37	-24	161.0-6.34	94.8-3.73	36.5-1.44	4J-0524
5P-3229	38.1-1.50	-24	TR	71.4-2.81	-32	172.0-6.77	105.8-4.17	36.5-1.44	4J-0527
4S-7495	50.8-2.00	-32	TR	71.4-2.81	-32	193.0-7.60	121.2-4.77	52.0-2.05	4J-0527

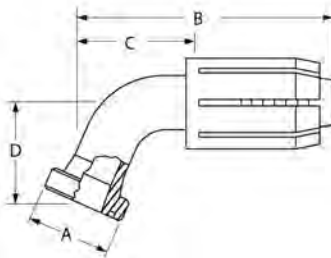
# XT-3ES Hose Reusable Couplings

## Code 61 Flange-60° Elbow



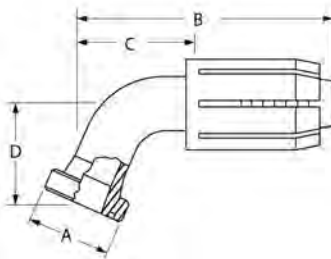
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
3S-8501	25.4-1.00	-16	TR	44.5-1.75	-16	120.0-4.72	69.6-2.74	38.5-1.52	4J-0520
7S-0574	25.4-1.00	-16	TR	50.8-2.00	-20	120.0-4.72	69.6-2.74	38.5-1.52	4J-0522
3S-8571	31.8-1.25	-20	TR	50.8-2.00	-20	139.0-5.47	79.3-3.12	43.0-1.69	4J-0522
8S-9372	31.8-1.25	-20	TR	50.8-2.00	-20	152.0-5.98	92.3-3.63	65.0-2.56	4J-0522
142-5137	38.1-1.50	-24	TR	50.8-2.00	-20	162.0-6.38	95.8-3.77	51.5-2.03	4J-0522
3S-9330	38.1-1.50	-24	TR	60.3-2.37	-24	162.0-6.38	95.8-3.77	51.5-2.03	4J-0524
7S-8440	38.1-1.50	-24	TR	71.4-2.81	-32	162.0-6.38	95.8-3.77	51.5-2.03	4J-0527
4S-7496	50.8-2.00	-32	TR	71.4-2.81	-32	194.0-7.64	122.0-4.80	73.5-2.89	4J-0527

## Code 61 Flange-67 1/2° Elbow



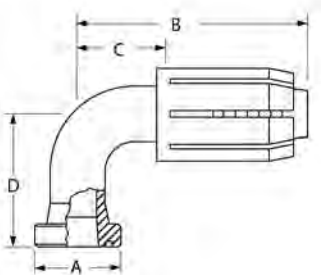
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
3S-8502	25.4-1.00	-16	TR	44.5-1.75	-16	120.0-4.72	70.1-2.76	44.5-1.75	4J-0520
5S-3454	25.4-1.00	-16	TR	50.8-2.00	-20	120.0-4.72	70.1-2.76	44.5-1.75	4J-0522
3S-8572	31.8-1.25	-20	TR	50.8-2.00	-20	138.0-5.43	78.3-3.08	49.5-1.95	4J-0522
8S-8957	31.8-1.25	-20	TR	60.3-2.37	-24	138.0-5.43	78.3-3.08	49.5-1.95	4J-0524
3S-9331	38.1-1.50	-24	TR	60.3-2.37	-24	161.0-6.34	94.8-3.73	58.5-2.30	4J-0524
8S-3649	38.1-1.50	-24	TR	71.4-2.81	-32	161.0-6.34	94.8-3.73	58.5-2.30	4J-0527
5S-3788	50.8-2.00	-32	TR	71.4-2.81	-32	191.0-7.52	119.2-4.69	75.0-2.95	4J-0527
4S-7497	50.8-2.00	-32	TR	71.4-2.81	-32	193.0-7.60	121.2-4.77	85.0-3.35	4J-0527

## Code 61 Flange-69° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
7S-4078	31.8-1.25	-20	TR	60.3-2.37	-24	139.0-5.47	79.3-3.12	43.0-1.69	4J-0524

## Code 61 Flange-90° Elbow



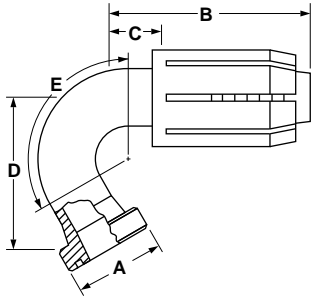
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5S-2105	25.4-1.00	-16	TR	44.5-1.75	-16	120.0-4.72	69.6-2.74	54.0-2.13	4J-0520
7S-0577	25.4-1.00	-16	TR	44.5-1.75	-16	120.0-4.72	69.6-2.74	57.0-2.24	4J-0520
3S-8503	25.4-1.00	-16	TR	44.5-1.75	-16	120.0-4.72	69.6-2.74	60.5-2.38	4J-0520
6D-9961	25.4-1.00	-16	TR	44.5-1.75	-16	120.0-4.72	69.6-2.74	117.5-4.63	4J-0520
7S-0575	25.4-1.00	-16	TR	50.8-2.00	-20	120.0-4.72	69.6-2.74	60.5-2.38	4J-0522
2P-4813	25.4-1.00	-16	TR	50.8-2.00	-20	120.0-4.72	69.6-2.74	117.5-4.63	4J-0522
7S-3122	25.4-1.00	-16	TR	60.3-2.37	-24	120.0-4.72	69.6-2.74	60.5-2.38	4J-0524
5P-1031	25.4-1.00	-16	TR	60.3-2.37	-24	115.0-4.53	64.6-2.54	108.0-4.25	4J-0524
3S-8573	31.8-1.25	-20	TR	50.8-2.00	-20	132.0-5.20	71.8-2.83	67.0-2.64	4J-0522

# XT-3ES Hose Reusable Couplings

## Code 61 Flange-90° Elbow (Cont'd.)

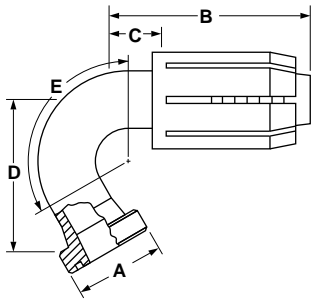
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5S-3811	31.8-1.25	-20	TR	50.8-2.00	-20	132.0-5.20	72.3-2.85	91.0-3.58	4J-0522
5S-3826	31.8-1.25	-20	TR	50.8-2.00	-20	132.0-5.20	72.3-2.85	102.0-4.02	4J-0522
5S-3832	31.8-1.25	-20	TR	50.8-2.00	-20	132.0-5.20	72.3-2.85	111.5-4.39	4J-0522
5S-3820	31.8-1.25	-20	TR	50.8-2.00	-20	132.0-5.20	72.3-2.85	117.5-4.63	4J-0522
8S-8221	31.8-1.25	-20	TR	50.8-2.00	-20	132.0-5.20	72.3-2.85	130.0-5.12	4J-0522
5S-3842	31.8-1.25	-20	TR	50.8-2.00	-20	132.0-5.20	72.3-2.85	168.0-6.61	4J-0522
5S-3777	31.8-1.25	-20	TR	60.3-2.37	-24	132.0-5.20	72.3-2.85	68.5-2.70	4J-0524
2P-9923	31.8-1.25	-20	TR	60.3-2.37	-24	130.0-5.12	70.6-2.78	79.0-3.11	4J-0524
7S-4105	31.8-1.25	-20	TR	60.3-2.37	-24	132.0-5.20	72.3-2.85	117.5-4.63	4J-0524
5P-3230	31.8-1.25	-20	TR	60.3-2.37	-24	132.0-5.20	72.3-2.85	130.0-5.12	4J-0524
194-4769	31.8-1.25	-20	TR	71.4-2.81	-32	130.0-5.12	70.0-2.76	79.0-3.11	4J-0527
3S-9332	38.1-1.50	-24	TR	60.3-2.37	-24	152.0-5.98	85.8-3.38	79.5-3.13	4J-0524
5S-3836	38.1-1.50	-24	TR	60.3-2.37	-24	153.0-6.02	86.3-3.40	147.5-5.81	4J-0524
8S-9345	38.1-1.50	-24	TR	60.3-2.37	-24	153.0-6.02	86.3-3.40	171.5-6.75	4J-0524
7S-8439	38.1-1.50	-24	TR	71.4-2.81	-32	152.0-5.98	85.8-3.38	79.5-3.13	4J-0527
8S-8946	38.1-1.50	-24	TR	71.4-2.81	-32	153.0-6.02	86.3-3.40	114.5-4.51	4J-0527
8S-9344	38.1-1.50	-24	TR	71.4-2.81	-32	153.0-6.02	86.3-3.40	171.5-6.75	4J-0527
4S-7498	50.8-2.00	-32	TR	71.4-2.81	-32	173.0-6.81	101.2-3.98	117.5-4.63	4J-0527
3P-0421	50.8-2.00	-32	TR	71.4-2.81	-32	177.0-6.97	104.7-4.12	165.0-6.50	4J-0527
3P-0422	50.8-2.00	-32	TR	71.4-2.81	-32	177.0-6.97	104.7-4.12	203.0-7.99	4J-0527

## Code 61 Flange-100° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
6V-4686	19.1-.75	-12	TR	44.5-1.75	-16	96.0-3.78	50.4-1.98	59.5-2.34	4J-0520

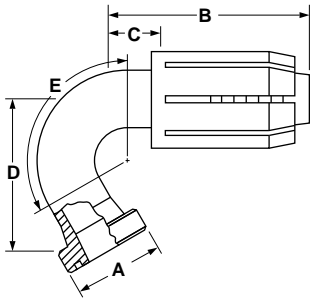
## Code 61 Flange-110 Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
6V-4687	19.1-.75	-12	TR	38.1-1.50	-12	94.0-3.70	48.9-1.93	63.5-2.50	4J-5267
7S-1720	25.4-1.00	-16	TR	44.5-1.75	-16	115.0-4.53	64.6-2.54	73.0-2.87	4J-0520
5P-5121	25.4-1.00	-16	TR	50.8-2.00	-20	115.0-4.53	64.6-2.54	73.0-2.87	4J-0522
5P-9593	25.4-1.00	-16	TR	50.8-2.00	-20	93.0-3.66	42.6-1.68	133.4-5.25	4J-0522
7S-1707	31.8-1.25	-20	TR	50.8-2.00	-20	127.0-5.00	67.3-2.65	79.5-3.13	4J-0522
2P-2675	31.8-1.25	-20	TR	60.3-2.37	-24	127.0-5.00	67.3-2.65	81.0-3.19	4J-0524
2P-8355	38.1-1.50	-24	TR	60.3-2.37	-24	139.0-5.47	72.3-2.85	95.0-3.74	4J-0524
5P-9956	38.1-1.50	-24	TR	60.3-2.37	-24	183.0-7.20	116.3-4.58	119.0-4.69	4J-0524
2P-6704	50.8-2.00	-32	TR	71.4-2.81	-32	164.0-6.46	92.2-3.63	140.0-5.51	4J-0527

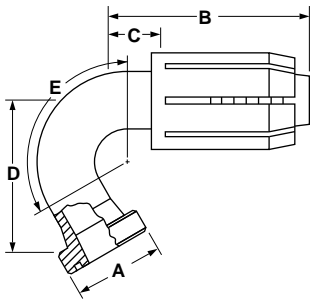
# XT-3ES Hose Reusable Couplings

## Code 61 Flange-125° Elbow



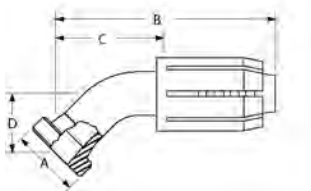
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
5P-4321	50.8-2.00	-32	TR	71.4-2.81	-32	181.0-7.13	108.7-4.28	150.5-5.93	4J-0527

## Code 61 Flange-135° Elbow



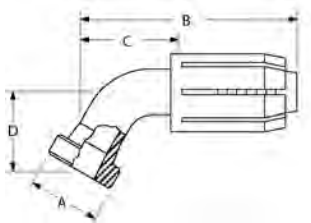
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
6V-4688	19.1-.75	-12	TR	38.1-1.50	-12	128.0-5.04	82.9-3.26	69.0-2.72	4J-5267
6V-1236	25.4-1.00	-16	TR	44.5-1.75	-16	105.0-4.13	54.6-2.15	87.5-3.44	4J-0520

## Code 61 Flange No Groove-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
9S-3173	31.8-1.25	-20	TR	60.3-2.37	-24	135.0-5.31	75.3-2.96	30.0-1.18	4J-0524

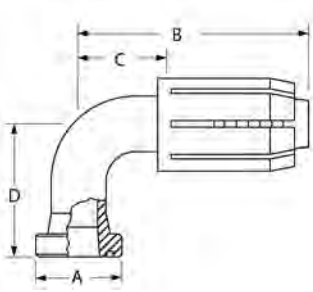
## Code 61 Flange No Groove-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
9S-3172	31.8-1.25	-20	TR	60.3-2.37	-24	139.0-5.47	79.3-3.12	43.0-1.69	4J-0524

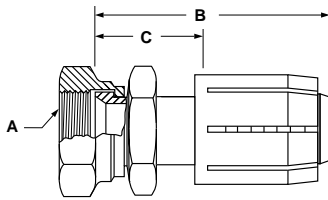
# XT-3ES Hose Reusable Couplings

## Code 62 Flange-90° Elbow



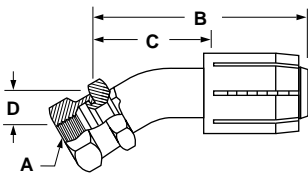
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
196-7776	31.8-1.25	-20	TR	54.0-2.13	-20	142.0-5.59	83.0-3.27	73.0-2.87	4J-0522

## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
8S-3918	25.4-1.00	-16	TR	1 5/16-12	-16	117.0-4.61	53.0-2.09
2P-0988	31.8-1.25	-20	TR	1 5/8-12	-20	126.0-4.96	66.3-2.61
2P-0991	38.1-1.50	-24	TR	1 7/8-12	-24	133.0-5.24	66.8-2.63
2P-0995	50.8-2.00	-32	TR	2 1/2-12	-32	148.0-5.83	76.6-3.02

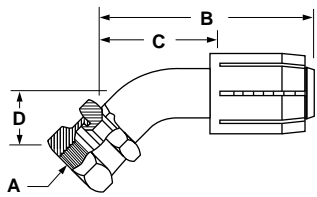
## JIC 37° Female Swivel-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
6V-3283	25.4-1.00	-16	TR	1 5/16-12	-16	148.0-5.83	97.6-3.84	27.0-1.06

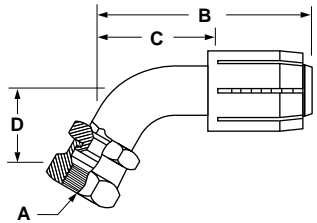
# XT-3ES Hose Reusable Couplings

## JIC 37° Female Swivel-45° Elbow



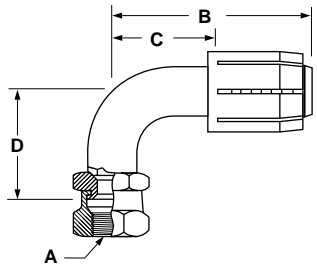
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
2P-1409	25.4-1.00	-16	TR	1 5/16-12	-16	140.0-5.51	90.1-3.55	42.0-1.65
155-2834	31.8-1.25	-20	TR	1 5/8-12	-20	178.0-7.01	117.8-4.64	43.0-1.69
155-2835	38.1-1.50	-24	TR	1 7/8-12	-24	201.0-7.91	134.8-5.31	44.0-1.73
155-2836	50.8-2.00	-32	TR	2 1/2-12	-32	223.0-8.78	151.2-5.95	56.0-2.20

## JIC 37° Female Swivel-60° Elbow



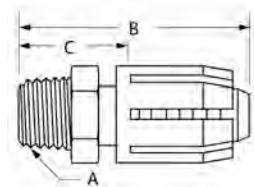
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
1P-9892	25.4-1.00	-16	TR	1 5/16-12	-16	135.0-5.31	84.6-3.33	57.0-2.24

## JIC 37° Female Swivel-90° Elbow



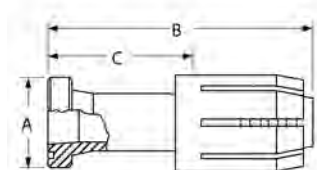
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
8K-5114	25.4-1.00	-16	TR	1 5/16-12	-16	120.0-4.72	69.6-2.74	66.5-2.62
1P-9589	25.4-1.00	-16	TR	1 5/16-12	-16	115.0-4.53	65.1-2.56	85.5-3.37
2P-1411	25.4-1.00	-16	TR	1 5/16-12	-16	115.0-4.53	65.1-2.56	142.5-5.61
155-2838	31.8-1.25	-20	TR	1 5/8-12	-20	129.0-5.08	69.3-2.73	85.0-3.35
155-2839	38.1-1.50	-24	TR	1 7/8-12	-24	151.0-5.94	84.8-3.34	90.0-3.54
155-2840	50.8-2.00	-32	TR	2 1/2-12	-32	185.0-7.28	113.0-4.45	120.0-4.72

## NPTF Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
7S-2371	25.4-1.00	-16	TR	1-11 1/2	-16	112.0-4.41	61.6-2.43
2P-0922	31.8-1.25	-20	TR	1 1/4-11 1/2	-20	132.0-5.20	72.3-2.85
2P-0924	50.8-2.00	-32	TR	2-11 1/2	-32	155.0-6.10	83.2-3.28

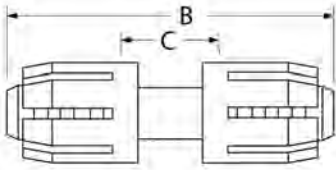
## Cat Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
3E-6868	31.8-1.25	-20	TR	54.0-2.13	-20	147.0-5.79	86.8-3.42	1P-3704

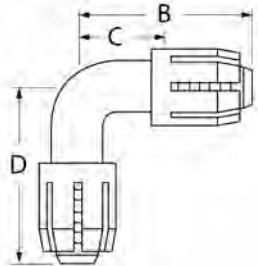
# XT-3ES Hose Reusable Couplings

## Double Collet-Str



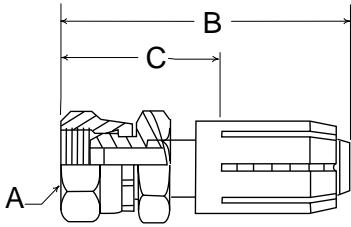
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
2P-2523	25.4-1.00	-16	TR	145.0-5.71	45.4-1.79
2P-1315	31.8-1.25	-20	TR	171.0-6.73	51.3-2.02
3P-0644	38.1-1.50	-24	TR	184.0-7.24	51.1-2.01
3P-0645	50.8-2.00	-32	TR	195.0-7.68	51.0-2.01

## Double Collet-90° Elbow



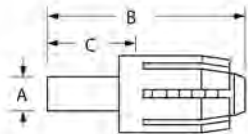
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
5P-4699	25.4-1.00	-16	TR	127.0-5.00	77.1-3.04	127.0-5.00
5P-4700	31.8-1.25	-20	TR	149.0-5.87	89.3-3.52	149.0-5.87
6V-2897	38.1-1.50	-24	TR	165.0-6.50	98.8-3.89	165.0-6.50
6V-0298	50.8-2.00	-32	TR	195.0-7.68	122.7-4.83	194.5-7.66

## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
9X-7574	25.4-1.00	-16	TR	1-11	-16	105.15-4.14	55.22-2.17	6V-0409

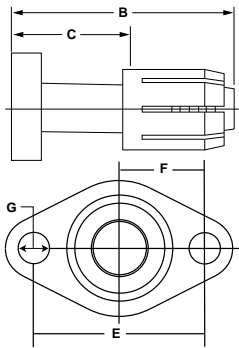
## Braze On-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
5P-1453	25.4-1.00	-16	TR	135.0-5.31	84.6-3.33
1P-8457	31.8-1.25	-20	TR	134.0-5.28	73.8-2.91
1P-8458	38.1-1.50	-24	TR	144.0-5.67	77.3-3.04

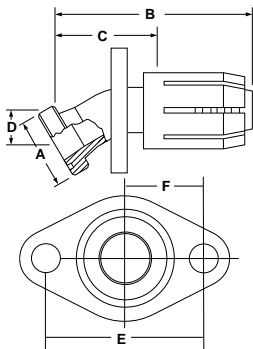
# XT-3ES Hose Reusable Couplings

## Captive Flange Code 61 (2 Hole)-Str



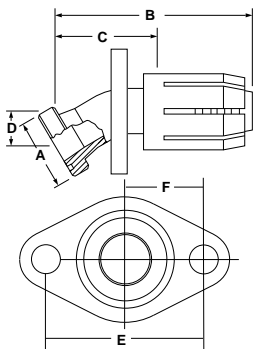
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	E FLANGE HOLE SPACING	F FLANGE HOLE SPACING	O-RING SEAL
439-0804	19.1-.75	-12	XN	38.1-1.50	-12	124.0-4.88	70.0-2.76	64.2-2.53	32.1-1.26	4J-5267
7S-0614	25.4-1.00	-16	TR	44.5-1.75	-16	105.0-4.13	55.1-2.17	63.5-2.50	31.8-1.25	4J-0520
7S-0631	25.4-1.00	-16	TR	44.5-1.75	-16	105.0-4.13	55.1-2.17	64.3-2.53	32.1-1.26	4J-0520
7S-0592	25.4-1.00	-16	TR	44.5-1.75	-16	105.0-4.13	55.1-2.17	73.0-2.87	36.5-1.44	4J-0520
6K-8325	25.4-1.00	-16	TR	44.5-1.75	-16	136.0-5.35	85.6-3.37	64.3-2.53	32.1-1.26	1P-3703
7S-1074	31.8-1.25	-20	TR	50.8-2.00	-20	133.0-5.24	72.8-2.87	82.5-3.25	41.3-1.63	4J-0522
8S-8869	38.1-1.50	-24	TR	60.3-2.37	-24	145.0-5.71	78.3-3.08	82.5-3.25	41.3-1.63	4J-0524

## Captive Flange Code 61 (2 Bolt)-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	E FLANGE HOLE SPACING	F FLANGE HOLE SPACING	O-RING SEAL
5P-0922	25.4-1.00	-16	TR	44.5-1.75	-16	123.0-4.84	73.1-2.88	11.0-.43	63.5-2.50	31.8-1.25	1P-3703
7S-1809	25.4-1.00	-16	TR	44.5-1.75	-16	123.0-4.84	73.1-2.88	11.0-.43	73.0-2.87	36.5-1.44	4J-0520

## Captive Flange Code 61 (2 Bolt)-30° Elbow

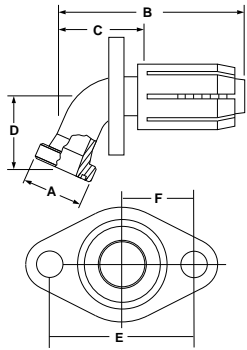


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	E FLANGE HOLE SPACING	F FLANGE HOLE SPACING	O-RING SEAL
6V-4663	19.1-.75	-12	TR	38.1-1.50	-12	100.0-3.94	54.9-2.16	15.0-.59	64.3-2.53	32.1-1.26	4J-5267
7S-0685	25.4-1.00	-16	TR	44.5-1.75	-16	111.0-4.37	61.1-2.41	16.0-.63	64.3-2.53	32.1-1.26	4J-0520



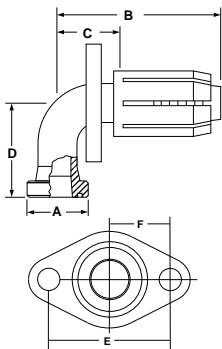
# XT-3ES Hose Reusable Couplings

## Captive Flange Code 61 (2 Bolt)-67 1/2° Elbow



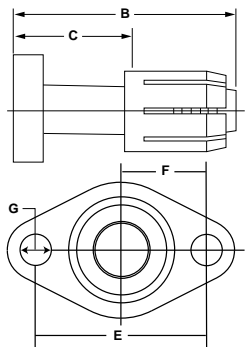
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	E FLANGE HOLE SPACING	F FLANGE HOLE SPACING	O-RING SEAL
6V-4674	19.1-.75	-12	TR	38.1-1.50	-12	104.0-4.09	58.4-2.30	40.5-1.59	64.3-2.53	32.1-1.26	4J-5267

## Captive Flange Code 61 (2 Bolt)-90° Elbow



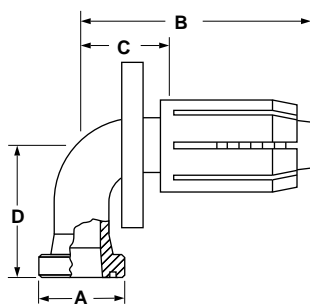
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	E FLANGE HOLE SPACING	F FLANGE HOLE SPACING	O-RING SEAL
6V-4683	19.1-.75	-12	TR	38.1-1.50	-12	100.0-3.94	54.9-2.16	54.0-2.13	64.3-2.53	32.1-1.26	4J-5267
5S-2108	25.4-1.00	-16	TR	44.5-1.75	-16	123.0-4.84	72.6-2.86	57.5-2.26	64.3-2.53	32.1-1.26	4J-0520

## Captive Fixed Flange Code 61 (2 Bolt)-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	E FLANGE HOLE SPACING	F FLANGE HOLE SPACING	O-RING SEAL
7S-1150	25.4-1.00	-16	TR	44.5-1.75	-16	125.0-4.92	75.1-2.96	64.3-2.53	32.1-1.26	1P-3703
7S-1212	25.4-1.00	-16	TR	44.5-1.75	-16	125.0-4.92	75.1-2.96	70.8-2.79	38.7-1.52	3P-3703
7S-1217	25.4-1.00	-16	TR	44.5-1.75	-16	125.0-4.92	75.1-2.96	82.6-3.25	41.3-1.63	1P-3703
7S-1851	31.8-1.25	-20	TR	44.5-1.75	-16	135.0-5.31	75.3-2.96	82.6-3.25	41.3-1.63	3P-3703

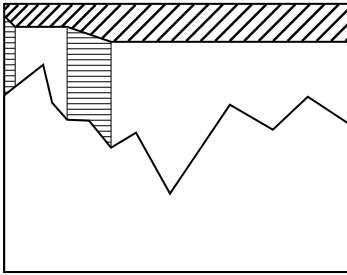
## Captive Flange Code 61 (4 Bolt) - 90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	E FLANGE HOLE SPACING	F FLANGE HOLE SPACING	O-RING SEAL
6V-4684	19.1-.75	-12	TR	38.1-1.50	-12	100.0-3.94	54.9-2.16	54.0-2.13	.0-.00	.0-.00	4J-5267
2P-9921	31.8-1.25	-20	TR	50.8-2.00	-20	152.0-5.98	92.3-3.63	91.0-3.58	58.7-2.31	47.5-1.87	1P-3704

# XT-3ES Hose Reusable Couplings

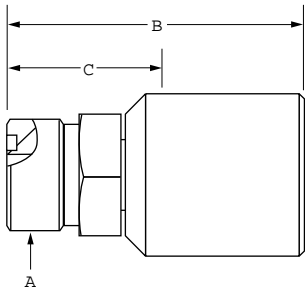
## XT-3 ES Sleeve Information



Part Number	HOSE I.D. (mm - in)	DASH SIZE
3S-7166	19.1 - 0.75	-12
3S-7252	25.4 - 1.00	-16
3S-7116	31.8 - 1.25	-20
3S-8330	38.1 - 1.50	-24
4S-7507	50.8 - 2.00	-32

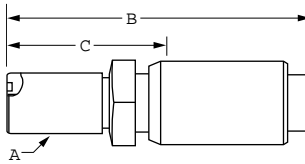
# XT-3ES Hose Permanent Couplings

## ORFS Male-Str



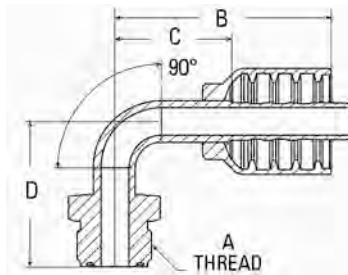
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6174	9.5-.37	-6	XN	11/16-16	-6	62.0-2.44	28.5-1.12	6V-8397
323-6175	9.5-.37	-6	XN	13/16-16	-8	65.0-2.56	31.1-1.22	6V-8398
323-6176	9.5-.37	-6	XN	1-14	-10	67.0-2.64	33.9-1.33	7J-9108
328-9108	12.7-.50	-8	XN	13/16-16	-8	66.0-2.60	32.0-1.26	6V-8398
333-9956	12.7-.50	-8	XN	13/16-16	-8	83.0-3.27	49.2-1.94	6V-8398
331-3273	12.7-.50	-8	XN	1-14	-10	69.0-2.72	34.7-1.37	7J-9108
397-1933	15.9-.63	-10	XN	1-14	-10	82.0-3.23	35.0-1.38	7J-9108
397-1935	15.9-.63	-10	XN	1-14	-10	101.0-3.98	55.0-2.17	7J-9108
397-1936	15.9-.63	-10	XN	1 3/16-12	-12	101.0-3.98	55.0-2.17	6V-9746
432-2025	19.1-.75	-12	XN	1 3/16-12	-12	91.0-3.58	37.0-1.46	6V-9746
184-7201	25.4-1.00	-16	ESA	1 7/16-12	-16	101.0-3.98	54.0-2.13	5K-9090

## ORFS Male Bulkhead-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6177	9.5-.37	-6	XN	11/16-16	-6	81.0-3.19	47.3-1.86	6V-8397
333-9956	12.7-.50	-8	XN	13/16-16	-8	83.0-3.27	49.2-1.94	6V-8398

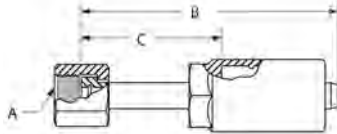
## ORFS Male-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
331-3274	12.7-.50	-8	XN	1-14	-10	73.0-2.87	39.5-1.56	49.3-1.94	7J-9108
397-1934	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	53.0-2.09	7J-9108
432-2026	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	57.0-2.24	6V-9746

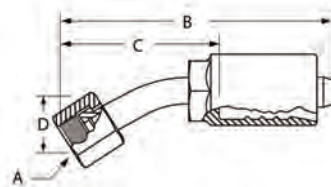
# XT-3ES Hose Permanent Couplings

## ORFS Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6156	9.5-.37	-6	XN	9/16-18	-4	60.0-2.36	26.1-1.03	4J-5477
323-6157	9.5-.37	-6	XN	11/16-16	-6	62.0-2.44	28.3-1.11	6V-8397
323-6158	9.5-.37	-6	XN	13/16-16	-8	66.0-2.60	32.3-1.27	6V-8398
323-6159	9.5-.37	-6	XN	1-14	-10	68.0-2.68	34.8-1.37	7J-9108
328-9089	12.7-.50	-8	XN	11/16-16	-6	67.0-2.64	32.4-1.28	6V-8397
328-9090	12.7-.50	-8	XN	13/16-16	-8	67.0-2.64	33.1-1.30	6V-8398
328-9091	12.7-.50	-8	XN	1-14	-10	70.0-2.76	35.6-1.40	7J-9108
328-9092	12.7-.50	-8	XN	1 3/16-16	-12	72.0-2.83	38.1-1.50	6V-9746
397-1924	15.9-.63	-10	XN	1-14	-10	92.0-3.62	46.0-1.81	7J-9108
397-1937	15.9-.63	-10	XN	1 3/16-12	-12	95.0-3.74	48.0-1.89	6V-9746
432-2022	19.1-.75	-12	XN	1-14	-10	102.0-4.02	48.0-1.89	7J-9108
432-2008	19.1-.75	-12	XN	1 3/16-12	-12	104.0-4.09	50.0-1.97	6V-9746
432-2019	19.1-.75	-12	XN	1 7/16-12	-16	104.0-4.09	51.0-2.01	5K-9090
499-1141	25.4-1.00	-16	XN	1 3/16-12	-12	112.0-4.41	47.0-1.85	6V-9746
499-1142	25.4-1.00	-16	XN	1 7/16-12	-16	118.0-4.65	53.0-2.09	5K-9090
499-1154	25.4-1.00	-16	XN	1 11/16-12	-20	118.0-4.65	53.0-2.09	6V-8400
570-4869	31.8-1.25	-20	XN4	1 11/16-12	-20	98.0-3.86	46.0-1.81	6V8-400
423-5099	38.1-1.50	-24	XN4	2-12	-24	120.0-4.72	63.0-2.48	8T-0315

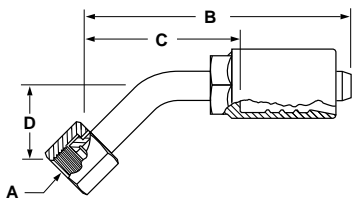
## ORFS Female Swivel-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6173	9.5-.37	-6	XN	11/16-16	-6	78.0-3.07	44.2-1.74	11.2-.44	6V-8397
328-9107	12.7-.50	-8	XN	13/16-16	-8	86.0-3.39	51.8-2.04	13.7-.54	6V-8398
397-1926	15.9-.63	-10	XN	1-14	-10	107.0-4.21	61.0-2.40	16.0-.63	7J-9108
432-2010	19.1-.75	-12	XN	1 3/16-12	-12	111.0-4.37	57.0-2.24	13.0-.51	6V-9746
432-2011	19.1-.75	-12	XN	1 3/16-12	-12	119.0-4.69	65.0-2.56	18.0-.71	6V-9746
432-2012	19.1-.75	-12	XN	1 3/16-12	-12	133.0-5.24	78.0-3.07	26.0-1.02	6V-9746
499-1144	25.4-1.00	-16	XN	1 7/16-12	-16	145.0-5.71	75.0-2.95	19.0-.75	5K-9090

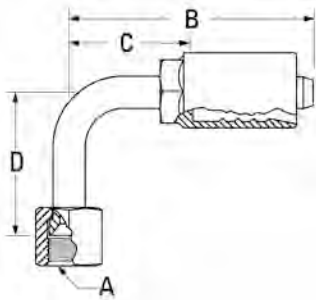
# XT-3ES Hose Permanent Couplings

## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6160	9.5-.37	-6	XN	11/16-16	-6	72.0-2.83	37.6-1.48	10.9-.43	6V-8397
323-6161	9.5-.37	-6	XN	11/16-16	-6	75.0-2.95	41.6-1.64	15.0-.59	6V-8397
323-6162	9.5-.37	-6	XN	11/16-16	-6	78.0-3.07	44.1-1.74	17.5-.69	6V-8397
323-6163	9.5-.37	-6	XN	13/16-16	-8	75.0-2.95	41.7-1.64	15.0-.59	6V-8398
328-9093	12.7-.50	-8	XN	13/16-16	-8	80.0-3.15	45.2-1.78	15.0-.59	6V-8398
328-9094	12.7-.50	-8	XN	13/16-16	-8	86.0-3.39	51.9-2.04	21.6-.85	6V-8398
328-9095	12.7-.50	-8	XN	1-14	-10	81.0-3.19	46.7-1.84	16.5-.65	7J-9108
328-9096	12.7-.50	-8	XN	1-14	-10	86.0-3.39	51.8-2.04	21.6-.85	7J-9108
397-1927	15.9-.63	-10	XN	1-14	-10	98.0-3.86	52.0-2.05	16.0-.63	7J-9108
397-1928	15.9-.63	-10	XN	1-14	-10	108.0-4.25	61.0-2.40	25.0-.98	7J-9108
432-2023	19.1-.75	-12	XN	1-14	-10	113.0-4.45	60.0-2.36	21.0-.83	7J-9108
432-2013	19.1-.75	-12	XN	1 3/16-12	-12	113.0-4.45	60.0-2.36	21.0-.83	6V-9746
432-2014	19.1-.75	-12	XN	1 3/16-12	-12	120.0-4.72	67.0-2.64	28.0-1.10	6V-9746
432-2020	19.1-.75	-12	XN	1 7/16-12	-16	116.0-4.57	62.0-2.44	24.0-.94	5K-9090
499-1145	25.4-1.00	-16	XN	1 7/16-12	-16	142.0-5.59	71.8-2.83	24.5-.96	5K-9090
499-1146	25.4-1.00	-16	XN	1 7/16-12	-16	145.0-5.71	80.0-3.15	33.0-1.30	5K-9090
499-1155	25.4-1.00	-16	XN	1 11/16-12	-20	145.0-5.71	80.0-3.15	33.0-1.30	6V-8400
569-1091	31.8-1.25	-20	XN4	1 11/16-12	-20	169.0-6.65	116.0-4.57	25.0-.98	6V8-400
423-5100	38.1-1.50	-24	XN4	2-12	-24	156.0-6.14	99.0-3.90	27.0-1.06	8T-0315

## ORFS Female Swivel-90° Elbow



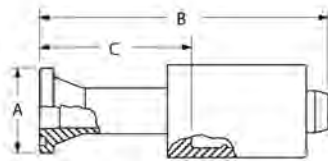
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6164	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	22.9-.90	6V-8397
323-6167	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	35.1-1.38	6V-8397
323-6165	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	38.1-1.50	6V-8397
323-6166	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	54.1-2.13	6V-8397
323-6168	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	69.1-2.72	6V-8397
323-6169	9.5-.37	-6	XN	11/16-16	-6	68.0-2.68	34.1-1.34	79.0-3.11	6V-8397
323-6170	9.5-.37	-6	XN	13/16-16	-8	68.0-2.68	34.2-1.35	29.0-1.14	6V-8398
323-6171	9.5-.37	-6	XN	13/16-16	-8	68.0-2.68	34.2-1.35	40.9-1.61	6V-8398
323-6172	9.5-.37	-6	XN	13/16-16	-8	68.0-2.68	34.2-1.35	64.0-2.52	6V-8398
328-9097	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	29.2-1.15	6V-8398
328-9098	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	41.2-1.62	6V-8398
328-9100	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	43.4-1.71	6V-8398
328-9099	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	63.8-2.51	6V-8398
328-9101	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	83.1-3.27	6V-8398
328-9102	12.7-.50	-8	XN	13/16-16	-8	74.0-2.91	39.5-1.56	91.4-3.60	6V-8398
328-9103	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.5-1.56	32.3-1.27	7J-9108
328-9106	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.5-1.56	43.4-1.71	7J-9108
328-9104	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.5-1.56	47.0-1.85	7J-9108
328-9105	12.7-.50	-8	XN	1-14	-10	74.0-2.91	39.5-1.56	70.1-2.76	7J-9108
397-1929	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	32.0-1.26	7J-9108
397-1930	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	47.0-1.85	7J-9108
397-1931	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	53.0-2.09	7J-9108
397-1932	15.9-.63	-10	XN	1-14	-10	93.0-3.66	47.0-1.85	96.0-3.78	7J-9108
397-1938	15.9-.63	-10	XN	1 3/16-12	-12	94.0-3.70	47.0-1.85	47.0-1.85	6V-9746

# XT-3ES Hose Permanent Couplings

## ORFS Female Swivel-90° Elbow (Cont'd.)

Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2024	19.1-.75	-12	XN	1-14	-10	107.0-4.21	53.0-2.09	48.0-1.89	7J-9108
432-2015	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	48.0-1.89	6V-9746
432-2016	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	58.0-2.28	6V-9746
432-2017	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	96.0-3.78	6V-9746
432-2018	19.1-.75	-12	XN	1 3/16-12	-12	107.0-4.21	53.0-2.09	107.0-4.21	6V-9746
432-2021	19.1-.75	-12	XN	1 7/16-12	-16	107.0-4.21	53.0-2.09	56.0-2.20	5K-9090
499-1148	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	56.0-2.20	5K-9090
499-1149	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	68.0-2.68	5K-9090
499-1150	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	105.0-4.13	5K-9090
499-1151	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	115.0-4.53	5K-9090
499-1152	25.4-1.00	-16	XN	1 7/16-12	-16	135.0-5.31	70.0-2.76	125.0-4.92	5K-9090
499-1153	25.4-1.00	-16	XN	1 7/16-12	-16	140.0-5.51	69.6-2.74	148.0-5.83	5K-9090
499-1156	25.4-1.00	-16	XN	1 11/16-12	-20	135.0-5.31	70.0-2.76	68.0-2.68	6V-8400
569-4975	31.8-1.25	-20	XN4	1 11/16-12	-20	167.0-6.57	115.0-4.53	64.0-2.52	6V8-400
569-4973	31.8-1.25	-20	XN4	1 11/16-12	-20	167.0-6.57	115.0-4.53	129.0-5.08	6V8-400
423-5101	38.1-1.50	-24	XN4	2-12	-24	156.0-6.14	99.0-3.90	69.0-2.72	8T-0315
423-5102	38.1-1.50	-24	XN4	2-12	-24	160.0-6.30	103.0-4.06	141.0-5.55	8T-0315

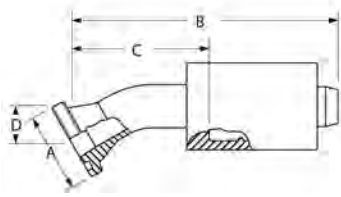
## Code 61 Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6214	9.5-.37	-6	XN	30.2-1.19	-8	79.0-3.11	45.3-1.78	4J-5140
328-9137	12.7-.50	-8	XN	30.2-1.19	-8	84.0-3.31	49.7-1.96	4J-5140
328-9138	12.7-.50	-8	XN	38.1-1.50	-12	84.0-3.31	49.7-1.96	4J-5267
432-2070	19.1-.75	-12	XN	38.1-1.50	-12	124.0-4.88	70.0-2.76	4J-5267
432-2083	19.1-.75	-12	XN	44.5-1.75	-16	124.0-4.88	70.0-2.76	4J-0520
432-2093	19.1-.75	-12	XN	50.8-2.00	-20	124.0-4.88	70.0-2.76	4J-0522
497-8283	25.4-1.00	-16	XN	44.5-1.75	-16	147.0-5.79	82.0-3.23	4J-0520
498-0775	25.4-1.00	-16	XN	50.8-2.00	-20	147.0-5.79	82.0-3.23	4J-0522
498-8389	25.4-1.00	-16	XN	60.3-2.37	-24	151.0-5.94	86.0-3.39	4J-0524
567-0270	31.8-1.25	-20	XN4	50.8-2.00	-20	111.7-4.40	53.8-2.12	4J-0522
568-1462	31.8-1.25	-20	XN4	60.3-2.37	-24	114.7-4.52	56.9-2.24	4J-0524
589-1962	31.8-1.25	-20	XN4	60.3-2.37	-24	223.2-8.79	165.3-6.51	4J-0524
589-1963	31.8-1.25	-20	XN4	71.4-2.81	-32	133.2-5.24	75.4-2.97	4J-0527
423-5071	38.1-1.50	-24	XN4	60.3-2.37	-24	122.0-4.80	65.0-2.56	4J-0524
423-5073	38.1-1.50	-24	XN4	71.4-2.81	-32	122.0-4.80	65.0-2.56	4J-0527
221-0502	50.8-2.00	-32	S4G	71.4-2.81	-32	152.0-5.98	85.5-3.37	4J-0527

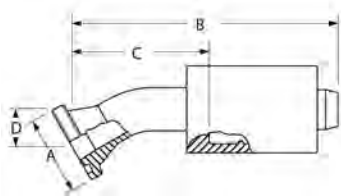
# XT-3ES Hose Permanent Couplings

## Code 61 Flange-22 1/2° Elbow



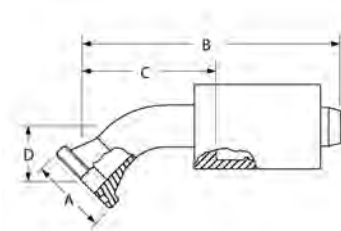
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9139	12.7-.50	-8	XN	30.2-1.19	-8	82.0-3.23	48.4-1.91	8.9-.35	4J-5140
328-9140	12.7-.50	-8	XN	38.1-1.50	-12	83.0-3.27	48.4-1.91	8.9-.35	4J-5267
432-2071	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	62.0-2.44	12.0-.47	4J-5267
432-2084	19.1-.75	-12	XN	44.5-1.75	-16	116.0-4.57	62.0-2.44	12.0-.47	4J-0520
497-8285	25.4-1.00	-16	XN	44.5-1.75	-16	131.0-5.16	66.0-2.60	11.0-.43	4J-0520
498-0776	25.4-1.00	-16	XN	50.8-2.00	-20	131.0-5.16	66.0-2.60	11.0-.43	4J-0522
567-0263	31.8-1.25	-20	XN4	50.8-2.00	-20	138.0-5.43	86.0-3.39	15.0-.59	4J0-522
423-5074	38.1-1.50	-24	XN4	60.3-2.37	-24	158.0-6.22	101.0-3.98	15.0-.59	4J-0524
423-5075	38.1-1.50	-24	XN4	71.4-2.81	-32	158.0-6.22	101.0-3.98	15.0-.59	4J-0527

## Code 61 Flange-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9141	12.7-.50	-8	XN	30.2-1.19	-8	84.0-3.31	49.6-1.95	12.4-.49	4J-5140
328-9142	12.7-.50	-8	XN	38.1-1.50	-12	84.0-3.31	49.6-1.95	12.4-.49	4J-5267
432-2072	19.1-.75	-12	XN	38.1-1.50	-12	114.0-4.49	61.0-2.40	15.0-.59	4J-5267
432-2085	19.1-.75	-12	XN	44.5-1.75	-16	114.0-4.49	61.0-2.40	15.0-.59	4J-0520
497-8287	25.4-1.00	-16	XN	44.5-1.75	-16	134.0-5.28	69.0-2.72	16.0-.63	4J-0520
498-0777	25.4-1.00	-16	XN	50.8-2.00	-20	134.0-5.28	69.0-2.72	16.0-.63	4J-0522
589-0042	31.8-1.25	-20	XN4	50.8-2.00	-20	126.7-4.99	68.8-2.71	18.5-.73	4J-0522
567-0264	31.8-1.25	-20	XN4	50.8-2.00	-20	138.6-5.46	80.8-3.18	20.0-.79	4J-0522
589-0040	31.8-1.25	-20	XN4	60.3-2.37	-24	174.2-6.86	116.3-4.58	43.5-1.71	4J-0524
423-5076	38.1-1.50	-24	XN4	60.3-2.37	-24	162.0-6.38	105.0-4.13	21.0-.83	4J-0524
221-0603	50.8-2.00	-32	S4G	71.4-2.81	-32	194.0-7.64	127.0-5.00	31.0-1.22	4J-0527

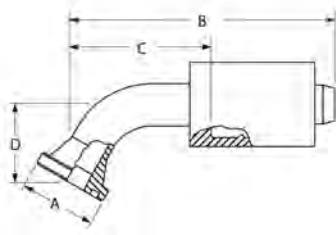
## Code 61 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6215	9.5-.37	-6	XN	30.2-1.19	-8	78.0-3.07	44.2-1.74	17.5-.69	4J-5140
328-9143	12.7-.50	-8	XN	30.2-1.19	-8	84.0-3.31	50.1-1.97	19.8-.78	4J-5140
328-9144	12.7-.50	-8	XN	38.1-1.50	-12	84.0-3.31	50.1-1.97	19.8-.78	4J-5267
328-9146	12.7-.50	-8	XN	38.1-1.50	-12	88.0-3.46	54.2-2.13	23.9-.94	4J-5267
328-9145	12.7-.50	-8	XN	44.5-1.75	-16	84.0-3.31	50.1-1.97	19.8-.78	4J-0520
432-2073	19.1-.75	-12	XN	38.1-1.50	-12	117.0-4.61	63.0-2.48	25.0-.98	4J-5267
432-2086	19.1-.75	-12	XN	44.5-1.75	-16	117.0-4.61	63.0-2.48	25.0-.98	4J-0520
583-1251	19.1-.75	-12	XN	44.5-1.75	-16	129.5-5.10	70.9-2.79	32.0-1.26	4J-0520
497-8288	25.4-1.00	-16	XN	44.5-1.75	-16	139.0-5.47	74.0-2.91	27.0-1.06	4J-0520
498-0779	25.4-1.00	-16	XN	50.8-2.00	-20	139.0-5.47	74.0-2.91	27.0-1.06	4J-0522
567-0265	31.8-1.25	-20	XN4	50.8-2.00	-20	146.7-5.78	88.9-3.50	32.0-1.26	4J-0522
568-1467	31.8-1.25	-20	XN4	60.3-2.37	-24	146.7-5.78	88.9-3.50	30.0-1.18	4J-0524
423-5080	38.1-1.50	-24	XN4	60.3-2.37	-24	168.0-6.61	111.0-4.37	35.0-1.38	4J-0524
423-5083	38.1-1.50	-24	XN4	71.4-2.81	-32	168.0-6.61	111.0-4.37	35.0-1.38	4J-0527
221-0604	50.8-2.00	-32	S4G	71.4-2.81	-32	201.0-7.91	135.0-5.31	52.0-2.05	4J-0527

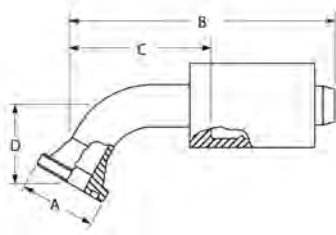
# XT-3ES Hose Permanent Couplings

## Code 61 Flange-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9147	12.7-.50	-8	XN	30.2-1.19	-8	83.0-3.27	48.7-1.92	27.4-1.08	4J-5140
328-9148	12.7-.50	-8	XN	38.1-1.50	-12	83.0-3.27	48.7-1.92	27.4-1.08	4J-5267
432-2074	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	63.0-2.48	35.0-1.38	4J-5267
432-2087	19.1-.75	-12	XN	44.5-1.75	-16	116.0-4.57	63.0-2.48	35.0-1.38	4J-0520
583-1250	19.1-.75	-12	XN	44.5-1.75	-16	127.1-5.00	68.5-2.70	44.0-1.73	4J-0520
497-8290	25.4-1.00	-16	XN	44.5-1.75	-16	141.0-5.55	76.0-2.99	39.0-1.54	4J-0520
498-0781	25.4-1.00	-16	XN	50.8-2.00	-20	141.0-5.55	76.0-2.99	39.0-1.54	4J-0522
588-1166	31.8-1.25	-20	XN4	50.8-2.00	-20	165.0-6.50	107.9-4.25	51.5-5.03	4J-0522
567-0266	31.8-1.25	-20	XN4	50.8-2.00	-20	151.6-5.97	93.7-3.69	45.0-1.77	4J-0522
589-0044	31.8-1.25	-20	XN4	50.8-2.00	-20	150.2-5.91	92.3-3.63	65.0-2.56	4J-0522
568-1468	31.8-1.25	-20	XN4	60.3-2.37	-24	151.6-5.97	93.7-3.69	42.7-1.68	4J-0524
423-5084	38.1-1.50	-24	XN4	60.3-2.37	-24	171.0-6.73	114.0-4.49	50.0-1.97	4J-0524
423-5085	38.1-1.50	-24	XN4	71.4-2.81	-32	171.0-6.73	114.0-4.49	50.0-1.97	4J-0527
221-0605	50.8-2.00	-32	S4G	71.4-2.81	-32	203.0-7.99	137.0-5.39	73.0-2.87	4J-0527

## Code 61 Flange-67 1/2° Elbow

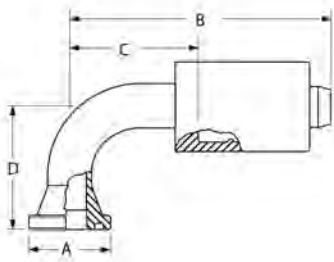


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9149	12.7-.50	-8	XN	30.2-1.19	-8	81.0-3.19	47.3-1.86	31.5-1.24	4J-5140
328-9150	12.7-.50	-8	XN	38.1-1.50	-12	81.0-3.19	47.3-1.86	31.5-1.24	4J-5267
328-9151	12.7-.50	-8	XN	44.5-1.75	-16	81.0-3.19	47.3-1.86	31.5-1.24	4J-0520
432-2075	19.1-.75	-12	XN	38.1-1.50	-12	115.0-4.53	62.0-2.44	41.0-1.61	4J-5267
432-2088	19.1-.75	-12	XN	44.5-1.75	-16	115.0-4.53	62.0-2.44	41.0-1.61	4J-0520
432-2094	19.1-.75	-12	XN	50.8-2.00	-20	115.0-4.53	62.0-2.44	41.0-1.61	4J-0522
497-8291	25.4-1.00	-16	XN	44.5-1.75	-16	141.0-5.55	76.0-2.99	44.0-1.73	4J-0520
498-0782	25.4-1.00	-16	XN	50.8-2.00	-20	141.0-5.55	76.0-2.99	44.0-1.73	4J-0522
568-1470	31.8-1.25	-20	XN4	60.3-2.37	-24	151.3-5.96	93.5-3.68	49.3-1.94	4J-0524
423-5086	38.1-1.50	-24	XN4	60.3-2.37	-24	170.0-6.69	113.0-4.45	58.0-2.28	4J-0524
423-5087	38.1-1.50	-24	XN4	71.4-2.81	-32	170.0-6.69	113.0-4.45	58.0-2.28	4J-0527
589-5028	50.8-2.00	-32	S4G	71.4-2.81	-32	203.0-7.99	133.2-5.24	75.0-2.95	4J-0527



# XT-3ES Hose Permanent Couplings

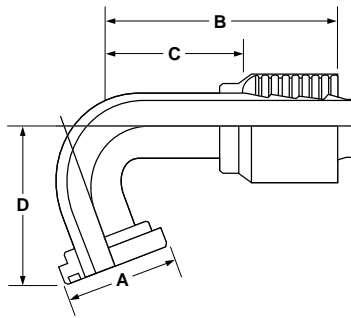
## Code 61 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6216	9.5-.37	-6	XN	30.2-1.19	-8	68.0-2.68	34.2-1.35	35.6-1.40	4J-5140
323-6217	9.5-.37	-6	XN	30.2-1.19	-8	68.0-2.68	34.2-1.35	40.9-1.61	4J-5140
328-9152	12.7-.50	-8	XN	30.2-1.19	-8	74.0-2.91	39.5-1.56	41.4-1.63	4J-5140
328-9153	12.7-.50	-8	XN	30.2-1.19	-8	74.0-2.91	39.5-1.56	82.5-3.25	4J-5140
328-9154	12.7-.50	-8	XN	38.1-1.50	-12	74.0-2.91	39.5-1.56	41.4-1.63	4J-5267
328-9155	12.7-.50	-8	XN	38.1-1.50	-12	74.0-2.91	39.5-1.56	73.1-2.88	4J-5267
328-9156	12.7-.50	-8	XN	44.5-1.75	-16	74.0-2.91	39.5-1.56	41.2-1.62	4J-0520
432-2076	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	54.0-2.13	4J-5267
432-2077	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	96.0-3.78	4J-5267
432-2078	19.1-.75	-12	XN	38.1-1.50	-12	107.0-4.21	53.0-2.09	127.0-5.00	4J-5267
432-2089	19.1-.75	-12	XN	44.5-1.75	-16	107.0-4.21	53.0-2.09	54.0-2.13	4J-0520
432-2090	19.1-.75	-12	XN	44.5-1.75	-16	107.0-4.21	53.0-2.09	79.0-3.11	4J-0520
432-2095	19.1-.75	-12	XN	50.8-2.00	-20	107.0-4.21	53.0-2.09	54.0-2.13	4J-0522
497-0465	25.4-1.00	-16	XN	38.1-1.50	-12	126.0-4.96	61.0-2.40	54.0-2.13	4J-5267
497-8292	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	54.0-2.13	4J-0520
497-8293	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	61.0-2.40	4J-0520
497-8294	25.4-1.00	-16	XN	44.5-1.75	-16	140.0-5.51	69.6-2.74	110.0-4.33	4J-0520
497-8295	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	118.0-4.65	4J-0520
497-8297	25.4-1.00	-16	XN	44.5-1.75	-16	135.0-5.31	70.0-2.76	140.0-5.51	4J-0520
498-0783	25.4-1.00	-16	XN	50.8-2.00	-20	135.0-5.31	70.0-2.76	61.0-2.40	4J-0522
498-0784	25.4-1.00	-16	XN	50.8-2.00	-20	135.0-5.31	70.0-2.76	118.0-4.65	4J-0522
498-8392	25.4-1.00	-16	XN	60.3-2.37	-24	135.0-5.31	69.0-2.72	61.0-2.40	4J-0524
498-8393	25.4-1.00	-16	XN	60.3-2.37	-24	140.0-5.51	69.6-2.74	108.0-4.25	4J-0524
567-0269	31.8-1.25	-20	XN4	50.8-2.00	-20	145.0-5.71	87.1-3.43	68.0-2.68	4J-0522
588-8435	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	72.3-2.85	91.0-3.58	4J-0522
588-8437	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	72.3-2.85	102.0-4.02	4J-0522
588-8438	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	72.3-2.85	111.5-4.39	4J-0522
588-8439	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	72.3-2.85	117.5-4.63	4J-0522
588-8440	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	72.3-2.85	130.0-5.12	4J-0522
588-8441	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	72.3-2.85	168.0-6.61	4J-0522
568-1473	31.8-1.25	-20	XN4	50.8-2.00	-20	145.2-5.72	87.4-3.44	66.8-2.63	4J-0524
589-2616	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	70.6-2.78	79.0-3.11	4J-0524
589-2617	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	70.6-2.78	117.5-4.63	4J-0524
589-2618	31.8-1.25	-20	XN4	50.8-2.00	-20	130.2-5.13	70.6-2.78	130.0-5.12	4J-0524
589-2620	31.8-1.25	-20	XN4	50.8-2.00	-20	136.0-5.35	70.6-2.78	79.0-3.11	4J-0527
423-5089	38.1-1.50	-24	XN4	60.3-2.37	-24	163.0-6.42	106.0-4.17	79.0-3.11	4J-0524
588-1584	38.1-1.50	-24	XN4	60.3-2.37	-24	162.8-6.41	105.9-4.17	147.5-5.81	4J-0524
588-1585	38.1-1.50	-24	XN4	60.3-2.37	-24	162.8-6.41	105.9-4.17	171.5-6.75	4J-0524
423-5092	38.1-1.50	-24	XN4	71.4-2.81	-32	163.0-6.42	106.0-4.17	79.0-3.11	4J-0527
588-1602	38.1-1.50	-24	XN4	71.4-2.81	-32	162.8-6.41	105.9-4.17	114.5-4.51	4J-0527
588-1611	38.1-1.50	-24	XN4	71.4-2.81	-32	162.8-6.41	105.9-4.17	171.5-6.75	4J-0527
221-0609	50.8-2.00	-32	S4G	71.4-2.81	-32	190.0-7.48	124.0-4.88	114.0-4.49	4J-0527
589-5025	50.8-2.00	-32	S4G	71.4-2.81	-32	195.1-7.68	125.3-4.93	165.0-6.50	4J-0527
589-5026	50.8-2.00	-32	S4G	71.4-2.81	-32	195.1-7.68	125.3-4.93	203.0-7.99	4J-0527

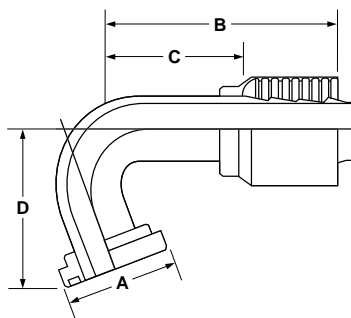
# XT-3ES Hose Permanent Couplings

## Code 61 Flange-110° Elbow



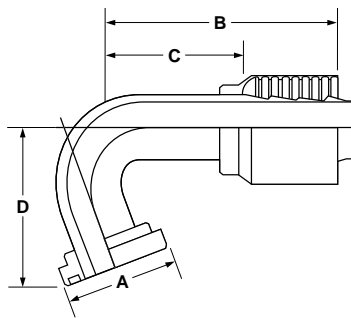
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9157	12.7-.50	-8	XN	38.1-1.50	-12	63.0-2.48	28.3-1.11	49.5-1.95	4J-5267
432-2080	19.1-.75	-12	XN	38.1-1.50	-12	95.0-3.74	41.0-1.61	64.0-2.52	4J-5267
497-8300	25.4-1.00	-16	XN	44.5-1.75	-16	125.0-4.92	59.0-2.32	73.0-2.87	4J-0520
498-0785	25.4-1.00	-16	XN	50.8-2.00	-20	125.0-4.92	59.0-2.32	73.0-2.87	4J-0522
588-8442	31.8-1.25	-20	XN4	50.8-2.00	-20	125.2-4.93	67.3-2.65	79.2-3.12	4J-0522
589-2619	31.8-1.25	-20	XN4	60.3-2.37	-24	125.2-4.93	67.3-2.65	81.0-3.19	4J-0524
588-1575	50.8-2.00	-32	S4G	60.3-2.37	-24	130.3-5.13	73.4-2.89	119.0-4.69	4J-0524
589-5024	50.8-2.00	-32	S4G	71.4-2.81	-32	181.9-7.16	112.1-4.41	140.0-5.51	4J-0527

## Code 61 Flange-125° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
589-5027	50.8-2.00	-32	S4G	71.4-2.81	-32	198.0-7.80	128.2-5.05	150.5-5.93	4J-0527

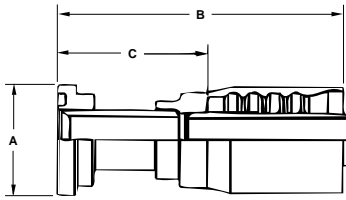
## Code 61 Flange-135° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9158	12.7-.50	-8	XN	30.2-1.19	-8	42.0-1.65	7.7-.30	54.1-2.13	4J-5140
432-2081	19.1-.75	-12	XN	38.1-1.50	-12	116.0-4.57	63.0-2.48	69.0-2.72	4J-5267
432-2092	19.1-.75	-12	XN	44.5-1.75	-16	115.0-4.53	62.0-2.44	70.0-2.76	4J-0520
497-0466	25.4-1.00	-16	XN	38.1-1.50	-12	113.0-4.45	48.0-1.89	70.0-2.76	4J-5267
497-8301	25.4-1.00	-16	XN	44.5-1.75	-16	101.0-3.98	36.0-1.42	88.0-3.46	4J-0520

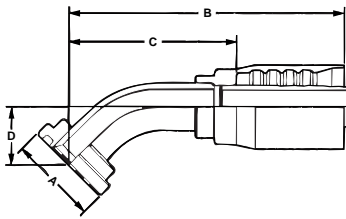
# XT-3ES Hose Permanent Couplings

## Code 62 Flange-Str



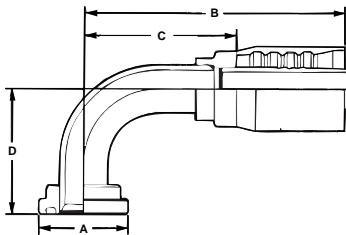
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6218	9.5-.37	-6	XN	31.8-1.25	-8	79.0-3.11	45.3-1.78	4J-5140
328-9161	12.7-.50	-8	XN	31.8-1.25	-8	87.0-3.43	52.8-2.08	4J-5140
328-9162	12.7-.50	-8	XN	41.3-1.63	-12	87.0-3.43	52.8-2.08	4J-5267
397-1949	15.9-.63	-10	XN	31.8-1.25	-8	86.0-3.39	50.0-1.97	4J-5140
397-1952	15.9-.63	-10	XN	41.3-1.63	-12	100.0-3.94	54.0-2.13	1P-3702
432-2099	19.1-.75	-12	XN	41.3-1.63	-12	129.0-5.08	76.0-2.99	4J-5267
486-9601	19.1-.75	-12	XN	47.6-1.87	-16	130.0-5.12	77.0-3.03	4J-0520
498-8394	25.4-1.00	-16	XN	41.3-1.63	-12	145.0-5.71	80.0-3.15	4J-5267
498-8396	25.4-1.00	-16	XN	47.6-1.87	-16	154.0-6.06	69.0-2.72	4J-0520
498-8405	25.4-1.00	-16	XN	54.0-2.13	-20	154.0-6.06	89.0-3.50	4J-0522
568-4413	31.8-1.25	-20	XN4	54.0-2.13	-20	111.0-4.37	59.0-2.32	4J0-522
423-5115	38.1-1.50	-24	XN4	63.5-2.50	-24	122.0-4.80	65.0-2.56	4J-0524
221-0610	50.8-2.00	-32	S4G	79.4-3.13	-32	157.0-6.18	90.0-3.54	4J-0527

## Code 62 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9163	12.7-.50	-8	XN	31.8-1.25	-8	87.0-3.43	52.4-2.06	22.1-.87	4J-5140
397-1953	15.9-.63	-10	XN	41.3-1.63	-12	107.0-4.21	60.0-2.36	24.0-.94	1P-3702
432-2100	19.1-.75	-12	XN	41.3-1.63	-12	121.0-4.76	67.0-2.64	29.0-1.14	4J-5267
432-2102	19.1-.75	-12	XN	47.6-1.87	-16	121.0-4.76	68.0-2.68	29.0-1.14	4J-0520
559-9498	25.4-1.00	-16	XN	41.3-1.63	-12	136.0-5.35	71.0-2.80	26.0-1.02	4J5-267
498-8399	25.4-1.00	-16	XN	47.6-1.87	-16	145.0-5.71	79.0-3.11	32.0-1.26	4J-0520
498-8408	25.4-1.00	-16	XN	54.0-2.13	-20	145.0-5.71	79.0-3.11	32.0-1.26	4J-0522
568-4415	31.8-1.25	-20	XN4	54.0-2.13	-20	147.0-5.79	94.0-3.70	38.0-1.50	4J0-522

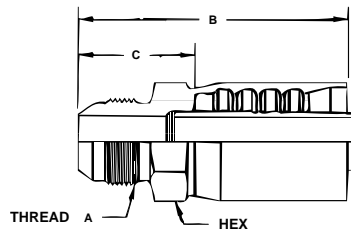
## Code 62 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
323-6220	9.5-.37	-6	XN	31.8-1.25	-8	68.0-2.68	34.2-1.35	44.4-1.75	4J-5140
328-9164	12.7-.50	-8	XN	31.8-1.25	-8	74.0-2.91	39.5-1.56	44.4-1.75	4J-5140
432-2101	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	55.0-2.17	4J-5267
432-2103	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	59.0-2.32	4J-0520
498-8395	25.4-1.00	-16	XN	41.3-1.63	-12	126.0-4.96	61.0-2.40	59.0-2.32	4J-5267
498-8403	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	70.0-2.76	4J-0520
498-8411	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	70.0-2.76	4J-0522
568-4418	31.8-1.25	-20	XN4	54.0-2.13	-20	140.0-5.51	87.0-3.43	75.0-2.95	4J0-522

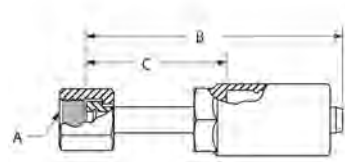
# XT-3ES Hose Permanent Couplings

## JIC 37° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
221-0554	19.1-.75	-12	ESA	1 1/16-12	-12	79.0-3.11	38.0-1.50
432-2040	19.1-.75	-12	XN	1 1/16-12	-12	95.0-3.74	41.0-1.61
228-3005	19.1-.75	-12	S4G	1 5/16-12	-16	82.0-3.23	36.0-1.42
432-2041	19.1-.75	-12	XN	1 5/16-12	-16	101.0-3.98	47.0-1.85
221-0556	25.4-1.00	-16	ESA	1 5/16-12	-16	98.0-3.86	51.0-2.01
221-0557	31.8-1.25	-20	S4G	1 5/8-12	-20	95.0-3.74	46.0-1.81

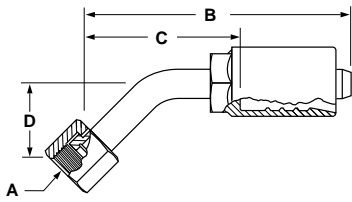
## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6181	9.5-.37	-6	XN	9/16-18	-6	54.0-2.13	20.0-.79
323-6182	9.5-.37	-6	XN	3/4-16	-8	66.0-2.60	22.0-.87
328-9109	12.7-.50	-8	XN	3/4-16	-8	57.0-3.24	23.0-.91
328-9111	12.7-.50	-8	XN	7/8-14	-10	58.0-2.28	24.0-.94
333-9957	12.7-.50	-8	XN	7/8-14	-10	156.0-6.14	122.0-4.80
328-9112	12.7-.50	-8	XN	1 1/16-12	-12	58.0-2.28	24.0-.94
397-1940	15.9-.63	-10	XN	7/8-14	-10	94.0-3.70	47.0-1.85
397-1943	15.9-.63	-10	XN	1 1/16-12	-12	95.0-3.74	48.0-1.89
432-2039	19.1-.75	-12	XN	7/8-14	-10	89.0-3.50	35.0-1.38
432-2028	19.1-.75	-12	XN	1 1/16-12	-12	90.0-3.54	36.0-1.42
432-2035	19.1-.75	-12	XN	1 5/16-12	-16	94.0-3.70	40.0-1.57
3E-6831	25.4-1.00	-16	TR	1 5/16-12	-16	102.0-4.02	51.6-2.03
221-0578	25.4-1.00	-16	ESA	1 5/8-12	-20	80.0-3.15	33.0-1.30
228-3010	25.4-1.00	-16	S4G	1 5/8-12	-20	82.0-3.23	33.0-1.30
221-0579	31.8-1.25	-20	S4G	1 5/8-12	-20	90.0-3.54	41.0-1.61
423-5103	38.1-1.50	-24	XN4	1 7/8-12	-24	112.0-4.41	55.0-2.17
221-0581	50.8-2.00	-32	S4G	2 1/2-12	-32	144.0-5.67	75.0-2.95

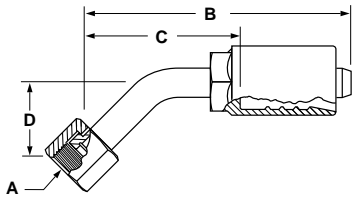
# XT-3ES Hose Permanent Couplings

## JIC 37° Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6183	9.5-.37	-6	XN	9/16-18	-6	70.0-2.76	36.6-1.44	9.9-.39
323-6184	9.5-.37	-6	XN	9/16-18	-6	75.0-2.95	41.7-1.64	15.0-.59
323-6185	9.5-.37	-6	XN	9/16-18	-6	88.0-3.46	54.7-2.15	27.9-1.10
323-6187	9.5-.37	-6	XN	3/4-16	-8	78.0-3.07	44.2-1.74	17.5-.69
323-6188	9.5-.37	-6	XN	3/4-16	-8	88.0-3.46	54.2-2.13	27.4-1.08
328-9113	12.7-.50	-8	XN	3/4-16	-8	78.0-3.07	44.3-1.74	14.0-.55
328-9115	12.7-.50	-8	XN	3/4-16	-8	93.0-3.66	59.0-2.32	28.6-1.13
328-9117	12.7-.50	-8	XN	7/8-14	-10	87.0-3.43	52.7-2.07	22.4-.88
328-9118	12.7-.50	-8	XN	7/8-14	-10	93.0-3.66	59.3-2.33	29.0-1.14
397-1941	15.9-.63	-10	XN	7/8-14	-10	105.0-4.13	58.0-2.28	22.0-.87
432-2029	19.1-.75	-12	XN	1 1/16-12	-12	124.0-4.88	71.0-2.80	32.0-1.26
432-2036	19.1-.75	-12	XN	1 5/16-12	-16	119.0-4.69	65.0-2.56	27.0-1.06
499-1160	25.4-1.00	-16	XN	1 5/16-12	-16	142.0-5.59	77.0-3.03	30.0-1.18
499-1161	25.4-1.00	-16	XN	1 5/16-12	-16	155.0-6.10	89.0-3.50	42.0-1.65

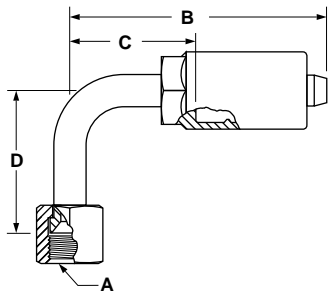
## JIC 37° Female Swivel-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
328-9130	12.7-.50	-8	XN	7/8-14	-10	89.0-3.50	55.2-2.17	38.6-1.52
432-2030	19.1-.75	-12	XN	1 1/16-12	-12	121.0-4.76	68.0-2.68	44.0-1.73

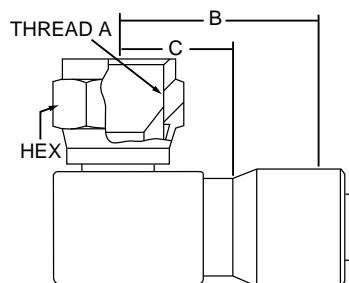
# XT-3ES Hose Permanent Couplings

## JIC 37° Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6189	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	21.8-.86
323-6192	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	27.9-1.10
323-6190	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	38.1-1.50
323-6193	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	46.0-1.81
323-6191	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	55.6-2.19
323-6194	9.5-.37	-6	XN	9/16-18	-6	68.0-2.68	34.2-1.35	82.6-3.25
323-6195	9.5-.37	-6	XN	3/4-16	-8	68.0-2.68	34.2-1.35	27.7-1.09
323-6198	9.5-.37	-6	XN	3/4-16	-8	68.0-2.68	34.2-1.35	46.0-1.81
323-6197	9.5-.37	-6	XN	3/4-16	-8	68.0-2.68	34.2-1.35	63.5-2.50
323-6199	9.5-.37	-6	XN	3/4-16	-8	68.0-2.68	34.2-1.35	82.6-3.25
328-9119	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	27.7-1.09
328-9120	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	35.1-1.38
328-9122	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	53.6-2.11
328-9121	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	63.5-2.50
328-9123	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	92.0-3.62
328-9124	12.7-.50	-8	XN	3/4-16	-8	74.0-2.91	39.5-1.56	114.1-4.49
328-9125	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	31.2-1.23
328-9126	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	44.5-1.75
328-9128	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	54.1-2.13
328-9129	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	82.6-3.25
333-9958	12.7-.50	-8	XN	7/8-14	-10	74.0-2.91	39.5-1.56	114.1-4.49
397-1942	15.9-.63	-10	XN	7/8-14	-10	94.0-3.70	47.0-1.85	47.0-1.85
397-1944	15.9-.63	-10	XN	1 1/16-12	-12	94.0-3.70	47.0-1.85	52.0-2.05
432-2031	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	46.0-1.81
432-2032	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	52.0-2.05
432-2033	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	65.0-2.56
432-2034	19.1-.75	-12	XN	1 1/16-12	-12	107.0-4.21	54.0-2.13	92.0-3.62
432-2037	19.1-.75	-12	XN	1 5/16-12	-16	107.0-4.21	54.0-2.13	64.0-2.52
432-2038	19.1-.75	-12	XN	1 5/16-12	-16	107.0-4.21	54.0-2.13	80.0-3.15
499-1164	25.4-1.00	-16	XN	1 5/16-12	-16	135.0-5.31	70.0-2.76	66.0-2.60
499-1166	25.4-1.00	-16	XN	1 5/16-12	-16	135.0-5.31	70.0-2.76	112.0-4.41

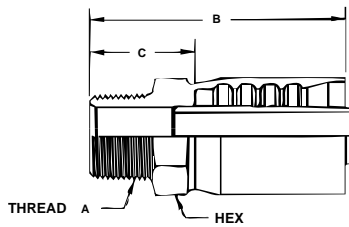
## JIC 37° Female Swivel Block-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6200	9.5-.37	-6	XN	9/16-18	-6	58.0-2.28	24.0-.94	20.7-.81

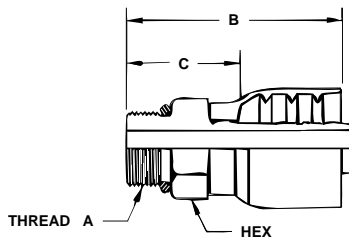
# XT-3ES Hose Permanent Couplings

## NPTF Male-Str



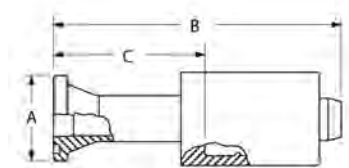
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6208	9.5-.37	-6	XN	1/4-18	-4	64.0-2.52	30.8-1.21
323-6209	9.5-.37	-6	XN	3/8-18	-6	65.0-2.56	31.8-1.25
323-6210	9.5-.37	-6	XN	1/2-14	-8	70.0-2.76	36.4-1.43
328-9133	12.7-.50	-8	XN	3/8-18	-6	67.0-2.64	32.5-1.28
328-9134	12.7-.50	-8	XN	1/2-14	-8	71.0-2.80	37.3-1.47
328-9135	12.7-.50	-8	XN	3/4-14	-12	73.0-2.87	39.1-1.54
397-1947	15.9-.63	-10	XN	1/2-14	-8	84.0-3.31	38.0-1.50
397-1948	15.9-.63	-10	XN	3/4-14	-12	87.0-3.43	40.0-1.57
432-2124	19.1-.75	-12	XN	3/4-14	-12	94.0-3.70	40.0-1.57
432-2125	19.1-.75	-12	XN	1-11 1/2	-16	102.0-4.02	48.0-1.89
499-1185	25.4-1.00	-16	XN	3/4-14	-12	107.0-4.21	42.0-1.65
499-1177	25.4-1.00	-16	XN	1-11 1/2	-16	115.0-4.53	49.0-1.93
423-5109	38.1-1.50	-24	XN4	1-1/2 11-1/2	-24	113.0-4.45	56.0-2.20
221-0573	50.8-2.00	-32	S4G	2-11 1/2	-32	141.0-5.55	71.0-2.80

## STOR Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6212	9.5-.37	-6	XN	9/16-18	-6	59.0-2.32	25.9-1.02	3J-1907
328-9136	12.7-.50	-8	XN	3/4-16	-8	65.0-2.56	30.9-1.22	3K-0360
416-2095	15.9-.63	-10	XN	7/8-14	-10	78.0-3.07	32.0-1.26	2M-9780
432-2141	19.1-.75	-12	XN	1 1/16-12	-12	89.0-3.50	36.0-1.42	3D-2824
499-1187	25.4-1.00	-16	XN	1 5/16-12	-16	107.0-4.21	42.0-1.65	7M-8485

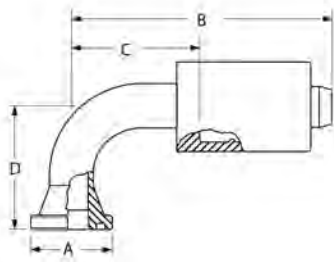
## Cat Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
328-9165	12.7-.50	-8	XN	41.3-1.63	-12	86.0-3.39	52.2-2.06	1P-3702
432-2105	19.1-.75	-12	XN	41.3-1.63	-12	138.0-5.43	84.0-3.31	1P-3702
432-2116	19.1-.75	-12	XN	47.6-1.87	-16	138.0-5.43	84.0-3.31	1P-3703
496-2307	25.4-1.00	-16	XN	47.6-1.87	-16	150.0-5.91	85.0-3.35	1P-3703
496-9725	25.4-1.00	-16	XN	54.0-2.13	-20	150.0-5.91	85.0-3.35	1P-3704
569-4965	31.8-1.25	-20	XN4	54.0-2.13	-20	136.6-5.38	78.8-3.10	1P-3704

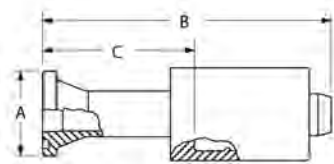
# XT-3ES Hose Permanent Couplings

## Cat Flange-90° Elbow



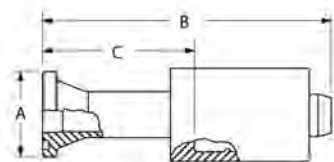
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9166	12.7-.50	-8	XN	41.3-1.63	-12	74.0-2.91	39.5-1.56	41.2-1.62	1P-3702
333-9959	12.7-.50	-8	XN	41.3-1.63	-12	74.0-2.91	39.5-1.56	55.1-2.17	1P-3702
397-1955	15.9-.63	-10	XN	41.3-1.63	-12	94.0-3.70	47.0-1.85	50.0-1.97	1P-3702
432-2111	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	68.0-2.68	1P-3702
432-2112	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	85.0-3.35	1P-3702
432-2113	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	120.0-4.72	1P-3702
432-2114	19.1-.75	-12	XN	41.3-1.63	-12	107.0-4.21	53.0-2.09	129.0-5.08	1P-3702
432-2121	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	68.0-2.68	1P-3703
432-2122	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	100.0-3.94	1P-3703
432-2123	19.1-.75	-12	XN	47.6-1.87	-16	107.0-4.21	53.0-2.09	128.0-5.04	1P-3703
496-2318	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	73.0-2.87	1P-3703
496-2319	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	82.0-3.23	1P-3703
496-2320	25.4-1.00	-16	XN	47.6-1.87	-16	135.0-5.31	70.0-2.76	132.0-5.20	1P-3703
581-4022	25.4-1.00	-16	XN	47.6-1.87	-16	162.1-6.38	91.6-3.61	110.0-4.33	1P-3703
496-9732	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	73.0-2.87	1P-3704
496-9733	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	82.0-3.23	1P-3704
496-9734	25.4-1.00	-16	XN	54.0-2.13	-20	135.0-5.31	70.0-2.76	150.0-5.91	1P-3704

## Cat Flange-High Vibration Coupling-Str



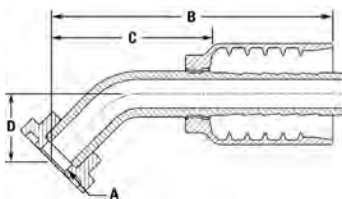
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
536-6438	25.4-1.00	-16	XN	54.0-2.13	-20	152.0-5.98	86.0-3.39	1P-3704
241-4318	31.8-1.25	-20	TR	54.0-2.13	-20	129.0-5.08	83.0-3.27	1P-3704

## Komatsu Style Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
328-9167	12.7-.50	-8	XN	-10	34.0-1.34	84.0-3.31	49.7-1.96	4J-8996
397-1966	15.9-.63	-10	XN	-10	34.1-1.34	96.0-3.78	49.7-1.96	4J-8996

## Komatsu Style Flange-45° Elbow

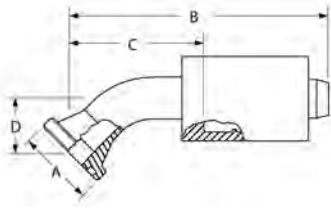


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
416-2094	15.9-.63	-10	XN	-10	34.1-1.34	108.2-4.26	61.8-2.4	25.9-1.0	4J-8996



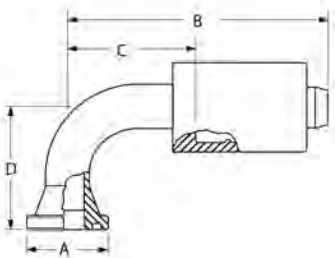
# XT-3ES Hose Permanent Couplings

## Komatsu Style Flange-60° Elbow



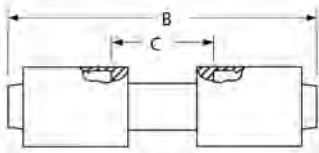
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9169	12.7-.50	-8	XN	-10	34.0-1.34	83.0-3.27	48.7-1.92	27.4-1.08	4J-8996

## Komatsu Style Flange-90° Elbow



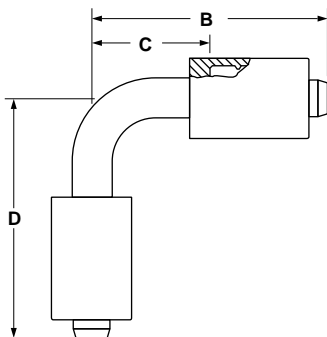
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
328-9170	12.7-.50	-8	XN	-10	34.0-1.34	74.0-2.91	39.5-1.56	41.4-1.63	4J-8996
397-1967	15.9-.63	-10	XN	-10	34.1-1.34	93.5-3.68	47.1-1.85	55.1-2.17	4J-8996

## Double Collet-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
332-1650	9.5-.37	-6	XN	113.0-4.45	45.5-1.79
328-9183	12.7-.50	-8	XN	114.0-4.49	45.5-1.79
471-6416	19.1-.75	-12	XN	157.0-6.18	53.0-2.09
499-1175	25.4-1.00	-16	XN	192.0-7.56	52.0-2.05
589-1964	31.8-1.25	-20	XN4	167.0-6.57	51.3-2.02
588-1626	38.1-1.50	-24	XN4	183.5-7.22	69.7-2.74

## Double Collet-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
328-9184	12.7-.50	-8	XN	85.0-3.35	45.0-1.77	85.0-3.35
328-9185	12.7-.50	-8	XN	123.0-4.84	83.0-3.27	85.0-3.35
432-2135	19.1-.75	-12	XN	115.0-4.53	62.0-2.44	115.0-4.53
499-1176	24.4-1.00	-16	XN	140.1-5.52	69.6-2.74	140.1-5.52
589-1965	31.8-1.25	-20	XN4	147.2-5.80	89.3-3.52	147.2-5.80
588-1633	38.1-1.50	-24	XN4	162.8-6.41	105.9-4.17	162.8-6.41

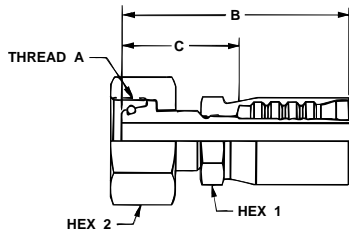
# XT-3ES Hose Permanent Couplings

## Metric Female Swivel 24° Taper w/O-Ring-45° Elbow (Light)

Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
503-7988	9.5-.37	-6	XN	M18 x 1.5	12.0-0.47	78-3.07	45-1.77	19-0.75	8U-0598
503-4448	12.7-.50	-8	XN	M22 x 1.5	15.0-0.59	83-3.27	50-1.97	20-0.79	3E-4298

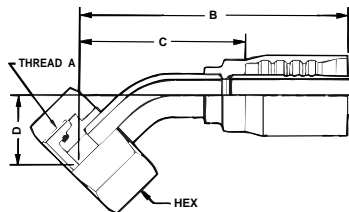
# XT-3ES Hose Permanent Couplings

## Metric Female Swivel 24° Taper w/O-Ring-Str (Heavy)



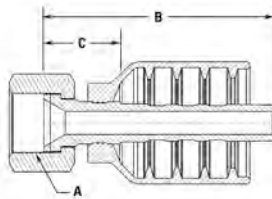
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
323-6232	9.5-.37	-6	XN	M20 x 1.5	12.0-0.47	64.0-2.52	30.9-1.22	3E-4297
323-6233	9.5-.37	-6	XN	M22 x 1.5	14.0-0.55	68.0-2.68	34.4-1.35	7T-0508
431-9023	9.5-.37	-6	XN	M18 - 1.5	12.0-0.47	71.0-2.80	31.0-1.22	3E-4296
328-9179	12.7-.50	-8	XN	M24 x 1.5	16.0-0.63	70.0-2.76	36.2-1.43	3E-4298
397-1962	15.9-.63	-10	XN	M30 x 2.0	20.0-0.79	99.0-3.90	53.0-2.09	3E-4299
432-2128	19.1-.75	-12	XN	M36 x 2.0	25.0-0.98	110.0-4.33	56.0-2.20	3E-6762
499-1171	25.4-1.00	-16	XN	M36 x 2.0	25-0.98	122.0-4.80	57.0-2.24	3E-6762
499-1172	25.4-1.00	-16	XN	M42 x 2.0	30-1.18	124.0-4.88	59.0-2.32	3E-6763
221-0518	31.8-1.25	-20	S4G	M52 x 2.0	38.0-1.50	105.0-4.13	56.0-2.20	3E-6764

## Metric Female Swivel 24° Taper w/O-Ring-45° Elbow (Heavy)



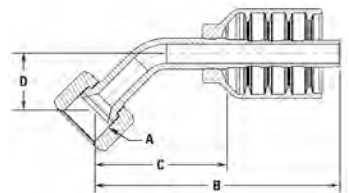
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
432-2129	19.1-.75	-12	XN	M36 x 2.0	25.0-0.98	122-4.80	69-2.72	30-1.18	3E-6762
499-1173	25.4-1.00	-16	XN	M42 x 2.0	30.0-1.18	150-5.91	85-3.35	38-1.50	3E-6733

## JIS 30° Flare Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
519-4716	9.5-.37	-6	XN	3/8-19	-6	53-2.09	20-0.79
519-3997	12.7-.50	-8	XN	1/2-14	-8	57-2.24	24-0.94
397-1956	15.9-.63	-10	XN	M24 x 1.5	-10	87-3.42	35-1.38
519-4009	19.1-.75	-12	XN	3/4-14	-12	91-3.58	38-1.50
423-5168	38.1-1.50	-24	XN4	M42 x 1.5	-24	114-4.49	57-2.24

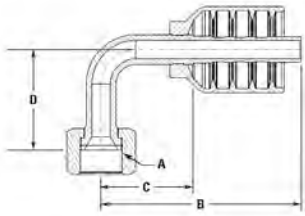
## JIS 30° Flare Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
519-4717	9.5-.37	-6	XN	3/8-19	-6	80-3.15	47-1.85	20-0.79
519-3998	12.7-.50	-8	XN	1/2-14	-8	84-3.31	50-1.97	22-0.87
519-4010	19.1-.75	-12	XN	3/4-14	-12	120-4.72	68-2.68	29-1.14

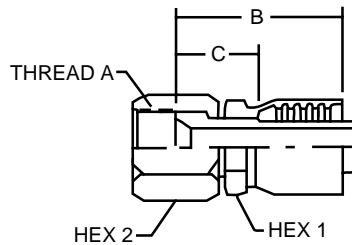
# XT-3ES Hose Permanent Couplings

## JIS 30° Flare Female Swivel-90° Elbow



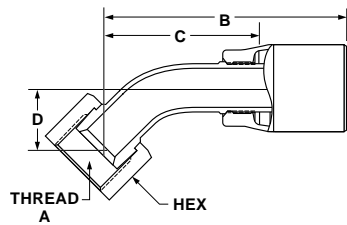
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
519-4718	9.5-.37	-6	XN	3/8-19	-6	67-2.64	34-1.34	37-1.46
519-3999	12.7-.50	-8	XN	1/2-14	-8	73-2.87	40-1.57	41-1.61
519-4011	19.1-.75	-12	XN	3/4-14	-12	106-4.17	53-2.09	58-2.28

## JIS Metric 30° Elbow Flare Female Swivel - Str (Komatsu Style)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6228	9.5-.37	-6	XN	M18 x 1.5	55.0-2.17	21.2-.83
328-9175	12.7-.50	-8	XN	M22 x 1.5	55.0-2.17	21.0-.83
432-2139	19.1-.75	-12	XN	M30 x 1.5	95.0-3.74	41.0-1.61
499-1178	25.4-1.00	-16	XN	M33 x 1.5	98.0-3.86	33.0-1.30

## JIS Metric 30° Elbow Flare Female Swivel -45° Elbow (Komatsu Style)

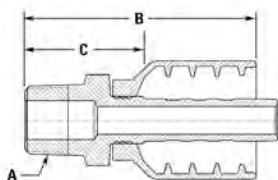


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6229	9.5-.37	-6	XN	M18 x 1.5	82.0-3.23	48.3-1.90	21.6-.85
328-9176	12.7-.50	-8	XN	M22 x 1.5	94.0-3.70	59.8-2.35	29.5-1.16

## JIS 60° Male-Str

Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
518-0280	19.1-.75	-12	XN	3/4-14	-12	97-3.82	44-1.73
518-0281	25.4-1.00	-16	XN	1-11	-16	112-4.41	46-1.81

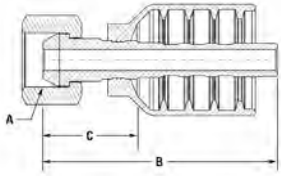
## JIS Male Tapered Pipe-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
513-4472	12.7-.50	-8	XN	1/2-14	-8	70-2.76	36-1.42
513-4473	19.1-.75	-12	XN	3/4-14	-12	95-3.74	42-1.65
513-4474	25.4-1.00	-16	XN	1-11	-16	110-4.33	45-1.77

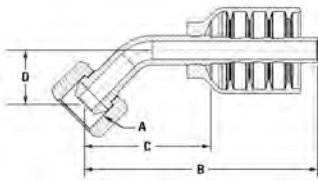
# XT-3ES Hose Permanent Couplings

## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



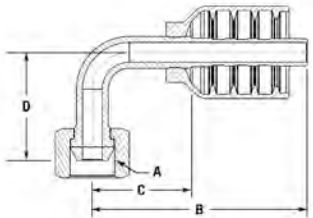
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
518-3997	9.5-.37	-6	XN	3/8-19	-6	67.0-2.64	27.2-1.07
518-0821	12.7-.50	-8	XN	1/2-14	-8	68.0-2.68	27.6-1.09
554-6965	15.9-.63	-10	XN	5/8-14	-10	87.5-3.44	36.0-1.42
554-6966	15.9-.63	-10	XN	3/4-14	-12	87.5-3.44	36.0-1.42
502-2106	19.1-.75	-12	XN	3/4-14	-12	96.5-3.80	37.9-1.49
499-1179	25.4-1.00	-16	XN	1-11	-16	113.0-4.45	42.5-1.67
499-1182	25.4-1.00	-16	XN	1 1/4-11	-20	123.5-4.86	53.0-2.09

## ISO 8434-6 BSPP Conical Seat-Female Swivel-45° Elbow



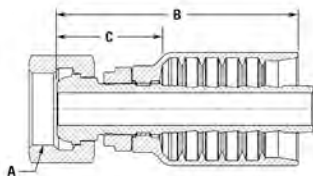
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
518-3998	9.5-.37	-6	XN	3/8-19	-6	86.6-3.41	46.8-1.84	20.0-0.79
518-0822	12.7-.50	-8	XN	1/2-14	-8	90.8-3.57	50.3-1.98	20.0-0.79
554-6967	15.9-.63	-10	XN	5/8-14	-10	103.91-4.09	57.5-2.26	21.6-0.85
502-2107	19.1-.75	-12	XN	3/4-14	-12	126.1-4.96	67.5-2.66	29.0-1.14
499-1180	25.4-1.00	-16	XN	1-11	-16	152.8-6.02	82.3-3.24	35.0-1.38
499-1183	25.4-1.00	-16	XN	1 1/4-11	-20	156.8-6.17	86.3-3.40	39.0-1.54

## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
518-3999	9.5-.37	-6	XN	3/8-19	-6	73.9-2.91	34.1-1.34	37.0-1.46
518-0823	12.7-.50	-8	XN	1/2-14	-8	80.0-3.15	39.5-1.56	41.0-1.61
554-6968	15.9-.63	-10	XN	5/8-14	-10	93.47-3.68	41.7-1.64	43.8-1.72
502-2108	19.1-.75	-12	XN	3/4-14	-12	112.0-4.41	53.4-2.10	58.0-2.28
499-1181	25.4-1.00	-16	XN	1-11	-16	140.1-5.52	69.6-2.74	70.0-2.76
499-1184	25.4-1.00	-16	XN	1 1/4-11	-20	140.1-5.52	69.6-2.74	76.0-2.99

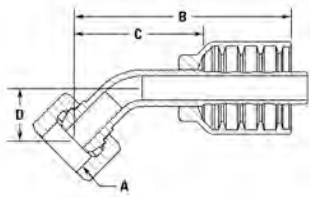
## BSPP Spherical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
323-6221	9.5-.37	-6	XN	3/8-19	-6	61.9-2.44	22.5-0.89
323-6223	9.5-.37	-6	XN	1/2-14	-8	56.6-2.23	23.1-0.91
328-9171	12.7-.50	-8	XN	1/2-14	-8	57.3-2.26	23.2-0.91
397-1960	15.9-.63	-10	XN	5/8-14	-10	87.5-3.44	36.0-1.42
397-1961	15.9-.63	-10	XN	3/4-14	-12	87.5-3.44	36.0-1.42
432-2126	19.1-.75	-12	XN	3/4-14	-12	96.0-3.78	37.4-1.47
221-0498	31.8-1.25	-20	S4G	1 1/4-11	-20	101.0-3.98	51.3-2.02

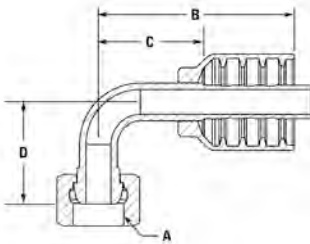
# XT-3ES Hose Permanent Couplings

## BSPP Spherical Seat-Female Swivel-45° Elbow



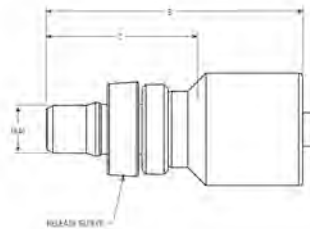
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6224	9.5-.37	-6	XN	3/8-19	-6	80.3-3.16	46.8-1.84	20.1-0.79
328-9172	12.7-.50	-8	XN	1/2-14	-8	84.5-3.33	50.4-1.98	20.1-0.79
416-2091	15.9-.63	-10	XN	5/8-14	-10	109.0-4.29	57.5-2.26	21.6-0.85

## BSPP Spherical Seat-Female Swivel-90° Elbow



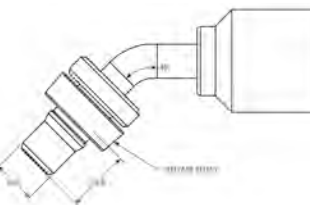
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
323-6225	9.5-.37	-6	XN	3/8-19	-6	67.7-2.67	34.2-1.35	37.1-1.46
328-9173	12.7-.50	-8	XN	1/2-14	-8	73.6-2.90	39.6-1.56	38.1-1.50
416-2093	15.9-.63	-10	XN	5/8-14	-10	98.6-3.88	47.1-1.85	43.7-1.72
432-2127	19.1-.75	-12	XN	3/4-14	-12	107.0-4.21	53.4-2.10	58.9-2.32
221-0492	31.8-1.25	-20	S4G	1 1/4-11	-20	131.0-5.16	80.8-3.18	81.0-3.19

## Snap To Connect-Str



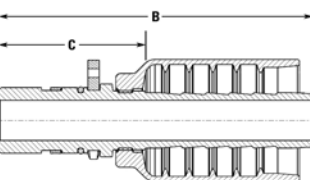
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
360-2602	9.5-.37	-6	XN		-6.0-.24	67.0-2.64	34.0-1.34
360-2603	12.7-.50	-8	XN		-8.0-.31	74.0-2.91	41.0-1.61
397-1968	15.9-.63	-10	XN		-10.0-.39	91.0-3.58	45.0-1.77
432-2131	19.1-.75	-12	XN		-12.0-.47	103.0-4.06	49.0-1.93
499-1186	25.4-1.00	-16	XN		.0-.00	119.0-4.69	48.2-1.90

## Snap To Connect-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
360-2605	9.5-.37	-6	XN	-6.0-.24	82.0-3.23	49.0-1.93	22.1-.87
360-2606	12.7-.50	-8	XN	-8.0-.31	94.0-3.70	60.0-2.36	29.7-1.17
432-2132	19.1-.75	-12	XN	-12.0-.47	133.0-5.24	79.0-3.11	41.0-1.61

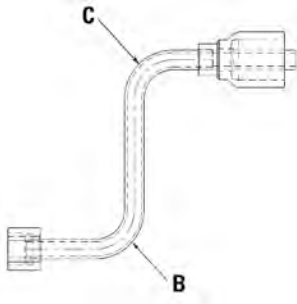
## WEO Plug-In Coupling



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
505-1188	19.1 - 0.75	-12	XN	-12 - 0.47	110 - 4.33	51 - 2.00	8U-5951
583-7081	19.1 - 0.75	-12	XN	-12 - 0.47	110 - 4.33	51 - 2.00	-

# XT-3ES Hose Permanent Couplings

## ORFS HFL-Multibend (Used on Backhoe Loaders)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	FLANGE DASH SIZE	O-RING SEAL	BEND (B & C)	WORKING PRESSURE (kPa)	MIN. BURST PRESSURE (kPa)
202-0998	12.7-.50	-8	XN	13/16-16	6V-8398	90.0°	31,000	93,276
202-1002	12.7-.50	-8	XN	13/16-16	6V-8398	44.3°	31,000	93,276
202-2377	12.7-.50	-8	XN	13/16-16	6V-8398	90.0°	31,000	93,276
202-1000	15.9-.63	-10	XN	1-14	7J9108	62.8°	24,000	72,216
202-1006	15.9-.63	-10	XN	1-14	7J-9108	64.3°	24,000	72,216
202-1004	19.1-.75	-12	XN	1 3/16-12	6V-9746	43.1°	25,750	77,628
203-4695	19.1-.75	-12	XN	1 3/16-12	6V-9746	78.1°	25,750	77,628





# Cat Low and Medium Pressure Hose & Coupling Products

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# One-Wire Braid Hoses (716, 716TG, 4488)

## One-Wire Braid Hose (716)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8409	6.4 - .25	14.1 - .56	-4	MN	90.0 - 13053	22.5 - 3263	100 - 3.94
456-8410	9.5 - .37	18.1 - .71	-6	MN	72.0 - 10443	18.0 - 2611	125 - 4.92
456-8416	12.7 - .50	21.5 - .85	-8	MN	64.0 - 9282	16.0 - 2321	180 - 7.09
456-8420	15.9 - .63	24.7 - .97	-10	MN	52.0 - 7542	13.0 - 1885	200 - 7.87
456-8421	19.1 - .75	28.6 - 1.13	-12	MN	42.0 - 6092	10.5 - 1523	240 - 9.45
456-8422	25.4 - 1.00	36.6 - 1.44	-16	MN	35.2 - 5105	8.8 - 1276	300 - 11.81
456-8423	31.8 - 1.25	44.8 - 1.76	-20	MN	25.2 - 3655	6.3 - 914	420 - 16.54
456-8424	38.1 - 1.50	52.0 - 2.05	-24	MN	20.0 - 2901	5.0 - 725	500 - 19.69
456-8425	50.8 - 2.00	65.9 - 2.59	-32	MN	16.0 - 2321	4.0 - 580	630 - 24.80

**Construction:** Special high temperature synthetic rubber tube; single high tensile steel wire braid reinforcement. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Medium pressure service with high temperature petroleum base hydraulic fluids, hot oil, grease, lubricants, and crude oils. MSHA approved cover. U.S. Coast Guard 46CFR56.60-25C approved.

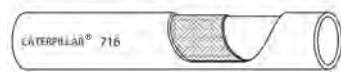
**Temperature Range:** -40° F to +275° F (-40° C to +135° C) for petroleum based hydraulic fluids. -40° F to +275° F (-40° C to +135° C) for petroleum based ISO hydraulic fluids. +185° F Max (+85° C Max) for air, water, or water-glycol. -40° to +158° F (-40° C to +70° C) for all other applications.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

**Note:** Max Work Pressures listed are for use to +135 °C max temperature. Use is permitted up to full EN853-1SN working pressures to a max temperature of +100 °C.

## One-Wire Braid Hose ToughGuard (716TG)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8426	6.4 - .25	15.7 - .62	-4	MN	90.0 - 13053	22.5 - 3263	100 - 3.94
456-8427	9.5 - .37	19.7 - .78	-6	MN	72.0 - 10443	18.0 - 2611	125 - 4.92
456-8428	12.7 - .50	23.1 - .91	-8	MN	64.0 - 9282	16.0 - 2321	180 - 7.09
456-8429	15.9 - .63	26.3 - 1.04	-10	MN	52.0 - 7542	13.0 - 1885	200 - 7.87
456-8430	19.1 - .75	30.2 - 1.19	-12	MN	42.0 - 6092	10.5 - 1523	240 - 9.45
456-8431	25.4 - 1.00	38.9 - 1.53	-16	MN	35.2 - 5105	8.8 - 1276	300 - 11.81

**Construction:** Special high temperature synthetic rubber tube; single high tensile steel wire braid reinforcement. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Medium pressure service with high temperature petroleum base hydraulic fluids, hot oil, grease, lubricants, and crude oils. MSHA approved cover. U.S. Coast Guard 46CFR56.60-25C approved.

**Temperature Range:** -40° F to +275° F (-40° C to +135° C) for petroleum based hydraulic fluids. -40° F to +275° F (-40° C to +135° C) for petroleum based ISO hydraulic fluids. +185° F Max (+85° C Max) for air, water, or water-glycol. -40° to +158° F (-40° C to +70° C) for all other applications.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

**Note:** Max Work Pressures listed are for use to +135 °C max temperature. Use is permitted up to full EN853-1SN working pressures to a max temperature of +100 °C.

# One-Wire Braid Hoses (716, 716TG, 4488)

## One-Wire Braid Compact 716 Hose (4488)



Part number	Hose ID (mm - in)	Hose O.D. (mm - in)	Hose Dash Size	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	Min Bnd Radius (mm - in)
456-8538	6.4 - 0.25	12.2 - 0.48	-4	MN	90.0 - 13053	22.5 - 3263	50 - 1.97
456-8539	9.5 - 0.37	15.5 - 0.61	-6	MN	72.0 - 10443	18.0 - 2611	65 - 2.56
456-8540	12.7 - 0.50	19.0 - 0.75	-8	MN	64.0 - 9282	16.0 - 2321	90 - 3.54
456-8541	15.9 - 0.63	22.2 - 0.87	-10	MN	52.0 - 7542	13.0 - 1885	100 - 3.94
456-8542	19.1 - 0.75	25.8 - 1.02	-12	MN	42.0 - 6092	10.5 - 1523	120 - 4.72
456-8543	25.4 - 1.00	33.3 - 1.31	-16	MN	35.2 - 5105	8.8 - 1276	150 - 5.91

**Construction:** Synthetic rubber tube; single high tensile steel wire braid reinforcement. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Medium pressure service with petroleum based hydraulic fluids, lubricating oils, grease, water and water-glycol based fluids, and air. MSHA approved cover.

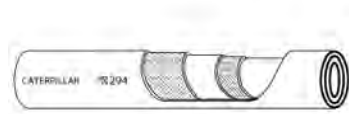
**Temperature Range:** -40° F to +212° F (-40° C to +100° C) for petroleum based fluids. +150° F Max (+66° C Max) for water based fluids and air.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

# Two-Wire Braid Hose (294)

## Two-Wire Braid Hose (294)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8432	6.4 - .25	15.7 - .62	-4	MN	160.0 - 23206	40.0 - 5802	100 - 3.94
456-8433	7.9 - .31	17.3 - .68	-5	MN	140.0 - 20305	35.0 - 5076	115 - 4.53
456-8434	9.5 - .37	19.7 - .78	-6	MN	132.0 - 19145	33.0 - 4786	125 - 4.92
456-8435	12.7 - .50	23.1 - .91	-8	MN	110.0 - 15954	27.5 - 3989	180 - 7.09
456-8436	15.9 - .63	26.3 - 1.04	-10	MN	100.0 - 14504	25.0 - 3626	200 - 7.87
456-8437	19.1 - .75	30.2 - 1.19	-12	MN	86.0 - 12473	21.5 - 3118	240 - 9.45
456-8438	25.4 - 1.00	38.9 - 1.53	-16	MN	66.0 - 9572	16.5 - 2393	300 - 11.81
456-8439	31.8 - 1.25	49.6 - 1.95	-20	MN	50.0 - 7252	12.5 - 1813	420 - 16.54
456-8440	38.1 - 1.50	56.0 - 2.20	-24	MN	36.0 - 5221	9.0 - 1305	500 - 19.69
456-8441	50.8 - 2.00	68.6 - 2.70	-32	MN	32.0 - 4641	8.0 - 1160	630 - 24.80
456-8442	63.5 - 2.50	81.0 - 3.19	-40	MN	28.0 - 4061	7.0 - 1015	760 - 29.92
541-7099	76.2 - 3.00	94.3 - 3.71	-48	MN	23.6 - 3423	5.9 - 856	915 - 36.02

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Oil, weather, and abrasion resistant synthetic rubber outer cover.

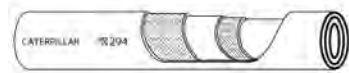
**Application:** High pressure service with petroleum base hydraulic fluids, water-glycol and water-oil fire resistant hydraulic fluids, hot oil, grease, lubricants, crude and fuel oils, air and water. MSHA approved cover. U.S. Coast Guard 46CFR56.60-25C approved.

**Temperature Range:** -40° F to +190° F (-40° C to +88° C) for water-glycol and water-oil fire resistant hydraulic fluids, hot oil, grease, lubricants, crude and fuel oils. +150° F Max (+66° C Max) for air and water. -40° F to +212° F (-40° C to +100° C) for all other applications.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

## Two-Wire Braid 294 ToughGuard Hose (4218)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8443	6.4 - .25	15.7 - .62	-4	MN	160.0 - 23206	40.0 - 5802	100 - 3.94
456-8444	9.5 - .37	19.7 - .78	-6	MN	132.0 - 19145	33.0 - 4786	125 - 4.92
456-8445	12.7 - .50	23.1 - .91	-8	MN	110.0 - 15954	27.5 - 3989	180 - 7.09
456-8446	15.9 - .63	26.3 - 1.04	-10	MN	100.0 - 14504	25.0 - 3626	200 - 7.87
456-8447	19.1 - .75	30.2 - 1.19	-12	MN	86.0 - 12473	21.5 - 3118	240 - 9.45
456-8448	25.4 - 1.00	38.9 - 1.53	-16	MN	66.0 - 9572	16.5 - 2393	300 - 11.81

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** High pressure service with petroleum base hydraulic fluids, water-glycol and water-oil fire resistant hydraulic fluids, hot oil, grease, lubricants, crude and fuel oils, air and water. MSHA approved cover. U.S. Coast Guard 46CFR56.60-25C approved.

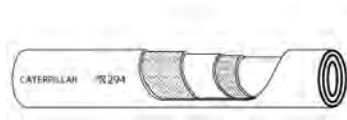
**Temperature Range:** -40° F to +190° F (-40° C to +88° C) for water-glycol and water-oil fire resistant hydraulic fluids, hot oil, grease, lubricants, crude and fuel oils. +150° F Max (+66° C Max) for air and water. -40° F to +212° F (-40° C to +100° C) for all other applications.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings

# Two-Wire Braid Hose (294)

## Two-Wire Braid Compact 294 Hose (4198)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8451	6.4 - .25	14.5 - .57	-4	MN	160.0 - 23206	40.0 - 5802	50 - 1.97
541-7160	7.9 - 0.31	14.9 - 0.59	-5	MN	140.0 - 20305	35.0 - 5076	55 - 2.17
456-8452	9.5 - .37	18.8 - .74	-6	MN	140.0 - 20305	35.0 - 5076	65 - 2.56
456-8453	12.7 - .50	22.0 - .87	-8	MN	110.0 - 15954	27.5 - 3989	90 - 3.54
456-8454	15.9 - .63	28.2 - 1.11	-10	MN / BN	100.0 - 14504	25.0 - 3626	100 - 3.94
456-8455	19.1 - .75	29.0 - 1.14	-12	MN	86.0 - 12473	21.5 - 3118	120 - 4.72
456-8456	25.4 - 1.00	36.6 - 1.44	-16	MN	66.0 - 9572	16.5 - 2393	150 - 5.91

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Oil, weather, and abrasion resistant synthetic rubber outer cover.

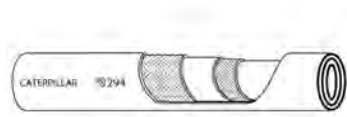
**Application:** High pressure service with petroleum base hydraulic fluids, water-glycol and water-oil fire resistant hydraulic fluids, hot oil, grease, lubricants, crude and fuel oils, air and water. MSHA approved cover. U.S. Coast Guard 46CFR56.60-25C approved.

**Temperature Range:** -40° F to +190° F (-40° C to +88° C) for water-glycol and water-oil fire resistant hydraulic fluids, hot oil, grease, lubricants, crude and fuel oils. +150° F Max (+66° C Max) for air and water. -40° F to +212° F (-40° C to +100° C) for all other applications.

**Couplings:** Crimp-on permanent, non-skive type, MN or BN Series coupling. See Permanent Couplings (716, 294, 844) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

## Two-Wire Braid Compact 294 Hose ToughGuard (4198TG / 4252)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7085	6.4 - 0.25	13.5 - 0.53	-4	MN	160.0 - 23206	40.0 - 5802	50 - 1.97
541-7086	9.5 - 0.37	17.2 - 0.68	-6	MN	140.0 - 20305	35.0 - 5076	65 - 2.56

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Oil and weather resistant synthetic rubber cover with special outer high abrasion resistant ToughGuard film.

**Application:** High pressure service with petroleum based hydraulic fluids, lubricating oils, grease, water and water-glycol based fluids, and air. MSHA approved cover.

**Temperature Range:** -40° F to +212° F (-40° C to +100° C) for petroleum based fluids. +150° F Max (+66° C Max) for water based fluids and air.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

## Two-Wire Braid High Temperature 294 Hose (4023)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7183	31.8 - 1.25	48.2 - 1.90	-20	MN	18.0 - 2611	4.5 - 653	420 - 16.54
541-7184	38.1 - 1.50	54.4 - 2.14	-24	MN	13.6 - 1973	3.4 - 493	500 - 19.69
456-8449	50.8 - 2.00	68.6 - 2.70	-32	MN	12.4 - 1798	3.1 - 450	630 - 24.80
456-8450	63.5 - 2.50	81.0 - 3.19	-40	MN	11.2 - 1624	2.8 - 406	760 - 29.92

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** High pressure service with petroleum base hydraulic fluids, water-glycol and water-oil fire resistant hydraulic fluids, hot oil, grease, lubricants, crude and fuel oils, air and water. MSHA approved cover.

**Temperature Range:** -40° F to +300° F (-40° C to +149° C) for water-glycol and water-oil fire resistant hydraulic fluids.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

# Two-Wire Braid Hose (4636)

## 28 MPa Two-Wire Braid Hose (4636)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8647	12.7 - 0.50	19.9 - 0.78	-8	MN	112.0 - 16244	28.0 - 4061	90 - 3.54
456-8648	15.9 - 0.63	24.6 - 0.97	-10	BN	112.0 - 16244	28.0 - 4061	100 - 3.94
456-8649	19.1 - 0.75	27.7 - 1.09	-12	MN	112.0 - 16244	28.0 - 4061	120 - 4.72
456-8650	25.4 - 1.00	35.7 - 1.41	-16	BN	112.0 - 16244	28.0 - 4061	150 - 5.91

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** High pressure service with petroleum based hydraulic fluids, lubricating oils, grease, water and water-glycol based fluids, and air. MSHA approved cover.

**Temperature Range:** -40° F to +250°F (-40° C to +121° C) for petroleum based fluids. +158° F Max (+70° C Max) for water based fluids and air.

**Couplings:** Crimp-on permanent, non-skive type, MN or BN Series couplings depending on hose size. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

## 28 MPa Two-Wire Braid Hose ToughGuard (4639)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8536	12.7 - 0.50	19.9 - 0.78	-8	MN	112.0 - 16244	28.0 - 4061	90 - 3.54
456-8537	15.9 - 0.63	24.6 - 0.97	-10	BN	112.0 - 16244	28.0 - 4061	100 - 3.94
456-8651	19.1 - 0.75	27.7 - 1.09	-12	MN	112.0 - 16244	28.0 - 4061	120 - 4.72
456-8652	25.4 - 1.00	35.7 - 1.41	-16	BN	112.0 - 16244	28.0 - 4061	150 - 5.91

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Oil and weather resistant synthetic rubber cover with special outer high abrasion resistant ToughGuard film.

**Application:** High pressure service with petroleum based hydraulic fluids, lubricating oils, grease, water and water-glycol based fluids, and air. MSHA approved cover.

**Temperature Range:** -40° F to +250°F (-40° C to +121° C) for petroleum based fluids. +158° F Max (+70° C Max) for water based fluids and air.

**Couplings:** Crimp-on permanent, non-skive type, MN or BN Series couplings depending on hose size. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

# Hydraulic Suction Hose (844)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
465-6101	127.0 - 5.00	143.0 - 5.63	-80	1.2 - 174	0.3 - 44	460 - 18.11
465-6102	152.4 - 6.00	170.0 - 6.69	-96	1.2 - 174	0.3 - 44	580 - 22.83
465-6103	203.2 - 8.00	223.0 - 8.78	-128	1.2 - 174	0.3 - 44	860 - 33.86

Meets the requirements of SAE J517 and 100R4. Note: Sold by the centimeter.  
Operating Temperature Range: -40°C to 135°C (-40°F to 275°F)

## Hydraulic Suction Hose (844)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8457	19.1 - .75	34.9 - 1.37	-12	MN	8.4 - 1218	2.1 - 305	65 - 2.56
456-8458	25.4 - 1.00	41.3 - 1.63	-16	MN	6.8 - 986	1.7 - 247	75 - 2.95
456-8459	31.8 - 1.25	50.8 - 2.00	-20	MN	5.6 - 812	1.4 - 203	100 - 3.94
456-8460	38.1 - 1.50	57.2 - 2.25	-24	MN	4.4 - 638	1.1 - 160	130 - 5.12
456-8461	50.8 - 2.00	69.9 - 2.75	-32	MN	2.8 - 406	0.7 - 102	150 - 5.91
456-8462	63.5 - 2.50	79.5 - 3.13	-40	MN	1.6 - 232	0.4 - 58	355 - 13.98
456-8463	76.2 - 3.00	92.2 - 3.63	-48	SW	1.6 - 232	0.4 - 58	460 - 18.11
456-8464	88.9 - 3.50	105.9 - 4.17	-56	MN	1.2 - 174	0.3 - 44	530 - 20.87

Exceeds the requirement of SAE 100R4

**Construction:** Special high temperature synthetic rubber tube; two textile fiber braids combined with wire spiraled throughout the textile reinforcement to prevent collapse under vacuum. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Hydraulic system suction or return lines with petroleum base hydraulic fluids. MSHA approved cover. U.S. Coast Guard 46CFR56.60-25C approved.

**Temperature Range:** -40°F to +275°F (-40°C to +135°C).

**Couplings:** Crimp-on permanent, non-skive type, MN or SW Series coupling. See Permanent Couplings (716, 294, 844) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

## Hydraulic Suction Hose (844C)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8465	63.5 - 2.50	79.4 - 3.13	-40	MN	5.6 - 812	1.4 - 203	355 - 13.98
541-7180	76.2 - 3.00	92.1 - 3.63	-48	SW	5.6 - 812	1.4 - 203	460 - 18.11
541-7181	88.9 - 3.50	105.8 - 4.17	-56	MN	5.6 - 812	1.4 - 203	530 - 20.87
541-7182	101.6 - 4.00	117.2 - 4.61	-64	SW	5.6 - 812	1.4 - 203	610 - 24.02

Exceeds the requirement of SAE 100R4. Note: Sold by the inch.

**Construction:** Special high temperature synthetic rubber tube; two textile fiber braids combined with wire spiraled throughout the textile reinforcement to prevent collapse under vacuum. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** Hydraulic system suction or return lines with petroleum base hydraulic fluids. MSHA approved cover. U.S. Coast Guard 46CFR56.60-25C approved.

**Temperature Range:** -40°F to +275°F (-40°C to +135°C).

**Couplings:** Crimp-on permanent, non-skive type, MN or SW Series coupling. See Permanent Couplings (716, 294, 844) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

<sup>1</sup> Centerline of Hose

# High Temperature Coolant Hose (2786) and Couplings

## High Temperature Coolant Hose (2786)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8518	6.4 - .25	14.1 - .56	-4	MN	38.0 - 5511	9.5 - 1378	100 - 3.94
456-8519	9.5 - .37	18.1 - .71	-6	MN	31.2 - 4525	7.8 - 1131	125 - 4.92
456-8520	12.7 - .50	24.7 - .97	-8	MN	27.6 - 1003	6.9 - 1001	180 - 7.09
456-8521	15.9 - .63	28.6 - 1.13	-10	MN	20.8 - 3017	5.2 - 754	200 - 7.87
456-8522	19.1 - .75	28.6 - 1.13	-12	MN	17.2 - 2495	4.3 - 624	240 - 9.45
456-8523	25.4 - 1.00	36.6 - 1.44	-16	MN	13.6 - 1973	3.4 - 493	300 - 11.81

**Construction:** Special high temperature synthetic rubber tube; single high tensile steel wire braid reinforcement. Oil, weather, and abrasion resistant synthetic rubber outer cover.

**Application:** High temperature applications for use with water, water glycol, and water emulsion fluids, and long life coolant.

**Temperature Range:** -40° F to +250° F (-40° C to +121° C) for fluids, or up to +158° F (+70° C) when used with air.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.



# High Temperature General Purpose Hose (4901)

## High Temperature General Purpose Hose (4901)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8555	6.4 - .25	15.5 - .61	-4	MN	82.8 - 12009	20.7 - 3002	50 - 1.97
456-8556	9.5 - .37	19.4 - .76	-6	MN	82.8 - 12009	20.7 - 3002	65 - 2.56
456-8557	12.7 - .50	22.4 - .88	-8	MN	82.8 - 12009	20.7 - 3002	90 - 3.54
456-8558	15.9 - .63	24.7 - .97	-10	MN	55.2 - 8006	13.8 - 2002	100 - 3.94
456-8559	19.1 - .75	28.7 - 1.13	-12	MN	55.2 - 8006	13.8 - 2002	120 - 4.72
456-8560	25.4 - 1.00	35.6 - 1.40	-16	MN	27.6 - 4003	6.9 - 1001	150 - 5.91
456-8561	31.8 - 1.25	43.2 - 1.70	-20	MN	27.6 - 4003	6.9 - 1001	210 - 8.27
456-8562	38.1 - 1.50	50.5 - 1.99	-24	MN	13.6 - 1973	3.4 - 493	250 - 9.84
456-8563	50.8 - 2.00	65.5 - 2.58	-32	MN	13.6 - 1973	3.4 - 493	315 - 12.40
492-4108	63.5 - 2.50	75.4 - 2.97	-40	MN	13.6 - 1973	3.4 - 493	560 - 22.05
492-4109	76.2 - 3.00	88.9 - 3.50	-48	MN	13.6 - 1973	3.4 - 493	610 - 24.02

**Construction:** Synthetic rubber tube; two braids of special high tensile steel wire reinforcement separated by synthetic rubber layer. Textile braid outer cover

**Application:** Hose is intended for continuous use with petroleum-based lubricating oils, water-based fluids, gasoline, and petroleum-based diesel fuels.

**Temperature Range:** -40°C to +150°C. Use is also permitted with soy and rapeseed based biodiesel blends to 20% biodiesel (B20) within a temperature range of -22°C to +107°C continuously and up to +125°C intermittently (maximum 10% of duty cycle). Use with air is permitted up to 120°C.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

# Fire Suppression Hose (5014)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
492-4110	6.4 - 0.25	13.1 - 0.52	-4	MN	76.8 - 11139	19.2 - 2785	100 - 3.94
492-4111	9.5 - 0.37	17.1 - 0.67	-6	MN	62.8 - 9108	15.7 - 2277	125 - 4.92
492-4112	12.7 - 0.50	21.3 - 0.84	-8	MN	56.0 - 8122	14.0 - 2031	180 - 7.09
492-4113	19.1 - 0.75	27.3 - 1.07	-12	MN	34.8 - 5047	8.7 - 1262	240 - 9.45

**Construction:** Synthetic rubber tube; single high tensile steel wire braid reinforcement. Oil, weather, and abrasion resistant synthetic rubber outer cover. Color: Red.

**Application:** Designed to be used in first fit and field installed Fire Suppression systems. This product is designed to convey water based fire retardant. It has a red cover to highlight its use in Fire Suppression Systems.

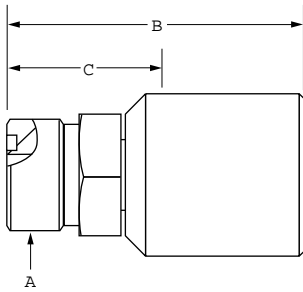
**Temperature Range:** 5014 hose is intended specifically for fire suppression systems operating within a temperature range of -40°C to 100°C. Exposure to temperatures above rated maximum and/or pressure impulses that exceed maximum working pressure will materially reduce hose life. The outer cover is oil and weather resistant and meets MSHA requirements.

**Couplings:** Crimp-on permanent, non-skive type, MN Series coupling. See Permanent Couplings (716, 294, 844) section.

**Note:** Hose cover does not need to be removed before attaching couplings.

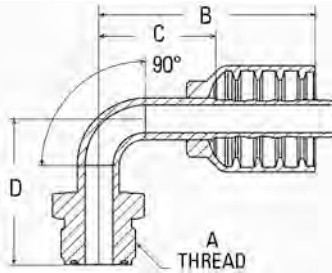
# Cat Low and Medium Pressure Permanent Couplings

## ORFS Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
224-6265	6.4-.25	-4	MN	9/16-18	-4	42.0-1.65	21.1-.83	4J-5477
242-9532	6.4-.25	-4	MN	11/16-16	-6	49.0-1.93	25.0-.98	6V-8397
224-6266	9.5-.37	-6	MN	11/16-16	-6	52.0-2.05	26.4-1.04	6V-8397
186-4133	12.7-.50	-8	MN	13/16-16	-8	56.0-2.20	30.7-1.21	6V-8398
302-5295	12.7-.50	-8	MN	1-14	-10	59.0-2.32	33.0-1.30	7J-9108
523-8941	15.9-.63	-10	BN	1-14	-10	68.05-2.68	34.60-1.36	7J-9108
235-3946	15.9-.63	-10	MN	1-14	-10	61-2.40	34-1.34	7J-9108
533-5188	15.9-.63	-10	BN	1 3/16-12	-12	69.5-2.74	36.03-1.42	6V-9746
302-5296	15.9-.63	-10	MN	1 3/16-12	-12	63.0-2.48	38.0-1.50	8T-0315
186-4134	19.1-.75	-12	MN	1 3/16-12	-12	65.0-2.56	33.9-1.33	6V-9746
186-4135	25.4-1.00	-16	MN	1 7/16-12	-16	77.0-3.03	39.0-1.54	5K-9090
533-5332	25.4-1.00	-16	BN	1 7/16-12	-16	83.13-3.27	40.20-1.58	5K-9090
184-3489	31.8-1.25	-20	MN	1 11/16-12	-20	89.0-3.50	47.0-1.85	6V-8400
186-4136	38.1-1.50	-24	MN	2-12	-24	111.0-4.37	60.0-2.36	8T-0315

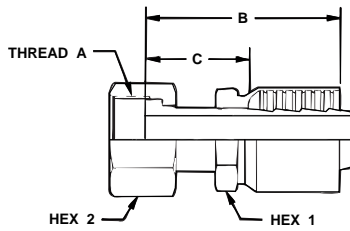
## ORFS Male-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
270-9321	6.4-.25	-4	MN	11/16-16	-6	52-2.05	31-1.22	40-1.57	6V-8397
250-6829	12.7-.50	-8	MN	13/16-16	-8	64.0-2.52	39.0-1.54	41.0-1.61	6V-8398

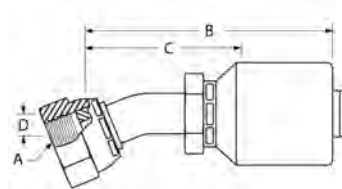
# Cat Low and Medium Pressure Permanent Couplings

## ORFS Female Swivel-Str



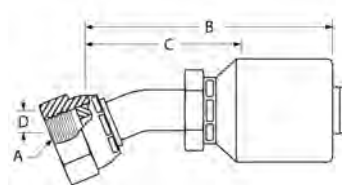
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
124-2111	6.4-.25	-4	MN	9/16-18	-4	47.0-1.85	25.4-1.00	4J-5477
124-2113	6.4-.25	-4	MN	11/16-16	-6	49.0-1.93	27.7-1.09	6V-8397
154-0095	6.4-.25	-4	MN	13/16-16	-8	53.0-2.09	31.8-1.25	6V-8398
302-5286	7.9-.31	-5	MN	11/16-16	-6	55.0-2.17	29.0-1.14	6V-8397
154-0096	9.5-.37	-6	MN	9/16-18	-4	50.0-1.97	25.0-.98	4J-5477
124-2114	9.5-.37	-6	MN	11/16-16	-6	56.0-2.20	30.9-1.22	6V-8397
124-2116	9.5-.37	-6	MN	13/16-16	-8	55.0-2.17	30.0-1.18	6V-8398
277-2093	9.5-.37	-6	MN	1-14	-10	57.0-2.24	31.5-1.24	7J-9108
154-0097	12.7-.50	-8	MN	11/16-16	-6	61.0-2.40	35.5-1.40	6V-8397
124-2117	12.7-.50	-8	MN	13/16-16	-8	55.0-2.17	30.0-1.18	6V-8398
124-2118	12.7-.50	-8	MN	1-14	-10	67.0-2.64	41.5-1.63	7J-9108
147-1716	12.7-.50	-8	MN	1 3/16-12	-12	69.0-2.72	44.0-1.73	6V-9746
252-0038	15.9-.63	-10	MN	13/16-16	-8	61.0-2.40	41.0-1.61	6V-8397
124-2119	15.9-.63	-10	MN	1-14	-10	69.0-2.72	44.0-1.73	7J-9108
384-0385	15.9-.63	-10	BN	1-14	-10	68.83-2.71	43.30-1.70	7J-9108
388-8897	15.9-.63	-10	BN	1 3/16-12	-12	68.83-2.71	43.30-1.70	6V-9746
124-2120	15.9-.63	-10	MN	1 3/16-12	-12	71.0-2.80	46.0-1.81	6V-9746
154-0098	19.1-.75	-12	MN	1-14	-10	80.0-3.15	45.0-1.77	7J-9108
124-2121	19.1-.75	-12	MN	1 3/16-12	-12	81.0-3.19	46.0-1.81	6V-9746
124-2122	19.1-.75	-12	MN	1 7/16-12	-16	75.0-2.95	43.9-1.73	5K-9090
344-2353	25.4-1.00	-16	MN	1 3/16-12	-12	93.0-3.66	51.0-2.01	6V-9746
124-2123	25.4-1.00	-16	MN	1 7/16-12	-16	93.0-3.66	51.0-2.01	5K-9090
526-7915	25.4-1.00	-16	BN	1 7/16-12	-16	93.2-3.67	50.70-1.99	5K-9090
124-2124	25.4-1.00	-16	MN	1 11/16-12	-20	89.0-3.50	51.0-2.01	6V-8400
575-2963	31.8-1.25	-20	MN	1-7/16-12	-16	96.5-3.80	51.3-2.02	5K-9090
124-2125	31.8-1.25	-20	MN	1 11/16-12	-20	96.0-3.78	48.0-1.89	6V-8400
302-5287	31.8-1.25	-20	MN	2-12	-24	87.0-3.43	46.0-1.81	8T-0315
124-2320	38.1-1.50	-24	MN	2-12	-24	107.0-4.21	63.0-2.48	8T-0315

## ORFS Female Swivel-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2127	12.7-.50	-8	MN	13/16-16	-8	78.0-3.07	52.6-2.07	10.9-.43	6V-8398

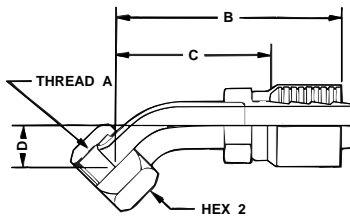
## ORFS Female Swivel-30° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
353-5488	12.7-.50	-8	MN	13/16-16	-8	77.0-3.03	52.0-2.05	13.7-.54	6V-8398
201-7376	25.4-1.00	-16	MN	1 7/16-12	-16	106.0-4.17	67.5-2.66	14.2-.56	5K-9090

# Cat Low and Medium Pressure Permanent Couplings

## ORFS Female Swivel-45° Elbow



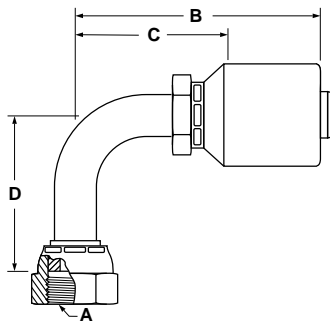
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2128	6.4-.25	-4	MN	9/16-18	-4	51.0-2.01	30.0-1.18	10.4-.41	4J-5477
124-2129	6.4-.25	-4	MN	11/16-16	-6	52.0-2.05	30.5-1.20	10.9-.43	6V-8397
154-0099	9.5-.37	-6	MN	9/16-18	-4	60.0-2.36	34.5-1.36	10.4-.41	4J-5477
124-2130	9.5-.37	-6	MN	11/16-16	-6	61.0-2.40	36.1-1.42	10.7-.42	6V-8397
147-1718	9.5-.37	-6	MN	11/16-16	-6	154.0-6.06	128.6-5.06	52.8-2.08	6V-8397
124-2131	9.5-.37	-6	MN	13/16-16	-8	66.0-2.60	40.1-1.58	15.0-.59	6V-8398
302-5288	19.1-.75	-6	MN	3/4-16	-8	85.0-3.35	54.0-2.13	17.0-.67	6V-8398
154-0100	12.7-.50	-8	MN	11/16-16	-6	63.0-2.48	37.8-1.49	10.9-.43	6V-8397
124-2132	12.7-.50	-8	MN	13/16-16	-8	70.0-2.76	44.7-1.76	15.0-.59	6V-8398
124-2133	12.7-.50	-8	MN	1-14	-10	72.0-2.83	46.2-1.82	16.5-.65	7J-9108
124-2134	12.7-.50	-8	MN	1 3/16-12	-12	76.0-2.99	50.8-2.00	21.1-.83	6V-9746
384-0389	15.9-.63	-10	BN	1-14	-10	77.72-3.06	52.10-2.05	16.51	7J-9108
124-2135	15.9-.63	-10	MN	1-14	-10	78.0-3.07	52.6-2.07	16.5-.65	7J-9108
124-2136	15.9-.63	-10	MN	1 3/16-12	-12	82.0-3.23	57.2-2.25	21.1-.83	6V-9746
124-2137	19.1-.75	-12	MN	1 3/16-12	-12	90.0-3.54	59.0-2.32	21.0-.83	6V-9746
302-5289	19.1-.75	-12	MN	1 7/16-12	-16	92.0-3.62	61.0-2.40	24.0-.94	5K-9090
526-7918	25.4-1.00	-16	MN	1 7/16-12	-16	110.25-4.34	67.72-2.67	14.2	5K-9090
124-2138	25.4-1.00	-16	MN	1 7/16-12	-16	111.0-4.37	72.6-2.86	23.9-.94	5K-9090
526-7916	25.4-1.00	-16	BN	1 7/16-12	-16	115.3-4.54	72.77-2.86	23.9	5K-9090
302-5290	25.4-1.00	-16	MN	1 11/16-12	-20	112.0-4.41	74.0-2.91	25.0-.98	6V-8400
124-2139	31.8-1.25	-20	MN	1 11/16-12	-20	134.0-5.28	92.7-3.65	25.4-1.00	6V-8400
147-1696	38.1-1.50	-24	MN	2-12	-24	149.0-5.87	98.0-3.86	27.2-1.07	8T-0315

## ORFS Female Swivel-67.5° Elbow

Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
302-5298	12.7-.50	-8	MN	13/16-16	-8	73-2.87	48-1.89	23-0.91	6V-8398

# Cat Low and Medium Pressure Permanent Couplings

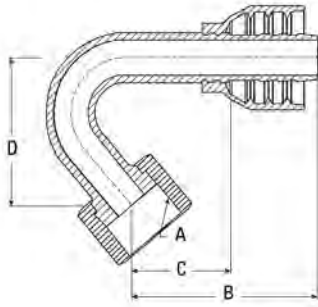
## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2140	6.4-.25	-4	MN	9/16-18	-4	46.0-1.81	25.1-.99	19.8-.78	4J-5477
124-2322	6.4-.25	-4	MN	9/16-18	-4	46.0-1.81	25.1-.99	32.0-1.26	4J-5477
124-2158	6.4-.25	-4	MN	9/16-18	-4	46.0-1.81	25.1-.99	45.7-1.80	4J-5477
124-2141	6.4-.25	-4	MN	11/16-16	-6	46.0-1.81	25.1-.99	22.9-.90	6V-8397
124-2159	6.4-.25	-4	MN	11/16-16	-6	46.0-1.81	25.1-.99	54.1-2.13	6V-8397
270-9321	6.4-.25	-4	MN	11/16-16		52 - 2.05	31 - 1.22	40 - 1.57	6V-8397
124-2142	6.4-.25	-4	MN	13/16-16	-8	46.0-1.81	25.1-.99	29.2-1.15	6V-8398
228-2987	6.4-.25	-4	MN	1 7/16-12	-16	46.0-1.81	25.0-.98	38.0-1.50	5K-9090
124-2143	9.5-.37	-6	MN	9/16-18	-4	55.0-2.17	29.7-1.17	19.8-.78	4J-5477
124-2144	9.5-.37	-6	MN	11/16-16	-6	58.0-2.28	32.5-1.28	22.9-.90	6V-8397
124-2323	9.5-.37	-6	MN	11/16-16	-6	58.0-2.28	32.5-1.28	38.4-1.51	6V-8397
124-2160	9.5-.37	-6	MN	11/16-16	-6	58.0-2.28	32.5-1.28	54.1-2.13	6V-8397
124-2145	9.5-.37	-6	MN	13/16-16	-8	58.0-2.28	32.5-1.28	29.2-1.15	6V-8398
228-2989	9.5-.37	-6	MN	13/16-16	-8	58.0-2.28	32.0-1.26	41.0-1.61	6V-8398
124-2161	9.5-.37	-6	MN	13/16-16	-8	58.0-2.28	32.5-1.28	63.8-2.51	6V-8398
124-2146	12.7-.50	-8	MN	11/16-16	-6	60.0-2.36	34.3-1.35	22.9-.90	6V-8397
124-2147	12.7-.50	-8	MN	13/16-16	-8	64.0-2.52	38.8-1.53	29.2-1.15	6V-8398
124-2325	12.7-.50	-8	MN	13/16-16	-8	64.0-2.52	38.8-1.53	41.1-1.62	6V-8398
124-2162	12.7-.50	-8	MN	13/16-16	-8	64.0-2.52	38.8-1.53	63.8-2.51	6V-8398
124-2148	12.7-.50	-8	MN	1-14	-10	64.0-2.52	38.8-1.53	32.3-1.27	7J-9108
228-2990	12.7-.50	-8	MN	1-14	-10	64.0-2.52	38.8-1.53	47.0-1.85	7J-9108
124-2163	12.7-.50	-8	MN	1-14	-10	64.0-2.52	38.8-1.53	70.1-2.76	7J-9108
124-2149	12.7-.50	-8	MN	1 3/16-12	-12	64.0-2.52	38.8-1.53	47.8-1.88	6V-9746
124-2150	15.9-.63	-10	MN	1-14	-10	72.0-2.83	47.5-1.87	32.3-1.27	7J-9108
124-2168	15.9-.63	-10	MN	1-14	-10	72.0-2.83	47.0-1.85	47.0-1.85	7J-9108
124-2164	15.9-.63	-10	MN	1-14	-10	72.0-2.83	47.5-1.87	70.1-2.76	7J-9108
384-0386	15.9-.63	-10	BN	1-14	-10	72.39-2.85	46.74-1.84	70.1	7J-9108
384-0387	15.9-.63	-10	BN	1-14	-10	72.39-2.85	46.74-1.84	32.26	7J-9108
384-0388	15.9-.63	-10	BN	1-14	-10	72.39-2.85	46.74-1.84	46.99	7J-9108
462-4169	15.9-.63	-10	BN	1 3/16-12	-12	80.25-3.16	46.81-1.84	47.75	6V-9746
124-2151	15.9-.63	-10	MN	1 3/16-12	-12	72.0-2.83	47.5-1.87	47.8-1.88	6V-9746
302-5294	15.9-.63	-10	MN	1 3/16-12	-12	72.0-2.83	47.0-1.85	96.0-3.78	6V-9746
124-2152	19.1-.75	-12	MN	1-14	-10	80.0-3.15	48.8-1.92	32.3-1.27	7J-9108
124-2153	19.1-.75	-12	MN	1 3/16-12	-12	84.0-3.31	52.6-2.07	47.8-1.88	6V-9746
147-1694	19.1-.75	-12	MN	1 3/16-12	-12	84.0-3.31	52.6-2.07	57.9-2.28	6V-9746
124-2165	19.1-.75	-12	MN	1 3/16-12	-12	84.0-3.31	52.6-2.07	96.0-3.78	6V-9746
124-2154	19.1-.75	-12	MN	1 7/16-12	-16	84.0-3.31	52.6-2.07	56.1-2.21	5K-9090
124-2155	25.4-1.00	-16	MN	1 7/16-12	-16	109.0-4.29	71.1-2.80	56.1-2.21	5K-9090
147-1695	25.4-1.00	-16	MN	1 7/16-12	-16	109.0-4.29	71.1-2.80	70.6-2.78	5K-9090
124-2166	25.4-1.00	-16	MN	1 7/16-12	-16	110.0-4.33	72.0-2.83	116.0-4.57	5K-9090
124-2156	25.4-1.00	-16	MN	1 11/16-12	-20	109.0-4.29	71.1-2.80	63.8-2.51	6V-8400
526-7917	25.4-1.00	-16	BN	1 7/16-12	-16	113.8-4.48	71.27-2.80	56.15	5K-9090
526-7914	25.4-1.00	-16	BN	1 7/16-12	-16	114.3-4.50	71.77-2.82	114.3	5K-9090
302-5292	31.8-1.25	-20	MN	1 7/16-12	-16	126.0-4.96	85.0-3.35	56.0-2.20	5K-9090
124-2157	31.8-1.25	-20	MN	1 11/16-12	-20	132.0-5.20	91.4-3.60	63.8-2.51	6V-8400
306-2741	31.8-1.25	-20	MN	1 11/16-12	-20	132.0-5.20	92.0-3.62	110.0-4.33	6V-8400
124-2167	31.8-1.25	-20	MN	1 11/16-12	-20	132.0-5.20	91.4-3.60	129.3-5.09	6V-8400
302-5293	31.8-1.25	-20	MN	2-12	-24	126.0-4.96	86.0-3.39	69.0-2.72	8T-0315
154-0115	38.1-1.50	-24	MN	2-12	-24	147.0-5.79	96.0-3.78	68.6-2.70	8T-0315

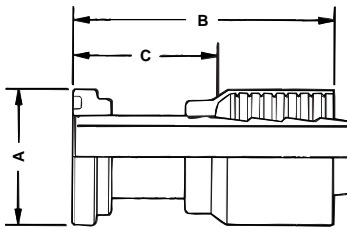
# Cat Low and Medium Pressure Permanent Couplings

## ORFS Female Swivel-130° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
228-5326	15.9-.63	-10	MN	1-14	-10	65.0-2.56	34.3-1.35	51.0-2.01	7J-9108

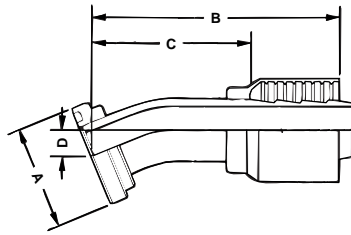
## Code 61 Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
124-2050	12.7-.50	-8	MN	30.2-1.19	-8	69.0-2.72	43.3-1.70	4J-5140
124-2051	12.7-.50	-8	MN	38.1-1.50	-12	72.0-2.83	46.4-1.83	4J-5267
154-0092	15.9-.63	-10	MN	38.1-1.50	-12	76.0-2.99	51.0-2.01	4J-5267
124-2052	19.1-.75	-12	MN	38.1-1.50	-12	91.0-3.58	56.0-2.20	4J-5267
124-2053	19.1-.75	-12	MN	44.5-1.75	-16	91.0-3.58	56.0-2.20	4J-0520
124-2054	25.4-1.00	-16	MN	44.5-1.75	-16	91.0-3.58	49.0-1.93	4J-0520
124-2055	25.4-1.00	-16	MN	50.8-2.00	-20	93.0-3.66	50.0-1.97	4J-0522
302-5217	25.4-1.00	-16	MN	60.3-2.37	-24	88.0-3.46	49.0-1.93	4J-0524
124-2056	31.8-1.25	-20	MN	50.8-2.00	-20	109.0-4.29	65.0-2.56	4J-0522
124-2057	31.8-1.25	-20	MN	60.3-2.37	-24	109.0-4.29	65.0-2.56	4J-0524
302-5219	38.1-1.50	-24	MN	50.8-2.00	-20	122.0-4.80	70.0-2.76	4J-0522
124-2058	38.1-1.50	-24	MN	60.3-2.37	-24	122.0-4.80	65.0-2.56	4J-0524
124-2059	38.1-1.50	-24	MN	71.4-2.81	-32	121.0-4.76	65.0-2.56	4J-0527
302-5220	50.8-2.00	-32	MN	60.3-2.37	-24	136.0-5.35	88.0-3.46	4J-0524
124-2060	50.8-2.00	-32	MN	71.4-2.81	-32	125.0-4.92	76.0-2.99	4J-0527
124-2061	50.8-2.00	-32	MN	84.1-3.31	-40	126.0-4.96	76.0-2.99	6J-2680
302-5221	63.5-2.50	-40	MN	71.4-2.81	-32	136.0-5.35	71.0-2.80	4J-0527
253-1348	63.5-2.50	-40	MN	84.1-3.31	-40	147.0-5.79	88.0-3.46	6J-2680
253-1356	63.5-2.50	-40	MN	101.6-4.00	-48	148.0-5.83	82.0-3.23	117-1266
253-1363	63.5-2.50	-40	MN	114.3-4.50	-56	149.0-5.87	83.0-3.27	9X-4611
253-1364	63.5-2.50	-40	MN	127.0-5.00	-64	155.0-6.10	89.0-3.50	3E-6703
454-6181	76.2-3.00	-48	MN	84.1-3.31	-40	156.0-6.14	92.0-3.62	6J-2680
454-6180	76.2-3.00	-48	MN	101.6-4.00	-48	122.0-4.80	57.0-2.24	117-1266
129-7472	76.2-3.00	-48	SW	101.6-4.00	-48	132.0-5.20	69.0-2.72	117-1266
253-1368	76.2-3.00	-48	SW	114.3-4.50	-56	133.0-5.24	82.0-3.23	9X-4611
129-7420	88.9-3.50	-56	MN	114.3-4.50	-56	149.0-5.87	69.0-2.72	9X-4611
253-1388	88.9-3.50	-56	MN	127.0-5.00	-64	153.0-6.02	72.0-2.83	3E-6703

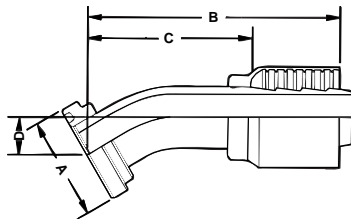
# Cat Low and Medium Pressure Permanent Couplings

## Code 61 Flange-22 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
147-1714	12.7-.50	-8	MN	30.2-1.19	-8	75.0-2.95	49.3-1.94	8.9-.35	4J-5140
124-2062	19.1-.75	-12	MN	38.1-1.50	-12	95.0-3.74	60.0-2.36	11.0-.43	4J-5267
124-2063	19.1-.75	-12	MN	44.5-1.75	-16	95.0-3.74	60.0-2.36	11.0-.43	4J-0520
124-2064	25.4-1.00	-16	MN	44.5-1.75	-16	111.0-4.37	68.0-2.68	11.0-.43	4J-0520
124-2065	25.4-1.00	-16	MN	50.8-2.00	-20	112.0-4.41	69.0-2.72	12.0-.47	4J-0522
124-2066	31.8-1.25	-20	MN	50.8-2.00	-20	129.0-5.08	85.0-3.35	12.0-.47	4J-0522
147-1717	31.8-1.25	-20	MN	60.3-2.37	-24	130.0-5.12	85.0-3.35	13.0-.51	4J-0524
124-2067	38.1-1.50	-24	MN	60.3-2.37	-24	158.0-6.22	101.0-3.98	15.0-.59	4J-0524
124-2068	50.8-2.00	-32	MN	71.4-2.81	-32	185.0-7.28	135.0-5.31	22.0-.87	4J-0527
253-1349	63.5-2.50	-40	MN	84.1-3.31	-40	179.0-7.05	112.0-4.41	18.0-.71	6J-2680
253-1357	63.5-2.50	-40	MN	101.6-4.00	-48	180.0-7.09	114.0-4.49	18.0-.71	117-1266
254-3279	76.2-3.00	-48	SW	101.6-4.00	-48	223-8.78	150-5.91	27-1.06	117-1266

## Code 61 Flange-30° Elbow

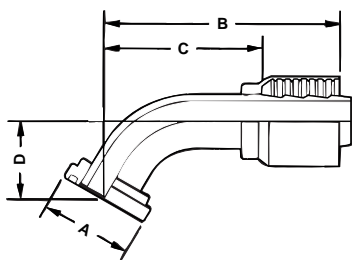


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2069	19.1-.75	-12	MN	38.1-1.50	-12	98.0-3.86	63.0-2.48	16.0-.63	4J-5267
124-2070	25.4-1.00	-16	MN	44.5-1.75	-16	114.0-4.49	72.0-2.83	16.0-.63	4J-0520
302-5227	25.4-1.00	-16	MN	50.8-2.00	-20	111.0-4.37	73.0-2.87	17.0-.67	4J-0522
124-2071	31.8-1.25	-20	MN	50.8-2.00	-20	133.0-5.24	88.0-3.46	18.0-.71	4J-0522
124-2072	38.1-1.50	-24	MN	60.3-2.37	-24	164.0-6.46	105.0-4.13	21.0-.83	4J-0524
124-2073	38.1-1.50	-24	MN	71.4-2.81	-32	164.0-6.46	105.0-4.13	21.0-.83	4J-0527
124-2074	50.8-2.00	-32	MN	71.4-2.81	-32	191.0-7.52	140.0-5.51	32.0-1.26	4J-0527
189-0700	50.8-2.00	-32	MN	84.1-3.31	-40	191.0-7.52	140.0-5.51	32.0-1.26	6J-2680
236-7638	63.5-2.50	-40	MN	84.1-3.31	-40	187.0-7.36	122.0-4.80	27.0-1.06	6J-2680
253-1358	63.5-2.50	-40	MN	101.6-4.00	-48	189.0-7.44	123.0-4.84	27.0-1.06	117-1266
454-6183	76.2-3.00	-48	MN	84.1-3.31	-40	215.0-8.46	150.0-5.91	27.0-1.06	6J-2680
196-1811	76.2-3.00	-48	SW	101.6-4.00	-48	233.0-9.17	170.0-6.69	39.0-1.54	117-1266
454-6182	76.2-3.00	-48	MN	101.6-4.00	-48	233.0-9.17	169.0-6.65	39.0-1.54	117-1266



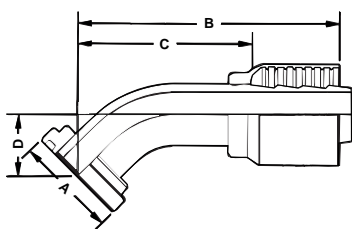
# Cat Low and Medium Pressure Permanent Couplings

## Code 61 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2075	12.7-.50	-8	MN	30.2-1.19	-8	78.0-3.07	52.2-2.06	20.1-.79	4J-5140
124-2076	12.7-.50	-8	MN	38.1-1.50	-12	79.0-3.11	53.4-2.10	21.3-.84	4J-5267
147-1715	15.9-.63	-10	MN	38.1-1.50	-12	91.0-3.58	60.0-2.36	29.0-1.14	4J-5267
321-6388	15.9-.63	-10	MN	44.5-1.75	-16	95.0-3.74	66.0-2.60	28.6-1.13	4J-0520
124-2077	19.1-.75	-12	MN	38.1-1.50	-12	100.0-3.94	66.0-2.60	25.0-.98	4J-5267
124-2078	19.1-.75	-12	MN	44.5-1.75	-16	100.0-3.94	66.0-2.60	25.0-.98	4J-0520
124-2079	25.4-1.00	-16	MN	44.5-1.75	-16	118.0-4.65	76.0-2.99	27.0-1.06	4J-0520
124-2080	25.4-1.00	-16	MN	50.8-2.00	-20	115.0-4.53	76.7-3.02	28.2-1.11	4J-0522
257-2723	31.8-1.25	-20	MN	44.5-1.75	-16	128.0-5.04	87.0-3.43	27.0-1.06	4J-0520
124-2081	31.8-1.25	-20	MN	50.8-2.00	-20	137.0-5.39	93.0-3.66	30.0-1.18	4J-0522
124-2082	31.8-1.25	-20	MN	60.3-2.37	-24	134.0-5.28	90.0-3.54	31.0-1.22	4J-0524
476-5496	38.1-1.50	-24	MN	50.8-2.00	-20	150.0-5.91	100.0-3.94	30.0-1.18	4J-0522
124-2083	38.1-1.50	-24	MN	60.3-2.37	-24	168.0-6.61	112.0-4.41	35.0-1.38	4J-0524
193-1551	38.1-1.50	-24	MN	60.3-2.37	-24	137.0-5.39	86.1-3.39	35.1-1.38	4J-0524
124-2084	38.1-1.50	-24	MN	71.4-2.81	-32	168.0-6.61	112.0-4.41	35.0-1.38	4J-0527
124-2085	50.8-2.00	-32	MN	71.4-2.81	-32	197.0-7.76	147.0-5.79	52.0-2.05	4J-0527
197-1332	50.8-2.00	-32	MN	84.1-3.31	-40	198.0-7.80	147.0-5.79	52.0-2.05	6J-2680
253-1351	63.5-2.50	-40	MN	84.1-3.31	-40	201.0-7.91	135.0-5.31	47.0-1.85	6J-2680
253-1359	63.5-2.50	-40	MN	101.6-4.00	-48	202.0-7.95	136.0-5.35	48.0-1.89	117-1266
454-6184	76.2-3.00	-48	MN	84.1-3.31	-40	218.0-8.58	154.0-6.06	48.0-1.89	6J-2680
129-7474	76.2-3.00	-48	SW	101.6-4.00	-48	247.0-9.72	182.0-7.17	65.0-2.56	117-1266
253-1378	76.2-3.00	-48	SW	114.3-4.50	-56	249.0-9.80	188.0-7.40	67.0-2.64	9X-4611
129-7475	88.9-3.50	-56	MN	114.3-4.50	-56	301.0-11.85	220.0-8.66	73.0-2.87	9X-4611
301-1638	88.9-3.50	-56	MN	127.0-5.00	-64	238.0-9.37	157.7-6.21	54.0-2.13	3E-6703
253-1391	88.9-3.50	-56	MN	127.0-5.00	-64	300.0-11.81	220.0-8.66	73.0-2.87	3E-6703

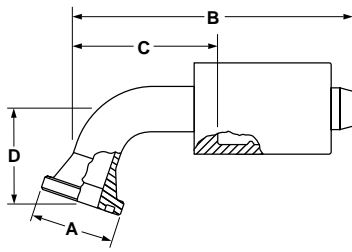
## Code 61 Flange-60° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
302-5234	50.8-2.00	-10	MN	84.1-3.31	-40	201.0-7.91	153.0-6.02	73.0-2.87	6J-2680
124-2086	19.1-.75	-12	MN	38.1-1.50	-12	101.0-3.98	66.0-2.60	35.0-1.38	4J-5267
219-0953	19.1-.75	-12	MN	44.5-1.75	-16	97.0-3.82	65.7-2.59	35.3-1.39	4J-0520
124-2087	25.4-1.00	-16	MN	44.5-1.75	-16	115.0-4.53	77.0-3.03	38.4-1.51	4J-0520
201-0967	25.4-1.00	-16	MN	50.8-2.00	-20	121.0-4.76	83.0-3.27	40.0-1.57	4J-0522
124-2088	31.8-1.25	-20	MN	50.8-2.00	-20	139.0-5.47	94.0-3.70	43.0-1.69	4J-0522
302-5233	31.8-1.25	-20	MN	60.3-2.37	-24	155.0-6.10	94.0-3.70	42.6-1.68	4J-0524
124-2089	38.1-1.50	-24	MN	60.3-2.37	-24	171.0-6.73	114.0-4.49	50.0-1.97	4J-0524
196-5597	38.1-1.50	-24	MN	71.4-2.81	-32	165.0-6.50	113.8-4.48	50.0-1.97	4J-0527
124-2090	50.8-2.00	-32	MN	71.4-2.81	-32	203.0-7.99	152.0-5.98	73.0-2.87	4J-0527
253-1352	63.5-2.50	-40	MN	84.1-3.31	-40	232.0-9.13	166.0-6.54	71.0-2.80	6J-2680
253-1360	63.5-2.50	-40	MN	101.6-4.00	-48	233.0-9.17	167.0-6.57	73.0-2.87	117-1266
454-6185	76.2-3.00	-48	MN	84.1-3.31	-40	235.0-9.25	170.0-6.69	71.0-2.80	6J-2680
253-1367	76.2-3.00	-48	SW	101.6-4.00	-48	224.0-8.82	162.0-6.38	79.0-3.11	117-1266
253-1373	76.2-3.00	-48	SW	101.6-4.00	-48	256.0-10.08	195.0-7.68	96.0-3.78	117-1266

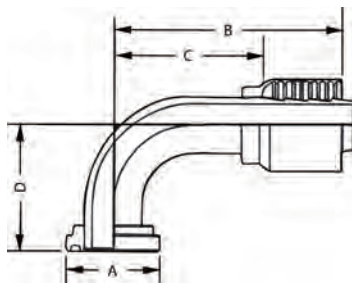
# Cat Low and Medium Pressure Permanent Couplings

## Code 61 Flange-67 1/2° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2091	19.1-.75	-12	MN	38.1-1.50	-12	96.0-3.78	65.0-2.56	40.1-1.58	4J-5267
292-4393	19.1-.75	-12	MN	44.5-1.75	-16	100.0-3.94	65.0-2.56	40.0-1.57	4J-0520
124-2092	25.4-1.00	-16	MN	44.5-1.75	-16	115.0-4.53	76.7-3.02	44.2-1.74	4J-0520
197-8505	25.4-1.00	-16	MN	50.8-2.00	-20	115.0-4.53	77.1-3.04	45.7-1.80	4J-0522
124-2093	31.8-1.25	-20	MN	50.8-2.00	-20	139.0-5.47	94.0-3.70	49.0-1.93	4J-0522
124-2094	31.8-1.25	-20	MN	60.3-2.37	-24	138.0-5.43	93.0-3.66	49.0-1.93	4J-0524
124-2095	38.1-1.50	-24	MN	60.3-2.37	-24	170.0-6.69	113.0-4.45	58.0-2.28	4J-0524
124-2096	38.1-1.50	-24	MN	71.4-2.81	-32	170.0-6.69	113.0-4.45	58.0-2.28	4J-0527
124-2097	50.8-2.00	-32	MN	71.4-2.81	-32	202.0-7.95	151.0-5.94	84.0-3.31	4J-0527
253-1380	50.8-2.00	-32	MN	84.1-3.31	-40	202.0-7.95	151.0-5.94	84.0-3.31	6J-2680
253-1353	63.5-2.50	-40	MN	84.1-3.31	-40	210.0-8.27	144.0-5.67	83.0-3.27	6J-2680
253-1361	63.5-2.50	-40	MN	101.6-4.00	-48	212.0-8.35	146.0-5.75	83.0-3.27	117-1266
253-1374	76.2-3.00	-48	SW	101.6-4.00	-48	259-10.20	198-7.80	115-4.53	117-1266

## Code 61 Flange-90° Elbow



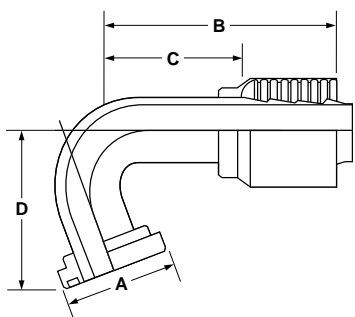
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2098	12.7-.50	-8	MN	30.2-1.19	-8	71.0-2.80	45.4-1.79	41.4-1.63	4J-5140
124-2099	12.7-.50	-8	MN	38.1-1.50	-12	71.0-2.80	45.4-1.79	42.9-1.69	4J-5267
124-2100	15.9-.63	-10	MN	38.1-1.50	-12	75.0-2.95	50.3-1.98	53.8-2.12	4J-5267
124-2101	19.1-.75	-12	MN	38.1-1.50	-12	90.0-3.54	58.9-2.32	54.1-2.13	4J-5267
255-4878	19.1-.75	-12	MN	38.1-1.50	-12	90.0-3.54	59.0-2.32	69.0-2.72	4J-5267
124-2102	19.1-.75	-12	MN	44.5-1.75	-16	90.0-3.54	59.0-2.32	54.0-2.13	4J-0520
180-4712	19.1-.75	-12	MN	44.5-1.75	-16	90.0-3.54	58.9-2.32	85.0-3.35	4J-0520
176-8199	19.1-.75	-12	MN	50.8-2.00	-20	90.0-3.54	58.7-2.31	55.6-2.19	4J-0522
302-5237	31.8-1.25	-12	MN	71.4-2.81	-32	127.0-5.00	87.0-3.43	67.0-2.64	4J-0527
124-2103	25.4-1.00	-16	MN	44.5-1.75	-16	109.0-4.29	71.1-2.80	60.5-2.38	4J-0520
322-0113	25.4-1.00	-16	MN	44.5-1.75	-16	109.0-4.29	72.0-2.83	60.5-2.38	4J-0520
221-6951	25.4-1.00	-16	MN	44.5-1.75	-16	109.0-4.29	71.0-2.80	121.0-4.76	4J-0520
124-2104	25.4-1.00	-16	MN	50.8-2.00	-20	109.0-4.29	71.1-2.80	62.0-2.44	4J-0522
256-3735	25.4-1.00	-16	MN	60.3-2.37	-24	109.0-4.29	71.0-2.80	62.0-2.44	4J-0524
262-6747	31.8-1.25	-20	MN	44.5-1.75	-16	120.0-4.72	79.0-3.11	40.0-1.57	4J-0520
124-2105	31.8-1.25	-20	MN	50.8-2.00	-20	131.0-5.16	87.0-3.43	67.0-2.64	4J-0522
257-0374	31.8-1.25	-20	MN	50.8-2.00	-20	129.0-5.08	88.0-3.46	116.0-4.57	4J-0522
124-2106	31.8-1.25	-20	MN	60.3-2.37	-24	131.0-5.16	87.0-3.43	67.0-2.64	4J-0524
256-4553	38.1-1.50	-24	MN	50.8-2.00	-20	148.0-5.83	96.0-3.78	67.0-2.64	4J-0522
124-2107	38.1-1.50	-24	MN	60.3-2.37	-24	163.0-6.42	106.0-4.17	79.0-3.11	4J-0524
334-1455	38.1-1.50	-24	MN	60.3-2.37	-24	248.0-9.76	106.0-4.17	114.3-4.50	4J-0524
325-5733	38.1-1.50	-24	MN	60.3-2.37	-24	162.0-6.38	106.0-4.17	150.0-5.91	4J-0524
124-2108	38.1-1.50	-24	MN	71.4-2.81	-32	163.0-6.42	106.0-4.17	79.0-3.11	4J-0527
267-8909	38.1-1.50	-24	MN	71.4-2.81	-32	163.0-6.42	106.2-4.18	115.0-4.53	4J-0527
302-5238	38.1-1.50	-24	MN	84.1-3.31	-40	157.0-6.18	106.0-4.17	79.0-3.11	6J-2680
270-6767	50.8-2.00	-32	MN	71.4-2.81	-32	184.0-7.24	136.4-5.37	83.0-3.27	4J-0527
124-2109	50.8-2.00	-32	MN	71.4-2.81	-32	193.0-7.60	143.0-5.63	114.0-4.49	4J-0527
334-3786	50.8-2.00	-32	MN	71.4-2.81	-32	312.0-12.28	137.0-5.39	165.1-6.50	4J-0527
124-2110	50.8-2.00	-32	MN	84.1-3.31	-40	193.0-7.60	143.0-5.63	114.0-4.49	6J-2680
302-5239	63.5-2.50	-40	MN	71.4-2.81	-32	200.0-7.87	141.0-5.55	114.0-4.49	4J-0527

# Cat Low and Medium Pressure Permanent Couplings

## Code 61 Flange-90° Elbow (Cont'd.)

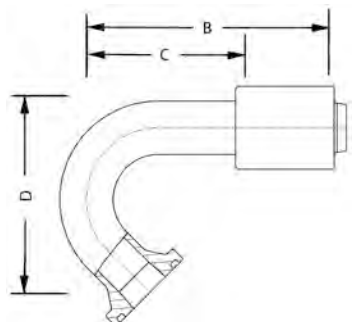
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
253-1354	63.5-2.50	-40	MN	84.1-3.31	-40	206.0-8.11	140.0-5.51	119.0-4.69	6J-2680
440-2679	63.5-2.50	-40	MN	84.1-3.31	-40	205.0-8.07	144.0-5.67	254.0-10.00	6J-2680
253-1362	63.5-2.50	-40	MN	101.6-4.00	-48	207.0-8.15	141.0-5.55	119.0-4.69	117-1266
454-6188	76.2-3.00	-48	MN	84.1-3.31	-40	225.0-8.86	161.0-6.34	119.0-4.69	6J-2680
454-6186	76.2-3.00	-48	MN	101.6-4.00	-48	225.0-8.86	161.0-6.34	119.0-4.69	117-1266
115-8215	76.2-3.00	-48	SW	101.6-4.00	-48	225.0-8.86	151.0-5.94	140.0-5.51	117-1266
454-6187	76.2-3.00	-48	MN	101.6-4.00	-48	225.0-8.86	161.0-6.34	140.0-5.51	117-1266
253-1375	76.2-3.00	-48	SW	101.6-4.00	-48	262.0-10.31	201.0-7.91	162.0-6.38	117-1266
253-1381	76.2-3.00	-48	SW	101.6-4.00	-48	249.0-9.80	188.0-7.40	203.0-7.99	117-1266
454-6189	76.2-3.00	-48	MN	101.6-4.00	-48	253.0-9.96	188.0-7.40	218.0-8.58	117-1266
176-1550	76.2-3.00	-48	SW	114.3-4.50	-56	262.0-10.31	199.0-7.83	162.0-6.38	9X-4611
310-5249	88.9-3.50	-56	MN	114.3-4.50	-56	302.0-11.89	222.0-8.74	84.0-3.31	9X-4611
129-7487	88.9-3.50	-56	MN	114.3-4.50	-56	251.0-9.88	171.0-6.73	143.0-5.63	9X-4611
253-1385	88.9-3.50	-56	MN	114.3-4.50	-56	302.0-11.89	222.0-8.74	155.0-6.10	9X-4611
253-1387	88.9-3.50	-56	MN	127.0-5.00	-64	302.0-11.89	222.0-8.74	175.0-6.89	3E-6703

## Code 61 Flange-110° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
184-4910	25.4-1.00	-16	MN	44.5-1.75	-16	99.0-3.90	60.7-2.39	72.1-2.84	4J-0520
209-3231	25.4-1.00	-16	MN	50.8-2.00	-20	99.0-3.90	60.5-2.38	73.7-2.90	4J-0522
302-5222	31.8-1.25	-20	MN	50.8-2.00	-20	120.0-4.72	75.0-2.95	80.0-3.15	4J-0522
124-2170	31.8-1.25	-20	MN	60.3-2.37	-24	120.0-4.72	75.0-2.95	80.0-3.15	4J-0524
302-5224	31.8-1.25	-20	MN	60.3-2.37	-24	145.0-5.71	94.0-3.70	94.0-3.70	4J-0524
201-0968	50.8-2.00	-32	MN	71.4-2.81	-32	164.0-6.46	113.0-4.45	136.0-5.35	4J-0527

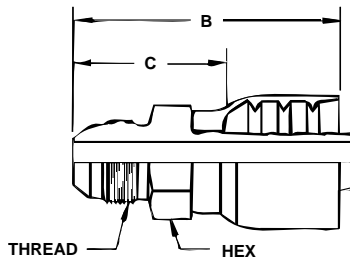
## Code 61 Flange-135° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
423-5097	38.1-1.50	-24	MN	60.3-2.37	-24	144.0-5.67	93.0-3.66	104.0-4.09	4J-0524
447-4882	50.8-2.00	-32	MN	71.4-2.81	-32	135.0-5.31	88.0-3.46	151.0-5.94	4J-0527

# Cat Low and Medium Pressure Permanent Couplings

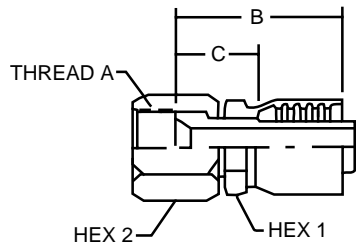
## JIC 37° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-1936	6.4-.25	-4	MN	7/16-20	-4	47.0-1.85	25.7-1.01
124-1937	6.4-.25	-4	MN	1/2-20	-5	46.0-1.81	25.4-1.00
124-1938	6.4-.25	-4	MN	9/16-18	-6	49.0-1.93	28.2-1.11
124-1939	7.9-.31	-5	MN	9/16-18	-6	55.0-2.17	29.5-1.16
154-0069	9.5-.37	-6	MN	1/2-20	-5	52.0-2.05	26.5-1.04
124-1940	9.5-.37	-6	MN	9/16-18	-6	55.0-2.17	29.3-1.15
124-1941	9.5-.37	-6	MN	3/4-16	-8	59.0-2.32	33.5-1.32
124-1942	9.5-.37	-6	MN	7/8-14	-10	58.0-2.28	32.7-1.29
124-1943	12.7-.50	-8	MN	3/4-16	-8	61.0-2.40	35.3-1.39
124-1944	12.7-.50	-8	MN	7/8-14	-10	60.0-2.36	34.4-1.35
124-1945	12.7-.50	-8	MN	1 1/16-12	-12	64.0-2.52	38.9-1.53
124-1946	15.9-.63	-10	MN	7/8-14	-10	61.0-2.40	36.1-1.42
124-1947	15.9-.63	-10	MN	1 1/16-12	-12	66.0-2.60	38.9-1.53
124-1948	19.1-.75	-12	MN	1 1/16-12	-12	69.0-2.72	38.0-1.50
154-0070	19.1-.75	-12	MN	1 3/16-12	-14	72.0-2.83	40.6-1.60
154-0071	19.1-.75	-12	MN	1 5/16-12	-16	75.0-2.95	43.7-1.72
124-1949	25.4-1.00	-16	MN	1 5/16-12	-16	84.0-3.31	46.0-1.81
124-2336	31.8-1.25	-20	MN	1 5/8-12	-20	93.0-3.66	52.0-2.05

# Cat Low and Medium Pressure Permanent Couplings

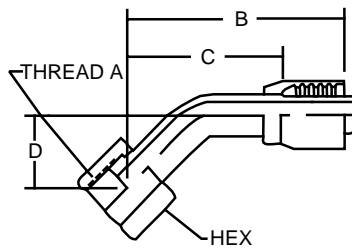
## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-1950	6.4-.25	-4	MN	7/16-20	-4	37.0-1.46	16.0-.63
124-1951	6.4-.25	-4	MN	1/2-20	-5	41.0-1.61	19.8-.78
124-1952	6.4-.25	-4	MN	9/16-18	-6	42.0-1.65	20.8-.82
124-1953	7.9-.31	-5	MN	9/16-18	-6	47.0-1.85	20.8-.82
124-1954	9.5-.37	-6	MN	7/16-20	-4	48.0-1.89	22.6-.89
124-1955	9.5-.37	-6	MN	1/2-20	-5	44.0-1.73	18.0-.71
124-1956	9.5-.37	-6	MN	9/16-18	-6	49.0-1.93	23.7-.93
316-3036	9.5-.37	-6	MN	9/16-18	-6	62.0-2.44	52.0-2.05
124-1957	9.5-.37	-6	MN	3/4-16	-8	50.0-1.97	24.3-.96
124-1960	9.5-.37	-6	MN	7/8-14	-10	51.0-2.01	25.6-1.01
124-1959	12.7-.50	-8	MN	9/16-18	-6	53.0-2.09	27.5-1.08
124-1961	12.7-.50	-8	MN	3/4-16	-8	54.0-2.13	28.4-1.12
124-1962	12.7-.50	-8	MN	7/8-14	-10	55.0-2.17	29.7-1.17
124-1963	12.7-.50	-8	MN	1 1/16-12	-12	55.0-2.17	29.4-1.16
124-1964	15.9-.63	-10	MN	3/4-16	-8	56.0-2.20	31.0-1.22
124-1965	15.9-.63	-10	MN	7/8-14	-10	57.0-2.24	32.0-1.26
124-1966	15.9-.63	-10	MN	1 1/16-12	-12	57.0-2.24	32.0-1.26
124-1967	19.1-.75	-12	MN	3/4-16	-8	59.0-2.32	27.9-1.10
124-1968	19.1-.75	-12	MN	7/8-14	-10	58.0-2.28	27.4-1.08
124-1969	19.1-.75	-12	MN	1 1/16-12	-12	58.0-2.28	27.4-1.08
124-1970	19.1-.75	-12	MN	1 3/16-12	-14	60.0-2.36	28.7-1.13
124-1971	19.1-.75	-12	MN	1 5/16-12	-16	60.0-2.36	29.5-1.16
124-1972	25.4-1.00	-16	MN	1 1/16-12	-12	68.0-2.68	30.2-1.19
124-1973	25.4-1.00	-16	MN	1 5/16-12	-16	68.0-2.68	29.5-1.16
124-1974	25.4-1.00	-16	MN	1 5/8-12	-20	69.0-2.72	30.7-1.21
124-1975	31.8-1.25	-20	MN	1 5/8-12	-20	74.0-2.91	33.8-1.33
302-5260	31.8-1.25	-20	MN	1 7/8-12	-24	95.0-3.74	54.0-2.13
124-1976	38.1-1.50	-24	MN	1 7/8-12	-24	118.0-4.65	67.0-2.64
124-1977	50.8-2.00	-32	MN	2 1/2-12	-32	115.0-4.53	67.0-2.64

# Cat Low and Medium Pressure Permanent Couplings

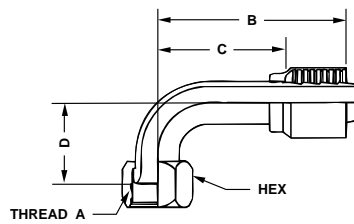
## JIC 37° Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
124-1978	6.4-.25	-4	MN	7/16-20	-4	49.0-1.93	27.9-1.10	8.4-.33
124-1989	6.4-.25	-4	MN	7/16-20	-4	53.0-2.09	31.5-1.24	11.9-.47
147-1705	6.4-.25	-4	MN	1/2-20	-5	56.0-2.20	34.5-1.36	11.7-.46
124-1979	6.4-.25	-4	MN	9/16-18	-6	51.0-2.01	29.5-1.16	9.9-.39
124-1990	6.4-.25	-4	MN	9/16-18	-6	55.0-2.17	33.8-1.33	14.2-.56
124-1980	9.5-.37	-6	MN	9/16-18	-6	60.0-2.36	35.1-1.38	9.9-.39
124-1991	9.5-.37	-6	MN	9/16-18	-6	66.0-2.60	40.1-1.58	15.0-.59
124-1981	9.5-.37	-6	MN	3/4-16	-8	65.0-2.56	39.1-1.54	14.0-.55
124-1992	9.5-.37	-6	MN	3/4-16	-8	68.0-2.68	42.7-1.68	17.5-.69
309-6969	50.8-2.00	-8	MN	9/16-18	-6	202.0-7.95	152.0-5.98	56.0-2.20
124-1982	12.7-.50	-8	MN	3/4-16	-8	69.0-2.72	43.7-1.72	14.0-.55
124-1993	12.7-.50	-8	MN	3/4-16	-8	73.0-2.87	47.2-1.86	17.5-.69
124-1983	12.7-.50	-8	MN	7/8-14	-10	71.0-2.80	45.9-1.81	16.3-.64
124-1994	12.7-.50	-8	MN	7/8-14	-10	77.0-3.03	52.0-2.05	22.4-.88
124-1984	15.9-.63	-10	MN	7/8-14	-10	77.0-3.03	52.3-2.06	16.3-.64
124-1995	15.9-.63	-10	MN	7/8-14	-10	88.0-3.46	58.0-2.28	23.0-.91
124-1985	15.9-.63	-10	MN	1 1/16-12	-12	81.0-3.19	55.6-2.19	19.6-.77
124-1996	15.9-.63	-10	MN	1 1/16-12	-12	88.0-3.46	63.0-2.48	26.9-1.06
124-1986	19.1-.75	-12	MN	1 1/16-12	-12	88.0-3.46	57.2-2.25	19.6-.77
124-1997	19.1-.75	-12	MN	1 1/16-12	-12	100.0-3.94	65.0-2.56	27.0-1.06
253-1384	25.4-1.00	-16	MN	1 1/16-12	-12	121.0-4.76	83.0-3.27	27.0-1.06
124-1998	25.4-1.00	-16	MN	1 5/16-12	-16	121.0-4.76	83.3-3.28	29.5-1.16
124-1987	25.4-1.00	-16	MN	1 5/16-12	-16	122.0-4.80	74.0-2.91	30.0-1.18
124-1999	31.8-1.25	-20	MN	1 5/8-12	-20	137.0-5.39	97.0-3.82	29.0-1.14
124-1988	31.8-1.25	-20	MN	1 5/8-12	-20	145.0-5.71	104.0-4.09	37.0-1.46
302-5250	38.1-1.50	-24	MN	1-7/8-12	-24	179.0-7.05	128.0-5.04	51.0-2.01

# Cat Low and Medium Pressure Permanent Couplings

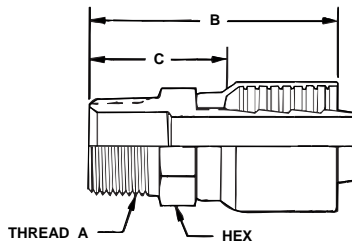
## JIC 37° Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
124-2000	6.4-.25	-4	MN	7/16-20	-4	46.0-1.81	25.1-.99	17.5-.69
124-2015	6.4-.25	-4	MN	7/16-20	-4	46.0-1.81	25.1-.99	22.4-.88
124-2025	6.4-.25	-4	MN	7/16-20	-4	46.0-1.81	25.1-.99	44.5-1.75
124-2001	6.4-.25	-4	MN	1/2-20	-5	49.0-1.93	28.0-1.10	20.0-.79
228-2986	6.4-.25	-4	MN	1/2-20	-5	49.0-1.93	28.3-1.11	22.4-.88
124-2026	6.4-.25	-4	MN	1/2-20	-5	49.0-1.93	28.2-1.11	46.0-1.81
124-2002	6.4-.25	-4	MN	9/16-18	-6	46.0-1.81	25.1-.99	22.4-.88
124-2016	6.4-.25	-4	MN	9/16-18	-6	46.0-1.81	25.1-.99	28.4-1.12
124-2027	6.4-.25	-4	MN	9/16-18	-6	46.0-1.81	25.1-.99	55.6-2.19
124-2003	7.9-.31	-5	MN	9/16-18	-6	56.0-2.20	29.7-1.17	22.4-.88
124-2004	9.5-.37	-6	MN	7/16-20	-4	55.0-2.17	29.7-1.17	17.5-.69
124-2005	9.5-.37	-6	MN	9/16-18	-6	58.0-2.28	32.5-1.28	22.4-.88
124-2017	9.5-.37	-6	MN	9/16-18	-6	58.0-2.28	32.5-1.28	28.4-1.12
316-3035	9.5-.37	-6	MN	9/16-18	-6	75.0-2.95	65.0-2.56	32.0-1.26
6V-6222	9.5-.37	-6	MN	9/16-18	-6	68.0-2.68	35.0-1.38	55.5-2.19
124-2028	9.5-.37	-6	MN	9/16-18	-6	58.0-2.28	32.5-1.28	55.6-2.19
124-2006	9.5-.37	-6	MN	3/4-16	-8	58.0-2.28	32.5-1.28	27.7-1.09
124-2018	9.5-.37	-6	MN	3/4-16	-8	58.0-2.28	32.5-1.28	35.1-1.38
124-2029	9.5-.37	-6	MN	3/4-16	-8	58.0-2.28	32.5-1.28	63.5-2.50
124-2171	12.7-.50	-8	MN	9/16-18	-6	60.0-2.36	34.3-1.35	21.8-.86
124-2007	12.7-.50	-8	MN	3/4-16	-8	64.0-2.52	38.8-1.53	27.7-1.09
124-2019	12.7-.50	-8	MN	3/4-16	-8	64.0-2.52	38.8-1.53	35.1-1.38
124-2030	12.7-.50	-8	MN	3/4-16	-8	64.0-2.52	38.8-1.53	63.5-2.50
124-2008	12.7-.50	-8	MN	7/8-14	-10	64.0-2.52	38.8-1.53	31.2-1.23
124-2020	12.7-.50	-8	MN	7/8-14	-10	64.0-2.52	38.8-1.53	44.5-1.75
124-2031	12.7-.50	-8	MN	7/8-14	-10	64.0-2.52	38.8-1.53	77.7-3.06
124-2009	12.7-.50	-8	MN	1 1/16-12	-12	64.0-2.52	38.8-1.53	46.2-1.82
124-2010	15.9-.63	-10	MN	7/8-14	-10	77.0-3.03	47.0-1.85	32.0-1.26
124-2021	15.9-.63	-10	MN	7/8-14	-10	77.0-3.03	47.0-1.85	44.0-1.73
124-2032	15.9-.63	-10	MN	7/8-14	-10	77.0-3.03	47.0-1.85	78.0-3.07
124-2011	15.9-.63	-10	MN	1 1/16-12	-12	77.0-3.03	47.0-1.85	46.0-1.81
124-2022	15.9-.63	-10	MN	1 1/16-12	-12	72.0-2.83	47.0-1.85	52.3-2.06
124-2033	15.9-.63	-10	MN	1 1/16-12	-12	72.0-2.83	47.0-1.85	91.9-3.62
124-2012	19.1-.75	-12	MN	1 1/16-12	-12	84.0-3.31	52.6-2.07	46.2-1.82
124-2023	19.1-.75	-12	MN	1 1/16-12	-12	84.0-3.31	52.6-2.07	52.3-2.06
124-2034	19.1-.75	-12	MN	1 1/16-12	-12	84.0-3.31	52.6-2.07	94.7-3.73
124-2035	19.1-.75	-12	MN	1 3/16-12	-14	97.0-3.82	66.0-2.60	100.1-3.94
147-1706	19.1-.75	-12	MN	1 5/16-12	-16	84.0-3.31	52.6-2.07	54.4-2.14
124-2013	25.4-1.00	-16	MN	1 5/16-12	-16	118.0-4.65	79.5-3.13	54.4-2.14
124-2024	25.4-1.00	-16	MN	1 5/16-12	-16	114.0-4.49	76.2-3.00	64.0-2.52
124-2036	25.4-1.00	-16	MN	1 5/16-12	-16	114.0-4.49	76.2-3.00	111.3-4.38
124-2014	31.8-1.25	-20	MN	1 5/8-12	-20	132.0-5.20	91.7-3.61	65.5-2.58
147-1707	31.8-1.25	-20	MN	1 5/8-12	-20	129.0-5.08	88.4-3.48	76.2-3.00
147-1708	31.8-1.25	-20	MN	1 5/8-12	-20	129.0-5.08	88.4-3.48	138.2-5.44
309-6970	50.8-2.00	-32	MN	2 1/2-12	-32	187.0-7.36	136.0-5.35	118.0-4.65

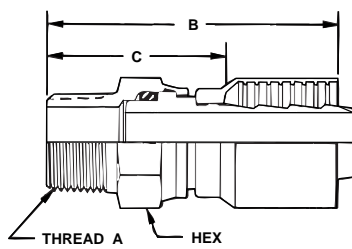
# Cat Low and Medium Pressure Permanent Couplings

## NPTF Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-1890	6.4-.25	-4	MN	1/8-27	-2	41.0-1.61	20.1-.79
124-1891	6.4-.25	-4	MN	1/4-18	-4	48.0-1.89	27.2-1.07
124-1892	6.4-.25	-4	MN	3/8-18	-6	48.0-1.89	27.2-1.07
124-1894	6.4-.25	-4	MN	1/2-14	-8	54.0-2.13	33.0-1.30
124-1895	7.9-.31	-5	MN	1/4-18	-4	55.0-2.17	28.7-1.13
124-1896	9.5-.37	-6	MN	1/4-18	-4	54.0-2.13	28.5-1.12
124-1897	9.5-.37	-6	MN	3/8-18	-6	55.0-2.17	29.4-1.16
124-1898	9.5-.37	-6	MN	1/2-14	-8	59.0-2.32	34.1-1.34
124-1899	12.7-.50	-8	MN	3/8-18	-6	57.0-2.24	31.2-1.23
124-1900	12.7-.50	-8	MN	1/2-14	-8	61.0-2.40	35.9-1.41
124-1901	12.7-.50	-8	MN	3/4-14	-12	63.0-2.48	37.8-1.49
124-1902	15.9-.63	-10	MN	3/8-18	-6	64.0-2.52	34.0-1.34
124-1903	15.9-.63	-10	MN	1/2-14	-8	64.0-2.52	39.0-1.54
124-1904	15.9-.63	-10	MN	3/4-14	-12	66.0-2.60	41.0-1.61
124-1905	19.1-.75	-12	MN	1/2-14	-8	66.0-2.60	35.3-1.39
124-1906	19.1-.75	-12	MN	3/4-14	-12	68.0-2.68	36.6-1.44
124-1907	19.1-.75	-12	MN	1-11 1/2	-16	76.0-2.99	44.7-1.76
124-1908	25.4-1.00	-16	MN	3/4-14	-12	77.0-3.03	38.9-1.53
124-1909	25.4-1.00	-16	MN	1-11 1/2	-16	85.0-3.35	47.0-1.85
124-1910	31.8-1.25	-20	MN	1 1/4-11 1/2	-20	94.0-3.70	53.1-2.09
124-1911	38.1-1.50	-24	MN	1 1/2-11 1/2	-24	107.0-4.21	56.1-2.21
124-1912	50.8-2.00	-32	MN	2-11 1/2	-32	107.0-4.21	59.0-2.32
302-5240	63.5-2.50	-40	MN	2-11 1/2	-32	124.0-4.88	70.0-2.76

## NPTF Male Swivel-Str

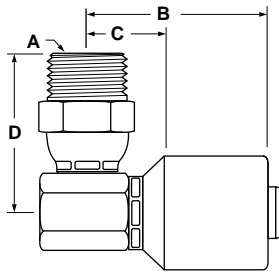


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-1913	6.4-.25	-4	MN	1/8-27	-2	56.0-2.20	35.3-1.39
124-1914	6.4-.25	-4	MN	1/4-18	-4	60.0-2.36	39.1-1.54
124-1915	6.4-.25	-4	MN	3/8-18	-6	60.0-2.36	39.4-1.55
124-1916	9.5-.37	-6	MN	1/4-18	-4	67.0-2.64	41.5-1.63
124-1917	9.5-.37	-6	MN	3/8-18	-6	67.0-2.64	41.3-1.63
124-1918	9.5-.37	-6	MN	1/2-14	-8	74.0-2.91	48.8-1.92
124-1919	12.7-.50	-8	MN	3/8-18	-6	69.0-2.72	43.2-1.70
124-1920	12.7-.50	-8	MN	1/2-14	-8	76.0-2.99	50.5-1.99
124-1921	19.1-.75	-12	MN	3/4-14	-12	89.0-3.50	54.0-2.13
124-1922	25.4-1.00	-16	MN	1-11 1/2	-16	98.0-3.86	60.5-2.38



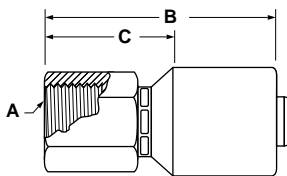
# Cat Low and Medium Pressure Permanent Couplings

## NPTF Male Swivel-90° Elbow



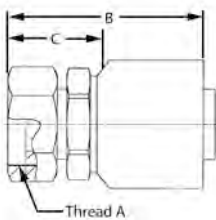
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
124-1923	6.4-.25	-4	MN	1/4-18	-4	40.0-1.57	19.1-.75	42.2-1.66
154-0052	9.5-.37	-6	MN	3/8-18	-6	47.0-1.85	21.6-.85	44.5-1.75
154-0054	12.7-.50	-8	MN	1/2-14	-8	51.0-2.01	25.9-1.02	54.1-2.13
154-0055	19.1-.75	-12	MN	3/4-14	-12	58.0-2.28	32.8-1.29	65.8-2.59

## NPTF Female-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-1924	6.4-.25	-4	MN	1/8-27	-2	41.0-1.61	19.6-.77
124-1925	6.4-.25	-4	MN	1/4-18	-4	49.0-1.93	27.7-1.09
154-0057	9.5-.37	-6	MN	1/4-18	-4	54.0-2.13	28.9-1.14
124-1926	9.5-.37	-6	MN	3/8-18	-6	55.0-2.17	29.3-1.15
154-0058	12.7-.50	-8	MN	3/8-18	-6	56.0-2.20	31.0-1.22
154-0059	19.1-.75	-12	MN	3/4-14	-12	66.0-2.60	34.8-1.37

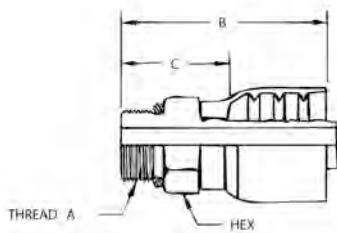
## NPSM Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
154-0060	6.4-.25	-4	MN	1/8-27	-2	41.0-1.61	20.1-.79
154-0061	6.4-.25	-4	MN	1/4-18	-4	43.0-1.69	21.8-.86
154-0062	9.5-.37	-6	MN	3/8-18	-6	54.0-2.13	29.0-1.14
154-0063	12.7-.50	-8	MN	1/2-14	-8	56.0-2.20	30.9-1.22
154-0064	19.1-.75	-12	MN	3/4-14	-12	61.0-2.40	30.5-1.20
124-1958	25.4-1.00	-16	MN	1-11 1/2	-16	69.0-2.72	30.2-1.19
154-0066	31.8-1.25	-20	MN	1 1/4-11 1/2	-20	74.0-2.91	33.8-1.33

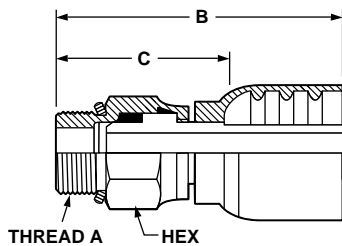
# Cat Low and Medium Pressure Permanent Couplings

## STOR Male-Str



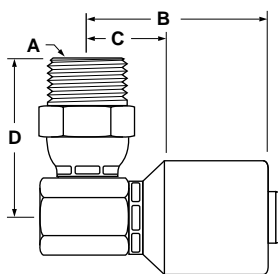
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
124-1928	6.4-.25	-4	MN	7/16-20	-4	42.0-1.65	20.6-.81	3J-7354
147-1719	6.4-.25	-4	MN	9/16-18	-6	43.0-1.69	22.4-.88	3J-1907
124-1929	9.5-.37	-6	MN	9/16-18	-6	49.0-1.93	23.5-.93	3J-1907
124-1930	9.5-.37	-6	MN	3/4-16	-8	53.0-2.09	27.9-1.10	3K-0360
124-1931	12.7-.50	-8	MN	3/4-16	-8	55.0-2.17	29.7-1.17	3K-0360
124-1932	12.7-.50	-8	MN	7/8-14	-10	55.0-2.17	29.7-1.17	2M-9780
147-1698	12.7-.50	-8	MN	1 1/16-12	-12	59.0-2.32	33.8-1.33	3D-2824
147-1699	15.9-.63	-10	MN	7/8-14	-10	57.0-2.24	32.0-1.26	2M-9780
147-1720	15.9-.63	-10	MN	1 1/16-12	-12	62.0-2.44	37.0-1.46	3D-2824
124-1933	19.1-.75	-12	MN	1 1/16-12	-12	64.0-2.52	32.8-1.29	3D-2824
147-1700	25.4-1.00	-16	MN	1 5/16-12	-16	75.0-2.95	36.8-1.45	7M-8485

## STOR Male Swivel-Str



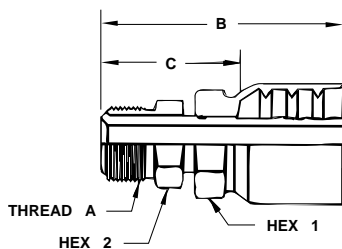
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
124-1934	9.5-.37	-6	MN	9/16-18	-6	67.0-2.64	42.0-1.65	3J-1907
147-1701	9.5-.37	-6	MN	3/4-16	-8	64.0-2.52	38.3-1.51	3K-0360
147-1702	12.7-.50	-8	MN	3/4-16	-8	65.0-2.56	40.0-1.57	3K-0360
147-1703	12.7-.50	-8	MN	7/8-14	-10	70.0-2.76	60.0-2.36	2M-9780
154-0067	19.1-.75	-12	MN	1 1/16-12	-12	82.0-3.23	50.5-1.99	3D-2824

## STOR Male Swivel Block-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-1935	9.5-.37	-6	MN	9/16-18	-6	47.0-1.85	25.0-.98	45.0-1.77	3J-1907
154-0068	12.7-.50	-8	MN	3/4-16	-8	50.0-1.97	24.1-.95	42.7-1.68	3K-0360
279-5671	12.7-.50	-8	MN	7/8-14	-10	51.0-2.01	25.9-1.02	47.8-1.88	4J-7533
215-1952	25.4-1.00	-16	MN	1 5/16-12	-16	73.0-2.87	33.8-1.33	63.5-2.50	7M-8485

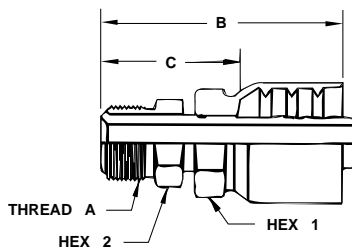
## SAE 45° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
154-0086	9.5-.37	-6	MN	5/8-18	-6	56.0-2.20	30.9-1.22

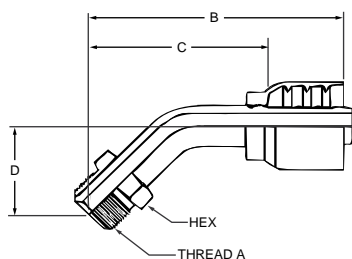
# Cat Low and Medium Pressure Permanent Couplings

## SAE 45° Inverted Flare Male Swivel-Str



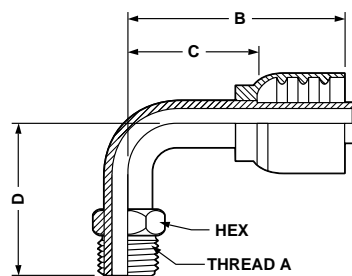
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-2041	6.4-.25	-4	MN	7/16-24	-4	49.0-1.93	27.4-1.08
124-2042	6.4-.25	-4	MN	1/2-20	-5	50.0-1.97	29.2-1.15
124-2043	9.5-.37	-6	MN	5/8-18	-6	56.0-2.20	31.0-1.22
154-0087	9.5-.37	-6	MN	11/16-18	-7	56.0-2.20	31.0-1.22
124-2044	12.7-.50	-8	MN	3/4-18	-8	65.0-2.56	39.4-1.55
124-2045	15.9-.63	-10	MN	7/8-18	-10	70.0-2.76	45.0-1.77

## SAE 45° Inverted Flare Male Swivel-45° Elbow



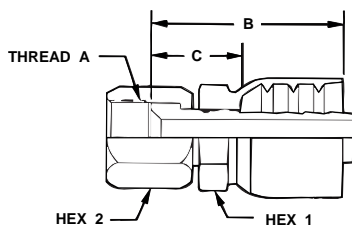
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
147-1710	6.4-.25	-4	MN	7/16-24	-4	61.0-2.40	40.4-1.59	20.8-.82
154-0088	9.5-.37	-6	MN	5/8-18	-6	74.0-2.91	49.0-1.93	23.9-.94
147-1711	12.7-.50	-8	MN	3/4-18	-8	85.0-3.35	59.6-2.35	30.0-1.18

## SAE 45° Inverted Flare Male Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
124-2046	6.4-.25	-4	MN	7/16-24	-4	49.0-1.93	25.0-.98	35.0-1.38
124-2047	6.4-.25	-4	MN	1/2-20	-5	49.0-1.93	25.0-.98	34.0-1.34
124-2048	9.5-.37	-6	MN	7/16-24	-4	59.0-2.32	30.0-1.18	33.0-1.30
154-0089	9.5-.37	-6	MN	1/2-20	-5	55.0-2.17	29.5-1.16	33.5-1.32
124-2049	9.5-.37	-6	MN	5/8-18	-6	62.0-2.44	33.0-1.30	38.0-1.50
154-0090	9.5-.37	-6	MN	11/16-18	-7	58.0-2.28	32.5-1.28	43.7-1.72
147-1712	12.7-.50	-8	MN	3/4-18	-8	64.0-2.52	38.8-1.53	46.0-1.81
147-1713	15.9-.63	-10	MN	7/8-18	-10	72.0-2.83	47.0-1.85	54.4-2.14

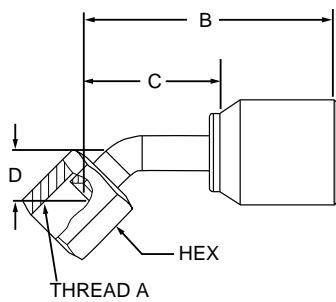
## SAE 45° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-2037	6.4-.25	-4	MN	7/16-20	-4	38.0-1.50	17.0-.67
154-0085	6.4-.25	-4	MN	5/8-18	-6	39.0-1.54	18.0-.71
124-2038	9.5-.37	-6	MN	5/8-18	-6	45.0-1.77	20.0-.79
124-2039	12.7-.50	-8	MN	3/4-16	-8	54.0-2.13	28.5-1.12
124-2040	19.1-.75	-12	MN	1 1/16-14	-12	58.0-2.28	27.4-1.08

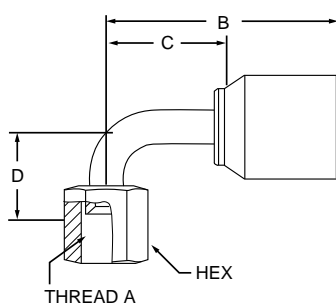
# Cat Low and Medium Pressure Permanent Couplings

## SAE 45° Female Swivel-45° Elbow



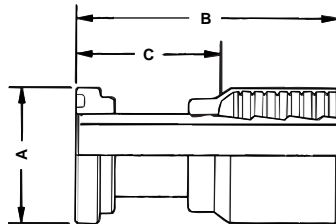
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
154-0072	6.4-.25	-4	MN	7/16-20	-4	49.0-1.93	27.9-1.10	8.4-.33
154-0074	9.5-.37	-6	MN	5/8-18	-6	60.0-2.36	35.1-1.38	9.9-.39
154-0077	12.7-.50	-8	MN	3/4-16	-8	69.0-2.72	43.7-1.72	14.0-.55

## SAE 45° Female Swivel-90° Elbow



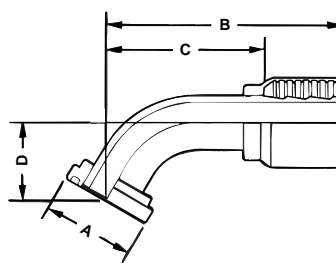
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
154-0080	6.4-.25	-4	MN	7/16-20	-4	46.0-1.81	25.1-.99	17.3-.68
154-0081	6.4-.25	-4	MN	1/2-20	-5	46.0-1.81	25.1-.99	19.6-.77
154-0082	9.5-.37	-6	MN	5/8-18	-6	58.0-2.28	32.5-1.28	21.6-.85
154-0083	12.7-.50	-8	MN	3/4-16	-8	64.0-2.52	38.8-1.53	27.7-1.09
154-0084	19.1-.75	-12	MN	1 1/16-14	-12	84.0-3.31	52.6-2.07	46.2-1.82

## Komatsu Style Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
154-0091	15.9-.63	-10	MN	-10	34.1-1.34	82.0-3.23	57.0-2.24	4J-8996

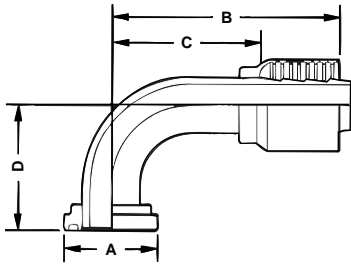
## Komatsu Style Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
154-0093	15.9-.63	-10	MN	-10	34.1-1.34	88.0-3.46	63.2-2.49	25.9-1.02	4J-8996

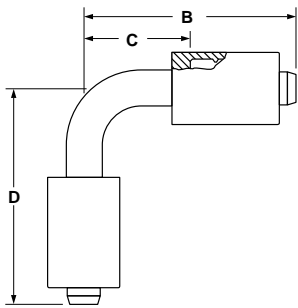
# Cat Low and Medium Pressure Permanent Couplings

## Komatsu Style Flange-90° Elbow



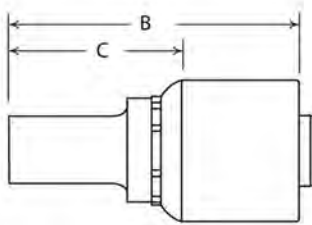
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
154-0094	15.9-.63	-10	MN	-10	34.1-1.34	75.0-2.95	50.3-1.98	55.1-2.17	4J-8996

## Double Collet-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
176-2483	6.4-.25	-4	MN	46.0-1.81	22.1-.87	46.2-1.82

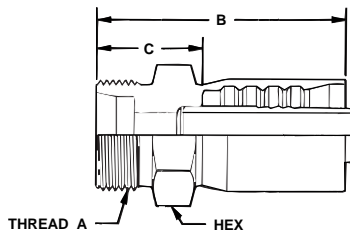
## Metric Standpipe-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
124-2189	6.4-.25	-4	MN	8-0.31	49.0-1.93	28.2-1.11	5W-1681
124-2188	6.4-.25	-4	MN	6-0.24	51.0-2.01	30.2-1.19	5W-1648
124-2190	7.9-.31	-5	MN	10-0.39	56.0-2.20	30.5-1.20	5W-1650
124-2193	9.5-.37	-6	MN	12-0.47	56.0-2.20	30.4-1.20	5W-1651
190-3754	9.5-.37	-6	MN	n/a	56.0-2.20	30.4-1.20	5W-1651
124-2192	9.5-.37	-6	MN	10-0.39	58.0-2.28	32.4-1.28	5W-1650
124-2194	12.7-.50	-8	MN	15-0.59	59.0-2.32	33.9-1.33	5W-1653
124-2195	15.9-.63	-10	MN	18-0.71	61.0-2.40	35.0-1.38	5W-1655
124-2196	19.1-.75	-12	MN	18-0.71	67.0-2.64	36.1-1.42	5W-1655
124-2197	19.1-.75	-12	MN	22-0.87	67.0-2.64	36.1-1.42	5W-1657
124-2198	25.4-1.00	-16	MN	n/a	79.0-3.11	40.6-1.60	5W-4779
124-2199	31.8-1.25	-20	MN	n/a	84.0-3.31	43.7-1.72	5W-1660

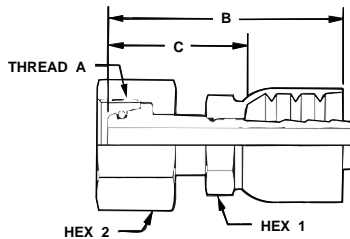
# Cat Low and Medium Pressure Permanent Couplings

## Metric Male 24° Taper-Str (Light)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-2176	6.4-.25	-4	MN	M12 x 1.5	6.0-0.24	43.0-1.69	22.1-.87
124-2177	6.4-.25	-4	MN	M14 x 1.5	8.0-0.31	43.0-1.69	22.1-.87
492-5097	6.4-.25	-4	MN	M16 x 1.5	10.0-0.39	43-1.69	22-0.87
124-2178	7.9-.31	-5	MN	M16 x 1.5	10.0-0.39	51.0-2.01	25.1-.99
124-2180	9.5-.37	-6	MN	M16 x 1.5	10.0-0.39	51.0-2.01	25.6-1.01
124-2181	9.5-.37	-6	MN	M18 x 1.5	12.0-0.47	51.0-2.01	25.6-1.01
124-2182	12.7-.50	-8	MN	M22 x 1.5	15.0-0.59	55.0-2.17	29.3-1.15
124-2183	15.9-.63	-10	MN	M26 x 1.5	18.0-0.71	55.0-2.17	30.2-1.19
124-2184	19.1-.75	-12	MN	M26 x 1.5	18.0-0.71	61.0-2.40	30.0-1.18
124-2185	19.1-.75	-12	MN	M30 x 2.0	22.0-0.87	65.0-2.56	34.0-1.34
124-2186	25.4-1.00	-16	MN	M36 x 2.0	28.0-1.10	75.0-2.95	37.3-1.47
124-2187	31.8-1.25	-20	MN	M45 x 2.0	35.0-1.38	85.0-3.35	44.2-1.74

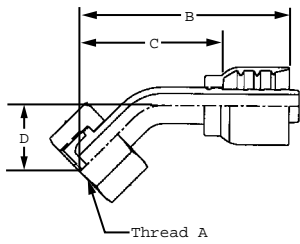
## Metric Female Swivel 24° Taper w/O-Ring-Str (Light)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
501-1381	6.4-.25	-4	MN	M16 x 1.5	10.0-0.39	47.0-1.85	26.0-1.02	192-7513
124-2230	6.4-.25	-4	MN	M12 x 1.5	6.0-0.24	49.0-1.93	27.7-1.09	3E-4288
124-2232	6.4-.25	-4	MN	M14 x 1.5	8.0-0.31	49.0-1.93	27.7-1.09	3E-4289
124-2233	7.9-.31	-5	MN	M16 x 1.5	10.0-0.39	56.0-2.20	30.0-1.18	3E-4296
256-3733	7.9-.31	-5	MN	M18 x 1.5	12.0-0.47	56.0-2.20	29.9-1.18	3E-4297
124-2234	9.5-.37	-6	MN	M16 x 1.5	12.0-0.47	52.0-2.05	27.0-1.06	3E-4296
124-2235	9.5-.37	-6	MN	M18 x 1.5	12.0-0.47	52.0-2.05	27.0-1.06	3E-4297
431-9025	9.5-.37	-6	MN	M22 - 1.5	15.0-0.59	69.0-2.72	40.0-1.57	7T-0508
124-2236	12.7-.50	-8	MN	M22 x 1.5	15.0-0.59	64.0-2.52	38.2-1.50	3E-4298
302-5243	12.7-.50	-8	MN	M26-1.5	18.0-0.71	66.0-2.60	40.0-1.57	7T-0506
124-2237	15.9-.63	-10	MN	M26 x 1.5	18.0-0.71	67.0-2.64	42.0-1.65	7T-0506
124-2238	19.1-.75	-12	MN	M26 x 1.5	18.0-0.71	69.0-2.72	37.8-1.49	7T-0506
124-2239	19.1-.75	-12	MN	M30 x 2.0	22.0-0.87	70.0-2.76	39.4-1.55	3E-6761
124-2240	25.4-1.00	-16	MN	M36 x 2.0	28.0-1.10	79.0-3.11	40.9-1.61	092-2304
124-2241	31.8-1.25	-20	MN	M45 x 2.0	35.0-1.38	85.0-3.35	44.0-1.73	9X-7447
256-3734	19.1-.75	-24	MN	M52 - 2.0	36.0-1.40	106.0-4.17	55.0-2.17	190-8676

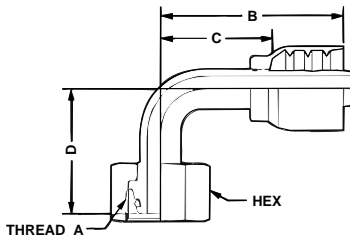
# Cat Low and Medium Pressure Permanent Couplings

## Metric Female Swivel 24° Taper w/O-Ring-45° Elbow (Light)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
256-3709	6.4-.25	-4	MN	M12 x 1.5	6.0-0.24	56.0-2.20	34.9-1.37	15.2-.60	3E-4288
501-1382	6.4-.25	-4	MN	M16 - 1.5	10.0-0.39	57.0-2.24	37.0-1.46	17.0-.67	192-7513
256-3710	6.4-.25	-4	MN	M14 x 1.5	8.0-0.31	58.0-2.28	37.2-1.46	17.5-.69	3E-4289
256-3711	7.9-.31	-5	MN	M16 x 1.5	10.0-0.39	68.0-2.68	41.6-1.64	18.5-.73	3E-4296
256-3713	9.5-.37	-6	MN	M16 x 1.5	10.0-0.39	70.0-2.76	44.2-1.74	19.1-.75	3E-4296
256-3714	9.5-.37	-6	MN	M18 x 1.5	12.0-0.47	71.0-2.80	50.1-1.97	18.3-.72	3E-4297
503-4442	9.5-.37	-6	MN	M22 - 1.5	15.0-0.59	70.0-2.76	45.0-1.77	20.0-.79	3E-4298
256-3715	12.7-.50	-8	MN	M22 x 1.5	15.0-0.59	78.0-3.07	57.2-2.25	23.1-.91	3E-4298
503-7781	12.7-.50	-8	MN	M26 - 1.5	18.0-0.71	79.0-3.11	53.0-2.09	24.0-.94	122-9250
256-3716	15.9-.63	-10	MN	M26 x 1.5	18.0-0.71	89.0-3.50	64.1-2.52	27.9-1.10	7T-0506
256-3717	19.1-.75	-12	MN	M26 x 1.5	18.0-0.71	93.0-3.66	61.9-2.44	24.4-.96	7T-0506
256-3718	19.1-.75	-12	MN	M30 x 2.0	22.0-0.87	94.0-3.70	63.5-2.50	25.9-1.02	3E-6761
256-3719	25.4-1.00	-16	MN	M36 x 2.0	120.0-4.72	120.0-4.72	82.2-3.24	33.5-1.32	092-2304
256-3721	38.1-1.50	-24	MN	M52 x 2.0	178.0-7.01	178.0-7.01	126.8-4.99	54.9-2.16	177-2936

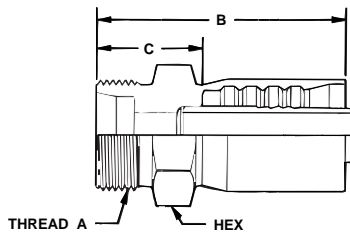
## Metric Female Swivel 24° Taper w/O-Ring-90° Elbow (Light)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
256-3722	6.4-.25	-4	MN	M12 x 1.5	6.0-0.24	46.0-1.81	25.2-.99	26.4-1.04	3E-4288
256-3723	6.4-.25	-4	MN	M14 x 1.5	8.0-0.31	42.0-1.65	21.2-.83	28.5-1.12	3E-4289
501-1383	6.4-.25	-4	MN	M16 - 1.5	10.0-0.39	46.0-1.81	25.0-.98	33.0-1.30	192-7513
501-9528	6.4-.25	-4	MN	M18 - 1.5	12.0-0.47	46.0-1.81	25.0-.98	36.0-1.42	8U-0598
256-3724	7.9-.31	-5	MN	M16 x 1.5	10.0-0.39	56.0-2.20	29.6-1.17	35.6-1.40	3E-4296
503-7992	9.5-.37	-6	MN	M18 - 1.5	12.0-0.47	58.0-2.28	33.0-1.30	36.0-1.42	8U-0598
221-0452	9.5-.37	-6	MN	M16 - 1.5	10.0-0.39	58.0-2.28	32.0-1.26	37.0-1.46	-
256-3726	9.5-.37	-6	MN	M18 x 1.5	12.0-0.47	59.0-2.32	34.0-1.34	36.6-1.44	3E-4297
431-9026	9.5-.37	-6	MN	M22 - 1.5	15.0-0.59	58.0-2.28	33.0-1.30	44.0-1.73	3E-4298
503-4446	12.7-.50	-8	MN	M22 x 1.5	15.0-0.59	62-2.44	38-1.50	41-1.61	3E-4298
228-2991	12.7-.50	-8	MN	M22 - 1.5	15.0-0.59	64.0-2.52	38.8-1.53	42.0-1.65	3E-4298
302-5244	12.7-.50	-8	MN	M26 - 1.5	18.0-0.71	64.0-2.52	39.0-1.54	43.0-1.69	7J-9108
256-3727	15.9-.63	-10	MN	M26 x 1.5	18.0-0.71	72.0-2.83	47.1-1.85	50.8-2.00	7T-0506
256-3728	19.1-.75	-12	MN	M26 x 1.5	18.0-0.71	84.0-3.31	52.5-2.07	57.2-2.25	7T-0506
256-3729	19.1-.75	-12	MN	M30 x 2.0	22.0-0.87	84.0-3.31	52.5-2.07	53.1-2.09	3E-6761
256-3730	25.4-1.00	-16	MN	M36 x 2.0	28.0-1.10	109.0-4.29	71.1-2.80	71.1-2.80	092-2304
256-3731	31.8-1.25	-20	MN	M45 x 2.0	35.0-1.38	132.0-5.20	91.7-3.61	79.0-3.11	9X-7447

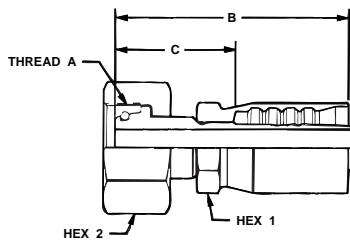
# Cat Low and Medium Pressure Permanent Couplings

## Metric Male 24° Taper-Str (Heavy)



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-2242	6.4-.25	-4	MN	M16 x 1.5	8.0-0.31	46.0-1.81	25.4-1.00
124-2243	6.4-.25	-4	MN	M18 x 1.5	10.0-0.39	46.0-1.81	25.4-1.00
124-2244	7.9-.31	-5	MN	M20 x 1.5	12.0-0.47	55.0-2.17	29.0-1.14
124-2245	9.5-.37	-6	MN	M20 x 1.5	12.0-0.47	54.0-2.13	28.7-1.13
124-2246	9.5-.37	-6	MN	M22 x 1.5	14.0-0.55	56.0-2.20	30.4-1.20
124-2247	12.7-.50	-8	MN	M24 x 1.5	16.0-0.63	58.0-2.28	32.6-1.28
124-2248	15.9-.63	-10	MN	M30 x 2.0	20.0-0.79	62.0-2.44	37.1-1.46
124-2249	19.1-.75	-12	MN	M30 x 2.0	20.0-0.79	67.0-2.64	36.1-1.42
124-2250	19.1-.75	-12	MN	M36 x 2.0	25.0-0.98	70.0-2.76	38.9-1.53
124-2251	25.4-1.00	-16	MN	M42 x 2.0	30.0-1.18	82.0-3.23	43.9-1.73
501-1378	25.4-1.00	-16	MN	M36 x 2.0	28.0-1.10	87.0-3.43	45.0-1.77
124-2252	31.8-1.25	-20	MN	M52 x 2.0	38.0-1.50	93.0-3.66	52.6-2.07

## Metric Female Swivel 24° Taper w/O-Ring-Str (Heavy)

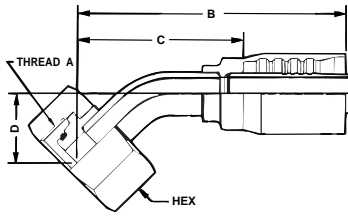


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
124-2253	6.4-.25	-4	MN	M16 x 1.5	8.0-0.31	51.0-2.01	29.7-1.17	3E-4289
124-2254	6.4-.25	-4	MN	M18 x 1.5	10.0-0.39	52.0-2.05	30.7-1.21	3E-4296
124-2255	7.9-.31	-5	MN	M20 x 1.5	12.0-.047	58.0-2.28	32.0-1.26	3E-4297
124-2256	9.5-.37	-6	MN	M20 x 1.5	12.0-.047	59.0-2.32	33.9-1.33	3E-4297
124-2257	9.5-.37	-6	MN	M22 x 1.5	14.0-0.55	57.0-2.24	32.0-1.26	7T-0508
124-2258	12.7-.50	-8	MN	M24 x 1.5	16.0-0.63	68.0-2.68	42.2-1.66	3E-4298
124-2259	15.9-.63	-10	MN	M30 x 2.0	20.0-0.79	67.0-2.64	41.9-1.65	3E-4299
124-2260	19.1-.75	-12	MN	M30 x 2.0	20.0-0.79	75.0-2.95	44.5-1.75	3E-4299
124-2261	19.1-.75	-12	MN	M36 x 2.0	25.0-.098	78.0-3.07	47.5-1.87	3E-6762
124-2262	25.4-1.00	-16	MN	M42 x 2.0	30.0-1.18	88.0-3.46	50.0-1.97	3E-6763
124-2263	31.8-1.25	-20	MN	M52 x 2.0	38.0-1.50	95.0-3.74	54.0-2.13	3E-6764



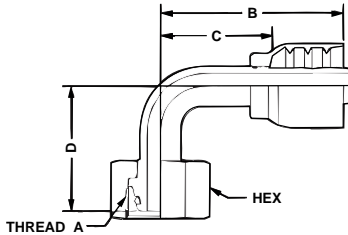
# Cat Low and Medium Pressure Permanent Couplings

## Metric Female Swivel 24° Taper w/O-Ring-45° Elbow (Heavy)



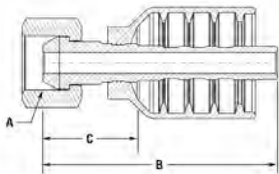
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2264	6.4-.25	-4	MN	M16 x 1.5	8.0-0.31	58.0-2.28	36.8-1.45	17.0-.67	3E-4289
124-2265	6.4-.25	-4	MN	M18 x 1.5	10.0-0.39	59.0-2.32	37.6-1.48	18.0-.71	3E-4296
124-2266	7.9-.31	-5	MN	M20 x 1.5	12.0-0.47	69.0-2.72	43.2-1.70	20.1-.79	3E-4297
124-2267	9.5-.37	-6	MN	M20 x 1.5	12.0-0.47	72.0-2.83	47.0-1.85	22.1-.87	3E-4297
124-2268	9.5-.37	-6	MN	M22 x 1.5	14.0-0.55	73.0-2.87	47.2-1.86	22.1-.87	7T-0508
124-2269	12.7-.50	-8	MN	M24 x 1.5	16.0-0.63	80.0-3.15	54.6-2.15	24.9-.98	6T-6408
124-2270	15.9-.63	-10	MN	M30 x 2.0	20.0-0.79	89.0-3.50	64.3-2.53	28.4-1.12	3E-4299
124-2271	19.1-.75	-12	MN	M30 x 2.0	20.0-0.79	97.0-3.82	65.8-2.59	28.2-1.11	3E-4299
124-2272	19.1-.75	-12	MN	M36 x 2.0	25.0-0.98	99.0-3.90	68.1-2.68	30.2-1.19	3E-6762
124-2273	25.4-1.00	-16	MN	M42 x 2.0	30.0-1.18	125.0-4.92	86.9-3.42	38.1-1.50	3E-6763
124-2274	31.8-1.25	-20	MN	M52 x 2.0	38.0-1.50	149.0-5.87	108.0-4.25	40.0-1.57	9X-7414

## Metric Female Swivel 24° Taper w/O-Ring-90° Elbow (Heavy)



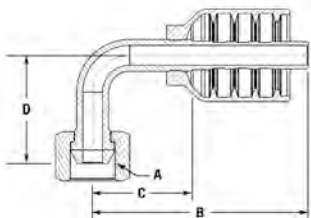
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
124-2275	6.4-.25	-4	MN	M16 x 1.5	8.0-0.31	46.0-1.81	25.1-.99	30.0-1.18	3E-4289
124-2276	6.4-.25	-4	MN	M18 x 1.5	10.0-0.39	46.0-1.81	25.1-.99	30.0-1.18	3E-4296
124-2277	7.9-.31	-5	MN	M20 x 1.5	12.0-0.47	56.0-2.20	29.7-1.17	37.6-1.48	3E-4297
256-3725	7.9-.31	-5	MN	M18 -1.5	12.0-0.47	56.0-2.20	29.6-1.17	37.6-1.48	3E-4297
124-2278	9.5-.37	-6	MN	M20 x 1.5	12.0-0.47	58.0-2.28	32.5-1.28	37.6-1.48	3E-4297
124-2279	9.5-.37	-6	MN	M22 x 1.5	14.0-0.55	58.0-2.28	32.5-1.28	37.6-1.48	7T-0508
124-2280	12.7-.50	-8	MN	M24 x 1.5	16.0-0.63	64.0-2.52	38.8-1.53	44.5-1.75	6T-6408
124-2281	15.9-.63	-10	MN	M30 x 2.0	20.0-0.79	72.0-2.83	47.0-1.85	55.1-2.17	3E-4299
124-2282	19.1-.75	-12	MN	M30 x 2.0	20.0-0.79	84.0-3.31	52.6-2.07	54.6-2.15	3E-4299
124-2283	19.1-.75	-12	MN	M36 x 2.0	25.0-0.98	84.0-3.31	52.6-2.07	57.7-2.27	3E-6762
124-2284	25.4-1.00	-16	MN	M42 x 2.0	30.0-1.18	109.0-4.29	71.1-2.80	76.2-3.00	3E-6764

## JIS 30° Conical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
255-4883	19.1-.75	-12	MN	3/4-14	-12	63.5-2.5	32.51-1.28

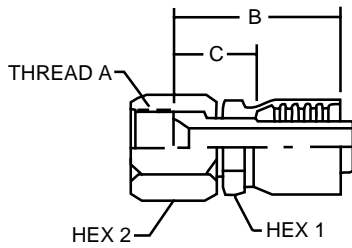
## JIS 30° Conical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
255-4884	19.1-.75	-12	MN	3/4-16	-8	83.57-3.29	52.58-2.07	50.04-1.97
255-4882	19.1-.75	-12	MN	3/4-14	-12	83.57-3.29	52.35-2.06	94.49-3.72

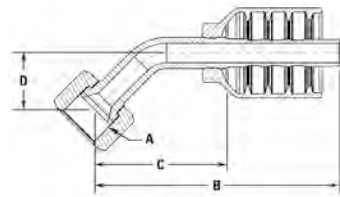
# Cat Low and Medium Pressure Permanent Couplings

## JIS 30° Flare Female Swivel-Str



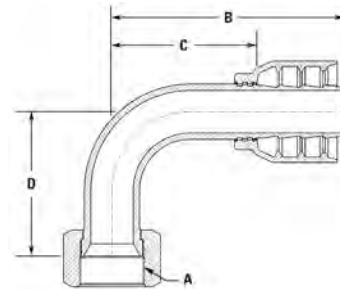
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
154-0102	6.4-.25	-4	MN	1/4-19	-4	44.0-1.73	22.6-.89
154-0103	9.5-.37	-6	MN	3/8-19	-6	46.0-1.81	20.0-.79
154-0104	12.7-.50	-8	MN	1/2-14	-8	53.0-2.09	28.0-1.10
519-4006	19.1-.75	-12	MN	3/4-14	-12	56.0-2.20	25.0-0.98
154-0105	19.1-.75	-12	MN	3/4-14	-12	60.0-2.36	29.5-1.16
581-3126	25.4-1.00	-16	MN	1-11	-16	79.0-3.11	36.0-1.42

## JIS 30° Flare Female Swivel-45° Elbow



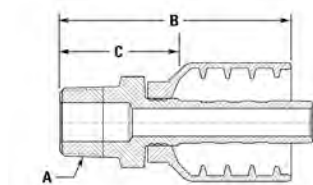
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
514-2645	9.5-.37	-6	MN	3/8-19	-6	68-2.68	43-1.69	18-0.71
519-3995	12.7-.50	-8	MN	1/2-14	-8	74-2.91	49-1.93	20-0.79
519-4007	19.1-.75	-12	MN	3/4-14	-12	98-3.86	67-2.64	29-1.14
518-7800	25.4-1.00	-16	MN	1-11	-16	122-4.80	85-3.35	35-1.38
580-4114	25.4-1.00	-16	XN	1-11	-16	160-6.30	89-3.50	35-1.38

## JIS 30° Flare Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
514-2646	9.5-.37	-6	MN	3/8-19	-6	57-2.24	33-1.30	34-1.34
519-3996	12.7-.50	-8	MN	1/2-14	-8	64-2.52	39-1.54	41-1.61
519-4008	19.1-.75	-12	MN	3/4-14	-12	84-3.31	53-2.09	58-2.28
518-7801	25.4-1.00	-16	MN	1-11	-16	109-4.29	71-2.80	70-2.76
580-4115	25.4-1.00	-16	XN	1-11	-16	140-5.51	69-2.72	70-2.76

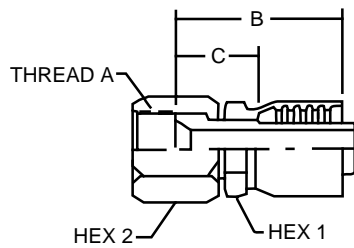
## JIS Male Tapered Pipe-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
281-9339	6.4-.25	-4	MN	3/8-19	-6	57-2.24	32-1.26
281-9340	12.7-.50	-8	MN	1/2-14	-8	60-2.36	35-1.38
281-9341	19.1-.75	-12	MN	3/4-14	-12	72-2.83	41-1.61
281-9342	25.4-1.00	-16	MN	1-11	-16	83-3.27	44-1.73

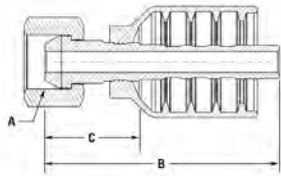
# Cat Low and Medium Pressure Permanent Couplings

## JIS Metric 30° Flare Female Swivel -Str (Komatsu Style)



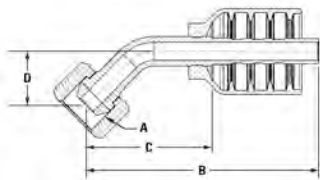
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
154-0106	6.4-.25	-4	MN	M14 x 1.5	41.0-1.61	19.8-.78
154-0108	6.4-.25	-4	MN	M18 x 1.5	43.0-1.69	22.1-.87
154-0107	9.5-.37	-6	MN	M14 x 1.5	45.0-1.77	20.0-.79
154-0109	9.5-.37	-6	MN	M18 x 1.5	48.0-1.89	22.0-.87
154-0110	12.7-.50	-8	MN	M22 x 1.5	54.0-2.13	28.2-1.11
221-0457	15.9-.63	-10	MN	M24 x 1.5	52.0-2.05	27.0-1.06
221-0458	19.1-.75	-12	MN	M30 x 1.5	64.0-2.52	32.0-1.26
221-0459	25.4-1.00	-16	MN	M33 x 1.5	64.0-2.52	25.0-.98

## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
556-2931	6.4-.25	-4	MN	1/4-19	-4	46.5-1.83	22.4-0.88
514-2631	9.5-.37	-6	MN	3/8-19	-6	54.0-2.13	25.0-0.98
556-6627	9.5-.37	-6	MN	1/2-14	-8	52.6-2.07	23.3-0.92
503-1517	12.7-.50	-8	MN	5/8-14	-10	55.0-2.17	25.4-1.00
518-0814	12.7-.50	-8	MN	1/2-14	-8	55.0-2.17	25.4-1.00
556-6630	15.9-.63	-10	MN	5/8-14	-10	63.6-2.50	33.1-1.30
518-3005	19.1-.75	-12	MN	3/4-14	-12	65.0-2.56	29.9-1.18
518-7796	25.4-1.00	-16	MN	1-11	-16	78.0-3.07	35.0-1.38
581-3125	25.4-1.00	-16	MN	1-11	-16	83.5-3.29	40.6-1.60
513-8170	31.8-1.25	-20	MN	1 1/4-11	-20	96.0-3.78	51.3-2.02
281-9332	38.1-1.50	-24	MN	1 1/2-11	-24	113.0-4.45	56.1-2.21
281-9333	50.8-2.00	-32	MN	2-11	-32	90.5-3.56	40.42-1.59

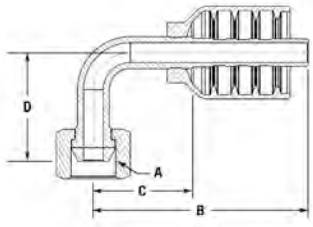
## ISO 8434-6 BSPP Conical Seat-Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
556-2934	6.4-.25	-4	MN	1/4-19	-4	61.25-2.41	37.2-1.46	17.5-0.69
514-2632	9.5-.37	-6	MN	3/8-19	-6	72.3-2.85	43.3-1.70	18.0-0.71
503-1518	12.7-.50	-8	MN	5/8-14	-10	81.8-3.22	52.2-2.06	23.0-0.91
518-0815	12.7-.50	-8	MN	1/2-14	-8	78.8-3.10	49.2-1.94	20.0-0.79
501-9530	15.9-.63	-10	MN	5/8-14	-10	90.4-3.56	60.3-2.37	25.0-0.98
518-3006	19.1-.75	-12	MN	3/4-14	-12	101.7-4.00	66.6-2.62	29.0-1.14
518-7797	25.4-1.00	-16	MN	1-11	-16	126.5-4.98	83.4-3.28	35.0-1.38

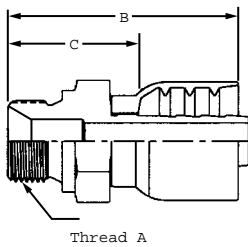
# Cat Low and Medium Pressure Permanent Couplings

## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



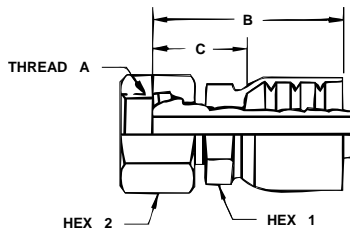
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
556-2937	6.4-.25	-4	MN	1/4-19	-4	49.3-1.94	25.3-1.00	30.2-1.19
556-2952	6.4-.25	-4	MN	3/8-19	-6	52.3-2.06	28.24-1.11	37.1-1.46
514-2633	9.5-.37	-6	MN	3/8-19	-6	61.7-2.43	32.7-1.29	34.0-1.34
518-0816	12.7-.50	-8	MN	1/2-14	-8	68.2-2.69	38.6-1.52	41.0-1.61
255-4881	19.1-.75	-12	MN	3/4-14	-12	92.46-3.64	57.1-2.25	161.3-6.35
518-3007	19.1-.75	-12	MN	3/4-14	-12	87.6-3.45	52.5-2.06	58.0-2.28
518-7798	25.4-1.00	-16	MN	1-11	-16	113.8-4.48	70.7-2.78	70.0-2.76
556-6633	31.8-1.25	-20	MN	1 1/4-11	-20	132.8-5.23	92.2-3.63	80.8-3.18

## BSPP 60° Male-Str



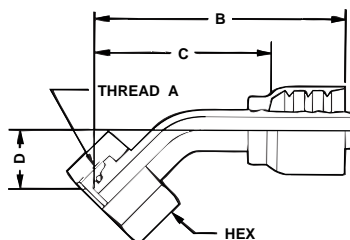
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-2172	6.4-.25	-4	MN	1/4-19	-4	48.0-1.89	26.7-1.05
124-2173	9.5-.37	-6	MN	3/8-19	-6	55.0-2.17	30.1-1.19
154-0111	9.5-.37	-6	MN	1/2-14	-8	59.0-2.32	33.7-1.33
124-2174	12.7-.50	-8	MN	1/2-14	-8	61.0-2.40	35.4-1.39
124-2330	12.7-.50	-8	MN	3/4-14	-12	66.0-2.60	41.0-1.61
154-0112	15.9-.63	-10	MN	5/8-14	-10	64.0-2.52	38.9-1.53
124-2175	19.1-.75	-12	MN	3/4-14	-12	71.0-2.80	40.1-1.58
124-2321	25.4-1.00	-16	MN	1-11	-16	84.0-3.31	45.7-1.80

## BSPP Spherical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
124-2291	6.4-.25	-4	MN	1/4-19	-4	43.2-1.70	22.3-0.88
124-2292	9.5-.37	-6	MN	3/8-19	-6	48.8-1.92	23.6-0.93
124-2292	9.5-.37	-6	MN	3/8-19	-6	48.8-1.92	23.6-0.93
154-0113	9.5-.37	-6	MN	1/2-14	-8	48.87-1.92	23.5-0.93
124-2293	12.7-.50	-8	MN	1/2-14	-8	55.5-2.19	30.1-1.19
124-2293	12.7-.50	-8	MN	1/2-14	-8	55.5-2.19	30.1-1.19
154-0114	15.9-.63	-10	MN	5/8-14	-10	52.8-2.08	27.7-1.09
124-2294	19.1-.75	-12	MN	3/4-14	-12	70.4-2.77	35.3-1.39
124-2295	25.4-1.00	-16	MN	1-11	-16	66.8-2.63	28.6-1.13
124-2337	31.8-1.25	-20	MN	1 1/4-11	-20	79.0-3.11	38.6-1.52

## BSPP Spherical Seat-Female Swivel-45° Elbow



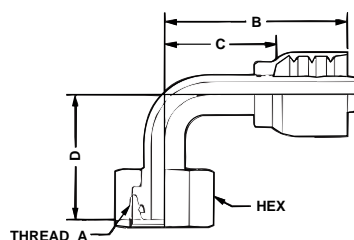
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
124-2296	6.4-.25	-4	MN	1/4-19	-4	58.0-2.28	37.1-1.46	17.5-.69
124-2297	9.5-.37	-6	MN	3/8-19	-6	71.0-2.80	45.3-1.78	20.1-.79
124-2298	12.7-.50	-8	MN	1/2-14	-8	75.0-2.95	49.5-1.95	20.1-.79

# Cat Low and Medium Pressure Permanent Couplings

## BSPP Spherical Seat-Female Swivel-45° Elbow (Cont'd.)

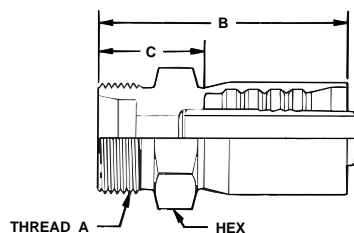
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
124-2299	19.1-.75	-12	MN	3/4-14	-12	96.0-3.78	65.0-2.56	27.0-1.06
124-2300	25.4-1.00	-16	MN	1-11	-16	121.0-4.76	83.0-3.27	30.0-1.18

## BSPP Spherical Seat-Female Swivel-90° Elbow



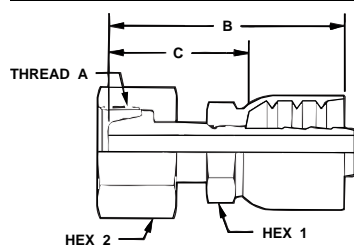
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
124-2301	6.4-.25	-4	MN	1/4-19	-4	46.2-1.82	25.3-1.00	30.2-1.19
302-5285	6.4-.25	-4	MN	3/8-19	-6	49.28-1.94	28.19-1.11	37.08-1.46
124-2302	9.5-.37	-6	MN	3/8-19	-6	57.9-2.28	32.6-1.28	37.1-1.46
124-2303	12.7-.50	-8	MN	1/2-14	-8	64.3-2.53	39.2-1.54	37.6-1.48
124-2304	19.1-.75	-12	MN	3/4-14	-12	83.6-3.29	52.5-2.07	58.9-2.32
124-2305	25.4-1.00	-16	MN	1-11	-16	109.2-4.30	70.9-2.79	64.5-2.54
124-2306	31.8-1.25	-20	MN	1 1/4-11	-20	127.0-5.00	86.6-3.41	80.8-3.18

## French Gaz Male-Str



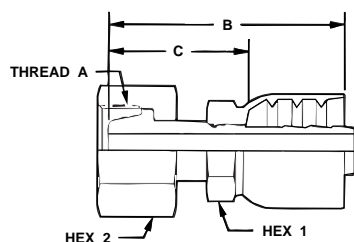
Part Number	HOSE I.D. (mm - in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm - in)	B LENGTH (mm - in)	C CUT-OFF FACTOR (mm - in)
124-2307	7.9 - 0.31	-5	MN	M20 x 1.5	13.0 - 0.51	54.0 - 2.13	27.7 - 1.09
124-2308	9.5 - 0.37	-6	MN	M20 x 1.5	13.0 - 0.51	57.0 - 2.24	31.4 - 1.24
124-2309	12.7 - 0.50	-8	MN	M24 x 1.5	17.0 - 0.67	56.0 - 2.20	30.6 - 1.20
124-2310	15.9 - 0.63	-10	MN	M30 x 1.5	21.0 - 0.83	58.0 - 2.28	32.5 - 1.28

## French Gaz Metric-Str



Part Number	HOSE I.D. (mm - in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm - in)	B LENGTH (mm - in)	C CUT-OFF FACTOR (mm - in)
124-2313	7.9 - 0.31	-5	MN	M20 x 1.5	13.0 - 0.51	54.0 - 2.13	27.9 - 1.10
124-2314	9.5 - 0.37	-6	MN	M20 x 1.5	13.0 - 0.51	55.0 - 2.17	29.8 - 1.17
124-2315	12.7 - 0.50	-8	MN	M24 x 1.5	17.0 - 0.67	62.0 - 2.44	36.6 - 1.44
124-2316	15.9 - 0.63	-10	MN	M30 x 1.5	21.0 - 0.83	59.0 - 2.32	33.8 - 1.33
124-2317	19.1 - 0.75	-12	MN	M36 x 1.5	27.0 - 1.03	73.0 - 2.87	42.0 - 1.65
124-2318	25.4 - 1.00	-16	MN	M45 x 1.5	34.0 - 1.34	82.0 - 3.23	44.0 - 1.73

## French Gaz Milli-metric-Str



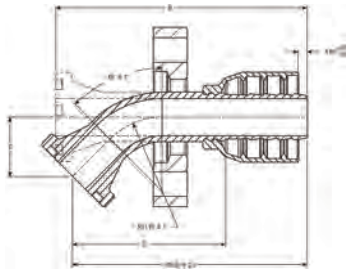
Part Number	HOSE I.D. (mm - in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm - in)	B LENGTH (mm - in)	C CUT-OFF FACTOR (mm - in)
124-2319	6.4 - 0.25	-4	MN	M12 x 1.0	6.0 - 0.24	45.0 - 1.77	24.1 - 0.95
124-2324	9.5 - 0.37	-6	MN	M20 x 1.5	14.0 - 0.55	54.0 - 2.13	28.0 - 1.10
124-2326	19.1 - 0.75	-12	MN	M30 x 1.5	22.0 - 0.87	64.0 - 2.52	33.0 - 1.30
124-2327	25.4 - 1.00	-16	MN	M39 x 1.5	30.0 - 1.18	76.0 - 2.99	37.6 - 1.48

# Cat Low and Medium Pressure Permanent Couplings

## Captive Flange Code 61 (2 Hole)-Straight

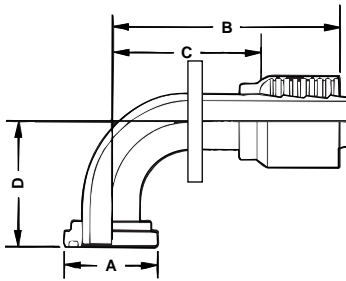
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
183-5181	6.4-.25	-4	MN	23.8-.94	48.0-1.89	26.9-1.06
255-4886	25.4-1.00	-16	MN	44.5-1.75	85.0-3.35	47.0-1.85

## Captive Flange Code 61 (2 Bolt)-45° Elbow



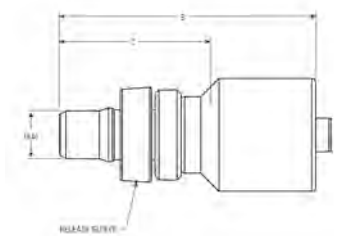
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD DASH SIZE	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
253-1350	19.1-.75	-12	MN	-12	38.1-1.50	97.0-3.82	65.0-2.56	25.0-.98	4J-5267
255-4877	25.4-1.00	-16	MN	-16	44.5-1.75	114.0-4.49	76.0-2.99	27.0-1.06	4J-0520

## Captive Flange Code 61 (2 Bolt)-90° Elbow



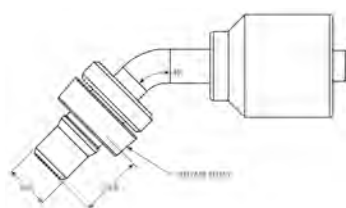
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
183-5180	6.4-.25	-4	MN	23.8-.94	49.0-1.93	29.3-1.15	31.8-1.25
322-0113	25.4-1.00	-16	MN	44.5-1.75	109-4.29	72-2.83	61-2.40

## Snap To Connect-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
263-2629	6.4-.25	-4	MN	6.0-.24	51.0-2.01	30.3-1.19
263-2631	9.5-.37	-6	MN	6.0-.24	57.0-2.24	31.4-1.24
263-2632	12.7-.50	-8	MN	8.0-.31	46.0-1.81	39.0-1.54
263-2633	15.9-.63	-10	MN	10.0-.39	71.0-2.80	45.5-1.79
263-2634	19.1-.75	-12	MN	12.0-.47	80.0-3.15	48.7-1.92
277-2051	25.4-1.00	-16	MN	12.0-.47	86.0-3.39	48.1-1.89
263-2635	25.4-1.00	-16	MN	16.0-.63	92.0-3.62	54.0-2.13

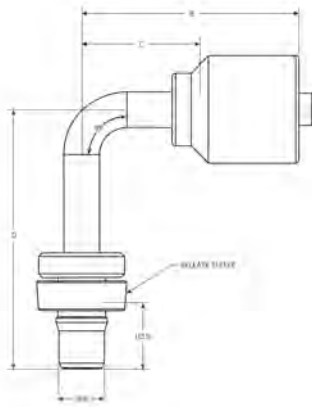
## Snap To Connect-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
263-2636	6.4-.25	-4	MN	6.0-.24	63.0-2.48	41.7-1.64	22.0-.87
263-2638	9.5-.37	-6	MN	6.0-.24	73.0-2.87	47.2-1.86	22.0-.87
263-2639	12.7-.50	-8	MN	8.0-.31	85.0-3.35	59.4-2.34	30.0-1.18

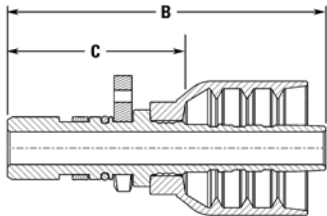
# Cat Low and Medium Pressure Permanent Couplings

## Snap To Connect-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
263-2643	6.4-.25	-4	MN	-4.0-.16	46.0-1.81	25.0-.98	39.6-1.56
263-2650	6.4-.25	-4	MN	6.0-.24	46.0-1.81	25.2-.99	55.0-2.17
263-2657	6.4-.25	-4	MN	-4.0-.16	46.0-1.81	25.0-.98	70.6-2.78
263-2645	9.5-.37	-6	MN	6.0-.24	58.0-2.28	32.5-1.28	40.0-1.57
263-2652	9.5-.37	-6	MN	-6.0-.24	57.0-2.24	33.0-1.30	54.9-2.16
263-2659	9.5-.37	-6	MN	-6.0-.24	57.0-2.24	33.0-1.30	70.6-2.78
263-2646	12.7-.50	-8	MN	8.0-.31	64.0-2.52	38.1-1.50	53.0-2.09
263-2663	25.4-1.00	-16	MN	16.0-.63	109.0-4.29	70.9-2.79	148.0-5.83

## WEO Plug-In Coupling



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	BEND ANGLE	DROP
505-4255	9.52 - 0.37	-6	MN	-6.0 - 0.24	66 - 2.60	37 - 1.50	-	-
506-8169	9.52 - 0.37	-6	MN	-8.0 - 0.31	66 - 2.60	37 - 1.50	-	-
537-8508	12.7 - 0.50	-8	MN	-6.0 - 0.24	68 - 2.68	39 - 1.54	-	-
505-4256	12.7 - 0.50	-8	MN	-8.0 - 0.31	68 - 2.68	39 - 1.54	-	-
536-8817	12.7 - 0.50	-8	MN	-8.0 - 0.31	73 - 2.87	43 - 1.69	90	58 - 2.28
523-2366	19.1 - 0.75	-12	MN	-12.0 - 0.47	86 - 3.39	51 - 2.00	-	-





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# Thermoplastic Hose (1028) and Couplings

## Thermoplastic Hose (1028)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7122	4.8 - .19	10.9 - .43	-3	56	82.8 - 12009	20.7 - 3002	45 - 1.77
541-7123	6.4 - .25	13.0 - .51	-4	56	76.0 - 11023	19.0 - 2756	50 - 1.97
541-7124	7.9 - .31	14.5 - .57	-5	56	68.8 - 9979	17.2 - 2495	58 - 2.28
541-7128 <sup>2</sup>	7.9 - .31	14.5 - .57	-5	56	70.0 - 10153	17.5 - 2538	58 - 2.28
541-7125	9.5 - .37	16.5 - .65	-6	56	62.0 - 8992	15.5 - 2248	63 - 2.48
541-7129 <sup>2</sup>	9.5 - .37	16.5 - .65	-6	56	62.0 - 8992	15.5 - 2248	63 - 2.48
541-7126	12.7 - .50	20.6 - .81	-8	56	55.2 - 8006	13.8 - 2002	90 - 3.54
541-7127	19.1 - .75	26.9 - 1.06	-12	56	34.4 - 4889	8.6 - 1247	180 - 7.09

**Construction:** Elastomeric core tube, two fiber braid reinforcement, special polyester cover. All layers bonded.

**Application:** Medium pressure service with petroleum base hydraulic fluids, water glycol, and water-oil fire resistant hydraulic fluids. Hydraulic systems exposed to very low temperatures. Ideal for use a low temperature on fork lift trucks in refrigerated warehouses, and earthmoving and agricultural machinery for cold climates.

**Temperature Range:** -70° F to +135° F (-56° C to +70° C) for water glycol and water-oil resistant hydraulic fluids. -70° F to +212° F (-56° C to +100° C) for all other applications.

**Couplings:** Crimp-on, swage-on permanent, non-skive type, 56 Series coupling. See Permanent Couplings (1028) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

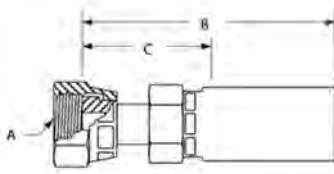
**Required Cutting Tool:** Cutting Tool (177-4271) and Blade (177-4272) is required for cutting hose. Do not use Hose Cutting Machine. Cut-off saw can cause heating distortion. See Miscellaneous Tools and Accessories section.

<sup>1</sup> Centerline of Hose

<sup>2</sup> Twin-line Hose

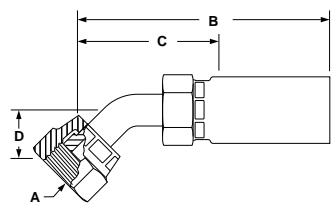
# Permanent Couplings (1028)

## ORFS Female Swivel-Str



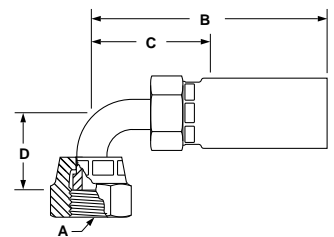
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
479-4180	6.4-.25	-4	56	9/16-18	-4	55.0-2.17	31.0-1.22	4J-5477
479-4181	6.4-.25	-4	56	11/16-16	-6	57.0-2.24	32.0-1.26	6V-8397
479-4182	7.9-.31	-5	56	11/16-16	-6	58.0-2.28	32.0-1.26	6V-8397
480-9478	9.5-.37	-6	56	11/16-16	-6	67.0-2.64	42.0-1.65	6V-8397
479-4183	12.7-.50	-8	56	13/16-16	-8	64.0-2.52	36.0-1.42	6V-8398
479-4179	19.1-.75	-12	56	1 3/16-12	-12	81.0-3.19	47.0-1.85	6V-9746

## ORFS Female Swivel-45° Elbow



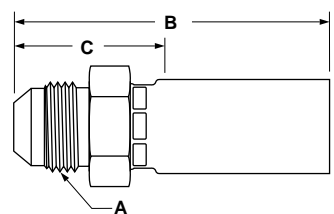
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
479-4173	6.4-.25	-4	56	9/16-18	-4	57.0-2.24	33.0-1.30	10.0-.39	4J-5477
479-4174	9.5-.37	-6	56	11/16-16	-6	60.0-2.36	35.0-1.38	11.0-.43	6V-8397
479-4175	12.7-.50	-8	56	13/16-16	-8	69.0-2.72	41.0-1.61	15.0-.59	6V-8398
481-5756	19.1-.75	-12	56	1 3/16-12	-12	102.0-4.02	69.0-2.72	21.0-.83	6V-9746

## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
479-4177	6.4-.25	-4	56	9/16-18	-4	53.0-2.09	29.0-1.14	21.0-.83	4J-5477
479-4169	6.4-.25	-4	56	9/16-18	-4	53.0-2.09	29.0-1.14	46.0-1.81	4J-5477
480-9473	7.9-.31	-5	56	11/16-16	-6	58.0-2.28	32.0-1.26	23.0-.91	6V-8397
480-9477	9.5-.37	-6	56	11/16-16	-6	56.0-2.20	31.0-1.22	23.0-.91	6V-8397
479-4171	9.5-.37	-6	56	11/16-16	-6	56.0-2.20	31.0-1.22	54.0-2.13	6V-8397
479-4178	12.7-.50	-8	56	13/16-16	-8	63.0-2.48	35.0-1.38	29.0-1.14	6V-8398
479-4172	12.7-.50	-8	56	13/16-16	-8	63.0-2.48	35.0-1.38	64.0-2.52	6V-8398
479-4176	19.1-.75	-12	56	1 3/16-12	-12	99.0-3.90	65.0-2.56	48.0-1.89	6V-9746

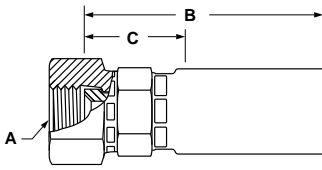
## JIC 37° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
480-9470	6.4-.25	-4	56	7/16-20	-4	53.0-2.09	29.0-1.14
480-9474	9.5-.37	-6	56	9/16-18	-6	55.0-2.17	29.0-1.14
480-9465	19.1-.75	-12	56	1 1/16-12	-12	78.0-3.07	44.0-1.73

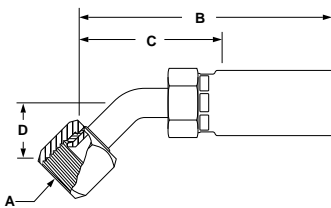
# Permanent Couplings (1028)

## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
480-9480	4.8-.19	-3	56	7/16-20	-4	45.0-1.77	27.0-1.06
480-9462	4.8-.19	-3	56	1/2-20	-5	47.0-1.85	29.0-1.14
479-4150	6.4-.25	-4	56	7/16-20	-4	52.0-2.05	28.0-1.10
479-4154	6.4-.25	-4	56	1/2-20	-5	54.0-2.13	29.0-1.14
479-4191	6.4-.25	-4	56	9/16-18	-6	54.0-2.13	30.0-1.18
480-9464	7.9-.31	-5	56	1/2-20	-5	56.0-2.20	30.0-1.18
479-4155	7.9-.31	-5	56	9/16-18	-6	57.0-2.24	31.0-1.22
480-9479	9.5-.37	-6	56	9/16-18	-6	56.0-2.20	31.0-1.22
479-4156	9.5-.37	-6	56	3/4-16	-8	60.0-2.36	35.0-1.38
479-4157	12.7-.50	-8	56	3/4-16	-8	64.0-2.52	36.0-1.42
480-9471	12.7-.50	-8	56	7/8-14	-10	67.0-2.64	39.0-1.54
480-9466	12.7-.50	-8	56	1 1/16-12	-12	69.0-2.72	41.0-1.61
480-9469	19.1-.75	-12	56	7/8-14	-10	73.0-2.87	39.0-1.54
480-9476	19.1-.75	-12	56	1 1/16-12	-12	78.0-3.07	44.0-1.73
480-9463	25.4-1.00	-16	56	1 5/16-12	-16	97.0-3.82	49.0-1.93

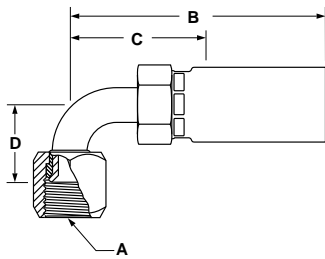
## JIC 37° Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
479-4161	4.8-.19	-3	56	7/16-20	-4	49.0-1.93	32.0-1.26	10.0-.39
479-4162	6.4-.25	-4	56	7/16-20	-4	56.0-2.20	31.0-1.22	10.0-.39
480-9468	6.4-.25	-4	56	1/2-20	-5	62.0-2.44	38.0-1.50	10.0-.39
479-4163	7.9-.31	-5	56	9/16-18	-6	64.0-2.52	39.0-1.54	11.0-.43
479-4164	9.5-.37	-6	56	9/16-18	-6	65.0-2.56	40.0-1.57	11.0-.43
9X-3953	9.5-.37	-6	55	9/16-18	-6	83.0-3.27	48.0-1.89	15.0-.59
479-4165	9.5-.37	-6	56	3/4-16	-8	70.0-2.76	45.0-1.77	15.0-.59
479-4184	9.5-.37	-6	56	3/4-16	-8	81.0-3.19	55.0-2.17	18.0-.71
480-9475	12.7-.50	-8	56	3/4-16	-8	69.0-2.72	41.0-1.61	15.0-.59
481-5755	19.1-.75	-12	56	1 1/16-12	-12	102.0-4.02	69.0-2.72	21.0-.83

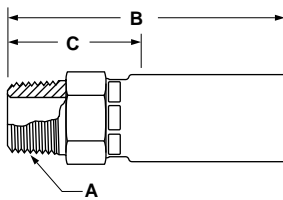
# Permanent Couplings (1028)

## JIC 37° Female Swivel-90° Elbow



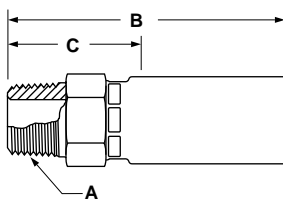
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
479-4186	4.8-.19	-3	56	7/16-20	-4	44.0-1.73	37.0-1.46	32.0-1.26
481-5750	4.8-.19	-3	56	7/16-20	-4	51.0-2.01	33.0-1.30	46.0-1.81
479-4192	6.4-.25	-4	56	7/16-20	-4	51.0-2.01	27.0-1.06	32.0-1.26
479-4187	6.4-.25	-4	56	1/2-20	-5	51.0-2.01	27.0-1.06	32.0-1.26
481-5757	6.4-.25	-4	56	1/2-20	-5	60.0-2.36	35.0-1.38	46.0-1.81
481-5752	7.9-.31	-5	56	9/16-18	-6	59.0-2.32	33.0-1.30	38.0-1.50
481-5754	7.9-.31	-5	56	9/16-18	-6	60.0-2.36	34.0-1.34	54.0-2.13
479-4188	9.5-.37	-6	56	9/16-18	-6	56.0-2.20	31.0-1.22	38.0-1.50
479-4166	9.5-.37	-6	56	9/16-18	-6	56.0-2.20	31.0-1.22	54.0-2.13
479-4189	9.5-.37	-6	56	3/4-16	-8	56.0-2.20	31.0-1.22	41.0-1.61
479-4167	9.5-.37	-6	56	3/4-16	-8	56.0-2.20	31.0-1.22	64.0-2.52
479-4190	12.7-.50	-8	56	3/4-16	-8	63.0-2.48	35.0-1.38	41.0-1.61
481-5758	12.7-.50	-8	56	3/4-16	-8	66.0-2.60	38.0-1.50	64.0-2.52
479-4185	19.1-.75	-12	56	1 1/16-12	-12	99.0-3.90	65.0-2.56	48.0-1.89

## NPTF Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-3846	4.8-.19	-3	JN	1/8-27	-2	39.0-1.54	20.7-.81
481-5751	4.8-.19	-3	56	3/8-18	-6	47.0-1.85	30.0-1.18
479-4143	4.8-.19	-4	56	1/8-27	-2	41.0-1.61	23.0-.91
479-4145	4.8-.19	-4	56	1/4-18	-4	46.0-1.81	29.0-1.14
9X-3908	6.4-.25	-4	55	3/8-18	-6	61.0-2.40	33.0-1.30
479-4147	7.9-.31	-5	56	1/4-18	-4	55.0-2.17	29.0-1.14
481-5753	7.9-.31	-5	56	3/8-18	-6	56.0-2.20	30.0-1.18
479-4144	6.4-.25	-6	56	1/8-27	-2	49.0-1.93	24.0-.94
479-4146	6.4-.25	-6	56	1/4-18	-4	53.0-2.09	29.0-1.14
480-9459	9.5-.37	-6	56	1/4-18	-4	55.0-2.17	30.0-1.18
480-9467	9.5-.37	-6	56	3/8-18	-6	55.0-2.17	30.0-1.18
479-4148	9.5-.37	-6	56	1/2-14	-8	62.0-2.44	37.0-1.46
480-9460	12.7-.50	-8	56	3/8-18	-6	58.0-2.28	30.0-1.18
480-9472	12.7-.50	-8	56	1/2-14	-8	64.0-2.52	36.0-1.42
480-9461	19.1-.75	-12	56	3/4-14	-12	75.0-2.95	42.0-1.65

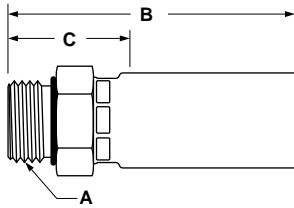
## NPTF Male Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
479-4159	4.8-.19	-3	56	1/4-18	-4	66.0-2.60	48.0-1.89
479-4160	6.4-.25	-4	56	1/4-18	-4	75.0-2.95	50.0-1.97

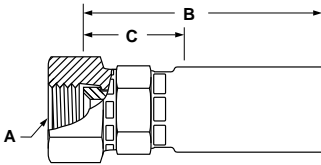
# Permanent Couplings (1028)

## STOR Male-Str



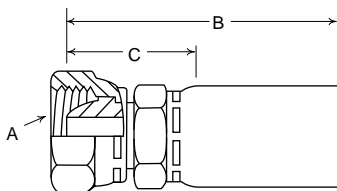
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
479-4149	4.8-.19	-3	56	7/16-20	-4	41.0-1.61	23.0-.91	3J-7354

## SAE 45° Female Swivel-Str



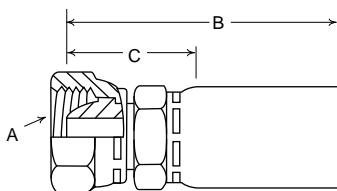
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
479-4158	9.5-.37	-6	56	5/8-18	-6	60.0-2.36	35.0-1.38

## Metric Female Swivel 24° Taper-Str (Light)



Part Number	HOSE I.D. (mm - in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A TUBE O.D. (mm - in)	B LENGTH (mm - in)	C CUT-OFF FACTOR (mm - in)
3E-4014	6.4 - 0.25	-4	55	M14 x 1.5	8.0 - 0.31	57.0 - 2.24	27.0 - 1.06
3E-4015	7.9 - 0.31	-5	55	M16 x 1.5	10.0 - 0.39	60.0 - 2.36	27.0 - 1.06
3E-4016	9.5 - 0.37	-6	55	M16 x 1.5	10.0 - 0.39	67.0 - 2.64	29.0 - 1.14
3E-4017	9.5 - 0.37	-6	55	M18 x 1.5	12.0 - 0.47	68.0 - 2.68	29.0 - 1.14
3E-4018	12.7 - 0.50	-8	55	M22 x 1.5	15.0 - 0.59	74.0 - 2.91	31.0 - 1.22

## BSPP Spherical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm - in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm - in)	C CUT-OFF FACTOR (mm - in)
481-5742	7.9 - 0.31	-5	56	3/8-19	-6	46.0 - 1.81	19.0 - 0.75
481-5747	9.5 - 0.37	-6	56	3/8-19	-6	46.0 - 1.81	19.0 - 0.75
481-5738	4.8 - 0.19	-8	56	1/2-20	-8	51.0 - 2.01	21.0 - 0.83
481-5740	12.7 - 0.50	-8	56	5/8-14	-10	49.0 - 1.93	18.0 - 0.71

# Reduced O.D. Thermoplastic Hose (2760) and Couplings

## Reduced Outside Diameter Thermoplastic Hose (2760)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7100	6.4 - .25	10.7 - .42	-4	JN	41.2 - 5976	10.3 - 1494	38 - 1.50
541-7101	7.9 - .31	13.5 - .53	-5	JN	41.2 - 5976	10.3 - 1494	44 - 1.73
541-7102	9.5 - .37	14.5 - .57	-6	JN	41.2 - 5976	10.3 - 1494	63 - 2.48
541-7103	12.7 - .50	17.7 - .70	-8	JN	41.2 - 5976	10.3 - 1494	76 - 2.99

**Construction:** Thermoplastic or synthetic rubber inner tube resistant to hydraulic fluids with suitable fibers or wire reinforcement and a hydraulic fluid and weather resistant thermoplastic or synthetic rubber cover.

**Application:** Medium pressure use with petroleum or water base, and synthetic hydraulic fluids.

**Temperature Range:** -40° F to +212° F (-40° C to +100° C).

**Couplings:** Crimp-on permanent, non-skive type, JN Series coupling. See Permanent Couplings (2760) section. For related assembly equipment and tooling, see Tooling section. Note: Hose cover does not need to be removed before attaching couplings. Required Cutting.

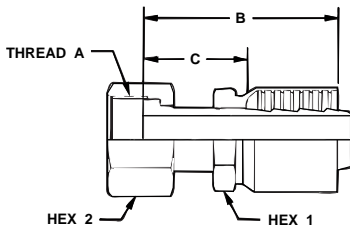
**Tool:** Cutting Tool (177-4271) and Blade (177-4272) is required for cutting hose. Do not use Hose Cutting Machine. Cut-off saw can cause heating distortion. See Miscellaneous Tools and Accessories section.

<sup>1</sup> Centerline of Hose



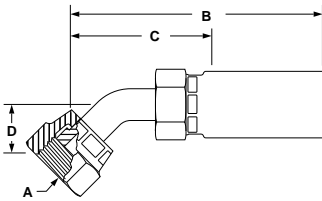
# Permanent Couplings (2760)

## ORFS Female Swivel-Str



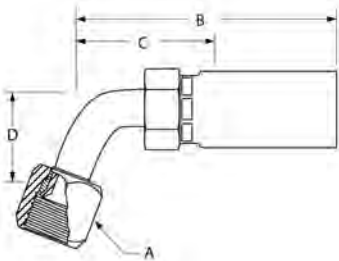
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
307-8256	4.8-.19	-3	JN	11/16-16	-6	46-1.81	28-1.10	6V-8397
273-1716	6.4-.25	-3	JN	9/16-18	-4	43.0-1.69	25.0-.98	4J-5477
146-3338	6.4-.25	-4	JN	9/16-18	-4	44.0-1.73	25.0-.98	4J-5477
146-3350	6.4-.25	-4	JN	11/16-16	-6	44.0-1.73	27.0-1.06	6V-8397
146-3339	7.9-.31	-5	JN	11/16-16	-6	46.0-1.81	26.0-1.02	6V-8397
146-3340	9.5-.37	-6	JN	11/16-16	-6	58.0-2.28	31.0-1.22	6V-8397
146-3341	12.7-.50	-8	JN	11/16-16	-6	56.0-2.20	35.0-1.38	6V-8397
146-3342	12.7-.50	-8	JN	13/16-16	-8	58.0-2.28	37.0-1.46	6V-8398
307-8260	15.9-.63	-10	JN	1-14	-10	56.0-2.20	34.3-1.35	7J-9108
307-8261	15.9-.63	-10	JN	1 3/16-12	-12	58.0-2.28	37.0-1.46	6V-9746
307-8262	19.1-.75	-12	JN	1 3/16-12	-12	61.0-2.40	37.3-1.47	6V-9746
277-2091	19.1-.75	-12	JN	1 7/16-12	-16	62.0-2.44	38.0-1.50	5K-9090

## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
307-8263	4.8-.19	-3	JN	9/16-18	-4	48.0-1.89	31.2-1.23	10.4-.41	4J-5477
146-3343	6.4-.25	-4	JN	9/16-18	-4	50.0-1.97	31.0-1.22	10.0-.39	4J-5477
146-3446	6.4-.25	-4	JN	11/16-16	-6	48.0-1.89	30.8-1.21	10.4-.41	6V-8397
146-3344	7.9-.31	-5	JN	11/16-16	-6	53.0-2.09	33.0-1.30	11.0-.43	6V-8397
146-3345	9.5-.37	-6	JN	11/16-16	-6	63.0-2.48	36.0-1.42	11.0-.43	6V-8397
146-3397	9.5-.37	-6	JN	11/16-16	-6	70.0-2.76	43.0-1.69	18.0-.71	6V-8397
307-8264	12.7-.50	-8	JN	11/16-16	-6	58.0-2.28	37.6-1.48	10.9-.43	6V-8397
146-3346	12.7-.50	-8	JN	13/16-16	-8	65.0-2.56	44.0-1.73	15.0-.59	6V-8398
146-3347	12.7-.50	-8	JN	13/16-16	-8	73.0-2.87	52.0-2.05	23.0-.91	6V-8398
307-8266	15.9-.63	-10	JN	1-14	-10	72.0-2.83	51.1-2.01	16.5-.65	7J-9108
307-8267	15.9-.63	-10	JN	1 3/16-12	-12	77.0-3.03	55.6-2.19	21.1-.83	6V-9746
307-8268	19.1-.75	-12	JN	1 3/16-12	-12	80.0-3.15	56.0-2.20	21.1-.83	6V-9746

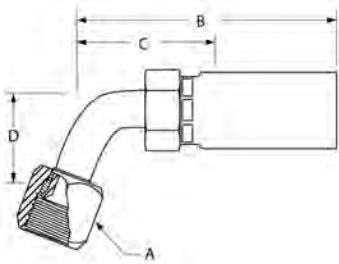
## ORFS Female Swivel-65° Elbow



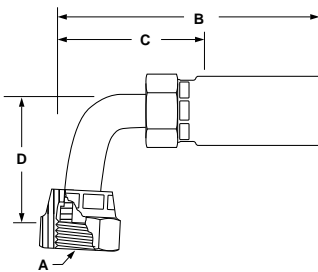
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
146-3348	9.5-.37	-6	JN	11/16-16	-6	83.0-3.27	56.0-2.20	61.0-2.40	6V-8397

# Permanent Couplings (2760)

## ORFS Female Swivel-65 1/2° Elbow

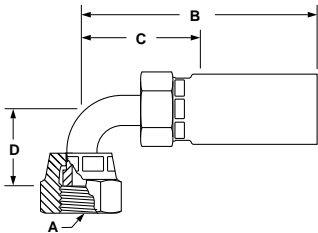


## ORFS Female Swivel-80° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
146-3351	9.5-.37	-6	JN	11/16-16	-6	64.0-2.52	37.0-1.46	35.0-1.38	6V-8397
146-3352	9.5-.37	-6	JN	11/16-16	-6	68.0-2.68	41.0-1.61	59.0-2.32	6V-8397

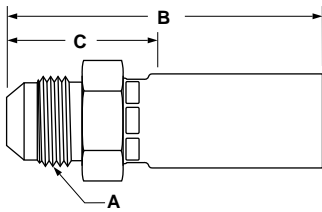
## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
146-3353	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	27.0-1.06	20.0-.79	4J-5477
146-3360	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	27.0-1.06	32.0-1.26	4J-5477
146-3364	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	27.0-1.06	46.0-1.81	4J-5477
146-3354	6.4-.25	-4	JN	11/16-16	-6	43.0-1.69	26.7-1.05	22.9-.90	6V-8397
146-3355	7.9-.31	-5	JN	11/16-16	-6	49.0-1.93	29.0-1.14	23.0-.91	6V-8397
146-3356	7.9-.31	-5	JN	11/16-16	-6	49.0-1.93	29.0-1.14	29.0-1.14	6V-8397
146-3357	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	23.0-.91	6V-8397
146-3358	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	31.0-1.22	6V-8397
146-3361	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	38.0-1.50	6V-8397
146-3365	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	54.0-2.13	6V-8397
146-3359	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	29.0-1.14	6V-8398
146-3363	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	35.0-1.38	6V-8398
146-3362	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	41.0-1.61	6V-8398
146-3366	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	64.0-2.52	6V-8398
307-8271	15.9-.63	-10	JN	1-14	-10	67-2.64	46-1.81	32-1.26	7J-9108
307-8272	15.9-.63	-10	JN	1 3/16-12	-12	67.0-2.64	45.7-1.80	32.3-1.27	6V-9746
307-8273	19.1-.75	-12	JN	1 3/16-12	-12	74.0-2.91	49.8-1.96	47.8-1.88	6V-9746
307-8274	19.1-.75	-12	JN	1 3/16-12	-12	74.0-2.91	49.8-1.96	96.0-3.78	6V-9746
293-2193	19.1-.75	-12	JN	1 7/16-12	-16	74.0-2.91	49.8-1.96	56.1-2.21	5K-9090

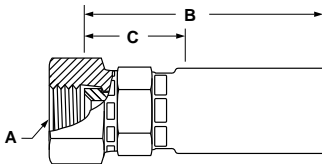
# Permanent Couplings (2760)

## JIC 37° Male-Str



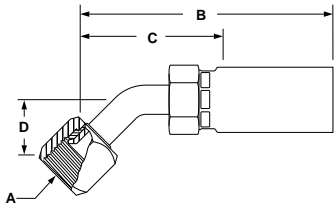
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3400	6.4-.25	-4	JN	7/16-20	-4	44.0-1.73	27.0-1.06
146-3402	9.5-.37	-6	JN	9/16-18	-6	56.0-2.20	29.0-1.14

## JIC 37° Female Swivel-Str



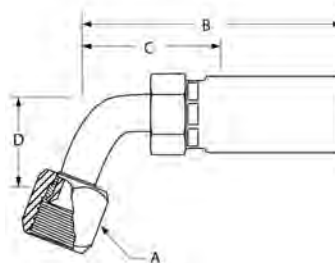
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3367	6.4-.25	-4	JN	7/16-20	-4	36.0-1.42	17.0-.67
253-1371	6.4-.25	-4	JN	9/16-18	-6	37.0-1.46	20.0-.79
146-3447	7.9-.31	-5	JN	9/16-18	-6	40.0-1.57	18.1-.71
146-3368	9.5-.37	-6	JN	9/16-18	-6	51.0-2.01	24.0-.94
329-7308	9.5-.37	-6	JN	3/4-16	-8	51.0-2.01	24.0-.94
146-3369	12.7-.50	-8	JN	3/4-16	-8	48.0-1.89	26.0-1.02
146-3449	12.7-.50	-8	JN	7/8-14	-10	49.0-1.93	28.0-1.10

## JIC 37° Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3370	6.4-.25	-4	JN	7/16-20	-4	46.0-1.81	28.8-1.13	8.4-.33
146-3372	9.5-.37	-6	JN	9/16-18	-6	62.0-2.44	35.0-1.38	10.0-.39
146-3374	9.5-.37	-6	JN	9/16-18	-6	70.0-2.76	43.0-1.69	18.0-.71
146-3373	12.7-.50	-8	JN	3/4-16	-8	64.0-2.52	43.2-1.70	14.0-.55
146-3376	12.7-.50	-8	JN	3/4-16	-8	73.0-2.87	52.0-2.05	23.0-.91
146-3450	12.7-.50	-8	JN	7/8-14	-10	66.0-2.60	45.2-1.78	16.3-.64

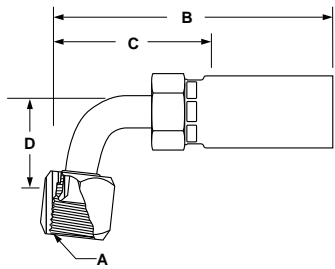
## JIC 37° Female Swivel-65° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3377	9.5-.37	-6	JN	9/16-18	-6	82.0-3.23	54.0-2.13	57.0-2.24
146-3378	9.5-.37	-6	JN	9/16-18	-6	85.0-3.35	58.0-2.28	65.0-2.56

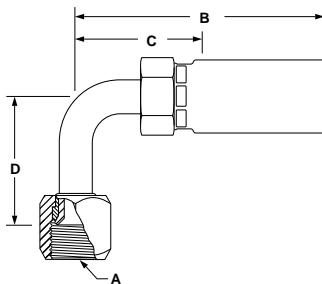
# Permanent Couplings (2760)

## JIC 37° Female Swivel-80° Elbow



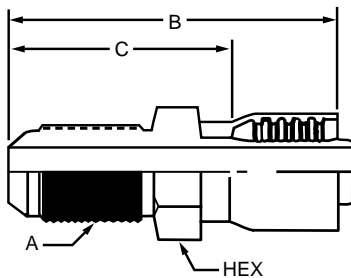
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3380	9.5-.37	-6	JN	9/16-18	-6	64.0-2.52	37.0-1.46	35.0-1.38
146-3381	9.5-.37	-6	JN	9/16-18	-6	68.0-2.68	41.0-1.61	59.0-2.32

## JIC 37° Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3382	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	18.0-.71
146-3379	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	27.0-1.06
146-3418	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	50.0-1.97
146-3392	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	63.0-2.48
146-3383	7.9-.31	-5	JN	9/16-18	-6	49.0-1.93	28.5-1.12	21.8-.86
146-3384	9.5-.37	-6	JN	9/16-18	-6	60.0-2.36	33.0-1.30	22.0-.87
146-3387	9.5-.37	-6	JN	9/16-18	-6	60.0-2.36	33.0-1.30	28.0-1.10
146-3393	9.5-.37	-6	JN	9/16-18	-6	60.0-2.36	33.0-1.30	56.0-2.20
146-3388	9.5-.37	-6	JN	3/4-16	-8	60.0-2.36	33.0-1.30	35.0-1.38
146-3394	9.5-.37	-6	JN	3/4-16	-8	60.0-2.36	33.0-1.30	64.0-2.52
146-3385	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.0-1.50	28.0-1.10
146-3389	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.4-1.51	35.1-1.38
146-3398	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.0-1.50	46.0-1.81
146-3395	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.0-1.50	64.0-2.52
146-3390	12.7-.50	-8	JN	7/8-14	-10	59.0-2.32	38.4-1.51	44.5-1.75
146-3396	12.7-.50	-8	JN	7/8-14	-10	59.0-2.32	38.4-1.51	77.7-3.06

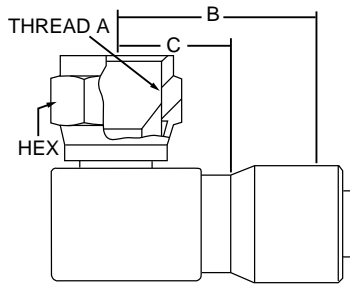
## JIC 37° Male Bulkhead-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3445	6.4-.25	-4	JN	7/16-20	-4	60.0-2.36	43.0-1.69
146-3444	9.5-.37	-6	JN	9/16-18	-6	77.0-3.03	50.0-1.97

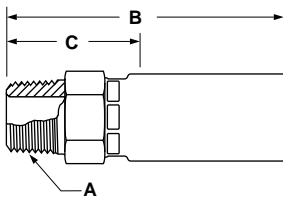
# Permanent Couplings (2760)

## JIC 37° Female Swivel Block-90° Elbow



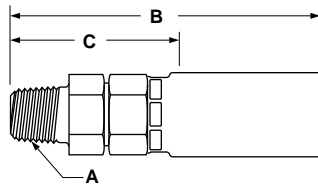
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3399	12.7-.50	-8	JN	3/4-16	-8	44.0-1.73	23.0-.91	22.0-.87

## NPTF Male-Str



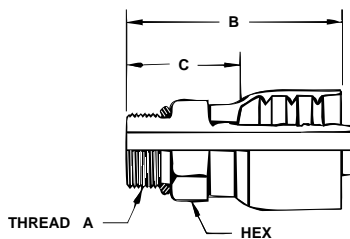
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-3846	4.8-.19	-3	JN	1/8-27	-2	39-1.54	21-0.83
267-4660	4.8-.19	-3	JN	3/8-18	-6	45-1.77	28-1.10
146-3404	6.4-.25	-4	JN	1/8-27	-2	38.0-1.50	22.0-.87
146-3405	6.4-.25	-4	JN	1/4-18	-4	45.0-1.77	29.0-1.14
146-3406	6.4-.25	-4	JN	3/8-18	-6	45.0-1.77	28.0-1.10
146-3408	9.5-.37	-6	JN	1/4-18	-4	56.0-2.20	28.0-1.10
146-3409	9.5-.37	-6	JN	3/8-18	-6	56.0-2.20	29.0-1.14
146-3410	9.5-.37	-6	JN	1/2-14	-8	61.0-2.40	34.0-1.34
146-3411	12.7-.50	-8	JN	1/2-14	-8	56.0-2.20	35.0-1.38

## NPTF Male Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-4658	4.8-.19	-3	JN	1/8-27	-2	53.0-2.09	36.0 - 1.42
479-4159	4.8-.19	-3	56	1/4-18	-4	66.0-2.60	48.0-1.89
178-9166	6.4-.25	-4	JN	1/8-27	-2	53.0-2.09	36.2-1.43
146-3412	6.4-.25	-4	JN	1/4-18	-4	58.0-2.28	41.0-1.61
146-3413	9.5-.37	-6	JN	1/4-18	-4	69.0-2.72	41.0-1.61
146-3414	9.5-.37	-6	JN	3/8-18	-6	69.0-2.72	41.0-1.61
146-3415	9.5-.37	-6	JN	1/2-14	-8	76.0-2.99	49.0-1.93
146-3416	12.7-.50	-8	JN	3/8-18	-6	63.0-2.48	42.0-1.65
146-3417	12.7-.50	-8	JN	1/2-14	-8	71.0-2.80	49.0-1.93

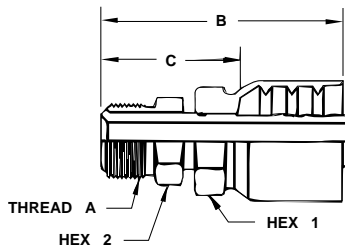
## STOR Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
146-3419	6.4-.25	-4	JN	7/16-20	-4	39.0-1.54	22.1-.87	3J-7354

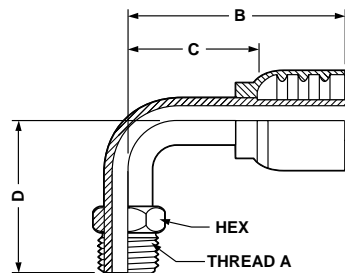
# Permanent Couplings (2760)

## SAE 45° Inverted Flare Male Swivel-Str



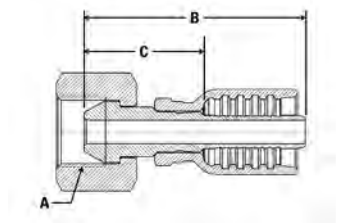
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3430	9.5-.37	-6	JN	5/8-18	-6	57.0-2.24	30.0-1.18
146-3431	12.7-.50	-8	JN	3/4-18	-8	58.0-2.28	37.0-1.46

## SAE 45° Inverted Flare Male Swivel-90° Elbow



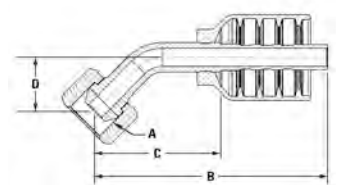
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3435	12.7-.50	-8	JN	3/4-18	-8	59.0-2.32	38.4-1.51	46.0-1.81

## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



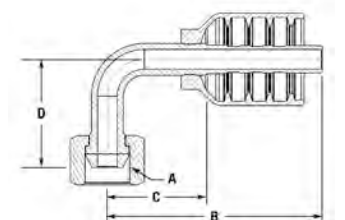
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
557-5997	6.4-.25	-4	JN	1/4-19	-4	41.2-1.62	22.3-0.88
557-5332	7.9-.31	-5	JN	3/8-19	-6	42.4-1.67	20.9-0.82
557-5334	9.5-.37	-6	JN	3/8-19	-6	52.6-2.07	23.4-0.92
557-9040	12.7-.50	-8	JN	1/2-14	-8	51.9-2.04	27.9-1.10

## ISO 8434-6 BSPP Conical Seat-Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
557-5999	6.4-.25	-4	JN	1/4-19	-4	56.38-2.22	37.6-1.48	17.5-0.69
557-9041	12.7-.50	-8	JN	1/4-19	-8	73.15-2.88	49.14-1.93	20.1-0.79

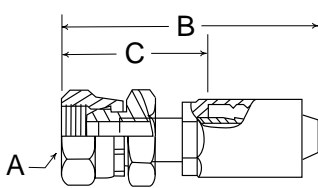
## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
557-6001	6.4-.25	-4	JN	1/4-19	-4	44.7-1.76	25.9-1.02	30.23-1.19
557-5336	9.5-.37	-6	JN	3/8-19	-6	61.7-2.43	32.3-1.27	37.08-1.46
557-9042	12.7-.50	-8	JN	1/2-14	-8	62.2-2.45	38.19-1.50	37.6-1.48

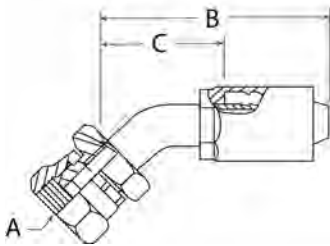
# Permanent Couplings (2760)

## BSPP Spherical Seat-Female Swivel-Str



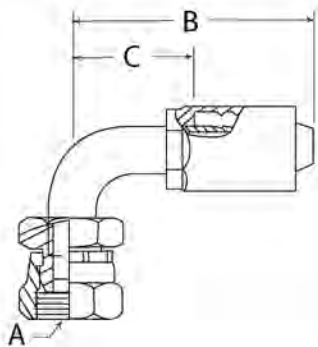
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3436	6.4-.25	-4	JN	1/4-19	-4	39.62-1.56	22.27-0.88
146-3437	7.9-.31	-5	JN	3/8-19	-6	40.9-1.61	21.0-0.83
146-3438	9.5-.37	-6	JN	3/8-19	-6	56.6-2.23	29.5-1.16
146-3439	12.7-.50	-8	JN	1/2-14	-8	48.8-1.92	27.9-1.10

## BSPP Spherical Seat-Female Swivel-45° Elbow



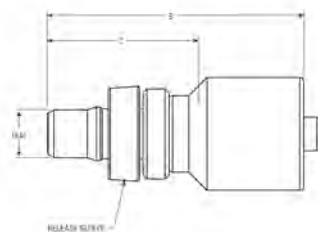
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3440	6.4-.25	-4	JN	1/4-19	-4	55.0-2.17	37.7-1.48	17.5-.69
146-3441	12.7-.50	-8	JN	1/2-14	-8	69.9-2.75	48.8-1.92	20.1-0.79

## BSPP Spherical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3442	6.4-.25	-4	JN	1/4-19	-4	43.2-1.70	28.7-1.13	30.2-1.19
146-3443	12.7-.50	-8	JN	1/2-14	-8	38.1-1.5	38.1-1.5	37.6-1.48

## Snap To Connect-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
263-2605	6.4-.25	-4	JN	6.0-.24	48.0-1.89	30.9-1.22

# Engine and Air Brake Hose (556,1130) and Couplings

## One-Wire Braid Hose - Fabric Covered (556)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7130	4.8 - .19	13.2 - .52	-4	82.8 - 12009	20.7 - 3002	75 - 2.95
541-7131	6.4 - .25	14.7 - .58	-5	82.8 - 12009	20.7 - 3002	85 - 3.35
541-7132	7.9 - .31	17.3 - .68	-6	62.0 - 8992	15.5 - 2248	100 - 3.94
541-7133	10.3 - .41	19.6 - .77	-8	55.2 - 8006	13.8 - 2002	115 - 4.53
541-7134	12.7 - .50	23.4 - .92	-10	48.4 - 7020	12.1 - 1755	140 - 5.51
541-7135	15.9 - .63	27.4 - 1.08	-12	41.2 - 5976	10.3 - 1494	165 - 6.50
541-7136	22.2 - .87	31.2 - 1.23	-16	22.0 - 3191	5.5 - 798	185 - 7.28
541-7137	28.6 - 1.13	38.1 - 1.50	-20	17.2 - 2495	4.3 - 624	225 - 8.86
541-7138	34.9 - 1.37	44.5 - 1.75	-24	13.6 - 1973	3.4 - 493	265 - 10.43

**Construction:** Synthetic rubber tube, textile inner braid, high tensile steel wire braid reinforcement, textile braid cover.

**Application:** Medium pressure service with petroleum base hydraulic fluids, water-glycol and water-oil fire resistant hydraulic fluids, water, crude and fuel oils, not oil, diesel fuels, anti-freeze solutions, air. D.O.T. FMVSS 106 All Air Brake Approved.

**Temperature Range:** -40° F to +158° F (-40° C to +70° C) for air and anti-freeze solutions. -40° F to +185° F (-40° C to +85° C) for water glycol and water-oil fire resistant hydraulic fluids, water, crude and fuel oils, hot oil, and diesel fuels. -20° F to +250° F (-29° C to +120° C) for all other applications. Usage at temperatures exceeding +200° F (+120° C) is based on reduced working pressure.

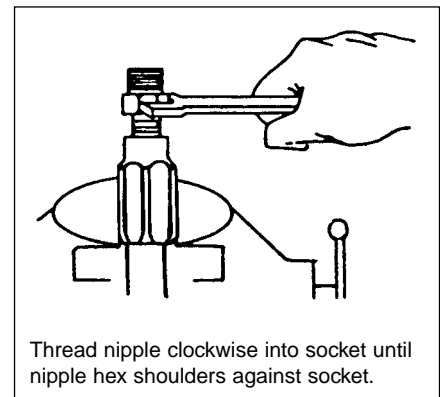
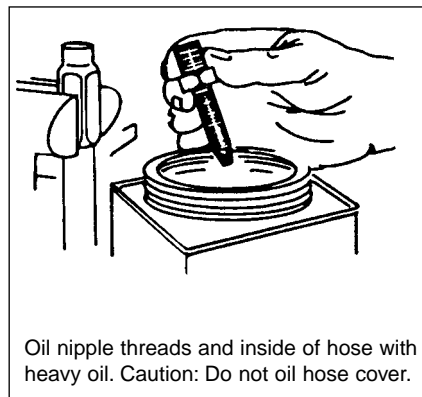
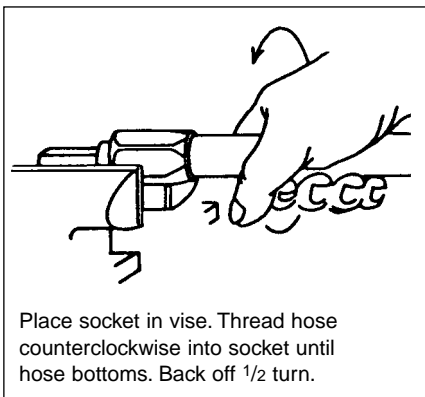
**Couplings:** Screw-type reusable, non-skive type, see Reusable Couplings (556, 1130) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

**Note:** 4901 hose type is a valid replacement for 556 hose type where DOT approval is not required.

<sup>1</sup> Centerline of Hose

## Assembly Instructions





# Engine and Air Brake Hose (556,1130) and Couplings

## Engine And Air Brake Hose (1130)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7139	4.8 - .19	13.2 - .52	-4	55.2 - 8006	13.8 - 2002	20 - 0.79
541-7140	6.4 - .25	14.7 - .58	-5	41.2 - 5976	10.3 - 1494	25 - 0.98
541-7141	7.9 - .31	17.3 - .68	-6	41.2 - 5976	10.3 - 1494	32 - 1.26
541-7142	10.3 - .41	19.6 - .77	-8	34.4 - 4989	8.6 - 1247	45 - 1.77
541-7143	12.7 - .50	23.4 - .92	-10	34.4 - 4989	8.6 - 1247	58 - 2.28
541-7144	15.9 - .63	27.4 - 1.08	-12	20.8 - 3017	5.2 - 754	70 - 2.76
541-7145	22.2 - .87	31.2 - 1.23	-16	11.2 - 1624	2.8 - 406	90 - 3.54
541-7146	28.6 - 1.13	38.1 - 1.50	-20	8.4 - 1218	2.1 - 305	115 - 4.53
541-7147	34.9 - 1.37	44.5 - 1.75	-24	6.8 - 986	1.7 - 247	140 - 5.51

**Construction:** Synthetic rubber tube, textile inner braid, high tensile steel wire braid reinforcement, textile braid cover.

**Application:** Air, engine oil, water, lubricating oils, diesel fuel, petroleum base hydraulic oils D.O.T. FMVSS 106 All Air Brake approved. U.S. Coast Guard 46CFR56.60-25C approved.

**Temperature Range:** -40° F to +248° F (-40° C to +120° C) for air. -40° F to +302° F (-40° C to +150° C) for water based fluids, gasoline and diesel fuel.

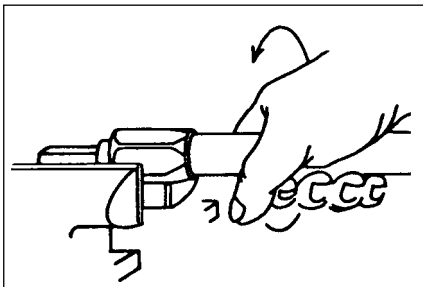
**Couplings:** Screw-type reusable, non-skive type, see Reusable Couplings (556, 1130) section. For related assembly equipment and tooling, see Tooling section.

**Note:** Hose cover does not need to be removed before attaching couplings.

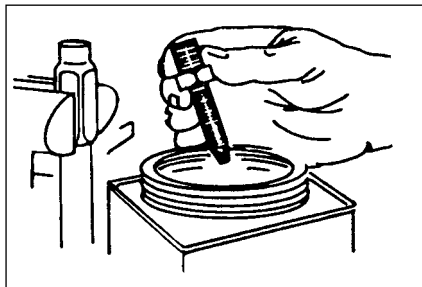
**Note:** 4901 hose type is a valid replacement for 1130 hose type where DOT approval is not required.

<sup>1</sup> Centerline of Hose

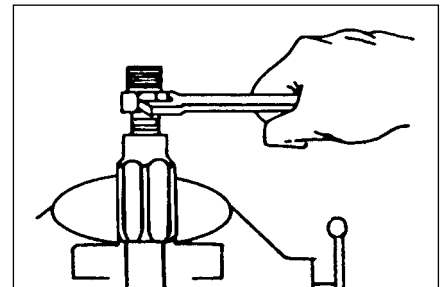
## Assembly Instructions



Place socket in vise. Thread hose counterclockwise into socket until hose bottoms. Back off 1/2 turn.



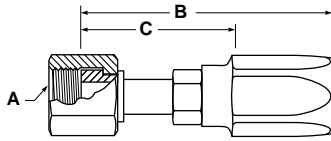
Oil nipple threads and inside of hose with heavy oil. Caution: Do not oil hose cover.



Thread nipple clockwise into socket until nipple hex shoulders against socket.

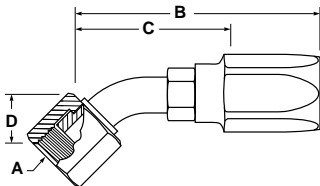
# Reusable Couplings (556, 1130)

## ORFS Female Swivel-Str



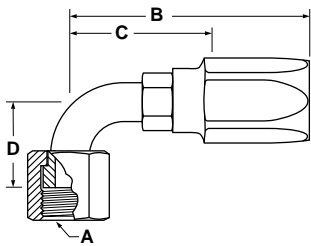
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
9X-3881	4.8-.19	-4	9/16-18	-4	54.0-2.13	36.0-1.42	4J-5477
7X-1463	7.9-.31	-6	11/16-16	-6	64.0-2.52	42.0-1.65	6V-8397
9X-3882	10.3-.41	-8	13/16-16	-8	78.0-3.07	51.0-2.01	6V-8398
9X-3883	12.7-.50	-10	1-14	-10	84.0-3.31	53.0-2.09	7J-9108
9X-3884	15.9-.63	-12	1 3/16-12	-12	95.0-3.74	57.0-2.24	6V-9746
9X-3885	22.2-.87	-16	1 7/16-12	-16	86.0-3.39	56.0-2.20	5K-9090
435-0432	28.6-1.13	-20	1 11/16-12	-20	90.0-3.54	55.0-2.17	6V-8400

## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
9X-3886	4.8-.19	-4	9/16-18	-4	54.0-2.13	39.0-1.54	10.0-.39	4J-5477
9X-3887	7.9-.31	-6	1 1/16-16	-6	64.0-2.52	43.0-1.69	11.0-.43	6V-8397
9X-3888	10.3-.41	-8	13/16-16	-8	81.0-3.19	53.0-2.09	15.0-.59	6V-8398
9X-3889	12.7-.50	-10	1-14	-10	88.0-3.46	57.0-2.24	17.0-.67	7J-9108
9X-3890	15.9-.63	-12	1 3/16-12	-12	98.0-3.86	59.0-2.32	21.0-.83	6V-9746
9X-3891	22.2-.87	-16	1 7/16-12	-16	102.0-4.02	72.0-2.83	24.0-.94	5K-9090

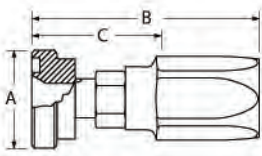
## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
9X-3892	4.8-.19	-4	9/16-18	-4	50.0-1.97	39.0-1.54	20.0-.79	4J-5477
9X-3898	4.8-.19	-4	9/16-18	-4	50.0-1.97	44.0-1.73	46.0-1.81	4J-5477
9X-3893	7.9-.31	-6	11/16-16	-6	61.0-2.40	39.0-1.54	23.0-.91	6V-8397
9X-3899	7.9-.31	-6	11/16-16	-6	63.0-2.48	42.0-1.65	54.0-2.13	6V-8397
9X-3894	10.3-.41	-8	13/16-16	-8	74.0-2.91	46.0-1.81	29.0-1.14	6V-8398
9X-3900	10.3-.41	-8	13/16-16	-8	75.0-2.95	48.0-1.89	64.0-2.52	6V-8398
9X-3895	12.7-.50	-10	1-14	-10	80.0-3.15	49.0-1.93	32.0-1.26	7J-9108
9X-3901	12.7-.50	-10	1-14	-10	83.0-3.27	52.0-2.05	70.0-2.76	7J-9108
9X-3896	15.9-.63	-12	1 3/16-12	-12	95.0-3.74	57.0-2.24	48.0-1.89	6V-9746
9X-3902	15.9-.63	-12	1 3/16-12	-12	96.0-3.78	58.0-2.28	96.0-3.78	6V-9746
9X-3897	22.2-.87	-16	1 7/16-12	-16	101.0-3.98	70.0-2.76	56.0-2.20	5K-9090
9X-3903	22.2-.87	-16	1 7/16-12	-16	90.0-3.54	60.0-2.36	114.0-4.49	5K-9090

# Reusable Couplings (556, 1130)

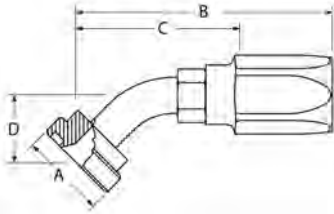
## Code 61 Flange-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
9X-3840	15.9-.63	-12	38.1-1.50	-12	81.0-3.19	41.0-1.61	4J-5267
9X-3842	28.6-1.13	-20	50.8-2.00	-20	91.0-3.58	56.0-2.20	4J-0522

NOTE: Refer to the Seal Section of the Guide for a complete list of seals and applications.

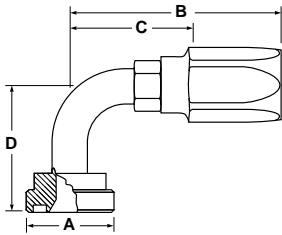
## Code 61 Flange-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
9X-3846	28.6-1.13	-20	50.8-2.00	-20	104.0-4.09	72.0-2.83	29.0-1.14	4J-0522

NOTE: Refer to the Seal Section of the Guide for a complete list of seals and applications.

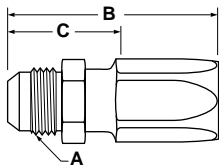
## Code 61 Flange-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	HEAD SIZE (mm-in)	FLANGE DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
9X-3849	22.2-.87	-16	44.5-1.75	-16	90.0-3.54	58.0-2.28	60.0-2.36	4J-0520
9X-3850	28.6-1.13	-20	50.8-2.00	-20	102.0-4.02	67.0-2.64	64.0-2.52	4J-0522

NOTE: Refer to the Seal Section of the Guide for a complete list of seals and applications.

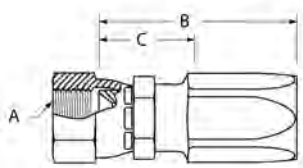
## JIC 37° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
068-0601	7.9-.31	-6	9/16-18	-6	54.0-2.13	31.0-1.22
068-0554	10.3-.41	-8	3/4-16	-8	66.0-2.60	36.0-1.42
030-7190	10.3-.41	-8	3/4-16	-8	70.0-2.76	.0-.00
9X-3947	22.2-.87	-16	1 5/16-12	-16	75.0-2.95	45.0-1.77

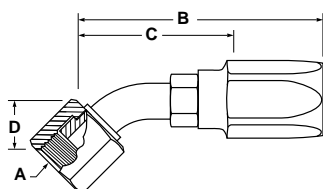
# Reusable Couplings (556, 1130)

## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
001-6285	4.8-.19	-4	7/16-20	-4	50.0-1.97	31.0-1.22
9X-3821	6.4-.25	-5	7/16-20	-4	44.0-1.73	24.0-.94
053-2295	6.4-.25	-5	1/2-20	-5	54.0-2.13	35.0-1.38
5D-6116	6.4-.25	-5	1/2-20	-5	55.0-2.17	33.0-1.30
9X-3823	6.4-.25	-5	9/16-18	-6	47.0-1.85	28.0-1.10
001-6286	7.9-.31	-6	9/16-18	-6	59.0-2.32	37.0-1.46
030-7186	7.9-.31	-6	9/16-18	-6	59.0-2.32	37.0-1.46
001-6287	10.3-.41	-8	3/4-16	-8	71.0-2.80	41.0-1.61
9X-3826	12.7-.50	-10	3/4-16	-8	65.0-2.56	32.0-1.26
061-6746	12.7-.50	-10	7/8-14	-10	79.0-3.11	46.0-1.81
9X-3957	12.7-.50	-10	1 1/16-12	-12	65.0-2.56	34.0-1.34
5P-7759	15.9-.63	-12	7/8-14	-10	73.0-2.87	38.0-1.50
001-6289	15.9-.63	-12	1 1/16-12	-12	89.0-3.50	49.0-1.93
9X-3830	22.2-.87	-16	1 5/16-12	-16	66.0-2.60	34.0-1.34
3L-9762	28.6-1.13	-20	1 5/8-12	-20	74.0-2.91	40.0-1.57
9X-3832	34.9-1.37	-24	1 7/8-12	-24	81.0-3.19	44.0-1.73

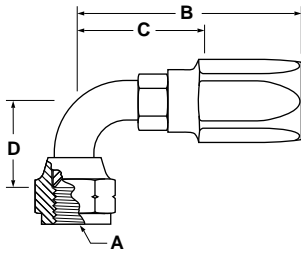
## JIC 37° Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
9X-3854	4.8-.19	-4	7/16-20	-4	47.0-1.85	28.0-1.10	8.0-.31
9X-3855	6.4-.25	-5	1/2-20	-5	53.0-2.09	33.0-1.30	9.0-.35
068-0599	7.9-.31	-6	9/16-18	-6	57.0-2.24	35.0-1.38	10.0-.39
9X-3857	7.9-.31	-6	3/4-16	-8	68.0-2.68	44.0-1.73	14.0-.55
068-2859	10.3-.41	-8	3/4-16	-8	76.0-2.99	48.0-1.89	14.0-.55
9X-3859	12.7-.50	-10	7/8-14	-10	85.0-3.35	54.0-2.13	16.0-.63
9X-3860	15.9-.63	-12	1 1/16-12	-12	96.0-3.78	62.0-2.44	20.0-.79
9X-3861	22.2-.87	-16	1 5/16-12	-16	94.0-3.70	64.0-2.52	23.0-.91

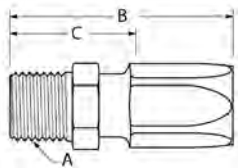
# Reusable Couplings (556, 1130)

## JIC 37° Female Swivel-90° Elbow



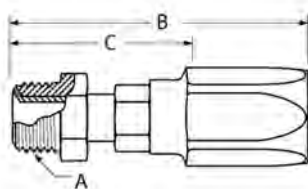
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
068-0589	4.8-.19	-4	7/16-20	-4	44.0-1.73	25.0-.98	17.0-.67
9X-3870	4.8-.19	-4	7/16-20	-4	44.0-1.73	25.0-.98	46.0-1.81
9X-3863	6.4-.25	-5	1/2-20	-5	50.0-1.97	30.0-1.18	18.0-.71
068-0009	7.9-.31	-6	9/16-18	-6	56.0-2.20	35.0-1.38	22.0-.87
032-4872	7.9-.31	-6	9/16-18	-6	54.0-2.13	31.0-1.22	55.0-2.17
068-0556	10.3-.41	-8	3/4-16	-8	74.0-2.91	45.0-1.77	28.0-1.10
111-7666	10.3-.41	-8	3/4-16	-8	74.0-2.91	47.0-1.85	62.0-2.44
053-2141	12.7-.50	-10	7/8-14	-10	81.0-3.19	50.0-1.97	31.0-1.22
9X-3874	12.7-.50	-10	7/8-14	-10	83.0-3.27	52.0-2.05	65.0-2.56
9X-3867	15.9-.63	-12	1 1/16-12	-12	99.0-3.90	61.0-2.40	46.0-1.81
9X-3875	15.9-.63	-12	1 1/16-12	-12	96.0-3.78	58.0-2.28	95.0-3.74
9X-3868	22.2-.87	-16	1 5/16-12	-16	94.0-3.70	64.0-2.52	54.0-2.13
9X-3876	22.2-.87	-16	1 5/16-12	-16	90.0-3.54	60.0-2.36	110.0-4.33
9X-3869	28.6-1.13	-20	1 5/8-12	-20	102.0-4.02	67.0-2.64	60.0-2.36

## NPTF Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
1L-3664	4.8-.19	-4	1/8-27	-2	43.0-1.69	24.0-.94
1L-2287	4.8-.19	-4	1/4-18	-4	47.0-1.85	28.0-1.10
9X-3807	6.4-.25	-5	1/8-27	-2	45.0-1.77	25.0-.98
9X-3808	6.4-.25	-5	1/4-18	-4	50.0-1.97	30.0-1.18
9X-3809	7.9-.31	-6	1/4-18	-4	54.0-2.13	31.0-1.22
9X-3810	7.9-.31	-6	3/8-18	-6	54.0-2.13	31.0-1.22
1L-1699	10.3-.41	-8	3/8-18	-6	63.0-2.48	34.0-1.34
9X-3812	10.3-.41	-8	1/2-14	-8	69.0-2.72	40.0-1.57
9X-3813	12.7-.50	-10	1/2-14	-8	73.0-2.87	40.0-1.57
9X-3814	12.7-.50	-10	3/4-14	-12	75.0-2.95	42.0-1.65
9X-3815	15.9-.63	-12	3/4-14	-12	82.0-3.23	42.0-1.65
9X-3816	22.2-.87	-16	3/4-14	-12	71.0-2.80	39.0-1.54
1L-1480	22.2-.87	-16	1-11 1/2	-16	76.0-2.99	44.0-1.73
3L-3870	28.6-1.13	-20	1 1/4-11 1/2	-20	82.0-3.23	48.0-1.89
1L-0767	34.9-1.37	-24	1 1/2-11 1/2	-24	88.0-3.46	52.0-2.05

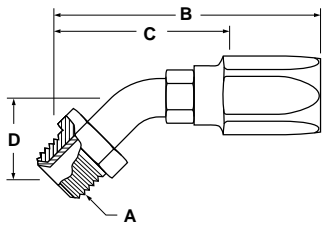
## SAE 45° Inverted Flare Male Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
9X-3852	4.8-.19	-4	7/16-24	-4	62.0-2.44	43.0-1.69
9X-3853	7.9-.31	-6	5/8-18	-6	69.0-2.72	46.0-1.81
9X-3956	10.3-.41	-8	3/4-18	-8	80.0-3.15	50.0-1.97

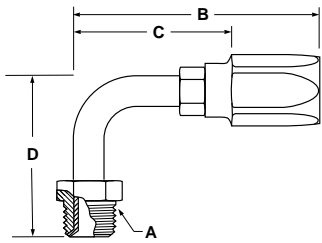
# Reusable Couplings (556, 1130)

## SAE 45° Inverted Flare Male Swivel-45° Elbow



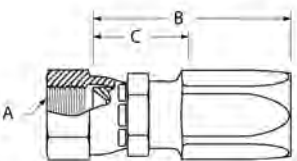
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
9X-3877	7.9-.31	-6	5/8-18	-6	76.0-2.99	53.0-2.09	24.0-.94

## SAE 45° Inverted Flare Male Swivel-90° Elbow



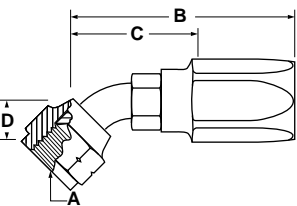
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
9X-3878	7.9-.31	-6	5/8-18	-6	67.0-2.64	44.0-1.73	43.0-1.69

## SAE 45° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
061-8863	7.9-.31	-6	5/8-18	-6	60.0-2.36	37.0-1.46
053-1788	15.9-.63	-12	1 1/16-14	-12	74.0-2.91	37.0-1.46

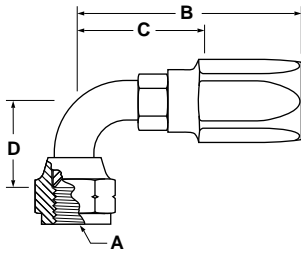
## SAE 45° Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
9X-3879	7.9-.31	-6	5/8-18	-6	57.0-2.24	35.0-1.38	10.0-.39

# Reusable Couplings (556, 1130)

## SAE 45° Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
9X-3880	7.9-.31	-6	5/8-18	-6	56.0-2.20	35.0-1.38	22.0-.87

# Air Conditioning Hose (1543J) and Couplings

## Air Conditioning Hose (1543J)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7161	7.9 - .31	15.7 - .62	-6	A/C	13.7 - 1987	2.4 - 350	25 - 0.98
541-7162	10.3 - .41	18.8 - .74	-8	A/C	13.7 - 1987	2.4 - 350	38 - 1.50
541-7163	12.7 - .50	21.1 - .83	-10	A/C	13.7 - 1987	2.4 - 350	63 - 2.48
541-7164	15.9 - .63	24.4 - .96	-12	A/C	13.7 - 1987	2.4 - 350	104 - 4.09
541-7165	19.1 - .75	28.4 - 1.12	-14	A/C	13.7 - 1987	2.4 - 350	104 - 4.09

**Construction:** Thermoplastic tube, textile braid, elastomeric cover.

**Application:** Construction, truck and agricultural air conditioning systems.

**Moisture Ingression:** Less than 16 gm/100 in<sup>2</sup> per year.

**R134 Permeation:** 2.0 lbs/ft<sup>2</sup> per year at 176° F.

**Temperature Range:** -22° F to +257° F (-30° C to +125° C).

**Couplings:** Crimp-on permanent, non-skive type, A/C Series coupling. See Permanent Couplings (1543) section. For related assembly equipment and tooling, see Tooling section.

**Required Cutting Tool:** Cutting Tool (177-4271) and Blade (177-4272) is required for cutting hose. Do not use Hose Cutting Machine. Cut-off saw can cause heating distortion. See Miscellaneous Tools and Accessories section.

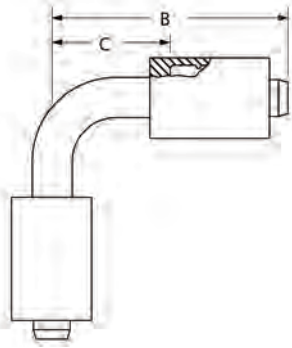
**Reference:** IRM HOS02-01

<sup>1</sup> Centerline of Hose



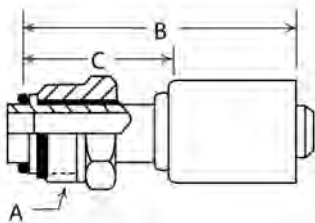
# Permanent Couplings (1543J)

## Double Collet-90° Elbow



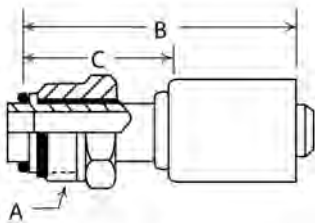
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
340-4857	10.3-.41	-8	A/C	117.0-4.61	82.0-3.23
320-1852	15.9-.63	-12	A/C	253.0-9.96	81.8-3.22

## Male Inverted O-Ring-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1781	7.9-.31	-6	A/C	5/8-18	-6	79.0-3.11	43.0-1.69	9X-7380
320-1782	10.3-.41	-8	A/C	3/4-18	-8	81.0-3.19	45.0-1.77	9X-7381
320-1783	15.9-.63	-12	A/C	7/8-18	-10	96.0-3.78	60.0-2.36	9X-7382
320-1780	15.9-.63	-12	A/C	7/8-14	-10	132.0-5.20	96.3-3.79	9X-7382

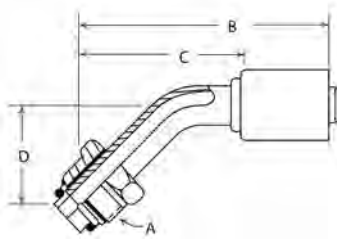
## Male Inverted O-Ring Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1786	15.9-.63	-12	A/C	1 1/16-16	-12	96.0-3.78	60.0-2.36	9X-7383
320-1788	19.1-.75	-14	A/C	1 1/16-16	-12	96.0-3.78	60.0-2.36	9X-7383

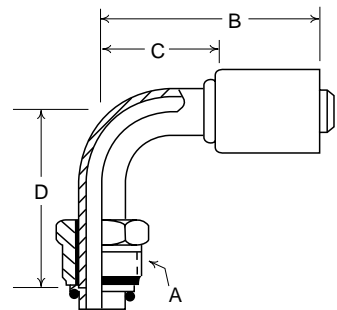
# Permanent Couplings (1543J)

## Male Inverted O-Ring Swivel-45° Elbow



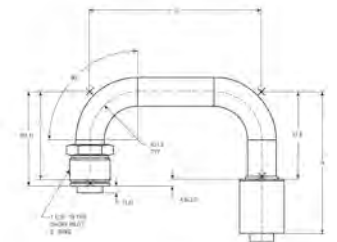
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1726	7.9-.31	-6	A/C	5/8-18	-6	79.0-3.11	43.0-1.69	22.0-.87	9X-7380
320-1785	10.3-.41	-8	A/C	3/4-18	-8	89.0-3.50	53.3-2.10	32.0-1.26	9X-7381
320-1727	15.9-.63	-12	A/C	7/8-14	-10	95.0-3.74	58.9-2.32	33.0-1.30	9X-7382
320-1787	15.9-.63	-12	A/C	1 1/16-16	-12	142.0-5.59	105.7-4.16	70.4-2.77	9X-7383
320-1826	19.1-.75	-14	A/C	1 1/16-16	-12	142.0-5.59	105.7-4.16	70.4-2.77	9X-7383

## Male Inverted O-Ring Swivel-90° Elbow



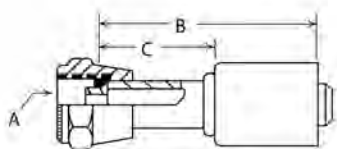
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1728	7.9-.31	-6	A/C	5/8-18	-6	63.0-2.48	27.0-1.06	41.0-1.61	9X-7380
320-1784	10.3-.41	-8	A/C	3/4-18	-8	67.0-2.64	31.5-1.24	57.0-2.24	9X-7381
320-1729	15.9-.63	-12	A/C	7/8-18	-10	81.0-3.19	45.0-1.77	68.2-2.69	9X-7382
320-1730	15.9-.63	-12	A/C	1 1/16-16	-12	93.0-3.66	56.6-2.23	63.5-2.50	9X-7383
320-1789	19.1-.75	-14	A/C	1 1/16-16	-12	99.0-3.90	63.5-2.50	63.5-2.50	9X-7383

## Male Inverted O-Ring Swivel-180° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1824	15.9-.63	-12	A/C	1 1/16-16	-12	94.0-3.70	58.0-2.28	114.0-4.49	9X-7383
320-1880	19.1-.75	-14	A/C	1 1/16-16	-12	92.0-3.62	29.0-1.14	114.0-4.49	9X-7383

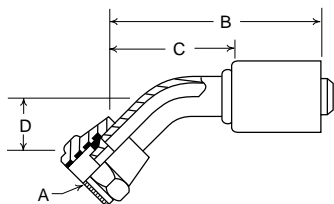
## Tube O-Ring Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1761	7.9-.31	-6	A/C	5/8-18	-6	78.0-3.07	42.2-1.66	9X-7380
320-1720	7.9-.31	-6	A/C	3/4-16	-8	80.0-3.15	44.0-1.73	9X-7381
320-1985	7.9-.31	-6	A/C	3/4-16	-8	80.0-3.15	44.0-1.73	9X-7381
320-1760	10.3-.41	-8	A/C	3/4-16	-8	74.0-2.91	38.0-1.50	9X-7381
320-1762	12.7-.50	-10	A/C	7/8-14	-10	89.0-3.50	52.8-2.08	9X-7382
320-1721	15.9-.63	-12	A/C	7/8-14	-10	82.0-3.23	46.0-1.81	9X-7382
320-1768	15.9-.63	-12	A/C	1 1/16-14	-12	96.0-3.78	60.0-2.36	9X-7383
320-1754	19.1-.75	-14	A/C	7/8-14	-10	79.0-3.11	43.0-1.69	9X-7382
320-1755	19.1-.75	-14	A/C	1 1/16-14	-12	96.0-3.78	60.0-2.36	9X-7383

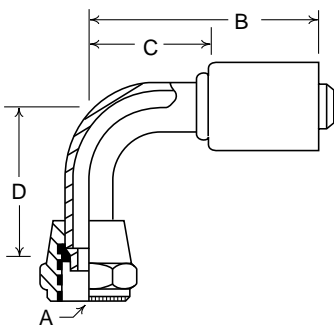
# Permanent Couplings (1543J)

## Tube O-Ring Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1750	7.9-.31	-6	A/C	5/8-18	-6	89.0-3.50	53.3-2.10	14.7-.58	9X-7380
320-1759	7.9-.31	-6	A/C	5/8-18	-6	89.0-3.50	53.3-2.10	18.0-.71	9X-7380
320-1749	7.9-.31	-6	A/C	3/4-16	-8	68.0-2.68	32.0-1.26	15.2-.60	9X-7381
320-1752	7.9-.31	-6	A/C	3/4-16	-8	94.0-3.70	58.1-2.29	28.9-1.14	9X-7381
320-1758	10.3-.41	-8	A/C	3/4-16	-8	84.0-3.31	48.3-1.90	22.0-.87	9X-7381
320-1757	10.3-.41	-8	A/C	3/4-16	-8	106.0-4.17	70.4-2.77	27.0-1.06	9X-7381
385-5269	10.3-.41	-8	A/C	3/4-16	-8	106.0-4.17	70.0-2.76	27.0-1.06	9X-7381
320-1722	15.9-.63	-12	A/C	7/8-14	-10	98.0-3.86	62.0-2.44	22.0-.87	9X-7382
320-1756	15.9-.63	-12	A/C	1 1/16-14	-12	98.0-3.86	62.5-2.46	36.0-1.42	9X-7383
320-1751	19.1-.75	-14	A/C	7/8-14	-10	102.0-4.02	66.2-2.61	40.4-1.59	9X-7382
320-1753	19.1-.75	-14	A/C	1 1/16-14	-12	102.0-4.02	66.2-2.61	40.4-1.59	9X-7383

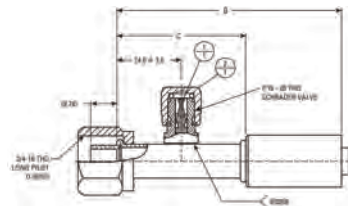
## Tube O-Ring Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
478-5446	7.9-.31	-5	A/C	5/8-18	-6	69.0-2.72	21.0-.83	30.0-1.18	9X-7380
320-1723	7.9-.31	-6	A/C	5/8-18	-6	63.0-2.48	27.0-1.06	30.0-1.18	9X-7380
320-1776	7.9-.31	-6	A/C	5/8-18	-6	62.0-2.44	26.7-1.05	44.0-1.73	9X-7380
320-1724	7.9-.31	-6	A/C	3/4-16	-8	74.0-2.91	38.4-1.51	50.8-2.00	9X-7381
364-1219	7.9-.31	-6	A/C	3/4-16	-8	74.0-2.91	38.4-1.51	93.3-3.67	9X-7381
320-1766	10.3-.41	-8	A/C	3/4-16	-8	106.0-4.17	69.9-2.75	38.1-1.50	9X-7381
320-1775	10.3-.41	-8	A/C	3/4-16	-8	67.0-2.64	31.2-1.23	47.8-1.88	9X-7381
320-1773	10.3-.41	-8	A/C	3/4-16	-8	68.0-2.68	31.8-1.25	51.0-2.01	9X-7381
320-1845	10.3-.41	-8	A/C	3/4-16	-8	68.0-2.68	31.8-1.25	73.3-2.89	9X-7381
320-1772	10.3-.41	-8	A/C	3/4-16	-8	67.0-2.64	31.2-1.23	85.0-3.35	9X-7381
320-1765	12.7-.50	-10	A/C	7/8-14	-10	74.0-2.91	38.0-1.50	47.8-1.88	9X-7382
320-1725	15.9-.63	-12	A/C	7/8-14	-10	81.0-3.19	45.0-1.77	45.0-1.77	9X-7382
320-1834	15.9-.63	-12	A/C	7/8-14	-10	81.0-3.19	45.0-1.77	64.8-2.55	9X-7382
320-1876	15.9-.63	-12	A/C	7/8-14	-10	77.0-3.03	40.6-1.60	80.0-3.15	9X-7382
320-1771	15.9-.63	-12	A/C	7/8-14	-10	77.0-3.03	41.0-1.61	122.0-4.80	9X-7382
320-1774	15.9-.63	-12	A/C	7/8-14	-10	78.0-3.07	41.7-1.64	150.0-5.91	9X-7382
320-1806	15.9-.63	-12	A/C	1 1/16-14	-12	80.0-3.15	44.0-1.73	44.0-1.73	9X-7383
320-1777	15.9-.63	-12	A/C	1 1/16-14	-12	74.0-2.91	38.1-1.50	51.0-2.01	9X-7383
478-7507	19.1-.75	-12	A/C	1 1/16-14	-12	102.0-4.02	64.0-2.52	64.0-2.52	9X-7383
364-1216	19.1-.75	-14	A/C	7/8-14	-10	80.0-3.15	44.4-1.75	50.0-1.97	9X-7382
320-1769	19.1-.75	-14	A/C	7/8-14	-10	80.0-3.15	44.4-1.75	75.6-2.98	9X-7382
320-1812	19.1-.75	-14	A/C	1 1/16-14	-12	99.0-3.90	63.5-2.50	63.5-2.50	9X-7383

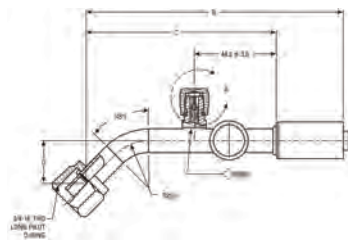
# Permanent Couplings (1543J)

## Tube O-Ring Female Swivel w/Port-Str



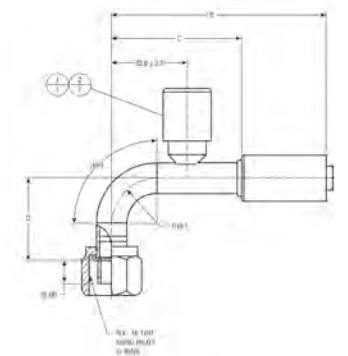
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1832	7.9-.31	-6	A/C	5/8-18	-6	84.0-3.31	48.0-1.89	9X-7380
320-1901	7.9-.31	-6	A/C	3/4-16	-8	186.0-7.32	50.0-1.97	9X-7381
320-1833	7.9-.31	-6	A/C	3/4-16	-8	201.0-7.91	165.4-6.51	9X-7381
320-1837	10.3-.41	-8	A/C	3/4-16	-8	84.0-3.31	48.0-1.89	9X-7381
358-9008	10.3-.41	-8	A/C	3/4-16	-8	86.0-3.39	50.0-1.97	9X-7381
345-4554	15.9-.63	-12	A/C	7/8-14	-10	94.0-3.70	58.0-2.28	9X-7382
320-1989	19.1-.75	-14	A/C	7/8-14	-10	94.0-3.70	58.0-2.28	9X-7382

## Tube O-Ring Female Swivel w/Port-45° Elbow



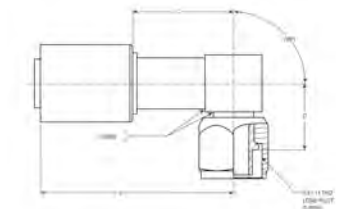
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
345-4555	15.9-.63	-12	A/C	7/8-14	-10	106.0-4.17	70.0-2.76	23.0-.91	9X-7382
320-1866	15.9-.63	-12	A/C	7/8-14	-10	89.0-3.50	53.3-2.10	27.5-1.08	9X-7382
368-8109	15.9-.63	-12	A/C	7/8-14	-10	123.0-4.84	87.2-3.43	49.5-1.95	9X-7382

## Tube O-Ring Female Swivel w/Port-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1886	7.9-.31	-6	A/C	3/4-16	-8	113.0-4.45	77.0-3.03	41.0-1.61	9X-7381
320-1903	7.9-.31	-6	A/C	3/4-16	-8	105.0-4.13	69.9-2.75	85.0-3.35	9X-7381
320-1898	10.3-.41	-8	A/C	3/4-16	-8	91.0-3.58	55.0-2.17	35.0-1.38	9X-7381
320-1841	10.3-.41	-8	A/C	3/4-16	-8	81.0-3.19	45.0-1.77	76.5-3.01	9X-7381
320-1899	15.9-.63	-12	A/C	7/8-14	-10	101.0-3.98	65.0-2.56	45.0-1.77	9X-7382
320-1847	15.9-.63	-12	A/C	7/8-14	-10	116.0-4.57	80.0-3.15	49.5-1.95	9X-7382
320-1990	19.1-.75	-14	A/C	7/8-14	-10	84.0-3.31	48.0-1.89	75.7-2.98	9X-7382

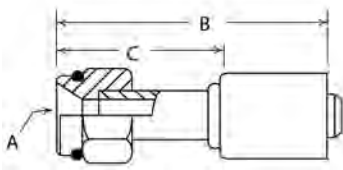
## Tube O-Ring Female Swivel Block-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1890	10.3-.41	-8	A/C	3/4-16	-8	60.0-2.36	24.0-.94	9X-7381
320-1904	15.9-.63	-12	A/C	7/8-14	-10	82.0-3.23	39.4-1.55	9X-7382
320-1905	19.1-.75	-14	A/C	7/8-14	-10	75.0-2.95	39.4-1.55	9X-7382

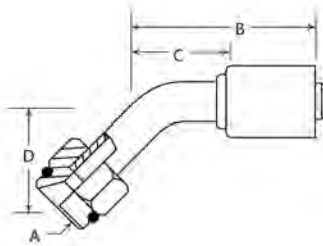
# Permanent Couplings (1543J)

## Adapter To Self Seal Fitting-Str



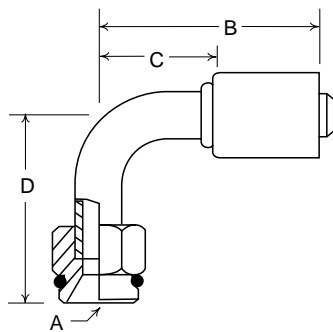
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1743	7.9-.31	-6	A/C	7/8-20	64.0-2.52	28.0-1.10	9X-7383
320-1744	10.3-.41	-8	A/C	7/8-20	81.0-3.19	44.6-1.76	9X-7383
320-1799	12.7-.50	-10	A/C	1 1/4-18	64.0-2.52	28.0-1.10	9X-7384
320-1804	12.7-.50	-10	A/C	7/8-20	64.0-2.52	28.0-1.10	9X-7383
320-1745	15.9-.63	-12	A/C	1 1/4-18	98.0-3.86	61.6-2.43	9X-7384
320-1796	19.1-.75	-14	A/C	1 1/4-18	64.0-2.52	28.0-1.10	9X-7384

## Adapter To Self Seal Fitting-45° Elbow



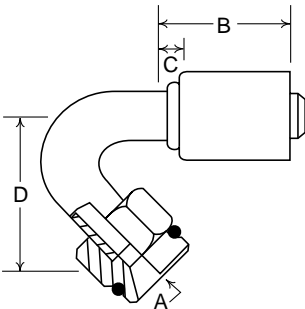
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1795	10.3-.41	-8	A/C	7/8-20	107.0-4.21	70.6-2.78	31.8-1.25	9X-7383
320-1793	15.9-.63	-12	A/C	1 1/4-18	98.0-3.86	61.8-2.43	36.0-1.42	9X-7384
320-1897	19.1-.75	-14	A/C	1 1/4-18	133.0-5.24	96.8-3.81	57.0-2.24	9X-7384

## Adapter To Self Seal Fitting-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1816	7.9-.31	-6	A/C	7/8-20	70.0-2.76	34.3-1.35	34.8-1.37	9X-7383
320-1746	7.9-.31	-6	A/C	7/8-20	62.0-2.44	26.7-1.05	38.0-1.50	9X-7383
320-1790	7.9-.31	-6	A/C	7/8-20	62.0-2.44	26.7-1.05	65.0-2.56	9X-7383
320-1747	10.3-.41	-8	A/C	7/8-20	75.0-2.95	38.9-1.53	45.0-1.77	9X-7383
320-1800	12.7-.50	-10	A/C	1 1/4-18	96.0-3.78	60.1-2.37	62.0-2.44	9X-7384
320-1791	15.9-.63	-12	A/C	1 1/4-18	78.0-3.07	41.7-1.64	76.0-2.99	9X-7384
320-1794	15.9-.63	-12	A/C	1 1/4-18	78.0-3.07	41.7-1.64	100.0-3.94	9X-7384
320-1797	19.1-.75	-14	A/C	1 1/4-18	99.0-3.90	63.5-2.50	76.2-3.00	9X-7384

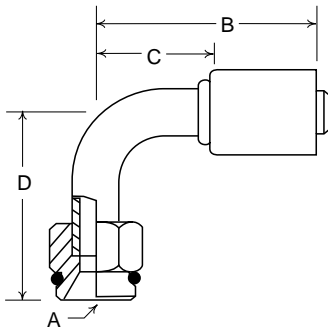
## Adapter To Self Seal Fitting-135° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
320-1792	15.9-.63	-12	A/C	1 1/4-18	55.0-2.17	19.0-.75	70.3-2.77	9X-7384

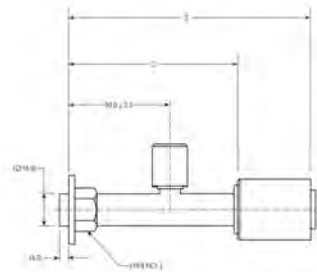
# Permanent Couplings (1543J)

## Adapter To Self Seal Fitting Block-90° Elbow



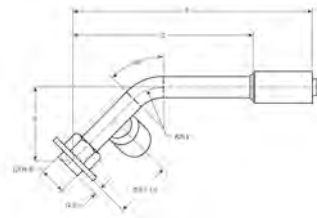
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1748	15.9-.63	-12	A/C	1 1/4-18	78.0-3.07	41.7-1.64	9X-7384
320-1798	19.1-.75	-14	A/C	1 1/4-18	108.0-4.25	71.7-2.82	9X-7384

## Compressor O-Ring w/Port-Str



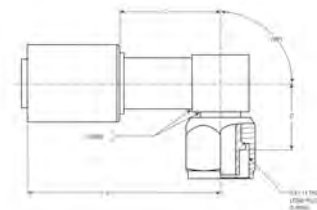
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
320-1879	10.3-.41	-8	A/C	119.0-4.69	83.5-3.29
320-1835	19.1-.75	-14	A/C	119.0-4.69	83.5-3.29

## Compressor O-Ring w/Port-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
320-1895	10.3-.41	-8	A/C	124.0-4.88	87.6-3.45	42.8-1.69
320-1842	10.3-.41	-8	A/C	145.0-5.71	109.5-4.31	44.5-1.75
320-1856	15.9-.63	-12	A/C	130.0-5.12	95.0-3.74	44.5-1.75

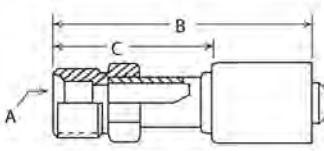
## Compressor O-Ring w/Port-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
320-1910	10.3-.41	-8	A/C	81.0-3.19	45.0-1.77	53.0-2.09
320-1827	10.3-.41	-8	A/C	81.0-3.19	45.0-1.77	57.0-2.24
320-1836	10.3-.41	-8	A/C	116.0-4.57	80.4-3.17	74.3-2.93
320-1828	15.9-.63	-12	A/C	86.0-3.39	50.0-1.97	83.0-3.27

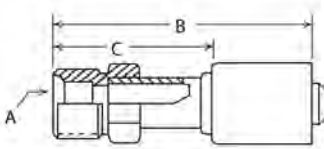
# Permanent Couplings (1543J)

## Male O-Ring Connector-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1741	7.9-.31	-6	A/C	5/8-18	-6	73.0-2.87	37.0-1.46	9X-7380
320-1778	7.9-.31	-6	A/C	3/4-16	-8	73.0-2.87	37.0-1.46	9X-7381
320-1779	10.3-.41	-8	A/C	3/4-16	-8	77.0-3.03	41.0-1.61	9X-7381
320-1742	15.9-.63	-12	A/C	7/8-14	-10	79.0-3.11	43.0-1.69	9X-7382

## Male O-Ring Bulkhead Connector-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
320-1814	7.9-.31	-6	A/C	5/8-18	-6	85.0-3.35	49.0-1.93	9X-7380
376-5361	7.9-.31	-6	A/C	5/8-18	-6	94.0-3.70	58.4-2.30	9X-7380
320-1813	10.3-.41	-8	A/C	3/4-16	-8	84.0-3.31	48.5-1.91	9X-7381
320-1867	15.9-.63	-12	A/C	7/8-14	-10	111.0-4.37	75.0-2.95	9X-7382

# High Temperature Fuel Hose (743) and Couplings

## High Temperature Fuel Hose (743)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8506	4.8 - .19	11.1 - .44	-3	JN	14.0 - 2031	3.5 - 508	50 - 1.97
456-8507	6.4 - .25	12.7 - .50	-4	MH	11.2 - 1624	2.8 - 406	65 - 2.56
456-8508	7.9 - .31	14.3 - .56	-5	MH	11.2 - 1624	2.8 - 406	75 - 2.95
456-8509	9.5 - .37	15.9 - .63	-6	MH	11.2 - 1624	2.8 - 406	75 - 2.95
456-8510	12.7 - .50	19.8 - .78	-8	MH	11.2 - 1624	2.8 - 406	100 - 3.94
456-8511	15.9 - .63	23.0 - .91	-10	MH	9.6 - 1247	2.4 - 348	125 - 4.92
456-8512	19.1 - .75	26.8 - 1.06	-12	MH	8.4 - 1218	2.1 - 305	150 - 5.91
456-8513	25.4 - 1.00	33.8 - 1.33	-16	MH	8.0 - 1160	2.0 - 290	200 - 7.87

**Construction:** Synthetic rubber tube; two braids of fabric reinforcement. Oil, and weather resistant outer cover.

**Application:** Hose is intended for use with petroleum based hydraulic fluids and lubricating oils.

**Temperature Range:** of -40° F to +275° F (-40° C to +135° C), water based fluids to +185° F (+85° C), and air to +158° F (+70° C).

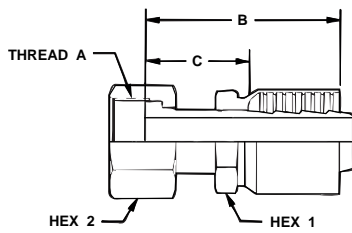
**Couplings:** Crimp-on permanent, non-skive type, MH or JN Series coupling. See Permanent Couplings (743) section.

**Note:** Hose cover does not need to be removed before attaching couplings.



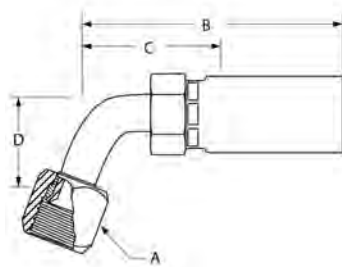
# Permanent Couplings (743)

## ORFS Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
307-8256	4.8-.19	-3	MH	11/16-16	-6	46.0-1.81	27.5-1.08	6V-8397
273-1716	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	25.0-.98	4J-5477
149-8471	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.4-1.00	4J-5477
149-8472	6.4-.25	-4	MH	11/16-16	-6	49.0-1.93	27.5-1.08	6V-8397
306-8016	6.4-.25	-4	MH	13/16-16	-8	53.0-2.09	31.6-1.24	6V-8398
197-5817	9.5-.37	-6	MH	9/16-18	-4	51.0-2.01	25.0-.98	4J-5477
149-8474	9.5-.37	-6	MH	11/16-16	-6	57.0-2.24	30.5-1.20	6V-8397
149-8475	9.5-.37	-6	MH	13/16-16	-8	56.0-2.20	30.0-1.18	6V-8398
149-8476	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	6V-8398
149-8477	12.7-.50	-8	MH	1-14	-10	68.0-2.68	41.6-1.64	7J-9108
220-5332	12.7-.50	-8	MH	1 3/16-12	-12	73-2.87	44-1.73	6V-9746
220-5333	15.9-.63	-10	MH	1-14	-10	70.0-2.76	43.5-1.71	7J-9108
149-8478	19.1-.75	-12	MH	1 3/16-12	-12	75.0-2.95	40.0-1.57	6V-9746
220-5336	19.1-.75	-12	MH	1 7/16-12	-16	80-3.15	49-1.93	5K-9090

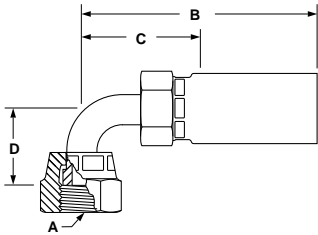
## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
307-8263	4.8-.19	-3	JN	9/16-18	-4	48.0-1.89	31.2-1.23	10.4-.41	4J-5477
149-8480	6.4-.25	-4	MH	9/16-18	-4	51.0-2.01	30.0-1.18	10.0-.39	4J-5477
149-8481	6.4-.25	-4	MH	11/16-16	-6	55.0-2.17	31.0-1.22	11.0-.43	6V-8397
149-8483	9.5-.37	-6	MH	11/16-16	-6	62.0-2.44	36.0-1.42	11.0-.43	6V-8397
149-8484	9.5-.37	-6	MH	13/16-16	-8	69.0-2.72	40.0-1.57	15.0-.59	6V-8398
149-8485	12.7-.50	-8	MH	13/16-16	-8	71.0-2.80	44.5-1.75	15.0-.59	6V-8398
149-8486	12.7-.50	-8	MH	1-14	-10	72.0-2.83	46.0-1.81	17.0-.67	7J-9108
220-5351	12.7-.50	-8	MH	1 3/16-12	-12	77-3.03	51-2.01	21-0.83	6V-9746
220-5352	15.9-.63	-10	MH	1-14	-10	82.0-3.23	52.0-2.05	17.0-.67	7J-9108
149-8487	19.1-.75	-12	MH	1 3/16-12	-12	90.0-3.54	59.0-2.32	21.0-.83	6V-9746
220-5354	25.4-1.00	-16	MH	1 7/16-12	-16	111.0-4.37	71.9-2.83	24.0-.94	5K-9090

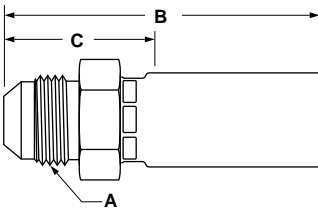
# Permanent Couplings (743)

## ORFS Female Swivel-90° Elbow



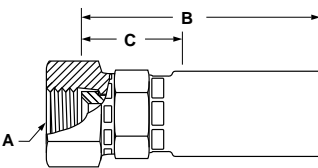
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
149-8489	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.2-.99	20.0-.79	4J-5477
149-8498	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.2-.99	32.0-1.26	4J-5477
149-8505	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.2-.99	46.0-1.81	4J-5477
149-8490	6.4-.25	-4	MH	11/16-16	-6	46.0-1.81	25.2-.99	23.0-.91	6V-8397
149-8492	9.5-.37	-6	MH	9/16-18	-4	59.0-2.32	30.0-1.18	20.0-.79	4J-5477
149-8493	9.5-.37	-6	MH	11/16-16	-6	59.0-2.32	32.6-1.28	23.0-.91	6V-8397
149-8501	9.5-.37	-6	MH	11/16-16	-6	59.0-2.32	32.6-1.28	38.0-1.50	6V-8397
149-8507	9.5-.37	-6	MH	11/16-16	-6	59.0-2.32	32.6-1.28	54.0-2.13	6V-8397
149-8494	9.5-.37	-6	MH	13/16-16	-8	61.0-2.40	33.0-1.30	29.2-1.15	6V-8398
149-8495	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	29.0-1.14	6V-8398
149-8502	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	41.0-1.61	6V-8398
149-8510	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	64.0-2.52	6V-8398
149-8496	12.7-.50	-8	MH	1-14	-10	65.0-2.56	39.1-1.54	32.0-1.26	7J-9108
149-8511	12.7-.50	-8	MH	1-14	-10	65.0-2.56	39.1-1.54	70.0-2.76	7J-9108
220-5358	15.9-.63	-10	MH	1-14	-10	74.0-2.91	46.6-1.83	32.0-1.26	7J-9108
435-9922	19.1-.75	-12	MH	1-14	-10	80-3.15	49-1.93	32-1.26	7J-9108
149-8497	19.1-.75	-12	MH	1 3/16-12	-12	84.0-3.31	52.0-2.05	48.0-1.89	6V-9746
149-8504	19.1-.75	-12	MH	1 3/16-12	-12	84.0-3.31	52.0-2.05	58.0-2.28	6V-9746
149-8512	19.1-.75	-12	MH	1 3/16-12	-12	84.0-3.31	52.0-2.05	96.0-3.78	6V-9746
220-5366	25.4-1.00	-16	MH	1 7/16-12	-16	109.0-4.29	70.0-2.76	71.0-2.80	5K-9090

## JIC 37° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
149-8556	9.5-.37	-6	MH	9/16-18	-6	56.0-2.20	29.0-1.14
149-8557	12.7-.50	-8	MH	3/4-16	-8	61.0-2.40	36.0-1.42

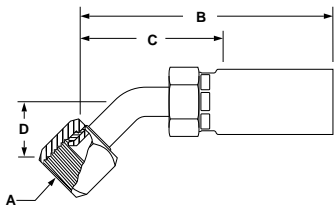
## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
149-8515	6.4-.25	-4	MH	7/16-20	-4	40.0-1.57	17.0-.67
149-8520	9.5-.37	-6	MH	9/16-18	-6	50.0-1.97	23.8-.94
149-8521	9.5-.37	-6	MH	3/4-16	-8	50.0-1.97	24.3-.96
149-8522	12.7-.50	-8	MH	3/4-16	-8	55.0-2.17	28.6-1.13
149-8523	12.7-.50	-8	MH	7/8-14	-10	56.0-2.20	29.9-1.18
149-8524	12.7-.50	-8	MH	1 1/16-12	-12	56.0-2.20	29.5-1.16
220-5130	15.9-.63	-10	MH	3/4-16	-8	54.0-2.13	24.0-.94

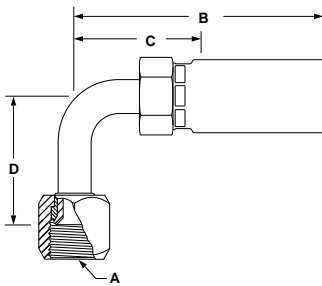
# Permanent Couplings (743)

## JIC 37° Female Swivel-45° Elbow



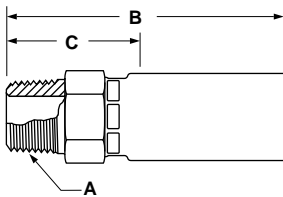
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
149-8528	6.4-.25	-4	MH	7/16-20	-4	52.0-2.05	28.0-1.10	8.0-.31
149-8533	12.7-.50	-8	MH	3/4-16	-8	70.0-2.76	43.5-1.71	14.0-.55
149-8538	12.7-.50	-8	MH	3/4-16	-8	73.0-2.87	46.6-1.83	18.0-.71

## JIC 37° Female Swivel-90° Elbow



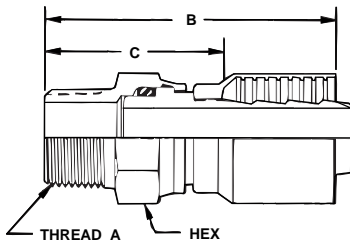
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
149-8541	6.4-.25	-4	MH	7/16-20	-4	46.0-1.81	26.0-1.02	18.0-.71
149-8591	9.5-.37	-6	MH	9/16-18	-6	77.0-3.03	51.0-2.01	22.0-.87
149-8544	9.5-.37	-6	MH	9/16-18	-6	62.0-2.44	33.0-1.30	28.0-1.10
149-8592	12.7-.50	-8	MH	3/4-16	-8	65.0-2.56	39.0-1.54	28.0-1.10
149-8546	12.7-.50	-8	MH	3/4-16	-8	65.0-2.56	39.1-1.54	35.0-1.38
149-8554	12.7-.50	-8	MH	3/4-16	-8	65.0-2.56	39.1-1.54	64.0-2.52

## NPTF Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-3846	4.8-.19	-3	JN	1/8-27	-2	39.0-1.54	20.7-.81
267-4660	4.8-.19	-3	JN	3/8-18	-6	45.0-1.77	28.0-1.10
149-8562	6.4-.25	-4	MH	1/8-27	-2	44.0-1.73	20.4-.80
149-8567	9.5-.37	-6	MH	1/4-18	-4	55.0-2.17	28.6-1.13
149-8568	9.5-.37	-6	MH	3/8-18	-6	55.0-2.17	29.0-1.14
149-8569	9.5-.37	-6	MH	1/2-14	-8	60.0-2.36	34.0-1.34
149-8571	12.7-.50	-8	MH	1/2-14	-8	62.0-2.44	31.4-1.24

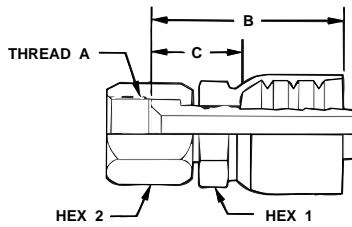
## NPTF Male Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-4658	4.8-.19	-3	JN	1/8-27	-2	53.0-2.09	36.0-1.42
220-5070	6.4-.25	-4	MH	1/8-27	-2	59.0-2.32	35.0-1.38
149-8574	6.4-.25	-4	MH	1/4-18	-4	60.0-2.36	39.1-1.54
220-5076	12.7-.50	-8	MH	1/2-14	-8	78.0-3.07	49.0-1.93

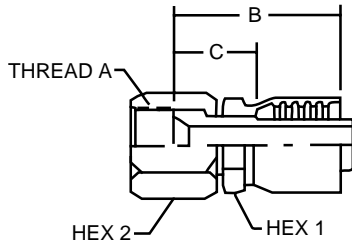
# Permanent Couplings (743)

## SAE 45° Female Swivel-Str



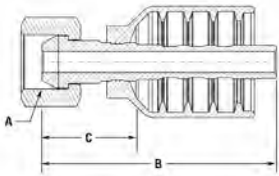
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
307-8246	4.8-.19	-3	JN	3/8-24	-3	34.0-1.34	17.0-.67
149-8576	9.5-.37	-6	MH	5/8-18	-6	46.0-1.81	20.0-.79

## JIS 30° Flare Female Swivel-Str



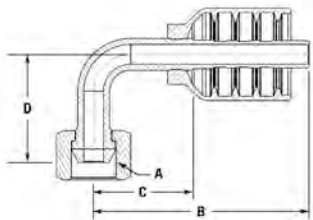
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
154-0102	6.4-.25	-4	MN	1/4-19	-4	44.0-1.73	22.6-.89
154-0103	9.5-.37	-6	MN	3/8-19	-6	46.0-1.81	20.0-.79
154-0104	12.7-.50	-8	MN	1/2-14	-8	53.0-2.09	28.0-1.10
519-4006	19.1-.75	-12	MN	3/4-14	-12	56.0-2.20	25.0-0.98
154-0105	19.1-.75	-12	MN	3/4-14	-12	60.0-2.36	29.5-1.16
581-3126	25.4-1.00	-16	MN	1-11	-16	79.0-3.11	36.0-1.42

## JIS 30° Conical Seat-Female Swivel-Str



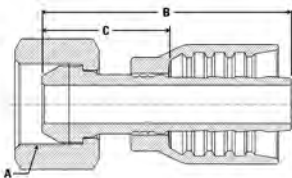
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
255-4879	19.1-.75	-12	MH	3/4-14	-12	60.96-2.4	29.97-1.18

## JIS 30° Conical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
255-4880	19.1-.75	-12	MH	3/4-16	-8	83.57-3.29	52.35-2.06	50.04-1.97

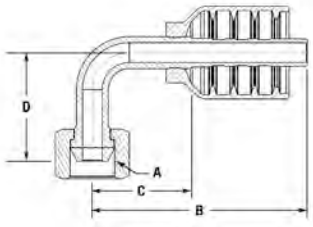
## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
555-5302	12.7-.50	-8	MH	1/2-14	-8	59.3-2.33	30.4-1.20
555-5304	19.1-.75	-12	MH	3/4-14	-12	70.4-2.77	34.9-1.37

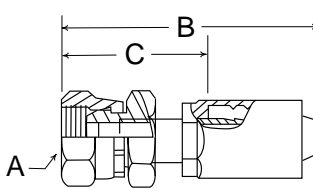
# Permanent Couplings (743)

## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



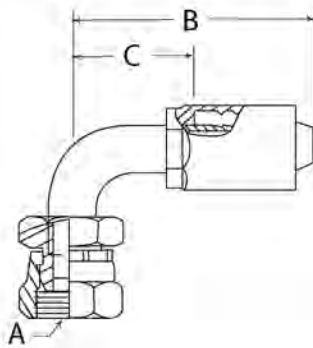
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
555-5303	12.7-.50	-8	MH	1/2-14	-8	68.1-2.68	39.1-1.54	37.6-1.48
555-5305	19.1-.75	-12	MH	3/4-14	-12	87.6-3.45	52.1-2.05	58.0-2.28

## BSPP Spherical Seat-Female Swivel-Str



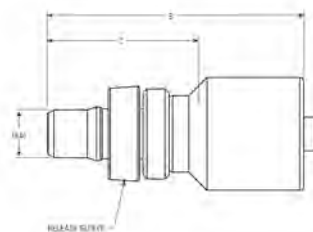
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
149-8581	12.7-.50	-8	MH	1/2-14	-8	56.29-2.22	30.35-1.19
149-8583	19.1-.75	-12	MH	3/4-14	-12	61.0-2.40	29.7-1.17

## BSPP Spherical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
220-5320	6.4-.25	-4	MH	1/4-19	-4	49.3-1.94	25.2-0.99	30.2-1.19
220-5321	9.5-.37	-6	MH	3/8-19	-6	61.7-2.43	32.7-1.29	37.1-1.46
220-5322	12.7-.50	-8	MH	1/2-14	-8	68.1-2.68	39.1-1.54	37.6-1.48
220-5323	19.1-.75	-12	MH	3/4-14	-12	87.6-3.45	52.3-2.06	58.9-2.32

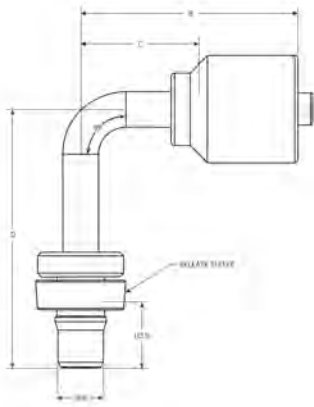
## Snap To Connect-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
263-2664	6.4-.25	-4	MH	6.0-.24	51.0-2.01	30.0-1.18

# Permanent Couplings (743)

## Snap To Connect-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
263-2678	6.4-.25	-4	MH	6.0-.24	46.0-1.81	25.2-.99	40.0-1.57
263-2685	6.4-.25	-4	MH	6.0-.24	46.0-1.81	25.2-.99	55.0-2.17

# Medium Pressure High Temperature Teflon Lined Hose (2771A)

## Medium Pressure High Temperature Teflon Lined Hose (2771A)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7079	6.4 - .25	9.5 - .37	-4	JN	42.0 - 6092	10.5 - 1523	75 - 2.95
541-7080	7.9 - .31	11.0 - .43	-5	JN	42.0 - 6092	10.5 - 1523	100 - 3.94
541-7081	9.5 - .37	12.8 - .50	-6	JN	42.0 - 6092	10.5 - 1523	125 - 4.92
541-7082	12.7 - .50	16.0 - .63	-8	JN	28.0 - 4061	7.0 - 1015	165 - 6.50
541-7083	15.9 - .63	19.3 - .76	-10	JN	22.4 - 3249	5.6 - 812	200 - 7.87
541-7084	19.1 - .75	22.3 - .88	-12	JN	22.4 - 3249	5.6 - 812	230 - 9.06

**Construction:** A general purpose, high temperature medium pressure hose with a PTFE inner tube and one braid of stainless steel wire reinforcement outer cover.

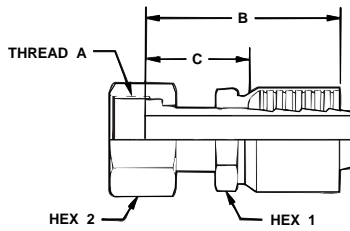
**Temperature Range:** -65 to +450° F (-54 to 232°C) continuously, and intermittently from -100 to 500° F (-73 to 260°C).

**Couplings:** Crimp-on permanent, non-skive type, JN Series coupling. See Permanent Couplings (2771A) section.

**Note:** Hose cover does not need to be removed before attaching couplings

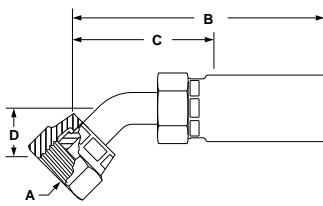
# Permanent Couplings (2771A)

## ORFS Female Swivel-Str



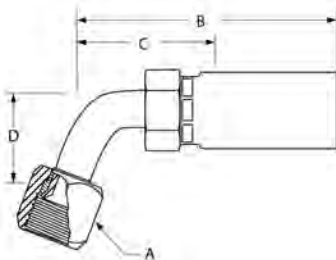
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
273-1716	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	25.0-.98	4J-5477
146-3338	6.4-.25	-4	JN	9/16-18	-4	44.0-1.73	25.0-.98	4J-5477
146-3350	6.4-.25	-4	JN	11/16-16	-6	44.0-1.73	27.0-1.06	6V-8397
146-3339	7.9-.31	-5	JN	11/16-16	-6	46.0-1.81	26.0-1.02	6V-8397
146-3340	9.5-.37	-6	JN	11/16-16	-6	58.0-2.28	31.0-1.22	6V-8397
146-3341	12.7-.50	-8	JN	11/16-16	-6	56.0-2.20	35.0-1.38	6V-8397
146-3342	12.7-.50	-8	JN	13/16-16	-8	58.0-2.28	37.0-1.46	6V-8398
307-8260	15.9-.63	-10	JN	1-14	-10	56.0-2.20	34.3-1.35	7J-9108
307-8261	15.9-.63	-10	JN	1 3/16-12	-12	58.0-2.28	37.0-1.46	6V-9746
307-8262	19.1-.75	-12	JN	1 3/16-12	-12	61.0-2.40	37.3-1.47	6V-9746
277-2091	19.1-.75	-12	JN	1 7/16-12	-16	62.0-2.44	38.0-1.50	5K-9090

## ORFS Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
307-8263	4.8-.19	-3	JN	9/16-18	-4	48.0-1.89	31.2-1.23	10.4-.41	4J-5477
146-3343	6.4-.25	-4	JN	9/16-18	-4	50.0-1.97	31.0-1.22	10.0-.39	4J-5477
146-3446	6.4-.25	-4	JN	11/16-16	-6	48.0-1.89	30.8-1.21	10.4-.41	6V-8397
146-3344	7.9-.31	-5	JN	11/16-16	-6	53.0-2.09	33.0-1.30	11.0-.43	6V-8397
146-3345	9.5-.37	-6	JN	11/16-16	-6	63.0-2.48	36.0-1.42	11.0-.43	6V-8397
146-3397	9.5-.37	-6	JN	11/16-16	-6	70.0-2.76	43.0-1.69	18.0-.71	6V-8397
307-8264	12.7-.50	-8	JN	11/16-16	-6	58.0-2.28	37.6-1.48	10.9-.43	6V-8397
146-3346	12.7-.50	-8	JN	13/16-16	-8	65.0-2.56	44.0-1.73	15.0-.59	6V-8398
146-3347	12.7-.50	-8	JN	13/16-16	-8	73.0-2.87	52.0-2.05	23.0-.91	6V-8398
307-8266	15.9-.63	-10	JN	1-14	-10	72.0-2.83	51.1-2.01	16.5-.65	7J-9108
307-8267	15.9-.63	-10	JN	1 3/16-12	-12	77.0-3.03	55.6-2.19	21.1-.83	6V-9746
307-8268	19.1-.75	-12	JN	1 3/16-12	-12	80.0-3.15	56.0-2.20	21.1-.83	6V-9746

## ORFS Female Swivel-65° Elbow

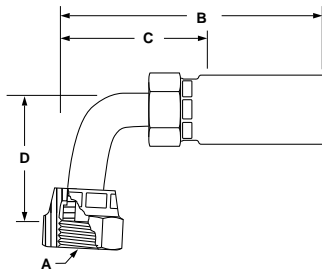


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
146-3348	9.5-.37	-6	JN	11/16-16	-6	83.0-3.27	56.0-2.20	61.0-2.40	6V-8397



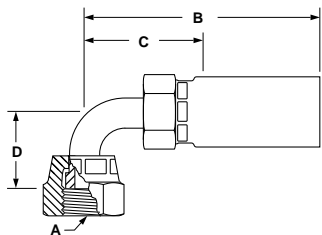
# Permanent Couplings (2771A)

## ORFS Female Swivel-80° Elbow



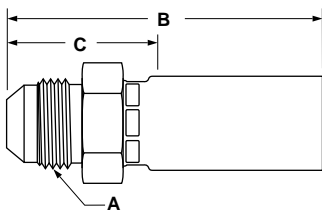
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
146-3351	9.5-.37	-6	JN	11/16-16	-6	64.0-2.52	37.0-1.46	35.0-1.38	6V-8397
146-3352	9.5-.37	-6	JN	11/16-16	-6	68.0-2.68	41.0-1.61	59.0-2.32	6V-8397

## ORFS Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
146-3353	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	27.0-1.06	20.0-.79	4J-5477
146-3360	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	27.0-1.06	32.0-1.26	4J-5477
146-3364	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	27.0-1.06	46.0-1.81	4J-5477
146-3354	6.4-.25	-4	JN	11/16-16	-6	43.0-1.69	26.7-1.05	22.9-.90	6V-8397
146-3355	7.9-.31	-5	JN	11/16-16	-6	49.0-1.93	29.0-1.14	23.0-.91	6V-8397
146-3356	7.9-.31	-5	JN	11/16-16	-6	49.0-1.93	29.0-1.14	29.0-1.14	6V-8397
146-3357	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	23.0-.91	6V-8397
146-3358	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	31.0-1.22	6V-8397
146-3361	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	38.0-1.50	6V-8397
146-3365	9.5-.37	-6	JN	11/16-16	-6	60.0-2.36	33.0-1.30	54.0-2.13	6V-8397
146-3359	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	29.0-1.14	6V-8398
146-3363	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	35.0-1.38	6V-8398
146-3362	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	41.0-1.61	6V-8398
146-3366	12.7-.50	-8	JN	13/16-16	-8	59.0-2.32	38.0-1.50	64.0-2.52	6V-8398
307-8271	15.9-.63	-10	JN	1-14	-10	67.0-2.64	46.0-1.81	32.0-1.26	7J-9108
307-8272	15.9-.63	-10	JN	1 3/16-12	-12	67.0-2.64	45.7-1.80	32.3-1.27	6V-9746
307-8273	19.1-.75	-12	JN	1 3/16-12	-12	74.0-2.91	49.8-1.96	47.8-1.88	6V-9746
307-8274	19.1-.75	-12	JN	1 3/16-12	-12	74.0-2.91	49.8-1.96	96.0-3.78	6V-9746
293-2193	19.1-.75	-12	JN	1 7/16-12	-16	74.0-2.91	49.8-1.96	56.1-2.21	5K-9090

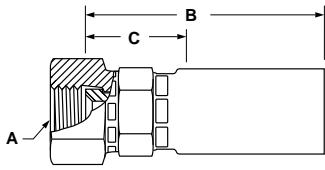
## JIC 37° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3400	6.4-.25	-4	JN	7/16-20	-4	44.0-1.73	27.0-1.06
146-3402	9.5-.37	-6	JN	9/16-18	-6	56.0-2.20	29.0-1.14

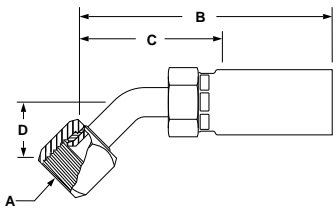
# Permanent Couplings (2771A)

## JIC 37° Female Swivel-Str



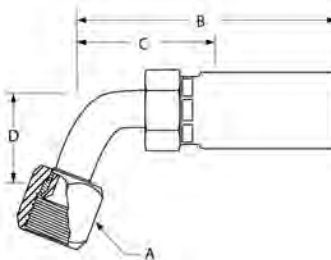
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3367	6.4-.25	-4	JN	7/16-20	-4	36.0-1.42	17.0-.67
253-1371	6.4-.25	-4	JN	9/16-18	-6	37.0-1.46	20.0-.79
146-3447	7.9-.31	-5	JN	9/16-18	-6	40.0-1.57	18.1-.71
146-3368	9.5-.37	-6	JN	9/16-18	-6	51.0-2.01	24.0-.94
329-7308	9.5-.37	-6	JN	3/4-16	-8	51.0-2.01	24.0-.94
146-3369	12.7-.50	-8	JN	3/4-16	-8	48.0-1.89	26.0-1.02
146-3449	12.7-.50	-8	JN	7/8-14	-10	49.0-1.93	28.0-1.10

## JIC 37° Female Swivel-45° Elbow



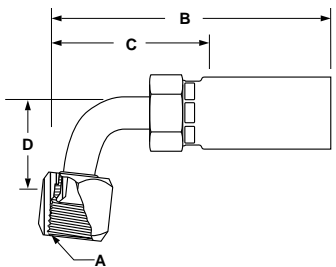
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3370	6.4-.25	-4	JN	7/16-20	-4	46.0-1.81	28.8-1.13	8.4-.33
146-3372	9.5-.37	-6	JN	9/16-18	-6	62.0-2.44	35.0-1.38	10.0-.39
146-3374	9.5-.37	-6	JN	9/16-18	-6	70.0-2.76	43.0-1.69	18.0-.71
146-3373	12.7-.50	-8	JN	3/4-16	-8	64.0-2.52	43.2-1.70	14.0-.55
146-3376	12.7-.50	-8	JN	3/4-16	-8	73.0-2.87	52.0-2.05	23.0-.91
146-3450	12.7-.50	-8	JN	7/8-14	-10	66.0-2.60	45.2-1.78	16.3-.64

## JIC 37° Female Swivel-65° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3377	9.5-.37	-6	JN	9/16-18	-6	82.0-3.23	54.0-2.13	57.0-2.24
146-3378	9.5-.37	-6	JN	9/16-18	-6	85.0-3.35	58.0-2.28	65.0-2.56

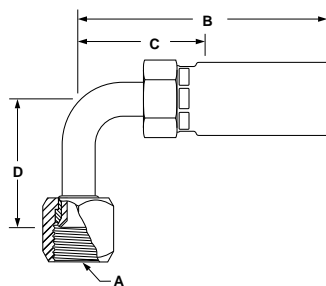
## JIC 37° Female Swivel-80° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3380	9.5-.37	-6	JN	9/16-18	-6	64.0-2.52	37.0-1.46	35.0-1.38
146-3381	9.5-.37	-6	JN	9/16-18	-6	68.0-2.68	41.0-1.61	59.0-2.32

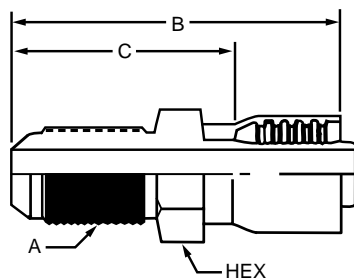
# Permanent Couplings (2771A)

## JIC 37° Female Swivel-90° Elbow



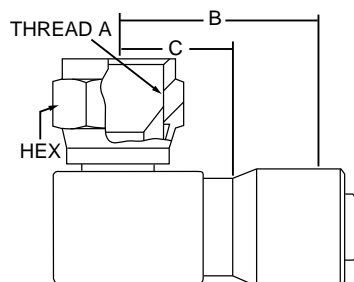
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3382	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	18.0-.71
146-3379	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	27.0-1.06
146-3418	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	50.0-1.97
146-3392	6.4-.25	-4	JN	7/16-20	-4	43.0-1.69	27.0-1.06	63.0-2.48
146-3383	7.9-.31	-5	JN	9/16-18	-6	49.0-1.93	28.5-1.12	21.8-.86
146-3384	9.5-.37	-6	JN	9/16-18	-6	60.0-2.36	33.0-1.30	22.0-.87
146-3387	9.5-.37	-6	JN	9/16-18	-6	60.0-2.36	33.0-1.30	28.0-1.10
146-3393	9.5-.37	-6	JN	9/16-18	-6	60.0-2.36	33.0-1.30	56.0-2.20
146-3388	9.5-.37	-6	JN	3/4-16	-8	60.0-2.36	33.0-1.30	35.0-1.38
146-3394	9.5-.37	-6	JN	3/4-16	-8	60.0-2.36	33.0-1.30	64.0-2.52
146-3385	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.0-1.50	28.0-1.10
146-3389	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.4-1.51	35.1-1.38
146-3398	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.0-1.50	46.0-1.81
146-3395	12.7-.50	-8	JN	3/4-16	-8	59.0-2.32	38.0-1.50	64.0-2.52
146-3390	12.7-.50	-8	JN	7/8-14	-10	59.0-2.32	38.4-1.51	44.5-1.75
146-3396	12.7-.50	-8	JN	7/8-14	-10	59.0-2.32	38.4-1.51	77.7-3.06

## JIC 37° Male Bulkhead-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3445	6.4-.25	-4	JN	7/16-20	-4	60.0-2.36	43.0-1.69
146-3444	9.5-.37	-6	JN	9/16-18	-6	77.0-3.03	50.0-1.97

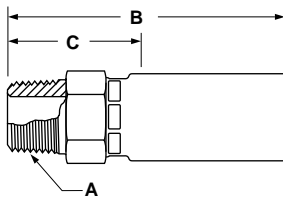
## JIC 37° Female Swivel Block-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3399	12.7-.50	-8	JN	3/4-16	-8	44.0-1.73	23.0-.91	22.0-.87

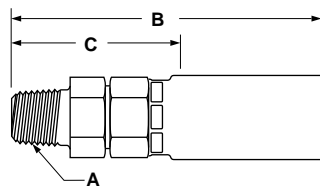
# Permanent Couplings (2771A)

## NPTF Male-Str



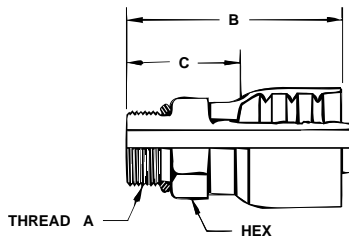
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-3846	4.8-.19	-3	JN	1/8-27	-2	39-1.54	21-0.83
267-4660	4.8-.19	-3	JN	3/8-18	-6	45-1.77	28-1.10
146-3404	6.4-.25	-4	JN	1/8-27	-2	38.0-1.50	22.0-.87
146-3405	6.4-.25	-4	JN	1/4-18	-4	45.0-1.77	29.0-1.14
146-3406	6.4-.25	-4	JN	3/8-18	-6	45.0-1.77	28.0-1.10
146-3408	9.5-.37	-6	JN	1/4-18	-4	56.0-2.20	28.0-1.10
146-3409	9.5-.37	-6	JN	3/8-18	-6	56.0-2.20	29.0-1.14
146-3410	9.5-.37	-6	JN	1/2-14	-8	61.0-2.40	34.0-1.34
146-3411	12.7-.50	-8	JN	1/2-14	-8	56.0-2.20	35.0-1.38

## NPTF Male Swivel-Str



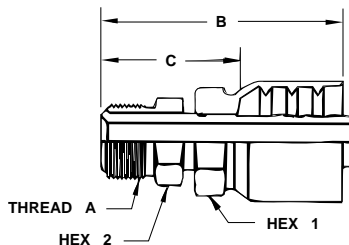
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-4658	4.8-.19	-3	JN	1/8-27	-2	53.0-2.09	36.0 - 1.42
479-4159	4.8-.19	-3	56	1/4-18	-4	66.0-2.60	48.0-1.89
178-9166	6.4-.25	-4	JN	1/8-27	-2	53.0-2.09	36.2-1.43
146-3412	6.4-.25	-4	JN	1/4-18	-4	58.0-2.28	41.0-1.61
146-3413	9.5-.37	-6	JN	1/4-18	-4	69.0-2.72	41.0-1.61
146-3414	9.5-.37	-6	JN	3/8-18	-6	69.0-2.72	41.0-1.61
146-3415	9.5-.37	-6	JN	1/2-14	-8	76.0-2.99	49.0-1.93
146-3416	12.7-.50	-8	JN	3/8-18	-6	63.0-2.48	42.0-1.65
146-3417	12.7-.50	-8	JN	1/2-14	-8	71.0-2.80	49.0-1.93

## STOR Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
146-3419	6.4-.25	-4	JN	7/16-20	-4	39.0-1.54	22.1-.87	3J-7354

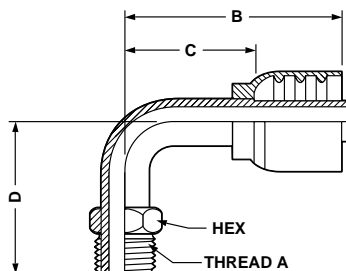
## SAE 45° Inverted Flare Male Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3430	9.5-.37	-6	JN	5/8-18	-6	57.0-2.24	30.0-1.18
146-3431	12.7-.50	-8	JN	3/4-18	-8	58.0-2.28	37.0-1.46

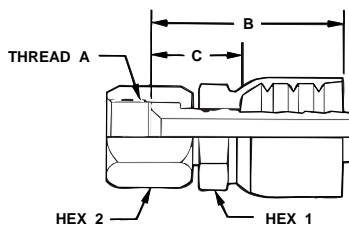
# Permanent Couplings (2771A)

## SAE 45° Inverted Flare Male Swivel-90° Elbow



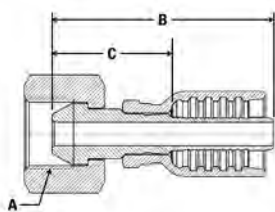
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3435	12.7-.50	-8	JN	3/4-18	-8	59.0-2.32	38.4-1.51	46.0-1.81

## SAE 45° Female Swivel-Str



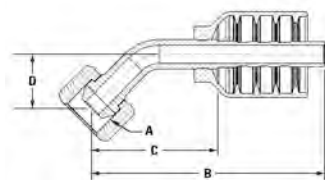
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
307-8246	4.8-.19	-3	JN	3/8-24	-3	34.0-1.34	17.0-.67

## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



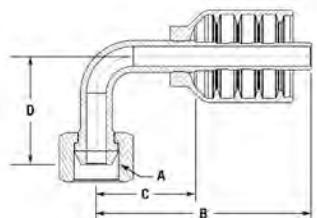
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
557-5997	6.4-.25	-4	JN	1/4-19	-4	41.2-1.62	22.3-0.88
557-5332	7.9-.31	-5	JN	3/8-19	-6	42.4-1.67	20.9-0.82
557-5334	9.5-.37	-6	JN	3/8-19	-6	52.6-2.07	23.4-0.92
557-9040	12.7-.50	-8	JN	1/2-14	-8	51.9-2.04	27.9-1.10

## ISO 8434-6 BSPP Conical Seat-Female Swivel-45° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
557-5999	6.4-.25	-4	JN	1/4-19	-4	56.38-2.22	37.6-1.48	17.5-0.69
557-9041	12.7-.50	-8	JN	1/4-19	-8	73.15-2.88	49.14-1.93	20.1-0.79

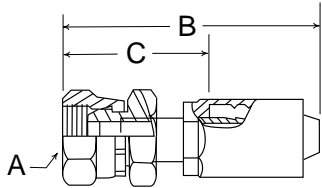
## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
557-6001	6.4-.25	-4	JN	1/4-19	-4	44.7-1.76	25.9-1.02	30.23-1.19
557-5336	9.5-.37	-6	JN	3/8-19	-6	61.7-2.43	32.3-1.27	37.08-1.46
557-9042	12.7-.50	-8	JN	1/2-14	-8	62.2-2.45	38.19-1.50	37.6-1.48

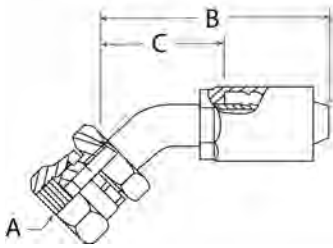
# Permanent Couplings (2771A)

## BSPP Spherical Seat-Female Swivel-Str



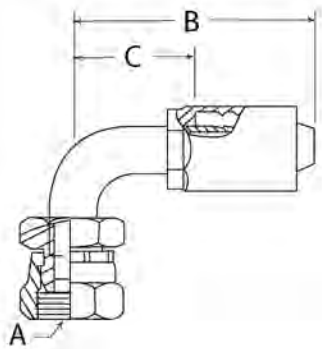
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
146-3436	6.4-.25	-4	JN	1/4-19	-4	39.62-1.56	22.27-0.88
146-3437	7.9-.31	-5	JN	3/8-19	-6	40.9-1.61	21.0-0.83
146-3438	9.5-.37	-6	JN	3/8-19	-6	56.6-2.23	29.5-1.16
146-3439	12.7-.50	-8	JN	1/2-14	-8	48.8-1.92	27.9-1.10

## BSPP Spherical Seat-Female Swivel-45° Elbow



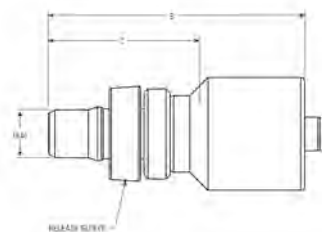
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3440	6.4-.25	-4	JN	1/4-19	-4	55.0-2.17	37.7-1.48	17.5-.69
146-3441	12.7-.50	-8	JN	1/2-14	-8	69.9-2.75	48.8-1.92	20.1-0.79

## BSPP Spherical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
146-3442	6.4-.25	-4	JN	1/4-19	-4	43.2-1.70	28.7-1.13	30.2-1.19
146-3443	12.7-.50	-8	JN	1/2-14	-8	38.1-1.5	38.1-1.5	37.6-1.48

## Snap To Connect-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
263-2605	6.4-.25	-4	JN	6.0-.24	48.0-1.89	30.9-1.22

# Pilot Hose (2929) and Couplings

## Pilot Hose (2929)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8514	4.8 - .19	11.0 - .43	-3	MH	41.6 - 6034	10.4 - 1508	30 - 1.18
456-8515	6.4 - .25	12.0 - .47	-4	MH	41.6 - 6034	10.4 - 1508	30 - 1.18
456-8516	9.5 - .37	15.3 - .60	-6	MH	41.6 - 6034	10.4 - 1508	50 - 1.97
456-8517	12.7 - .50	18.5 - .73	-8	MH	41.6 - 6034	10.4 - 1508	60 - 2.36

**Construction:** Synthetic rubber inner tube resistant to hydraulic fluids with wire reinforcement. An oil, weather, and abrasion resistant outer cover meeting MSHA requirements.

**Application:** Medium pressure use with petroleum -40° F to +250° F (-40° C to +121° C) or up to +158° F (+70° C) with water based fluids.

**Couplings:** Crimp-on permanent, non-skive type, MH Series coupling. See Permanent Couplings (2929) section.

**Note:** Hose cover does not need to be removed before attaching couplings. Required Cutting

## Pilot Hose ToughGuard (2929TG)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	COUPLING SERIES	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7076	6.4 - 0.25	11.5 - 0.45	-4	MH	41.6 - 6034	10.4 - 1508	30 - 1.18
541-7077	9.5 - 0.37	14.8 - 0.58	-6	MH	41.6 - 6034	10.4 - 1508	50 - 1.97
541-7078	12.7 - 0.50	18.0 - 0.71	-8	MH	41.6 - 6034	10.4 - 1508	60 - 2.36

**Construction:** Synthetic rubber tube; steel wire reinforcement. Oil and weather resistant synthetic rubber cover with special outer high abrasion resistant ToughGuard film.

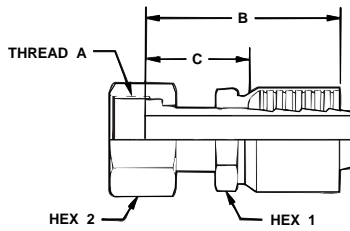
**Application:** Medium pressure service with petroleum based hydraulic fluids, lubricating oils, grease, water and water-glycol based fluids, and air. MSHA approved cover.

**Temperature Range:** -40° F to +250° F (-40° C to +121° C) for petroleum based fluids. +158° F Max (+70° C Max) for water based fluids and air.

**Couplings:** Crimp-on permanent, non-skive type, MH Series coupling. See Permanent Couplings (2929) section.

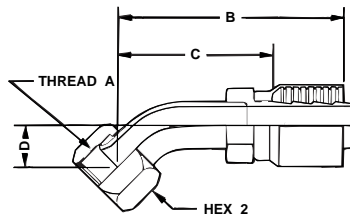
# Permanent Couplings (2929)

## ORFS Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	O-RING SEAL
307-8256	4.8-.19	-3	MH	11/16-16	-6	46.0-1.81	27.5-1.08	6V-8397
273-1716	6.4-.25	-4	JN	9/16-18	-4	43.0-1.69	25.0-.98	4J-5477
149-8471	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.4-1.00	4J-5477
149-8472	6.4-.25	-4	MH	11/16-16	-6	49.0-1.93	27.5-1.08	6V-8397
197-5817	9.5-.37	-6	MH	9/16-18	-4	51.0-2.01	25.0-.98	4J-5477
149-8474	9.5-.37	-6	MH	11/16-16	-6	57.0-2.24	30.5-1.20	6V-8397
149-8475	9.5-.37	-6	MH	13/16-16	-8	56.0-2.20	30.0-1.18	6V-8398
149-8476	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	6V-8398
149-8477	12.7-.50	-8	MH	1-14	-10	68.0-2.68	41.6-1.64	7J-9108
220-5333	15.9-.63	-10	MH	1-14	-10	70.0-2.76	43.5-1.71	7J-9108
149-8478	19.1-.75	-12	MH	1 3/16-12	-12	75.0-2.95	40.0-1.57	6V-9746

## ORFS Female Swivel-45° Elbow

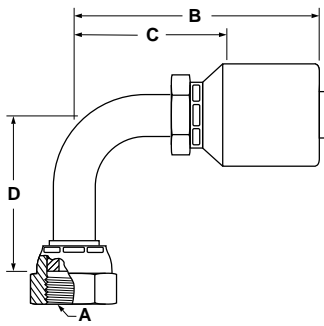


Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
149-8480	6.4-.25	-4	MH	9/16-18	-4	51.0-2.01	30.0-1.18	10.0-.39	4J-5477
149-8481	6.4-.25	-4	MH	11/16-16	-6	55.0-2.17	31.0-1.22	11.0-.43	6V-8397
149-8483	9.5-.37	-6	MH	11/16-16	-6	62.0-2.44	36.0-1.42	11.0-.43	6V-8397
256-2464	9.5-.37	-6	MH	11/16-16	-6	69.0-2.72	43.0-1.69	18.0-.71	6V-8397
253-1382	9.5-.37	-6	MH	11/16-16	-6	86.0-3.39	60.0-2.36	35.0-1.38	6V-8397
256-2465	9.5-.37	-6	MH	11/16-16	-6	101.0-3.98	75.0-2.95	50.0-1.97	6V-8397
149-8484	9.5-.37	-6	MH	13/16-16	-8	69.0-2.72	40.0-1.57	15.0-.59	6V-8398
149-8485	12.7-.50	-8	MH	13/16-16	-8	71.0-2.80	44.5-1.75	15.0-.59	6V-8398
149-8486	12.7-.50	-8	MH	1-14	-10	72.0-2.83	46.0-1.81	17.0-.67	7J-9108
220-5351	12.7-.50	-8	MH	1 3/16-12	-12	77.0-3.03	51.0-2.01	21.0-.83	6V-9746
220-5352	15.9-.63	-10	MH	1-14	-10	82.0-3.23	52.0-2.05	17.0-.67	7J-9108
149-8487	19.1-.75	-12	MH	1 3/16-12	-12	90.0-3.54	59.0-2.32	21.0-.83	6V-9746
220-5354	25.4-1.00	-16	MH	1 7/16-12	-16	111.0-4.37	71.9-2.83	24.0-.94	5K-9090



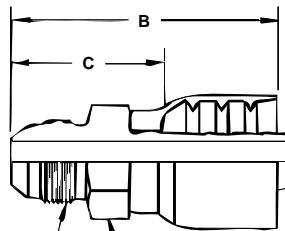
# Permanent Couplings (2929)

## ORFS Female Swivel-90° Elbow



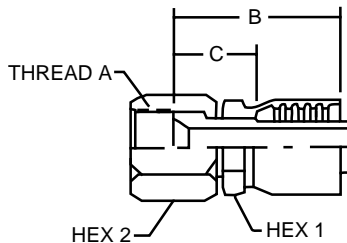
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)	O-RING SEAL
149-8489	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.2-.99	20.0-.79	4J-5477
149-8498	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.2-.99	32.0-1.26	4J-5477
149-8505	6.4-.25	-4	MH	9/16-18	-4	46.0-1.81	25.2-.99	46.0-1.81	4J-5477
149-8490	6.4-.25	-4	MH	11/16-16	-6	46.0-1.81	25.2-.99	23.0-.91	6V-8397
149-8492	9.5-.37	-6	MH	9/16-18	-4	59.0-2.32	30.0-1.18	20.0-.79	4J-5477
149-8493	9.5-.37	-6	MH	11/16-16	-6	59.0-2.32	32.6-1.28	23.0-.91	6V-8397
149-8501	9.5-.37	-6	MH	11/16-16	-6	59.0-2.32	32.6-1.28	38.0-1.50	6V-8397
149-8507	9.5-.37	-6	MH	11/16-16	-6	59.0-2.32	32.6-1.28	54.0-2.13	6V-8397
149-8494	9.5-.37	-6	MH	13/16-16	-8	61.0-2.40	33.0-1.30	29.2-1.15	6V-8398
220-5356	12.7-.50	-8	MH	11/16-16	-6	60.0-2.36	34.5-1.36	23.0-.91	6V-8397
149-8495	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	29.0-1.14	6V-8398
149-8502	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	41.0-1.61	6V-8398
149-8503	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.0-1.54	44.9-1.77	6V-8398
149-8510	12.7-.50	-8	MH	13/16-16	-8	65.0-2.56	39.1-1.54	64.0-2.52	6V-8398
149-8496	12.7-.50	-8	MH	1-14	-10	65.0-2.56	39.1-1.54	32.0-1.26	7J-9108
149-8511	12.7-.50	-8	MH	1-14	-10	65.0-2.56	39.1-1.54	70.0-2.76	7J-9108
220-5358	15.9-.63	-10	MH	1-14	-10	74.0-2.91	46.6-1.83	32.0-1.26	7J-9108
149-8497	19.1-.75	-12	MH	1 3/16-12	-12	84.0-3.31	52.0-2.05	48.0-1.89	6V-9746
149-8504	19.1-.75	-12	MH	1 3/16-12	-12	84.0-3.31	52.0-2.05	58.0-2.28	6V-9746
149-8512	19.1-.75	-12	MH	1 3/16-12	-12	84.0-3.31	52.0-2.05	96.0-3.78	6V-9746
220-5366	25.4-1.00	-16	MH	1 7/16-12	-16	109.0-4.29	70.0-2.76	71.0-2.80	5K-9090

## JIC 37° Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
149-8556	9.5-.37	-6	MH	9/16-18	-6	56.0-2.20	29.0-1.14
149-8557	12.7-.50	-8	MH	3/4-16	-8	61.0-2.40	36.0-1.42

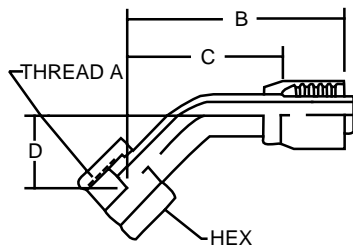
## JIC 37° Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
149-8515	6.4-.25	-4	MH	7/16-20	-4	40.0-1.57	17.0-.67
149-8520	9.5-.37	-6	MH	9/16-18	-6	50.0-1.97	23.8-.94
149-8521	9.5-.37	-6	MH	3/4-16	-8	50.0-1.97	24.3-.96
149-8522	12.7-.50	-8	MH	3/4-16	-8	55.0-2.17	28.6-1.13
149-8523	12.7-.50	-8	MH	7/8-14	-10	56.0-2.20	29.9-1.18
149-8524	12.7-.50	-8	MH	1 1/16-12	-12	56.0-2.20	29.5-1.16
220-5130	15.9-.63	-10	MH	3/4-16	-8	54.0-2.13	24.0-.94

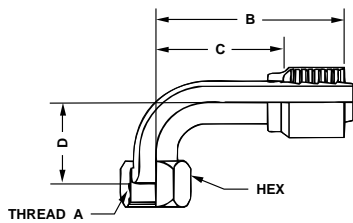
# Permanent Couplings (2929)

## JIC 37° Female Swivel-45° Elbow



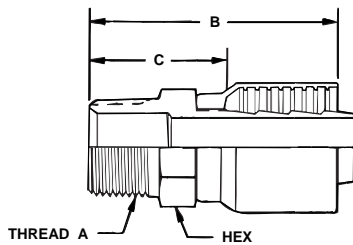
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
149-8528	6.4-.25	-4	MH	7/16-20	-4	52.0-2.05	28.0-1.10	8.0-.31
149-8533	12.7-.50	-8	MH	3/4-16	-8	70.0-2.76	43.5-1.71	14.0-.55
149-8538	12.7-.50	-8	MH	3/4-16	-8	73.0-2.87	46.6-1.83	18.0-.71

## JIC 37° Female Swivel-90° Elbow



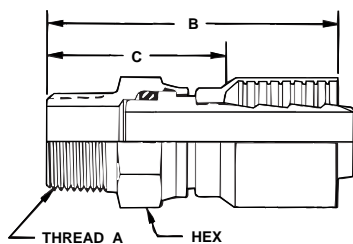
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
149-8541	6.4-.25	-4	MH	7/16-20	-4	46.0-1.81	26.0-1.02	18.0-.71
149-8591	9.5-.37	-6	MH	9/16-18	-6	77.0-3.03	51.0-2.01	22.0-.87
149-8544	9.5-.37	-6	MH	9/16-18	-6	62.0-2.44	33.0-1.30	28.0-1.10
149-8592	12.7-.50	-8	MH	3/4-16	-8	65.0-2.56	39.0-1.54	28.0-1.10
149-8546	12.7-.50	-8	MH	3/4-16	-8	65.0-2.56	39.1-1.54	35.0-1.38
149-8554	12.7-.50	-8	MH	3/4-16	-8	65.0-2.56	39.1-1.54	64.0-2.52

## NPTF Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
267-4660	4.8-.19	-3	JN	3/8-18	-6	45.0-1.77	28.0-1.10
149-8562	6.4-.25	-4	MH	1/8-27	-2	44.0-1.73	20.4-.80
149-8567	9.5-.37	-6	MH	1/4-18	-4	55.0-2.17	28.6-1.13
149-8568	9.5-.37	-6	MH	3/8-18	-6	55.0-2.17	29.0-1.14
149-8569	9.5-.37	-6	MH	1/2-14	-8	60.0-2.36	34.0-1.34
149-8571	12.7-.50	-8	MH	1/2-14	-8	62.0-2.44	31.4-1.24

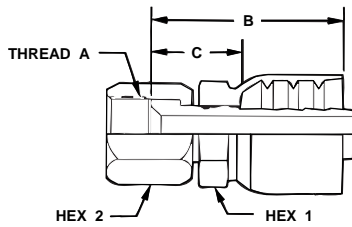
## NPTF Male Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
220-5070	6.4-.25	-4	MH	1/8-27	-2	59.0-2.32	35.0-1.38
149-8574	6.4-.25	-4	MH	1/4-18	-4	60.0-2.36	39.1-1.54
220-5076	12.7-.50	-8	MH	1/2-14	-8	78.0-3.07	49.0-1.93

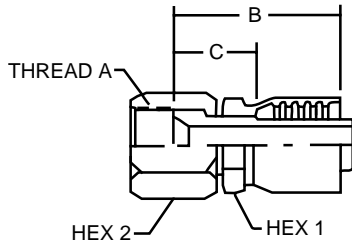
# Permanent Couplings (2929)

## SAE 45° Female Swivel-Str



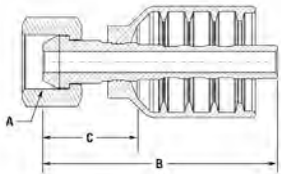
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
149-8576	9.5-.37	-6	MH	5/8-18	-6	46.0-1.81	20.0-.79

## JIS 30° Flare Female Swivel-Str



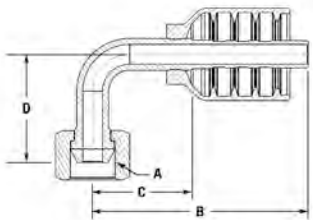
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
154-0102	6.4-.25	-4	MN	1/4-19	-4	44.0-1.73	22.6-.89
154-0103	9.5-.37	-6	MN	3/8-19	-6	46.0-1.81	20.0-.79
154-0104	12.7-.50	-8	MN	1/2-14	-8	53.0-2.09	28.0-1.10
519-4006	19.1-.75	-12	MN	3/4-14	-12	56.0-2.20	25.0-0.98
154-0105	19.1-.75	-12	MN	3/4-14	-12	60.0-2.36	29.5-1.16
581-3126	25.4-1.00	-16	MN	1-11	-16	79.0-3.11	36.0-1.42

## JIS 30° Conical Seat-Female Swivel-Str



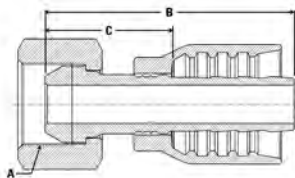
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
255-4879	19.1-.75	-12	MH	3/4-14	-12	60.96-2.4	29.97-1.18

## JIS 30° Conical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
255-4880	19.1-.75	-12	MH	3/4-16	-8	83.57-3.29	52.35-2.06	50.04-1.97

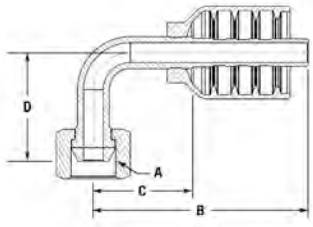
## ISO 8434-6 BSPP Conical Seat-Female Swivel-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
555-5302	12.7-.50	-8	MH	1/2-14	-8	59.3-2.33	30.4-1.20
555-5304	19.1-.75	-12	MH	3/4-14	-12	70.4-2.77	34.9-1.37

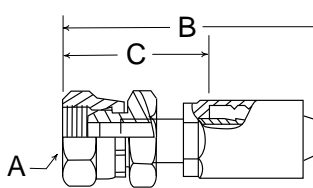
# Permanent Couplings (2929)

## ISO 8434-6 BSPP Conical Seat-Female Swivel-90° Elbow



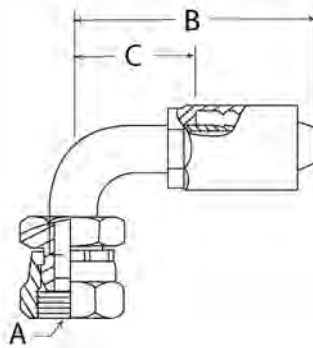
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
555-5303	12.7-.50	-8	MH	1/2-14	-8	68.1-2.68	39.1-1.54	37.6-1.48
555-5305	19.1-.75	-12	MH	3/4-14	-12	87.6-3.45	52.1-2.05	58.0-2.28

## BSPP Spherical Seat-Female Swivel-Str



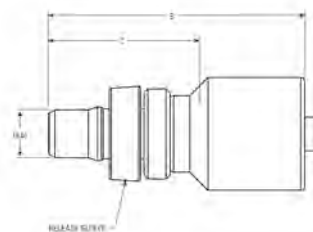
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
149-8581	12.7-.50	-8	MH	1/2-14	-8	56.29-2.22	30.35-1.19
149-8583	19.1-.75	-12	MH	3/4-14	-12	61.0-2.40	29.7-1.17

## BSPP Spherical Seat-Female Swivel-90° Elbow



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
220-5320	6.4-.25	-4	MH	1/4-19	-4	49.3-1.94	25.2-0.99	30.2-1.19
220-5321	9.5-.37	-6	MH	3/8-19	-6	61.7-2.43	32.7-1.29	37.1-1.46
220-5322	12.7-.50	-8	MH	1/2-14	-8	68.1-2.68	39.1-1.54	37.6-1.48
220-5323	19.1-.75	-12	MH	3/4-14	-12	87.6-3.45	52.3-2.06	58.9-2.32

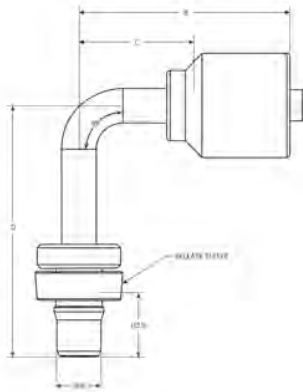
## Snap To Connect-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
263-2664	6.4-.25	-4	MH	6.0-.24	51.0-2.01	30.0-1.18

# Permanent Couplings (2929)

## Snap To Connect-90° Elbow



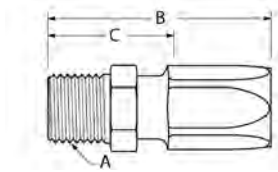
Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	SERIES	HEAD SIZE (mm-in)	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)	D DROP (mm-in)
263-2678	6.4-.25	-4	MH	6.0-.24	46.0-1.81	25.2-.99	40.0-1.57
263-2685	6.4-.25	-4	MH	6.0-.24	46.0-1.81	25.2-.99	55.0-2.17

# Pre-filled Grease Hose

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (kPa - psi)	MAX. WORK PRESS (kPa - psi)
171-9629	3.1 - .12	.0 - .00	-2	0 - 0	0 - 0

**Construction:** Fiber reinforced thermoplastic, medium pressure hose pre-filled with grease. Application: For use in Auto Lube systems.

## NPTF Male-Str



Part Number	HOSE I.D. (mm-in)	HOSE DASH SIZE	A THREAD SIZE	A THREAD DASH SIZE	B LENGTH (mm-in)	C CUT-OFF FACTOR (mm-in)
418-6463	3.1-.12	-2	1/8-27	-2	53.0-2.09	38.0-1.50

## Heater Hose - Standard (515A)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (kPa - psi)	MAX. WORK PRESS (kPa - psi)	MIN. BEND RADIUS (mm - in)
5P-0767	15.9 - .63	23.9 - .94	-10	1750 - 254	437 - 63	130 - 5.12
5P-0765	19.1 - .75	26.9 - 1.06	-12	1400 - 203	350 - 51	145 - 5.71
8I-1362	25.4 - 1.00	33.8 - 1.33	-16	1200 - 174	300 - 44	180 - 7.09

Meets the requirements of SAE J20R3. Note: Sold by the centimeter.  
Operating Temperature Range: -40°C to 125°C (-40°F to 257°F)

## Heater Hose- High Temperature (515B)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
456-8660	15.9 - .63	23.9 - 0.94	-10	1.7 - 249	0.4 - 62	130 - 5.12

Meets the requirements of SAE J20 and SAE J1684. Note: Sold by the centimeter.  
Operating Temperature Range: -40°C to 125°C (-40°F to 257°F)

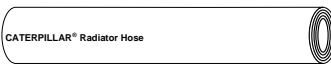
## Heater Hose- High Temperature (515E)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7117	9.5 - .37	17.6 - 0.69	-6	1.7 - 249	0.4 - 62	95 - 3.74
6V-8843	15.9 - .63	22.8 - .90	-10	1750 - 254	441 - 64	130 - 5.12
541-7121	19.1 - .75	27.0 - 1.06	-12	1.4 - 203	0.4 - 51	145 - 5.71

Meets the requirements of SAE 20R3 Silicone. Note: Sold by the centimeter.  
Operating Temperature Range: -55°C to 175°C (-67°F to 347°F)

## Radiator Hose (642C)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (kPa - psi)	MAX. WORK PRESS (kPa - psi)	MIN. BEND RADIUS (mm - in)
371-8094	25.4 - 1.00	39.6 - 1.56	-16	3910 - 567	980 - 142	305 - 12.01
371-8096	28.6 - 1.13	42.8 - 1.69	-18	3780 - 548	945 - 137	330 - 12.99
371-8113	31.8 - 1.25	46.0 - 1.81	-20	3500 - 508	875 - 127	355 - 13.98
371-8115	34.9 - 1.37	49.1 - 1.93	-22	3360 - 487	840 - 122	380 - 14.96
371-8119	38.1 - 1.50	52.3 - 2.06	-24	3150 - 457	784 - 114	405 - 15.94
371-8121	44.5 - 1.75	58.7 - 2.31	-28	2800 - 406	700 - 102	455 - 17.91
371-8122	50.8 - 2.00	65.0 - 2.56	-32	2450 - 355	616 - 89	510 - 20.08
371-8124	57.2 - 2.25	71.4 - 2.81	-36	2450 - 355	616 - 89	710 - 27.95
371-8125	60.3 - 2.37	74.5 - 2.93	-38	2240 - 325	560 - 81	740 - 29.13
371-8946	63.5 - 2.50	77.7 - 3.06	-40	2100 - 305	525 - 76	770 - 30.31
371-8947	69.9 - 2.75	84.1 - 3.31	-44	1680 - 244	420 - 61	830 - 32.68
371-8948	73.0 - 2.87	87.2 - 3.43	-46	1680 - 244	420 - 61	860 - 33.86
371-8949	76.2 - 3.00	90.4 - 3.56	-48	1680 - 244	420 - 61	900 - 35.43
371-8950	88.9 - 3.50	103.1 - 4.06	-56	1400 - 203	350 - 51	1020 - 40.16
371-8951	95.3 - 3.75	109.5 - 4.31	-60	1120 - 162	280 - 41	1090 - 42.91

# Specialty Hose

## Radiator Hose (642C) (Cont'd.)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (kPa - psi)	MAX. WORK PRESS (kPa - psi)	MIN. BEND RADIUS (mm - in)
371-8952	101.6 - 4.00	115.8 - 4.56	-64	1050 - 152	266 - 39	1150 - 45.28
7X-7895	108.0 - 4.25	122.2 - 4.81	-68	840 - 122	210 - 30	0 - .00
371-8953	114.3 - 4.50	140.0 - 5.51	-72	840 - 122	210 - 30	1210 - 47.64
371-8954	127.0 - 5.00	140.0 - 5.51	-80	840 - 122	210 - 30	1280 - 50.39
371-8955	152.4 - 6.00	141.2 - 5.56	-96	700 - 102	175 - 25	1400 - 55.12

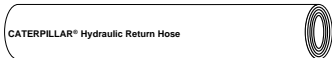
Meets the requirements of SAE J20R1. Note: Sold by the centimeter.  
Operating Temperature Range: -40°C to 100°C (-40°F to 212°F)

## Radiator Hose (642E)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7109	50.8 - 2.00	64.2 - 2.53	-32	2.4 - 348	0.6 - 87	510 - 20.08
541-7110	63.5 - 2.50	76.4 - 3.01	-40	2.1 - 302	0.5 - 75	770 - 30.31
541-7111	76.2 - 3.00	88.1 - 3.47	-48	1.7 - 249	0.4 - 62	900 - 35.43
541-7112	88.9 - 3.50	101.8 - 4.01	-56	1.4 - 203	0.4 - 51	1020 - 40.16
541-7113	101.6 - 4.00	114.5 - 4.51	-64	1.0 - 151	0.3 - 38	1150 - 45.28
541-7114	114.3 - 4.50	126.2 - 4.97	-72	0.8 - 122	0.2 - 30	1280 - 50.39
541-7115	127.0 - 5.00	139.9 - 5.51	-80	0.7 - 104	0.2 - 26	1400 - 55.12
541-7116	139.7 - 5.50	152.6 - 6.01	-88	0.6 - 81	0.1 - 20	1530 - 60.24

Meets the requirements of SAE J20. Note: Sold by the centimeter.  
Operating Temperature Range: -55°C to 175°C (-67°F to 347°F)

## Hydraulic Return Hose (661)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
541-7167	38.1 - 1.50	53.8 - 2.12	-24	5.6 - 812	1.4 - 203	538 - 21.18
541-7168	44.5 - 1.75	60.4 - 2.38	-28	5.6 - 812	1.4 - 203	604 - 23.78
541-7169	50.8 - 2.00	65.0 - 2.56	-32	5.6 - 812	1.4 - 203	650 - 25.59
541-7170	57.2 - 2.25	72.9 - 2.87	-36	4.2 - 609	1.1 - 152	729 - 28.70
541-7171	63.5 - 2.50	79.2 - 3.12	-40	4.2 - 609	1.1 - 152	792 - 31.18
541-7172	88.9 - 3.50	104.6 - 4.12	-56	4.2 - 609	1.1 - 152	1046 - 41.18
103-2544	127.0 - 5.00	144.2 - 5.68	-80	2.8 - 406	0.7 - 102	1442 - 56.77

Meets the requirements of ASTM D380.

**APPLICATION:** Low temperature, straight connections where band clamps are required.

Note: Sold by the centimeter.

Operating Temperature Range: -40°C to 120°C (-40°F to 248°F)



## Air Brake Hose (662)



Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (kPa - psi)	MAX. WORK PRESS (kPa - psi)
5P-0720	6.4 - .25	15.9 - .63	-4	6300 - 914	1400 - 203
371-1253	9.5 - .37	19.1 - .75	-6	6200 - 899	1400 - 203
5P-1300	11.1 - .44	20.6 - .81	-7	6300 - 914	1400 - 203
371-1254	12.7 - .50	22.2 - .87	-8	6200 - 899	1400 - 203

**APPLICATION:** Air only. Approved for use on vehicles by meeting D.O.T. FMVSS 106.

Meets the requirements of SAE J1402. Note: Sold by the centimeter.

Please refer to the -6 and -8 couplings starting on, page 133 and ending on, page 161

Operating Temperature Range: -40°C to 100°C (-40°F to 212°F)

## Hydraulic Suction Hose (844)

Part Number	HOSE I.D. (mm - in)	HOSE O.D. (mm - in)	HOSE DASH SIZE	MIN. BURST PRESS (MPa - psi)	MAX. WORK PRESS (MPa - psi)	MIN. BEND RADIUS (mm - in)
465-6101	127.0 - 5.00	143.0 - 5.63	-80	1.2 - 174	0.3 - 44	460 - 18.11
465-6102	152.4 - 6.00	170.0 - 6.69	-96	1.2 - 174	0.3 - 44	580 - 22.83
465-6103	203.2 - 8.00	223.0 - 8.78	-128	1.2 - 174	0.3 - 44	860 - 33.86

Meets the requirements of SAE J517 and 100R4. Note: Sold by the centimeter.

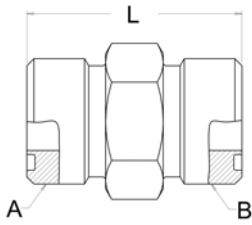
Operating Temperature Range: -40°C to 135°C (-40°F to 275°F)



Straight Adapters.....	222
Elbow Adapters.....	283
Tee Adapters.....	318
Cross Adapters.....	364
Quick Disconnect Hose.....	368
Swivel and Bulkhead Nuts.....	371

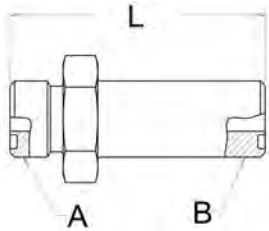
# Straight Adapters

## Male ORFS / Male ORFS



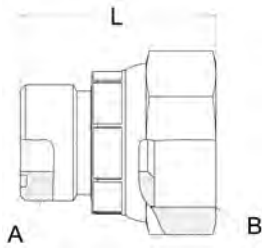
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
337-8781	9/16-18	9/16-18	15.88	27.5	SST
205-5120	13/16-16	9/16-18	22.23	37.5	SST
6V-8729	9/16-18	9/16-18	15.88	27.5	Steel
6V-8736	11/16-16	9/16-18	19.05	30	Steel
6V-8730	11/16-16	11/16-16	19.05	31	Steel
6V-8737	13/16-16	11/16-16	22.22	33.5	Steel
6V-8731	13/16-16	13/16-16	22.22	35.5	Steel
474-2631	13/16-16	13/16-16	22.22	35.5	Steel
8T-5082	13/16-16	1 3/16-12	31.75	43	Steel
6V-8738	1-14	13/16-16	26.99	40	Steel
6V-8732	1-14	1-14	26.99	42.5	Steel
6V-8739	1 3/16-12	1-14	31.75	45.5	Steel
6V-8733	1 3/16-12	1 3/16-12	31.75	47	Steel
6V-8740	1 7/16-12	1 3/16-12	38.1	49	Steel
6V-8734	1 7/16-12	1 7/16-12	38.1	49.5	Steel
6V-8741	1 11/16-12	1 7/16-12	44.45	51.5	Steel
109-5289	1 11/16-12	1 11/16-12	44.45	51.5	Steel
7X-0823	2-12	2-12	53.98	53	Steel

## Male ORFS / Bulkhead Male ORFS



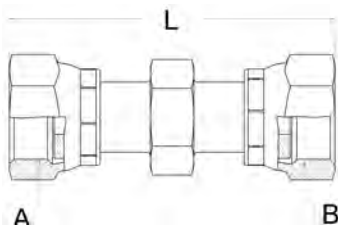
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
459-0769	11/16-16	11/16-16	25.4	53	SST
6V-8993	9/16-18	9/16-18	20.64	48	Steel
6V-8994	11/16-16	11/16-16	25.4	53	Steel
150-0128	11/16-16	11/16-16	25.4	61.2	Steel
8T-5890	11/16-16	11/16-16	25.4	90.5	Steel
8T-0129	11/16-16	13/16-16	28.58	56.6	Steel
8T-6445	11/16-16	13/16-16	28.58	51.7	Steel
6V-8995	13/16-16	13/16-16	28.58	58.5	Steel
208-2859	13/16-16	13/16-16	28.58	69	Steel
268-1547	13/16-16	1-14	33.34	63.9	Steel
6V-9353	1-14	13/16-16	28.58	62.5	Steel
6V-8996	1-14	1-14	33.34	66.5	Steel
7X-3156	1-14	1-14	-	75	Steel
163-9960	1 3/16-12	1-14	32	68.1	Steel
6V-8997	1 3/16-12	1 3/16-12	38.1	69	Steel
162-2896	1 3/16-12	1 3/16-12	38.1	75.2	Steel
323-5953	1 3/16-12	1 3/16-12	38.1	69	Steel
8C-8493	1 7/16-12	1 3/16-12	44.45	69.6	Steel
6V-8998	1 7/16-12	1 7/16-12	44.45	70	Steel
7X-2464	1 7/16-12	1 7/16-12	44.45	118	Steel
9X-2317	1 11/16-12	1 7/16-12	50.8	70.1	Steel
110-9160	1 11/16-12	1 11/16-12	50.8	70	Steel
451-0496	2-12	2-12	60.32	70	Steel

## Male ORFS / Swivel Nut ORFS



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
459-0776	11/16-16	13/16-16	23.3	32.5	SST
6V-8934	9/16-18	11/16-16	20.64	27.8	Steel
489-4877	11/16-16	11/16-16	19.05	44.8	Steel
6V-8936	11/16-16	13/16-16	23.81	32.5	Steel
175-9489	11/16-16	1 3/16-12	34.92	27	Steel
304-7975	13/16-16	9/16-18	22.22	35	Steel
3E-7403	13/16-16	11/16-16	22.22	41	Steel
211-4040	13/16-16	13/16-16	23.81	65	Steel
214-3245	13/16-16	13/16-16	23.81	35	Steel
506-3309	13/16-16	13/16-16	–	28.45	Steel
175-9494	13/16-16	1 3/16-12	36	28	Steel
471-0103	13/16-16	1 3/16-12	35.1	27.9	Steel
426-4059	1-14	13/16-16	25.4	51	Steel
449-1438	1-14	13/16-16	26.99	45.97	Steel
6V-8943	1-14	1 3/16-12	34.92	43	Steel
6V-8945	1-14	1 7/16-12	–	32	Steel
288-9733	1 3/16-12	1-14	31.75	50.8	Steel
451-1784	1 3/16-12	1-14	31.75	50.55	Steel
396-0398	1 3/16-12	1 3/16-12	31.75	58	Steel
337-8772	1 3/16-12	1 3/16-12	31.75	125.6	Steel
364-3072	1 3/16-12	1 7/16-12	38.1	67.5	Steel
6V-8946	1 3/16-12	1 7/16-12	41.28	46.5	Steel
6V-8947	1 3/16-12	1 11/16-12	–	33.5	Steel
203-6688	1 7/16-12	1 3/16-12	38.1	54.86	Steel
371-7210	1 7/16-12	1 7/16-12	41.28	50	Steel
6V-8948	1 7/16-12	1 11/16-12	47.63	47.5	Steel
239-5032	1 11/16-12	1 7/16-12	44.45	57.9	Steel

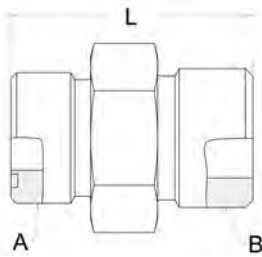
## Swivel Nut ORFS / Swivel Nut ORFS



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
434-5516	11/16-16	11/16-16	9.52	44.96	Steel
377-9599	11/16-16	11/16-16	19.05	62	Steel
287-7332	13/16-16	13/16-16	22.22	53.85	Steel
395-8670	1 7/16-12	1 7/16-12	36.5	75	Steel

# Straight Adapters

## Male ORFS / Male STOR



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
426-4082	13/16-16	1 1/16-12	31.75	44.5	SST
369-6899	1 7/16-12	1 5/16-12	38.1	50	SST
081-5622	9/16-18	3/8-24	15.88	27	Steel
6V-8647	9/16-18	7/16-20	15.88	29	Steel
353-4662	9/16-18	7/16-20	15.88	28	Steel
468-1907	9/16-18	7/16-20	15.88	53	Steel
220-2073	9/16-18	7/16-20	15.88	61	Steel
301-2866	9/16-18	7/16-20	19.05	29	Steel
6V-9010	9/16-18	7/16-20	15.88	71.5	Steel
8T-6988	9/16-18	1/2-20	15.88	29.5	Steel
6V-8641	9/16-18	9/16-18	17.46	31	Steel
145-2237	9/16-18	9/16-18	17.46	47	Steel
156-8801	9/16-18	9/16-18	19.05	83.2	Steel
156-8845	9/16-18	9/16-18	19.05	57	Steel
267-4041	9/16-18	9/16-18	17.46	67	Steel
447-8023	9/16-18	9/16-18	16	29.2	Steel
087-0677	9/16-18	3/4-16	22.3	33	Steel
112-9783	9/16-18	3/4-16	22.23	33.5	Steel
6V-9872	11/16-16	7/16-20	19.05	34	Steel
8I-6347	11/16-16	7/16-20	19.05	34.2	Steel
321-4562	11/16-16	1/2-20	19	31	Steel
8T-5043	11/16-16	1/2-20	19.05	30.8	Steel
164-9836	11/16-16	1/2-20	19	40	Steel
281-5911	11/16-16	9/16-18	19.05	146	Steel
227-6469	11/16-16	9/16-18	19	32	Steel
345-3907	11/16-16	9/16-18	19.05	62	Steel
396-0385	11/16-16	9/16-18		28	Steel
8T-8887	11/16-16	9/16-18	19.05	83.2	Steel
237-6095	11/16-16	9/16-18	19.05	57.5	Steel
6V-8636	11/16-16	9/16-18	19.05	32	Steel
136-1901	11/16-16	9/16-18	19.05	77.4	Steel
166-3032	11/16-16	9/16-18	19.05	71	Steel
116-5435	11/16-16	9/16-18	19.05	29.83	Steel
8T-0075	11/16-16	9/16-18	19.05	50	Steel
8T-1779	11/16-16	9/16-18	19.05	45	Steel
8C-0597	11/16-16	9/16-18	19.05	90	Steel
9X-2297	11/16-16	9/16-18	19.05	62	Steel
092-3635	11/16-16	3/4-16	22.2	66	Steel
199-8495	11/16-16	3/4-16	22.22	54	Steel
315-5729	11/16-16	3/4-16	22.22	35	Steel
6V-8634	11/16-16	3/4-16	22.23	34.5	Steel
395-8602	11/16-16	3/4-16	22.2	35.1	Steel
8T-0076	11/16-16	3/4-16	22.22	54	Steel
439-1948	11/16-16	7/8-14	26.99	79.5	Steel
6V-8715	11/16-16	7/8-14	25.4	38.5	Steel
9X-6550	11/16-16	7/8-14	25.4	54.8	Steel
418-4430	11/16-16	1 1/16-12	38.1	37	Steel
418-4454	11/16-16	1 1/16-12	38.1	37	Steel
371-7193	11/16-16	1 1/16-12	31.75	42.5	Steel
156-6131	13/16-16	7/16-20	22.23	36.5	Steel
365-0600	13/16-16	9/16-18	20.64	49	Steel
6V-9873	13/16-16	9/16-18	22.23	37.5	Steel
237-6093	13/16-16	9/16-18	22.22	95	Steel
8T-5050	13/16-16	9/16-18	22.23	66	Steel

# Straight Adapters

## Male ORFS / Male STOR (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
6V-8639	13/16-16	3/4-16	22.23	36.5	Steel
8T-0077	13/16-16	3/4-16	22.23	68	Steel
123-1904	13/16-16	3/4-16	22.22	76	Steel
244-5227	13/16-16	3/4-16	22.22	122	Steel
9X-2304	13/16-16	3/4-16	22.23	114	Steel
480-3010	13/16-16	7/8-14	25.4	40.5	Steel
104-9054	13/16-16	7/8-14	25.4	72	Steel
6V-8638	13/16-16	7/8-14	25.4	40.5	Steel
126-9745	13/16-16	7/8-14	26.99	117.5	Steel
126-9903	13/16-16	7/8-14	26.99	82.5	Steel
228-7372	13/16-16	7/8-14	25.4	117.6	Steel
5I-4370	13/16-16	7/8-14	22	51	Steel
4I-7745	13/16-16	1 1/16-12	31.75	163.5	Steel
081-5495	13/16-16	1 1/16-12	—	136	Steel
6V-8633	13/16-16	1 1/16-12	31.75	44.5	Steel
207-0650	13/16-16	1 1/16-12	31.75	99	Steel
9T-2136	13/16-16	1 3/16-12	34.92	44.4	Steel
9X-8408	13/16-16	1 5/16-12	38.1	45.5	Steel
8T-0405	1-14	1/2-20	26.99	40.8	Steel
8C-6758	1-14	9/16-18	26.99	41.5	Steel
6V-8632	1-14	3/4-16	27	45	Steel
137-9076	1-14	3/4-16	26.99	74.5	Steel
156-9791	1-14	3/4-16	26.99	75	Steel
172-0677	1-14	3/4-16	26.99	37	Steel
172-0679	1-14	3/4-16	26.99	54	Steel
297-6678	1-14	7/8-14	26.99	83	Steel
488-1844	1-14	7/8-14	26.99	43	Steel
6V-8642	1-14	7/8-14	26.99	43	Steel
8T-1576	1-14	7/8-14	26.99	79.5	Steel
168-9393	1-14	7/8-14	27	52.5	Steel
176-4694	1-14	7/8-14	26.99	148	Steel
117-7065	1-14	7/8-14	26.99	99.1	Steel
202-1673	1-14	7/8-14	26.99	116	Steel
187-5588	1-14	1 1/16-12	31.75	163	Steel
287-7268	1-14	1 1/16-12	31.75	70	Steel
109-5815	1-14	1 1/16-12	31.5	88.5	Steel
109-5822	1-14	1 1/16-12	31.5	188.5	Steel
6V-8713	1-14	1 1/16-12	31.75	47	Steel
260-9213	1-14	1 1/16-12	31.75	90	Steel
125-1915	1-14	1 5/16-12	38.1	45.09	Steel
138-7538	1-14	1 5/16-12	38.1	48	Steel
326-0306	1-14	1 5/16-12	38.1	45.5	Steel
450-1697	1 3/16-12	9/16-18	—	36.51	Steel
285-9615	1 3/16-12	3/4-16	32	130	Steel
6V-9874	1 3/16-12	3/4-16	31.75	48.5	Steel
268-1640	1 3/16-12	7/8-14	31.75	56.9	Steel
338-1295	1 3/16-12	7/8-14	31.75	78	Steel
6V-8640	1 3/16-12	7/8-14	31.75	50.5	Steel
132-8815	1 3/16-12	7/8-14	31.75	128.6	Steel
3E-7420	1 3/16-12	7/8-14	31.75	99.6	Steel
9X-6656	1 3/16-12	7/8-14	31.75	131	Steel
282-5642	1 3/16-12	1 1/16-12	31.75	135.5	Steel
4I-8979	1 3/16-12	1 1/16-12	31.75	48.6	Steel
7I-1096	1 3/16-12	1 1/16-12	31.5	88.5	Steel

# Straight Adapters

## Male ORFS / Male STOR (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
8T-9023	1 3/16-12	1 1/16-12	31.75	95.5	Steel
109-5823	1 3/16-12	1 1/16-12	31.5	88.5	Steel
6V-8637	1 3/16-12	1 1/16-12	31.75	48.5	Steel
8C-8417	1 3/16-12	1 1/16-12	31.75	95.5	Steel
110-5897	1 3/16-12	1 1/16-12	31.5	113.5	Steel
262-7035	1 3/16-12	1 1/16-12	31.75	113.5	Steel
8T-0078	1 3/16-12	1 1/16-12	31.75	73	Steel
6V-9162	1 3/16-12	1 1/16-12	31.75	83.5	Steel
8C-8498	1 3/16-12	1 1/16-12	31.75	60.5	Steel
277-4567	1 3/16-12	1 1/8-12	38.1	61.1	Steel
208-3786	1 3/16-12	1 3/16-12	34.92	180	Steel
242-6132	1 3/16-12	1 3/16-12	34.93	110	Steel
302-8832	1 3/16-12	1 3/16-12	34.92	163.5	Steel
2T-2991	1 3/16-12	1 3/16-12	34.92	48.6	Steel
7E-7264	1 3/16-12	1 3/16-12	34.93	133.5	Steel
125-7426	1 3/16-12	1 5/16-12	38.1	135.5	Steel
184-9330	1 3/16-12	1 5/16-12	38.1	98.5	Steel
286-6395	1 3/16-12	1 5/16-12	38.1	64.7	Steel
303-5457	1 3/16-12	1 5/16-12	38.1	83	Steel
4I-8977	1 3/16-12	1 5/16-12	38.1	49.8	Steel
7I-0048	1 3/16-12	1 5/16-12	38.1	75	Steel
109-5821	1 3/16-12	1 5/16-12	38.1	75	Steel
6V-8716	1 3/16-12	1 5/16-12	38.1	49.5	Steel
152-9254	1 3/16-12	1 5/16-12	38.1	123.5	Steel
278-6506	1 3/16-12	1 5/16-12	38.1	133.5	Steel
8T-0197	1 3/16-12	1 5/16-12	38.1	83.5	Steel
279-8312	1 3/16-12	1 5/8-12	47.63	52	Steel
8C-3370	1 7/16-12	3/4-16	38.1	50	Steel
8T-9386	1 7/16-12	7/8-14	38.1	52	Steel
8C-4000	1 7/16-12	7/8-14	38.1	92.8	Steel
298-6824	1 7/16-12	1 1/16-12	38.1	150	Steel
347-4425	1 7/16-12	1 1/16-12	38.1	54.3	Steel
397-9733	1 7/16-12	1 1/16-12	41	84.5	Steel
6V-8714	1 7/16-12	1 1/16-12	38.1	54.3	Steel
229-5431	1 7/16-12	1 1/8-12	38.1	61.5	Steel
206-4831	1 7/16-12	1 3/16-12	38.1	110	Steel
254-4100	1 7/16-12	1 3/16-12	27	95	Steel
8T-6453	1 7/16-12	1 3/16-12	38.1	49.5	Steel
176-5880	1 7/16-12	1 3/16-12	38.1	123.4	Steel
8C-8807	1 7/16-12	1 3/16-12	38.1	93.5	Steel
8T-8898	1 7/16-12	1 5/16-12	38.1	105	Steel
6V-8635	1 7/16-12	1 5/16-12	38.1	50	Steel
215-2432	1 7/16-12	1 5/16-12	38.1	136.5	Steel
238-7836	1 7/16-12	1 5/16-12	38.1	106.9	Steel
249-0073	1 7/16-12	1 5/16-12	–	71.1	Steel
307-4919	1 7/16-12	1 5/16-12	38.1	83.5	Steel
313-3486	1 7/16-12	1 5/16-12	38.1	46	Steel
4I-7756	1 7/16-12	1 5/16-12	38.1	50.3	Steel
8C-5723	1 7/16-12	1 5/16-12	38.1	68.5	Steel
8T-0198	1 7/16-12	1 5/16-12	38.1	83.5	Steel
8C-3443	1 7/16-12	1 5/16-12	38.1	118.5	Steel
307-5130	1 7/16-12	1 5/8-12	47.63	78.3	Steel
6V-9875	1 7/16-12	1 5/8-12	47.63	52.5	Steel
8C-3323	1 7/16-12	1 7/8-12	–	54	Steel

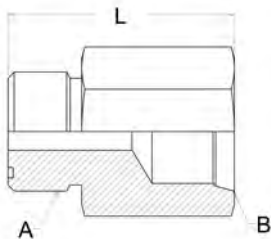


# Straight Adapters

## Male ORFS / Male STOR (Cont'd.)

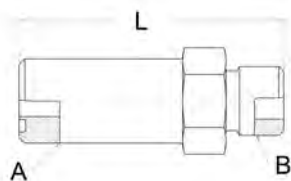
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
347-4407	1 11/16-12	1 1/16-12	44.45	56.3	Steel
480-3003	1 11/16-12	1 1/16-12	44.45	63	Steel
9X-8260	1 11/16-12	1 3/16-12	44.45	56.5	Steel
161-8021	1 11/16-12	1 5/16-12	44.45	121	Steel
8T-7927	1 11/16-12	1 5/16-12	44.45	52.3	Steel
8T-3611	1 11/16-12	1 5/8-12	47.63	52.5	Steel
220-5924	1 11/16-12	1 5/8-12	47.63	116	Steel
109-3657	1 11/16-12	1 7/8-12	53.98	54	Steel
268-1506	2-12	1 5/16-12	53.98	59.6	Steel
8T-8985	2-12	1 5/8-12	53.98	59.6	Steel
201-4160	2-12	1 7/8-12	53.98	133.5	Steel
8T-7926	2-12	1 7/8-12	53.98	54	Steel

## Male ORFS / Port STOR



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
164-0193	11/16-16	9/16-18	22.23	33.7	Steel
8T-6663	11/16-16	9/16-18	19.05	36	Steel
6I-6851	13/16-16	9/16-18	23.81	36	Steel
310-5889	13/16-16	3/4-16	25.4	45	Steel
157-8510	1 3/16-12	1 1/16-12	41.28	46.25	Steel
9X-6643	1 3/16-12	1 5/16-12	38.1	47	Steel
109-7075	1 3/16-12	1 5/16-12	41	77	Steel
4I-0893	1 3/16-12	1 5/16-12	41	82	Steel
8T-7813	1 7/16-12	1 5/16-12	44.45	47.5	Steel

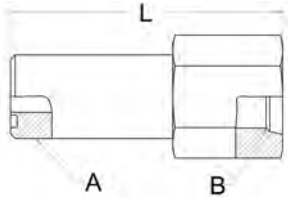
## Bulkhead ORFS / Male STOR



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
329-5462	9/16-18	3/8-24	20.64	38.4	Brass
337-8783	9/16-18	3/8-24	20.64	38.4	SST
442-0493	9/16-18	7/16-20	20.6	55	Steel
089-7702	11/16-16	9/16-18	19.05	55	Steel
281-5878	11/16-16	3/4-16	22.22	57.8	Steel
267-4159	11/16-16	3/4-16	28.58	53	Steel
2U-6193	13/16-16	3/4-16	22.22	68.1	Steel
152-6942	13/16-16	3/4-16	28.58	59.7	Steel
163-7050	13/16-16	7/8-14	26.99	55	Steel
160-5083	1-14	3/4-16	33.34	70.6	Steel
163-9964	1-14	7/8-14	32	67.1	Steel
144-7767	1-14	7/8-14	33.34	58	Steel
268-1642	1-14	1 1/16-12	33.34	76.3	Steel
332-8545	1 3/16-12	7/8-14	38.1	71.9	Steel
235-3583	1 3/16-12	1 1/16-12	38.1	73.4	Steel
108-3872	1 3/16-12	1 5/16-12	44.45	74.5	Steel
229-8638	1 7/16-12	1 1/16-12	44.45	83.5	Steel
107-6709	1 7/16-12	1 5/16-12	44.45	75	Steel
386-6205	1 11/16-12	1 5/8-12	50.8	82.8	Steel

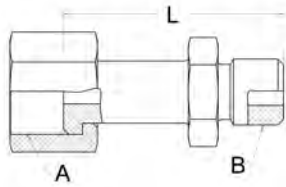
# Straight Adapters

## Bulkhead ORFS / STOR Port



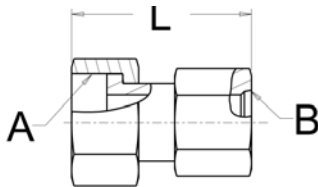
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
459-0671	11/16-16	9/16-18	22.22	57	SST
9X-2608	9/16-18	3/8-24	20.64	45	Steel
7X-7945	9/16-18	9/16-18	19.05	57	Steel
8T-9358	11/16-16	9/16-18	22.22	57	Steel
8C-8835	11/16-16	3/4-16	25.4	65	Steel
106-5074	1 3/16-12	3/4-16	38	72.5	Steel
421-6177	1 3/16-12	1 1/16-12	38.1	72	Steel

## Swivel Nut ORFS / Male STOR



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
386-6207	9/16-18	7/16-20	15.88	37	Brass
7X-3162	9/16-18	7/16-20	15.88	37	Steel
107-6598	9/16-18	9/16-18	19	36	Steel
4I-6287	11/16-16	9/16-18	19.05	40	Steel
341-0076	11/16-16	9/16-18	19.05	40.2	Steel
9X-2847	13/16-16	9/16-18	23.81	62.8	Steel
7X-3164	13/16-16	3/4-16	22.22	49.5	Steel
395-8959	13/16-16	3/4-16	22.22	49.3	Steel
381-8327	1-14	3/4-16	30	65	Steel
7X-3165	1-14	7/8-14	26.99	54	Steel
381-8328	1-14	1 1/16-12	32	69	Steel
228-2022	1 3/16-12	7/8-14	27	99	Steel
7I-8310	1 3/16-12	1 1/16-12	31.75	59.5	Steel
395-8824	1 3/16-12	1 1/16-12	-	71.2	Steel
7R-0042	1 3/16-12	1 1/16-12	35.05	76.13	Steel
4I-6140	1 3/16-12	1 5/16-16	38.1	60.6	Steel
4I-6141	1 7/16-12	1 5/16-12	38.1	67.5	Steel
202-7000	1 7/16-12	1 5/16-12	41.28	55	Steel
395-8958	1 7/16-12	1 5/16-12	38.1	67.5	Steel
7X-3168	1 11/16-12	1 5/8-12	47.63	67.5	Steel
7X-3169	2-12	1 7/8-12	-	67.5	Steel

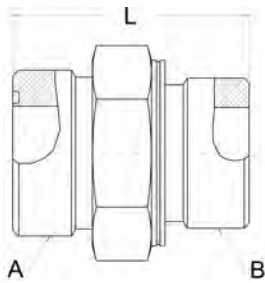
## Swivel Nut ORFS / STOR Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
434-5513	11/16-16	7/16-20	19.05	31.75	Steel
132-2453	11/16-16	9/16-18	20.64	43.9	Steel
451-1764	13/16-16	7/16-20	22.22	39.88	Steel
241-6188	1 7/16-12	7/8-14	34.93	68.43	Steel

# Straight Adapters

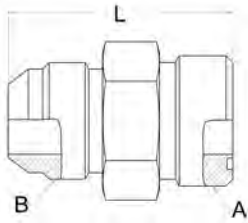
## Male ORFS / Male Metric STOR



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
459-7074	11/16-16	M12x1.5	19	32	SST
459-2254	11/16-16	M16x1.5	22	33.5	SST
228-6047	9/16-18	M10x1	17	27	Steel
117-9983	9/16-18	M12x1.5	17.46	31.5	Steel
8T-7487	9/16-18	M12x1.5	17	28.5	Steel
126-0272	9/16-18	M12x1.5	17	28.5	Steel
238-3256	9/16-18	M14x1.5	23.81	39	Steel
241-6220	9/16-18	M14x1.5	19	29.5	Steel
236-5327	9/16-18	M16x1.5	23.81	39	Steel
119-6407	11/16-16	M10x1	19.05	28.6	Steel
304-7986	11/16-16	M12x1.5	19	32	Steel
123-7341	11/16-16	M12x1.5	19	61.2	Steel
8T-7489	11/16-16	M14x1.5	19	32	Steel
175-9456	11/16-16	M14x1.5		32	Steel
8T-6725	11/16-16	M16x1.5	22	33.5	Steel
171-8678	11/16-16	M16x1.5	22	31.9	Steel
439-1734	11/16-16	M16x1.5	24	33.5	Steel
268-1554	11/16-16	M18x1.5	24	36	Steel
341-0117	11/16-16	M20x1.5	27	36.5	Steel
7X-8506	11/16-16	M22x1.5	28.58	40.64	Steel
260-9141	11/16-16	M27x2	32	42.5	Steel
287-7281	11/16-16	M8x1	22	30.5	Steel
369-6819	13/16-16	M12x1.5	22	35	Steel
8U-6888	13/16-16	M14x1.5	22	35	Steel
8U-5923	13/16-16	M14x1.5	22	92.8	Steel
8T-7488	13/16-16	M16x1.5	22.22	36.5	Steel
238-3258	13/16-16	M18x1.5	25.4	40	Steel
8T-7490	13/16-16	M18x1.5	24	38	Steel
416-6415	13/16-16	M18x1.5	7.94	58.7	Steel
8T-7491	13/16-16	M22x1.5	27	39.5	Steel
281-5958	13/16-16	M22x1.5	26.99	39.5	Steel
238-3259	13/16-16	M22x1.5	28.58	44	Steel
7R-6370	13/16-16	M22x1.5	28.58	40	Steel
281-5883	13/16-16	M27x2	32	44.5	Steel
227-0062	1-14	M18x1.5	27	41	Steel
480-2991	1-14	M22x1.5	27	90	Steel
227-0064	1-14	M22x1.5	27	42	Steel
8T-7495	1-14	M27x2	32	47	Steel
459-0646	1 3/16-12	M22x1.5	32	120	Steel
484-8797	1 3/16-12	M22x1.5	32	105	Steel
8T-7492	1 3/16-12	M22x1.5	32	45	Steel
310-5888	1 3/16-12	M22x1.5	32	45	Steel
8T-7494	1 3/16-12	M27x2	32	48.5	Steel
307-9782	1 3/16-12	M33x2	41	51.5	Steel
238-3260	1 7/16-12	M22x1.5	41.28	51.5	Steel
281-5873	1 7/16-12	M22x1.5	41	48	Steel
238-3263	1 7/16-12	M33x2	41.28	55.5	Steel
342-8379	1 7/16-12	M33x2	38.1	110	Steel
8T-7496	1 7/16-12	M33x2	41	52	Steel
227-0065	1 7/16-12	M33x2	41	52	Steel
322-3504	1 7/16-12	M33x2		151.5	Steel
8T-7497	1 11/16-12	M33x2	44.45	52.3	Steel
227-0066	1 11/16-12	M42x2	50	54.5	Steel

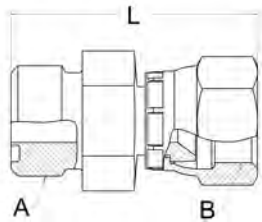
# Straight Adapters

## Male ORFS / Male JIC 37°



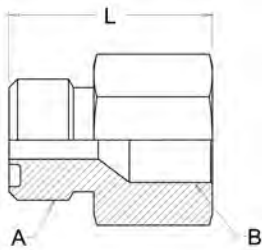
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
107-3877	11/16-16	9/16-18	19.05	34	Steel
8C-7306	13/16-16	3/4-16	22.22	39.3	Steel
8C-7307	1-14	7/8-14	26.99	46.4	Steel
6C-2293	1 3/16-12	1 1/16-12	31.75	52.1	Steel
8C-7308	1 3/16-12	1 1/16-12	31.75	52	Steel

## Male ORFS / JIC 37° Swivel Nut



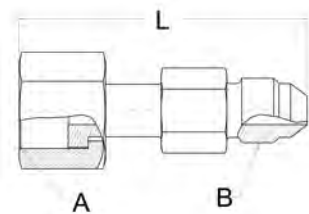
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
112-2564	11/16-16	9/16-18	19.05	29	Steel
112-2565	13/16-16	3/4-16	22.22	33.5	Steel
199-6702	1 3/16-12	1 1/16-12	31.75	41.4	Steel

## Male ORFS / JIC 37° Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
8T-6701	9/16-18	7/16-20	17.46	24	Steel
146-7082	11/16-16	9/16-18	19.05	25	Steel

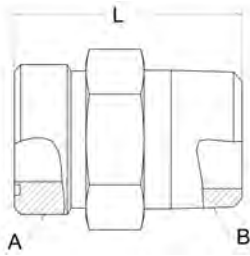
## ORFS Swivel Nut / Male JIC 37°



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
8C-7309	9/16-18	7/16-20	17.46	41.6	Steel
8C-7310	11/16-16	9/16-18	19.05	40.8	Steel
8C-7311	13/16-16	3/4-16	23.81	49.5	Steel
8C-7312	1-14	7/8-14	28.58	57	Steel
8C-7313	1 3/16-12	1 1/16-12	31.75	63.5	Steel
8C-7334	1 7/16-12	1 5/16-12	34.92	69.9	Steel
8C-7335	1 11/16-12	1 5/8-12	47.63	71	Steel

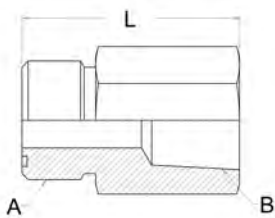
# Straight Adapters

## Male ORFS / Male NPTF



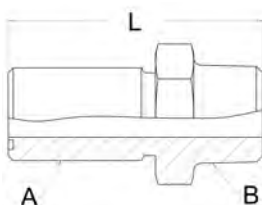
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
369-6893	1 7/16-12	1-11.5	38.1	53.9	SST
7X-5299	9/16-18	1/8-27	15.88	26	Steel
8C-6865	9/16-18	1/8-27	15.88	27.2	Steel
8C-6866	9/16-18	1/4-18	15.88	31.5	Steel
367-6013	9/16-18	3/8-18	19.05	36.5	Steel
8C-6867	9/16-18	3/8-18	19.05	31.5	Steel
101-0387	11/16-16	1/8-27	19.05	28.5	Steel
8C-6868	11/16-16	1/4-18	19.05	33	Steel
2T-2416	11/16-16	3/8-18	19	35.3	Steel
8C-6869	11/16-16	3/8-18	19.05	33	Steel
8C-6870	11/16-16	1/2-14	22.22	39.4	Steel
8C-6871	13/16-16	3/8-18	22.22	37.6	Steel
8C-6872	13/16-16	1/2-14	22.22	40.9	Steel
431-8071	13/16-16	3/4-14	28.58	42.93	Steel
211-5237	13/16-16	3/4-14	28.58	42.9	Steel
150-7158	1-14	3/8-18	26.99	39.86	Steel
8C-6873	1-14	1/2-14	27	43.7	Steel
249-2924	1-14	3/4-14	28.58	46.2	Steel
431-8064	1 3/16-12	1/2-14	31.75	46.74	Steel
365-0682	1 3/16-12	1/2-14	31.75	49	Steel
199-4673	1 3/16-12	1-11.5	36	57.7	Steel
315-9833	1 7/16-12	3/4-14	38.1	47.2	Steel
8C-6875	1 7/16-12	1-11.5	38.1	53.9	Steel
150-7159	1 11/16-12	1/2-14	44.45	54	Steel
117-3050	1 11/16-12	1-11.5	47.63	54	Steel
442-3310	1 11/16-12	1 1/4-11.5	47.63	58.42	Steel
201-5551	1 11/16-12	1 1/4-11.5	47.63	58.42	Steel
445-9765	2-12	1 1/2-11.5	53.98	57.4	Steel
296-5728	2-12	1 1/2-11.5	53.98	61	Steel

## Male ORFS / NPTF Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
7B-9978	2-12	3/4-14	63.5	27	Iron
8T-4128	9/16-18	1/8-27	15.88	16.9	Steel
8T-6776	9/16-18	1/4-18	19.05	35	Steel
7X-7934	11/16-16	1/4-18	19.05	36.2	Steel
7X-2441	11/16-16	3/8-18	19.05	36.2	Steel
304-8047	13/16-16	3/8-18	22.22	37.8	Steel

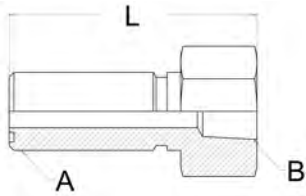
## Bulkhead Male ORFS / Male NPTF



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
132-5091	11/16-16	3/8-18	25.4	58	Steel
304-8001	13/16-16	1/2-14	28.58	64.5	Steel
323-9993	1-14	3/4-14	33.34	70	Steel
347-4411	1 11/16-12	1/2-14	50.8	71.5	Steel

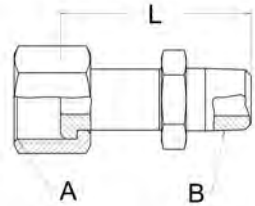
# Straight Adapters

## Bulkhead Male ORFS / NPTF Port



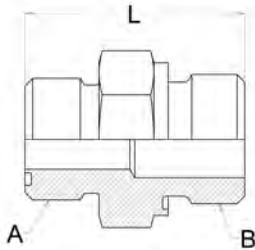
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
304-8043	9/16-18	1/8-27	20.64	45.5	Steel
8C-6915	11/16-16	1/8-27	25.4	48.2	Steel
156-6129	13/16-16	1/8-27	22.22	42	Steel
365-0588	13/16-16	1/4-18	28.58	50.5	Steel

## Swivel Nut ORFS / Male NPTF



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
197-8947	9/16-18	1/4-18	15.88	41.6	Steel
371-7247	11/16-16	1/4-18	19.05	42.44	Steel
197-8948	13/16-16	1/2-14	22.22	55.5	Steel
197-8949	1 3/16-12	3/4-14	31.75	61.3	Steel
297-7947	1 7/16-12	1-11.5	38.1	72.9	Steel

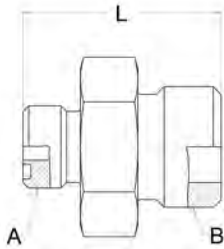
## Male ORFS / Male Metric Flat Face-ISO 9974



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
386-6226	1-14	M27x2	32	46	SST
171-8728	9/16-18	M10x1	15.88	26	Steel
395-9487	9/16-18	M12x1.5	17	29.72	Steel
329-5549	9/16-18	M12x1.5	17.7	29.7	Steel
7R-6371	9/16-18	M14x1.5	19.05	32.1	Steel
426-4096	9/16-18	M16x1.5	22	32.5	Steel
171-8729	11/16-16	M10x1	19	28.3	Steel
147-0962	11/16-16	M10x1	19	29.9	Steel
398-5646	11/16-16	M12x1.5	19	35.3	Steel
169-1578	11/16-16	M14x1.5	19	32	Steel
244-0821	11/16-16	M14x1.5	22	39	Steel
451-0427	11/16-16	M16x1.5	22	32	Steel
417-7778	11/16-16	M16x1.5	22	33.5	Steel
474-2634	11/16-16	M18x1.5	24	33	Steel
448-9022	13/16-16	M16x1.5	22	32	Steel
8U-1378	13/16-16	M18x1.5	24	37.5	Steel
7X-8486	13/16-16	M18x1.5	23.81	38.1	Steel
230-4474	13/16-16	M18x1.5	24	35	Steel
258-8589	13/16-16	M22x1.5	27	44	Steel
7R-6968	13/16-16	M22x1.5	28.58	36.95	Steel
258-8591	13/16-16	M26x1.5	34.92	46	Steel
366-4664	1 3/16-12	M22x1.5	32	45	Steel
439-1870	1 3/16-12	M26x1.5	32	46	Steel
196-9015	1 3/16-12	M26x1.5	31.75	46	Steel
161-3189	1 7/16-12	M26x1.5	38.1	49.5	Steel
367-5998	1 7/16-12	M33x2	41	50	Steel

# Straight Adapters

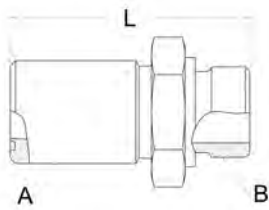
## Male ORFS / Male BSPP Flat Face-ISO 1179



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
369-6895	1 7/16-12	1-11	41	49.8	SST
439-1951	9/16-18	1/8-28	17	26	Steel
293-1934	9/16-18	1/4-19	15.88	30	Steel
395-8699	9/16-18	1/4-19	19	30.5	Steel
377-9597	9/16-18	1/4-19	19	30.9	Steel
216-2367	9/16-18	3/8-19	24	31	Steel
377-9598	9/16-18	3/8-19	22	31.6	Steel
351-5225	9/16-18	1/2-14	27	34.5	Steel
513-8036	9/16-18	1/2-14	27	34.5	Steel
175-9457	11/16-16	1/4-19	19	31.5	Steel
334-5077	11/16-16	1/4-19	19	32	Steel
386-6212	11/16-16	1/4-19	19	32	Steel
395-8763	11/16-16	1/4-19	19	32	Steel
175-9461	11/16-16	3/8-19	24	32.5	Steel
279-8658	11/16-16	3/8-19	24	35	Steel
395-8726	11/16-16	3/8-19	22	33.7	Steel
396-0392	11/16-16	3/8-19	22	33.5	Steel
502-7079	11/16-16	3/8-19	22	33	Steel
8C-6781	11/16-16	3/8-19	22	32	Steel
293-5883	11/16-16	1/2-14	27	37	Steel
194-7601	11/16-16	1/2-14	27	36.8	Steel
175-9493	13/16-16	1/4-19	22	38	Steel
268-1557	13/16-16	1/4-19	22	37.5	Steel
136-4098	13/16-16	3/8-19	22	34.6	Steel
279-8487	13/16-16	1/2-14	27	47	Steel
368-1126	13/16-16	1/2-14	27	62	Steel
377-9591	13/16-16	1/2-14	27	38	Steel
178-2651	13/16-16	3/4-14	32	42.7	Steel
451-0357	13/16-16	3/4-14	32	41.9	Steel
279-8489	1-14	1/2-14	27	84.5	Steel
279-8657	1-14	1/2-14	32	43	Steel
448-5773	1-14	1/2-14	27	41	Steel
162-8711	1-14	1/2-14	27	40.1	Steel
161-2779	1-14	3/4-14	32	43	Steel
448-9003	1 3/16-12	1/2-14	32	48.5	Steel
279-8491	1 3/16-12	3/4-14	36	57	Steel
248-6013	1 3/16-12	3/4-14	36	45	Steel
377-9590	1 3/16-12	3/4-14	32	46.1	Steel
248-6018	1 7/16-12	1/4-19	50	51.5	Steel
426-4165	1 7/16-12	3/4-14	38.1	46	Steel
368-1202	1 7/16-12	3/4-14	38.1	69.5	Steel
451-0358	1 7/16-12	3/4-14	38	50.3	Steel
175-9453	1 7/16-12	1-11	41	48	Steel
377-9592	1 7/16-12	1-11	41	49.8	Steel

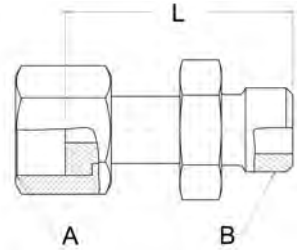
# Straight Adapters

## Bulkhead Male ORFS / Male BSPP Flat Face-ISO 1179



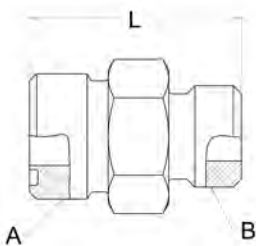
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
150-5430	1 3/16-12	3/4-14	38.1	70.2	Steel
351-5216	1 3/16-12	1-11	41	73.5	Steel

## Swivel Nut ORFS / Male BSPP Flat Face-ISO 1179



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
351-5230	9/16-18	1/4-19	19	43.5	Steel
370-3474	11/16-16	3/8-19		50	Steel
451-0459	13/16-16	1/4-19	22	47	Steel
351-5232	13/16-16	1/2-14	27	59	Steel

## Male ORFS / Male BSPP STOR-JIS B2351

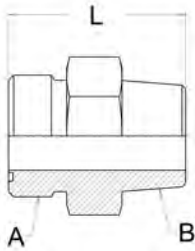


Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
175-9481	9/16-18	1/4-19	19	30	Steel
176-8381	11/16-16	3/8-19	22	31.5	Steel
421-1679	11/16-16	3/8-19	22	31	Steel
248-6020	11/16-16	1/2-14	27	35	Steel
175-9587	13/16-16	3/8-19	24	33.5	Steel
474-2593	13/16-16	3/8-19	22	35	Steel
199-0542	13/16-16	1/2-14	27	37	Steel
165-1094	13/16-16	1/2-14	27	37	Steel
279-3825	13/16-16	1/2-14	27	36	Steel
279-8488	13/16-16	1/2-14	27	87	Steel
271-9881	13/16-16	1/2-14	27	135	Steel
271-9882	13/16-16	1/2-14	27	81	Steel
165-1059	13/16-16	3/4-14	32	40.3	Steel
297-3301	1-14	3/8-19		45	Steel
371-7207	1-14	1/2-14	27	39.5	Steel
099-6839	1-14	3/4-14	36	43.5	Steel
136-4097	1-14	3/4-14	36	43.1	Steel
150-5857	1-14	3/4-14	36	60.5	Steel
195-1643	1 3/16-12	1/2-14	32	43	Steel
160-8284	1 3/16-12	1/2-14	32	48.5	Steel
396-5275	1 3/16-12	1/2-14	38	44	Steel
086-2746	1 3/16-12	3/4-14	36	45	Steel
096-4919	1 3/16-12	3/4-14	36	45	Steel
125-0051	1 3/16-12	3/4-14	36	45	Steel
373-6668	1 3/16-12	1-11	41	47.5	Steel
096-6223	1 7/16-12	1-11	41	51.5	Steel
209-5888	1 7/16-12	1-11	41	51.5	Steel
162-6599	1 7/8-12	1-11	41	47.5	Steel



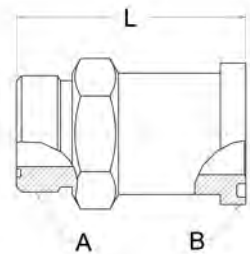
# Straight Adapters

## Male ORFS / Male BSPT-ISO 7-1



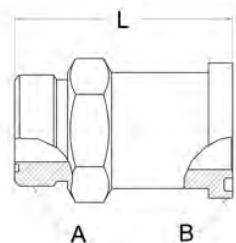
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
170-5535	9/16-18	1/8-28	15.88	27.8	Steel
8U-1341	11/16-16	1/4-19	18	33.9	Steel
252-6039	11/16-16	3/8-19	22	35	Steel
271-9806	11/16-16	3/8-19	22	34.2	Steel
271-9714	13/16-16	1/2-14	27	40.8	Steel
420-7641	13/16-16	1/2-14	27	45	Steel
451-0493	13/16-16	1/2-14	28.58	64.5	Steel
376-2093	1 3/16-12	1-11	34.93	52	Steel
339-0546	1 7/16-12	1-11	41	53.2	Steel
371-7195	1 11/16-12	1 1/4-11	47.63	58.4	Steel

## Male ORFS / Code 61 Head Flange



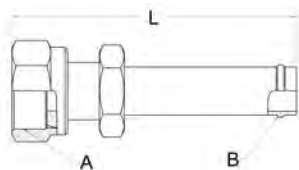
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
474-2586	1 3/16-12	Dash 12	32	70	Steel
262-5529	1 7/16-12	Dash 16	41	72	Steel
459-0662	1 11/16-12	Dash 20	47.63	77	Steel
474-2628	1 11/16-12	Dash 24	53.98	83.6	Steel

## Male ORFS / Code 62 Head Flange



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
459-0666	13/16-16	Dash 8	28.58	65.6	Steel
228-3671	1 7/16-12	Dash 20		77.5	Steel
432-9983	1 11/16-12	Dash 20		77.47	Steel
442-9593	1 11/16-12	Dash 20		77.47	Steel
442-3356	1 11/16-12	Dash 24		88.9	Steel

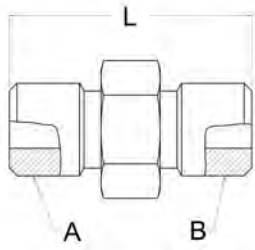
## Swivel Nut ORFS / Hose Bead



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
269-6650	11/16-16	9.52	20.64	60	Steel
238-1766	1-14	15.88		62.48	Steel
484-4251	1 3/16-12	19.05	31.75	114	Steel

# Straight Adapters

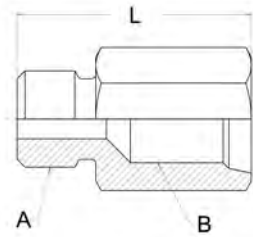
## Male STOR / Male STOR



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
353-5120	9/16-18	9/16-18	17.46	35.8	SST
108-5678	7/16-20	7/16-20	14.29	34.74	Steel
9X-0262	7/16-20	7/16-20	14.29	25.3	Steel
145-8822	7/16-20	7/16-20	14.29	24.63	Steel
386-6204	7/16-20	7/16-20	14.29	29.1	Steel
190-1479	9/16-18	7/16-20	17.46	27.07	Steel
5P-4272	9/16-18	9/16-18	17.46	35.8	Steel
8T-1031	9/16-18	9/16-18	17.46	27.8	Steel
235-3595	3/4-16	7/16-20	22.22	38.6	Steel
134-6852	3/4-16	7/16-20	24	50	Steel
132-3726	3/4-16	9/16-18	22.22	35.8	Steel
6V-0467	3/4-16	3/4-16	25.4	35	Steel
6V-5320	3/4-16	3/4-16	22.22	41.66	Steel
149-9939	3/4-16	3/4-16	22.22	31.5	Steel
232-0494	3/4-16	3/4-16	25.4	35	Steel
8C-3178	3/4-16	3/4-16	22.22	60	Steel
5R-6952	3/4-16	3/4-16	22.22	95.8	Steel
3G-6927	13/16-16	3/4-16		33	Steel
342-3830	13/16-16	13/16-16		37	Steel
3E-5276	7/8-14	7/16-20	25.4	32	Steel
209-3558	7/8-14	7/8-14	25.4	46	Steel
321-0236	1 1/16-12	3/4-16	32	47	Steel
5P-9560	1 1/16-12	1 1/16-12	31.75	54	Steel
227-3951	1 1/16-12	1 5/16-12	38.1	42.1	Steel
4T-1862	1 3/16-12	1 1/16-12	34.93	42	Steel
5P-8924	1 5/16-12	1 5/16-12	38.1	61.9	Steel
8C-9029	1 5/16-12	1 5/16-12	38.1	49.8	Steel
113-4676	1 5/16-12	1 5/16-12	41.28	67.4	Steel
174-9708	1 5/16-12	1 1/2-16	41.28	49	Steel
8C-9026	1 5/16-12	1 7/8-12	53.98	60.6	Steel
9U-5228	1 5/16-12	1 7/8-12	53.98	48.77	Steel
377-9550	1 5/8-12	1 5/8-12	47.63	54.1	Steel
9U-5229	1 5/8-12	1 7/8-12	53.98	48.77	Steel
371-7221	1 7/8-12	1 7/8-12	54	55	Steel
442-3417	2 1/2-12	2 1/2-12	69.85	54.1	Steel

# Straight Adapters

## Male STOR / STOR Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
221-8234	9/16-18	7/8-14	25.4	39.14	Brass
164-3652	3/4-16	3/8-24	22.2	20.3	Brass
8T-2362	3/8-24	7/16-20	17.46	30	Steel
392-0786	3/8-24	7/16-20	17.46	30	Steel
6Z-2052	3/8-24	1/2-20	20.64	32	Steel
371-7226	7/16-20	7/16-20	14.29	27.1	Steel
164-7900	7/16-20	7/16-20	17.46	57.14	Steel
423-8180	7/16-20	7/16-20	17.46	45	Steel
8T-2353	7/16-20	9/16-18	22.22	29.5	Steel
246-9947	7/16-20	9/16-18	22.22	52.1	Steel
260-9211	7/16-20	9/16-18	22.22	50	Steel
488-1842	7/16-20	9/16-18	22.22	31.5	Steel
8C-7325	7/16-20	3/4-16	25.4	32	Steel
177-5852	1/2-20	7/16-20	17.46	40	Steel
4B-8993	1/2-20	1/2-20	17.56	24.9	Steel
136-0853	9/16-18	3/8-24	19.05	25	Steel
164-3651	9/16-18	3/8-24	19.05	18.5	Steel
108-7516	9/16-18	7/16-20	17.46	25	Steel
5P-9617	9/16-18	7/16-20	17.46	26.2	Steel
368-0370	9/16-18	7/16-20	19.05	62	Steel
2W-7672	9/16-18	7/16-20	17.46	32	Steel
4I-8812	9/16-18	7/16-20	19.05	25	Steel
9X-2650	9/16-18	7/16-20	17.46	96	Steel
205-3079	9/16-18	1/2-20	20.64	27.7	Steel
8T-0151	9/16-18	9/16-18	22.35	35	Steel
159-5988	9/16-18	9/16-18	22	33.5	Steel
203-3470	9/16-18	9/16-18	19.05	76.2	Steel
341-0083	9/16-18	9/16-18	19.05	32	Steel
7E-0156	9/16-18	9/16-18	22	61	Steel
7W-7381	9/16-18	9/16-18	22	33.5	Steel
239-1780	9/16-18	9/16-18	19.05	121.2	Steel
5P-8874	9/16-18	3/4-16	25.4	32.5	Steel
202-1723	9/16-18	3/4-16	25.4	40	Steel
8T-5906	9/16-18	3/4-16	26.99	50	Steel
7X-2477	9/16-18	3/4-16	26.99	35	Steel
222-2210	9/16-18	1 1/16-12	34.9	42.9	Steel
326-0308	3/4-16	3/8-24	22.23	16.1	Steel
367-5995	3/4-16	3/8-24	22.22	20.3	Steel
7U-9353	3/4-16	3/8-12	22	20.6	Steel
3P-1932	3/4-16	7/16-20	22.22	20.3	Steel
5P-4674	3/4-16	1/2-20	22.22	19.05	Steel
5P-6944	3/4-16	9/16-18	22.2	28.5	Steel
8W-2756	3/4-16	9/16-18	22.22	26.9	Steel
235-3612	3/4-16	5/8-18	22.22	27.5	Steel
8T-1715	3/4-16	3/4-16	27	45.2	Steel
190-7852	3/4-16	3/4-16		40.13	Steel
304-8027	3/4-16	3/4-16	27	70.57	Steel
439-1938	3/4-16	3/4-16	26.99	27	Steel
3E-2322	3/4-16	3/4-16	26.99	60	Steel
9X-2493	3/4-16	3/4-16	27	52.2	Steel

# Straight Adapters

## Male STOR / STOR Port (Cont'd.)

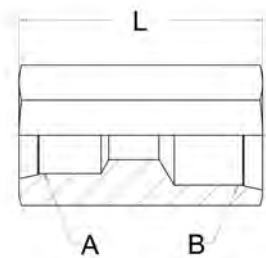
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
231-3914	3/4-16	7/8-14	28.58	39.6	Steel
281-5871	3/4-16	1 1/16-12	34.92	41.43	Steel
216-6202	7/8-14	3/8-24	25.4	20.1	Steel
8K-4739	7/8-14	7/16-20	25.4	23.6	Steel
9J-4807	7/8-14	1/2-20	25.4	23.62	Steel
108-3866	7/8-14	9/16-18	30	28.7	Steel
5P-1404	7/8-14	9/16-18	25.4	23.6	Steel
4T-9905	7/8-14	9/16-18	25.4	30	Steel
6V-2606	7/8-14	9/16-18	25.4	23.6	Steel
7Y-8419	7/8-14	9/16-18	29.83	38	Steel
245-7918	7/8-14	3/4-16	25.4	67.5	Steel
273-5156	7/8-14	3/4-16	25.4	60	Steel
6V-7420	7/8-14	3/4-16	25.4	33	Steel
219-8136	7/8-14	7/8-14	28.58	37.3	Steel
5P-1042	7/8-14	1 1/16-12	34.93	42.9	Steel
224-6316	1 1/16-12	3/8-24	31.75	21.5	Steel
5P-4499	1 1/16-12	7/16-20	31.75	27	Steel
6P-4975	1 1/16-12	7/16-20	31.75	27.7	Steel
2P-8421	1 1/16-12	9/16-18	31.75	27	Steel
211-9695	1 1/16-12	9/16-18	31.75	40	Steel
8C-6860	1 1/16-12	9/16-18	31.75	21	Steel
467-0030	1 1/16-12	9/16-18	30	158	Steel
6V-1722	1 1/16-12	3/4-16	31.75	26.4	Steel
360-8788	1 1/16-12	3/4-16	31.75	33	Steel
360-8789	1 1/16-12	3/4-16	31.75	28.3	Steel
360-8790	1 1/16-12	3/4-16	31.75	26.1	Steel
214-9060	1 1/16-12	3/4-16	31.75	25	Steel
214-9061	1 1/16-12	3/4-16	31.75	28.5	Steel
214-9063	1 1/16-12	3/4-16	31.75	23.5	Steel
324-6241	1 1/16-12	3/4-16	31.75	53.16	Steel
9T-0975	1 1/16-12	3/4-16	31.75	39	Steel
5P-2211	1 1/16-12	7/8-14	31.75	41.3	Steel
5P-1770	1 1/16-12	7/8-14	31.75	41.3	Steel
341-0103	1 1/16-12	1 1/16-12	35.05	45	Steel
3T-4965	1 1/16-12	1 1/16-12	31.75	55.09	Steel
448-9008	1 1/16-12	1 1/16-12	34.92	45	Steel
8X-7851	1 1/16-12	1 1/16-12	38.1	48.6	Steel
330-2175	1 1/16-12	1 1/16-12	34.92	100	Steel
6V-5258	1 1/16-12	1 5/16-12	41.28	47.8	Steel
326-0313	1 3/16-12	7/16-20	34.92	30.5	Steel
9J-0477	1 3/16-12	1/2-20	34.92	34	Steel
8J-3233	1 3/16-12	1/2-20	34.92	27.7	Steel
132-9877	1 3/16-12	9/16-18	34.92	62	Steel
6V-3510	1 3/16-12	9/16-18	34.92	27.7	Steel
9X-8405	1 3/16-12	9/16-18	34.93	27.7	Steel
107-1341	1 3/16-12	3/4-16	34.92	27.7	Steel
101-7198	1 3/16-12	1 1/16-12	38.1	52.5	Steel
8D-8428	1 5/16-12	7/16-20	38.1	28.4	Steel
8J-0426	1 5/16-12	9/16-18	38.1	28.4	Steel
8J-3830	1 5/16-12	9/16-18	38.1	42.2	Steel

# Straight Adapters

## Male STOR / STOR Port (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
8J-8559	1 5/16-12	9/16-18	38.1	28.4	Steel
9T-5212	1 5/16-12	9/16-18	38.1	20.1	Steel
8E-3695	1 5/16-12	9/16-18	38.1	28.4	Steel
475-0808	1 5/16-12	3/4-16	38.1	25.5	Steel
5P-5777	1 5/16-12	3/4-16	38.1	25.5	Steel
268-1520	1 5/16-12	3/4-16	38.1	37	Steel
131-5681	1 5/16-12	7/8-14	38.1	37.09	Steel
6V-0301	1 5/16-12	1 1/16-12	38.1	44.5	Steel
8C-3051	1 5/16-12	1 5/16-12	41.28	65	Steel
451-0489	1 5/16-12	1 5/16-12	41.28	50	Steel
305-0588	1 3/8-16	1 5/16-12		66	Steel
451-0417	1 1/2-12	3/4-16	44.45	29.6	Steel
9T-6865	1 5/8-12	7/16-20	47.63	30.5	Steel
107-3585	1 5/8-12	9/16-18	47.63	52.5	Steel
123-2151	1 5/8-12	9/16-18	47.63	30.5	Steel
2T-2703	1 5/8-12	9/16-18	47.63	44.4	Steel
9J-8677	1 5/8-12	9/16-18	47.63	24	Steel
9J-9288	1 5/8-12	9/16-18	33.34	44.45	Steel
5P-8905	1 5/8-12	3/4-16	47.63	25.5	Steel
4S-6679	1 5/8-12	1 1/16-12	47.63	25.4	Steel
3T-9549	1 5/8-12	1 1/16-12	47.63	24.3	Steel
138-2549	1 5/8-12	1 3/16-12	47.63	67.2	Steel
7X-2470	1 5/8-12	1 5/16-12	47.63	25.4	Steel
250-1444	1 5/8-12	1 5/8-12	47.63	45	Steel
123-2564	1 7/8-12	9/16-18	53.98	32.3	Steel
5P-3903	1 7/8-12	3/4-16	53.98	32.5	Steel
1Z-9033	1 7/8-12	1 1/16-12	53.98	36	Steel
8V-7764	1 7/8-12	1 5/16-12	53.98	32.5	Steel
395-8644	1 7/8-12	1 5/8-12	53.98	44.5	Steel
480-2990	1 7/8-12	1 5/8-12	53.98	47.9	Steel
187-2730	2 1/2-12	5/16-18	69.85	39	Steel
5P-2231	2 1/2-12	1 1/16-12	69.85	36.3	Steel
3V-7750	2 1/2-12	1 7/8-12	69.85	36.3	Steel
395-9716	2 1/2-12	2 1/2-12		45.7	Steel

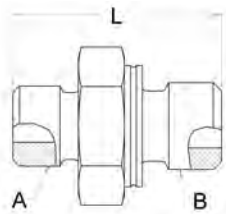
## STOR Port / STOR Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
310-5898	7/16-20	9/16-18	17.46	35	Steel
8W-0222	9/16-18	9/16-18		34	Steel
6G-6917	3/4-16	9/16-18	25.4	35	Steel
309-5146	3/4-16	3/4-16	25.4	37	Steel
176-5868	1 1/16-12	1 1/16-12	38.1	50	Steel

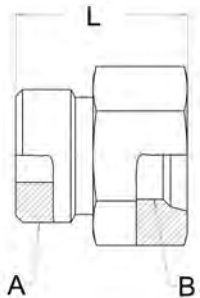
# Straight Adapters

## Male STOR / Male Metric STOR-ISO 6149



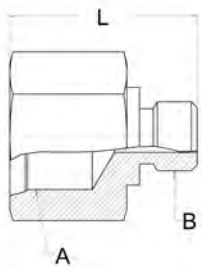
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
314-2490	7/16-20	M12x1.5	19	28	Steel
202-8250	9/16-18	M16x1.5	19	28	Steel
6C-6762	3/4-16	M22x1.5	27	36.8	Steel
319-6189	1 5/8-12	M42x2	50	51.8	Steel
347-4445	1 5/8-12	M42x2	50	69.5	Steel

## Male STOR / Metric STOR-ISO 6149 Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
330-9739	7/16-20	M14x1.5	22.25	33	Steel
389-3683	1/2-20	M12x1.5	17	29	Steel
335-3999	9/16-18	M12x1.5	17	30	Steel
121-7656	9/16-18	M14x1.5	19	40	Steel
331-1137	9/16-18	M14x1.5	17.46	31	Steel
360-2358	3/4-16	M12x1.5	23.81	35	Steel
366-4683	3/4-16	M12x1.5	23.81	28	Steel
369-6812	3/4-16	M14x1.5	22.22	24.6	Steel
371-7199	7/8-14	M12x1.5	25.4	28	Steel
108-9418	7/8-14	M33x2	47.63	72	Steel
257-3471	1 1/16-12	M18x1.5	36	19	Steel
101-1340	1 5/16-12	M33x2	47.63	44	Steel

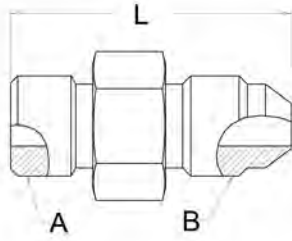
## STOR Port / Male Metric STOR-ISO 6149



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
193-2695	1/4-18	M16x1.5	18.87	32.5	Steel
203-6798	3/8-24	M16x1.5	25	27	Steel
8T-7859	7/16-20	M10x1	17.46	34	Steel
8T-7860	7/16-20	M12x1.5	17.46	35.6	Steel
380-6685	1/2-20	M12x1.5	19	30	Steel
6V-8926	9/16-18	M10x1	22.22	29.77	Steel
426-4101	9/16-18	M12x1.5	22	43	Steel
243-0919	9/16-18	M14x1.5	22	36.4	Steel
8T-7861	9/16-18	M14x1.5	20.64	37.3	Steel
139-3344	9/16-18	M16x1.5	22.2	30.5	Steel
317-9664	9/16-18	M16x1.5	22.2	48	Steel
285-5729	9/16-18	M22x1.5	26	20	Steel
250-6142	5/8-18	M12x1.5	25.4	90	Steel
110-2555	5/8-18	M22x1.5	29	16	Steel
274-8062	3/4-16	M12x1.5	25.4	32.5	Steel
8T-7862	3/4-16	M16x1.5	25.4	40.9	Steel
283-6478	3/4-16	M18x1.5	38.1	35.1	Steel
8T-7863	3/4-16	M18x1.5	25.4	35.1	Steel
8T-7864	7/8-14	M20x1.5	28.58	46.5	Steel
8T-7865	7/8-14	M22x1.5	28.58	47.5	Steel
8T-7867	1 1/16-12	M27x2	34.92	55.1	Steel
8T-7868	1 5/16-12	M33x2	17.46	56.1	Steel

# Straight Adapters

## Male STOR / Male JIC 37°



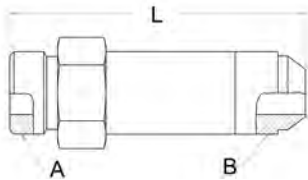
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
371-7217	7/16-20	7/16-20	14.29	31.2	SST
364-9621	1/2-20	7/16-20	15.88	31.2	SST
364-9629	3/4-16	7/16-20	22.2	34.8	SST
497-6356	1 1/16-12	3/4-16	31.75	44.7	SST
119-8096	5/16-24	7/16-20	14.29	32	Steel
6V-0394	5/16-24	7/16-20	14.29	29.7	Steel
3G-7409	3/8-24	7/16-20	12.7	29.7	Steel
137-9145	7/16-20	7/16-20	14.29	28.1	Steel
3J-7352	7/16-20	7/16-20	14.29	31.2	Steel
9K-5469	7/16-20	7/16-20	14.29	52.8	Steel
137-5614	7/16-20	1/2-20	14.29	75	Steel
030-3978	7/16-20	9/16-18	15.88	32.2	Steel
111-5562	7/16-20	9/16-18	17.48	70	Steel
030-6984	1/2-20	7/16-20	15.88	31.2	Steel
6K-9354	1/2-20	1/2-20	15.88	31.2	Steel
5P-2618	1/2-20	9/16-18	15.88	32.2	Steel
217-6416	1/2-20	7/8-14	25.4	41.9	Steel
2P-1314	9/16-18	7/16-20	17.5	32.7	Steel
7I-2022	9/16-18	7/16-20	17.46	55	Steel
5P-0419	9/16-18	1/2-20	17.46	32.7	Steel
274-6664	9/16-18	9/16-18	17.4		Steel
353-5118	9/16-18	9/16-18	20.64	104.8	Steel
2R-6806	9/16-18	9/16-18	17.5	33	Steel
030-7936	9/16-18	9/16-18	17.46	47.8	Steel
1P-1376	9/16-18	9/16-18	17.46	58.7	Steel
147-3396	9/16-18	9/16-18	17.46	58.7	Steel
171-3235	9/16-18	9/16-18	17.46	63	Steel
283-7206	9/16-18	9/16-18	17.46	29.5	Steel
6S-7744	9/16-18	9/16-18	17.4	42	Steel
8M-0506	9/16-18	3/4-16	20.64	36.6	Steel
6V-4362	9/16-18	7/8-14	25.4	40.4	Steel
030-8193	3/4-16	7/16-20	22.2	34.8	Steel
030-8188	3/4-16	9/16-18	22.2	35.1	Steel
369-6867	3/4-16	9/16-18	22.2	78	Steel
8M-0505	3/4-16	3/4-16	22.23	37.6	Steel
9D-2673	3/4-16	3/4-16	22.23	57.15	Steel
2P-7636	3/4-16	7/8-14	23.8	41.7	Steel
030-4285	3/4-16	7/8-14	25.4	71.4	Steel
5P-2574	3/4-16	1 1/16-12	28.58	49.2	Steel
030-8195	7/8-14	7/16-20	25.4	37.9	Steel
030-8194	7/8-14	9/16-18	25.4	38.1	Steel
033-5691	7/8-14	3/4-16	25.4	74.7	Steel
6K-3607	7/8-14	3/4-16	25.4	40.7	Steel
2P-1292	7/8-14	7/8-14	25.4	77.2	Steel
030-8196	7/8-14	1 1/16-12	28.58	47.7	Steel
8T-0195	7/8-14	1 3/16-12	31.75	51.3	Steel
031-4140	7/8-14	1 5/16-12	34.9	52.6	Steel
486-7970	1 1/16-12	7/16-20	31.75	42.1	Steel
488-3237	1 1/16-12	9/16-18	31.75	42.1	Steel

# Straight Adapters

## Male STOR / Male JIC 37° (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
030-8189	1 1/16-12	3/4-16	31.75	44.7	Steel
030-8190	1 1/16-12	7/8-14	31.75	47.2	Steel
2R-6276	1 1/16-12	1 1/16-12	31.75	50	Steel
9D-0884	1 1/16-12	1 1/16-12	31.75	69.8	Steel
3R-6790	1 1/16-12	1 5/16-12	34.9	50.5	Steel
6V-1906	1 1/16-12	1 5/16-12	38.1	97.6	Steel
4U-7929	1 1/8-12	1 1/16-12	34.9	47	Steel
8K-0802	1 3/16-12	7/8-14	34.92	47.2	Steel
9K-1242	1 3/16-12	1 1/16-12	34.93	49.7	Steel
7E-1456	1 3/16-12	1 1/16-12	34.92	134.99	Steel
7J-7187	1 3/16-12	1 3/16-12	34.93	50.5	Steel
5P-3237	1 3/16-12	1 5/16-12	34.92	51.8	Steel
196-4647	1 3/16-12	1 5/8-12	47.63	126.89	Steel
6V-9035	1 5/16-12	9/16-18	38.1	42.7	Steel
2P-8430	1 5/16-12	3/4-16	38.1	45.4	Steel
068-6074	1 5/16-12	7/8-14	38.1	48	Steel
4S-6680	1 5/16-12	1 1/16-12	38.1	50.6	Steel
115-1708	1 5/16-12	1 5/16-12	38.1	152	Steel
5P-4248	1 5/16-12	1 5/16-12	38.1	101.1	Steel
030-7935	1 5/16-12	1 5/16-12	38.1	51.8	Steel
3P-0440	1 5/16-12	1 5/16-12	38.1	66.5	Steel
7D-5318	1 5/16-12	1 5/8-12	42.86	59.2	Steel
2P-2061	1 5/8-12	1 1/16-12	47.63	52.8	Steel
4S-6797	1 5/8-12	1 5/16-12	47.63	53.8	Steel
031-8759	1 5/8-12	1 5/8-12	47.63	55.1	Steel
315-3715	1 7/8-12	1 5/16-12	53.98	55.9	Steel
6K-3461	1 7/8-12	1 7/8-12	53.98	60.2	Steel
7X-7678	2 1/2-12	2 1/2-12	69.85	70.6	Steel

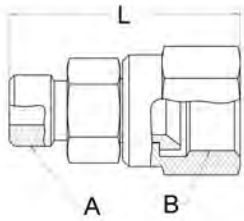
## Male STOR / Bulkhead Male JIC 37°



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
030-8110	3/4-16	3/4-16	22.23	68.6	Steel
7G-4850	7/8-14	7/8-14	28.58	60.5	Steel

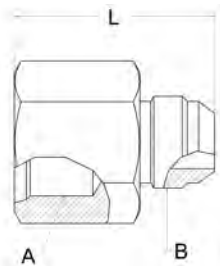


## Male STOR / JIC 37° Swivel Nut



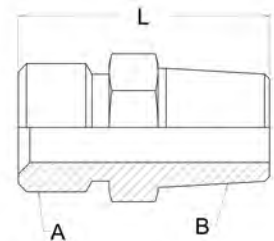
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
200-8459	7/16-20	9/16-18	14.29	36.32	Steel
108-7463	9/16-18	7/16-20	14.29	25	Steel
6V-8104	9/16-18	9/16-18	17.46	29	Steel
5I-3178	9/16-18	9/16-18	19.05	41.4	Steel
5P-4588	9/16-18	3/4-16	20.63	27	Steel
501-8727	3/4-16	3/4-16	22.23	40.9	Steel
5R-8100	3/4-16	3/4-16	22.2	41	Steel
146-7117	3/4-16	3/4-16	23.81	48	Steel
203-0416	3/4-16	3/4-16	22	40	Steel
5P-4269	1 1/16-12	1 1/16-12	31.75	33.78	Steel
194-4122	1 5/16-12	1 5/16-12	38.1	41.8	Steel
203-0433	1 5/16-12	1 5/16-12	38	56	Steel
111-8218	1 5/8-12	1 5/8-12	50.8	63.25	Steel

## STOR Port / Male JIC 37°



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
1V-7443	3/8-24	7/16-20	17.46	52.58	Steel
469-0586	1 5/16-12	1 1/16-12	38.1	58.7	Steel

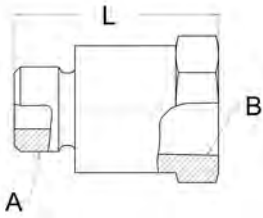
## Male STOR / Male NPTF



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
225-6574	7/16-20	1/4-20	16	30	1E1541A
313-3487	7/16-24	1/8-27	11.11	21.84	Brass
184-2518	7/16-20	1/2-14	22.22	39.1	SST
3N-8278	7/16-20	1/2-14	23.1	40	SST
108-2197	7/16-20	1/8-27	14.29	26	Steel
1F-3278	7/16-20	1/8-27	14.29	23.02	Steel
9X-0263	7/16-20	1/8-27	14.29	26.7	Steel
141-5147	7/16-20	1/4-18	14.29	30.5	Steel
9X-0435	7/16-20	1/4-18	17.46	29.9	Steel
3N-7078	7/16-20	3/8-18	17.27	29.5	Steel
144-7687	9/16-18	1/4-18	30.2	76	Steel
235-3567	9/16-18	3/8-18	17.46	34.04	Steel
345-3921	3/4-16	3/8-18	22.22	33.9	Steel
3C-3793	3/4-16	3/8-18	22.2	34	Steel
311-8082	3/4-16	3/4-14	30	50	Steel
171-9423	3/4-16	3/4-14	—	124	Steel
320-5390	7/8-14	3/8-18	26.99	41.8	Steel
1W-6256	7/8-14	1/2-14	23.81	41.2	Steel
230-5944	1 1/16-12	3/4-14	31.75	45.7	Steel
9S-7336	1 1/16-12	3/4-14	31.75	43.68	Steel
281-7821	1 5/16-12	3/4-14	38.1	45.5	Steel
144-8618	1 5/16-12	1-11.5	38.1	51.7	Steel
434-5532	1 1/2-16	1 1/4-11.5	—	85.73	Steel
9U-6707	1 1/2-16	1 1/4-11.5	—	76.2	Steel
8C-3991	1 7/8-12	1 1/2-11.5	53.98	57	Steel

# Straight Adapters

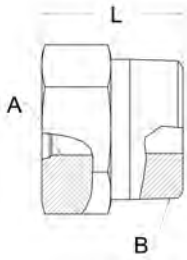
## Male STOR / NPTF Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
5E-5200	3/4-16	3/8-18		52	Brass
183-6811	9/16-18	1/4-18	19.05	27.69	SST
198-5318	9/16-18	3/8-18	22.22	32.51	SST
5P-5528	7/16-20	1/8-27	14.29	24.6	Steel
395-7292	7/16-20	1/4-18	19.05	29.5	Steel
5P-2937	7/16-20	1/4-18	19.05	27	Steel
9J-3855	1/2-20	1/8-27	15.7	25.4	Steel
5P-4487	1/2-20	1/8-27	15.88	26	Steel
219-1644	1/2-20	1/4-18	19	35.3	Steel
139-7064	1/2-20	1/4-18	19.05	33	Steel
5P-4675	1/2-20	1/4-18	19.05	30.6	Steel
3Y-2888	9/16-18	1/8-27	17.46	19	Steel
395-5136	9/16-18	1/8-27	19.05	23.1	Steel
5P-3501	9/16-18	1/4-18	19.05	29.97	Steel
204-3716	9/16-18	3/8-18	19.05	36.2	Steel
104-4767	5/8-18	1/4-18	23.81	36.5	Steel
4W-8616	5/8-11	1/4-18	22.22	40	Steel
504-2753	3/4-16	1/8-27	22.23	20.3	Steel
9T-6635	3/4-16	1/8-27	22.22	20.3	Steel
8J-7844	3/4-16	1/4-18	22.22	27	Steel
4Y-6112	3/4-16	3/8-18	22	45	Steel
5P-1838	3/4-16	3/8-18	22.22	32	Steel
198-0961	3/4-16	1/2-14	28.58	38.1	Steel
9Y-2238	3/4-16	3/4-14	38.1	13	Steel
260-9197	7/8-14	1/8-27	25.4	20.5	Steel
6H-4746	7/8-14	1/8-27		23.02	Steel
297-7704	7/8-14	1/4-18	25.4	36.7	Steel
3P-0764	7/8-14	1/4-18	25.4	27.7	Steel
5P-4481	7/8-14	1/2-14	28.58	39	Steel
126-3230	1 1/16-12	1/8-27	31.75	27.7	Steel
7G-8478	1 1/16-12	1/4-18	31.75	27.7	Steel
5P-3415	1 1/16-12	1/4-18	31.75	27.69	Steel
9N-1595	1 1/16-12	3/8-18	31.75	19.05	Steel
6L-9952	1 1/16-12	1/2-14	31.75	35.8	Steel
6V-7483	1 1/16-12	3/4-14	34.93	43.7	Steel
3R-7117	1 1/8-12	3/4-14	38.1	48	Steel
6V-6760	1 3/16-12	1/2-14	34.92	27.7	Steel
3T-0811	1 5/16-12	1/4-18	38.1	28.4	Steel
119-0572	1 5/16-12	1/2-14	38.1	25.4	Steel
5P-0492	1 5/16-12	1-11.5	41.15	47.8	Steel
301-2748	1 5/16-12	1-11.5	41.1	47.8	Steel
7N-6511	1 1/2-12	3/4-14	50.8	28	Steel
167-9288	1 5/8-12	1 1/4-11.5	50.8	50	Steel

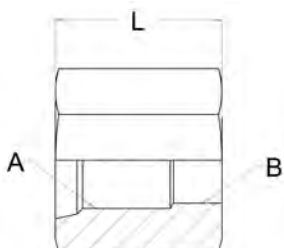
# Straight Adapters

## STOR Port / Male NPTF



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
164-3649	3/8-24	1/4-18	15.88	21.6	Brass
164-3648	3/8-24	1/2-14	22.2	19	Brass
141-7280	7/8-14	1-11.5	34.92	35.5	Brass
439-1959	3/4-16	1 1/2-11.5	50.8	49	SST
147-9351	3/8-24	1/2-14	22.2	27.9	Steel
6V-7529	7/16-20	1/8-27	17.5	27.7	Steel
8C-6427	7/16-20	1/4-18	17.46	32.4	Steel
7D-6865	7/16-20	3/8-18	17.48	23.9	Steel
5R-5304	7/16-20	1/2-14	22	24.6	Steel
362-1142	1/2-20	1/8-27	19.05	29	Steel
8F-4731	1/2-20	3/8-18	19.05	30.2	Steel
155-2078	9/16-18	1/8-27	19.05	30	Steel
6V-9601	9/16-18	1/4-18	22.22	34.5	Steel
8C-4985	9/16-18	3/8-18	22.22	34.9	Steel
305-8354	9/16-18	1/2-14	22.2	37.5	Steel
8T-3285	9/16-18	1/2-14	22.22	24.6	Steel
117-0291	9/16-18	1-11.5	41	28	Steel
130-2883	9/16-18	1 1/4-11.5	47.63	38	Steel
200-5724	5/8-18	3/8-18	22.2	25.4	Steel
113-9391	5/8-18	1/2-14	22.22	25	Steel
6H-6699	5/8-18	1/2-14	22.23	22.2	Steel
4T-3719	5/8-11	3/4-14	28	19	Steel
132-3873	3/4-16	1/4-18	25.4	44	Steel
4I-7483	3/4-16	3/8-18	25.4	50	Steel
8T-4238	3/4-16	3/8-18	25.4	36.8	Steel
170-3528	3/4-16	1/2-14	25.4	45	Steel
353-5440	3/4-16	1/2-14		35	Steel
500-4238	3/4-16	1/2-14	25.4	35	Steel
8C-6523	3/4-16	3/4-14	28.58	29.7	Steel
284-3468	3/4-16	1-11.5	34.9	34.9	Steel
8C-6524	3/4-16	1-11.5	34.92	46.5	Steel
315-9825	3/4-16	1 1/2-11.5	50.8	49	Steel
264-2487	3/4-16	2-11.5		57.5	Steel
8T-2227	7/8-14	1/2-14	31.75	45	Steel
6V-9157	7/8-20	3/4-14	31.75	46	Steel
4H-8985	7/8-14	1 1/4-12	44.45	46.04	Steel
131-9472	1 1/16-20	1/2-14	44.45	58	Steel
8C-5053	1 5/16-12	1-11.5	41.28	54.1	Steel
488-4816	1 5/16-12	1 1/2-11.5	50.8	56	Steel

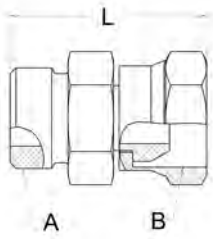
## STOR Port / NPTF Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
3T-2167	1/2-20	1/8-27	19.05	20	Steel
231-0187	1/2-20	3/8-18	25.4	38.1	Steel
4C-5561	9/16-18	1/8-27	25.4	24	Steel
171-1879	9/16-18	1/4-18	28.58	37.1	Steel

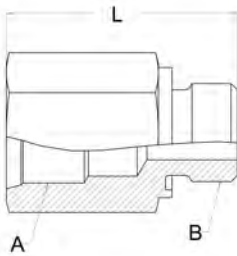
# Straight Adapters

## Male STOR / NPSM Swivel Nut



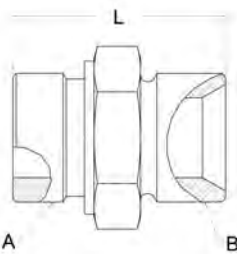
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
4D-6534	7/16-20	1/4-18	14.29	26.2	Steel
6D-4529	1/2-20	1/4-18	15.88	25.4	Steel
6D-1891	9/16-18	1/4-18	17.5	34.6	Steel
6D-4095	9/16-18	3/8-18	22.2	29	Steel
5P-0234	3/4-16	3/4-14	25.4	35.7	Steel
8J-3705	7/8-14	1/2-14	25.4	33.3	Steel
8D-7276	7/8-14	3/4-14	25.4	37.2	Steel
6D-4492	1 1/16-12	1/2-14	25.4	37.5	Steel
6D-6081	1 1/16-12	3/4-14	31.75	39.6	Steel
7L-7280	1 5/16-12	1-11.5	38.1	41.4	Steel

## STOR Port / Male Metric Flat Face-ISO 9974



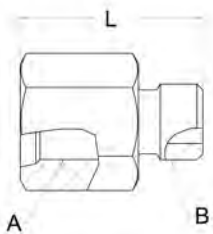
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
247-2237	7/16-20	M12x1.5	17	36	Steel
430-9586	7/16-20	M30x1.5		22	Steel
136-8482	9/16-18	M10x1	22.22	29.77	Steel
310-5897	3/4-16	M18x1.5	25.4	42.4	Steel
9Q-5446	7/8-14	M26x1.5	40.33	40	Steel
325-9779	1 1/16-12	M26x1.5	36	52	Steel
6E-4353	1 1/16-12	M26x1.5	36	75	Steel

## Male STOR / Male BSPP Flat Face-ISO 1179



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
274-6660	7/16-20	1/4-19	18.9	27	Steel
395-8728	9/16-18	1/4-19	19	30.2	Steel
133-9740	7/8-14	3/4-14	33.34	44.7	Steel
8T-8897	1 1/16-12	3/4-14	31.75	47.1	Steel
7I-8331	1 1/16-12	3/4-14	36	50.5	Steel
5I-7408	1 5/16-12	1-11	41	55	Steel

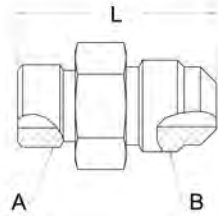
## STOR Port / Male BSPP Flat Face-ISO 1179



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
395-8615	7/16-20	1/4-19	19.05	28.6	Steel
8T-7909	7/16-20	1/4-19	19.05	36.3	Steel
5I-8775	1/2-20	1/2-14	27	45	Steel
107-6585	9/16-18	1/4-19	22	86	Steel
507-8352	9/16-18	1/4-19	20.64	31.8	Steel
8T-7910	9/16-18	1/4-19	20.64	36.8	Steel
8T-7915	1 1/16-12	3/4-14	34.92	51.8	Steel
451-0505	1 5/16-12	1-11	44.45	48.8	Steel

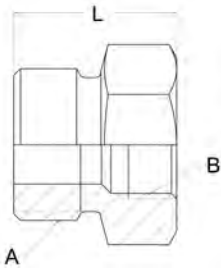
# Straight Adapters

## Male STOR / Male 45° Flare- SAE J512



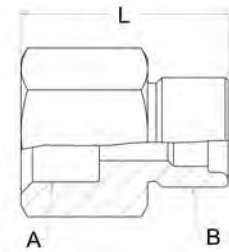
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
6V-3674	1/2-20	5/8-18	15.88	32	Brass
5P-5546	7/8-20	5/8-18	22.22	29.46	Brass
7X-0902	9/16-18	5/8-18	19.05	34.5	Steel
107-9343	9/16-18	3/4-16	19.05	37.7	Steel
155-5508	9/16-18	3/4-16	22.22	73.93	Steel
8C-3120	9/16-18	7/8-14	25.4	42.53	Steel
9X-6650	3/4-16	7/8-14	25.4	43.7	Steel

## Male STOR / 45° Flare- SAE J512 Port



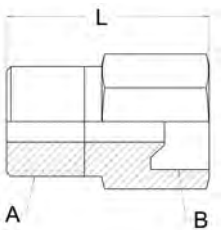
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
186-8196	5/8-18	5/8-18	20.64	32.5	Brass
6N-3898	7/8-14	5/8-18	25.4	23.9	Steel

## STOR Port / Male 45° Flare- SAE J512



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
196-3261	7/16-20	7/16-20	27	34.6	Steel
077-8165	7/16-20	1/2-20	15.88	36.52	Steel
6D-5621	9/16-18	9/16-18	19.05	41.28	Steel
212-6067	3/4-16	3/4-16	13	36	Steel

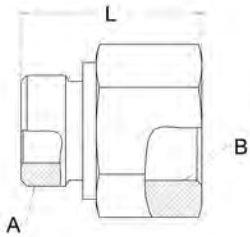
## Male STOR / 45° Inverted Flare- SAE J512 Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
4V-6485	7/16-24	1/2-20	15.88	25.4	Brass
5P-7662	1/2-20	7/16-24	15.88	23.368	Brass

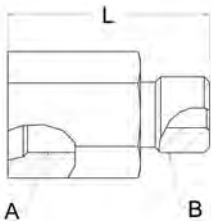
# Straight Adapters

## Male STOR / BSPP STOR-JIS B2351 Port



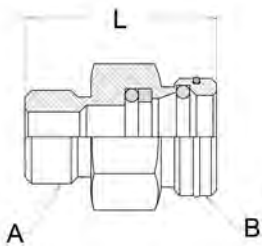
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
2U-8951	9/16-18	1/4-19	19.05	28	Steel
196-4196	1 1/16-12	3/4-14	36	49.5	Steel
237-7180	1 5/16-12	3/4-14	52	52.6	Steel

## STOR Port / Male BSPP STOR-JIS B2351



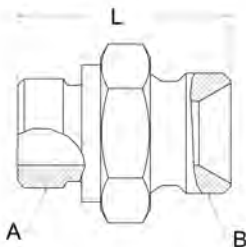
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
5I-8784	3/8-24	1/4-19	22	34	Steel
8T-7908	7/16-20	1/8-28	17.46	32.5	Steel
7X-2613	9/16-18	1/8-28	20.64	37.1	Steel
190-8529	9/16-18	1/4-19	19	35	Steel
392-4054	9/16-18	3/4-14	32	24	Steel

## Male STOR / STC Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
179-7002	9/16-18	Dash 6	19	28.7	Steel
192-2969	7/8-14	Dash 10	27	38.8	Steel
269-4955	7/8-14	Dash 10	26.9	38	Steel
269-4954	7/8-14	Dash 8	26.9	35	Steel
269-4958	1 1/16-12	Dash 12	32	47	Steel

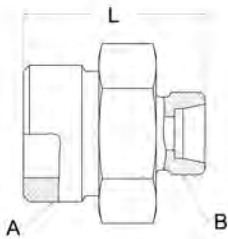
## Male STOR / Male 60° Cone-BS5200



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
099-5927	9/16-18	1/4-19	19.05	30	Steel
262-0515	3/4-16	1/4-19	22	34.8	Steel
193-5101	3/4-16	3/8-19	30	36	Steel
262-0514	3/4-16	3/8-19	22	35.8	Steel
418-5064	3/4-16	3/8-19	22	32	Steel
459-0583	3/4-16	1/2-14	27	37	Steel

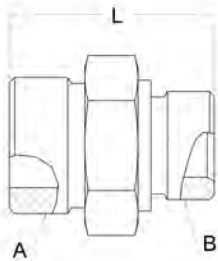
# Straight Adapters

## Male STOR / Male 24° Cone-ISO 8434-1



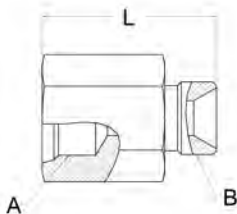
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
317-8509	9/16-18	M16x1.5	19	32	Steel
519-7630	9/16-18	M18x1.5	19	29.5	Steel
175-9498	1 5/16-12	M20x1.5	38	44.5	Steel

## Male STOR / Male 30° Flare-JIS



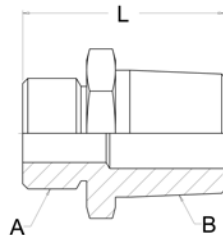
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
138-8342	7/16-20	3/8-19	18	25.5	Brass
173-8070	3/4-16	3/4-14	30	53.2	Steel
132-1730	1 5/16-12	3/4-14	38.1	57	Steel
7X-2432	1 5/16-12	3/4-14	38.1	50.2	Steel
4C-6494	1 5/16-12	1-11	41.28	52.32	Steel

## STOR Port / Male 30° Flare-JIS



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
7X-2431	9/16-18	1/2-14	27	27.4	Steel
8T-7912	3/4-16	3/8-19	25.4	40.4	Steel
8T-7914	7/8-14	1/2-14	28.58	46	Steel
8T-7916	1 1/16-12	1-11	41.28	54.6	Steel
8T-7917	1 5/16-12	1-11	41.28	54.6	Steel

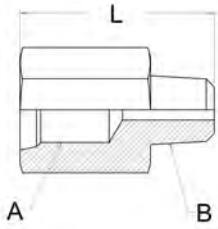
## Male STOR / Male BSPT-ISO 7-1



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
309-0723	3/4-16	3/8-19	25.4	36	Steel
252-7238	3/4-16	1/2-14	25.4	35.13	Steel
7Q-6091	1 1/16-12	1/2-14	31.75	43	Steel

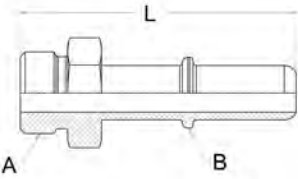
# Straight Adapters

## STOR Port / Male BSPT-ISO 7-1



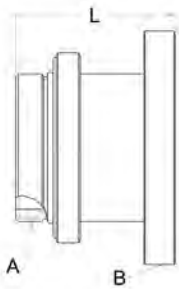
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
218-0919	7/16-20	1/8-28	17.46	29.2	Brass
135-2368	7/16-20	1/8-28	17	30.5	Steel
7X-2614	9/16-18	1/4-18	19.05	33.5	Steel
7X-2615	9/16-18	3/8-19	20.64	37.8	Steel

## Male STOR / Male SAE J2044



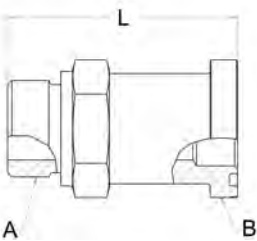
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
376-7350	3/4-16	12.70	22.22	64.5	SST
447-7149	3/4-16	7.94	14.29	45.4	SST
447-7148	3/4-16	9.52	14.29	45.4	SST
474-2603	9/16-18	15.88	23.81	74	Steel
422-7026	3/4-16	9.52	22.22	56.6	Steel

## Male STOR / Code 61 Head Flange



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
9U-7440	1 5/16-12	25.40	44.45	143.76	Steel
9U-7443	1 5/16-12	Dash 12	41.28	127.51	Steel
9U-7445	1 5/16-12	Dash 20	44.45	134.11	Steel
442-3486	3-12	Dash 40		80.78	Steel
442-3488	3-12	Dash 40		82.6	Steel

## Male STOR / Code 62 Head Flange

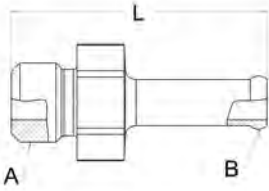


Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
7X-2430	1 5/16-12	Dash 16	41.28	79.8	Steel
7X-2608	1 5/16-12	Dash 20	44.45	94.5	Steel
473-9869	2 1/2-12	Dash 32		95	Steel



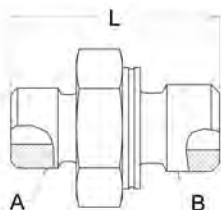
# Straight Adapters

## Male STOR / Hose Bead



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
245-1398	7/16-20	6.35	14.29	35.3	Brass
345-3923	3/4-16	12.70	22.22	57.8	Brass
439-1904	9/16-18	9.52	17.46	56	SST
337-8766	3/8-24	6.35	12.7	52.7	Steel
310-5893	7/16-20	6.35	14.29	54.2	Steel
092-6629	7/16-20	9.52	14.29	55.1	Steel
151-1975	1/2-20	7.94	17.46	37	Steel
297-7964	9/16-18	12.70	17.5	55.9	Steel
379-4369	9/16-18	14.29	17.46	54.4	Steel
426-4018	9/16-18	15.88	22.22	56.7	Steel
268-4045	9/16-18	6.35	17.46	56.6	Steel
157-1669	9/16-18	7.94	17.5	56.6	Steel
474-8989	9/16-18	9.52		35.6	Steel
5P-1046	9/16-18	9.52	17.46	56	Steel
034-3679	3/4-16	12.70	22.22	58.4	Steel
288-7466	3/4-16	15.88	22	50	Steel
168-8806	3/4-16	15.88	22.22	58.4	Steel
163-4300	3/4-16	19.05	22.2	57.8	Steel
377-9605	3/4-16	19.05	22.22	57.8	Steel
357-4579	3/4-16	25.40	31.75	65	Steel
515-4951	3/4-16	6.35	22.22	58.4	Steel
347-7623	3/4-16	8	22.22	46.6	Steel
149-8142	3/4-16	9.52	22.22	57.8	Steel
8T-4942	13/16-16	19.05	28.58	75	Steel
143-3158	7/8-14	12.70	25.4	61	Steel
131-2171	7/8-14	15.88	25.4	61.7	Steel
195-7930	7/8-14	19.05	25.4	61.7	Steel
208-7552	7/8-14	25.40	31.75	66.5	Steel
142-4881	7/8-14	9.52	25.4	61	Steel
033-6783	1 1/16-12	19.05	31.75	65.8	Steel
069-4269	1 1/16-12	25.40	31.75	65.8	Steel
247-4603	1 3/16-12	25.40	34.93	65.1	Steel
326-0296	1 5/16-12	19.05	38.1	65.1	Steel
5P-4362	1 5/16-12	25.40	38.1	66.5	Steel
9X-3962	1 5/16-12	31.75	38.1	66.5	Steel
471-1647	1 5/16-12	1 5/16-12		75	Steel
451-0470	1 5/8-12	38.10	47.63	68.6	Steel
5P-1947	1 7/8-12	38.10	53.98	65.8	Steel
341-0091	1 7/8-12	50	54	69.7	Steel

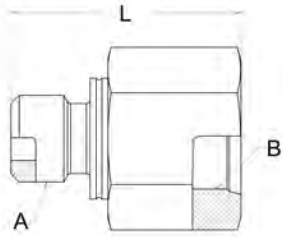
## Male Metric STOR-ISO 6149 / Male Metric STOR-ISO 6149



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
196-8235	M14x1.5	M22x1.5	24	50.5	SST
347-4440	M10x1	M16x1.5	22	26	Steel
438-5043	M16x1.5	M16x1.5	22	52	Steel
276-0175	M22x1.5	M22x1.5	27	64	Steel

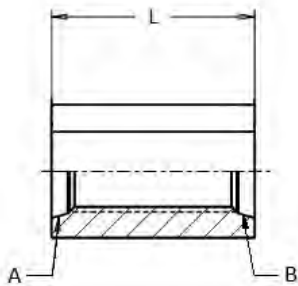
# Straight Adapters

## Male Metric STOR-ISO 6149 / Metric STOR-ISO 6149 Port



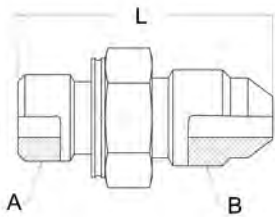
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
319-9224	M16x1.5	M16x1.5	22	30	Brass
242-2888	M10x1	M10x1	14	27	Steel
451-0503	M12x1.5	M14x1.5	22	32	Steel
287-7244	M14x1.5	M10x1	19	32	Steel
448-8999	M14x1.5	M10x1	19	32	Steel
250-1421	M14x1.5	M12x1.5	22	32	Steel
243-0206	M14x1.5	M12x1.5	19	27	Steel
5W-2848	M14x1.5	M16x1.5	19	39.5	Steel
433-4841	M16x1.5	M12x1.5	22	27.4	Steel
268-1549	M18x1.5	M10x1	24	35	Steel
421-1018	M18x1.5	M12x1.5	24	23	Steel
306-9404	M22x1.5	M10x1	22	26.5	Steel
260-9229	M22x1.5	M12x1.5	27	34	Steel
253-7768	M22x1.5	M22x1.5	30	62	Steel
271-6284	M22x1.5	M22x1.5	30	62	Steel
447-7510	M22x1.5	M22x1.5	30	62	Steel
287-7242	M27x2	M27x2	32	47.5	Steel

## Metric STOR-ISO 6149 Port / Metric STOR-ISO 6149 Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
445-2324	M12x1.5	M12x1.5	17	30	Steel
128-3976	M8x1	M12x1.5		30	Steel

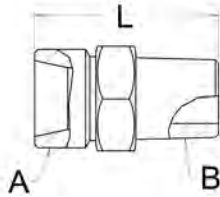
## Male Metric STOR-ISO 6149 / Male 37° Flare-SAE J514



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
210-7672	M27x2	1 1/16-12	32	50	SST
439-1947	M10x1	7/16-20	14	29.5	Steel
9Y-7443	M10x1	7/16-20	12.7	32.3	Steel
3E-7437	M12x1.5	7/16-20	14	31	Steel
516-4481	M14x1.5	7/16-20	19	31.7	Steel
7U-7181	M16x1.5	3/4-16	22	36	Steel
493-0323	M16x1.5	7/8-14	27	46	Steel
493-0322	M22x1.5	7/8-14	27.7	46	Steel
9Y-7441	M8x1	7/16-20	12.7	56.42	Steel
9Y-7442	M8x1	7/16-20	12.7	32.42	Steel

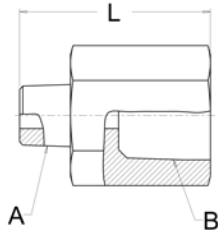
# Straight Adapters

## Male Metric STOR-ISO 6149 / Male NPTF



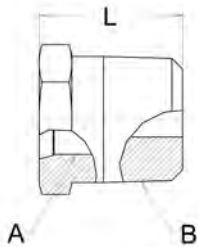
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
221-1582	M16x1.5	1/4-18	–	30	Brass

## Male Metric STOR-ISO 6149 / NPTF Port



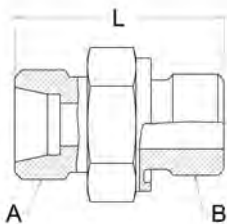
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
247-4438	M10x1	1/4-18	19.05	30	Brass
7V-5161	M14x1.5	1/4-18	19	29	Brass
7V-2839	M22x1.5	3/8-18	27	32	Brass
134-4123	M10x1	1/8-27	19	25	Steel
415-2241	M12x1.5	1/8-27	15.88	23.7	Steel
5C-7617	M14x1.5	1/4-18	19.05	33.3	Steel
159-3966	M14x1.5	3/8-18	22.22	35	Steel
291-2325	M16x1.5	3/8-18	25.4	98	Steel
146-2739	M18x1.5	1/8-27	–	406	Steel
268-1966	M18x1.5	1/4-18	24	15	Steel
419-5988	M22x1.5	1/2-14	–	42.67	Steel

## Metric STOR-ISO 6149 Port / Male NPTF



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
250-1468	M12x1.5	1/2-14	24	36	Steel
355-9605	M12x1.5	1/2-14	22.22	24.6	Steel

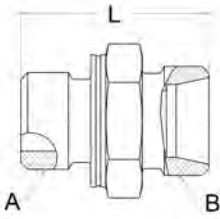
## Male Metric STOR-ISO 6149 / Male BSPP STOR-JIS B2351



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
372-1092	M16x1.5	1/4-19	19	30.5	Brass
240-5901	M14x1.5	1/4-19	18	30	SST
440-0640	M14x1.5	3/8-19	14	24.5	Steel
159-2861	M18x1.5	3/8-19	22	34.5	Steel
440-0637	M18x1.5	3/8-19	19	31.8	Steel
381-2820	M18x1.5	3/8-19	22	36.8	Steel
445-2457	M18x1.5	3/8-19	22	47	Steel

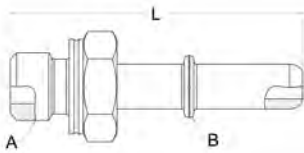
# Straight Adapters

## Male Metric STOR-ISO 6149 / Male 24° Cone-ISO 8434-1



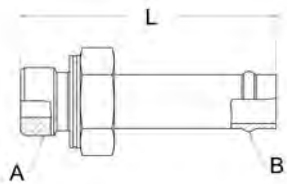
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
200-1555	M10x1	M16x1.5	17	29.5	Steel
355-7416	M12x1.5	M14x1.5	17	28	Steel
234-7196	M14x1.5	M16x1.5	19	30	Steel
385-5785	M16x1.5	M18x1.5	22	31	Steel
202-1919	M22x1.5	M22x1.5	27	37.5	Steel

## Male Metric STOR-ISO 6149 / Male-SAE J2044



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
474-2619	M12x1.5	7.94	17	52.1	Steel
444-4991	M18x1.5	15.88	24	74	Steel
423-6878	M18x1.5	9.52	24	55.1	Steel

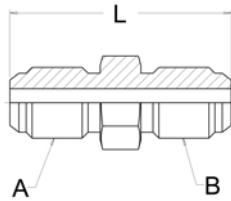
## Male Metric STOR-ISO 6149 / Hose Bead



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
185-1047	M12x1.5	12.70	17.4	59.2	Brass
321-8626	M12x1.5	9.52	17	38.1	Brass
287-8089	M16x1.5	12.70	22	55	Brass
478-5155	M16x1.5	15.90	-	38.9	Brass
321-8627	M16x1.5	9.52	22	40.39	Brass
505-8510	M22x1.5	9.52	17.46	41.7	Brass
185-1044	M30x2	25.40	38.1	66.5	Brass
453-6510	M12x1.5	10.32	-	38.1	SST
453-6997	M12x1.5	10.32	13	44.1	SST
207-4168	M14x1.5	7.94	-	64.4	Steel
426-4124	M16x1.5	12.70	22	60	Steel
439-1816	M16x1.5	15.88	22	60	Steel
135-2221	M16x1.5	15.88	21	70	Steel
439-1984	M18x1.5	15.88	26.99	63.6	Steel

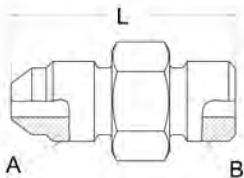
# Straight Adapters

## Male 37° JIC / Male 37° JIC



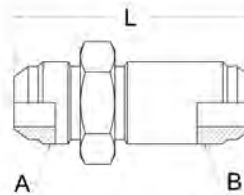
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
364-2513	9/16-18	9/16-18	20.64	55.4	SST
4R-8697	3/4-16	3/4-16	20.6	41.1	SST
3J-7355	7/16-20	7/16-20	12.7	34.8	Steel
281-5842	7/16-20	7/16-20	12.7	34.8	SST
030-7984	7/16-20	9/16-18	15.88	35.5	Steel
061-6740	7/16-20	3/4-16	25.4	38.3	Steel
7J-6418	1/2-20	1/2-20	19.05	34.8	Steel
7K-4129	9/16-18	9/16-18	15.88	35.8	Steel
053-3153	9/16-18	7/8-14	28.58	42.7	Steel
061-6737	3/4-16	9/16-18	25.4	38.6	Steel
090-6372	3/4-16	3/4-16	—	100	Steel
3R-2704	3/4-16	3/4-16	20.6	41.1	Steel
030-7982	3/4-16	7/8-14	23.82	45.3	Steel
061-8248	7/8-14	7/8-14	23.8	47.8	Steel
030-7983	7/8-14	1 1/16-12	34.92	52.2	Steel
3R-2705	1 1/16-12	3/4-16	28.58	49.6	Steel
9S-7739	1 1/16-12	1 1/16-12	28.58	54.9	Steel
2P-2206	1 3/16-12	1 3/16-12	—	56.1	Steel
061-9787	1 5/16-12	3/4-16	41.28	50.7	Steel
9S-7754	1 5/16-12	1 5/16-12	34.9	57.2	Steel
460-4091	1 5/16-12	1 5/16-12	34.9	200	Steel
061-6739	1 5/16-12	1 5/8-12	47.63	60.4	Steel
068-4152	1 5/8-12	1 5/8-12	42.86	61.7	Steel
7X-7904	1 7/8-12	1 7/8-12	50.8	69.8	Steel

## Male 37° JIC / Male STOR



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
369-6873	7/16-20	7/16-20	14.29	31.2	SST

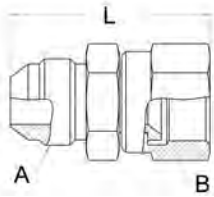
## Male 37° JIC / Bulkhead Male 37° JIC



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
489-4871	1 1/16-12	1 1/16-12	34.93	78.5	SST
2P-1276	7/16-20	7/16-20	17.46	52.6	Steel
7J-6419	1/2-20	1/2-20	19.05	52.6	Steel
2P-1278	9/16-18	9/16-18	20.64	55.4	Steel
137-0868	9/16-18	9/16-18	20.6	63	Steel
2P-1281	3/4-16	3/4-16	25.4	62	Steel
2P-1282	7/8-14	7/8-14	28.58	69.6	Steel
2P-1283	1 1/16-12	1 1/16-12	34.92	78.5	Steel
506-2015	1 1/16-12	1 1/16-12	34.92	260.4	Steel
2P-1284	1 3/16-12	1 3/16-12	38.1	79.2	Steel
2P-1285	1 5/16-12	1 5/16-12	41.28	79.8	Steel
506-2014	1 5/16-12	1 5/16-12	34.93	260.4	Steel
439-1964	1 5/8-12	1 5/16-12	47.63	82.8	Steel
238-2579	1 5/8-12	1 5/8-12	47.2	84.1	Steel

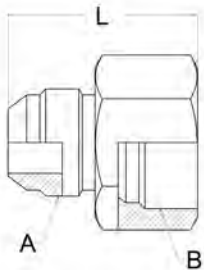
# Straight Adapters

## Male 37° JIC / 37° JIC Swivel Nut



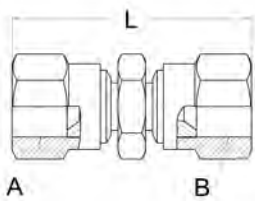
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
426-4163	9/16-18	3/4-16	22.23	25.4	Steel
367-6009	3/4-16	3/4-16		44	Steel
7X-7686	1 7/8-12	1 5/16-12	50.8	71.63	Steel

## Male 37° JIC / 37° JIC Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
5P-5009	7/16-20	1/2-20	15.88	31	Steel
5P-5008	7/16-20	9/16-18	17.46	32.4	Steel
5P-5007	7/16-20	3/4-16	22.22	38	Steel
5P-5006	7/16-20	7/8-14	25.4	50.2	Steel
5P-5005	7/16-20	1 1/16-12	34.9	44.5	Steel
5P-5004	7/16-20	1 3/16-12	34.92	56.4	Steel
5P-5003	7/16-20	1 5/16-12	38.1	57.9	Steel
488-4813	9/16-18	7/16-20	15.88	29.5	Steel
469-7700	9/16-18	1 5/16-12	34.9	36.8	Steel
459-0732	3/4-16	9/16-18	20.64	101.6	Steel
090-2782	3/4-16	9/16-18	20.64	29.5	Steel
5P-8228	3/4-16	7/8-14	25.4	35.8	Steel
450-2063	3/4-16	1 5/16-12	38.1	49.3	Steel
6V-9012	7/8-14	3/4-16	28.58	46	Steel
8T-2270	7/8-14	7/8-14	25.4	90	Steel
8C-4434	7/8-14	7/8-14		33.7	Steel
5P-1945	7/8-14	1 1/16-12	31.75	45.7	Steel
5P-9789	1 1/16-12	3/4-16	28.58	40	Steel
494-1459	1 1/16-12	7/8-14	28.58	37.85	Steel
470-4025	1 1/16-12	1 5/16-12	34.9	54.6	Steel
6V-7484	1 3/16-12	1 5/16-12	41.28	48.5	Steel
439-1897	1 5/16-12	1 1/16-12	38.1	58.9	Steel
489-1532	1 5/16-12	1 7/8-12	57.2	53.3	Steel
8C-6713	1 5/8-12	1 5/16-12	42.86	43.4	Steel
5R-8782	1 5/8-12	1 7/8-12		64.77	Steel

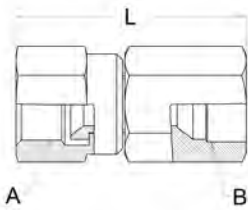
## 37° JIC Swivel Nut / 37° JIC Swivel Nut



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
207-1871	7/16-20	7/16-20	14.29	20.3	Steel

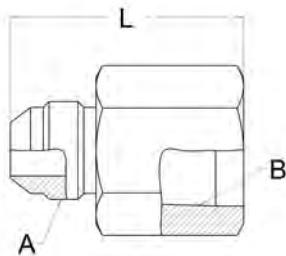
# Straight Adapters

## 37° JIC Swivel Nut / 37° JIC Port



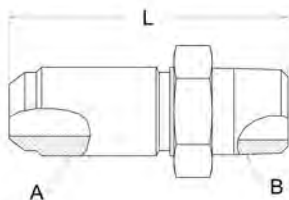
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
503-7460	9/16-18	9/16-18	17.46	40	Steel
8C-4065	1 5/16-12	1 5/16-12	38.1	80	Steel
8T-1486	1 5/8-12	1 5/8-12	50.8	80	Steel

## Male 37° JIC / NPTF Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
222-2208	7/16-20	1/4-18	19.05	33.3	Brass
126-7331	9/16-18	1/4-18	19.05	35.6	Brass
194-3987	7/16-20	1/4-18	17.46	53.6	SST
480-3025	3/4-16	1/2-14	28.58	45.5	SST
196-3188	1 1/16-12	3/4-14	34.92	52.3	SST
281-5890	1 5/16-12	1-11.5	41.28	59.7	SST
5D-9231	7/16-20	1/8-27	14.29	30.2	Steel
4U-1697	7/16-20	1/8-27	–	50.5	Steel
464-3341	7/16-20	1/2-14	28.58	42.9	Steel
7K-3762	1/2-20	1/8-27	14.29	29.7	Steel
5P-8869	9/16-18	1/4-18	19.05	35.6	Steel
053-0088	9/16-18	3/8-18	22.22	37.1	Steel
061-9413	3/4-16	3/8-18	22.2	39.6	Steel
5U-8370	3/4-16	1/2-14	28.58	45.6	Steel
151-7683	7/8-14	3/8-18	25.4	28	Steel
6V-1846	7/8-14	1/2-14	28.58	48	Steel
061-8246	1 1/16-12	3/4-14	34.9	52.3	Steel
173-0880	1 1/16-12	1-11.5	41.28	58.4	Steel
432-2045	1 3/16-12	1/4-18	–	42.8	Steel
001-7041	1 3/16-12	3/4-14	34.9	52.3	Steel
061-8962	1 5/16-12	1-11.5	41.28	59.7	Steel
302-8133	1 5/8-12	1 1/4-11.5	50.8	63.2	Steel
7X-7905	1 7/8-12	1 1/2-11.5	60.32	66.5	Steel

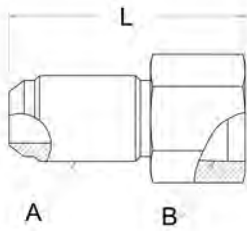
## Bulkhead Male 37° JIC / Male NPTF



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
143-9199	7/16-20	1/4-18	17.46	52.6	Steel
338-1539	3/4-16	1/2-14	25.4	65	Steel
6V-2409	7/8-14	1/2-14	28.58	69.6	Steel
441-1832	1 1/16-12	3/4-14	34.93	74.17	Steel
441-2009	1 5/16-12	1-11.5	41.28	78.74	Steel

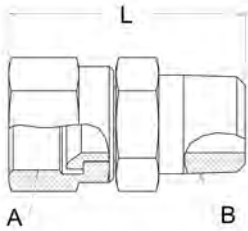
# Straight Adapters

## Bulkhead Male 37° JIC / NPTF Port



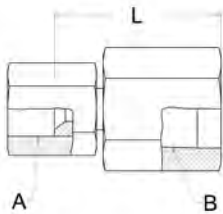
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
211-9682	1 7/8-12	1 1/2-11.5	60.32	88.9	SST
5P-6941	7/16-20	1/8-27	17.46	46.7	Steel
5P-4653	9/16-18	1/4-18	20.64	52.32	Steel
8T-3569	3/4-16	3/8-18	25.4	61.3	Steel
6V-2376	3/4-16	1/2-14	28.58	65.3	Steel
2U-0708	1 1/16-12	3/4-14	34.9	74.2	Steel
304-8014	1 5/16-12	1-11.5	41.28	71.9	Steel

## 37° JIC Swivel Nut / Male NPTF



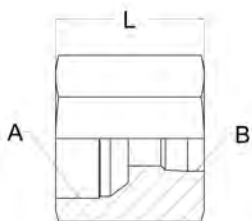
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
156-7530	7/16-20	1/4-18	14.29	37.1	SST
139-5872	7/16-20	1/4-18	14.29	37.1	Steel
140-9768	9/16-18	1/8-27	17.46	28	Steel
135-8279	9/16-18	3/8-18	19.05	40.4	Steel
6U-0464	3/4-16	3/8-18	22	47	Steel
340-2435	3/4-16	1/2-14	22.22	48.8	Steel
385-5788	7/8-14	1/2-14	25.4	52	Steel
148-0209	1 1/16-12	3/4-14	31.75	54.61	Steel
249-7676	1 5/8-12	1 1/4-11.5	50.8	70.1	Steel
213-3567	1 7/8-12	1 1/2-11.5		77	Steel

## 37° JIC Swivel Nut / NPTF Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
145-8833	7/16-20	1/4-18	19.05	27.4	Steel
9J-6190	9/16-18	3/8-18	22.22	41.15	Steel
5P-8018	3/4-16	3/8-18	22.22	42.2	Steel
6V-2481	3/4-16	1/2-14	28.58	48	Steel
8C-8552	7/8-14	1/2-14	25.4	37.3	Steel
5T-2119	1 1/16-12	1/2-14	26.99	37.85	Steel
8C-8553	1 1/16-12	3/4-14	34.92	52.1	Steel
5P-2244	1 5/16-12	1-11.5	38.1	67.3	Steel

## 37° JIC Port / NPTF Port

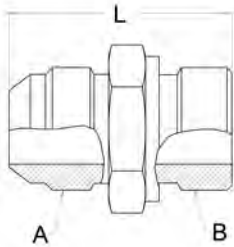


Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
7U-6220	9/16-18	1/8-27	17.46	25	Steel
8C-3999	1 5/16-12	3/4-14	38.1	58	Steel
8C-7533	1 5/8-12	1/2-14	47.63	49	Steel



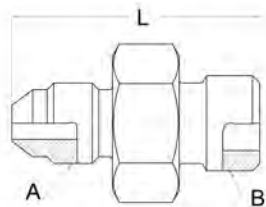
# Straight Adapters

## Male 37° JIC / Male Metric Flat Face-ISO 9974



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
6U-9892	7/16-20	M10x1	14	27.5	Steel
287-7272	7/16-20	M10x1	14	30	Steel
296-9364	7/16-20	M14x1.5	19	34	Steel
304-8042	7/16-20	M14x1.5	19	35.2	Steel
365-5036	9/16-18	M14x1.5	19	31	Steel
377-9635	3/4-16	M18x1.5	24	39	Steel
470-9971	3/4-16	M18x1.5		37.1	Steel
492-6784	7/8-14	M18x1.5	27	41.7	Steel
377-9637	1 1/16-12	M27x2	32	49	Steel

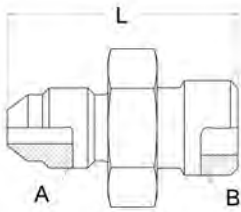
## Male 37° JIC / Male BSPP Flat Face-ISO 1179



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
525-1725	7/16-20	1/4-19		32	Brass
468-7184	7/16-20	1/8-28	17	28	Steel
6V-3522	7/16-20	1/4-19	19.05	35	Steel
330-9736	7/16-20	1/4-19	19.05	31.4	Steel
451-0441	7/16-20	3/8-19	22	33.2	Steel
171-9653	9/16-18	1/4-19	19.05	35.05	Steel
6V-3523	9/16-18	3/8-19		36.5	Steel
426-4169	9/16-18	1/2-14	30	38.6	Steel
426-4171	9/16-18	3/4-14	36	40	Steel
6V-3524	3/4-16	1/2-14		41	Steel
188-1032	3/4-16	3/4-14	36	42.2	Steel
6V-3526	7/8-14	1/2-14		44	Steel
208-2448	1 1/16-12	1/2-14	30	46.7	Steel
224-1376	1 1/16-12	3/4-14	36	47.5	Steel
385-5781	1 1/16-12	1-11	46	53.4	Steel
386-6198	1 5/16-12	3/4-14	36	52.7	Steel
426-4173	1 5/16-12	1 1/4-11	50	55.1	Steel

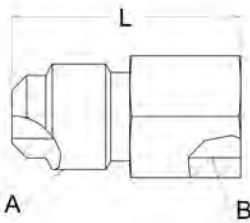
# Straight Adapters

## Male 37° JIC / Male BSPP STOR-JIS B2351



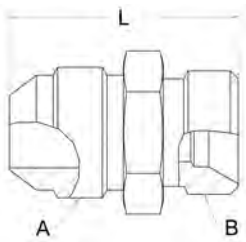
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
252-9332	1 1/16-12	3/4-14	31.75	51	1E2275
7C-3870	7/16-20	1/4-19	19.05	31.4	Brass
203-5563	7/16-20	1/4-19	19	32	SST
6V-3521	7/16-20	1/8-28		35	Steel
191-6504	7/16-20	1/2-14	30	38.6	Steel
281-5960	1/2-20	1/4-19	19	33	Steel
365-5040	9/16-18	1/4-19	19	32	Steel
6W-8220	9/16-18	3/8-19	22.2	33	Steel
9X-6642	3/4-16	1/4-19	19	36	Steel
6V-3525	3/4-16	3/8-19		39	Steel
174-0030	7/8-14	3/8-19		40.4	Steel
439-5446	7/8-14	3/4-14	32	44	Steel
6V-3528	7/8-14	3/4-14		47.5	Steel
6V-3527	1 1/16-12	3/4-14		50.5	Steel
6V-3529	1 5/16-12	1-11		53	Steel
252-9331	1 5/16-12	1 1/4-11	57	61	Steel

## Male 37° JIC / BSPP STOR-JIS B2351 Port



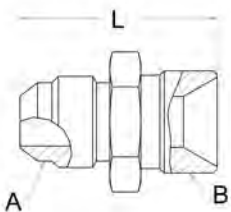
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
203-0436	7/16-20	1/8-28	13	24	Brass
186-3327	7/16-20	3/8-19	24	31.5	Brass

## Male 37° JIC / Male 60° Cone JIS Metric Thread



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
6V-4388	3/4-16	M18x1.5	–	33.53	Steel
6V-4389	7/8-14	M22x1.5	–	38.61	Steel
6V-4391	1 5/16-12	M30x1.5	–	44.04	Steel

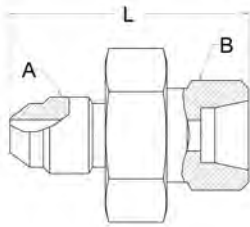
## Male 37° JIC / Male 60° Cone-ISO 7631



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
6V-4387	9/16-18	M16x1.5	–	30.96	Steel
280-7182	9/16-18	M16x1.5	22	36.2	Steel
6V-4390	1 1/16-12	M26x1.5	–	41.28	Steel

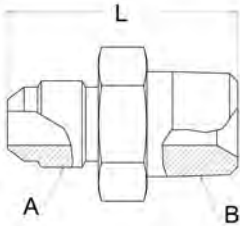
# Straight Adapters

## Male 37° JIC / Male 24° Cone-ISO 8434-1



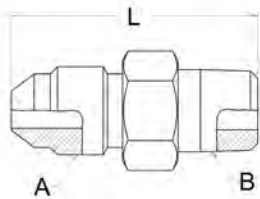
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
450-2058	7/16-20	M16x1.5	22	35	Steel
6V-0472	9/16-18	M14x1.5	19	31	Steel
6V-4373	3/4-16	M16x1.5	–	34.54	Steel
6V-4374	3/4-16	M18x1.5	–	34.54	Steel
6V-4375	7/8-14	M22x1.5	–	38.61	Steel
6V-4381	7/8-14	M22x1.5	–	40.64	Steel
6V-4376	1 1/16-12	M26x1.5	–	42.93	Steel
6V-4377	1 5/16-12	M30x2	–	46.04	Steel
6V-4383	1 5/16-12	M30x2	–	48.03	Steel
6V-4378	1 5/8-12	M36x2	–	47.62	Steel

## Male 37° JIC / Male 30° Flare-JIS



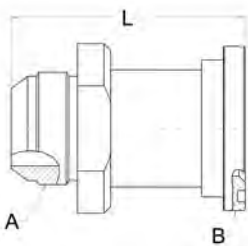
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
8T-2121	9/16-18	3/8-19	22	38	Steel
8T-2122	3/4-16	1/2-14	27	46	Steel
8T-2218	7/8-14	5/8-14	31.75	48.5	Steel
8T-2123	1 1/16-12	3/4-14	36	55	Steel
8T-2124	1 5/16-12	1-11	41	60	Steel

## Male 37° JIC / Male BSPT-ISO 7-1



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
211-3352	9/16-18	3/8-19	19	37	1E2275
241-0384	3/8-24	3/4-14	34.92	43.8	Steel
474-2605	7/16-20	1/8-28	13	31	Steel
245-7692	7/16-20	1/4-19	19.05	32	Steel
343-4581	9/16-18	1/4-19	17	36.3	Steel
3Q-1249	3/4-16	1/2-14	22	45.5	Steel
241-0386	3/4-16	3/4-14	34.92	46.4	Steel
342-9073	7/8-14	3/4-14	27	49.5	Steel
241-0398	1 1/16-12	1-11	34.92	57.2	Steel

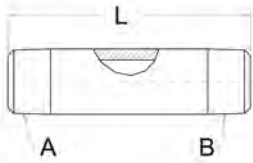
## Male 37° JIC / Code 61 Head Flange



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
503-7462	1 5/8-12	Dash 24	53.98	85.7	Steel
107-2660	1 7/8-12	Dash 24	50.8	68.8	Steel

# Straight Adapters

## Male NPTF / Male NPTF



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
105-7204	1/8-27	1/8-27	–	660	Black Pipe
192-0087	1/8-27	1/8-27	–	80	Black Pipe
161-7443	1/8-27	1/8-27	–	75	Black Pipe
110-8796	1/8-27	1/8-27	–	87	Black Pipe
112-9271	1/8-27	1/8-27	–	140	Black Pipe
124-0368	1/8-27	1/8-27	–	310	Black Pipe
124-0369	1/8-27	1/8-27	–	186	Black Pipe
321-8664	1/8-27	1/8-27	–	51	Black Pipe
3B-7282	1/8-27	1/8-27	–	152.4	Black Pipe
3B-7283	1/8-27	1/8-27	–	69.85	Black Pipe
3B-7285	1/8-27	1/8-27	–	63	Black Pipe
3B-7733	1/8-27	1/8-27	–	38.1	Black Pipe
3B-7734	1/8-27	1/8-27	–	88.9	Black Pipe
3B-7736	1/8-27	1/8-27	–	127	Black Pipe
5H-7826	1/8-27	1/8-27	–	25.4	Black Pipe
451-1488	1/8-27	1/8-27	–	87	Black Pipe
4F-2861	1/8-27	1/8-27	–	92.075	Black Pipe
4J-2394	1/8-27	1/8-27	–	109.22	Black Pipe
9S-1812	1/8-27	1/8-27	–	102	Black Pipe
6V-1813	1/8-27	1/8-27	–	19	Black Pipe
8B-2283	1/8-27	1/8-27	–	32	Black Pipe
1V-2750	1/4-18	1/4-18	–	63.5	Black Pipe
3B-7261	1/4-18	1/4-18	–	57.15	Black Pipe
3B-7262	1/4-18	1/4-18	–	38.1	Black Pipe
3B-7273	1/4-18	1/4-18	–	101.6	Black Pipe
3B-7275	1/4-18	1/4-18	–	64	Black Pipe
3B-7738	1/4-18	1/4-18	–	22	Black Pipe
3B-7740	1/4-18	1/4-18	–	152.4	Black Pipe
5B-7442	1/4-18	1/4-18	–	120.65	Black Pipe
5H-7598	1/4-18	1/4-18	–	76.2	Black Pipe
5N-8396	1/4-18	1/4-18	–	83	Black Pipe
030-7765	3/8-18	3/8-18	–	51	Black Pipe
136-2954	3/8-18	3/8-18	–	200	Black Pipe
136-2955	3/8-18	3/8-18	–	90	Black Pipe
1L-1644	3/8-18	3/8-18	–	44	Black Pipe
393-8331	3/8-18	3/8-18	–	120	Black Pipe
3B-7741	3/8-18	3/8-18	–	25.4	Black Pipe
3B-7742	3/8-18	3/8-18	–	38.1	Black Pipe
3B-7743	3/8-18	3/8-18	–	139.7	Black Pipe
4F-0186	3/8-18	3/8-18	–	76.2	Black Pipe
6Z-2038	3/8-18	3/8-18	–	25.4	Black Pipe
105-1860	1/2-14	1/2-14	–	76	Black Pipe
105-1861	1/2-14	1/2-14	–	63.5	Black Pipe
130-7284	1/2-14	1/2-14	–	63	Black Pipe
130-7287	1/2-14	1/2-14	–	120	Black Pipe
1L-8432	1/2-14	1/2-14	–	70	Black Pipe
279-0825	1/2-14	1/2-14	–	482.6	Black Pipe
2B-3470	1/2-14	1/2-14	–	140	Black Pipe
2H-1880	1/2-14	1/2-14	–	152	Black Pipe
222-7370	1/2-14	1/2-14	–	1750	Black Pipe
222-7371	1/2-14	1/2-14	–	1826.7	Black Pipe

# Straight Adapters

## Male NPTF / Male NPTF (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
222-9984	1/2-14	1/2-14	–	508	Black Pipe
222-9985	1/2-14	1/2-14	–	2991.3	Black Pipe
242-4310	1/2-14	1/2-14	–	178	Black Pipe
249-4312	1/2-14	1/2-14	–	50.8	Black Pipe
267-6785	1/2-14	1/2-14	–	142	Black Pipe
314-9603	1/2-14	1/2-14	–	125	Black Pipe
3B-7272	1/2-14	1/2-14	–	76.2	Black Pipe
3B-7284	1/2-14	1/2-14	–	38.1	Black Pipe
3B-7866	1/2-14	1/2-14	–	51	Black Pipe
3F-8431	1/2-14	1/2-14	–	228.6	Black Pipe
5B-7319	1/2-14	1/2-14	–	95.25	Black Pipe
9S-1339	1/2-14	1/2-14	–	33	Black Pipe
7B-4115	1/2-14	1/2-14	–	44.45	Black Pipe
8B-3308	1/2-14	1/2-14	–	28.575	Black Pipe
1F-6660	3/4-14	3/4-14	–	64	Black Pipe
143-2922	3/4-14	3/4-14	–	127	Black Pipe
171-9420	3/4-14	3/4-14	–	108	Black Pipe
180-4655	3/4-14	3/4-14	–	152	Black Pipe
276-3503	3/4-14	3/4-14	–	279.4	Black Pipe
279-0826	3/4-14	3/4-14	–	357.7	Black Pipe
279-0827	3/4-14	3/4-14	–	1700	Black Pipe
222-7368	3/4-14	3/4-14	–	1485	Black Pipe
222-7369	3/4-14	3/4-14	–	786.4	Black Pipe
3P-2021	3/4-14	3/4-14	–	101.6	Black Pipe
345-1321	3/4-14	3/4-14	–	381	Black Pipe
3B-7265	3/4-14	3/4-14	–	152.4	Black Pipe
3B-7267	3/4-14	3/4-14	–	76.2	Black Pipe
3B-7270	3/4-14	3/4-14	–	51	Black Pipe
3B-7745	3/4-14	3/4-14	–	35	Black Pipe
5B-9892	3/4-14	3/4-14	–	44	Black Pipe
4F-0440	3/4-14	3/4-14	–	57.15	Black Pipe
4I-7470	3/4-14	3/4-14	–	169.8625	Black Pipe
6L-5295	3/4-14	3/4-14	–	140	Black Pipe
7F-6654	3/4-14	3/4-14	–	50.8	Black Pipe
141-2370	1-11.5	1-11.5	–	1448	Black Pipe
170-1186	1-11.5	1-11.5	–	64	Black Pipe
184-3534	1-11.5	1-11.5	–	260	Black Pipe
12-3201	1-11.5	1-11.5	–	197	Black Pipe
278-1172	1-11.5	1-11.5	–	1568.8	Black Pipe
278-1173	1-11.5	1-11.5	–	2326	Black Pipe
278-1174	1-11.5	1-11.5	–	120	Black Pipe
278-1175	1-11.5	1-11.5	–	207.3	Black Pipe
278-1176	1-11.5	1-11.5	–	638.9	Black Pipe
278-1178	1-11.5	1-11.5	–	67.5	Black Pipe
279-0836	1-11.5	1-11.5	–	1514.4	Black Pipe
279-0837	1-11.5	1-11.5	–	1854.2	Black Pipe
279-0838	1-11.5	1-11.5	–	406.4	Black Pipe
279-1125	1-11.5	1-11.5	–	469.9	Black Pipe
229-5976	1-11.5	1-11.5	–	292	Black Pipe
3N-3894	1-11.5	1-11.5	–	97	Black Pipe
3B-7280	1-11.5	1-11.5	–	50.8	Black Pipe

# Straight Adapters

## Male NPTF / Male NPTF (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
3B-7749	1-11.5	1-11.5	–	38	Black Pipe
2N-0853	1-11.5	1-11.5	–	108	Black Pipe
2S-9222	1-11.5	1-11.5	–	206.38	Black Pipe
6B-8128	1-11.5	1-11.5	–	63.5	Black Pipe
6B-8129	1-11.5	1-11.5	–	76.2	Black Pipe
6N-2430	1-11.5	1-11.5	–	139.7	Black Pipe
7B-7169	1-11.5	1-11.5	–	44	Black Pipe
7B-7908	1-11.5	1-11.5	–	114.3	Black Pipe
7B-9008	1-11.5	1-11.5	–	152.4	Black Pipe
7F-8622	1-11.5	1-11.5	–	130	Black Pipe
7F-8701	1-11.5	1-11.5	–	234.95	Black Pipe
131-4961	1 1/4-11.5	1 1/4-11.5	–	125	Black Pipe
145-1041	1 1/4-11.5	1 1/4-11.5	–	88	Black Pipe
110-6302	1 1/4-11.5	1 1/4-11.5	–	142	Black Pipe
3B-7750	1 1/4-11.5	1 1/4-11.5	–	41.275	Black Pipe
3D-2189	1 1/4-11.5	1 1/4-11.5	–	101.6	Black Pipe
2R-3538	1 1/4-11.5	1 1/4-11.5	–	136.525	Black Pipe
2W-8721	1 1/4-11.5	1 1/4-11.5	–	107.95	Black Pipe
5L-3785	1 1/4-11.5	1 1/4-11.5	–	50.8	Black Pipe
4B-4609	1 1/4-11.5	1 1/4-11.5	–	64	Black Pipe
4P-7891	1 1/4-11.5	1 1/4-11.5	–	85.725	Black Pipe
4P-7894	1 1/4-11.5	1 1/4-11.5	–	168.275	Black Pipe
105-0428	1 1/2-11.5	1 1/2-11.5	–	203.2	Black Pipe
126-4117	1 1/2-11.5	1 1/2-11.5	–	1708	Black Pipe
126-4118	1 1/2-11.5	1 1/2-11.5	–	88	Black Pipe
130-2550	1 1/2-11.5	1 1/2-11.5	–	343	Black Pipe
132-1430	1 1/2-11.5	1 1/2-11.5	–	420	Black Pipe
136-0546	1 1/2-11.5	1 1/2-11.5	–	215	Black Pipe
1L-2786	1 1/2-11.5	1 1/2-11.5	–	209.55	Black Pipe
1L-2893	1 1/2-11.5	1 1/2-11.5	–	70	Black Pipe
149-3995	1 1/2-11.5	1 1/2-11.5	–	165	Black Pipe
149-3996	1 1/2-11.5	1 1/2-11.5	–	225	Black Pipe
156-8160	1 1/2-11.5	1 1/2-11.5	–	133	Black Pipe
123-0214	1 1/2-11.5	1 1/2-11.5	–	548	Black Pipe
279-0843	1 1/2-11.5	1 1/2-11.5	–	756.5	Black Pipe
279-0844	1 1/2-11.5	1 1/2-11.5	–	402.4	Black Pipe
279-0846	1 1/2-11.5	1 1/2-11.5	–	761.7	Black Pipe
279-0847	1 1/2-11.5	1 1/2-11.5	–	326.5	Black Pipe
287-6901	1 1/2-11.5	1 1/2-11.5	–	343	Black Pipe
204-0241	1 1/2-11.5	1 1/2-11.5	–	254	Black Pipe
208-6594	1 1/2-11.5	1 1/2-11.5	–	267	Black Pipe
210-8819	1 1/2-11.5	1 1/2-11.5	–	495	Black Pipe
210-8820	1 1/2-11.5	1 1/2-11.5	–	305	Black Pipe
229-9325	1 1/2-11.5	1 1/2-11.5	–	69.85	Black Pipe
263-0874	1 1/2-11.5	1 1/2-11.5	–	122	Black Pipe
315-8412	1 1/2-11.5	1 1/2-11.5	–	475	Black Pipe
3L-8992	1 1/2-11.5	1 1/2-11.5	–	64	Black Pipe
3L-8993	1 1/2-11.5	1 1/2-11.5	–	50.8	Black Pipe
3N-9383	1 1/2-11.5	1 1/2-11.5	–	279	Black Pipe
3R-9595	1 1/2-11.5	1 1/2-11.5	–	260	Black Pipe
434-3694	1 1/2-11.5	1 1/2-11.5	–	50.8	Black Pipe

# Straight Adapters

## Male NPTF / Male NPTF (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
2L-2811	1 1/2-11.5	1 1/2-11.5	–	180.975	Black Pipe
5B-7642	1 1/2-11.5	1 1/2-11.5	–	85.725	Black Pipe
5B-7643	1 1/2-11.5	1 1/2-11.5	–	114.3	Black Pipe
5B-7661	1 1/2-11.5	1 1/2-11.5	–	44.45	Black Pipe
4P-7892	1 1/2-11.5	1 1/2-11.5	–	463.55	Black Pipe
6F-6045	1 1/2-11.5	1 1/2-11.5	–	57.15	Black Pipe
6F-8857	1 1/2-11.5	1 1/2-11.5	–	76.2	Black Pipe
6F-8858	1 1/2-11.5	1 1/2-11.5	–	44.45	Black Pipe
6L-4489	1 1/2-11.5	1 1/2-11.5	–	330.2	Black Pipe
6L-5699	1 1/2-11.5	1 1/2-11.5	–	127	Black Pipe
7B-0497	1 1/2-11.5	1 1/2-11.5	–	228.6	Black Pipe
7E-2476	1 1/2-11.5	1 1/2-11.5	–	571	Black Pipe
9Y-6582	1 1/2-11.5	1 1/2-11.5	–	314	Black Pipe
278-5664	1 1/2-11.5	2-11.5	–	116.9	Black Pipe
128-5051	2-11.5	2-11.5	–	177	Black Pipe
292-3621	2-11.5	2-11.5	–	275	Black Pipe
292-3624	2-11.5	2-11.5	–	490	Black Pipe
222-2024	2-11.5	2-11.5	–	475	Black Pipe
246-1245	2-11.5	2-11.5	–	51	Black Pipe
272-2687	2-11.5	2-11.5	–	63.5	Black Pipe
426-4120	2-11.5	2-11.5	–	203.2	Black Pipe
3B-7286	2-11.5	2-11.5	–	76.2	Black Pipe
3B-7296	2-11.5	2-11.5	–	50.8	Black Pipe
5N-8778	2-11.5	2-11.5	–	355.6	Black Pipe
4D-5222	2-11.5	2-11.5	–	152.4	Black Pipe
4P-2603	2-11.5	2-11.5	–	193.675	Black Pipe
6N-4543	2-11.5	2-11.5	–	104.8	Black Pipe
8Q-9643	2-11.5	2-11.5	–	63.5	Black Pipe
8T-3510	2-11.5	2-11.5	–	280	Black Pipe
8W-9062	2-11.5	2-11.5	–	175	Black Pipe
8X-5627	2-11.5	2-11.5	–	410	Black Pipe
8I-1278	2-11.5	2-11.5	–	330	Black Pipe
140-5978	3-8	3-8	–	67	Black Pipe
149-4009	3-8	3-8	–	304.8	Black Pipe
162-7255	3-8	3-8	–	155	Black Pipe
292-3623	3-8	3-8	–	370	Black Pipe
315-8399	3-8	3-8	–	112	Black Pipe
3N-8667	3 1/2-8	3 1/2-8	–	495.3	Black Pipe
3N-8672	3 1/2-8	3 1/2-8	–	120.65	Black Pipe
3N-8673	3 1/2-8	3 1/2-8	–	158.75	Black Pipe
2N-2472	3 1/2-8	3 1/2-8	–	69.85	Black Pipe
5N-4476	3 1/2-8	3 1/2-8	–	222.25	Black Pipe
6V-8408	3 1/2-8	3 1/2-8	–	400	Black Pipe
6V-8410	3 1/2-8	3 1/2-8	–	908	Black Pipe
6V-8412	3 1/2-8	3 1/2-8	–	873	Black Pipe
6V-8424	3 1/2-8	3 1/2-8	–	83	Black Pipe
251-1593	4-8	4-8	–	440	Black Pipe
0A-2926	1/8-27	1/8-27	11.11	24.6	Brass
379-1119	1/8-27	1/8-27	17.526	49.27	Brass
6V-2610	1/8-27	1/8-27	–	19.05	Brass
6K-1019	1/4-18	1/8-27	15.88	31.75	Brass
3B-7767	1/4-18	1/4-18	–	22.225	Brass

# Straight Adapters

## Male NPTF / Male NPTF (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
3B-7771	1/4-18	1/4-18	–	31.75	Brass
3B-7773	1/4-18	1/4-18	–	50.8	Brass
3B-7894	1/4-18	1/4-18	–	38.1	Brass
5K-2408	1/4-18	1/4-18	15.88	36.8	Brass
1H-7721	3/8-18	3/8-18	–	38.1	Brass
397-1099	1/2-14	3/8-18	22.22	41.15	Brass
3B-7770	1/2-14	1/2-14	–	28.575	Brass
3B-7881	1/2-14	1/2-14	–	38.1	Brass
2N-2012	1 1/4-11.5	1 1/4-11.5	–	127	Brass
6V-9029	1 1/4-11.5	1 1/4-11.5	–	63.5	Brass
3N-7600	2-11.5	2-11.5	–	101.6	Brass
5N-2918	2-11.5	2-11.5	–	50.8	Brass
5N-8001	2-11.5	2-11.5	–	612.7	Brass
3B-7274	1/4-18	1/4-18	–	89	Galv Pipe
3B-7276	1/4-18	1/4-18	–	50.8	Galv Pipe
3B-7739	1/4-18	1/4-18	–	32	Galv Pipe
6V-0678	3/8-18	3/8-18	–	127	Galv Pipe
3B-7271	1/2-14	1/2-14	–	101.6	Galv Pipe
421-6187	1-11.5	1-11.5	–	51	Galv Pipe
5V-6414	1-11.5	1-11.5	–	563	Galv Pipe
004-1309	1 1/4-11.5	1 1/4-11.5	–	41	Galv Pipe
173-4409	1/4-18	1/4-18	15.88	36.5125	SST
4C-5898	3/8-18	3/8-18	19.05	76.2	SST
168-3333	1/2-14	1/2-14	22.22	48	SST
168-3346	1/2-14	1/2-14	–	152	SST
297-8066	3/4-14	1/2-14	25.58	49.8	SST
201-0578	3/4-14	3/4-14	–	127	SST
173-4410	1-11.5	1-11.5	34.92	59.4	SST
175-3623	1-11.5	1-11.5	–	102	SST
194-4171	1-11.5	1 1/4-11.5	–	62.2	SST
1Y-3853	1 1/4-11.5	1 1/4-11.5	–	203.2	SST
1Y-3854	1 1/4-11.5	1 1/4-11.5	–	101.6	SST
491-5273	1 1/4-11.5	1 1/4-11.5	44.45	63	SST
439-1941	1 1/2-11.5	1 1/2-11.5	–	177.8	SST
439-1943	1 1/2-11.5	1 1/2-11.5	–	254	SST
439-1983	1 1/2-11.5	1 1/2-11.5	–	127	SST
8Q-9297	1 1/2-11.5	1 1/2-11.5	–	203	SST
8Q-9880	1 1/2-11.5	1 1/2-11.5	–	50.8	SST
197-7547	2-11.5	2-11.5	–	50.8	SST
209-9835	2-11.5	2-11.5	–	203.2	SST
209-9896	2-11.5	2-11.5	–	101.6	SST
439-1945	2-11.5	2-11.5	–	152.4	SST
386-6237	2-11.5	2-11.5	–	245	SST
450-0847	2 1/2-8	2 1/2-8	–	127	SST
493-1510	2 1/2-8	2 1/2-8	–	63.5	SST
100-7868	1/8-27	1/8-27	–	381	Steel
5K-5068	1/8-27	1/8-27	11.11	26.9	Steel
8C-7575	1/8-27	1/8-27	11.11	38.1	Steel
8C-7576	1/8-27	1/8-27	11.11	76.2	Steel
5P-3238	1/4-18	1/8-27	15.88	32	Steel
105-6431	1/4-18	1/4-18	19	35	Steel
5P-8998	1/4-18	1/4-18	15.88	36.8	Steel
134-0712	1/4-18	1/4-18	–	28	Steel
141-9504	1/4-18	1/4-18	–	285	Steel
141-9505	1/4-18	1/4-18	–	603	Steel



# Straight Adapters

## Male NPTF / Male NPTF (Cont'd.)

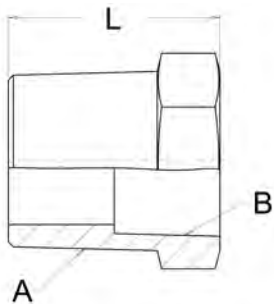
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
279-4495	1/4-18	1/4-18	–	51	Steel
8C-7574	1/4-18	1/4-18	15.88	152.4	Steel
114-3399	1/4-18	1/2-14	22.22	43.18	Steel
8X-3316	1/4-18	3/4-14	–	52.3875	Steel
5S-2403	3/8-18	1/4-18	19.05	37	Steel
4C-7153	3/8-18	1/4-18	19.05	45	Steel
004-6683	3/8-18	3/8-18	19.05	36.8	Steel
030-7764	3/8-18	3/8-18	–	38.1	Steel
7X-0495	3/8-18	1/2-14	22.22	43.2	Steel
087-0882	1/2-14	1/4-18	22.35	41.15	Steel
4C-7151	1/2-14	1/4-18	22.23	41	Steel
4C-7140	1/2-14	3/8-18	22.23	41	Steel
002-6454	1/2-14	1/2-14	22.22	48	Steel
443-2324	1/2-14	1/2-14	–	188.9	Steel
4C-7133	1/2-14	1/2-14	22.23	41	Steel
8C-6905	1/2-14	3/4-14	28.58	49.78	Steel
467-0748	3/4-14	3/8-18	28.58	47.7	Steel
326-9452	3/4-14	1/2-14	28.58	76.2	Steel
004-7270	3/4-14	3/4-14	28.58	49.8	Steel
144-2609	3/4-14	3/4-14	28.58	49.8	Steel
4C-7160	3/4-14	3/4-14	26.99	63	Steel
7E-5719	3/4-14	3/4-14	–	76.2	Steel
7E-8352	3/4-14	3/4-14	–	149.225	Steel
511-3228	1-11.5	1/2-14	34.11	54	Steel
4C-7134	1-11.5	3/4-14	34.93	56	Steel
5S-2392	1-11.5	3/4-14	34.92	54.5	Steel
005-8615	1-11.5	1-11.5	34.92	59.4	Steel
107-9149	1-11.5	1-11.5	–	38	Steel
152-7597	1-11.5	1-11.5	–	390	Steel
424-8759	1-11.5	1-11.5	–	225	Steel
389-3736	1-11.5	1-11.5	–	152	Steel
469-7760	1-11.5	1-11.5	–	89	Steel
1P-5597	1 1/4-11.5	1-11.5	–	60.25	Steel
1P-5598	1 1/4-11.5	1 1/4-11.5	44.45	62.99	Steel
104-4526	1 1/4-11.5	1 1/4-11.5	–	41.275	Steel
338-0618	1 1/4-11.5	1 1/4-11.5	–	380	Steel
268-1536	1 1/2-11.5	1-11.5	50.8	64.8	Steel
109-5605	1 1/2-11.5	1 1/2-11.5	50.8	66.3	Steel
1H-7722	1 1/2-11.5	1 1/2-11.5	–	361.95	Steel
3E-2315	1 1/2-11.5	2-11.5	63.5	68.9	Steel
279-4506	2-11.5	2-11.5	–	178	Steel
415-7244	2-11.5	2-11.5	–	152.4	Steel
434-5630	2-11.5	2-11.5	–	622.3	Steel
434-5631	2-11.5	2-11.5	–	120.65	Steel
8X-3473	2-11.5	2-11.5	–	220	Steel
140-8346	4-8	4-8	–	102	Steel
294-8226	4-8	4-8	–	152.4	Steel
427-0079	4-8	4-8	–	115	Steel
3B-7263	1/8-27	1/8-27	–	51	STL Pipe
003-4711	1/4-18	1/4-18	–	57.15	STL Pipe
3E-2303	1/4-18	1/4-18	–	51	STL Pipe
467-0875	1/4-18	1/4-18	–	140	STL Pipe
514-1031	3/8-18	3/8-18	–	76.2	STL Pipe
441-1658	3/8-18	3/8-18	–	38.1	STL Pipe
441-1680	3/8-18	3/8-18	–	228.6	STL Pipe

# Straight Adapters

## Male NPTF / Male NPTF (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
470-4054	3/8-18	3/8-18	–	127	STL Pipe
470-4435	3/8-18	3/8-18	–	1676.4	STL Pipe
183-2779	1/2-14	1/2-14	–	115	STL Pipe
125-7407	3/4-14	3/4-14	–	76	STL Pipe
3B-7747	3/4-14	3/4-14	–	89	STL Pipe
469-7854	3/4-14	3/4-14	–	1219.2	STL Pipe
470-4436	3/4-14	3/4-14	–	3276.6	STL Pipe
468-1668	1-11.5	1-11.5	–	406.4	STL Pipe
469-7753	1-11.5	1-11.5	–	660	STL Pipe
469-7754	1-11.5	1-11.5	–	1422	STL Pipe
469-7755	1-11.5	1-11.5	–	2057.4	STL Pipe
469-7756	1-11.5	1-11.5	–	2781	STL Pipe
499-3416	1 1/4-11.5	1 1/4-11.5	–	762	STL Pipe
499-3417	1 1/4-11.5	1 1/4-11.5	–	203.2	STL Pipe
352-2775	1 1/2-11.5	1 1/2-11.5	–	250	STL Pipe
3L-1258	1 1/2-11.5	1 1/2-11.5	–	101.6	STL Pipe
499-0218	1 1/2-11.5	1 1/2-11.5	–	762	STL Pipe
499-0219	1 1/2-11.5	1 1/2-11.5	–	203.2	STL Pipe
434-5628	2-11.5	2-11.5	–	106.36	STL Pipe
434-5629	2-11.5	2-11.5	–	1436.69	STL Pipe
396-6376	2-11.5	2-11.5	–	240.7	STL Pipe
502-6693	2-11.5	2-11.5	–	762	STL Pipe
502-6694	2-11.5	2-11.5	–	203.2	STL Pipe
511-5614	2 1/2-8	2 1/2-8	–	152.4	STL Pipe
514-6651	2 1/2-8	2 1/2-8	–	355.6	STL Pipe
427-0090	4-8	4-8	–	89	STL Pipe
431-6073	6-8	6-8	–	228.6	STL Pipe

## Male NPTF / NPTF Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
3B-7384	1/4-18	1/8-27	–	38.1	Black Pipe
327-8578	4-8	3-8	–	56	Black Pipe
002-0639	1/8-27	1/8-27	14.29	22.35	Brass
5H-8936	1/8-27	1/4-18	–	26.9	Brass
1A-5912	1/8-27	9/16-18	17.46	27	Brass
3B-6768	1/4-18	1/8-27	15.88	21.6	Brass
039-4966	1/4-18	1/4-18	19.05	25.4	Brass
2R-1576	1/4-18	1/4-18	19.05	25.4	Brass
8B-6021	1/4-18	3/8-18	22.23	31.8	Brass
332-8567	3/8-18	1/8-27	18.87	17.5	Brass
1H-7724	3/8-18	1/4-18	19.05	21.6	Brass
5K-6875	3/8-18	3/8-18	22.22	31.75	Brass
3B-7764	1/2-14	1/4-18	17.08	19.05	Brass
011-5224	3/4-14	3/8-18	34.92	21.6	Brass
012-8140	3/4-14	1/2-14	28.58	21.6	Brass
329-0667	1-11.5	1/2-14	34.93	33	Brass
011-7219	1-11.5	3/4-14	36.32	25.4	Brass
4L-1847	1 1/4-11.5	3/4-14	44.45	25.4	Brass
4B-7762	1 1/4-11.5	1-11.5	44.7	27.4	Brass
8T-1492	1 1/4-11.5	1 1/2-11.5	60.32	63.5	Brass

# Straight Adapters

## Male NPTF / NPTF Port (Cont'd.)

Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
4W-0066	1 1/2-11.5	2-11.5	18.03	90	Brass
5P-2201	2-11.5	1 1/2-11.5	62.99	31	Brass
061-7325	2 1/2-8	2-11.5	76.2	41.3	Brass
3N-8699	3-8	2-11.5	83.31	41.1	Brass
2F-3360	1/2-14	2-11.5	34.93	32.5	Iron
432-9956	3/4-14	1/2-14	–	16	Iron
4D-3967	1-11.5	1/8-27	28.58	26.67	Iron
3B-7724	1-11.5	1/4-18	28.58	26.67	Iron
3B-7254	1-11.5	3/8-18	28.58	26.59	Iron
2L-0042	1 1/4-11.5	1/2-14	33.34	30.2	Iron
6F-7732	1 1/2-11.5	3/4-14	50.8	33	Iron
8B-5774	1 1/2-11.5	1-11.5	50.8	28.6	Iron
1F-3605	1 1/2-11.5	1 1/4-11.5	50.8	28.6	Iron
7D-4754	2-11.5	1/2-14	34	32.76	Iron
2F-5277	2-11.5	1-11.5	50.8	32.5	Iron
8B-9580	2-11.5	1 1/4-11.5	63.5	31.8	Iron
5B-7660	2-11.5	1 1/2-11.5	62.99	31.8	Iron
7F-6923	2-11.5	1 1/2-11.5	–		Iron
3N-9409	2 1/2-8	2-11.5	76.2	41.28	Iron
140-9462	3-8	1 1/2-11.5	–	40.9	Iron
5L-6669	3-8	2-11.5	83.31	40.76	Iron
428-8455	4-8	2-11.5	84.6	48	Iron
419-4168	1/4-18	1/8-27	15.88	19	SST
123-8581	3/8-18	1/4-18	19.05	21.3	SST
303-9532	1/2-14	1/4-18	24	21	SST
432-9698	1/2-14	1/4-18	22.22	28.194	SST
124-3696	3/4-14	1/2-14	38.1	51	SST
162-6622	1-11.5	1/4-18	34.92	33.6	SST
173-4412	1 1/4-11.5	1-11.5	44.45	36.3	SST
8Q-9286	1 1/2-11.5	1/4-18	50.8	32	SST
198-8308	1 1/2-11.5	1 1/4-11.5	50.8	39.9	SST
439-1940	2-11.5	1/4-18	63.5	36.1	SST
191-0787	2-11.5	1-11.5	63.5	44.5	SST
454-2772	2-11.5	1-11.5	63.5	44.5	SST
493-1509	2-11.5	1 1/4-11.5	63.5	44.5	SST
281-5850	2-11.5	1 1/2-11.5	63.5	44.4	SST
489-4875	2 1/2-8	2 1/2-8	77	100	SST
6K-6967	1/8-27	1/8-27	15.88	26.4	Steel
126-2565	1/8-27	1/8-27	15.88	46.4	Steel
222-3487	1/8-27	1/8-27	15.88	76.2	Steel
4K-3026	1/8-27	1/8-27	12.7	19.1	Steel
7W-0629	1/8-27	1/8-27	–	22.9	Steel
151-0714	1/8-27	1/8-27	14	25	Steel
4H-0553	1/8-27	1/4-18	19.05	30.7	Steel
4M-5317	1/4-18	1/8-27	15.88	21.6	Steel
122-2901	1/4-18	1/8-27	17	29	Steel
309-0912	1/4-18	1/8-27	–	19	Steel
9L-0638	1/4-18	1/8-27	14.29	19.05	Steel
1P-3651	1/4-18	1/8-27	15.88	16.764	Steel
432-3697	1/4-18	1/8-27	–	14.73	Steel
3P-1823	1/4-18	1/4-18	19.05	35.3	Steel
432-2046	1/4-18	1/4-18	–	32	Steel
442-3539	1/4-18	1/4-18	14.29	32.51	Steel
030-8370	1/4-18	3/8-18	22.22	36.6	Steel

# Straight Adapters

## Male NPTF / NPTF Port (Cont'd.)

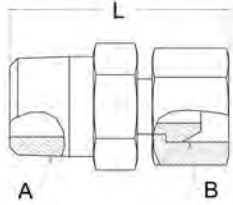
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
162-6207	1/4-18	3/8-18	22.2	54	Steel
4L-7412	1/4-18	1/2-14	28.58	40	Steel
445-9718	1/4-18	3/4-14	25.4	34.45	Steel
3B-7721	3/8-18	1/8-27	19.05	18.7	Steel
169-0454	3/8-18	1/8-27	19.05	21.6	Steel
3B-7722	3/8-18	1/4-18	19.05	21.6	Steel
203-7959	3/8-18	3/8-18	22.22	46	Steel
032-3506	3/8-18	1/2-14	28.58	42.7	Steel
030-7139	3/8-18	3/4-14	34.93	44.5	Steel
8B-1931	1/2-14	1/8-27	22.22	27.9	Steel
6B-5072	1/2-14	1/4-18	22.22	27.9	Steel
9S-9370	1/2-14	1/4-18	22.23	20.6	Steel
3B-7255	1/2-14	3/8-18	22.22	27.9	Steel
004-6557	1/2-14	3/8-18	22.22	38.1	Steel
210-6962	1/2-14	3/8-18	22.22	21	Steel
7D-4903	1/2-14	1/2-14	28.58	47.5	Steel
1L-5620	1/2-14	1/2-14	25.4	38.1	Steel
115-9167	1/2-14	1/2-14	29	73	Steel
007-0950	1/2-14	3/4-14	34.92	49	Steel
249-1243	1/2-14	1-11.5	41.28	55.6	Steel
7B-2176	3/4-14	1/8-27	26.924	23.11	Steel
9B-3523	3/4-14	1/4-18	28.58	29.7	Steel
6B-4661	3/4-14	3/8-18	28.58	29.72	Steel
8B-2664	3/4-14	1/2-14	28.58	29.7	Steel
281-5832	3/4-14	1/2-14	28.58	29.7	Steel
432-5415	3/4-14	1/2-14	—	44	Steel
202-1205	3/4-14	3/4-14	34.92	49	Steel
004-5703	3/4-14	1-11.5	41.28	55.4	Steel
131-9367	1-11.5	1/4-18	34.9	25.4	Steel
493-6746	1-11.5	1/4-18	34.93	34.5	Steel
6B-1628	1-11.5	3/8-18	34.92	34.5	Steel
061-9593	1-11.5	1/2-14	35	27	Steel
6B-9081	1-11.5	3/4-14	34.92	34.5	Steel
432-3802	1-11.5	3/4-14	—	20.5	Steel
434-5564	1 1/4-11.5	3/8-18	—	29.5	Steel
8F-8306	1 1/4-11.5	3/4-14	44.45	28.54	Steel
3B-7257	1 1/4-11.5	1-11.5	44.45	36.3	Steel
4P-9254	1 1/4-11.5	1-11.5	—	18.5	Steel
6B-7280	1 1/2-11.5	1/4-18	50.8	40	Steel
6V-4516	1 1/2-11.5	1/2-14	50.8	39.9	Steel
450-0868	1 1/2-11.5	3/4-14	—	18.3	Steel
489-1530	1 1/2-11.5	3/4-14	50.8	39.9	Steel
5R-7326	1 1/2-11.5	1-11.5	50.8	39.88	Steel
4T-1726	1 1/2-11.5	1-11.5	55	52	Steel
297-7935	1 1/2-11.5	1 1/4-11.5	50.8	39.9	Steel
485-8524	1 1/2-11.5	1 1/4-11.5	—	25.4	Steel
183-7257	1 1/2-11.5	2-11.5	73.02	66.8	Steel
470-4039	2-11.5	1/2-14	34	31.5	Steel
6F-7699	2-11.5	3/4-14	63.5	34.13	Steel
141-2502	2-11.5	1-11.5	63.5	31.8	Steel
489-1529	2-11.5	1 1/2-11.5	63.5	44.5	Steel
9D-9658	2-11.5	2-11.5	73.02	67.6	Steel
203-0694	2-11.5	2-11.5	—	100	Steel
1U-0655	2 1/2-8	1/4-18	—	27	Steel

# Straight Adapters

## Male NPTF / NPTF Port (Cont'd.)

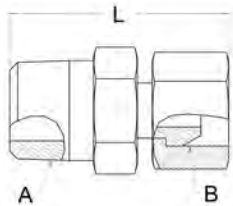
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
509-0786	2 1/2-8	2-11.5	64.5	45	Steel
287-7338	3-8	2-11.5	94.5	49	Steel
213-7961	3-8	2 1/2-8	89	43	Steel
509-0785	3-8	2 1/2-8	98	38.9	Steel
509-0784	4-8	3-8	120.7	62	Steel

## Male NPTF / NPSM



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
336-6906	1/2-14	1/2-14	22.2	38	Brass
4L-8545	1/2-14	1/2-14		62.48	Steel

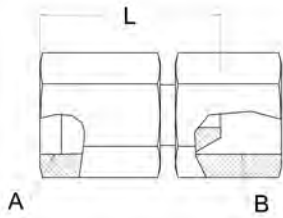
## Male NPTF / NPSM Swivel Nut



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
332-8560	3/8-18	3/8-18	22.2	42.7	Brass
2N-2011	1 1/4-11.5	1 1/4-11.5	47.63	53.1	Brass
5P-2203	1 1/2-11.5	1 1/2-11.5	53.98	54.9	Brass
2R-1922	1/8-27	1/8-27	14.29	25.4	Steel
4D-2560	1/8-27	1/4-18	15.88	26.7	Steel
9J-7600	1/4-18	1/8-27	17.5	30	Steel
4H-6147	1/4-18	1/4-18	15.88	31.75	Steel
3L-7055	1/4-18	3/8-18	22.22	33.3	Steel
2D-0193	3/8-18	1/4-18	22.2	32.8	Steel
2L-3331	3/8-18	3/8-18	22.2	33.3	Steel
2D-0058	3/8-18	1/2-14	23.8	35.6	Steel
6D-6489	1/2-14	3/8-18	22.22	38.1	Steel
336-6905	1/2-14	1/2-14	25	49	Steel
2H-9091	1/2-14	1/2-14	25.4	40.4	Steel
7D-0702	1/2-14	3/4-14	28.58	43.7	Steel
3D-8911	3/4-14	1/2-14	31.75	40.4	Steel
5F-6371	3/4-14	3/4-14	31.75	43.7	Steel
2N-7308	3/4-14	1-11.5	38.1	45.2	Steel
113-7099	1-11.5	3/4-14	38.1	50.3	Steel
1L-5987	1-11.5	1-11.5	38.1	50	Steel
3L-3869	1 1/4-11.5	1 1/4-11.5	47.63	53.1	Steel
1L-1722	1 1/2-11.5	1 1/2-11.5	53.98	54.9	Steel
302-8496	2-11.5	2-11.5	66.68	71.12	Steel

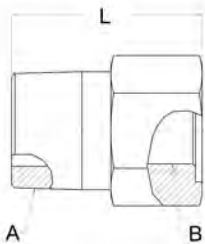
# Straight Adapters

## NPTF Port / NPSM Swivel Nut



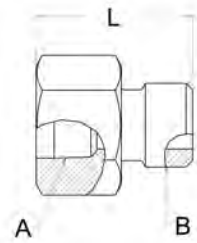
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
3D-9253	1/8-27	1/8-27	14.29	23.9	Steel
7D-0215	1/8-27	1/4-18	17.5	27.2	Steel
2J-4211	1/4-18	1/4-18	17.5	32.5	Steel
4D-0513	3/8-18	3/8-18	22.2	33.3	Steel
8M-0792	1/2-14	1/2-14	25.4	38.1	Steel
1L-2702	3/4-14	3/4-14	31.75	41.1	Steel
7F-7807	1-11.5	1-11.5	38.1	50	Steel

## Male NPTF / BSPP Flat Face-ISO1179 Port



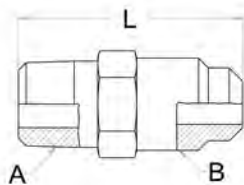
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
371-7159	3/8-18	1/8-28	19.05	28	Brass
208-3899	1/2-14	3/4-14	32	40	Steel

## NPTF Port / Male BSPP Flat Face-ISO1179



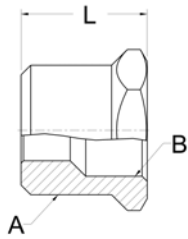
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
326-4140	1/4-18	1/4-19	17	22	Brass
459-0628	1/8-27	1/4-19	19	24.6	Steel
7X-2480	3/4-14	3/4-14	34.92	45	Steel

## Male NPTF / Male 45° Flare-SAE J512



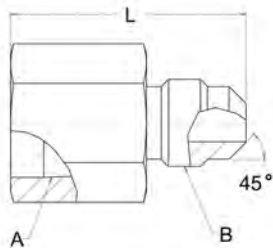
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
012-0703	1/8-27	3/8-24	11.11	25.4	Brass
164-5618	1/8-27	3/8-24	11.11	25.5	Brass
3B-9400	1/8-27	7/16-20	11.11	26.9	Brass
9L-9412	1/8-27	5/8-18	15.88	31.75	Brass
3B-9401	1/4-18	7/16-20	14.29	31.8	Brass
3B-9110	1/4-18	1/2-20	14.29	34	Brass
3B-9403	1/4-18	5/8-18	15.88	36.5	Brass
1L-2283	1/4-18	3/4-16	19.05	38.1	Brass
061-8644	3/8-18	5/8-18	22.22	45.97	Brass
3B-9404	3/8-18	3/4-16	19.05	41	Brass
061-7828	1/2-14	3/4-16	22.22	46.83	Brass
420-1548	1/2-14	7/8-14	22.22	50.8	Brass

## Male NPTF / 45° Flare- SAE J512 Port



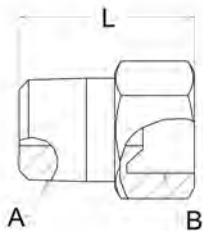
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
214-3613	1/2-14	5/8-18	21.89	19.81	Steel
214-3615	3/4-14	5/8-18	26.67	27.19	Steel

## NPTF Port / Male 45° Flare- SAE J512



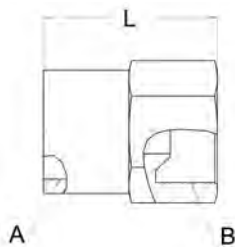
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
3D-2675	1/8-27	7/16-20	14.29	26.67	Brass
4D-4184	1/4-18	7/16-20	17.48	30	Brass
3S-8684	1/4-18	5/8-18	17.47	33.3	Brass
9L-3922	3/8-18	3/4-16	20.62	38.1	Brass

## Male NPTF / 45° Inverted Flare- SAE J512 Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
9S-7580	1/8-27	5/16-28	10.32	15.7	Brass
9S-7581	1/8-27	3/8-24	11.91	17.5	Brass
1P-3458	1/8-27	1/2-20	15.09	19.8	Brass
7K-1457	1/8-27	5/8-18	19.05	22.4	Brass
5K-9239	1/4-18	7/16-24	14.29	22.4	Brass
4H-6141	1/4-18	1/2-20	15.09	24.6	Brass
5P-7039	1/4-18	3/4-18	23.02	26.9	Brass
5K-9248	3/8-18	5/8-18	19.05	26.2	Brass
5K-9238	3/8-18	3/4-18	23.02	26.9	Brass
170-1564	3/8-18	7/8-18	26.99	28.5	Brass
5K-9245	1/2-14	3/4-18	23.01	31.8	Brass
6K-8079	1/2-14	7/8-18	26.99	33.3	Brass

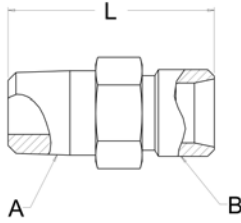
## NPTF Port / 45° Inverted Flare- SAE J512 Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
9S-7691	1/8-27	3/8-24	12.7	19.1	Brass
5K-9979	1/8-27	7/16-24	13.49	19.1	Brass
9S-7692	1/8-27	1/2-20	15.09	19.8	Brass
6K-8076	1/4-18	5/8-18	19.05	26.2	Brass
5K-9894	3/8-18	3/4-18	23.02	27.7	Brass
6V-4361	1/2-14	3/4-18	26.99	33	Brass
9S-7694	1/2-14	7/8-18	26.99	33.3	Brass

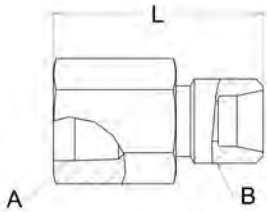
# Straight Adapters

## Male NPTF to Male 24° Flareless-SAE J514



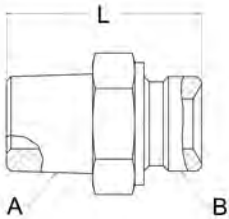
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
5P-7907	1/8-27	5/16-24	11.11	26.4	Steel
1P-3861	1/8-27	7/16-20	12.7	28.4	Steel
5P-5875	1/8-27	1/2-20	23.81	28.4	Steel
5P-4317	1/4-18	9/16-18	15.88	34	Steel
5P-5876	3/8-18	3/4-16	20.64	36.6	Steel
5P-5877	1/2-14	7/8-14	15.88	44.44	Steel
5P-6922	3/4-14	1 1/16-12	28.58	47.8	Steel
5P-5878	3/4-14	1 3/16-12	19.05	47.8	Steel

## NPTF Port / Male 24° Flareless-SAE J514



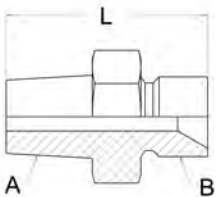
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
5P-6115	1/8-27	7/16-20	11.11	27.7	Steel
5P-5526	1/8-27	1/2-20	35.05	27.4	Steel

## Male NPTF / Male BSPP STOR-JIS B2351



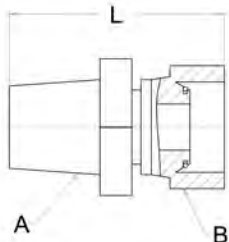
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
396-6382	1/2-14	3/8-14	22	40	Steel
196-7705	1/2-14	3/8-19	23.5	40.6	Steel
336-7548	1/2-14	1/2-14	27	43	Steel
396-6328	1/2-14	3/4-14	32	46	Steel

## Male NPTF / Male 60° Cone BS5200



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
154-2930	1/4-18	1/4-19	19	33.2	Steel
262-0506	1/4-18	3/8-19	22	34.2	Steel
252-7242	1/2-14	1/2-14	27	43	Steel
289-2400	3/4-14	1-11	–	51	Steel

## Male NPTF / 60° Cone BS5200 Port

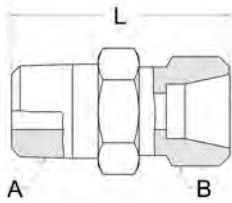


Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
424-1872	1/4-18	1/2-14	–	35	Steel
424-1873	1/2-14	1/2-14	–	42	Steel
348-8539	1/2-14	1/2-14	–	47.4	Steel



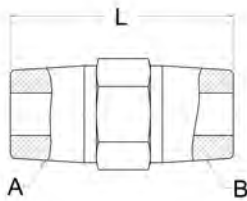
# Straight Adapters

## Male NPTF / Male 24° Cone-ISO 8434-1



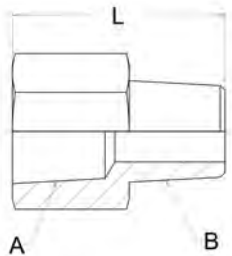
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
268-1623	1/8-27	M12x1.5	12	24	Steel

## Male NPTF / Male BSPT-ISO 7-1



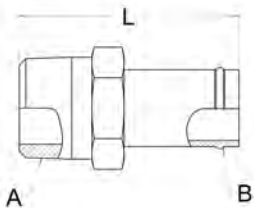
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
260-9254	1/4-18	1/4-19	15.88	36.8	Steel
193-5182	3/8-18	3/8-19	19	36.6	Steel
204-0394	1/2-14	3/8-19	22	41.5	Steel
237-7212	3/4-14	3/4-14	28.58	49.8	Steel
143-2786	1-11.5	3/4-14	35	70.6	Steel
100-3221	1-11.5	1-11	37.7	105	Steel
241-0397	1-11.5	1-11	34.92	49.8	Steel

## NPTF Port / Male BSPT-ISO 7-1



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
332-8553	3/8-18	3/8-19	22.22	35.05	Brass
7X-0484	1 1/4-11.5	1-11	50.8	63	Brass
102-6496	1/8-27	1/8-28	17	29	Steel
150-5679	1/8-27	1/8-28	14	30	Steel
4Y-9423	1/8-27	1/8-28	7.94	26.4	Steel

## Male NPTF / Hose Bead



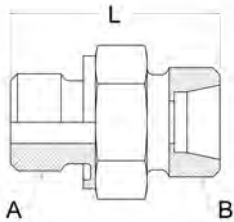
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
186-8138	1 1/4-11.5	38.10	—	89	1E1541A
1P-4001	1/16-27	4.76	7.87	25.4	Brass
8T-2173	1/8-27	7.94	11.11	39.1	Brass
006-7801	3/8-18	9.52	17.46	45.2	Brass
380-6163	1/2-14	19.05	22.22	50.3	Brass
053-2313	3/4-14	25.40	31.75	66.9	Brass
7X-1445	1 1/4-11.5	38.10	42.2	76.2	Brass
8C-5185	1 1/2-11.5	38.10	50.8	76.2	Brass
451-0398	3/8-18	9.52	19.05	59.7	SST
368-5219	1-11.5	31.75	40	70	SST
425-2047	1/8-27	9.52	12	33	Steel
262-0511	1/4-18	15.88	19.05	59.7	Steel
352-6508	1/4-18	7.94	14.29	59.7	Steel
5P-7175	1/4-18	9.52	15.88	59.7	Steel
176-0569	3/8-18	12.70	19.05	59.7	Steel
337-6501	3/8-18	15.88	22.2	56.69	Steel
347-4416	3/8-18	9.52	19.05	58.7	Steel

# Straight Adapters

## Male NPTF / Hose Bead (Cont'd.)

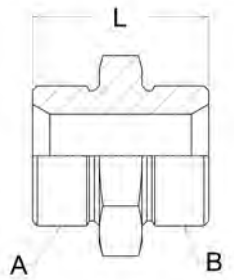
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
474-1553	1/2-14	15.88	23.81	54.8	Steel
2V-9121	1/2-14	15.88	23.81	66	Steel
352-6507	1/2-14	19.05	25.4	66	Steel
135-9944	3/4-14	19.05	28.58	67.8	Steel
005-7898	3/4-14	19.05	28.58	53.4	Steel
263-4798	3/4-14	25	–	40	Steel
345-9879	3/4-14	25.40	28.58	67.8	Steel
6V-2492	3/4-14	25.40	31.75	67.8	Steel
210-7567	3/4-14	6	–	40	Steel
033-3096	1-11.5	19.05	34.93	72.6	Steel
347-4444	1-11.5	25.40	34.93	72.6	Steel
432-7499	1 1/2-11.5	38.10	50.8	118.11	Steel
8T-5354	2-11.5	50.80	66.68	82.55	Steel

## Male Metric Flat Face-ISO 9974 / Male 24° Cone-ISO 8434-1



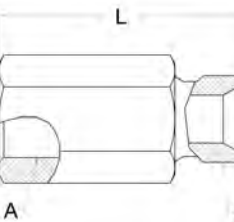
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
487-3433	M16x1.5	M18x1.5	22	34.5	Steel
499-8646	M16x1.5	M18x1.5	22	34.5	Steel
492-9117	M16x1.5	M18x1.5	22	34.5	Steel
227-1099	M18x1.5	M18x1.5	24	38	Steel
487-3171	M18x1.5	M20x1.5	24	36.5	Steel
202-5373	M22x1.5	M30x2	32	38	Steel
202-6305	M26x1.5	M30x2	32	40	Steel
487-4923	M48x2	M52x2	55	64	Steel

## Male BSPP Flat Face-ISO 1179 / Male BSPP Flat Face-ISO 1179



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
2U-4299	3/4-24	3/4-24	26	30	Brass
274-6663	1/4-19	1/4-19	–	30	Steel
147-8508	1 1/4-11.5	1 1/4-11.5	52	52.8	Steel

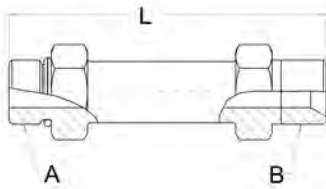
## BSPP Flat Face-ISO 1179 Port / Male 60° Cone-BS5200



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
305-3383	1/4-19	1/4-19	19	47	Steel
234-7437	1/2-14	1/2-14	27	60	Steel

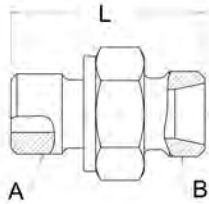
# Straight Adapters

## Male BSPP Flat Face-ISO 1179 / Male 60° Cone-JIS B8363



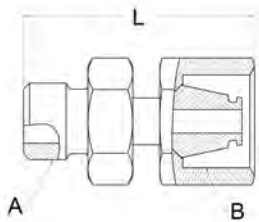
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
146-0359	1/2-14	3/8-19	27	70	Steel
143-0555	1/2-14	1/2-14	27	105	Steel

## Male BSPP Flat Face-ISO 1179 / Male 24° Cone-ISO 8434-1



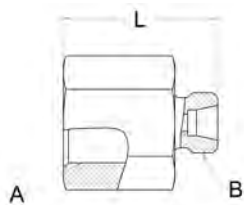
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
382-6279	1/4-19	M14x1.5	19	32	Steel
373-1776	1/4-19	M16x1.5		30.5	Steel
501-8720	1/4-19	M16x1.5	19	34	Steel
216-2309	1/4-19	M16x1.5	19	30	Steel
317-8510	1/4-19	M16x1.5	19	34	Steel
382-6296	3/8-19	M12x1.5	22	30.5	Steel
221-8496	3/8-19	M20x1.5	22	36	Steel
234-7440	1/2-14	M16x1.5	27	34	Steel
373-5753	1/2-14	M18x1.5	27	59	Steel
386-0623	1/2-14	M18x1.5	27	34	Steel
471-3729	1/2-14	M22x1.5	27	35	Steel
234-7438	1/2-14	M22x1.5	27	41	Steel
234-7423	1/2-14	M36x2	38	47	Steel
367-5980	3/4-14	M22x1.5	36	38.5	Steel
499-8642	3/4-14	M30x2	32	40	Steel

## Male BSPP Flat Face-ISO 1179 / 24° Cone-ISO 8434-1 Swivel Nut



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
234-7419	1/4-19	M16x1.5	19	40	Steel
234-7421	1/2-14	M24x1.5	27	49.5	Steel

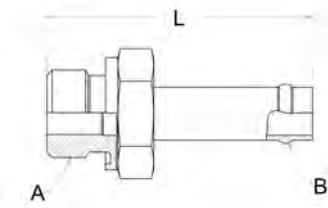
## BSPP Flat Face-ISO 1179 Port / Male 24° Cone-ISO 8434-1



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
482-1480	1/2-14	M14x1.5	27	36	Steel
397-2600	3/4-14	M14x1.5	36	52.3	Steel

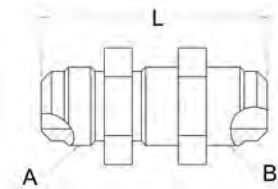
# Straight Adapters

## Male BSPP Flat Face-ISO 1179 / Hose Bead



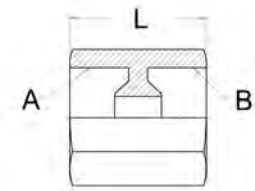
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
233-7888	3/8-19	12.70	22.2	58.7	Brass
504-5535	3/8-19	10.32	22	42	Steel
426-4129	1/2-14	12.70	27	63.6	Steel
267-1621	1/2-14	15	27	49	Steel

## Male 45° Flare-SAE J512 / Male 45° Flare-SAE J512



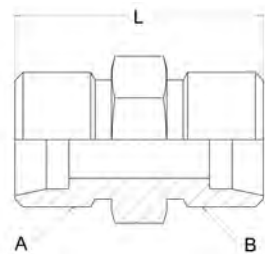
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
1U-9886	7/16-20	7/16-20	11.11	30	Brass
3B-9395	7/16-20	7/16-20	11.11	30.16	Brass
253-0412	1 1/16-12	1 1/16-12	34.9	78.5	Brass
7T-6083	5/8-18	5/8-18	22.23	51	Steel

## 45° Inverted Flare-SAE J512 Port / 45° Inverted Flare-SAE J512



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
9S-7584	5/16-28	5/16-28	10.32	15	Brass
5K-9242	7/16-24	7/16-24	13.49	15.7	Brass
4H-6142	1/2-20	1/2-20	15.09	17.8	Brass
7K-1456	5/8-18	5/8-18	19.05	20.3	Brass
6K-8077	3/4-18	3/4-18	23	23.1	Brass
5K-9249	7/8-18	7/8-18	26.99	24.6	Brass

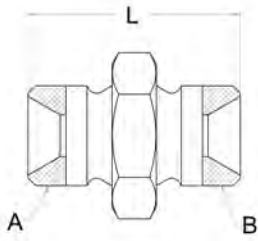
## Male 24° Flareless-SAE J514 / Male 24° Flareless-SAE J514



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
5P-6312	5/16-24	5/16-24	12.7	25.9	Steel
5P-5843	7/8-14	7/8-14	23.81	40.9	Steel

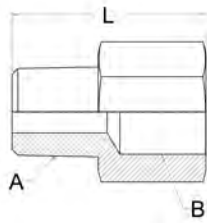
# Straight Adapters

## Male BSPP STOR-JIS B2351 / Male BSPP STOR-JIS B2351



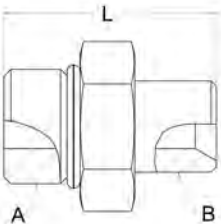
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
081-4340	3/8-19	3/8-19	–	28	Brass
147-2440	3/4-14	1/2-14	27	39	Brass
147-2443	3/4-14	3/4-14	27	42.5	Brass
249-8712	1/4-19	1/4-19	14	34	Steel
268-6154	1/4-19	1/4-19	19	28	Steel
268-6156	3/8-19	1/4-19	22	34.5	Steel
268-6155	3/8-19	3/8-19	22	34	Steel
384-2374	3/8-19	M16x1.5	22	49	Steel
259-8856	1/2-14	1/2-14	22	28	Steel
287-7440	1/2-14	3/4-14	–	–	Steel
344-3894	3/4-14	1/2-14	–	–	Steel
8U-6275	3/4-14	3/4-14	32	40	Steel
344-3893	1-11	3/4-14	–	–	Steel

## Male BSPP STOR-JIS B2351 / BSPP STOR-JIS B2351 Port



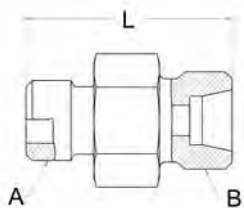
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
177-3466	1/8-28	1/8-28	14	80	Brass
177-3475	1/8-28	1/8-28	14	22.5	Brass
168-4043	1/4-19	1/4-19	19	77	Brass
258-5153	1/4-19	1/8-28	17	13	Steel
384-2368	3/8-19	3/8-19	–	32	Steel
379-5245	3/8-19	3/8-19	22	32	Steel
159-5805	1/2-14	3/8-19	27	36	Steel
216-2365	3/4-14	3/4-14	36	48	Steel

## Male BSPP STOR-JIS B2351 / Male 60° Cone-BS5200



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
140-4799	3/8-19	3/8-19	22	34	Steel
140-4802	1/2-14	3/8-19	27	39	Steel

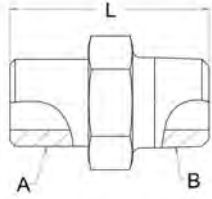
## Male BSPP STOR-JIS B2351 / Male 24° Cone-ISO 8434-1



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
175-9514	1/4-19	M16x1.5	19	34	Steel
415-4641	3/8-19	M18x1.5	22	49	Steel
234-7381	3/8-19	M18x1.5	24	32	Steel
175-9506	3/8-19	M20x1.5	24	36.5	Steel
144-1055	1/2-14	M20x1.5	27	39	Steel
175-9585	3/4-14	M30x2	38	46.5	Steel
234-7382	3/4-14	M30x2	36	40.5	Steel
234-7400	1 1/2-11	M52x2	60	64	Steel

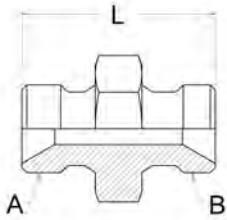
# Straight Adapters

## Male BSPP STOR-JIS B2351 / Male BSPT-ISO 7-1



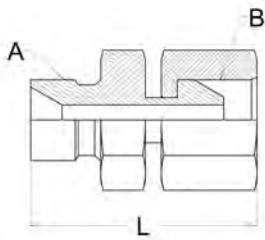
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
196-0285	3/8-19	3/8-19	–		Steel
326-4139	3/4-14	1/2-14	27.5	48.5	Steel

## Male 60° Cone-BS5200 / Male 60° Cone-BS5200



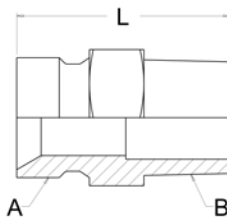
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
223-1751	1/4-19	1/4-19	18	31	Steel
262-0503	1/4-19	1/4-19	19	29	Steel
194-7229	3/8-19	3/8-19	23.81	32	Steel
234-7383	3/8-19	3/8-19	22	31	Steel
465-9014	1/2-14	1/4-19	27	33	Steel
151-9227	1/2-14	1/2-14	27	36	Steel
511-5620	1/2-14	1/2-14	27	42	Steel
329-5463	1 1/2-11	1 1/4-11	55	54	Steel
234-7395	1 1/2-11	1 1/2-11	55	55	Steel

## Male 60° Cone-BS5200 / 60° Cone-BS5200 Swivel Nut



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
287-1876	1/4-19	1/4-19	19	35.5	Steel
463-4908	1/4-19	1/4-19	19	35	Steel
467-6124	1/2-14	1/2-14	27	48	Steel

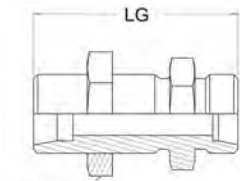
## Male 60° Cone-BS5200 / Male BSPT-ISO 7-1



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
213-7483	1/4-19	1/4-19	–	34.5	Steel
262-0502	1/4-19	1/4-19	19	32.2	Steel
317-7214	1/2-14	1/4-18	25.4	37.8	Steel
362-1436	1/2-14	1/4-19	25	51.8	Steel
379-2201	1/2-14	3/8-19	27	64	Steel
379-2202	1/2-14	3/4-14	27	45	Steel
143-6955	3/4-14	3/4-14	30	47	Steel
143-6957	3/4-14	1-11	36	51.9	Steel

# Straight Adapters

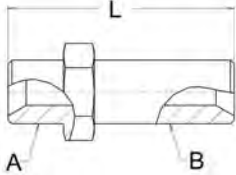
## Male 24° Cone-ISO 8434-1 / Male 24° Cone-ISO 8434-1



HEX 30

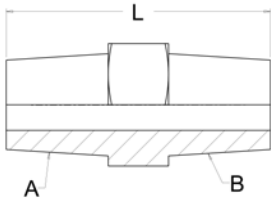
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
375-7722	M14x1.5	M14x1.5	19	63	Steel
230-0822	M22x1.5	M22x1.5	30	57	Steel

## Male 30° Flare-JIS / Bulkhead Male 30° Flare-JIS



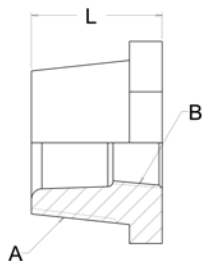
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
139-6517	1/4-19	1/4-19	19	51	Steel
139-6516	3/8-19	3/8-19	22	59	Steel

## Male BSPT-ISO 7-1 / Male BSPT-ISO 7-1



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
271-9625	3/8-19	3/8-19	—	100	Black Pipe
211-4529	3/8-19	3/8-19	17	30	Brass
203-0432	1/2-14	3/8-19	26	36	Brass
243-0116	1/2-14	1/2-14	22	40	Brass
211-3349	1/4-19	1/4-19	14	34	Steel
262-0526	1/4-19	1/4-19	17	36.8	Steel
262-0524	3/8-19	1/4-19	19	36.8	Steel
126-4709	3/8-19	3/8-19	19	36	Steel
271-9813	3/8-19	3/8-19	19	68	Steel
271-9902	3/8-19	3/8-19	21	36	Steel
260-9249	1/2-14	1/4-19	24	43.2	Steel
252-7243	1/2-14	1/2-14	24	48	Steel
271-9903	1/2-14	1/2-14	26	43	Steel
271-5882	3/4-14	3/4-14	30	48	Steel
154-2925	3/4-14	1-11	42	53.2	Steel
219-1090	1-11	3/4-14	35.5	54	Steel
143-4449	1-11	1-11	36	59.4	Steel
166-4994	1-11	1-11	34.9	59.4	Steel

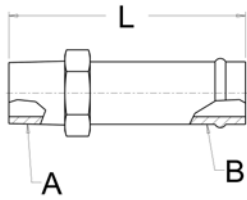
## Male BSPT-ISO 7-1 / BSPT-ISO 7-1 Port



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
237-8314	1/4-19	1/4-19	19.05	90	Brass
238-0746	3/4-14	3/8-19	32	24	Iron

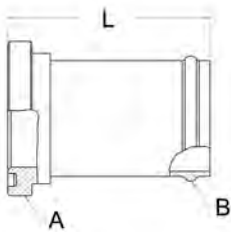
# Straight Adapters

## Male BSPT-ISO 7-1 / Hose Bead



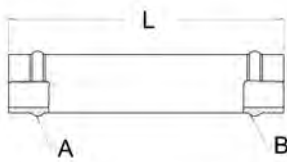
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
230-5123	1/8-28	25	27	41	Steel
462-4090	1/4-19	15.88	19.05	59.7	Steel
140-4233	3/8-19	12.70	19	45	Steel
268-1589	3/8-19	15.88	19	60	Steel
469-8861	3/8-19	16	19	47	Steel
462-4089	1/2-14	15.88	23.8	65.1	Steel
455-4746	3/4-14	16	27	44	Steel
313-2868	3/4-14	31.75	34.93	71	Steel

## Code 61 Flange Head / Hose Bead



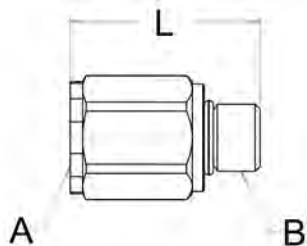
Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
193-8308	Dash 20	38.10	-	66.7	Steel
142-9242	Dash 24	38.10	-	60.33	Steel

## Hose Bead / Hose Bead



Part Number	Thread Size (A)	Thread Size (B)	HEX Size	Length (L)	Material
393-7327	4.76	7.94	-	38	Brass
397-1010	9.52	11.1	12.7	62.23	Brass
421-6178	9.52	12.70	19.05	82.4	Brass
379-0633	9.52	5.56	-	34	Brass
396-0409	12.70	12.70	-	60.5	Steel
145-7125	15.88	15.88	-	50.8	Steel
5E-6102	15.88	15.88	-	60	Steel
6P-8855	15.88	15.88	-	76.2	Steel
254-3859	15.88	9.52	-	78.7	Steel
232-0493	25.40	15.88	-	104	Steel
20-0392	38.10	25.40	-	102.5	Steel
260-9239	50.80	50.80	-	127	Steel
369-6865	6.35	12.70	17.5	86.4	Steel
421-6188	9.52	9.52	-	60	Steel

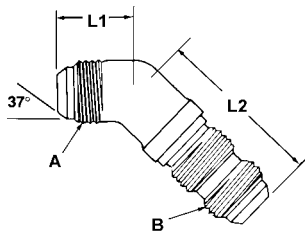
## WEO Plug-In STOR



Part Number	Adapter Port Size	Thread Size	HEX Size	Length (L)	Material	STOR Class
500-8848	-6	9/16 - 18	24	41	Steel	Heavy Duty
500-8849	-8	3/4 - 16	28	43	Steel	Heavy Duty
500-8850	-12	1-1/16 - 12	36	55	Steel	Light Duty
529-7517	-12	1-1/16 - 12	41	59	Steel	Heavy Duty

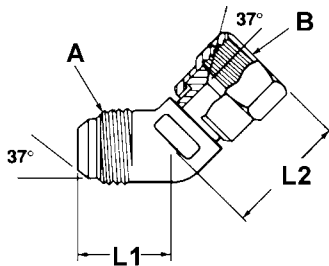


## 37° Flare Bulkhead 45° Elbow



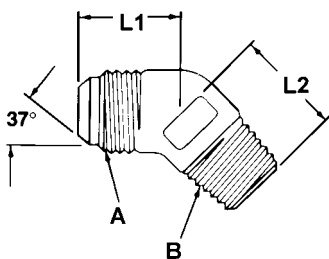
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
7K-6462	7/16 - 20	-4	7/16 - 20	-4	18.3	38.9	Steel
2P-1325	3/4 - 16	-8	3/4 - 16	-8	24.9	49.3	Steel
5P-8113	7/8 - 14	-10	7/8 - 14	-10	28.2	55.1	Steel
5P-4968	1 1/16 - 12	-12	1 1/16 - 12	-12	32.5	62	Steel
434-5512	1 5/16 - 12	-16	1 5/16 - 12	-16	37.8	65	Steel

## 37° Flare Male / Swivel 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
281-5838	7/16 - 20	-4	7/16 - 20	-4	18.3	23.9	SST
030-7961	7/16 - 20	-4	7/16 - 20	-4	18.3	23.9	Steel
031-1864	1/2 - 20	-5	1/2 - 20	-5	19.6	25.4	Steel
030-7962	9/16 - 18	-6	9/16 - 18	-6	21.1	28.4	Steel
224-0682	9/16 - 18	-6	3/4 - 16	-8	21.1	32.5	Brass
153-7487	3/4 - 16	-8	9/16 - 18	-6	24.9	32.5	Steel
030-7963	3/4 - 16	-8	3/4 - 16	-8	24.9	32.5	Steel
030-7964	7/8 - 14	-10	7/8 - 14	-10	28.2	36.6	Steel
030-7965	1 1/16 - 12	-12	1 1/16 - 12	-12	32.5	38.1	Steel
5P-0789	1 3/16 - 12	-14	1 3/16 - 12	-14	36.8	41.1	Steel
030-7966	1 5/16 - 12	-16	1 5/16 - 12	-16	37.3	44.4	Steel
030-7967	1 5/8 - 12	-20	1 5/8 - 12	-20	40.4	51.6	Steel
106-3378	1 7/8 - 12	-24	1 7/8 - 12	-24	45.2	57.2	Steel

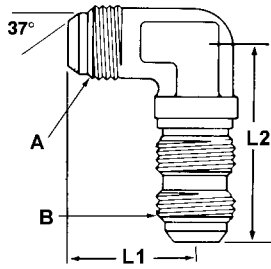
## 37° Flare Male / NPTF Male 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
9L-5125	7/16 - 20	-4	1/8 - 27	-2	18.3	16.3	Steel
183-6686	7/16 - 20	-4	1/4 - 18	-4	20.8	21.8	SST
5J-7303	7/16 - 20	-4	1/4 - 18	-4	20.8	21.8	Steel
121-5729	7/16 - 20	-4	1/2 - 14	-8	22.1	29.7	Steel
001-6498	9/16 - 18	-6	1/4 - 18	-4	21.1	21.8	Steel
4W-4076	9/16 - 18	-6	3/8 - 18	-6	22.1	24.1	Steel
191-0786	3/4 - 16	-8	3/8 - 18	-6	24.9	24.1	SST
2N-1288	3/4 - 16	-8	3/8 - 18	-6	24.9	24.1	Steel
001-7043	3/4 - 16	-8	1/2 - 14	-8	28.2	29.7	Steel
434-5648	3/4 - 16	-8	3/4 - 14	-12	27.9	30.5	Steel
090-3000	7/8 - 14	-10	3/8 - 18	-6	28.2	29.5	Steel
9L-5254	7/8 - 14	-10	1/2 - 14	-8	28.2	29.7	Steel
239-5983	7/8 - 14	-10	3/4 - 14	-12	29.5	30.5	1E1541A
031-6303	1 1/16 - 12	-12	1/2 - 14	-8	32.5	30.5	Steel
001-6304	1 1/16 - 12	-12	3/4 - 14	-12	32.5	30.5	Steel
033-8734	1 1/16 - 12	-12	1 - 11.5	-16	36	37.6	Steel
2P-1311	1 3/16 - 12	-14	3/4 - 14	-12	36.8	33	Steel
001-7042	1 5/16 - 12	-16	3/4 - 14	-12	37.3	32.8	Steel
2P-1312	1 5/16 - 12	-16	1 - 11.5	-16	37.3	37.6	Steel
032-1416	1 5/8 - 12	-20	1 1/2 - 11.5	-24	41.9	45	Steel
031-4629	1 7/8 - 12	-24	1 1/2 - 11.5	-24	45.2	45	Steel
196-3187	2 1/2 - 12	-32	2 - 11.5	-32	56.4	53.6	Steel

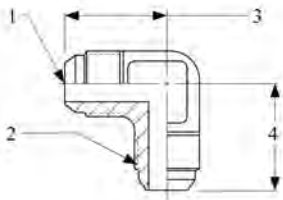
# Elbow Adapters

## 37° Flare Bulkhead 90° Elbow



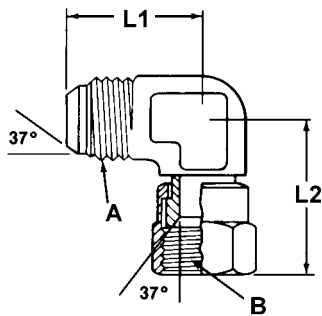
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
2P-7216	7/16 - 20	-4	7/16 - 20	-4	24.6	40.4	Steel
268-1524	7/16 - 20	-4	7/16 - 20	-4	24.6	52.4	Steel
5P-2647	1/2 - 20	-5	1/2 - 20	-5	26.9	43.7	Steel
2P-7215	9/16 - 18	-6	9/16 - 18	-6	27.7	46	Steel
2P-2204	3/4 - 16	-8	3/4 - 16	-8	34.5	53.6	Steel
439-1811	7/8 - 14	-10	3/4 - 16	-8	39.6	57.7	Steel
2P-1326	7/8 - 14	-10	7/8 - 14	-10	39.6	60.7	Steel
5P-3621	1 1/16 - 12	-12	1 1/16 - 12	-12	45.2	67.8	Steel
5P-1775	1 5/16 - 12	-16	1 5/16 - 12	-16	49.3	71.1	Steel
6V-1547	1 5/16 - 12	-16	1 5/8 - 12	-20	49.3	105	Steel
8T-0575	1 5/8 - 12	-20	1 5/8 - 12	-20	55.1	79.2	Steel

## 37° Flare Male 90° Elbow



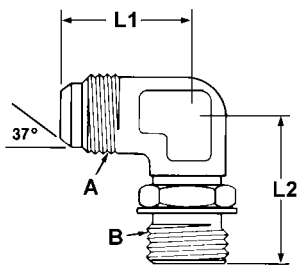
Part Number	End 1		End 2		Length 3	Length 4	Material
	Thread	Dash Size	Thread	Dash Size			
067-6495	7/16 - 20	-4	7/16 - 20	-4	22.6	22.6	Steel
196-8173	7/16 - 20	-4	9/16 - 18	-6	51.8	26.9	Steel
061-8257	9/16 - 18	-6	9/16 - 18	-6	26.9	26.9	Steel
493-6745	3/4 - 16	-8	7/16 - 20	-4	31.8	28.5	Steel
5P-6399	3/4 - 16	-8	3/4 - 16	-8	31.8	31.8	Steel
250-1496	7/8 - 14	-10	7/8 - 14	-10	36.8	36.8	Steel
250-1496	7/8 - 14	-10	7/8 - 14	-10	36.8	36.8	Steel
5P-4900	7/8 - 14	-10	7/8 - 14	-10	36.8	36.8	Steel
3R-3976	1 1/16 - 12	-12	1 1/16 - 12	-12	42.2	42.2	Steel
5P-0912	1 5/16 - 12	-16	1 5/16 - 12	-16	46	46	Steel
5P-2303	1 5/8 - 12	-20	1 5/8 - 12	-20	52.3	52.3	Steel
5R-9235	1 7/8 - 12	-24	1 7/8 - 12	-24	59.2	59.2	Steel

## 37° Flare Male / Swivel 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
281-5837	7/16 - 20	-4	7/16 - 20	-4	22.6	25.4	SST
7K-9197	7/16 - 20	-4	7/16 - 20	-4	22.6	25.4	Steel
148-1740	7/16 - 20	-4	9/16 - 18	-6	26.6	31.8	Steel
7K-3324	1/2 - 20	-5	1/2 - 20	-5	24.1	26.9	Steel
5P-9464	9/16 - 18	-6	7/16 - 20	-4	27	28.58	Steel
371-7160	9/16 - 18	-6	9/16 - 18	-6	26.9	31.8	SST
171-3442	9/16 - 18	-6	9/16 - 18	-6	26.9	31.7	SST
6K-9194	9/16 - 18	-6	9/16 - 18	-6	26.9	31.8	Steel
112-4387	3/4 - 16	-8	9/16 - 18	-6	31.8	34	Steel
8M-0547	3/4 - 16	-8	3/4 - 16	-8	31.8	35.1	Steel
487-5069	3/4 - 16	-8	1 1/16 - 12	-12	36.1	44.4	Steel
8K-2396	7/8 - 14	-10	3/4 - 16	-8	36.8	38.1	Steel
030-7972	7/8 - 14	-10	7/8 - 14	-10	36.8	41.1	Steel
493-6741	1 1/16 - 12	-12	1 1/16 - 12	-12	42.2	44.4	SST
3R-9704	1 1/16 - 12	-12	1 1/16 - 12	-12	42.2	44.4	Steel
448-2121	1 1/16 - 12	-12	1 1/16 - 12	-12	71.4	59.7	Steel
6S-2910	1 3/16 - 12	-14	1 3/16 - 12	-14	45.7	45.2	Steel
371-7232	1 5/16 - 12	-16	7/8 - 14	-10	46	50.8	Steel
281-5892	1 5/16 - 12	-16	1 5/16 - 12	-16	46	50.8	SST
031-5744	1 5/16 - 12	-16	1 5/16 - 12	-16	46	50.8	Steel
030-7975	1 5/8 - 12	-20	1 5/8 - 12	-20	52.3	58.7	Steel
5R-8781	1 5/8 - 12	-20	1 5/8 - 12	-20	52.32	39.37	Steel
5R-8894	1 7/8 - 12	-24	1 7/8 - 12	-24	59.2	47.2	Steel
149-0027	2 1/2 - 12	-32	2 1/2 - 12	-32	77.7	85.9	Steel

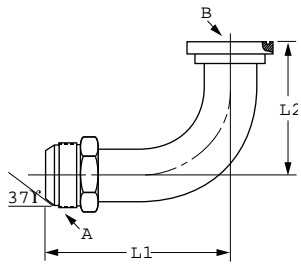
## 37° Flare Male / ISO 1179 BSPP Flat Face Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
217-6172	7/16 - 20	-4	1/8 - 28		22.6	26.2	Steel
2U-0943	7/16 - 20	-4	1/8 - 28		22.6	26	Steel
515-4947	7/16 - 20	-4	1/8 - 28		22.5	26.5	Steel
451-0488	7/16 - 20	-4	1/4 - 19		27	32	SST
451-0371	7/16 - 20	-4	1/4 - 19		25.5	32	Steel
426-4174	7/16 - 20	-4	3/8 - 19		29	37	Steel
426-4148	9/16 - 18	-6	1/4 - 19		31.8	26.9	Steel
305-0837	9/16 - 18	-6	3/8 - 19		37	29.2	Steel
217-6168	3/4 - 16	-8	3/8 - 19		31.8	36.8	Steel
217-6158	3/4 - 16	-8	1/2 - 14		33.8	43.2	Steel
217-6159	7/8 - 14	-10	3/4 - 14		39.2	49.3	Steel
516-5238	1 1/16 - 12	-12	1 - 11		52	44.7	Steel
213-3123	1 5/16 - 12	-16	3/4 - 14		46	48.2	Steel
242-3724	1 5/16 - 12	-16	1 - 11		48.8	53.5	Steel
276-5542	1 5/8 - 12	-20	1 - 11		55	58	Steel

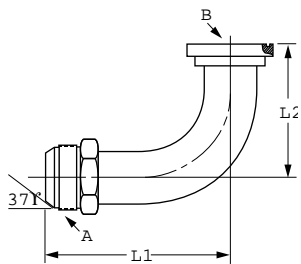
# Elbow Adapters

## 37° Flare Male / SAE Code 61 Flange Head 90° Elbow



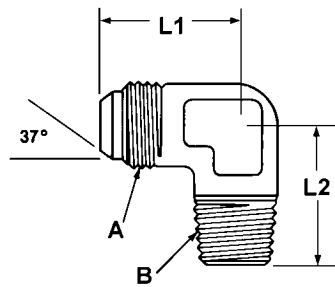
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Dash Size	Dash Size			
145-5504	1 5/16 - 12	-16	-16	-16	71	60	Steel
077-4460	1 5/16 - 12	-16	-16	-16	86.64	60.33	Steel
213-7430	1 5/8 - 12	-20	-20	-20	52.3	66.5	Steel
508-5806	1 5/8 - 12	-20	-24	-24	101.1	79	Steel
108-4371	1 7/8 - 12	-24	-24	-24	90.9	69.9	Steel
508-5802	1 7/8 - 12	-24	-24	-24	116.07	92.96	Steel
323-1343	1 7/8 - 12	-24	-32	-32	91	70	Steel
148-0207	2 1/2 - 12	-32	-32	-32	120	91	Steel
465-5420	2 1/2 - 12	-32	-32	-32	147.1	122.9	Steel
109-0070	3 - 12	-40	-40	-40	148.8	131.8	Steel

## 37° Flare Male / SAE Code 62 Flange Head



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Dash Size	Dash Size			
508-5805	1 5/16 - 12	-16	-16	-16	86.1	72.9	Steel
450-2508	1 5/8 - 12	-20	-20	-20	94.2	66.5	Steel

## 37° Flare Male / NPTF Male 90° Elbow



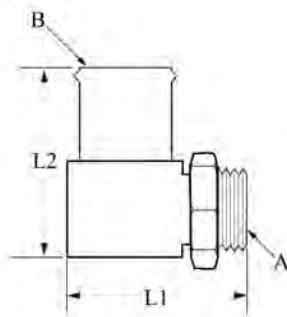
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
7K-3030	3/8 - 24	-3	1/8 - 27	-2	21.1	18.3	Steel
281-5863	7/16 - 20	-4	1/8 - 27	-2	22.6	19.8	SST
2N-1287	7/16 - 20	-4	1/8 - 27	-2	22.6	19.8	Steel
2U-4132	7/16 - 20	-4	1/8 - 27	-2	22.5	39.48	Steel
5P-4479	7/16 - 20	-4	1/8 - 27	-2	22.61	30.23	Steel
123-8580	7/16 - 20	-4	1/4 - 18	-4	26.9	27.7	SST
6K-1972	7/16 - 20	-4	1/4 - 18	-4	26.6	27.7	Steel
5P-2657	7/16 - 20	-4	1/4 - 18	-4	26.67	43.18	Steel
203-0414	7/16 - 20	-4	3/8 - 18	-6	28.5	31	Steel
189-4399	7/16 - 20	-4	1/2 - 14	-8	30.7	37.3	Steel
7J-6420	1/2 - 20	-5	1/8 - 27	-2	24.1	19.8	Steel
5P-8238	1/2 - 20	-5	1/4 - 18	-4	26.6	27.7	Steel
203-0393	1/2 - 20	-5	3/8 - 18	-6	43	41	Brass
5P-4592	9/16 - 18	-6	1/8 - 27	-2	26.9	22.9	Steel
032-1268	9/16 - 18	-6	1/4 - 18	-4	26.9	27.7	Steel
225-2693	9/16 - 18	-6	1/4 - 18	-4	26.4	42.06	Steel
223-6396	9/16 - 18	-6	3/8 - 18	-6	29.2	31	Brass
2N-8037	9/16 - 18	-6	3/8 - 18	-6	29.2	31	Steel
183-6683	9/16 - 18	-6	1/2 - 14	-8	31	37.3	SST
7D-8793	9/16 - 18	-6	1/2 - 14	-8	31	37.3	Steel
186-8899	9/16 - 18	-6	1/2 - 14	-8	31	37.3	Steel
470-4422	9/16 - 18	-6	3/4 - 14	-12	33.3	40.4	Steel

# Elbow Adapters

## 37° Flare Male / NPTF Male 90° Elbow (Cont'd.)

Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
6L-9777	3/4 - 16	-8	1/4 - 18	-4	31.8	31	Steel
009-9696	3/4 - 16	-8	1/4 - 18	-4	31.8	56.4	Steel
7L-7262	3/4 - 16	-8	3/8 - 18	-6	31.8	31	Steel
169-4278	3/4 - 16	-8	1/2 - 14	-8	33.8	37.3	SST
2N-3378	3/4 - 16	-8	1/2 - 14	-8	33.8	37.3	Steel
003-0633	3/4 - 16	-8	1/2 - 14	-8	34.3	107.9	Steel
033-0442	3/4 - 16	-8	1/2 - 14	-8	34	56.9	Steel
4R-6450	3/4 - 16	-8	1/2 - 14	-8	35.8	37.34	Steel
052-0741	3/4 - 16	-8	3/4 - 14	-12	36.1	40.4	Steel
498-1847	3/4 - 16	-8	1 - 11.5	-16	38.6	50	Steel
006-2325	7/8 - 14	-10	3/8 - 18	-6	36.8	32.5	Steel
032-1269	7/8 - 14	-10	1/2 - 14	-8	36.8	37.3	Steel
001-6936	7/8 - 14	-10	1/2 - 14	-8	36.83	56.39	Steel
031-6742	7/8 - 14	-10	1/2 - 14	-8	36.8	108.7	Steel
033-0414	7/8 - 14	-10	1/2 - 14	-8	36.8	48	Steel
061-6717	7/8 - 14	-10	3/4 - 14	-12	39.2	40.4	Steel
441-1584	1 1/16 - 12	-12	3/8 - 18	-6	42.2	35.6	Steel
031-1358	1 1/16 - 12	-12	1/2 - 14	-8	42.2	40.4	Steel
171-2356	1 1/16 - 12	-12	3/4 - 14	-12	42.2	40.4	SST
001-6301	1 1/16 - 12	-12	3/4 - 14	-12	42.2	40.4	Steel
001-7039	1 1/16 - 12	-12	3/4 - 14	-12	42.16	61.98	Steel
486-7973	1 1/16 - 12	-12	1 - 11.5	-16	44.7	50	SST
2P-8511	1 1/16 - 12	-12	1 - 11.5	-16	44.7	50	Steel
031-0782	1 3/16 - 12	-14	3/4 - 14	-12	45.7	42.9	Steel
9L-4007	1 5/16 - 12	-16	3/4 - 14	-12	46	45.2	Steel
6V-8649	1 5/16 - 12	-16	3/4 - 14	-12	46	58.8	Steel
183-6684	1 5/16 - 12	-16	1 - 11.5	-16	46	50	SST
9S-7296	1 5/16 - 12	-16	1 - 11.5	-16	46	50	Steel
030-0702	1 5/16 - 12	-16	1 1/4 - 11.5	-20	51	60.5	Steel
6K-3458	1 5/8 - 12	-20	1 1/4 - 11.5	-20	52.3	60.5	Steel
032-1357	1 5/8 - 12	-20	1 1/2 - 11.5	-24	55.9	67.1	Steel
032-1523	1 7/8 - 12	-24	1 1/2 - 11.5	-24	59.2	67.1	Steel
143-9307	2 1/2 - 12	-32	2 - 11.5	-32	77.7	76.2	Steel
140-2319	3 - 12	-40	2 1/2 - 8	-40	86.1	75.7	Steel
140-2319	3 - 12	-40	2 1/2 - 8	-40	86.1	90.7	Steel

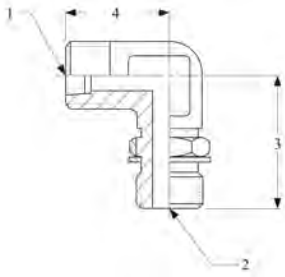
## ISO 6149 Metric STOR Male / Hose Bead 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Hose ID (mm)	Dash Size				
300-9707	M14 x 1.5	12.7	-8		31.5	47.5	Steel
321-8628	M16 x 1.5	9.52	-6		31.75	30.48	Brass
297-7960	M16 x 1.5	12.7	-8		33	40.5	Steel
218-6645	M16 x 1.5	15.88	-10		34.3	39.1	Steel
313-3493	M16 x 1.5	15.88	-10		40	40	Steel
71-0375	M16 x 1.5	15.88	-10		40	40	Steel
178-5425	M16 x 1.5	15.88	-10		40	35	Steel
385-0183	M27 x 2	25.4	-16		42.68	42.42	Steel

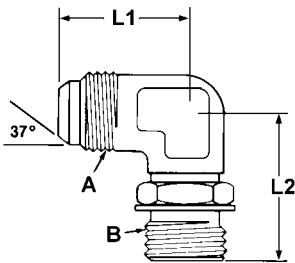
# Elbow Adapters

## ISO 6149 Metric STOR Male / ISO 8434-1 24° Cone Male 90° Elbow



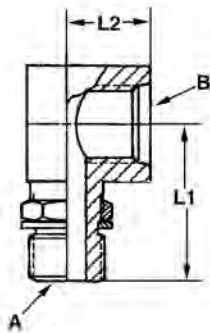
Part Number	End 1		End 2		Length 3	Length 4	Material
	Thread	Tube Dia. (mm)	Thread				
234-7198	M18 x 1.5	12	M14 x 1.5		37	24	Steel
234-7391	M30 x 2	22	M26 x 1.5		55	35	Steel

## ISO 6149 Metric STOR Male / 37° Flare Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread				
472-4348	7/16 - 20	-4	M10 x 1		22.61	25.4	Steel
221-0175	7/16 - 20	-4	M12 x 1.5		24	31.6	Steel
286-5030	7/16 - 20	-4	M14 x 1.5		26.9	29.2	Brass
216-7951	9/16 - 18	-6	M14 x 1.5		27	33.5	Steel
111-8815	3/4 - 16	-8	M16 x 1.5		31.8	38	Steel
7V-7502	1 5/16 - 12	-16	M26 x 1.5		46	46.3	Steel

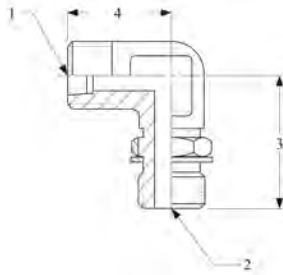
## ISO 6149 Metric STOR Male / Port 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread		Thread				
367-6024	M12 x 1.5		M12 x 1.5		33	15	Steel
216-4596	M12 x 1.5		M12 x 1.5		33	28	Steel
510-6510	M14 x 1.5		M12 x 1.5		35.5	18	Steel
459-0606	M14 x 1.5		M14 x 1.5		35.5	23.5	SST
315-9831	M18 x 1.5		M18 x 1.5		44.2	26	Steel

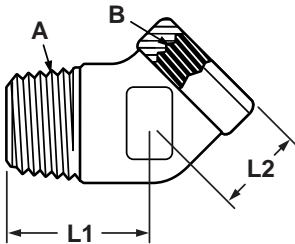
# Elbow Adapters

## ISO 8434-1 24° Cone Male / ISO 1179 BSPP Flat Face Male 90° Elbow



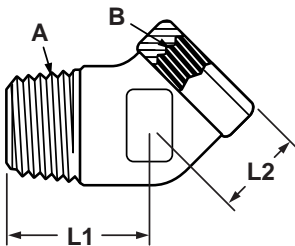
Series	Part Number	End 1		End 2		Length 3	Length 4	Material
		Thread	Tube Dia. (mm)	Thread				
L - Series (Light Duty)	395-1239	M14 x 1.5	8	1/4 - 19		32	23	Steel
	373-5665	M14 x 1.5	8	1/4 - 19		32	23	Steel
	373-5666	M16 x 1.5	10	1/4 - 19		27	22.5	Steel
	216-2310	M16 x 1.5	10	1/4 - 19		37	23.5	Steel
	384-2416	M18 x 1.5	12	3/8 - 19		28	19	Steel
	175-9586	M18 x 1.5	12	3/8 - 19		37	24.5	Steel
	175-9522	M22 x 1.5	15	1/4 - 19		37	28	Steel
	234-7431	M22 x 1.5	15	3/8 - 19		43	30	Steel
	234-7436	M22 x 1.5	15	3/8 - 19		84	30	Steel
	175-9509	M26 x 1.5	18	1/4 - 19		49	31	Steel
S - Series (Heavy Duty)	175-9519	M16 x 1.5	8	1/4 - 19		37	24	Steel
	175-9563	M20 x 1.5	12	3/8 - 19		40.5	29	Steel
	234-7416	M24 x 1.5	16	1/4 - 19		44	33	Steel
	234-7422	M24 x 1.5	16	1/2 - 14		50	33	Steel
	231-9828	M30 x 2	20	3/4 - 14		39.7	36.5	Steel
	175-9518	M42 x 2	30	1 - 11		59.5	49	Steel

## ASME NPTF Male / Port 45° Elbow



Part Number	End A		End B		L1	L2	Material
	Thread	Dash Size	Thread	Dash Size			
177-3477	1/8 - 27	-2	1/8 - 27	-2	17.5	4.3	Brass
3B-7730	1/4 - 18	-4	1/4 - 18	-4	23.8	15.8	Iron
7F-6289	3/8 - 18	-6	3/8 - 18	-6	27	17.4	Iron
3B-7731	1/2 - 14	-8	1/2 - 14	-8	30.2	20.6	Iron
2N-3543	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	41.7	31	Brass
3D-2187	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	42.7	33.3	Iron
2D-4080	2 - 11.5	-32	2 - 11.5	-32	56.4	42.7	Iron
5E-3952	3 - 8	-48	3 - 8	-48	76.2	55.1	Iron

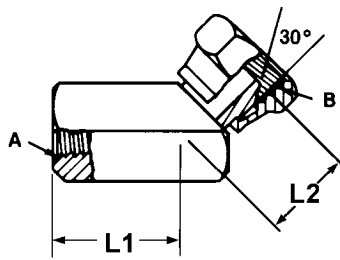
## SAE NPTF Male / Port 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
7D-2746	1/8 - 27	-2	1/8 - 27	-2	12.7	9.6	Brass
8L-5008	1/8 - 27	-2	1/8 - 27	-2	18.3	11.9	Steel
260-4057	1/8 - 27	-2	1/4 - 18	-4	18.3	15.7	Steel
6V-7535	1/4 - 18	-4	1/4 - 18	-4	17.8	13.7	Brass
2N-1931	1/4 - 18	-4	1/4 - 18	-4	26.7	15.7	Steel
1L-2279	3/8 - 18	-6	3/8 - 18	-6	26.9	18.3	Steel
205-9883	3/8 - 18	-6	3/8 - 18	-6	21.5	9.2	Steel
5B-1585	1/2 - 14	-8	1/2 - 14	-8	25.4	19	Brass
000-7244	1/2 - 14	-8	1/2 - 14	-8	34	23.1	Steel
000-7246	3/4 - 14	-12	3/4 - 14	-12	35.1	24.6	Steel
002-5743	1 - 11.5	-16	1 - 11.5	-16	43.7	28.4	Steel

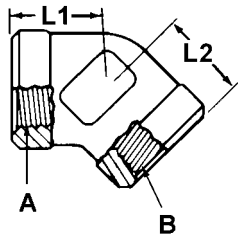
# Elbow Adapters

## NPTF Port / NPSM Swivel 45° Elbow



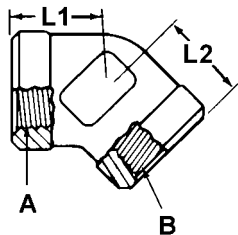
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
4D-6585	1/4 - 18	-4	1/4 - 18	-4	23.1	18.3	Steel
4D-2016	3/8 - 18	-6	3/8 - 18	-6	26.2	20.8	Steel
2H-3938	3/4 - 14	-12	3/4 - 14	-12	31.8	25.4	Steel

## SAE NPTF Port / NPTF Port 45° Elbow



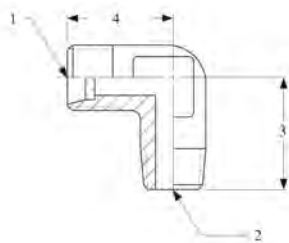
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
3B-6493	1/8 - 27	-2	1/8 - 27	-2	12.7	12.7	Steel
5P-4818	1/4 - 18	-4	1/4 - 18	-4	17.5	17.5	Steel
5P-8934	3/8 - 18	-6	3/8 - 18	-6	19	19	Steel
211-8759	3/4 - 14	-12	3/4 - 14	-12	25.4	25.4	SST
341-0082	1 - 11.5	-16	1 - 11.5	-16	30.2	30.2	Steel
153-6269	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	37.1	37.1	Steel

## ASME NPT Port / Port 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
3B-6497	1/2 - 14	-8	1/2 - 14	-8	22.2	22.2	Iron
3B-7728	3/4 - 14	-12	3/4 - 14	-12	25.4	25.4	Iron
4B-9030	1 - 11.5	-16	1 - 11.5	-16	28.4	28.4	Iron
2N-3542	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	31	31	Brass
3D-2186	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	33.3	33.3	Iron
160-7086	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	42.9	42.9	Iron
2L-2813	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	36.3	36.3	Iron
5N-2638	2 - 11.5	-32	2 - 11.5	-32	37	37	Brass
8F-3271	2 - 11.5	-32	2 - 11.5	-32	42.7	42.7	Iron
7F-7652	3 1/2 - 8	-56	3 1/2 - 8	-56	60.3	60.3	Iron
140-9461	4 - 8	-64	4 - 8	-64	66.3	66.3	Iron

## NPTF Male / SAE J514 24° Flareless Male 90° Elbow

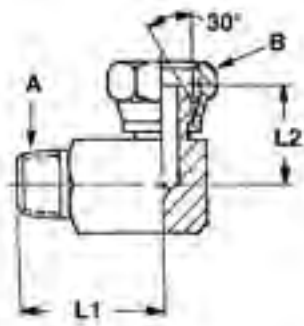


Part Number	End 1		End 2		Length 3	Length 4	Material
	Thread	Dash Size	Thread	Dash Size			
5P-6315	5/16 - 24	-2	1/8 - 27	-2	18.3	19.6	Steel
1P-3862	7/16 - 20	-4	1/8 - 27	-2	19.8	22.6	Steel
5P-3917	1/2 - 20	-5	1/8 - 27	-2	19.8	24.1	Steel
5P-6072	9/16 - 18	-6	1/4 - 18	-4	27.7	26.7	Steel
3J-7706	3/4 - 16	-8	1/4 - 18	-4	31	31.8	Steel
5P-6073	3/4 - 16	-8	3/8 - 18	-6	31	31.8	Steel
5P-5718	7/8 - 14	-10	1/2 - 14	-8	37.3	36.1	Steel



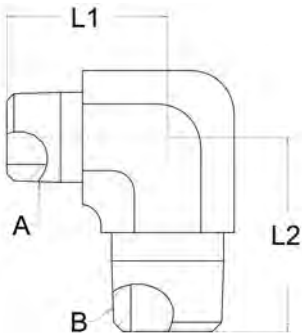
# Elbow Adapters

## NPTF Male / NPSM Swivel 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
4D-6475	1/8 - 27	-2	1/8 - 27	-2	24.25	16.9	Steel
5K-3771	1/8 - 27	-2	1/8 - 27	-2	41.7	16.3	Steel
7K-2094	1/8 - 27	-2	1/8 - 27	-2	91.9	16.3	Steel
4S-7606	1/8 - 27	-2	1/4 - 18	-4	26.4	19.8	Steel
202-1138	1/4 - 18	-4	1/8 - 27	-2	27.7	19.3	Steel
4D-0124	1/4 - 18	-4	1/4 - 18	-4	63.5	19.8	Steel
5H-4778	1/4 - 18	-4	1/4 - 18	-4	31	19.8	Steel
1S-0401	1/4 - 18	-4	3/8 - 18	-6	38.1	23.4	Steel
332-8565	3/8 - 18	-6	1/4 - 18	-4	39.6	23.9	Steel
4J-3914	3/8 - 18	-6	1/4 - 18	-4	38.1	22.2	Steel
332-8566	3/8 - 18	-6	3/8 - 18	-6	39.6	28.4	Steel
4D-0577	3/8 - 18	-6	3/8 - 18	-6	38.1	23.4	Steel
2D-8910	3/8 - 18	-6	1/2 - 14	-8	40.4	25.4	Steel
3D-8913	1/2 - 14	-8	3/8 - 18	-6	41.5	24.9	Steel
2H-3940	1/2 - 14	-8	1/2 - 14	-8	45.2	25.4	Steel
7D-0477	1/2 - 14	-8	3/4 - 14	-12	50.8	30.2	Steel
003-7030	3/4 - 14	-12	3/8 - 18	-6	50.8	28.1	Steel
2L-8228	3/4 - 14	-12	1/2 - 14	-8	50.8	38.9	Steel
2H-3939	3/4 - 14	-12	3/4 - 14	-12	50.8	30.2	Steel
159-1691	3/4 - 14	-12	1 - 11.5	-16	35.3	55.5	Steel
004-3935	1 - 11.5	-16	3/4 - 14	-12	59.4	35	Steel
191-1716	1 - 11.5	-16	3/4 - 14	-12	50.04	46.23	Steel
3H-9690	1 - 11.5	-16	1 - 11.5	-16	59.4	35.1	Steel
2L-7070	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	65	39.6	Steel
1L-0766	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	71.4	43.7	Steel
6V-7349	2 - 11.5	-32	2 - 11.5	-32	85.6	61	Steel

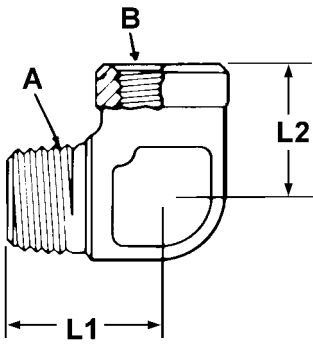
## SAE NPTF Male / Male 90° Elbow



Part Number	End A		End B		Length 1	Length 2	Material
	Thread	Dash Size	Thread	Dash Size			
173-4415	1/4 - 18	-4	1/4 - 18	-4	27.7	27.7	SST
8J-4788	1/4 - 18	-4	1/4 - 18	-4	27.7	27.7	Steel
2U-4291	3/8 - 18	-6	3/8 - 18	-6	27.7	27.7	Brass
249-7697	3/8 - 18	-6	1/2 - 14	-8	31	37.34	Steel
173-4416	1/2 - 14	-8	1/2 - 14	-8	37.3	37.3	SST
037-4685	1/2 - 14	-8	1/2 - 14	-8	37.3	37.3	Steel
196-6833	3/4 - 14	-12	3/4 - 14	-12	40.4	40.4	SST
450-0842	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	60.5	60.5	SST
451-3900	2 - 11.5	-32	2 - 11.5	-32	76.2	76.2	Steel

# Elbow Adapters

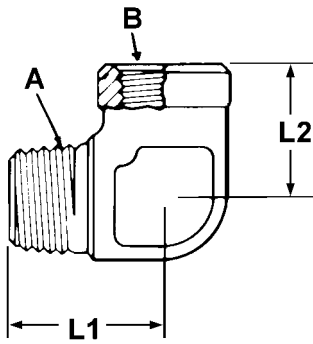
## ASME NPTF Male / Port 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
454-6793	1/8 - 27	-2	1/8 - 27	-2	14.5	8.6	Brass
397-2476	1/8 - 27	-2	1/8 - 27	-2	20.8	14	Brass
3B-6773	1/4 - 18	-4	1/4 - 18	-4	28.2	18	Brass
3B-6553	1/4 - 18	-4	1/4 - 18	-4	30	20.6	Iron
4B-6067	3/8 - 18	-6	3/8 - 18	-6	36.5	23.8	Iron
205-0667	1/2 - 14	-8	1/2 - 14	-8	45	28	Iron
3B-6554	3/4 - 14	-12	3/4 - 14	-12	47.5	33.3	Iron
3L-7024	3/4 - 14	-12	1 - 11.5	-16	47.5	38.1	Iron
3B-6555	1 - 11.5	-16	1 - 11.5	-16	54	36.5	Iron
8B-2777	1 - 11.5	-16	1 1/4 - 11.5	-20	53.98	44.45	Iron
6B-6765	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	57	43	Brass
3B-6556	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	63.5	44.4	Iron
7B-8057	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	62.48	46.74	Brass
5B-7666	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	68.3	49.2	Iron
7B-7138	2 - 11.5	-32	2 - 11.5	-32	82.55	57.15	Iron
488-4819	2 - 11.5	-32	2 - 11.5	-32	84	64	Steel
9F-2535	2 1/2 - 8	-40	2 1/2 - 8	-40	96.8	42.8	Iron
192-1264	4 - 8	-64	4 - 8	-64	144	97	Iron

# Elbow Adapters

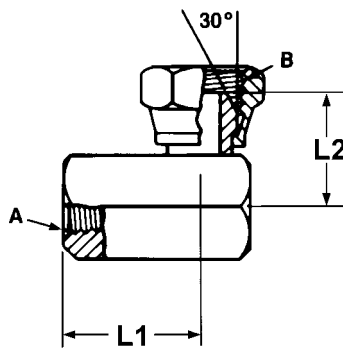
## SAE NPTF Male / Port 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
0A-2833	1/8 - 27	-2	1/8 - 27	-2	16.76	12.19	Brass
4H-5451	1/8 - 27	-2	1/8 - 27	-2	21.4	19	Brass
3B-8822	1/8 - 27	-2	1/8 - 27	-2	22.35	13.97	Brass
3H-0120	1/8 - 27	-2	1/8 - 27	-2	13.88	6.35	Steel
2D-1683	1/8 - 27	-2	1/8 - 27	-2	18.5	6.35	Steel
3B-6552	1/8 - 27	-2	1/8 - 27	-2	19.8	16.8	Steel
313-1681	1/8 - 27	-2	1/8 - 27	-2	35	7.88	Steel
6V-3342	1/8 - 27	-2	1/4 - 18	-4	18.3	11.43	Brass
332-8564	1/4 - 18	-4	1/8 - 27	-2	27.7	16.8	Brass
6V-4245	1/4 - 18	-4	1/8 - 27	-2	27.7	16.8	Steel
7F-9311	1/4 - 18	-4	1/4 - 18	-4	19.9	11.9	Brass
377-9582	1/4 - 18	-4	1/4 - 18	-4	27.7	22.4	Brass
1Y-3604	1/4 - 18	-4	1/4 - 18	-4	27.69	22.35	SST
189-4401	1/4 - 18	-4	1/4 - 18	-4	24.6	8.7	Steel
3D-8884	1/4 - 18	-4	1/4 - 18	-4	26.9	11.11	Steel
6L-5075	1/4 - 18	-4	1/4 - 18	-4	26.9	11.18	Steel
7J-8611	1/4 - 18	-4	1/4 - 18	-4	27.7	27.7	Steel
2T-2169	1/4 - 18	-4	3/8 - 18	-6	31	25.9	Steel
176-1308	3/8 - 18	-6	1/4 - 18	-4	31	25.9	Steel
9M-5501	3/8 - 18	-6	3/8 - 18	-6	24.6	19.8	Brass
5L-8722	3/8 - 18	-6	3/8 - 18	-6	31.8	21.1	Brass
219-4328	3/8 - 18	-6	3/8 - 18	-6	25	12.7	Steel
7J-0482	3/8 - 18	-6	3/8 - 18	-6	26.9	11.18	Steel
003-2143	3/8 - 18	-6	3/8 - 18	-6	31	25.9	Steel
120-7391	3/8 - 18	-6	3/8 - 18	-6	31	25.9	Steel
004-4659	3/8 - 18	-6	1/2 - 14	-8	29.7	34.8	Steel
030-8324	1/2 - 14	-8	3/8 - 18	-6	37.3	25.9	Steel
9L-3560	1/2 - 14	-8	1/2 - 14	-8	31.75	26.42	Brass
8T-6756	1/2 - 14	-8	1/2 - 14	-8	37.3	31.2	Steel
164-0228	1/2 - 14	-8	3/4 - 14	-12	40.4	34.5	Steel
031-9746	3/4 - 14	-12	1/2 - 14	-8	40.4	34.3	Steel
345-9880	3/4 - 14	-12	3/4 - 14	-12	40.39	34.54	Steel
003-9163	3/4 - 14	-12	3/4 - 14	-12	40.4	34.5	Steel
006-5707	1 - 11.5	-16	1 - 11.5	-16	50	41.1	Steel
6V-1881	1 - 11.5	-16	1 1/4 - 11.5	-20	50	43.2	Brass
491-5271	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	60.5	43.2	SST
005-7541	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	60.5	43.2	Steel
250-1435	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	67.1	52.8	Steel
493-1513	2 - 11.5	-32	2 - 11.5	-32	76.2	60.7	SST
480-2987	2 - 11.5	-32	2 - 11.5	-32	76.2	60.7	Steel

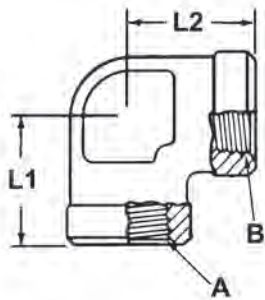
# Elbow Adapters

## NPTF Port / NPSM Swivel 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
5D-0269	1/8 - 27	-2	1/8 - 27	-2	19.1	18.8	Steel
4D-4267	1/4 - 18	-4	1/4 - 18	-4	23.9	19.8	Steel
2D-8912	3/8 - 18	-6	1/2 - 14	-8	31	25.4	Steel
2L-3622	1/2 - 14	-8	1/2 - 14	-8	31	25.4	Steel
1L-4762	1 - 11.5	-16	1 - 11.5	-16	43.7	35.1	Steel
6V-9013	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	57.2	40.9	Steel

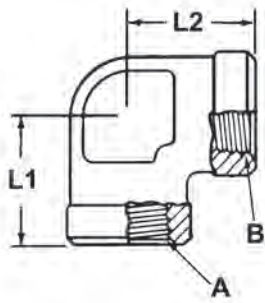
## ASME NPTF Port / Port 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
3B-6494	1/8 - 27	-2	1/8 - 27	-2	17.5	17.5	Iron
282-7858	1/4 - 18	-4	1/4 - 18	-4	20.6	20.6	SST
3B-7729	1/4 - 18	-4	1/4 - 18	-4	20.64	20.64	Iron
7B-1480	3/8 - 18	-6	1/4 - 18	-4	22.4	22.9	Iron
3B-6495	3/8 - 18	-6	3/8 - 18	-6	23.8	23.8	Iron
5B-8279	1/2 - 14	-8	3/8 - 18	-6	22.3	28.4	Iron
3B-6496	1/2 - 14	-8	1/2 - 14	-8	28.5	28.5	Iron
3F-1783	3/4 - 14	-12	1/2 - 14	-8	30.48	30.98	Iron
319-6193	3/4 - 14	-12	1/2 - 14	-8	33.3	35.1	Iron
4B-5984	3/4 - 14	-12	3/4 - 14	-12	33.3	33.3	Iron
149-5211	1 - 11.5	-16	1 - 11.5	-16	38.1	38.1	Iron
1L-0254	1 - 11.5	-16	1 - 11.5	-16	41.4	41.4	Iron
6V-7538	1 1/4 - 11.5	-20	3/4 - 14	-12	36.8	41.2	Iron
3L-9071	1 1/4 - 11.5	-20	1 - 11.5	-16	39.6	41.1	Iron
6B-6766	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	42.9	42.9	Brass
3B-6499	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	44.5	44.5	Iron
018-6477	1 1/2 - 11.5	-24	1 - 11.5	-16	41.9	45.7	Iron
6L-4382	1 1/2 - 11.5	-24	1 1/4 - 11.5	-20	46.2	47.8	Iron
7B-3395	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	46.7	46.7	Brass
6B-3685	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	49	49	Iron
141-1246	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	49.3	49.3	SST
6V-8253	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	51	51	Steel
6F-8856	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	52.8	52.8	Iron
131-9366	2 - 11.5	-32	1 1/4 - 11.5	-20	49.2	54	STL Pipe
8B-9913	2 - 11.5	-32	1 1/2 - 11.5	-24	57.15	49	Iron
3N-7602	2 - 11.5	-32	2 - 11.5	-32	54	54	Brass
439-1874	2 - 11.5	-32	2 - 11.5	-32	57.2	57.2	SST
246-1470	2 - 11.5	-32	2 - 11.5	-32	60.45	60.45	Black Pipe
8Q-9642	2 - 11.5	-32	2 - 11.5	-32	63.5	63.5	Iron
287-7286	2 1/2 - 8	-40	2 1/2 - 8	-40	68.6	68.6	SST
140-7300	2 1/2 - 8	-40	2 1/2 - 8	-40	68.6	68.6	Iron
506-9362	2 1/2 - 8	-40	2 1/2 - 8	-40	74.7	74.7	Iron
140-5979	3 - 8	-48	3 - 8	-48	78.23	78.23	Iron
319-6195	3 - 8	-48	3 - 8	-48	85.9	85.9	Iron
7F-7651	3 1/2 - 8	-56	3 1/2 - 8	-56	87.3	87.3	Iron
146-8875	4 - 8	-64	4 - 8	-64	96.3	96.3	Iron

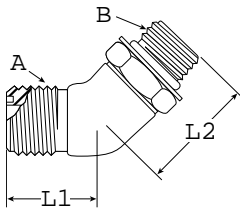
# Elbow Adapters

## SAE NPTF Port / Port 90° Elbow



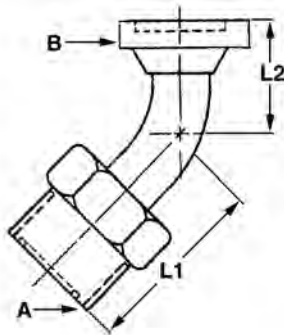
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
3B-6769	1/8 - 27	-2	1/8 - 27	-2	13.97	13.97	Brass
8B-4884	1/8 - 27	-2	1/8 - 27	-2	16.8	16.8	Steel
3B-6767	1/4 - 18	-4	1/4 - 18	-4	19.81	19.81	Brass
003-8747	1/4 - 18	-4	1/4 - 18	-4	22.4	22.4	Steel
008-2649	3/8 - 18	-6	3/8 - 18	-6	21.34	21.34	Brass
003-9014	3/8 - 18	-6	3/8 - 18	-6	25.9	25.9	Steel
1H-1363	1/2 - 14	-8	3/8 - 18	-6	27	39.7	STL Pipe
8F-9055	1/2 - 14	-8	1/2 - 14	-8	27.69	27.69	Brass
1Y-0412	1/2 - 14	-8	1/2 - 14	-8	31.2	31.2	Steel
1K-6937	3/4 - 14	-12	3/4 - 14	-12	34.5	34.5	Steel
3B-6498	1 - 11.5	-16	1 - 11.5	-16	36.5	36.5	Steel
152-9842	1 - 11.5	-16	1 - 11.5	-16	41.4	41.4	Steel
152-9843	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	52.8	52.8	Steel

## SAE J1453 ORFS Male / ISO 1179 BSPP Flat End Male 45° Elbow



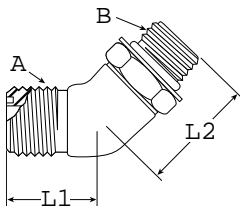
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
225-8629	13/16 - 16	-8	3/4 - 14		25	44	Steel
459-0585	1 7/16 - 12	-16	3/4 - 14		30	51	Steel

## SAE J1453 ORFS Male / SAE J518 Code 62 Flange Head 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Dash Size	Dash Size			
127-7056	1 3/16 - 12	-12	-12		49.2	35.9	Steel
7X-9737	1 7/16 - 12	-16	-12		53.7	32	Steel
138-7796	1 7/16 - 12	-16	-16		30	47	Steel
489-1534	1 7/16 - 12	-16	-16		31.8	52.6	Steel

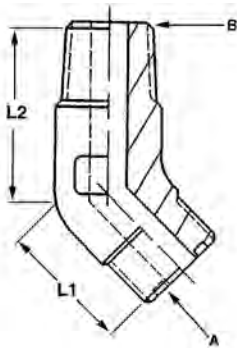
## SAE J1453 ORFS Male / ISO 6149 Metric STOR Male 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
347-4401	11/16 - 16	-6	M14 x 1.5		19	31.5	Steel
371-7205	11/16 - 16	-6	M16 x 1.5		19	33.5	Steel
232-4869	1 - 14	-10	M22 x 1.5		23.5	44	Steel
306-9190	1 3/16 - 12	-12	M27 x 2		26	50.5	Steel
341-0112	1 11/16 - 12	-20	M42 x 2		32	54	Steel

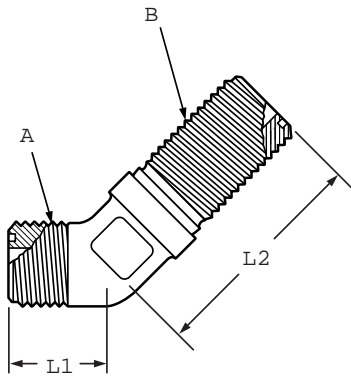
# Elbow Adapters

## SAE J1453 ORFS Male / NPTF Male 45° Elbow



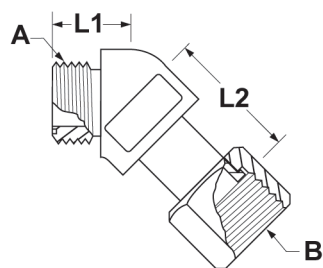
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
184-6893	9/16 - 18	-4	1/8 - 27	-2	16	18.28	Steel
511-7746	11/16 - 16	-6	1/4 - 18	-4	18.8	21.8	Steel
7R-6774	11/16 - 16	-6	1/4 - 18	-4	18.8	23.62	Steel
103-7268	11/16 - 16	-6	3/8 - 18	-6	19	26.4	Steel
103-7268	11/16 - 16	-6	3/8 - 18	-6	18.8	24.1	Steel
2T-2171	13/16 - 16	-8	3/8 - 18	-6	20.3	24.6	Steel
3E-7449	13/16 - 16	-8	1/2 - 14	-8	20.8	30.5	Steel
106-7650	1 3/16 - 12	-12	3/4 - 14	-12	25.9	31.2	Steel
117-3034	1 11/16 - 12	-20	1 - 11.5	-16	32	53.6	Steel
426-4057	2 - 12	-24	1 1/2 - 11.5	-24	36.8	45.7	Steel

## SAE J1453 ORFS Bulkhead 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
6V-8986	9/16 - 18	-4	9/16 - 18	-4	16	44	Steel
6V-8987	11/16 - 16	-6	11/16 - 16	-6	19	48.5	Steel
6V-9351	11/16 - 16	-6	13/16 - 16	-8	19	51	Steel
6V-8988	13/16 - 16	-8	13/16 - 16	-8	20.5	51	Steel
8C-3251	1 - 14	-10	13/16 - 16	-8	23.5	54.1	Steel
6V-8989	1 - 14	-10	1 - 14	-10	23.5	56.5	Steel
6V-8990	1 3/16 - 12	-12	1 3/16 - 12	-12	26	60.5	Steel
124-0195	1 7/16 - 12	-16	1 3/16 - 12	-12	30	65	Steel
6V-8991	1 7/16 - 12	-16	1 7/16 - 12	-16	30	65	Steel
442-3311	1 7/16 - 12	-16	1 7/16 - 12	-16	30	65.3	Steel
442-3312	1 11/16 - 12	-20	1 11/16 - 12	-20	32	67	Steel

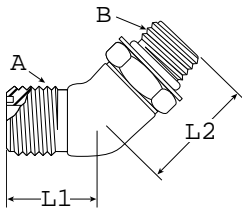
## SAE J1453 ORFS Male / Swivel 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
8C-8408	9/16 - 18	-4	9/16 - 18	-4	16	25	Steel
8C-8988	11/16 - 16	-6	11/16 - 16	-6	19	28.5	Steel
8C-8989	13/16 - 16	-8	13/16 - 16	-8	20.3	37.8	Steel
8C-7563	1 - 14	-10	1 - 14	-10	23.4	38.9	Steel
8T-8899	1 3/16 - 12	-12	1 3/16 - 12	-12	26	39	Steel
142-0038	1 7/16 - 12	-16	1 7/16 - 12	-16	30	47.5	Steel
229-1444	1 11/16 - 12	-20	1 11/16 - 12	-20	54.4	45.5	Steel
295-4101	2 - 12	-24	2 - 12	-24	36.8	61.3	Steel

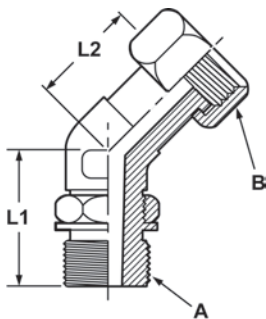
# Elbow Adapters

## SAE J1453 ORFS Male / SAE J1926 STOR Male 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
6V-9000	9/16 - 18	-4	7/16 - 20	-4	16	30	Steel
8T-0164	9/16 - 18	-4	9/16 - 18	-6	17.5	33	Steel
8T-7546	11/16 - 16	-6	7/16 - 20	-4	19	31	Steel
8C-3246	11/16 - 16	-6	1/2 - 20	-5	19	31	Steel
6V-9001	11/16 - 16	-6	9/16 - 18	-6	19	33	Steel
219-1883	11/16 - 16	-6	9/16 - 18	-6	33	19	Steel
6V-9876	11/16 - 16	-6	3/4 - 16	-8	19	36.5	Steel
310-5899	11/16 - 16	-6	7/8 - 14	-10	20	44.5	Steel
9X-2085	13/16 - 16	-8	9/16 - 18	-6	20.5	32.4	Steel
6V-9002	13/16 - 16	-8	3/4 - 16	-8	20.5	36.5	Steel
503-2216	13/16 - 16	-8	7/8 - 14	-10	21.5	44.5	Steel
127-1647	13/16 - 16	-8	1 1/16 - 12	-12	22.5	50	Steel
8T-2530	1 - 14	-10	3/4 - 16	-8	23.5	40.2	Steel
6V-9003	1 - 14	-10	7/8 - 14	-10	23.5	44.5	Steel
8T-0120	1 - 14	-10	1 1/16 - 12	-12	24.5	50	Steel
195-0037	1 - 14	-10	1 1/16 - 12	-12	23.4	127	Steel
8C-6920	1 3/16 - 12	-12	3/4 - 16	-8	26	41.6	Steel
8T-5389	1 3/16 - 12	-12	7/8 - 14	-10	26	45.9	Steel
464-3819	1 3/16 - 12	-12	7/8 - 14	-10	25.9	50.038	Steel
6V-9004	1 3/16 - 12	-12	1 1/16 - 12	-12	26	50	Steel
419-7158	1 3/16 - 12	-12	1 3/16 - 12	-14	29.5	52.5	Steel
8T-4149	1 3/16 - 12	-12	1 5/16 - 12	-16	29.5	52.5	Steel
195-0106	1 3/16 - 12	-12	1 5/16 - 12	-16	25.9	97	Steel
8T-7970	1 7/16 - 12	-16	1 1/16 - 12	-12	30	51.7	Steel
6V-9005	1 7/16 - 12	-16	1 5/16 - 12	-16	30	52.5	Steel
303-5020	1 7/16 - 12	-16	1 5/16 - 12	-16	68	62	Steel
143-4281	1 7/16 - 12	-16	1 5/8 - 12	-20	32	53.5	Steel
464-4938	1 7/16 - 12	-16	1 5/8 - 12	-20	53.6	32	Steel
369-6870	1 7/16 - 12	-16	1 7/8 - 12	-24	37	53.5	Steel
152-9840	1 11/16 - 12	-20	1 5/16 - 12	-16	32	53.5	Steel
6V-9006	1 11/16 - 12	-20	1 5/8 - 12	-20	32	53.5	Steel
204-9378	2 - 12	-24	1 7/8 - 12	-24	37	53.5	Steel

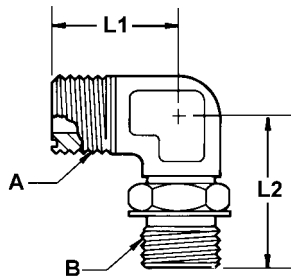
## SAE J1453 ORFS Swivel / SAE J1926 STOR Male 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
8T-2335	9/16 - 18	-6	11/16 - 16	-6	33	29.3	Steel
8T-0252	3/4 - 16	-8	13/16 - 16	-8	36.8	37.9	Steel
208-5148	1 1/16 - 12	-12	1 - 14	-10	50	34	Steel

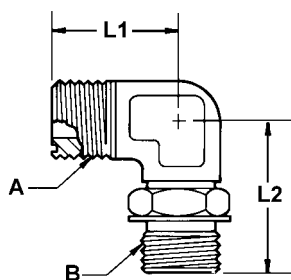
# Elbow Adapters

## SAE J1453 ORFS Male / ISO 1179 BSPP Flat Face Male 90° Elbow



Part Number	End A		End B	L1 Length	L2 Length	Material
	Thread	Dash Size	Thread			
207-7224	9/16 - 18	-4	1/8 - 28	21.5	30	Steel
304-8033	9/16 - 18	-4	1/8 - 28	21.5	30	Steel
313-3479	9/16 - 18	-4	1/4 - 19	23.5	35	Steel
463-9932	9/16 - 18	-4	3/8 - 19	24.5	38	Steel
196-6538	11/16 - 16	-6	1/8 - 28	25	35	Steel
451-0472	11/16 - 16	-6	1/4 - 19	25	36	Steel
351-5235	11/16 - 16	-6	3/8 - 19	27	67	Steel
175-9483	11/16 - 16	-6	3/8 - 19	26.5	38	Steel
207-7225	11/16 - 16	-6	3/8 - 19	26.5	38	Steel
421-6176	11/16 - 16	-6	3/8 - 19	26.5	38	Steel
504-5534	11/16 - 16	-6	3/8 - 19	27	38	Steel
293-5203	11/16 - 16	-6	1/2 - 14	29.5	48	Steel
293-5204	11/16 - 16	-6	1/2 - 14	25	48.5	Steel
175-9479	13/16 - 16	-8	1/4 - 19	28	35	Steel
293-7312	13/16 - 16	-8	3/8 - 19	28	40.6	Steel
373-6667	13/16 - 16	-8	1/2 - 14	31	48	Steel
323-4809	13/16 - 16	-8	1/2 - 14	31	82	Steel
207-7226	1 - 14	-10	3/8 - 19	33.5	40.5	Steel
207-7223	1 - 14	-10	1/2 - 14	33.5	48.5	Steel
345-3914	1 - 14	-10	1/2 - 14	33.5	50	Steel
211-9537	1 - 14	-10	3/4 - 14	33.5	51.5	Steel
351-5211	1 3/16 - 12	-12	1/2 - 14	37.5	49	Steel
216-2203	1 3/16 - 12	-12	1/2 - 14	37.3	49.5	Steel
216-9409	1 3/16 - 12	-12	3/4 - 14	37.3	51.4	Steel
293-0789	1 3/16 - 12	-12	3/4 - 14	37.3	46.7	Steel
293-0789	1 3/16 - 12	-12	3/4 - 14	37.5	51.5	Steel
304-8040	1 3/16 - 12	-12	1 - 11	41.5	58	Steel
215-8849	1 7/16 - 12	-16	3/4 - 14	38	58	Steel
175-9477	1 7/16 - 12	-16	1 - 11	42	58	Steel
304-7194	1 7/16 - 12	-16	1 - 11	41.7	58	Steel
293-5833	1 7/16 - 12	-16	1 1/4 - 11	45	60.5	Steel
293-2252	1 11/16 - 12	-20	1 1/4 - 11	45	60	Steel
451-0449	1 11/16 - 12	-20	1 1/2 - 11	49	64.5	Steel
487-5070	2 - 12	-24	1 1/2 - 11	49	64.5	Steel

## SAE J1453 ORFS Male / JIS B2351 BSPP STOR Male 90° Elbow

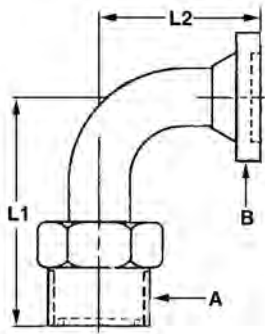


Part Number	End A		End B	L1 Length	L2 Length	Material
	Thread	Dash Size	Thread			
175-9480	9/16 - 18	-4	1/4 - 19	23.5	35	Steel
183-9044	9/16 - 18	-4	1/4 - 19	21	26	Steel
200-4635	9/16 - 18	-4	1/4 - 19	26	37	Steel
175-4792	13/16 - 16	-8	1/2 - 14	35.5	35.5	Steel
199-0543	13/16 - 16	-8	1/2 - 14	28	46	Steel
199-0546	13/16 - 16	-8	1/2 - 14	28	64	Steel
099-7551	1 - 14	-10	3/4 - 14	37	35	Steel
096-4920	1 3/16 - 12	-12	3/4 - 14	37	55	Steel



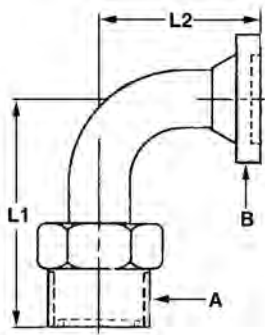
# Elbow Adapters

## SAE J1453 ORFS Male / SAE J518 Code 61 Flange Head 90° Elbow



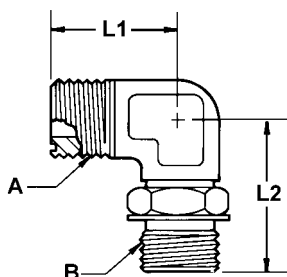
Part Number	End A		End B	L1 Length	L2 Length	Material
	Thread	Dash Size	Dash Size			
351-5238	13/16 - 16	-8	-8	49	54	Steel
151-8866	1 3/16 - 12	-12	-12	50	25	Steel
397-9744	1 3/16 - 12	-12	-12	43	42	Steel
287-7339	1 3/16 - 12	-12	-12	49.5	46	Steel
347-4415	1 3/16 - 12	-12	-12	67.3	54	Steel
480-2998	1 3/16 - 12	-12	-12	42.2	54	Steel
268-1526	1 3/16 - 12	-12	-16	48	25	Steel
262-5492	1 7/16 - 12	-16	-16	41.7	60.2	Steel
163-3098	1 7/16 - 12	-16	-16	81.8	60.2	Steel
395-5438	1 11/16 - 12	-20	-20	33.35	60.2	Steel
432-9432	1 11/16 - 12	-20	-24	59.2	80	Steel
113-3353	2 - 12	-24	-24	48.8	79.2	Steel
395-5439	2 - 12	-24	-24	59.18	80.81	Steel

## SAE J1453 ORFS Male / SAE J518 Code 62 Flange Head 90° Elbow



Part Number	End A		End B	L1 Length	L2 Length	Material
	Thread	Dash Size	Dash Size			
270-0344	1 3/16 - 12	-12	-8	59	52	Steel
127-7055	1 3/16 - 12	-12	-12	65.2	54.1	Steel
351-5239	1 3/16 - 12	-12	-12	59	54	Steel
398-5630	1 3/16 - 12	-12	-12	37	54	Steel
434-5384	1 3/16 - 12	-12	-12	42.16	54.1	Steel
480-2999	1 3/16 - 12	-12	-16	55.1	61.5	Steel
439-0448	1 7/16 - 12	-16	-12	67.48	54.1	Steel
369-6822	1 7/16 - 12	-16	-16	108	71.4	Steel
244-6348	1 7/16 - 12	-16	-16	71	71	Steel
426-4036	1 7/16 - 12	-16	-16	72	70	Steel
489-1534	1 7/16 - 12	-16	-16	31.8	53.6	Steel
7X-9733	1 7/16 - 12	-16	-16	83	57	Steel
7X-9738	1 7/16 - 12	-16	-16	83	100	Steel
371-7239	1 7/16 - 12	-16	-20	128	89.9	Steel
432-9579	1 7/16 - 12	-16	-20	52.32	70.1	Steel
434-5383	1 11/16 - 12	-20	-20	52.32	70.1	Steel
432-9445	1 11/16 - 12	-20	-24	59.2	80	Steel
442-3362	2 - 12	-24	-20	50.8	70.1	Steel

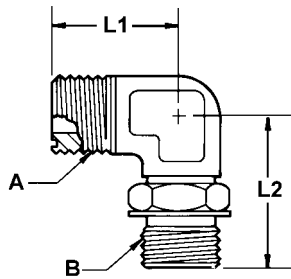
## SAE J1453 ORFS Male / ISO 9974 Metric Flat Face Male 90° Elbow



Part Number	End A		End B	L1 Length	L2 Length	Material
	Thread	Dash Size	Thread			
123-8829	9/16 - 18	-4	M10 x 1	21.5	31.4	Steel
351-5217	9/16 - 18	-4	M14 x 1.5	23.5	37	Steel
502-3076	11/16 - 16	-6	M12 x 1.5	35.5	25	Steel
152-3406	11/16 - 16	-6	M14 x 1.5	25	36.2	Steel
124-3109	13/16 - 16	-8	M18 x 1.5	28	41	Steel
175-9454	13/16 - 16	-8	M18 x 1.5	28	40.5	Steel

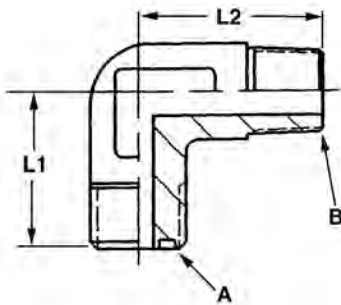
# Elbow Adapters

## SAE J1453 ORFS Male / ISO 6149 Metric STOR Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
228-6049	9/16 - 18	-4	M10 x 1		21.5	29.5	Steel
295-4107	9/16 - 18	-4	M12 x 1.5		21.5	33	Steel
227-5714	11/16 - 16	-6	M12 x 1.5		25	35.5	Steel
457-2130	11/16 - 16	-6	M16 x 1.5		25	37.5	SST
459-0782	11/16 - 16	-6	M16 x 1.5		25	37.5	SST
218-1755	11/16 - 16	-6	M16 x 1.5		25	37.5	Steel
421-6167	11/16 - 16	-6	M16 x 1.5		22.3	37.5	Steel
227-0061	13/16 - 16	-8	M16 x 1.5		28	38	Steel
268-1552	13/16 - 16	-8	M18 x 1.5		28	41	Steel
379-4372	13/16 - 16	-8	M22 x 1.5		31.5	49	Steel
384-9230	13/16 - 16	-8	M27 x 2		34	55.5	Steel
227-0056	1 - 14	-10	M18 x 1.5		33.5	47.5	Steel
227-0057	1 - 14	-10	M22 x 1.5		33.5	49	Steel
125-9717	1 - 14	-10	M22 x 1.5		33.5	49	Steel
215-3665	1 3/16 - 12	-12	M22 x 1.5		37.5	49.5	Steel
474-2630	1 3/16 - 12	-12	M22 x 1.5		37.5	49	Steel
215-9090	1 3/16 - 12	-12	M27 x 2		37.5	55.5	Steel
250-1460	1 3/16 - 12	-12	M33 x 2		41.5	59.5	Steel
227-0059	1 7/16 - 12	-16	M33 x 2		41.7	59.5	Steel
227-0060	1 11/16 - 12	-20	M42 x 2		44.5	63	Steel

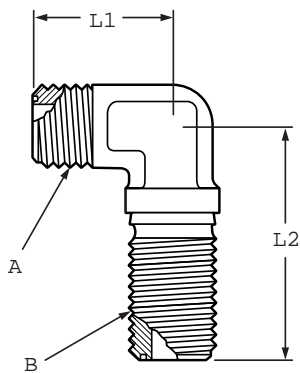
## SAE J1453 ORFS Male / NPTF Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
377-9577	9/16 - 18	-4	1/8 - 27	-2	21.5	19.8	Brass
7X-0492	9/16 - 18	-4	1/8 - 27	-2	21.5	19.8	Steel
377-9563	9/16 - 18	-4	1/4 - 18	-4	23.3	27.4	Brass
7X-5331	9/16 - 18	-4	1/4 - 18	-4	23.3	27.4	Steel
2T-2305	11/16 - 16	-6	1/4 - 18	-4	25	27.7	Steel
2T-1925	11/16 - 16	-6	3/8 - 18	-6	26.4	31.7	Steel
459-0590	11/16 - 16	-6	1/2 - 14	-8	29.2	33	Steel
250-1494	13/16 - 16	-8	1/4 - 18	-4	28	31	Steel
2T-2396	13/16 - 16	-8	3/8 - 18	-6	28	31	Steel
2T-1922	13/16 - 16	-8	1/2 - 14	-8	28	37.3	Steel
122-8905	13/16 - 16	-8	3/4 - 14	-12	33.5	41.9	Steel
361-4992	1 - 14	-10	1/2 - 14	-8	33.2	37.3	Steel
117-3033	1 - 14	-10	3/4 - 14	-12	33.3	40.4	Steel
7X-7902	1 3/16 - 12	-12	1/2 - 14	-8	37.3	42	Steel
086-8503	1 3/16 - 12	-12	3/4 - 14	-12	37.33	41.91	Steel
9X-2398	1 3/16 - 12	-12	3/4 - 14	-12	37.3	40.4	Steel
131-4863	1 7/16 - 12	-16	1 - 11.5	-16	41.7	50	Steel
5E-8917	1 11/16 - 12	-20	1 1/4 - 11.5	-20	44.7	61.21	Steel

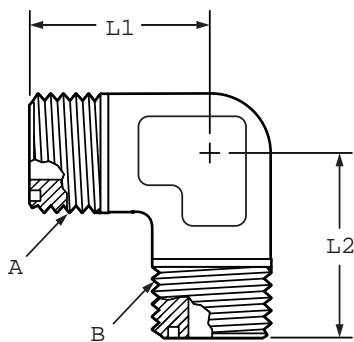
# Elbow Adapters

## SAE J1453 ORFS Bulkhead 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
143-9665	9/16 - 18	-4	9/16 - 18	-4	22.5	72	Steel
6V-8979	9/16 - 18	-4	9/16 - 18	-4	22.5	47	Steel
358-3490	9/16 - 18	-4	9/16 - 18	-4	22.6	47	Steel
221-4733	11/16 - 16	-6	11/16 - 16	-6	26	52	SST
6V-8980	11/16 - 16	-6	11/16 - 16	-6	26	52	Steel
184-7415	11/16 - 16	-6	11/16 - 16	-6	26	58.5	Steel
8T-5465	11/16 - 16	-6	13/16 - 16	-8	27.5	55.5	Steel
8T-0130	13/16 - 16	-8	11/16 - 16	-6	29	53.1	Steel
6V-8981	13/16 - 16	-8	13/16 - 16	-8	29	55.5	Steel
184-6892	13/16 - 16	-8	13/16 - 16	-8	29	61	Steel
6V-9796	13/16 - 16	-8	1 - 14	-10	32.5	63	Steel
8T-1810	1 - 14	-10	13/16 - 16	-8	34.5	61	Steel
6V-8982	1 - 14	-10	1 - 14	-10	34.5	63	Steel
6V-8983	1 3/16 - 12	-12	1 3/16 - 12	-12	38.5	67	Steel
215-3226	1 7/16 - 12	-16	1 3/16 - 12	-12	42.5	70.7	Steel
6V-8984	1 7/16 - 12	-16	1 7/16 - 12	-16	42.5	71	Steel
3E-7426	1 11/16 - 12	-20	1 7/16 - 12	-16	45.5	75.5	Steel
6V-8985	1 11/16 - 12	-20	1 11/16 - 12	-20	45.5	75.5	Steel
202-6663	2 - 12	-24	2 - 12	-24	49.5	79.5	Steel

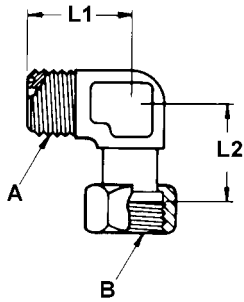
## SAE J1453 ORFS Male / Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
6V-9806	9/16 - 18	-4	9/16 - 18	-4	21.5	21.5	Steel
6V-9807	11/16 - 16	-6	11/16 - 16	-6	25	25	Steel
223-7882	13/16 - 16	-8	13/16 - 16	-8	28	28	SST
6V-9808	13/16 - 16	-8	13/16 - 16	-8	28	28	Steel
229-5193	1 - 14	-10	1 - 14	-10	33.5	33.5	SST
6V-9809	1 - 14	-10	1 - 14	-10	33.5	33.5	Steel
6V-9810	1 3/16 - 12	-12	1 3/16 - 12	-12	37.5	37.5	Steel
451-0415	1 3/16 - 12	-12	1 3/16 - 12	-12	60.59	38.5	Steel
8T-6777	1 3/16 - 12	-12	1 7/16 - 12	-16	41	41.5	Steel
6V-9649	1 7/16 - 12	-16	1 7/16 - 12	-16	41.5	41.5	Steel

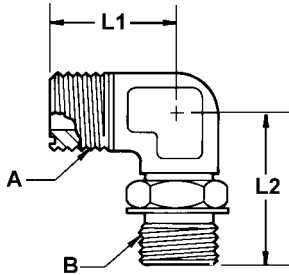
# Elbow Adapters

## SAE J1453 ORFS Male / Swivel Nut 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
6V-9849	9/16 - 18	-4	9/16 - 18	-4	21.5	26.5	Steel
288-0267	9/16 - 18	-4	9/16 - 18	-4	21.5	46	Steel
6V-9850	11/16 - 16	-6	11/16 - 16	-6	25	29	Steel
439-1818	11/16 - 16	-6	11/16 - 16	-6	25	70	Steel
152-3411	11/16 - 16	-6	13/16 - 16	-8	26.5	38	Steel
3E-2333	13/16 - 16	-8	11/16 - 16	-6	28	35	Steel
223-7881	13/16 - 16	-8	13/16 - 16	-8	28	37.9	SST
6V-9851	13/16 - 16	-8	13/16 - 16	-8	28	38	Steel
459-0630	13/16 - 16	-8	1 - 14	-10	31.5	41	Steel
6V-9852	1 - 14	-10	1 - 14	-10	33.5	41	Steel
8T-1718	1 3/16 - 12	-12	1 - 14	-10	37.5	44	Steel
6V-9853	1 3/16 - 12	-12	1 3/16 - 12	-12	37.5	46.5	Steel
103-1328	1 3/16 - 12	-12	1 3/16 - 12	-12	45	36	Steel
109-5824	1 3/16 - 12	-12	1 3/16 - 12	-12	36	36	Steel
109-5825	1 3/16 - 12	-12	1 3/16 - 12	-12	36	42	Steel
6V-9854	1 7/16 - 12	-16	1 7/16 - 12	-16	41.5	53.5	Steel
6V-9855	1 11/16 - 12	-20	1 11/16 - 12	-20	44.5	58	Steel
102-3437	2 - 12	-24	1 11/16 - 12	-20	49	61	Steel
174-5811	2 - 12	-24	2 - 12	-24	49	61	Steel

## SAE J1453 ORFS Male / SAE J1926 STOR Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
294-4821	9/16 - 18	-4	3/8 - 24	-3	21.5	30.23	Steel
267-4045	9/16 - 18	-4	7/16 - 20	-4	21.5	56.5	Steel
165-2016	9/16 - 18	-4	7/16 - 20	-4	21.5	63	Steel
100-7603	9/16 - 18	-4	1/2 - 20	-5	23.5	35.5	Steel
153-6267	9/16 - 18	-4	9/16 - 18	-6	21.5	72	Steel
6V-8627	9/16 - 18	-4	9/16 - 18	-6	23.5	37	Steel
267-4047	9/16 - 18	-4	9/16 - 18	-6	23.7	66.8	Steel
205-4135	9/16 - 18	-4	3/4 - 16	-8	24.7	40.6	Steel
177-8450	9/16 - 18	-4	3/4 - 16	-8	23.7	40.6	Steel
6V-9200	11/16 - 16	-6	7/16 - 20	-4	25	35	Steel
169-1229	11/16 - 16	-6	7/16 - 20	-4	25	55	Steel
7X-0901	11/16 - 16	-6	1/2 - 20	-5	25	35	Steel
6V-8724	11/16 - 16	-6	9/16 - 18	-6	25	37	Steel
8T-1905	11/16 - 16	-6	9/16 - 18	-6	25	72	Steel
292-7430	11/16 - 16	-6	9/16 - 18	-6	25	80	Steel
341-0101	11/16 - 16	-6	9/16 - 18	-6	25	52	Steel
3E-7432	11/16 - 16	-6	9/16 - 18	-6	25	37	Steel
471-4197	11/16 - 16	-6	9/16 - 18	-6	24.9	36.8	Steel
6V-8723	11/16 - 16	-6	3/4 - 16	-8	26.5	40.5	Steel
9X-2134	11/16 - 16	-6	7/8 - 14	-10	30	50	Steel
6V-9343	11/16 - 16	-6	1 1/16 - 12	-12	32.5	55	Steel
235-3601	13/16 - 16	-8	7/16 - 20	-4	28	45.9	Steel
8T-6876	13/16 - 16	-8	9/16 - 18	-6	28	36.4	Steel
8T-7521	13/16 - 16	-8	9/16 - 18	-6	28	65.5	Steel
5E-9683	13/16 - 16	-8	3/4 - 16	-8	28	75	Steel
6V-8625	13/16 - 16	-8	3/4 - 16	-8	28	40.5	Steel
187-6009	13/16 - 16	-8	3/4 - 16	-8	28	50.6	Steel

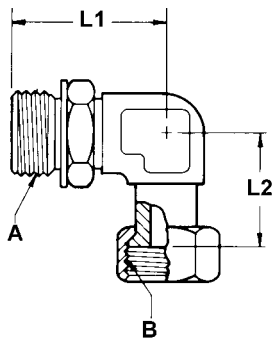
# Elbow Adapters

## SAE J1453 ORFS Male / SAE J1926 STOR Male 90° Elbow (Cont'd.)

Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
8T-1686	13/16 - 16	-8	3/4 - 16	-8	28	65.5	Steel
449-1449	13/16 - 16	-8	3/4 - 16	-8	27.9	74.9	Steel
6V-8721	13/16 - 16	-8	7/8 - 14	-10	31.5	50	Steel
270-0013	13/16 - 16	-8	7/8 - 14	-10	30.8	106.1	Steel
270-0015	13/16 - 16	-8	7/8 - 14	-10	30.8	66.1	Steel
287-7328	13/16 - 16	-8	7/8 - 14	-10	30.8	76.1	Steel
289-7249	13/16 - 16	-8	7/8 - 14	-10	30.8	146.1	Steel
426-4083	13/16 - 16	-8	1 1/16 - 12	-12	34	55	SST
8T-5429	13/16 - 16	-8	1 1/16 - 12	-12	34	55	Steel
241-2451	1 - 14	-10	9/16 - 18	-6	33.5	41.5	Steel
6V-8722	1 - 14	-10	3/4 - 16	-8	33.5	46	Steel
485-1325	1 - 14	-10	7/8 - 14	-10	33.27	89.15	Steel
194-9866	1 - 14	-10	7/8 - 14	-10	33.3	196.5	Steel
287-7330	1 - 14	-10	7/8 - 14	-10	30.8	106.1	Steel
8T-0404	1 - 14	-10	1 1/16 - 12	-12	36	55	Steel
211-6257	1 - 14	-10	1 1/16 - 12	-12	37	102	Steel
6V-9877	1 3/16 - 12	-12	3/4 - 16	-8	37.5	46.5	Steel
087-4588	1 3/16 - 12	-12	3/4 - 16	-8	37.3	62	Steel
348-4996	1 3/16 - 12	-12	3/4 - 16	-8	37.3	86.1	Steel
6V-8629	1 3/16 - 12	-12	7/8 - 14	-10	37.5	50.9	Steel
6V-9007	1 3/16 - 12	-12	1 1/16 - 12	-12	37.5	55	Steel
128-6841	1 3/16 - 12	-12	1 1/16 - 12	-12	37.3	52	Steel
369-6831	1 3/16 - 12	-12	1 1/16 - 12	-12	57	82.7	Steel
194-9040	1 3/16 - 12	-12	1 1/16 - 12	-12	37.3	203	Steel
194-9041	1 3/16 - 12	-12	1 1/16 - 12	-12	37.3	154	Steel
235-3611	1 3/16 - 12	-12	1 1/16 - 12	-12	37.3	75	Steel
337-1177	1 3/16 - 12	-12	1 1/16 - 12	-12	37.3	90.8	Steel
345-3911	1 3/16 - 12	-12	1 1/16 - 12	-12	37.5	55	Steel
8C-8400	1 3/16 - 12	-12	1 1/16 - 12	-12	37.5	101	Steel
6V-9182	1 3/16 - 12	-12	1 5/16 - 12	-16	41	59.5	Steel
371-7155	1 3/16 - 12	-12	1 5/16 - 12	-16	41.2	131.7	Steel
162-3122	1 3/16 - 12	-12	1 5/16 - 12	-16	43.2	49.5	Steel
195-0036	1 3/16 - 12	-12	1 5/16 - 12	-16	37.3	96.4	Steel
202-1713	1 3/16 - 12	-12	1 5/16 - 12	-16	37.3	115	Steel
286-6469	1 3/16 - 12	-12	1 5/16 - 12	-16	37.3	111	Steel
321-8661	1 3/16 - 12	-12	1 5/16 - 12	-16	37.3	100	Steel
5I-4198	1 3/16 - 12	-12	1 5/16 - 12	-16	37.3	100	Steel
119-6220	1 7/16 - 12	-16	7/8 - 14	-10	41.5	54.5	Steel
338-6237	1 7/16 - 12	-16	7/8 - 14	-10	41.7	144.9	Steel
8T-6684	1 7/16 - 12	-16	1 1/16 - 12	-12	41.5	58.7	Steel
8T-8986	1 7/16 - 12	-16	1 3/16 - 12	-14	41.7	59	Steel
433-2445	1 7/16 - 12	-16	1 3/16 - 12	-14	41.7	109	Steel
5E-9684	1 7/16 - 12	-16	1 5/16 - 12	-16	41.5	114.5	Steel
6V-9008	1 7/16 - 12	-16	1 5/16 - 12	-16	41.5	59.5	Steel
194-1958	1 7/16 - 12	-16	1 5/16 - 12	-16	90	59.9	Steel
255-2024	1 7/16 - 12	-16	1 5/8 - 12	-20	44.7	137	Steel
199-1773	1 11/16 - 12	-20	1 5/8 - 12	-20	44.7	112.2	Steel
6V-9009	1 11/16 - 12	-20	1 5/8 - 12	-20	44.5	62	Steel
464-2018	1 11/16 - 12	-20	1 5/8 - 12	-20	62.23	44.7	Steel
3E-7433	1 11/16 - 12	-20	1 7/8 - 12	-24	48.8	65.8	Steel
158-7594	2 - 12	-24	1 5/8 - 12	-20	49	66	Steel
271-5304	2 - 12	-24	1 5/8 - 12	-20	49	139	Steel
8T-1682	2 - 12	-24	1 7/8 - 12	-24	49	66	Steel

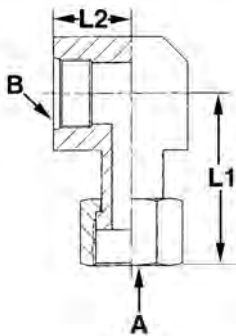
# Elbow Adapters

## SAE J1453 ORFS Swivel / SAE J1926 STOR Male 90° Elbow



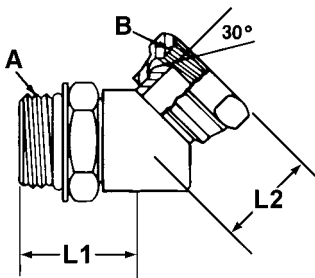
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
249-0008	7/16 - 20	-4	11/16 - 16	-6	36.8	29.3	Steel
8T-0788	9/16 - 18	-6	11/16 - 16	-6	37	29	Steel
9X-2091	3/4 - 16	-8	11/16 - 16	-6	40.5	35	Steel
424-8479	3/4 - 16	-8	13/16 - 16	-8	40.6	34	Steel
8T-0249	3/4 - 16	-8	13/16 - 16	-8	40.5	38	Steel
8T-3001	7/8 - 14	-10	1 - 14	-10	50	41	Steel
330-9591	1 1/16 - 12	-12	1 - 14	-10	55	44	Steel
153-6229	1 5/16 - 12	-16	1 - 14	-10	59.7	44.45	Steel
8T-6451	1 1/16 - 12	-12	1 3/16 - 12	-12	55	46.5	Steel
4C-5089	1 5/16 - 12	-16	1 3/16 - 12	-12	57.15	46.23	Steel
143-4262	3/4 - 16	-8	1 7/16 - 12	-16	65.1	130.6	Steel
250-1425	1 1/16 - 12	-12	1 7/16 - 12	-16	59	53.4	Steel
124-8333	1 5/16 - 12	-16	1 7/16 - 12	-16	59.5	53.5	Steel
170-6541	1 5/8 - 12	-20	1 11/16 - 12	-20	62	58	Steel

## SAE J1453 ORFS Swivel / SAE J1926 STOR Port 90° Elbow



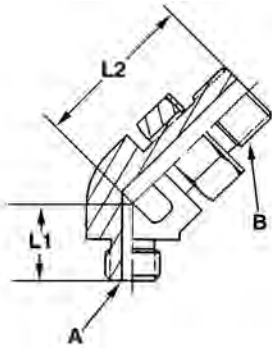
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
213-3745	9/16 - 18	-4	9/16 - 18	-6	31.5	28	Steel
396-0400	1 3/16 - 12	-12	1 1/16 - 12	-12	53	30.7	Steel
9X-2538	1 3/16 - 12	-12	1 1/16 - 12	-12	53.3	30.7	Steel

## SAE J1926 STOR Male / NPSM Swivel 45° Elbow



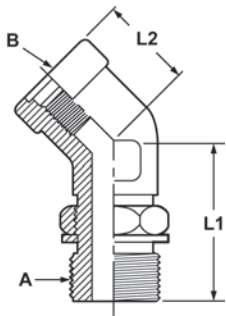
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
5P-7915	7/16 - 20	-4	1/4 - 18	-4	25.4	18.3	Steel
5P-7916	9/16 - 18	-6	1/4 - 18	-4	27	17.5	Steel
5P-7917	9/16 - 18	-6	3/8 - 18	-6	26.9	20.8	Steel
6V-0468	3/4 - 16	-8	3/8 - 18	-6	28.4	19	Steel
5P-7918	3/4 - 16	-8	1/2 - 14	-8	33	22.4	Steel
5P-7919	7/8 - 14	-10	1/2 - 14	-8	38.6	20.6	Steel
030-7976	1 1/16 - 12	-12	3/4 - 14	-12	38.1	25.4	Steel
5P-7920	1 5/16 - 12	-16	1 - 11.5	-16	42.2	27.7	Steel

## SAE J1926 STOR Male / Male 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
9X-8403	7/16 - 20	-4	9/16 - 18	-6	16	33	Steel
210-0066	7/8 - 14	-10	7/8 - 14	-10	22.8	44.7	Steel
8C-9028	1 5/16 - 12	-16	1 5/16 - 12	-16	35.8	55.9	Steel
168-2300	1 7/8 - 12	-24	1 7/8 - 12	-24	40	53.6	Steel

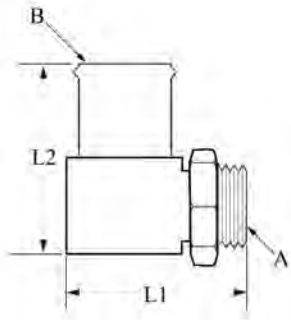
## SAE J1926 STOR Male / Port 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
297-7941	7/16 - 20	-4	7/16 - 20	-4	51.7	18.3	Steel
448-9002	7/16 - 20	-4	7/16 - 20	-4	27.7	13.5	Steel
6V-8077	9/16 - 18	-6	9/16 - 18	-6	28	23	Steel
305-6991	7/8 - 14	-10	3/4 - 16	-8	35.8	24.6	Steel

# Elbow Adapters

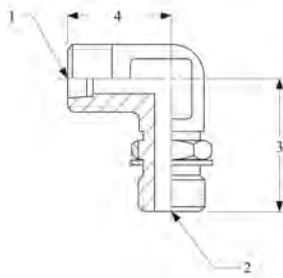
## SAE J1926 STOR Male / Hose Bead 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Hose ID (mm)	Dash Size			
341-0098	3/8 - 24	-3	6.35	-4	23.7	43.66	Steel
6V-1355	7/16 - 20	-4	6.35	-4	26.2	44.5	Steel
3E-4091	7/16 - 20	-4	9.52	-6	26.2	44.5	Steel
337-8788	7/16 - 20	-4	12.7	-8	26.2	44.5	Steel
335-4003	9/16 - 18	-6	6.35	-4	31.8	46	Steel
448-8976	9/16 - 18	-6	9.52	-6	31.8	46	SST
5P-4924	9/16 - 18	-6	9.52	-6	31.5	46	Steel
090-5725	9/16 - 18	-6	12.7	-8	31.8	46	Steel
474-2598	9/16 - 18	-6	15.88	-10	35.6	50	Brass
416-6022	3/4 - 16	-8	7.94	-5	36.83	48.4	Steel
386-6194	3/4 - 16	-8	9.52	-6	36.83	48.51	SST
9X-3982	3/4 - 16	-8	9.52	-6	36.8	48.4	Steel
6V-4292	3/4 - 16	-8	12.7	-8	36.8	48.5	Steel
379-4371	3/4 - 16	-8	14.29	N/A	36.6	48.4	Steel
383-5686	3/4 - 16	-8	15.88	-10	35.5	33.3	Brass
5P-4906	3/4 - 16	-8	15.88	-10	36.8	48.5	Steel
365-0593	3/4 - 16	-8	19.05	-12	36.8	48.4	Steel
9X-3966	3/4 - 16	-8	25.4	-16	48.8	45	Steel
379-4412	7/8 - 14	-10	7.94	-5	43.2	50	Steel
184-9114	7/8 - 14	-10	9.52	-6	52	50	Steel
448-9007	7/8 - 14	-10	9.52	-6	66	50	Steel
6V-5653	7/8 - 14	-10	12.7	-8	43.2	50	Steel
379-4370	7/8 - 14	-10	14.29	N/A	43.2	50	Steel
6V-9208	7/8 - 14	-10	15.88	-10	43.2	50	Steel
275-4918	7/8 - 14	-10	19.05	-12	43.18	50	Steel
459-0596	7/8 - 14	-10	25.4	-16	45.7	52.3	Steel
249-6673	7/8 - 14	-10	25.4	-16	43	33	Steel
9U-6997	7/8 - 14	-10	25.4	-16	40.89	44.96	Steel
090-0744	1 1/16 - 12	-12	15.88	-10	49.3	52.3	Steel
032-8487	1 1/16 - 12	-12	19.05	-12	49.3	52.3	Steel
034-4679	1 1/16 - 12	-12	19.05	-12	65	52.3	Steel
245-1401	1 1/16 - 12	-12	25.4	-16	44.45	40.64	Brass
3E-4041	1 1/16 - 12	-12	25.4	-16	48.8	52.4	Steel
5P-2080	1 1/16 - 12	-12	25.4	-16	85.9	74.7	Steel
5P-5713	1 1/16 - 12	-12	25.4	-16	49.3	101.6	Steel
335-4006	1 3/16 - 12	-14	19.05	-12	50.8	54	Steel
247-4602	1 3/16 - 12	-14	25.4	-16	50.8	53.8	Steel
300-9696	1 5/16 - 12	-16	19.05	-12	52.1	55.6	Steel
034-4202	1 5/16 - 12	-16	25.4	-16	51.8	55.6	Steel
173-3323	1 5/16 - 12	-16	31.75	-20	52.1	55.6	Steel
214-5136	1 5/16 - 12	-16	31.75	-20	52	54	Steel
421-5680	1 5/16 - 12	-16	38.1	-24	55.1	58.8	Steel
5P-7506	1 5/8 - 12	-20	31.75	-20	57.2	60.5	Steel
8C-9022	1 5/8 - 12	-20	38.1	-24	57.2	60.5	Steel
297-7916	1 5/8 - 12	-20	38.1	-24	56.9	59.5	Steel
5P-7507	1 7/8 - 12	-24	31.75	-20	60.7	63.5	Steel
315-9865	1 7/8 - 12	-24	38.1	-24	60.3	63.5	Steel
386-6223	2 1/2 - 12	-32	50.8	-32	73.4	71.4	Steel

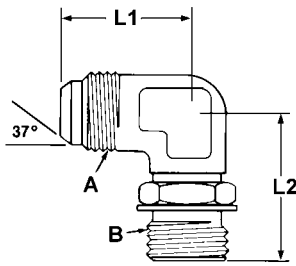


## SAE J1926 STOR Male / SAE J514 24° Flareless Male 90° Elbow



Part Number	End 1		End 2		Length 3	Length 4	Material
	Thread	Dash Size	Thread	Dash Size			
5P-9373	7/16 - 20	-4	7/16 - 20	-4	26.2	22.6	Steel
1P-0269	1/2 - 20	-5	1/2 - 20	-5	27.7	24.1	Steel
5P-7963	9/16 - 18	-6	9/16 - 18	-6	31.8	26.7	Steel

## SAE J1926 STOR Male / 37° Flare Male 90° Elbow



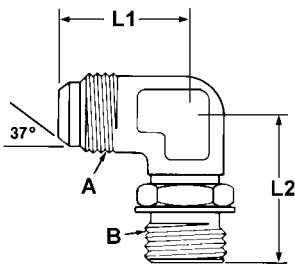
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
205-1581	7/16 - 20	-4	3/8 - 24	-3	22.6	23.4	Steel
171-6469	7/16 - 20	-4	7/16 - 20	-4	22.6	26.2	SST
183-6803	7/16 - 20	-4	7/16 - 20	-4	25.4	43.94	SST
030-7946	7/16 - 20	-4	7/16 - 20	-4	22.6	26.2	Steel
5P-3426	7/16 - 20	-4	7/16 - 20	-4	22.6	43.9	Steel
364-9627	9/16 - 18	-6	7/16 - 20	-4	26.9	30.3	SST
5P-2645	9/16 - 18	-6	7/16 - 20	-4	26.9	30.3	Steel
6V-0416	9/16 - 18	-6	7/16 - 20	-4	26.92	40	Steel
364-9625	7/16 - 20	-4	1/2 - 20	-5	24.1	28.7	SST
3N-1294	7/16 - 20	-4	1/2 - 20	-5	24.1	28.7	Steel
030-6816	1/2 - 20	-5	1/2 - 20	-5	24.1	28.7	Steel
8K-0968	9/16 - 18	-6	1/2 - 20	-5	26.9	30.3	Steel
7J-4026	7/16 - 20	-4	9/16 - 18	-6	26.6	31.8	Steel
030-7947	9/16 - 18	-6	9/16 - 18	-6	26.9	31.8	Steel
2P-7214	9/16 - 18	-6	9/16 - 18	-6	26.9	52.8	Steel
347-4403	9/16 - 18	-6	9/16 - 18	-6	26.9	44	Steel
4R-8684	3/4 - 16	-8	9/16 - 18	-6	31.8	34	SST
4K-6297	3/4 - 16	-8	9/16 - 18	-6	31.8	33.5	Steel
030-8276	3/4 - 16	-8	9/16 - 18	-6	31.8	70.9	Steel
162-6803	3/4 - 16	-8	9/16 - 18	-6	31.8	70.8	Steel
281-5916	7/16 - 20	-4	3/4 - 16	-8	29	36.8	Steel
364-9631	9/16 - 18	-6	3/4 - 16	-8	29	36.8	SST
164-6865	3/4 - 16	-8	3/4 - 16	-8	31.8	36.8	SST
118-4728	3/4 - 16	-8	3/4 - 16	-8	31.8	36.8	Steel
030-8027	3/4 - 16	-8	3/4 - 16	-8	31.75	112.8	Steel
273-4881	3/4 - 16	-8	3/4 - 16	-8	31.8	36.8	Steel
1P-7625	7/8 - 14	-10	3/4 - 16	-8	36.8	39.1	Steel
032-8414	1 1/16 - 12	-12	3/4 - 16	-8	42.2	41.2	Steel
138-5049	9/16 - 18	-6	7/8 - 14	-10	31	43.2	Steel
183-6805	3/4 - 16	-8	7/8 - 14	-10	33.8	43.2	SST
005-4173	3/4 - 16	-8	7/8 - 14	-10	33.8	43.2	Steel
069-3256	3/4 - 16	-8	7/8 - 14	-10	34.2	43.2	Steel
149-4230	7/8 - 14	-10	7/8 - 14	-10	36.8	70	Steel
250-1497	7/8 - 14	-10	7/8 - 14	-10	36.8	43.2	Steel
8K-6686	7/8 - 14	-10	7/8 - 14	-10	36.8	56.4	Steel
068-4174	1 1/16 - 12	-12	7/8 - 14	-10	42.2	45.2	Steel
297-4690	1 1/16 - 12	-12	7/8 - 14	-10	42.2	40.4	Steel
268-1591	1 5/16 - 12	-16	7/8 - 14	-10	46	48	Steel
3P-2298	3/4 - 16	-8	1 1/16 - 12	-12	36.1	49.3	Steel

# Elbow Adapters

## SAE J1926 STOR Male / 37° Flare Male 90° Elbow (Cont'd.)

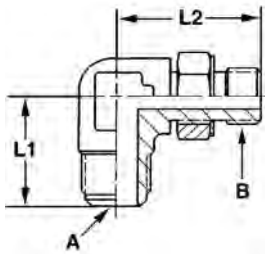
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
005-0658	7/8 - 14	-10	1 1/16 - 12	-12	39.2	49.3	Steel
030-7950	1 1/16 - 12	-12	1 1/16 - 12	-12	42.2	49.3	Steel
034-2136	1 1/16 - 12	-12	1 1/16 - 12	-12	41.7	64	Steel
5P-3411	1 1/16 - 12	-12	1 1/16 - 12	-12	42.16	84.84	Steel
008-8381	1 5/16 - 12	-16	1 1/16 - 12	-12	46	52.1	Steel
397-0822	1 5/16 - 12	-16	1 1/16 - 12	-12	45.97	52.07	Steel
031-7600	1 3/16 - 12	-14	1 3/16 - 12	-14	45.7	50.8	Steel
5P-6416	1 5/16 - 12	-16	1 3/16 - 12	-14	46	52.1	Steel
489-4872	3/4 - 16	-8	1 5/16 - 12	-16	38.6	52.1	Steel
5P-3466	1 1/16 - 12	-12	1 5/16 - 12	-16	44.7	52.1	Steel
183-6807	1 5/16 - 12	-16	1 5/16 - 12	-16	46	52.1	SST
030-7951	1 5/16 - 12	-16	1 5/16 - 12	-16	46	52.1	Steel
008-6325	1 5/8 - 12	-20	1 5/16 - 12	-16	52.3	57.2	Steel
030-0701	1 5/16 - 12	-16	1 5/8 - 12	-20	51	57.2	Steel
6M-5652	1 5/8 - 12	-20	1 5/8 - 12	-20	52.3	57.2	Steel
5P-3725	1 7/8 - 12	-24	1 5/8 - 12	-20	59.2	60.7	Steel
6V-5601	1 5/8 - 12	-20	1 7/8 - 12	-24	55.9	60.7	Steel
030-7953	1 7/8 - 12	-24	1 7/8 - 12	-24	59.2	60.7	Steel
516-5234	2 1/2 - 12	-32	2 1/2 - 12	-32	71.3	73.4	Steel

## SAE J1926 STOR Male / 37° Flare Male 90° Elbow with Filter



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
323-2203	1/2 - 20	-5	9/16 - 18	-6	26.9	31.8	SST
128-7472	9/16 - 18	-6	9/16 - 18	-6	26.9	31.8	Steel
122-5273	3/4 - 16	-8	3/4 - 16	-8	31.8	36.8	Steel

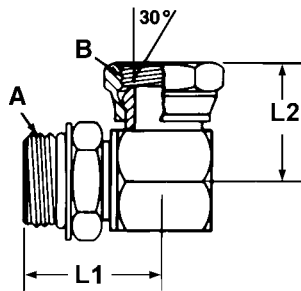
## SAE J1926 STOR Male / SAE J512 45° Flare Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
109-5169	5/8 - 18	-6	9/16 - 18	-6	26	28	Steel
123-8835	5/8 - 18	-6	9/16 - 18	-6	26	28	Steel
103-4675	7/8 - 14	-10	3/4 - 16	-8	36.6	39.4	Steel
124-3045	7/8 - 14	-10	3/4 - 16	-8	36.6	39.4	Steel

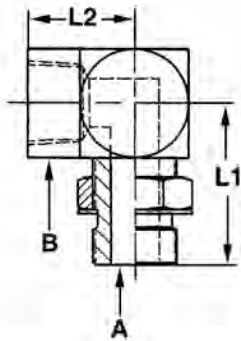
# Elbow Adapters

## SAE J1926 STOR Male / NPSM Swivel 90° Elbow



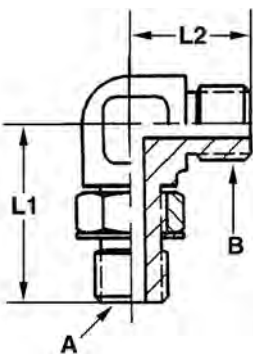
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
5P-7981	7/16 - 20	-4	1/4 - 18	-4	28.2	19.8	Steel
5P-7982	9/16 - 18	-6	1/4 - 18	-4	33	22.9	Steel
030-6817	9/16 - 18	-6	3/8 - 18	-6	31.8	22.9	Steel
030-6818	3/4 - 16	-8	3/8 - 18	-6	38.1	23.9	Steel
6V-8549	3/4 - 16	-8	1/2 - 14	-8	38.1	25.4	Steel
030-6819	3/4 - 16	-8	3/4 - 14	-12	41.7	30.2	Steel
030-7977	7/8 - 14	-10	1/2 - 14	-8	43.2	24.9	Steel
1W-7534	7/8 - 14	-10	1/2 - 14	-8	43.2	24.9	Steel
6V-4363	7/8 - 14	-10	3/4 - 14	-12	45	30.5	Steel
030-7978	1 1/16 - 12	-12	3/4 - 14	-12	49.3	33.8	Steel
5P-7984	1 5/16 - 12	-16	3/4 - 14	-12	53.1	33.4	Steel
030-7979	1 5/16 - 12	-16	1 - 11.5	-16	53.1	35.1	Steel

## SAE J1926 STOR Male / NPTF Port 90° Elbo



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
2L-6094	7/16 - 20	-4	1/8 - 27	-2	22.225	22.225	Brass
268-1550	7/16 - 20	-4	1/2 - 14	-8	41.3	34.5	Steel
106-2105	9/16 - 18	-6	1/4 - 18	-4	33.3	22.4	Steel
426-4086	9/16 - 18	-6	1/4 - 18	-4	34	16	Steel
194-3481	3/4 - 16	-8	3/8 - 18	-6	37.3	16	Steel
2T-2475	3/4 - 16	-8	3/8 - 18	-6	37.1	25.9	Steel
6I-6547	3/4 - 16	-8	3/8 - 18	-6	37.3	16	Steel
6V-1085	7/8 - 14	-10	1/2 - 14	-8	46	19	Steel
9X-2604	1 1/16 - 12	-12	3/4 - 14	-12	51.8	34.5	Steel
7X-7705	1 5/16 - 12	-16	1 - 11.5	-16	117.3	41.1	Steel

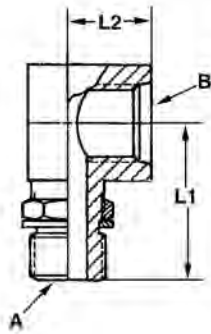
## SAE J1926 STOR Male / Male 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
117-0067	7/16 - 20	-4	7/16 - 20	-4	27.2	18.5	Steel
313-3497	7/16 - 20	-4	9/16 - 18	-6	31.5	21.5	Steel
223-1624	9/16 - 18	-6	7/16 - 20	-4	31.8	25.4	Brass
3E-2332	9/16 - 18	-6	7/16 - 20	-4	31.8	25.4	Steel
480-4249	7/8 - 14	-10	9/16 - 18	-6	43.2	40	Steel

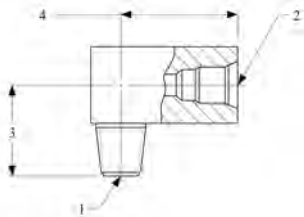
# Elbow Adapters

## SAE J1926 STOR Male / Port 90° Elbow



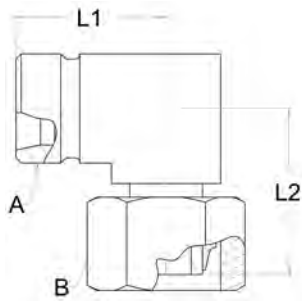
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
124-0396	3/8 - 24	-3	3/8 - 24	-3	26.2	16.5	Steel
151-5145	7/16 - 20	-4	7/16 - 20	-4	31.8	21	Steel
253-5327	7/16 - 20	-4	7/16 - 20	-4	50	23.1	Steel
135-9941	7/16 - 20	-4	9/16 - 18	-6	29	21	Steel
6V-3305	1/2 - 20	-5	1/2 - 20	-5	31	23	Steel
8C-6712	9/16 - 18	-6	7/16 - 20	-4	31.8	21	Steel
6V-8076	9/16 - 18	-6	9/16 - 18	-6	37	24	Steel
085-7356	9/16 - 18	-6	9/16 - 18	-6	39.5	16	Steel
285-2664	9/16 - 18	-6	9/16 - 18	-6	72.5	16	Steel
2U-6317	9/16 - 18	-6	9/16 - 18	-6	36	30	Steel
445-8760	9/16 - 18	-6	9/16 - 18	-6	40	28	Steel
6V-0484	9/16 - 18	-6	9/16 - 18	-6	33	19.05	Steel
115-5411	3/4 - 16	-8	9/16 - 18	-6	40.6	26.5	Steel
376-7314	3/4 - 16	-8	3/4 - 16	-8	40	19	SST
178-5883	3/4 - 16	-8	3/4 - 16	-8	41.1	17	Steel
189-3434	3/4 - 16	-8	3/4 - 16	-8	50	35	Steel
456-7225	3/4 - 16	-8	3/4 - 16	-8	65.8	16	Steel
160-4876	3/4 - 16	-8	1 1/16 - 12	-12	46.8	33	Steel
268-1530	7/8 - 14	-10	3/4 - 16	-8	43.2	36.8	Steel
305-2221	7/8 - 14	-10	3/4 - 16	-8	60.7	36.8	Steel
129-2327	7/8 - 14	-10	7/8 - 14	-10	43	37	Steel
480-3031	7/8 - 14	-10	7/8 - 14	-10	50.7	37	Steel
371-7242	7/8 - 14	-10	1 1/16 - 12	-12	50	33.8	Steel
341-0107	1 1/16 - 12	-12	1 1/16 - 12	-12	55	33	Steel
8T-3491	1 1/16 - 12	-12	1 1/16 - 12	-12	50.8	33	Steel
277-1144	1 1/16 - 12	-12	1 1/16 - 12	-12	55	27	Steel
168-6453	1 5/16 - 12	-16	9/16 - 18	-6	33.15	28	Steel
173-0064	1 5/16 - 12	-16	1 5/16 - 12	-16	57.4	33.78	Steel
337-8776	1 5/16 - 12	-16	1 5/16 - 12	-16	77.4	53.8	Steel
310-5904	1 7/8 - 12	-24	1 7/8 - 12	-24	65.8	42	Steel

## SAE J1926 STOR Port / NPTF Male 90° Elbow



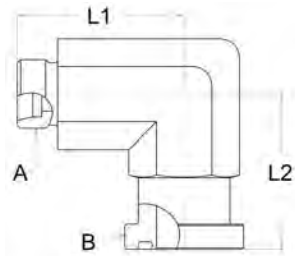
Part Number	End 1		End 2		Length 3	Length 4	Material
	Thread	Dash Size	Thread	Dash Size			
6V-9330	1/8 - 27	-2	9/16 - 18	-6	22.2	25	Steel
250-2573	3/8 - 18	-6	9/16 - 18	-6	31	25.9	Steel

## ISO 8434-1 24° Cone Male / Swivel 90° Elbow



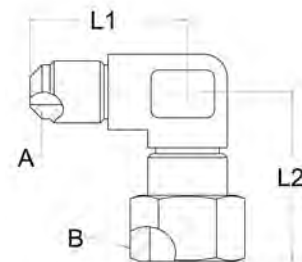
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Tube Dia. (mm)	Thread	Tube Dia. (mm)			
330-2610	M16 x 1.5	10	M16 x 1.5	10	26	22.5	Steel
468-7743	M16 x 1.5	10	M16 x 1.5	10	22	29	Steel
487-4394	M18 x 1.5	12	M18 x 1.5	12	24	29.5	Steel
474-9218	M18 x 1.5	12	M18 x 1.5	12	24	29.5	Steel
327-4383	M20 x 1.5	12	M20 x 1.5	12	28	32.4	Steel
487-5651	M24 x 1.5	16	M24 x 1.5	16	33	37.5	Steel
248-6002	M24 x 1.5	16	M24 x 1.5	16	33	37.5	Steel
145-6284	M24 x 1.5	16	M24 x 1.5	16	33	33	Steel
487-3162	M26 x 1.5	18	M26 x 1.5	18	31	35.5	Steel

## ISO 8434-1 24° Cone Male / SAE Code 62 Flange Head 90° Elbow



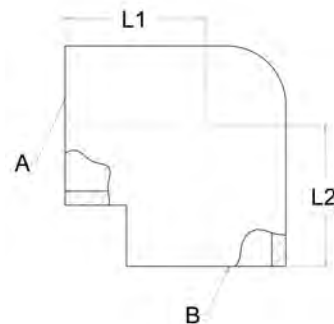
Part Number	End A		End B	L1 Length	L2 Length	Material
	Thread	Tube Dia. (mm)	Dash Size			
234-7413	M24 x 1.5	16	-12	58	54	Steel
234-7412	M36 x 2	25	-12	62	54	Steel
175-9510	M42 x 2	30	-16	73	70	Steel

## SAE J512 45° Flare Male / Swivel 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
268-1565	3/8 - 24	-3	3/8 - 24	-3	19.8	21.3	Brass
417-3724	5/8 - 18	-6	5/8 - 18	-6	28.44	26.41	Brass
241-6154	3/4 - 16	-8	3/4 - 16	-8	31.75	24.13	Steel

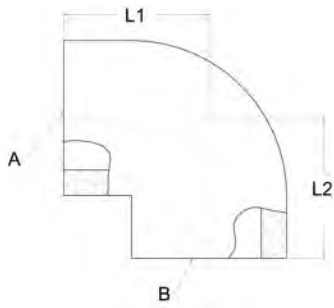
## SAE J512 45° Inverted Flare Port / Port 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
9S-7702	3/8 - 24	-3	3/8 - 24	-3	11.9	11.9	Brass
9S-7703	7/16 - 24	-4	7/16 - 24	-4	12.8	12.8	Brass
4H-6138	1/2 - 20	-5	1/2 - 20	-5	14.3	14.3	Brass
9S-7704	5/8 - 18	-6	5/8 - 18	-6	17	17	Brass
9S-7706	3/4 - 18	-8	3/4 - 18	-8	20.6	20.6	Brass
9S-7707	7/8 - 18	-10	7/8 - 18	-10	23.9	23.9	Brass

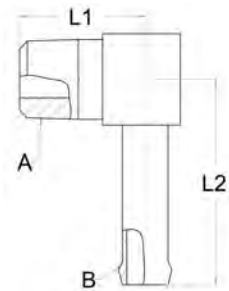
# Elbow Adapters

## ISO 1179 BSPP Flat Face Male / Port 90° Elbow



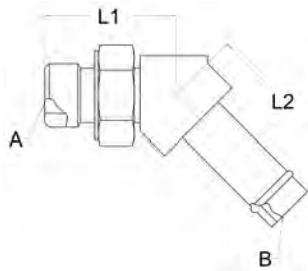
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Thread	Thread	Thread			
387-2727	1/4 - 19	1/4 - 19	1/4 - 19	1/4 - 19	36.5	30.5	Steel
417-2760	1/4 - 19	1/4 - 19	1/4 - 19	1/4 - 19	36	30	Steel
147-2444	3/4 - 14	3/4 - 14	3/4 - 14	3/4 - 14	30	29	Brass

## BSPT Male / Hose Bead 90° Elbow



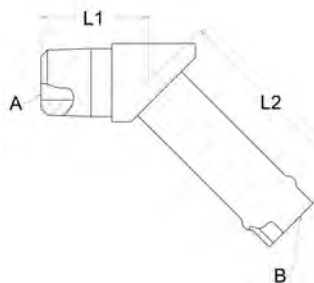
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Hose ID (mm)	Thread	Hose ID (mm)			
269-0986	1/4 - 19	7.94	1/4 - 19	7.94	21.8	35.6	Brass
217-5469	3/8 - 19	15	3/8 - 19	15	25	33	Steel

## ISO 6149 Metric STOR Male / Hose Bead 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Hose ID (mm)	Thread	Dash Size			
332-8546	M16 x 1.5	12.7	M16 x 1.5	-8	33	40.5	Steel
315-9856	M16 x 1.5	15.88	M16 x 1.5	-10	40	41.1	Steel
459-0698	M18 x 1.5	15.88	M18 x 1.5	-10	33	51.9	Steel

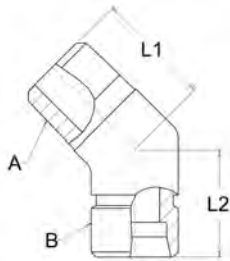
## NPTF Male / Hose Bead 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Hose ID (mm)	Dash Size			
6V-1323	1/4 - 18	-4	6.35	-4	21.8	43.2	Steel
5P-4566	1/4 - 18	-4	9.52	-6	21.8	42.4	Steel
253-1383	1/4 - 18	-4	12.7	-8	21.9	41.2	Steel
030-0709	3/8 - 18	-6	9.52	-6	24.2	43	Steel
068-3251	3/8 - 18	-6	12.7	-8	24.2	44.2	Steel
032-1339	1/2 - 14	-8	12.7	-8	29.8	43.7	Steel
033-3168	1/2 - 14	-8	15.88	-10	29.8	44.5	Steel
032-4036	3/4 - 14	-12	19.05	-12	30.5	45.2	Steel
477-0693	3/4 - 14	-12	25.4	-16	26.7	35.1	Brass
103-1746	3/4 - 14	-12	25.4	-16	30.5	44.5	Steel
274-5919	3/4 - 14	-12	25.4	-16	30.89	54.61	Steel
104-7992	1 - 11.5	-16	31.75	-20	37.6	45.2	Steel

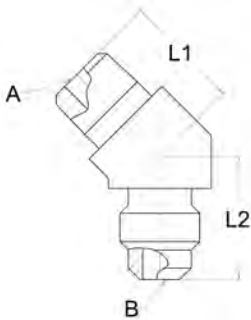
# Elbow Adapters

## NPTF Male / SAE J514 24° Flareless Male 45° Elbow



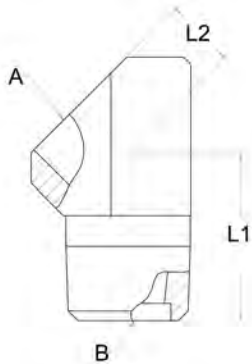
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
5P-6087	1/4 - 18	-4	9/16 - 18	-6	21.8	21.1	Steel
5P-6086	3/8 - 18	-6	3/4 - 16	-8	24.1	24.9	Steel
5P-6085	1/2 - 14	-8	7/8 - 14	-10	29.7	27.4	Steel

## NPTF Male / SAE J512 45° Flare Male 45° Elbow



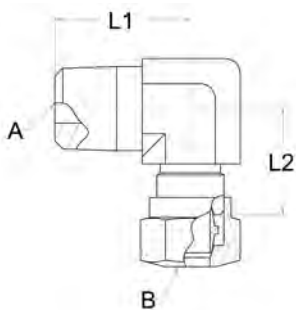
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
3K-3982	1/8 - 27	-2	7/16 - 20	-4	16.3	17	Brass
5P-2517	1/4 - 18	-4	1/2 - 20	-5	20.57	19.05	Brass

## NPTF Male / SAE J512 45° Inverted Flare Port 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
9S-7719	1/8 - 27	-2	3/8 - 24	-3	14	6.4	Brass
9S-7720	1/8 - 27	-2	7/16 - 24	-4	14.7	6.9	Brass
9S-7721	1/8 - 27	-2	1/2 - 20	-5	14.2	8.6	Brass
6K-6826	3/8 - 18	-6	3/4 - 18	-8	23.1	9.7	Steel
9S-7724	1/2 - 14	-8	7/8 - 18	-10	27.7	11.4	Brass

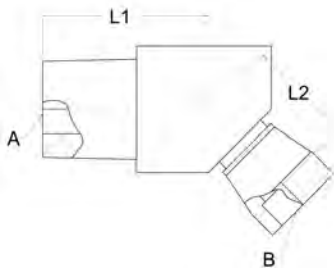
## NPTF Male / SAE J246 Compression Swivel 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Tube OD (mm)	Dash Size			
5P-4459	1/4 - 18	-4	6.35	-4	22.4	17.5	Steel
5P-4461	1/4 - 18	-4	12.7	-8	24.9	22.4	Steel
5P-4452	3/8 - 18	-6	9.52	-6	27.9	21.6	Steel

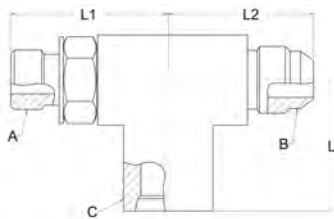
# Elbow Adapters

## NPTF Male / NPSM Swivel 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
4D-0582	3/8 - 18	-6	3/8 - 18	-6	26.2	20.8	Steel
332-8563	3/8 - 18	-6	3/8 - 18	-6	35.5	24.1	Brass
3S-8666	1/2 - 14	-8	1/4 - 18	-4	33.5	21.3	Steel
3S-9175	1/2 - 14	-8	3/8 - 18	-6	33.5	21.8	Steel
4D-3734	1/2 - 14	-8	1/2 - 14	-8	33.5	22.4	Steel
4D-6314	3/4 - 14	-12	1/2 - 14	-8	38.1	22.4	Steel
6H-8297	3/4 - 14	-12	3/4 - 14	-12	38.1	25.4	Steel
185-1899	3/4 - 14	-12	1 - 11.5	-16	33.3	26.56	Steel
001-5262	1 - 11.5	-16	1 - 11.5	-16	38.1	27.7	Steel
004-4977	1 1/4 - 11.5	-20	1 1/4 - 11.5	-20	44.4	31.2	Steel
6L-5955	1 1/2 - 11.5	-24	1 1/2 - 11.5	-24	49.3	33.8	Steel

## NPTF Male / Hose Bead 90° Elbow

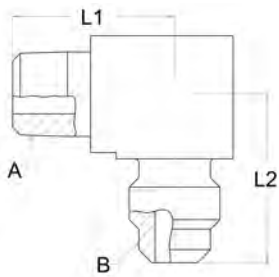


Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Hose ID (mm)	Dash Size			
386-6202	1/8 - 27	-2	6.35	-4	19.1	44.5	Brass
2Y-9402	1/8 - 27	-2	6.35	-4	19.1	44.45	Steel
366-4690	1/8 - 27	-2	9.52	-6	19.8	44.5	Steel
6V-6757	1/4 - 18	-4	6.35	-4	15.8	19.8	Brass
5P-9517	1/4 - 18	-4	7.94	-5	22	28.3	Brass
067-2935	1/4 - 18	-4	9.52	-6	27.8	46	Steel
472-8989	3/8 - 18	-6	9.52	-6	25	35	Steel
8B-1847	3/8 - 18	-6	12.7	-8	31	48.5	Steel
379-4368	3/8 - 18	-6	14.29	N/A	31	48.5	Steel
004-6810	3/8 - 18	-6	15.88	-10	31	48.5	Brass
3K-7928	3/8 - 18	-6	15.88	-10	31	48.5	Steel
5P-1065	1/2 - 14	-8	9.52	-6	37.3	50	Steel
9X-3959	1/2 - 14	-8	12.7	-8	31.75	31.75	Brass
030-8316	1/2 - 14	-8	12.7	-8	37.3	50	Steel
032-3631	1/2 - 14	-8	15.88	-10	37.3	50	Steel
6V-0675	1/2 - 14	-8	19.05	-12	31.75	30.7	Brass
068-3255	1/2 - 14	-8	19.05	-12	39.7	52.4	Steel
5P-1064	3/4 - 14	-12	15.88	-10	40.4	52.3	Steel
207-2159	3/4 - 14	-12	19.05	-12	32.3	33.8	Brass
032-2154	3/4 - 14	-12	19.05	-12	40.4	52.3	Steel
008-7245	3/4 - 14	-12	19.05	-12	36.3	39.7	Steel
5P-3179	3/4 - 14	-12	25.4	-16	34.9	44.4	Brass
7W-1890	3/4 - 14	-12	25.4	-16	40.4	52.3	Steel
032-8707	1 - 11.5	-16	19.05	-12	50	55.6	Steel
033-0820	1 - 11.5	-16	25.4	-16	50	55.6	Steel



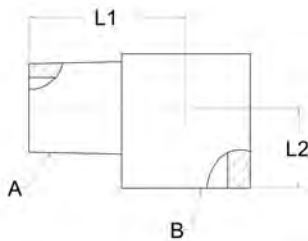
# Elbow Adapters

## NPTF Male / SAE J512 45° Flare Male 90° Elbow



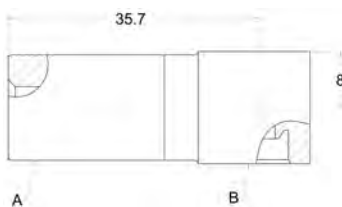
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
3B-9406	1/8 - 27	-2	7/16 - 20	-4	19.8	20.6	Brass
472-8953	1/8 - 27	-2	7/16 - 20	-4	20.5	20	Steel
3B-9111	1/8 - 27	-2	1/2 - 20	-5	20	23	Brass
3K-3415	1/4 - 18	-4	7/16 - 20	-4	23.9	23.1	Brass
472-8962	1/4 - 18	-4	7/16 - 20	-4	23.9	22.4	Steel
3B-9407	1/4 - 18	-4	1/2 - 20	-5	24	24	Brass
3B-9408	1/4 - 18	-4	5/8 - 18	-6	27	25	Brass
472-8946	1/4 - 18	-4	5/8 - 18	-6	28	26.2	Steel
009-1068	1/4 - 18	-4	3/4 - 16	-8	29.36	30.95	Brass
1F-4502	3/8 - 18	-6	5/8 - 18	-6	26	27	Brass
472-8939	3/8 - 18	-6	5/8 - 18	-6	24.6	26.2	Steel
3B-9409	3/8 - 18	-6	3/4 - 16	-8	29	31	Brass
472-8951	3/8 - 18	-6	3/4 - 16	-8	28	31.8	Steel
212-7297	1/2 - 14	-8	5/8 - 18	-6	32.26	29.21	Brass
7S-7369	1/2 - 14	-8	7/8 - 14	-10	35.05	35.81	Brass

## NPTF Male / SAE J512 45° Inverted Flare Port 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
9S-7696	1/8 - 27	-2	5/16 - 28	-2	14.6	6.9	Brass
9S-7697	1/8 - 27	-2	3/8 - 24	-3	15.5	6.9	Brass
3L-1337	1/8 - 27	-2	7/16 - 24	-4	16.4	8.4	Brass
5K-9243	1/8 - 27	-2	7/16 - 24	-4	16.5	8.4	Brass
9S-7698	1/8 - 27	-2	1/2 - 20	-5	17.2	11.9	Brass
1L-6939	1/8 - 27	-2	5/8 - 18	-6	19	15.5	Brass
5K-9241	1/4 - 18	-4	7/16 - 24	-4	21.6	7.1	Brass
5P-2559	1/4 - 18	-4	1/2 - 20	-5	22.1	11.4	Brass
5K-9235	1/4 - 18	-4	5/8 - 18	-6	23.9	13.5	Brass
7K-0498	1/4 - 18	-4	3/4 - 18	-8	26	14.99	Brass
5K-9237	3/8 - 18	-6	5/8 - 18	-6	23.9	12.7	Brass
5K-9244	3/8 - 18	-6	3/4 - 18	-8	25.9	15	Brass
2Y-9121	1/2 - 14	-8	3/4 - 18	-8	28.5	16.8	Brass
7K-1517	1/2 - 14	-8	3/4 - 18	-8	30	16.8	Brass
5K-9240	1/2 - 14	-8	7/8 - 18	-10	32.7	17	Brass
1N-5925	1/2 - 14	-8	1 1/16 - 16	-12	35	19	Brass

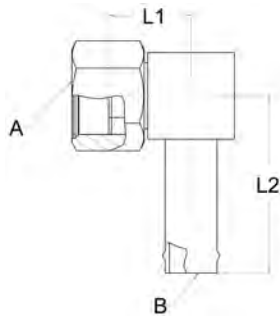
## NPTF Port / SAE J512 45° Inverted Flare Port 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
9S-7712	1/8 - 27	-2	7/16 - 24	-4	13.4	13.4	Brass
4W-8404	1/8 - 27	-2	7/16 - 24	-4	35.7	8	Brass
9S-7710	1/4 - 18	-4	5/8 - 18	-6	17.05	16.65	Brass
9S-7715	3/8 - 18	-6	3/4 - 18	-8	20.6	20.2	Brass

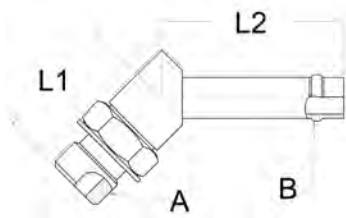
# Elbow Adapters

## SAE J1453 ORFS Swivel / Hose Bead 90° Elbow



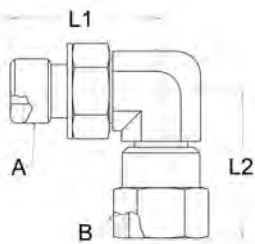
Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Hose ID (mm)	Dash Size			
287-7257	11/16 - 16	-6	12.7	-8	29.3	40.5	Steel
451-0388	1 - 14	-10	19.05	-12	41	54.7	Steel
268-1650	1 3/16 - 12	-12	19.05	-12	37.7	65	Steel
451-0356	1 3/16 - 12	-12	19.05	-12	30.2	65	Steel

## SAE J1926 STOR Male / Hose Bead 45° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Hose ID (mm)	Dash Size			
6V-8245	7/16 - 20	-4	6.35	-4	26.6	25	Steel
297-7987	7/16 - 20	-4	9.52	-6	26.7	40.9	Steel
347-4434	7/16 - 20	-4	12.7	-8	26.6	43.8	Steel
451-0494	9/16 - 18	-6	9.52	-6	29.1	42.9	SST
7X-1448	9/16 - 18	-6	9.52	-6	29.1	42.9	Steel
6V-1230	3/4 - 16	-8	12.7	-8	33	42.9	Steel
5P-9615	3/4 - 16	-8	15.88	-10	33	41.9	Steel
315-9863	3/4 - 16	-8	25.4	-16	41.4	42.9	Steel
260-9244	7/8 - 14	-10	9.52	-6	38.6	43	Steel
347-4436	7/8 - 14	-10	12.7	-8	27.2	44.7	Steel
194-4864	7/8 - 14	-10	15.88	-10	38.6	43.2	Steel
371-7166	7/8 - 14	-10	25.4	-16	38.5	41.7	Steel
5P-1045	1 1/16 - 12	-12	15.88	-10	37.3	35	Steel
245-1400	1 1/16 - 12	-12	25.4	-16	37.3	35	Brass
5P-1230	1 1/16 - 12	-12	25.4	-16	43.9	43.2	Steel
245-1399	1 3/16 - 12	-14	25.4	-16	45.72	31.8	Brass
180-1548	1 3/16 - 12	-14	25.4	-16	39.9	63.5	Steel
6V-7486	1 5/16 - 12	-16	25.4	-16	47.1	47.2	Steel
198-7655	1 5/16 - 12	-16	31.75	-20	46.7	44.7	Steel
474-2595	1 5/16 - 12	-16	38.1	-24	48.5	45.7	Steel
250-1463	1 5/8 - 12	-20	38.1	-24	48.8	48.1	Steel
345-3909	1 7/8 - 12	-24	38.1	-24	48.5	49.9	Steel

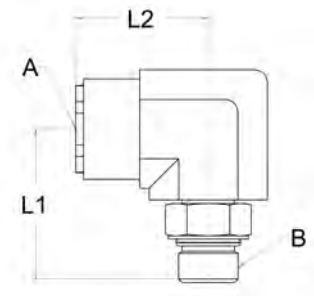
## SAE J1926 STOR Male / 37° Flare Swivel 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material
	Thread	Dash Size	Thread	Dash Size			
031-2716	7/16 - 20	-4	7/16 - 20	-4	26.2	25.4	Steel
033-8129	9/16 - 18	-6	7/16 - 20	-4	31.8	30	Steel
008-6817	9/16 - 18	-6	9/16 - 18	-6	31.8	31.8	Steel
5P-9808	3/4 - 16	-8	3/4 - 16	-8	36.8	35.1	Steel
166-1757	3/4 - 16	-8	7/8 - 14	-10	45.3	44.4	Steel
031-0919	1 1/16 - 12	-12	1 1/16 - 12	-12	49.28	44.45	Steel
8K-6898	1 5/16 - 12	-16	1 5/16 - 12	-16	53.1	50.8	Steel

# Elbow Adapters

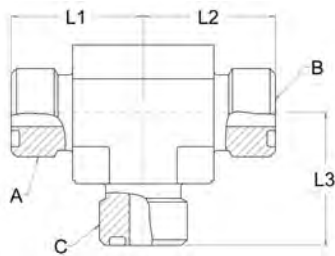
## WEO Plug-In STOR Adjustable 90° Elbow



Part Number	End A		End B		L1 Length	L2 Length	Material	STOR Class
	Thread	Dash Size	Thread	Dash Size				
529-7516	3/4 - 16	-8	-	-8	49.0	42.5	Steel	Heavy Duty

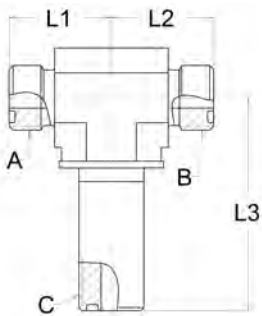
# Tee Adapters

## Male ORFS / Male ORFS / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
6V-8787	9/16-18	21.5	9/16-18	21.5	9/16-18	21.5	Steel
8T-8983	9/16-18	23.5	9/16-18	23.5	11/16-16	25	Steel
6V-8788	11/16-16	25	11/16-16	25	11/16-16	25	Steel
8T-3444	11/16-16	26.5	11/16-16	26.5	13/16-16	28	Steel
8T-2363	13/16-16	28	11/16-16	26.5	13/16-16	28	Steel
6V-9158	13/16-16	31.2	13/16-16	31.2	1-14	33.3	Steel
6V-9043	13/16-16	31.2	1-14	33.3	1-14	33.3	Steel
6V-9272	1-14	33.3	13/16-16	31.2	13/16-16	31.2	Steel
6V-9031	1-14	33.3	1-14	33.3	13/16-16	31.2	Steel
6V-8790	1-14	33.5	1-14	33.5	1-14	33.5	Steel
361-4991	1-14	34.5	1-14	34.5	1-14	63	Steel
7X-7703	1-14	35.8	1-14	35.8	1 3/16-12	37.3	Steel
313-3476	1-14	39.7	1-14	39.7	1 7/16-12	41.7	Steel
8T-0248	1 3/16-12	37.3	13/16-16	34.2	13/16-16	34.2	Steel
121-7697	1 3/16-12	37	1 3/16-12	37	13/16-16	46	Steel
8T-1012	1 3/16-12	41.2	1 3/16-12	41.2	1 7/16-12	41.7	Steel
8T-6755	1 3/16-12	41.2	1 7/16-12	41.7	1-14	39.7	Steel
158-4307	1 7/16-12	41.7	1 3/16-12	37.3	1 3/16-12	37.3	Steel
326-0302	1 7/16-12	41.7	1 7/16-12	41.7	13/16-16	37.4	Steel
6V-8792	1 7/16-12	41.5	1 7/16-12	41.5	1 7/16-12	41.5	Steel
502-5673	1 11/16-12	44.5	1 7/16-12	44.5	1 7/16-12	44.5	Steel
8T-5907	1 11/16-12	44.7	1 11/16-12	44.7	1 7/16-12	44.7	Steel

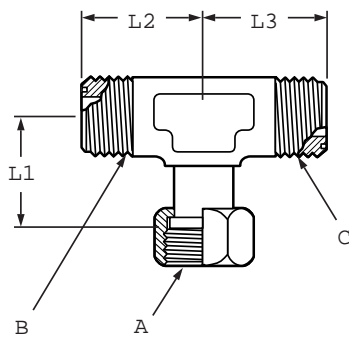
## Male ORFS / Male ORFS / Bulkhead Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
8T-9027	9/16-18	22.5	9/16-18	22.5	9/16-18	47	Steel
8T-0379	11/16-16	26	11/16-16	26	11/16-16	52	Steel
426-4094	11/16-16	27.5	11/16-16	27.5	13/16-16	55.5	Steel
7X-7715	13/16-16	29	13/16-16	29	13/16-16	55.5	Steel
229-5830	13/16-16	31.2	1-14	33.3	1-14	63	Steel
132-5152	1 3/16-12	38.5	1 3/16-12	38.5	1 3/16-12	67	Steel
241-6196	1 7/16-12	42.5	1 7/16-12	42.5	1 7/16-12	71	Steel
451-0413	1 7/8-12	38.5	1 7/8-12	38.5	1 7/8-12	60.59	Steel

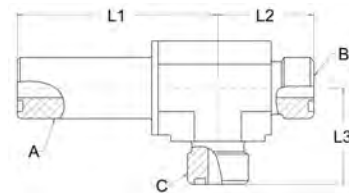
# Tee Adapters

## Male ORFS / Male ORFS / ORFS Swivel Nut - Tee



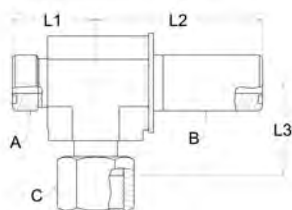
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
6V-9842	9/16-18	26.5	9/16-18	21.5	9/16-18	21.5	Steel
6V-9843	11/16-16	29	11/16-16	25	11/16-16	25	Steel
422-8812	11/16-16	29	11/16-16	25	11/16-16	25	Steel
287-7326	13/16-16	38	13/16-16	28	11/16-16	26.5	Steel
260-9242	13/16-16	38	13/16-16	28	13/16-16	28	Steel
6V-9844	13/16-16	38	13/16-16	28	13/16-16	28	Steel
268-1573	1-14	41.2	13/16-16	30.8	13/16-16	30.8	Steel
371-7228	1-14	41	13/16-16	28	1-14	33.5	Steel
287-7308	6.35	38.7	1-14	33.3	1-14	33.3	Steel
6V-9845	1-14	41	1-14	33.5	1-14	33.5	Steel
420-7645	1 7/16-12	53.5	1-14	39.5	1 3/16-12	41	Steel
6V-9846	1 3/16-12	46.5	1 3/16-12	37.5	1 3/16-12	37.5	Steel
3E-7407	1 3/16-12	52.5	1 7/16-12	41.5	1 7/16-12	41.5	Steel
6V-9847	1 7/16-12	53.5	1 7/16-12	41.5	1 7/16-12	41.5	Steel
9X-6653	1 11/16-12	58	1 11/16-12	44.5	1 11/16-12	44.5	Steel

## Male ORFS / Bulkhead Male ORFS / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
8C-6444	9/16-18	22.5	9/16-18	47	9/16-18	22.5	Steel
7X-0820	11/16-16	26	11/16-16	52	11/16-16	26	Steel
439-1820	11/16-16	27.5	13/16-16	55.5	11/16-16	27.5	Steel
8T-6895	13/16-16	29	13/16-16	55.5	13/16-16	29	Steel
148-6757	13/16-16	34.5	13/16-16	59	1-14	34.5	Steel
110-4628	13/16-16	34.8	13/16-16	62	1 3/16-12	59.9	Steel
241-6225	13/16-16	34.7	1-14	65.7	1 3/16-12	38.5	Steel
6V-9352	1-14	34.5	13/16-16	59	1-14	34.5	Steel
268-1610	1-14	34.5	1-14	63.1	9/16-18	28.9	Steel
6V-9350	1-14	34.5	1-14	63	1-14	34.5	Steel
319-6190	1-14	37	1-14	63.1	1 3/16-12	38.5	Steel
8T-1809	1 3/16-12	38.5	13/16-16	62	1-14	37.5	Steel
379-6986	1 3/16-12	38.5	1-14	65.5	1-14	37	Steel
3E-7443	1 3/16-12	42	1 3/16-12	71.2	1 7/16-12	42.5	Steel
138-1916	1 7/16-12	41.7	1 3/16-12	67.2	1 3/16-12	41.2	Steel
154-7159	1 7/16-12	42.5	1 7/16-12	71	1 7/16-12	42.5	Steel
516-4484	2-12	49.5	2-12	79.5	1 7/16-12	49.5	Steel
451-0477	2-12	49.5	2-12	79.5	2-12	49.5	Steel

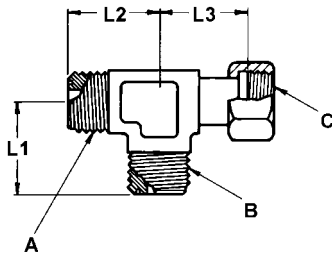
## Male ORFS / Bulkhead Male ORFS / ORFS Swivel Nut - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
371-7248	11/16-16	26	11/16-16	52	11/16-16	29	SST

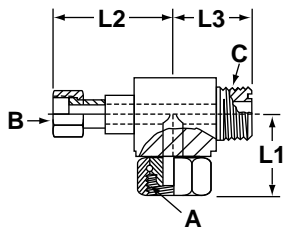
# Tee Adapters

## Male ORFS / ORFS Swivel Nut / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L2 Length	Thread Size	L1 Length	Thread Size	L3 Length	
6V-9835	9/16-18	21.5	9/16-18	21.5	9/16-18	26.5	Steel
317-2446	9/16-18	25	11/16-16	25	11/16-16	29.3	Steel
214-4252	9/16-18	24.7	13/16-16	28	13/16-16	37.9	Steel
6V-9836	11/16-16	25	11/16-16	25	11/16-16	29	Steel
144-8070	11/16-16	25	11/16-16	25	11/16-16	29	Steel
214-0900	11/16-16	25	13/16-16	25	11/16-16	29.3	Steel
222-6967	11/16-16	26.5	11/16-16	25	13/16-16	38	Steel
101-0052	13/16-16	28	13/16-16	28	11/16-16	35	Steel
214-4254	13/16-16	28	9/16-18	25	13/16-16	38	Steel
206-5122	13/16-16	28	11/16-16	26.5	13/16-16	37.9	Steel
6V-9837	13/16-16	28	13/16-16	28	13/16-16	38	Steel
216-2364	13/16-16	28	13/16-16	28	13/16-16	49	Steel
287-7261	13/16-16	30.7	1-14	33.3	1-14	41.2	Steel
296-5724	13/16-16	33.5	13/16-16	33.5	1 3/16-12	46.3	Steel
490-5452	13/16-16	37.5	1 3/16-12	41	1 7/16-12	53.5	SST
377-9624	1-14	33.5	1-14	33.5	13/16-16	37	Steel
308-3959	1-14	33.3	13/16-16	33.5	1-14	41.2	Steel
6V-9838	1-14	33.5	1-14	33.5	1-14	41	Steel
281-5970	1 3/16-12	37.5	1 3/16-12	37.5	1-14	44	Steel
480-3040	1 3/16-12	37.5	1 3/16-12	37.5	1 3/16-12	46.5	Steel
6V-9839	1 3/16-12	37.5	1 3/16-12	37.5	1 3/16-12	46.5	Steel
420-7644	1 3/16-12	41	1-14	39.5	1 7/16-12	53.5	Steel
298-0890	1 3/16-12	41.2	1 7/16-12	41.7	1 7/16-12	53.4	Steel
294-4209	1 3/16-12	44.7	1 11/16-12	44.7	1 11/16-12	58.2	Steel
139-1802	1 7/16-12	41.7	1 3/16-12	41.7	1 7/16-12	100	Steel
341-0119	1 7/16-12	41.5	1 3/16-12	41	1 7/16-12	53.5	Steel
6V-9840	1 7/16-12	41.5	1 7/16-12	41.5	1 7/16-12	53.5	Steel
7X-2429	1 11/16-12	44.5	1 11/16-12	44.5	1 11/16-12	58	Steel
244-2776	2-12	49	2-12	49	2-12	61	Steel

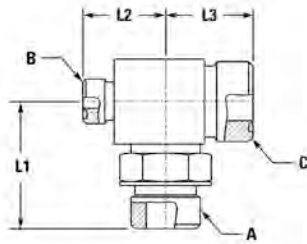
## Male ORFS / ORFS Swivel Nut / ORFS Swivel Nut - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
8T-6454	1 11/16-12	57.4	1 7/16-12	57.4	1 7/16-12	44.7	Steel

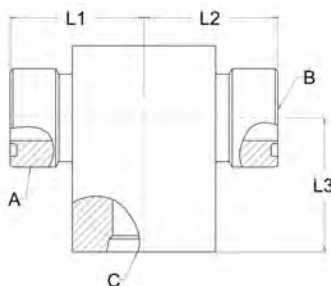
# Tee Adapters

## Male ORFS / Male ORFS / Male STOR - Tee



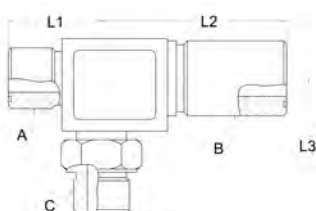
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
6V-8773	7/16-20	33	9/16-18	21.5	9/16-18	21.5	Steel
268-1504	9/16-18	37	9/16-18	23.5	9/16-18	23.5	Steel
371-7164	7/8-14	40.6	9/16-18	26.5	1-14	28	Steel
239-6860	7/16-20	32.7	11/16-16	25	11/16-16	25	SST
7X-0838	7/16-20	35	11/16-16	25	11/16-16	25	Steel
6V-8774	9/16-18	37	11/16-16	25	11/16-16	25	Steel
238-4986	9/16-18	36.8	11/16-16	25	11/16-16	25	Steel
098-5687	3/4-16	40.5	11/16-16	26.5	11/16-16	26.5	Steel
297-7929	9/16-18	41.6	11/16-16	25	13/16-16	30.6	Steel
8T-6696	3/4-16	40.6	11/16-16	26.5	13/16-16	28	Steel
287-7251	9/16-18	35.9	13/16-16	28	13/16-16	28	Steel
6V-8775	3/4-16	40.5	13/16-16	28	13/16-16	28	Steel
302-3210	3/4-16	46.7	13/16-16	33.5	1 3/16-12	37.3	Steel
250-1470	9/16-18	41.6	1-14	33.3	13/16-16	30.6	Steel
109-5811	3/4-16	46	1-14	28	1-14	28	Steel
6V-8776	7/8-14	50	1-14	33.5	1-14	33.5	Steel
8T-8984	7/8-14	51	1 3/16-12	37.5	1 3/16-12	37.5	Steel
6V-8777	1 1/16-12	55	1 3/16-12	37.5	1 3/16-12	37.5	Steel
102-1384	1 5/16-12	59.5	1 3/16-12	41	1 3/16-12	41	Steel
305-6926	1 5/16-12	55	1 3/16-12	43.2	1 3/16-12	43.2	Steel
8T-1120	1 5/8-12	62.2	1 3/16-12	44.2	1 7/16-12	44.7	Steel
134-6954	1 1/16-12	60	1 7/16-12	41.7	1-14	39.7	Steel
108-7005	1 1/16-12	59	1 7/16-12	41.7	1 3/16-12	37.3	Steel
439-1857	1 1/16-12	58.5	1 7/16-12	41.5	1 7/16-12	41.5	Steel
304-7960	1 5/16-12	62	1 11/16-12	44.5	11/16-16	37	Steel
165-3938	1 5/8-12	62	1 11/16-12	44.5	1 11/16-12	44.5	Steel
212-4991	1 7/8-12	66	2-12	49	2-12	49	Steel

## Male ORFS / Male ORFS / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
469-2134	13/16-16	33.02	13/16-16	23.38	7/16-20		Steel
8T-0082	13/16-16	28	13/16-16	28	9/16-18	28	Steel
423-3131	1-14	40	1 7/16-12	42	1 5/16-12	42	Steel

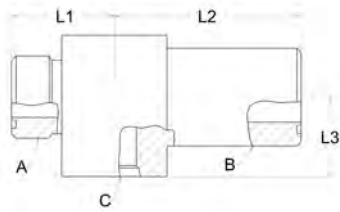
## Male ORFS / Bulkhead Male ORFS / Male STOR - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
268-1648	13/16-16	31.8	1-14	63.1	3/4-16	45.7	Steel

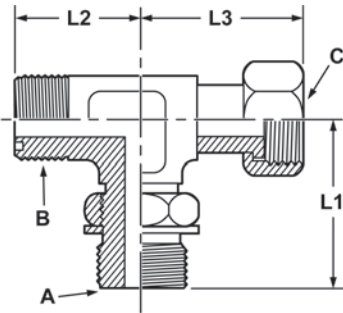
# Tee Adapters

## Male ORFS / Bulkhead Male ORFS / STOR Port - Tee



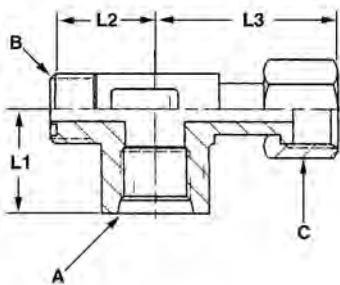
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
451-0431	1-14	32	1 3/16-12	57.5	9/16-18	24.5	Steel

## Male ORFS / ORFS Swivel Nut / Male STOR - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
268-1638	9/16-18	36.8	11/16-16	25	11/16-16	29.3	Steel
267-4043	7/8-14	50	11/16-16	27	1 3/16-12	46.3	Steel
297-6716	1 5/8-12	62.2	13/16-16	44.7	1 11/16-12	58.2	Steel
8C-6798	1 5/16-12	59.7	1 7/16-12	41.7	1 7/16-12	53.4	Steel
321-8622	1 5/16-12	59.7	1 11/16-12	44.7	11/16-16	29.3	Steel

## Male ORFS / ORFS Swivel Nut / STOR Port - Tee

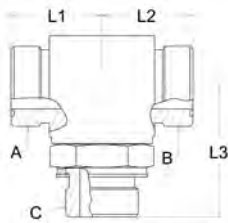


Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
469-2133	7/16-20	–	9/16-18	23.7	9/16-18	37.1	Steel
234-0391	7/16-20	18	9/16-18	21.5	9/16-18	26.5	Steel
7X-2444	9/16-18	21.5	9/16-18	21.5	9/16-18	28.2	Steel
143-7681	9/16-18	–	11/16-16	0	11/16-16	0	Steel
8T-8902	9/16-18	25	11/16-16	25	11/16-16	29	Steel
127-3026	3/8-24	28	13/16-16	28	13/16-16	37.9	Steel
459-0661	7/16-20	13.5	13/16-16	23.1	13/16-16	32.3	Steel
7X-0871	9/16-18	28	13/16-16	28	13/16-16	38	Steel
110-2218	3/4-16	45	13/16-16	30	13/16-16	40	Steel
154-8150	3/4-16	28	13/16-16	30	13/16-16	37.9	Steel
520-1370	7/16-20	33.5	1-14	33.5	1-14	41	Steel
7X-0872	9/16-18	33.3	1-14	33.3	1-14	41.2	Steel
127-2141	3/4-16	33.3	1-14	33.3	1-14	41.2	Steel
319-6203	7/8-14	33.3	1-14	33.3	1-14	41.2	Steel
426-4098	7/16-20	22.4	1 3/16-12	37.3	1 3/16-12	46.3	Steel
7X-0873	9/16-18	37.3	1 3/16-12	37.5	1 3/16-12	46.5	Steel
238-5919	3/4-16	22.3	1 3/16-12	37.3	1 3/16-12	41.8	Steel
315-9838	3/4-16	43	1 3/16-12	37.5	1 3/16-12	46.5	Steel
281-5876	1 5/16-12	44.7	1 11/16-12	44.7	1 11/16-12	58.2	Steel
492-9115	7/16-20	25	1 7/16-12	36.2	1 7/16-12	36.2	Steel



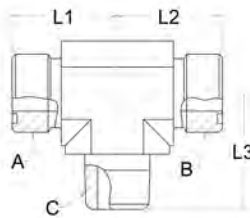
# Te Adapter

## Male ORFS / Male ORFS / Male Metric STOR - Tee



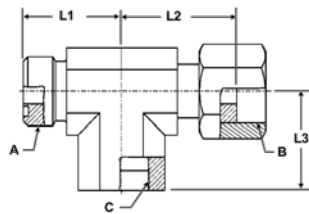
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
175-9478	13/16-16	28	13/16-16	28	M18x1.50	41	Steel
448-8995	1 7/16-12	41.5	1 7/16-12	41.5	M33x2.00	59.5	Steel

## Male ORFS / Male ORFS / Male NPTF - Tee



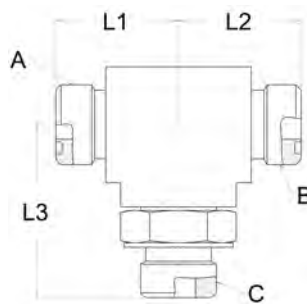
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
7R-9570	13/16-16	27.9	13/16-16	27.9	3/8-18	30.7	Steel
106-5151	1 3/16-12	37.3	1 3/16-12	37.3	3/4-14	41.9	Steel

## Male ORFS / ORFS Swivel Nut / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
162-6817	9/16-18	21.5	9/16-18	26.5	1/8-27	21.5	Steel
8T-2352	11/16-16	25	11/16-16	29.3	1/4-18	25	Steel

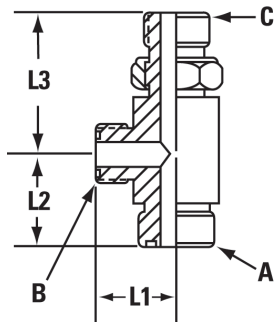
## Male ORFS / Male ORFS / Male BSPP Flat Face-ISO 1179 - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
448-9010	11/16-16	27	11/16-16	27	3/8-19	38	Steel
293-7209	1 7/16-12	42	1 7/16-12	42	1-11	58	Steel

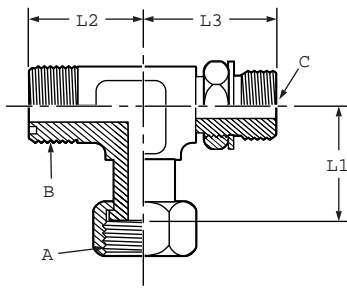
# Tee Adapters

## Male ORFS / Male STOR / Male ORFS - Tee



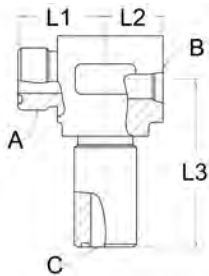
Part Number	End A		End B		End C		Material
	Thread Size	L2 Length	Thread Size	L1 Length	Thread Size	L3 Length	
6V-8780	9/16-18	21.5	9/16-18	21.5	7/16-20	33	Steel
086-9035	9/16-18	23.5	9/16-18	23.5	9/16-18	37	Steel
268-1625	9/16-18	23.5	11/16-16	25	9/16-18	36.8	Steel
515-8378	9/16-18	28	1-14	33.5	7/8-14	50	Steel
6V-8781	11/16-16	25	11/16-16	25	9/16-18	37	Steel
129-7520	11/16-16	25	11/16-16	25	9/16-18	36.8	Steel
287-7324	11/16-16	26.5	13/16-16	28	3/4-16	40.5	Steel
307-5098	11/16-16	27	13/16-16	31.2	7/8-14	50	Steel
8T-2883	11/16-16	32.5	1 3/16-12	37.5	1 1/16-12	55	Steel
153-6270	13/16-16	28	13/16-16	28	9/16-18	36.5	Steel
267-4049	13/16-16	31	13/16-16	51	9/16-18	40	Steel
6V-8782	13/16-16	28	13/16-16	28	3/4-16	40.5	Steel
239-1995	13/16-16	33.5	1 3/16-12	37.3	3/4-16	46.7	Steel
115-8634	13/16-16	31.5	13/16-16	31.5	7/8-14	50	Steel
119-6346	13/16-16	34	9/16-18	30.5	1 1/16-12	55	Steel
215-3448	13/16-16	33.5	1 3/16-12	37.3	1 1/16-12	55.1	Steel
297-7936	13/16-16	37.3	1 3/16-12	37.3	1 1/16-12	55.1	Steel
134-6953	13/16-16	33	1 7/16-12	41.7	1 1/16-12	60	Steel
307-3344	1-14	33.5	13/16-16	31.5	3/4-16	45.5	Steel
268-6052	1-14	33.5	1-14	33.5	3/4-16	46	Steel
113-2378	1-14	33	13/16-16	28	7/8-14	50	Steel
6V-8783	1-14	33.5	1-14	33.5	7/8-14	50	Steel
6V-9032	1-14	36	1 3/16-12	37.5	7/8-14	51	Steel
332-8571	1-14	36	9/16-18	30.5	1 1/16-12	55	Steel
118-4569	1-14	36	1 3/16-12	37.5	1 1/16-12	55	Steel
8T-1684	1-14	39.7	1-14	39.7	1 5/16-12	59.7	Steel
41-7651	1 3/16-12	37.3	13/16-16	32	3/4-16	40.6	Steel
319-6198	1 3/16-12	37.3	1-14	35.8	3/4-16	46.7	Steel
310-5902	1 3/16-12	37.3	1 3/16-12	37.3	3/4-16	46.7	Steel
319-6200	1 3/16-12	37.3	1 3/16-12	37.3	3/4-16	46.7	Steel
122-9088	1 3/16-12	37.5	1 3/16-12	37.5	7/8-14	51	Steel
214-4506	1 3/16-12	37.5	13/16-16	34	1 1/16-12	55	Steel
102-0773	1 3/16-12	35	1-14	37	1 1/16-12	50	Steel
6V-9175	1 3/16-12	37.3	1-14	36.3	1 1/16-12	55.1	Steel
6V-8784	1 3/16-12	37.5	1 3/16-12	37.5	1 1/16-12	55	Steel
278-2946	1 3/16-12	37.3	1 3/16-12	37.3	1 1/16-12	55.1	Steel
128-7625	1 3/16-12	37.3	1 7/16-12	41.7	1 1/16-12	59.7	Steel
315-9847	1 3/16-12	44.2	1 11/16-12	44.7	1 1/16-12	61.5	Steel
213-4591	1 3/16-12	41	1 3/16-12	41	1 3/16-12	59.5	Steel
109-5819	1 3/16-12	35	1-14	37	1 5/16-12	50	Steel
8T-1685	1 3/16-12	41	1 3/16-12	41	1 5/16-12	59.5	Steel
356-9220	1 3/16-12	91.2	1 3/16-12	41	1 5/16-12	59.5	Steel
441-4276	1 3/16-12	41.2	1 3/16-12	41.2	1 5/16-12	59.7	Steel
287-7264	1 3/16-12	44.2	1 11/16-12	44.7	1 5/8-12	62.2	Steel
211-3468	1 7/16-12	41.5	1 3/16-12	74.7	1 5/16-12	103.5	Steel
369-6897	1 7/16-12	41.5	1 7/16-12	41.5	1 5/16-12	59.5	SST
194-2080	1 7/16-12	42.9	1 7/16-12	90	1 5/16-12	59.9	Steel
126-3902	1 11/16-12	44.5	1 3/16-12	44	1 1/16-12	61.2	Steel
6V-8786	1 11/16-12	44.5	1 11/16-12	44.5	1 5/8-12	62	Steel

## Male ORFS / Male STOR / ORFS Swivel Nut - Tee



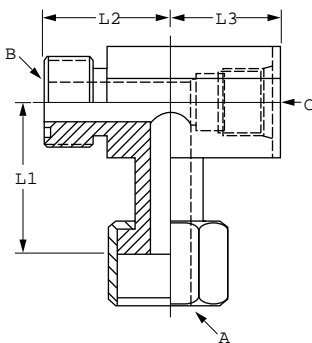
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
8T-2556	11/16-16	29.3	11/16-16	25	9/16-18	36.8	Steel
268-6051	13/16-16	37.9	13/16-16	28	3/4-16	40.6	Steel
307-9062	1 11/16-12	58.2	13/16-16	35.3	1 5/8-12	62.2	Steel

## Male ORFS / STOR Port / Bulkhead Male ORFS - Tee



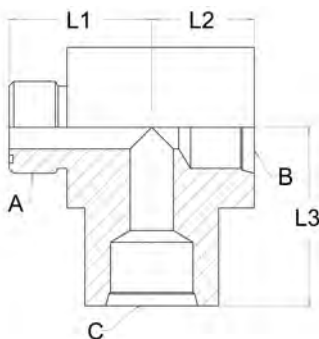
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
194-2554	13/16-16	28.9	9/16-18	19	13/16-16	55.4	Steel

## Male ORFS / STOR Port / ORFS Swivel Nut - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
149-4289	9/16-18	27.9	9/16-18	22.6	7/16-20	19.6	Steel
294-8409	9/16-18	26.5	9/16-18	21.5	7/16-20	17	Steel
298-4919	9/16-18	26.5	9/16-18	21.5	9/16-18	22	Steel
123-2169	11/16-16	30	11/16-16	26	9/16-18	18.4	Steel
135-5985	1-14	41	1-14	33.5	3/4-16	31.2	Steel
297-7972	1 7/16-12	53.4	1 3/16-12	41.2	9/16-18	37.3	Steel

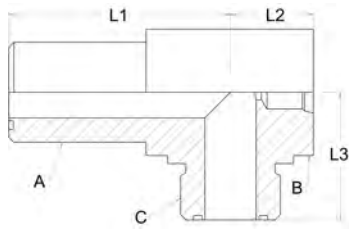
## Male ORFS / STOR Port / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
122-1852	13/16-16	32	3/4-16	23	3/4-16	40	Steel

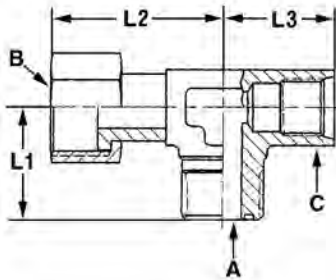
# Tee Adapters

## Bulkhead Male ORFS / STOR Port / Male ORFS - Tee



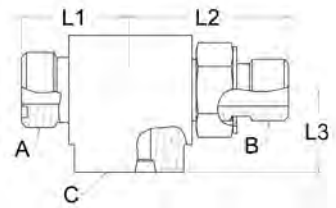
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
451-0396	1 3/16-0	67	7/16-20	25	1 3/16-12	38.5	Steel

## ORFS Swivel Nut / STOR Port / Male ORFS - Tee



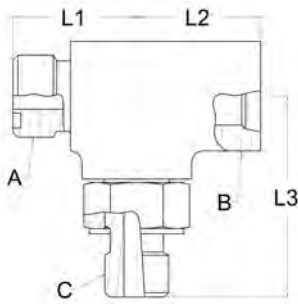
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
081-5645	13/16-16	28	13/16-16	38	9/16-18	28	Steel
304-8025	1 3/16-12	37.6	1 3/16-12	46.5	7/16-20	23.4	Steel

## Male ORFS / Male STOR / STOR Port - Tee



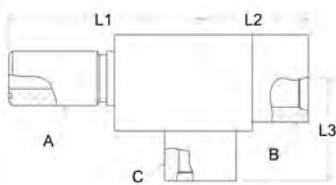
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
081-5648	9/16-18	25	9/16-18	37	9/16-18	25	Steel
3E-2310	11/16-16	25	9/16-18	34.8	9/16-18	25	Steel
499-4232	11/16-16	25	9/16-18	37	7/16-20	19.1	Steel
8T-6338	13/16-16	28	3/4-16	40.5	9/16-18	28	Steel
8C-7514	13/16-16	30.5	7/8-14	50	7/8-14	33.3	Steel
337-8768	1-14	28	7/8-14	50	9/16-18	26	Steel
278-6425	1-14	33.3	1 1/16-12	55.1	9/16-18	33.3	Steel
8C-0569	1 3/16-12	37.3	1 1/16-12	55.1	9/16-18	26	Steel
8T-8900	1 3/16-12	43.7	1 1/16-12	61.5	1 1/16-12	37.3	Steel
267-4039	1 3/16-12	26.5	1 3/16-12	43.3	7/16-20	22	Steel
346-8791	1 3/16-12	27.5	1 3/16-12	44.3	9/16-18	22	Steel
109-6511	1 3/16-12	41	1 5/16-12	59.7	9/16-18	41.7	Steel
250-1441	1 3/16-12	41.2	1 5/16-12	59.7	1 1/16-12	41.2	Steel
117-7734	1 3/16-12	41.2	1 5/16-12	59.7	1 5/16-12	36.6	Steel
371-7230	1 3/16-12	42.2	1 5/8-12	62.2	1 5/16-12	33.8	Steel
313-3483	1 7/16-12	41.7	1 1/16-12	55.1	7/16-20	22.23	Steel
268-5353	1 7/16-12	41.7	1 3/16-12	59	9/16-18	41.7	Steel
239-1834	1 7/16-12	45	1 5/16-12	75	1 5/16-12	49	Steel
268-1515	1 11/16-12	44.7	1 5/16-12	62.2	3/4-16	44.7	Steel

## Male ORFS / STOR Port / Male STOR - Tee



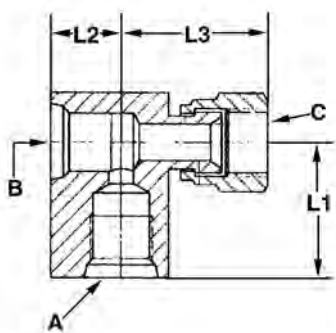
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
458-2356	9/16-18	21.5	7/16-20	21.5	7/16-20	34.8	Steel
308-9568	9/16-18	21.5	9/16-18	22	7/16-20	33	Steel
8T-3311	9/16-18	23.5	9/16-18	24.5	9/16-18	40.8	Steel
459-0700	11/16-16	25	9/16-18	25	7/16-20	35	Steel
213-8386	11/16-18	25	9/16-18	25	9/16-18	36.8	Steel
7X-2459	11/16-16	25	9/16-18	25	9/16-18	37	Steel
8C-3415	11/16-16	26.5	9/16-18	24.5	3/4-16	40.8	Steel
126-8306	13/16-16	28	9/16-18	28	3/4-16	40.6	Steel
171-0714	13/16-16	28	9/16-18	24.5	7/8-14	50	Steel
9X-2541	1 3/16-12	41.2	9/16-18	24.7	7/8-14	51	Steel
3E-2345	1 3/16-12	41.2	9/16-18	24.7	1 1/16-12	55.1	Steel
8T-3312	1 3/16-12	41.2	9/16-18	24.7	1 5/16-12	59.7	Steel
338-5995	1 3/16-12	37.3	1 5/16-12	49	1 5/16-12	59.7	Steel
315-9822	1 7/16-12	41.7	7/16-20	23.4	1 1/16-12	59	Steel
8C-4082	1 7/16-12	41.7	9/16-18	41.7	1 1/16-12	59.7	Steel
8C-6515	1 7/16-12	41.5	9/16-18	41.5	1 5/16-12	59.5	Steel
351-0284	1 7/16-12	41.5	1 5/16-12	41.5	1 1/16-12	58.5	Steel
297-7920	1 11/16-12	44.7	7/16-20	30	1 5/16-12	62.2	Steel

## Bulkhead Male ORFS / STOR Port / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
304-7983	11/16-16	61.6	3/4-16	34.7	9/16-18	32.9	Steel
273-4210	13/16-16	55.5	3/4-16	23	3/4-16	38.5	Steel

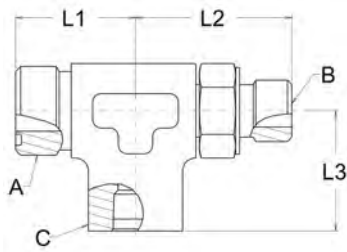
## ORFS Swivel Nut / STOR Port / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
5I-4376	9/16-18	28	9/16-18	15	11/16-16	23.9	Steel
196-9858	1 1/16-12	41.2	3/4-16	37.4	1 3/16-12	51.6	Steel

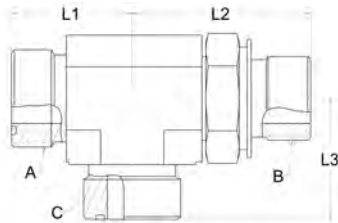
# Tee Adapters

## Male ORFS / Male STOR / NPTF Port - Tee



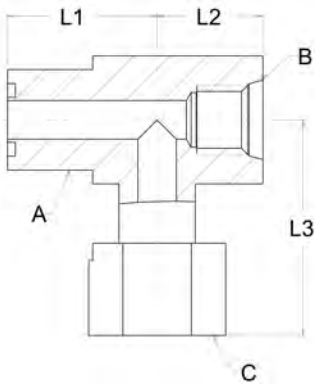
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
8C-3322	13/16-16	28	9/16-18	36.5	1/8-27	28	Steel

## Male ORFS / Male Metric STOR / Male ORFS - Tee



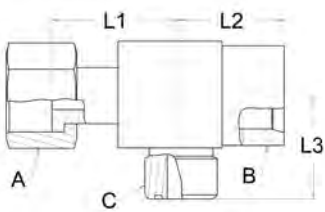
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
321-8621	1 3/16-12	37.5	M27x2	55.5	1 3/16-12	37.5	Steel
315-9830	1 3/16-12	44.7	M42x2	63	1 11/16-12	44.7	Steel
297-7951	1 7/16-12	41.7	M33x2	59.7	1 7/16-12	41.7	Steel

## Male ORFS / Metric STOR Port / ORFS Swivel Nut - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
422-8808	11/16-16	26	M12x1.5	18.4	11/16-16	30	Steel

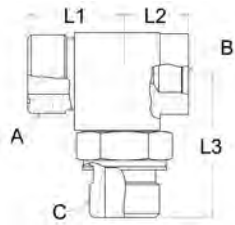
## ORFS Swivel Nut / Metric STOR Port / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
304-7980	11/16-16	31.2	M16x1.5	24.9	11/16-16	24.9	Steel

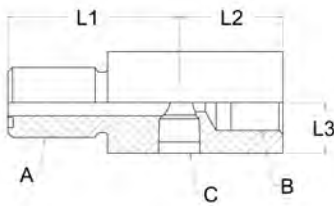
# Tee Adapters

## Male ORFS / Metric STOR Port / Male Metric STOR - Tee



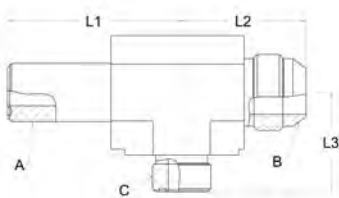
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
360-3659	1 3/16-12	37.5	M12x1.5	37.5	M22x1.50	49	Steel
321-8611	1 3/16-12	37.3	M14x1.5	24.7	M27x2.00	55.1	Steel

## Bulkhead Male ORFS / Metric STOR Port / NPTF Port - Tee



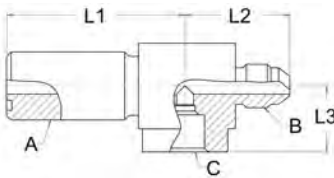
Part Number	End A		End B		End C		Material
	Thread Size	L1 Length	Thread Size	L2 Length	Thread Size	L3 Length	
122-9060	11/16-16	34.5	M14x1.5	34.5	1/8-27	12.5	Steel

## Bulkhead Male ORFS / Male 37° Flare-SAE J514 / Male ORFS - Tee



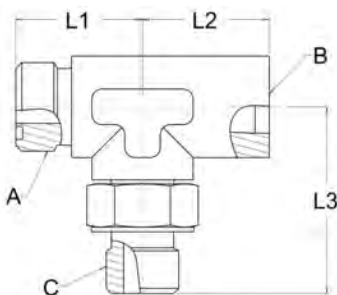
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
217-7065	13/16-16	61.5	1 1/16-12	44	13/16-16	35.2	Steel

## Bulkhead Male ORFS / Male 37° Flare-SAE J514 / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
155-7621	11/16-16	46	7/16-20	27	7/16-20	17	Steel

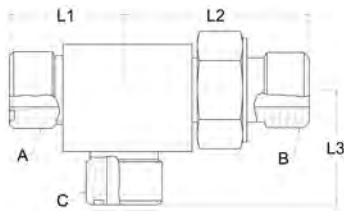
## Male ORFS / NPTF Port / Male STOR - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
149-4125	11/16-16	25	1/8-27	25	9/16-18	36.8	Steel
146-9571	11/16-16	25	1/4-18	25	9/16-18	36.8	Steel
180-1725	1 7/16-12	41.7	1/8-27	0	1 5/16-12	59.7	Steel

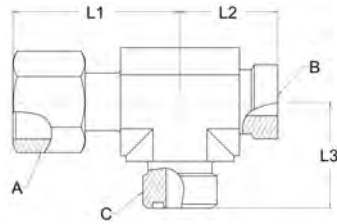
# Tee Adapters

## Male ORFS / Male Metric Flat Face-ISO 9974 / Male ORFS - Tee



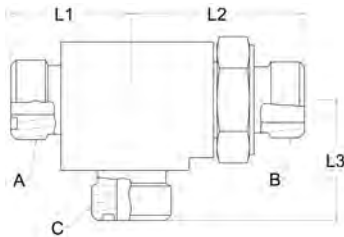
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
293-8491	9/16-18	21.5	M14x1.5	34.75	9/16-18	21.5	Steel

## ORFS Swivel Nut / Metric Flat Face-ISO 9974 Port / Male ORFS - Tee



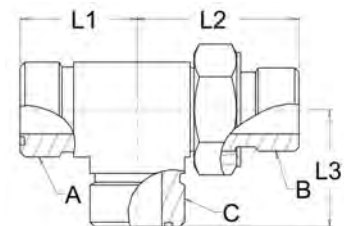
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
125-4085	11/16-16	29	M12x1.5	23	11/16-16	25	Steel

## Male ORFS / Male BSPP Flat Face-ISO 1179 / Male ORFS - Tee



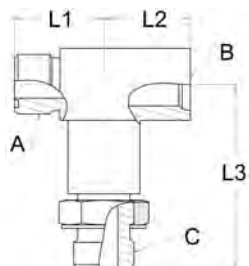
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
175-9460	11/16-16	26.5	3/8-19	38	11/16-16	26.5	Steel
304-7193	11/16-16	25	M14x1.5	32	11/16-16	25	Steel
351-5226	13/16-16	31	1/2-14	48	13/16-16	31	Steel
293-5851	1 7/16-12	42	1-11	58	1 7/16-12	42	Steel

## Male ORFS / Male BSPP STOR-JIS B2351 / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
216-6200	1 3/16-12	37.3	3/4-14	51.4	1 3/16-12	37.3	Steel

## Male ORFS / BSPP STOR-JIS B2351 Port / Male BSPP STOR-JIS B2351 - Tee

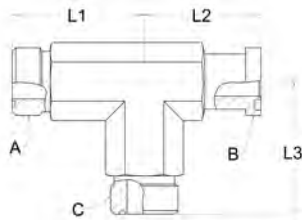


Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
199-0541	13/16-16	31	3/8-19	30	1/2-14	64	Steel



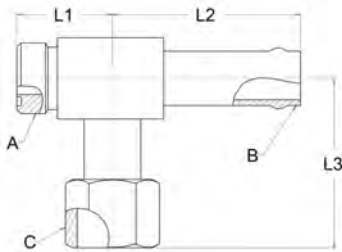
# Tee Adapters

## Male ORFS / Flange Head Code 61 Flange / Male ORFS - Tee



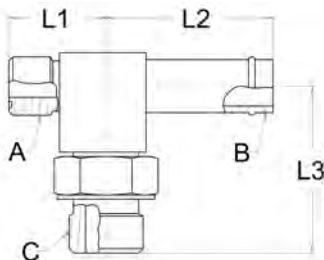
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
370-3480	11/16-16	46	12.70	42	11/16-16	46	Steel
351-5237	1 3/16-12	59	12.70	52	1 3/16-12	59	Steel

## Male ORFS / Hose Bead / ORFS Swivel Nut - Tee



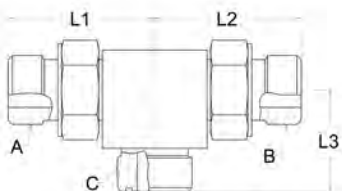
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
226-3355	13/16-16	28	15.88	55	13/16-16	37.9	Steel

## Male ORFS / Hose Bead / Male STOR - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
251-9304	11/16-16	27.9	12.70	50.1	7/8-14	42.49	Steel
319-6182	11/16-16	29.2	15.88	50.1	7/8-14	50	Steel
251-9303	1 3/16-12	37.3	12.70	52.1	7/8-14	47.24	Steel
319-6184	1 7/16-12	41.7	15.88	52.1	1 1/16-12	59	Steel

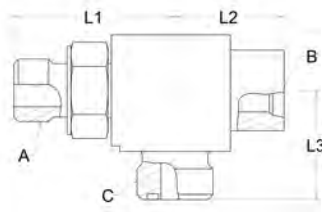
## Male STOR / Male STOR / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
304-6749	3/4-16	40.6	3/4-16	40.6	13/16-16	28	Steel

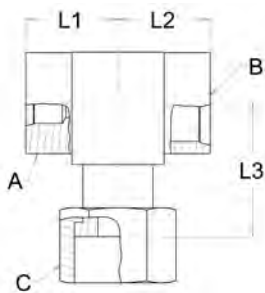
# Tee Adapters

## Male STOR / STOR Port / Male ORFS - Tee



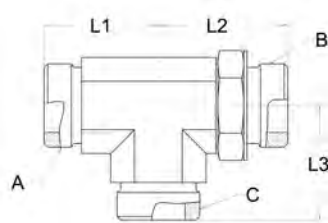
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
8T-3313	7/16-20	32.7	9/16-18	21.5	9/16-18	26.5	Steel
128-5890	7/16-20	34.79	9/16-18	23.62	11/16-16	25.91	Steel
201-9170	9/16-18	36.8	7/16-20	17	9/16-18	23.7	Steel
503-6541	9/16-18	37	7/16-20	25	11/16-16	25	Steel
8C-3309	9/16-18	36.8	9/16-18	21.5	9/16-18	23.5	Steel
126-6872	9/16-18	37	9/16-18	25	11/16-16	25	Steel
9X-2492	9/16-18	28	3/4-16	40.6	13/16-16	28	Steel
213-7731	3/4-16	43	9/16-18	24.5	11/16-16	26.5	Steel
268-1599	3/4-16	45.7	3/4-16	33.3	11/16-16	29.2	Steel
156-8835	7/8-14	50	9/16-18	33	13/16-16	34	Steel
260-9216	7/8-14	50	9/16-18	29.2	1-14	33.3	Steel
313-3500	1 1/16-12	55.1	7/16-20	23.4	1 7/16-12	41.7	Steel
278-6493	1 1/16-12	55.1	9/16-18	37.3	1-14	36.3	Steel
8T-8901	1 1/16-12	61.5	1 1/16-12	37.3	1 3/16-12	43.7	Steel
250-1457	1 5/16-12	59.5	9/16-18	35.6	1 7/16-12	41.5	Steel
213-3455	1 5/16-12	59.7	7/8-14	41.7	1 7/16-12	41.7	Steel
369-6890	1 5/16-12	59.7	1 1/16-12	57.2	1 7/16-12	41.7	Steel
239-1833	1 5/16-12	79.7	1 5/16-12	54	1 7/16-12	41.7	Steel
296-6939	1 5/16-12	59.5	1 5/16-12	105.3	1 7/16-12	41.5	Steel

## STOR Port / STOR Port / ORFS Swivel Nut - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
313-3473	9/16-18	32	1 1/16-12	32	1 3/16-12	46.3	Steel

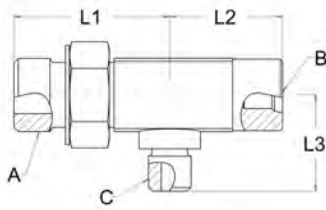
## Male STOR / Male STOR / Male STOR - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
113-3655	3/4-16	23.81	3/4-16	23.81	3/4-16	64.77	Steel
369-6833	1 5/16-12	46	1 5/16-12	52.1	1 5/16-12	46	SST

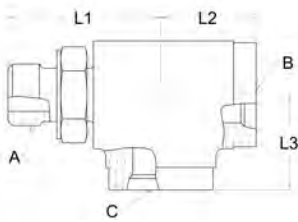
# Tee Adapters

## Male STOR / STOR Port / Male STOR - Tee



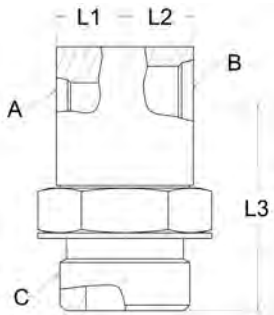
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
320-5415	3/4-16	40.6	5/16-24	29.4	7/16-20	25	Steel

## Male STOR / STOR Port / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
186-4045	7/16-20	34.8	7/16-20	17	7/16-20	17	Steel
241-6160	7/16-20	31.2	7/16-20	18.8	7/16-20	18.8	Steel
395-7291	7/16-20	31.2	7/16-20	18.8	7/16-20	18.8	Steel
369-6869	7/16-20	40.6	9/16-18	28	9/16-18	28	Steel
4I-0900	9/16-18	39	7/16-20	20	9/16-18	17	Steel
4I-1694	9/16-18	41	9/16-18	25	9/16-18	19	Steel
304-8022	9/16-18	35.1	9/16-18	21.8	9/16-18	21.8	Steel
313-3471	9/16-18	39.8	9/16-18	24.5	9/16-18	24.5	Steel
3E-7410	9/16-18	34.8	9/16-18	25	9/16-18	25	Steel
210-2768	9/16-18	39.4	3/4-16	28	9/16-18	19	Steel
105-7704	3/4-16	40.6	9/16-18	28	9/16-18	28	Steel
268-6133	3/4-16	40.6	3/4-16	23.7	3/8-24	29	Steel
118-0911	3/4-16	40.6	3/4-16	33.3	3/4-16	33.3	Steel
396-0420	7/8-14	50	7/16-20	24.5	7/8-14	26.2	Steel
288-7467	7/8-14	88	3/4-16	22	3/4-16	33	Steel
309-5126	7/8-14	46	7/8-14	30	7/8-14	30	Steel
380-7362	1 1/16-12	55.1	7/16-20	28	9/16-18	28	Steel
208-0616	1 1/16-12	58.8	3/4-16	20	3/8-24	29	Steel
287-7342	1 1/16-12	55.1	1 1/16-12	38.1	1 1/16-12	38.1	Steel
1U-8302	1 5/16-12	47.37	1 5/16-12	47.63	9/16-18	28.58	Steel

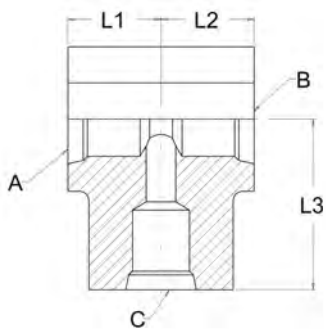
## STOR Port / STOR Port / Male STOR - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
451-0425	7/16-20	15.875	3/4-16	15.875	1 3/16-12	47.8	Steel
216-1302	9/16-18	28	9/16-18	28	7/16-20	34.5	Steel
8C-8431	9/16-18	24.5	9/16-18	24.5	9/16-18	40.8	Steel
6V-1625	9/16-18	21	3/4-16	21	9/16-18	35	Steel
142-7620	9/16-18	36.5	3/4-16	23.5	7/8-14	51	Steel
310-5909	9/16-18	32	1 1/16-12	32	7/8-14	51.3	Steel
168-3332	3/4-16	22.4	3/4-16	22.4	3/4-16	40.4	Steel
268-1562	7/8-14	24	7/16-20	24	7/8-14	49.3	Steel
1U-8303	1 5/16-12	42.2	9/16-18	34.25	1 5/16-12	48.01	Steel
448-9011	1 5/16-12	33.8	1 5/16-12	33.8	1 5/16-12	57.15	Steel
174-4360	1 5/8-12	48.77	9/16-18	31.43	1 5/8-12	54.24	Steel

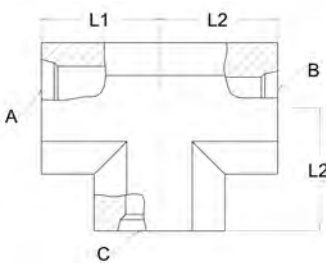
# Tee Adapters

## STOR Port / STOR Port / STOR Port - Tee



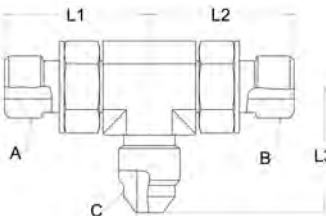
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
196-8722	9/16-18	16.4	9/16-18	16.4	7/16-20	30	Steel
450-0487	1 5/16-12	38.5	1 5/16-12	38.5	1 5/16-12	38.5	Steel

## STOR Port / STOR Port / Metric STOR Port - Tee



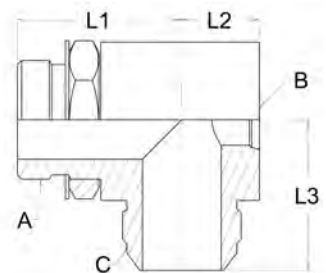
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
390-2263	3/4-16	25	9/16-18	25	M16x1.50	25.9	Steel

## Male STOR / Male STOR / Male 37° Flare-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
168-9984	7/16-20	26.2	7/16-20	26.2	7/16-20	22.6	Steel
168-3357	7/16-20	30.3	9/16-18	31.8	9/16-18	26.9	Steel

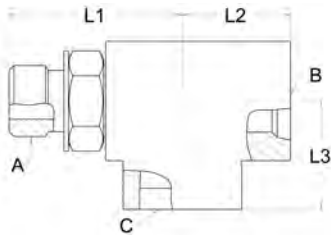
## Male STOR / STOR Port / Male 37° Flare-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
203-1854	1 5/16-12	57.2	3/4-16	22.5	1 5/8-12	52.3	Steel
448-9018	1 5/8-12	57.2	3/4-16	27	1 5/8-12	52.3	Steel

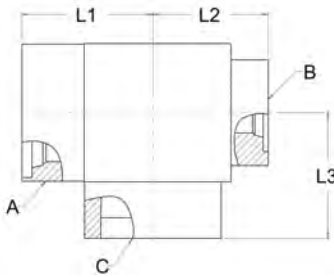
# Tee Adapters

## Male STOR / STOR Port / NPTF Port - Tee



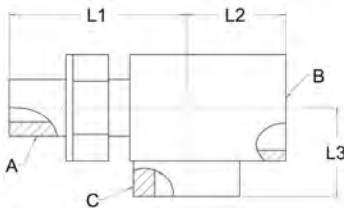
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
9X-2296	7/16-20	35	7/16-20	22	1/4-18	22	Steel
233-4462	9/16-18	35.1	9/16-18	21.8	3/8-18	21.8	Steel

## STOR Port / STOR Port / NPTF Port - Tee



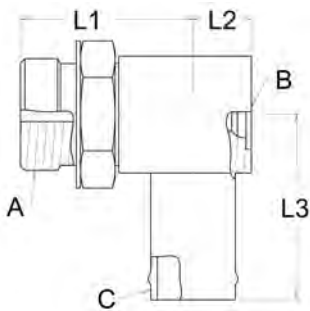
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
1U-8301	1 5/16-12	42.2	9/16-18	37.18	1-11.5	40.39	Steel

## Male STOR / STOR Port / BSPP STOR-JIS B2351 Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
229-8728	3/8-24	25	7/16-20	14	1/8-28	12.5	Steel

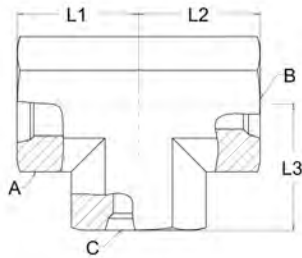
## Male STOR / STOR Port / Hose Bead - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
115-4184	9/16-18	34.93	9/16-18	24.79	9.52	49.28	Steel
288-7848	3/4-16	46	9/16-18	27	31.75	60	Steel
9Y-9168	7/8-14	44	7/16-20	21	19.05	50	Steel
324-9781	1 1/16-12	49.3	3/4-16	33	25.40	45	Steel
341-0105	1 5/16-12	51.8	7/16-20	17.5	25.40	55.6	Steel

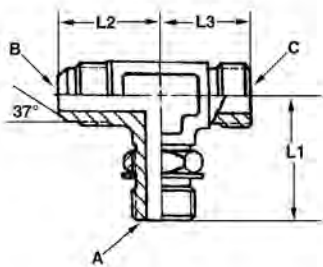
# Tee Adapters

## STOR Port / Metric STOR Port / Metric STOR Port - Tee



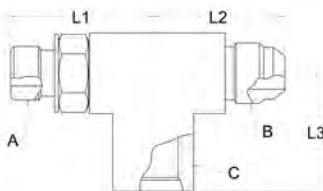
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
387-2637	9/16-18	25	M12x1.5	25	M12x1.50	25.9	Steel

## Male STOR / Male 37° Flare-SAE J514 / Male STOR - Tee



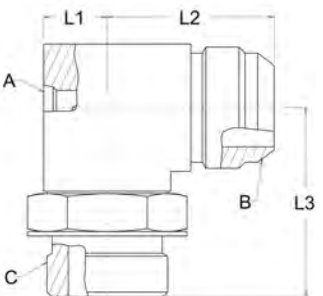
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
8T-2543	1/2-20	27.7	1/2-20	24.1	1/2-20	19.6	Steel

## Male STOR / Male 37° Flare-SAE J514 / STOR Port - Tee



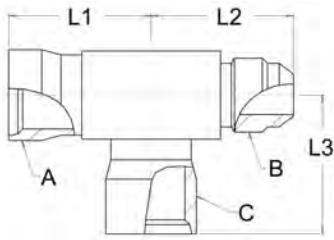
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6V-6967	1/2-20	33.5	9/16-18	31	1/2-20	27.8	Steel
8C-2948	9/16-18	35.8	9/16-18	31	9/16-18	22.9	Steel
5P-0220	1 5/16-12	52.07	1 5/16-12	45.97	1 1/16-12	38.1	Steel

## STOR Port / Male 37° Flare-SAE J514 / Male STOR - Tee



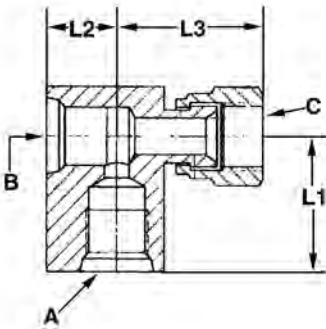
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
144-6650	7/16-20	17.5	1 5/16-12	46	1 5/16-12	52	Steel
392-0660	7/16-20	30	1 5/8-12	52.3	1 5/16-12	57.2	Steel
226-2946	9/16-18	17	1 1/16-12	42.2	1 5/16-12	52.1	Steel
120-9127	3/4-16	31.2	3/4-16	36.1	3/4-16	41.1	Steel
154-3291	3/4-16	31.2	3/4-16	36.1	1 1/16-12	47	Steel
351-1372	1 1/16-12	19.1	1 1/16-12	48.4	1 5/16-12	55.1	Steel

## STOR Port / Male 37° Flare-SAE J514 / STOR Port - Tee



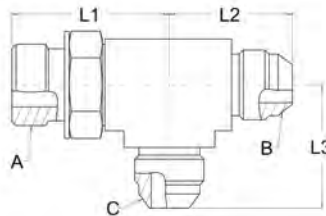
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
274-6661	9/16-18	27.5	9/16-18	27.5	9/16-18	42.64	Steel

## STOR Port / 37° Flare-SAE J514 Swivel Nut / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5I-4075	7/16-20	17	7/16-20	15	7/16-20	29.8	Steel
102-7240	9/16-18	22	7/16-20	15	7/16-20	29.8	Steel
5I-4015	7/16-20	20	9/16-18	15	9/16-18	31	Steel
5I-3190	9/16-18	28	9/16-18	15	9/16-18	31	Steel
237-2849	7/8-14	30	7/8-14	19.8	7/8-14	30.5	Steel

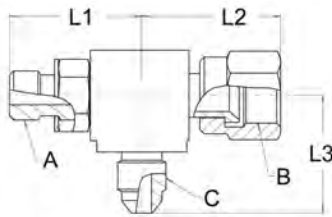
## Male STOR / Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
030-7957	7/16-20	26.2	7/16-20	22.6	7/16-20	22.6	Steel
104-9200	7/16-20	60	7/16-20	22.6	7/16-20	22.6	Steel
2P-8098	7/16-20	30.3	9/16-18	26.9	9/16-18	26.9	Steel
031-6281	1/2-20	28.7	1/2-20	24.1	1/2-20	24.1	Steel
6M-6853	9/16-18	31.8	9/16-18	26.9	9/16-18	26.9	Steel
115-8730	3/4-16	36.8	9/16-18	29.2	3/4-16	31.8	Steel
5P-2191	3/4-16	36.8	3/4-16	31.8	7/16-20	25.4	Steel
030-7959	3/4-16	36.8	3/4-16	31.8	3/4-16	31.8	Steel
126-9746	7/8-14	38	7/16-20	23	9/16-18	27	Steel
119-2604	7/8-14	43.2	3/4-16	33.8	3/4-16	33.8	Steel
521-5508	7/8-14	43.2	3/4-16	33.8	3/4-16	33.8	Steel
031-4136	7/8-14	43.2	7/8-14	36.8	7/8-14	36.8	Steel
2P-7211	1 1/16-12	49.3	1 1/16-12	42.2	1 1/16-12	42.2	Steel
121-9267	1 3/16-12	52.1	1 1/16-12	42.2	1 5/16-12	46	Steel
281-5893	1 5/16-12	52.1	1 5/16-12	46	1 5/16-12	46	SST
030-7960	1 5/16-12	52.1	1 5/16-12	46	1 5/16-12	46	Steel

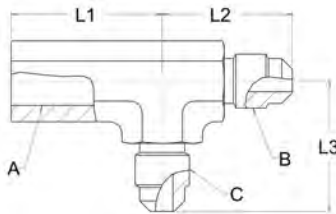
# Tee Adapters

## Male STOR / 37° Flare-SAE J514 Swivel Nut / Male 37° Flare-SAE J514 - Tee



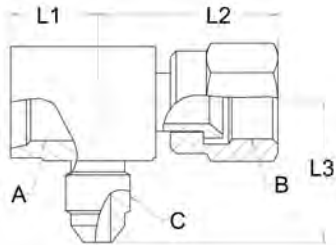
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
210-2015	7/16-20	30.3	9/16-18	31.8	9/16-18	26.9	Steel

## STOR Port / Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 - Tee



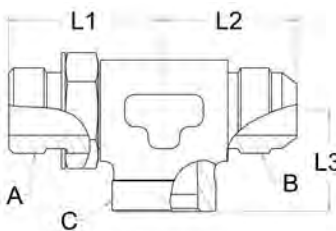
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-1272	7/16-20	31	7/16-20	26.7	7/16-20	26.7	Steel

## STOR Port / 37° Flare-SAE J514 Swivel Nut / Male 37° Flare-SAE J514 - Tee



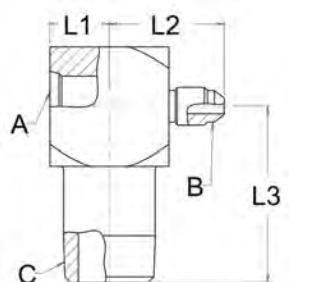
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
104-9113	9/16-18	15	9/16-18	31	7/16-20	24	Steel

## Male STOR / Male 37° Flare-SAE J514 / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6V-9039	1 1/16-12	49.3	1 1/16-12	42.2	1/2-14	32	Steel

## STOR Port / Male 37° Flare-SAE J514 / Male NPTF - Tee

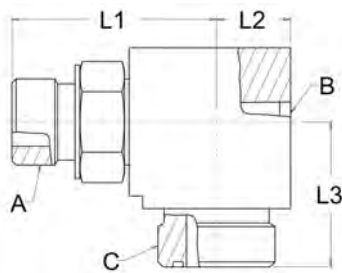


Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-1271	7/16-20	31	7/16-20	26.7	1/8-27	22.2	Steel
451-0421	3/4-16	17.5	7/16-20	33.7	3/4-14	51.7	Steel



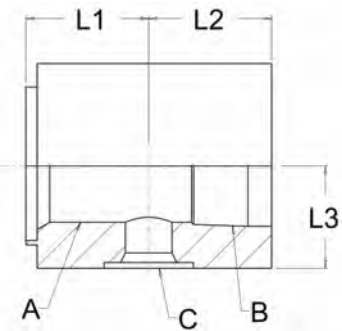
# Tee Adapters

## Male STOR / NPTF Port / Male ORFS - Tee



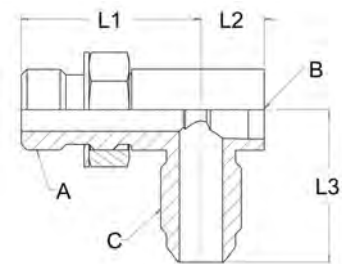
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
141-4735	7/8-14	52.7	1/8-27	18.64	1 3/16-12	37.3	Steel

## STOR Port / NPTF Port / STOR Port - Tee



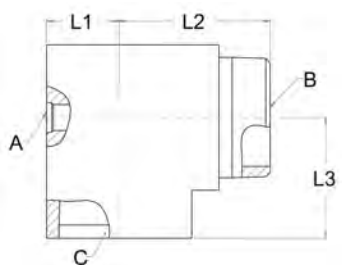
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
1U-8300	1 5/16-12	34.4	1-11.5	34.4	9/16-18	28.58	Steel

## Male STOR / NPTF Port / Male 37° Flare- SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-4375	9/16-18	31.8	1/8-27	11.2	9/16-18	26.9	Steel
5P-4854	3/4-16	36.83	1/8-27	0	9/16-18	29.46	Steel

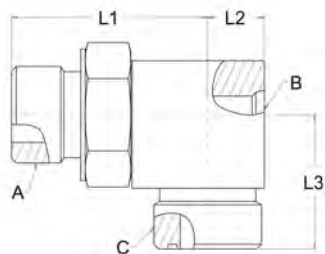
## STOR Port / Male NPTF / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
516-8704	9/16-18	36.6	2-11.5	76.2	2-11.5	60.7	Steel

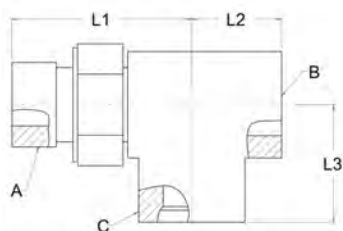
# Tee Adapters

## Male STOR / Metric Flat Face-ISO 9974 Port / Male ORFS - Tee



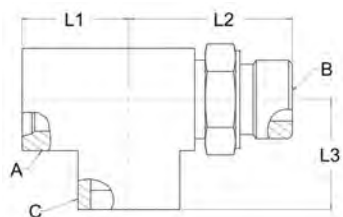
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
369-6887	1 1/16-12	55	M12x1.5	15.9	1 3/16-12	37.5	Steel

## Male STOR / Metric Flat Face-ISO 9974 Port / STOR Port - Tee



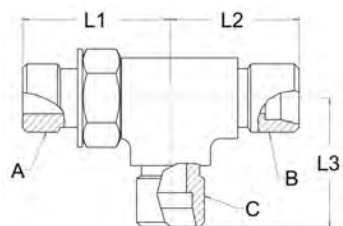
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
498-3803	3/4-16	40.6	M14x1.5	20.3	9/16-18	25	Steel

## STOR Port / Male Metric Flat Face-ISO 9974 / BSPT-ISO 7-1 Port - Tee



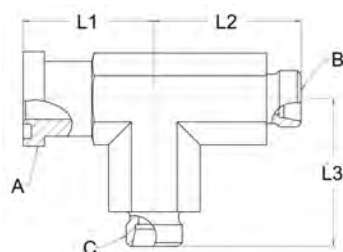
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
474-2625	3/4-16	30	M22x1.5	46	1/2-14	31	Steel

## Male STOR / Male 24° Flareless-SAE J514 / Male 24° Flareless-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
1P-0270	1/2-20	27.7	1/2-20	24.1	1/2-20	24.1	Steel

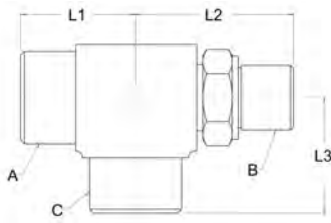
## Flange Head Code 61 Flange / Male 24° Cone-ISO 8434-1 / Male 24° Cone-ISO 8434-1 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
234-7411	1/2-20	42	M18x1.5	47	M18x1.50	47	Steel

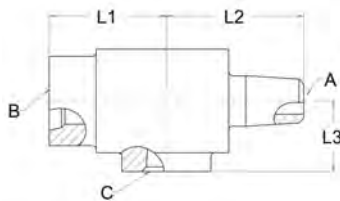
# Tee Adapters

## Male STOR / Male BSPT-ISO 7-1 / Male STOR - Tee



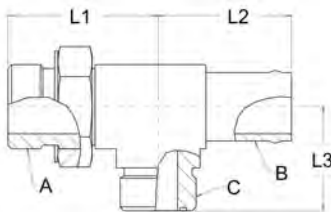
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
351-5212	1 3/16-12	37.5	1/2-14	51.5	1 3/16-12	37.5	Steel

## STOR Port / Male BSPT-ISO 7-1 / BSPT-ISO 7-1 Port - Tee



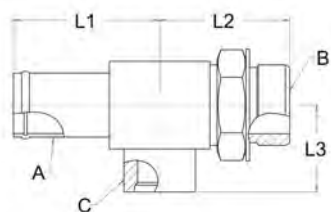
Part Number	End A		End B		End C		Material
	Thread size	L2 Length	Thread size	L1 Length	Thread size	L3 Length	
242-8717	1/8-28	29.3	7/16-20	25	1/8-28	15	Steel

## Male STOR / Hose Bead / Male ORFS - Tee



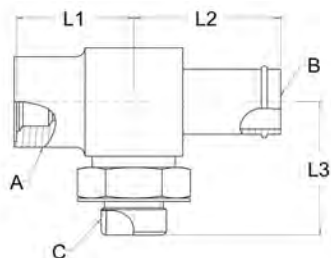
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
211-3522	1 5/16-12	59.7	28.58	53	1 3/16-12	41.2	Steel

## Male STOR / Hose Bead / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
310-4012	25.40	58	1 5/16-12	59.69	3/4-16	34.5	Steel

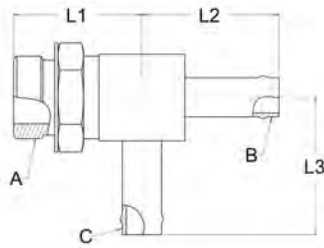
## STOR Port / Hose Bead / Male STOR - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
283-9579	3/4-16	45.6	25.40	57.2	1 5/16-12	51.8	Steel

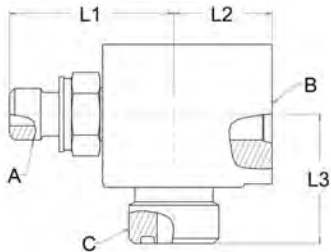
# Tee Adapters

## Male STOR / Hose Bead / Hose Bead - Tee



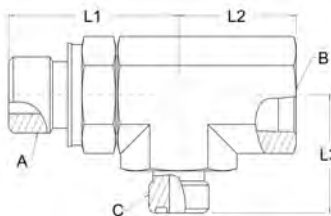
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
230-3045	1 1/16-12	49.3	19.05	52.3	19.05	52.3	Steel
451-0349	1 5/16-12	52.1	15.88	55.6	15.88	55.6	Steel
369-6826	1 5/16-12	48.3	19.05	55.6	15.88	55.6	Steel
177-9567	1 5/8-12	57.2	31.75	60.3	25.40	60.3	Steel

## Male Metric STOR / Metric STOR Port / Male ORFS - Tee



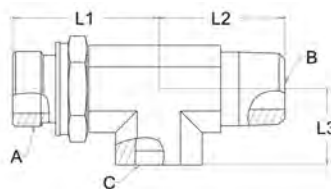
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
451-0469	M10x1	31.8	M10x1	19	11/16-16	25	Steel
304-8007	M12x1.5	31.87	M12x1.5	16	9/16-18	21.5	Brass
337-8782	M12x1.5	31.87	M12x1.5	16	9/16-18	21.5	Steel
459-0663	M22x1.5	49	M12x1.5	21.6	1 3/16-12	37.5	Steel
282-0913	M22x1.5	49.5	M12x1.5	21.6	1 3/16-12	37.6	Steel

## Male Metric STOR / NPTF Port / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
367-6015	M18x1.5	40.6	3/8-18	28	9/16-18	28	Steel

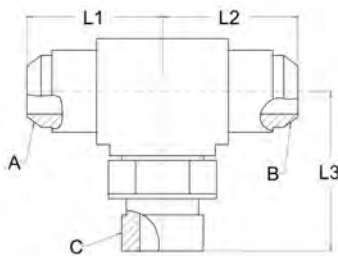
## Male Metric STOR / Male NPTF / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
115-9791	M22x1.5	43.2	1/2-14	37.3	1/4-18	22.4	Steel

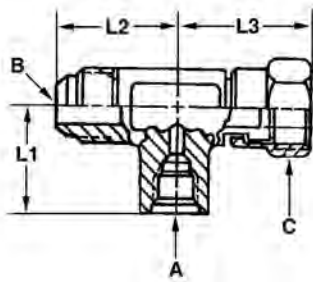
# Tee Adapters

## Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 / Male STOR - Tee



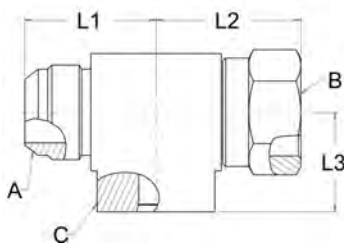
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
4S-4857	7/16-20	22.6	7/16-20	22.6	7/16-20	26.2	Steel
005-9129	7/16-20	22.6	7/16-20	22.6	9/16-18	31.8	Steel
235-3566	7/16-20	23.6	7/16-20	23.6	3/4-16	29.46	Steel
031-5894	1/2-20	24.1	1/2-20	24.1	1/2-20	28.7	Steel
5P-7150	1/2-20	24.1	1/2-20	24.1	1/2-20	27.7	Steel
030-7955	9/16-18	26.9	9/16-18	26.9	9/16-18	31.8	Steel
031-2582	9/16-18	29	9/16-18	29	3/4-16	36.8	Steel
4S-4869	3/4-16	31.8	3/4-16	31.8	3/4-16	36.8	Steel
155-0490	1 1/16-12	41.2	1 1/16-12	41.2	3/4-16	45.4	Steel
2P-1297	1 1/16-12	42.2	1 1/16-12	42.2	1 1/16-12	49.3	Steel
8K-3520	1 1/16-12	44.7	1 1/16-12	44.7	1 5/16-12	52.1	Steel
2P-1298	1 3/16-12	43.9	1 3/16-12	43.9	1 3/16-12	50.8	Steel
067-9921	1 5/16-12	46	1 5/16-12	46	1 5/16-12	52.1	Steel
300-8844	1 5/16-12	46	1 5/16-12	46	1 5/16-12	52.1	Steel
6V-7485	1 5/8-12	52.3	1 5/8-12	52.3	1 5/8-12	57.2	Steel

## Male 37° Flare-SAE J514 / 37° Flare-SAE J514 Swivel Nut / STOR Port



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
111-6690	7/16-20	18	7/16-20	27	7/16-20	27	Steel
5G-2740	3/4-16	37.1	1 1/16-12	42.2	1 1/16-12	44.45	Steel
474-2604	9/16-18	28	1 5/16-12	46	1 5/16-12	50.8	SST

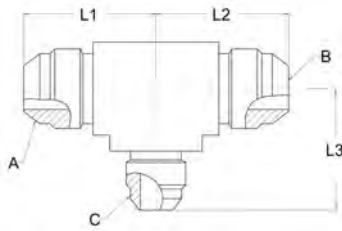
## Male 37° Flare-SAE J514 / 37° Flare-SAE J514 Swivel Nut / Metric STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
486-8608	1 5/16-12	46	1 5/16-12	50.8	M12x1.50	35	Steel

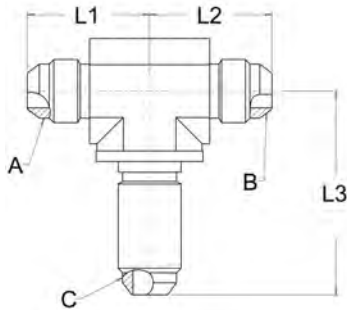
# Tee Adapters

## Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 - Tee



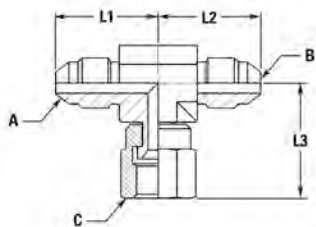
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
211-4494	7/16-20	22.6	7/16-20	22.6	7/16-20	22.6	Brass
281-5849	7/16-20	22.6	7/16-20	22.6	7/16-20	22.6	SST
005-5421	7/16-20	22.6	7/16-20	22.6	7/16-20	22.6	Steel
2P-8447	7/16-20	26.9	7/16-20	26.9	9/16-18	26.9	Steel
2P-1291	1/2-20	24.1	1/2-20	24.1	1/2-20	24.1	Steel
4S-3652	9/16-18	26.9	9/16-18	26.9	9/16-18	26.9	Steel
450-2050	3/4-16	31.8	3/4-16	31.8	9/16-18	29	Steel
032-1270	3/4-16	31.8	3/4-16	31.8	3/4-16	31.8	Steel
003-8581	7/8-14	36.8	7/8-14	36.8	7/8-14	36.8	Steel
4S-3572	1 1/16-12	42.2	1 1/16-12	42.2	9/16-18	33.8	Steel
005-9702	1 1/16-12	42.2	1 1/16-12	42.2	1 1/16-12	42.2	Steel
6S-2899	1 3/16-12	45.7	1 3/16-12	45.7	1 3/16-12	45.7	Steel
6K-4235	1 5/16-12	46	1 5/16-12	46	1 5/16-12	46	Steel
6K-3448	1 5/8-12	52.3	1 5/8-12	52.3	1 5/8-12	52.3	Steel

## Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 / Bulkhead Male 37° Flare-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
0A-3732	7/16-20	24.6	7/16-20	24.6	7/16-20	40.4	Steel
2P-9376	9/16-18	27.7	9/16-18	27.7	9/16-18	46	Steel
2P-7213	9/16-18	31.8	9/16-18	31.8	3/4-16	53.6	Steel
061-8408	3/4-16	34.5	3/4-16	34.5	3/4-16	53.6	Steel
061-7738	7/8-14	39.6	7/8-14	39.6	7/8-14	60.7	Steel
061-8827	1 1/16-12	45.2	1 1/16-12	45.2	1 1/16-12	67.8	Steel
053-2928	1 5/16-12	49.3	1 5/16-12	49.3	1 5/16-12	71.1	Steel

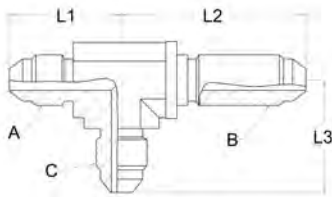
## Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 / 37° Flare-SAE J514 Swivel Nut - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
2N-8142	7/16-20	22.6	7/16-20	22.6	7/16-20	25.4	Steel
053-0700	9/16-18	26.9	9/16-18	26.9	9/16-18	31.8	Steel
5P-3166	3/4-16	31.8	3/4-16	31.8	3/4-16	35.1	Steel
061-8284	7/8-14	36.8	7/8-14	36.8	7/8-14	41.1	Steel
5P-3165	1 1/16-12	42.2	1 1/16-12	42.2	1 1/16-12	44.4	Steel
5P-0788	1 3/16-12	45.7	1 3/16-12	45.7	1 3/16-12	45.2	Steel
459-0602	1 5/16-12	46	1 5/16-12	46	1 5/16-12	50.8	SST
5P-4494	1 5/16-12	46	1 5/16-12	46	1 5/16-12	50.8	Steel
177-2112	1 7/8-12	59.2	1 7/8-12	59.2	1 7/8-12	65.8	Steel

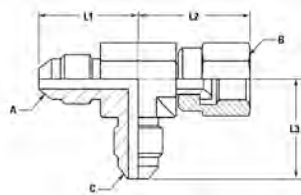
# Tee Adapters

## Male 37° Flare-SAE J514 / Bulkhead Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 - Tee



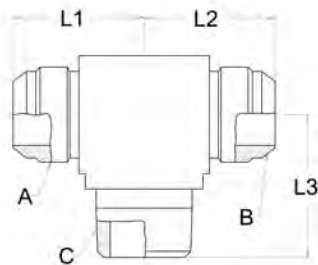
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
8T-3300	7/16-20	24.6	7/16-20	40.4	7/16-20	24.6	Steel
6V-5535	9/16-18	27.7	9/16-18	46	9/16-18	27.7	Steel
2P-8130	3/4-16	34.5	3/4-16	53.6	3/4-16	34.5	Steel
5P-7154	1 1/16-12	45.2	1 1/16-12	67.8	1 1/16-12	45.2	Steel
236-1429	1 5/16-12	49.3	1 5/16-12	71.1	1 5/16-12	49.3	Steel

## Male 37° Flare-SAE J514 / 37° Flare-SAE J514 Swivel Nut / Male 37° Flare-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
052-0572	7/16-20	22.6	7/16-20	25.4	7/16-20	22.6	Steel
5P-4982	1/2-20	24.1	1/2-20	26.9	1/2-20	24.1	Steel
061-9258	9/16-18	26.9	9/16-18	31.8	9/16-18	26.9	Steel
391-4604	3/4-16	31.8	3/4-16	31.8	7/16-20	26.9	Steel
113-2934	3/4-16	31.8	3/4-16	33	9/16-18	30	Steel
6S-5693	3/4-16	31.8	3/4-16	35.1	3/4-16	31.8	Steel
9S-0176	7/8-14	36.8	7/8-14	41.1	7/8-14	36.8	Steel
7D-0978	1 1/16-12	42.2	1 1/16-12	44.4	1 1/16-12	42.2	Steel
5P-4984	1 3/16-12	45.7	1 3/16-12	45.2	1 3/16-12	45.7	Steel
281-5894	1 5/16-12	46	1 5/16-12	50.8	1 5/16-12	46	SST
5P-2242	1 5/16-12	46	1 5/16-12	50.8	1 5/16-12	46	Steel
5P-4983	1 5/8-12	52.3	1 5/8-12	58.7	1 5/8-12	52.3	Steel

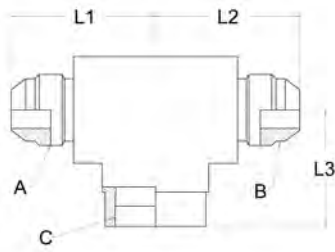
## Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 / Male NPTF - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
8D-0071	7/16-20	22.6	7/16-20	22.6	1/8-27	19.8	Steel
183-6689	7/16-20	22.6	7/16-20	22.6	1/8-27	19.8	Steel
194-4423	7/16-20	26.6	7/16-20	26.6	1/4-18	27.7	Steel
7K-4128	9/16-18	26.9	9/16-18	26.9	1/4-18	27.7	Steel
469-7843	9/16-18	26.7	9/16-18	26.7	3/8-18	31	Steel
8J-1040	3/4-16	31.8	3/4-16	31.8	3/8-18	31	Steel
001-6300	3/4-16	33.8	3/4-16	33.8	1/2-14	37.3	Steel
061-8260	7/8-14	36.8	7/8-14	36.8	1/2-14	37.3	Steel
061-8261	1 1/16-12	42.2	1 1/16-12	42.2	3/4-14	40.4	Steel
508-5799	1 5/16-12	46	1 5/16-12	46	3/4-14	45.2	Steel
494-2084	1 5/16-12	46	1 5/16-12	46	1-11.5	50	SST
6K-3449	1 5/16-12	46	1 5/16-12	46	1-11.5	50	Steel
225-6690	1 7/8-12	59.2	1 7/8-12	59.2	1 1/2-11.5	67.1	Steel

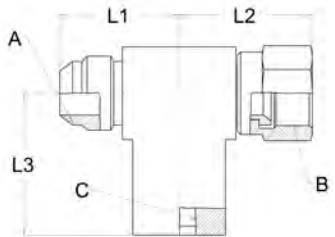
# Tee Adapters

## Male 37° Flare-SAE J514 / Male 37° Flare-SAE J514 / NPTF Port - Tee



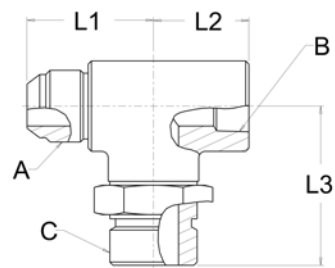
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
211-4527	1/2-20	30	1/2-20	30	1/4-18	12.5	Brass
498-1846	3/4-16	38.7	3/4-16	38.7	1/2-14	31.2	SST

## Male 37° Flare-SAE J514 / 37° Flare-SAE J514 Swivel Nut / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
480-3000	7/8-14	36.8	7/8-14	41.1	1/8-27	43.8	Brass

## Male 37° Flare-SAE J514 / NPTF Port / Male STOR - Tee

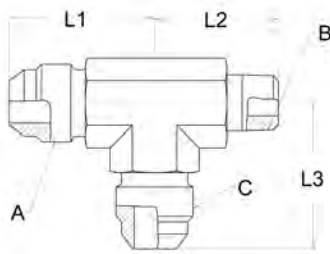


Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
120-8401	3/4-16	36.1	1/2-14	31.2	3/4-16	41.1	Steel
149-5207	7/8-14	39.1	3/8-18	29.5	1 1/16-12	49.3	Steel



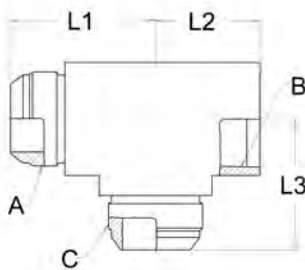
# Tee Adapters

## Male 37° Flare-SAE J514 / Male NPTF / Male 37° Flare-SAE J514 - Tee



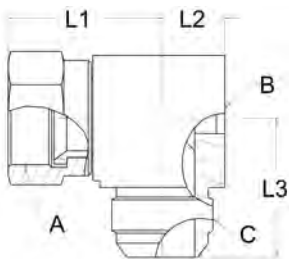
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
9S-7695	7/16-20	22.6	1/8-27	19.8	7/16-20	22.6	Steel
164-5637	7/16-20	26.6	1/4-18	27.7	7/16-20	26.6	SST
176-1305	7/16-20	26.6	1/4-18	27.7	7/16-20	26.6	Steel
204-5341	9/16-18	26.9	1/8-27	22.9	9/16-18	26.9	Steel
6S-2289	9/16-18	26.9	1/4-18	27.7	9/16-18	26.9	Steel
9X-2623	9/16-18	29	3/8-18	31	9/16-18	29	Steel
5P-4495	3/4-16	31.8	3/8-18	31	3/4-16	31.8	Steel
001-6842	3/4-16	33.8	1/2-14	37.3	3/4-16	33.8	Steel
8T-2864	7/8-14	36.8	1/2-14	37.3	7/8-14	36.8	Steel
006-0315	1 1/16-12	42.2	3/4-14	40.4	1 1/16-12	42.2	Steel
6K-8748	1 5/16-12	46	1-11.5	50	1 5/16-12	46	Steel

## Male 37° Flare-SAE J514 / NPTF Port / Male 37° Flare-SAE J514 - Tee



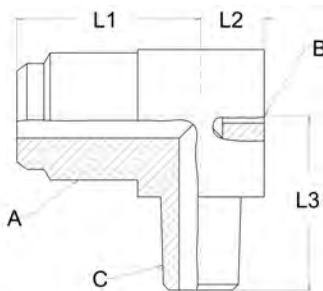
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
151-6584	9/16-18	0	1/4-18	0	9/16-18	27	Steel
6S-2365	9/16-18	31.2	1/4-18	22.4	9/16-18	31.2	Steel
5R-8895	1 7/8-12	73.41	1 1/2-11.5	52.8	1 7/8-12	66.3	Steel

## 37° Flare-SAE J514 Swivel Nut / NPTF Port / Male 37° Flare-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6V-0434	1 5/16-12	50.8	1/8-27	16.66	1 5/16-12	45.97	Steel

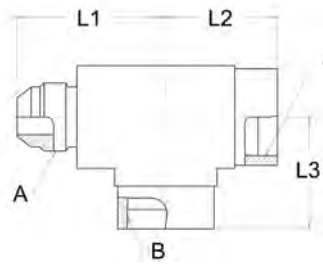
## Male 37° Flare-SAE J514 / NPTF Port / Male NPTF - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
002-5393	1 3/16-12	43.66	1/8-27	15.88	3/4-14	41.28	Steel

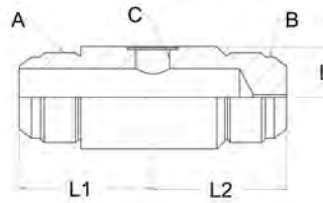
# Tee Adapters

## Male 37° Flare-SAE J514 / NPTF Port / NPTF Port - Tee



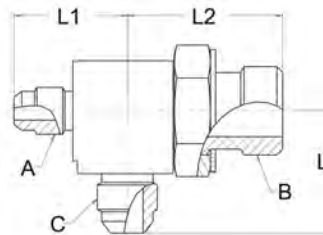
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L3 Length	Thread size	L2 Length	
513-9662	3/4-16	41.7	1/2-14	31.2	1/2-14	31.2	Steel

## Male 37° Flare-SAE J514 / Male 45° Flare-SAE J512 / Metric STOR Port - Tee



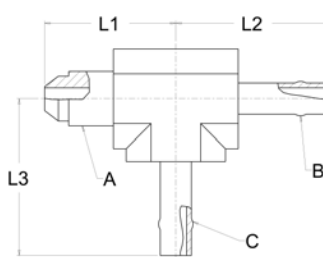
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
492-2726	1 5/16-12	50	1 5/16-12	50	M14x1.50	19.05	Steel

## Male 37° Flare-SAE J514 / Male BSPP STOR-JIS B2351 / Male 37° Flare-SAE J514 - Tee



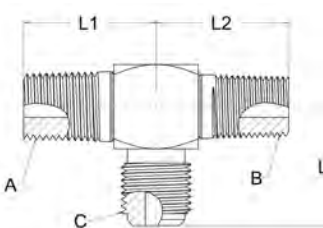
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
136-0343	7/16-20	27	1/2-14	37	9/16-18	29	Steel

## Male 37° Flare-SAE J514 / Hose Bead / Hose Bead - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
227-5922	7/16-20	26.7	6.35	31.8	6.35	31.8	Steel

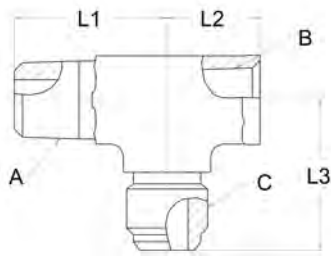
## Male NPTF / Male NPTF / Male 37° Flare-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
442-3414	1/2-14	37.38	1/2-14	37.3	3/4-16	33.53	Steel

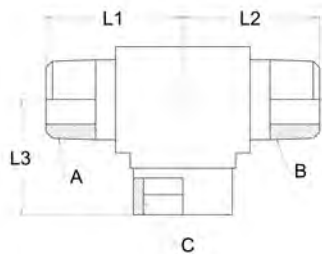
# Tee Adapters

## Male NPTF / NPTF Port / Male 37° Flare-SAE J514 - Tee



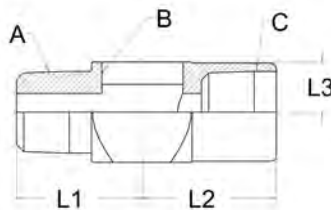
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
341-3168	1/4-18	27.4	1/4-18	16.7	9/16-18	26.9	Steel

## Male NPTF / Male NPTF / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-9385	1/8-27	19.8	1/8-27	19.8	1/8-27	16.8	Steel
511-3223	1/2-14	37.3	1/2-14	37.3	1/2-14	31.2	Steel

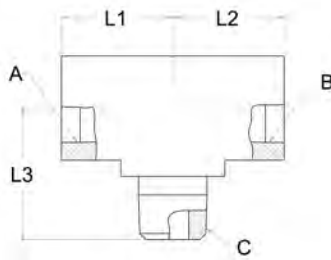
## Male NPTF / NPTF Port / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L3 Length	Thread size	L2 Length	
030-9208	1/8-27	16.8	1/8-27	13.89	1/8-27	14	Brass
319-9173	1/8-27	18.5	1/8-27	6	1/8-27	14.5	Brass
5P-3422	1/8-27	19.8	1/8-27	16.8	1/8-27	16.8	Steel
514-1950	1/8-27	16	1/8-27	6.4	1/8-27	17	Steel
3L-6521	1/4-18	27	1/4-18	20.6	1/4-18	20.6	Iron
2D-7325	1/4-18	27.7	1/4-18	22.4	1/4-18	22.4	Steel
7J-6740	3/8-18	26.16	3/8-18	21.34	3/8-18	21.34	Brass
6B-7639	3/8-18	36.51	3/8-18	23.81	3/8-18	23.81	Iron
281-5830	3/8-18	31	3/8-18	25.9	3/8-18	25.9	SST
8L-6005	3/8-18	31	3/8-18	25.9	3/8-18	25.9	Steel
474-2623	1/2-14	37.3	1/2-14	31.2	1/2-14	31.2	Brass
6A-3591	1/2-14	31.8	1/2-14	27.18	1/2-14	27.18	Brass
5L-5502	1/2-14	37.3	1/2-14	31.2	1/2-14	31.2	Steel
4K-2430	3/4-14	40.4	1/2-14	34.5	1/2-14	30.2	Steel
1N-8559	3/4-14	47.6	3/4-14	33.3	3/4-14	33.3	Iron
052-0726	3/4-14	40.4	3/4-14	34.5	3/4-14	34.5	Steel
1L-4031	1-11.5	53.98	1-11.5	38.1	1-11.5	38.1	Iron
4L-1848	1 1/4-11.5	61.91	1 1/4-11.5	44.45	1 1/4-11.5	44.45	Brass
6V-6939	1 1/4-11.5	60.5	1 1/4-11.5	43.2	1 1/4-11.5	43.2	Steel

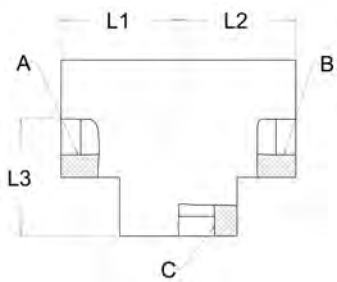
# Tee Adapters

## NPTF Port / NPTF Port / Male NPTF - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6V-1240	1/8-27	16.8	1/8-27	16.8	1/8-27	19.8	Steel
270-6959	1/8-27	9.55	1/8-27	9.55	1/8-27	31.7	Steel
004-5933	1/4-18	22.4	1/4-18	22.4	1/4-18	27.7	Steel
316-8399	1/4-18	25	1/4-18	25	1/4-18	24	Steel
6V-3530	3/8-18	21.3	3/8-18	21.3	3/8-18	24.6	Brass
002-5299	3/8-18	25.9	3/8-18	25.9	3/8-18	31	Steel
033-2177	1/2-14	31.2	1/2-14	31.2	1/2-14	37.3	Steel
5P-8753	3/4-14	34.5	3/4-14	34.5	3/4-14	40.4	Steel
2P-1306	1-11.5	41.1	1-11.5	41.1	1-11.5	50	Steel

## NPTF Port / NPTF Port / NPTF Port - Tee



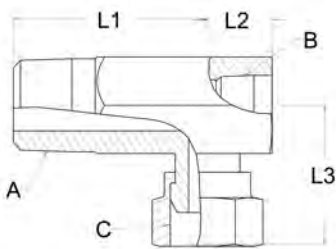
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
3B-7900	1/8-27	13.7	1/8-27	13.7	1/8-27	13.7	Brass
1Y-7551	1/8-27	17.5	1/8-27	17.5	1/8-27	17.5	Iron
5P-3741	1/8-27	16.8	1/8-27	16.8	1/8-27	16.8	Steel
9B-1964	1/8-27	19.8	1/8-27	19.8	1/4-18	19.8	Brass
9U-6389	1/4-18	18.25	1/4-18	18.25	1/8-27	15.88	Brass
3B-7762	1/4-18	17.5	1/4-18	17.5	1/4-18	17.5	Brass
8B-1261	1/4-18	20.6	1/4-18	20.6	1/4-18	20.6	Iron
006-0210	1/4-18	22.4	1/4-18	22.4	1/4-18	22.4	Steel
6V-1739	3/8-18	24	3/8-18	24	1/4-18	24	Steel
6B-2982	3/8-18	23.8	3/8-18	23.8	3/8-18	23.8	Iron
003-8470	3/8-18	25.9	3/8-18	25.9	3/8-18	25.9	Steel
242-5361	3/8-18	21.7	3/8-18	21.7	3/8-18	21.7	Steel
2L-3623	1/2-14	28.6	1/4-18	28.6	1/2-14	28.6	Iron
3H-2891	1/2-14	27	3/8-18	23.81	3/8-18	27	Iron
2L-0332	1/2-14	27	1/2-14	27	3/8-18	27	Iron
8F-0884	1/2-14	25.7	1/2-14	25.7	1/2-14	25.7	Brass
5B-8979	1/2-14	28.6	1/2-14	28.6	1/2-14	28.6	Iron
1Y-0413	1/2-14	31.2	1/2-14	31.2	1/2-14	31.2	Steel
3L-3358	1/2-14	28.4	1/2-14	28.4	3/4-14	33.3	Iron
8C-3346	1/2-14	42.9	1 1/2-11.5	49.3	1 1/2-11.5	49.3	Steel
473-6155	3/4-14	33.3	1/4-18	33.3	3/4-14	33.3	Iron
5L-3993	3/4-14	30.2	1/2-14	28.5	1/2-14	31.8	Iron
7L-7308	3/4-14	36.6	1/2-14	35.1	3/4-14	36.6	Steel
473-6154	3/4-14	33.3	3/4-14	33.3	1/4-18	33.3	Iron
004-2378	3/4-14	34.5	3/4-14	34.5	3/4-14	34.5	Brass
415-7243	3/4-14	29.46	3/4-14	29.46	3/4-14	29.46	Brass
1L-8444	3/4-14	33.3	3/4-14	33.3	3/4-14	33.3	Iron
6F-0496	3/4-14	33.3	3/4-14	33.3	1-11.5	38.1	Iron
2N-3599	1-11.5	35.1	1-11.5	35.1	3/4-14	38.4	Steel
149-5210	1-11.5	38.1	1-11.5	38.1	1-11.5	38.1	Iron
4B-7770	1-11.5	38.1	1-11.5	38.1	1-11.5	38.1	Steel
520-8518	1-11.5	51	1-11.5	51	1-11.5	51	Steel
278-4528	1-11.5	51.3	2-11.5	57.2	2-11.5	57.2	Iron
278-4529	1-11.5	69.6	3-8	78.2	3-8	78.2	Iron
1Y-7453	1 1/4-11.5	38.1	1 1/4-11.5	38.1	3/4-14	41.28	Iron

# Tee Adapters

## NPTF Port / NPTF Port / NPTF Port - Tee (Cont'd.)

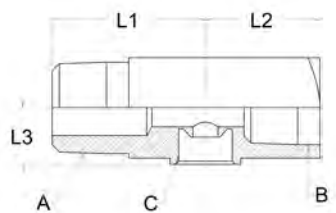
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6V-6940	1 1/4-11.5	43.2	1 1/4-11.5	43.2	1 1/4-11.5	43.2	Brass
8B-9579	1 1/4-11.5	44.45	1 1/4-11.5	44.45	1 1/4-11.5	44.45	Iron
491-5272	1 1/4-11.5	43.2	1 1/4-11.5	43.2	1 1/4-11.5	43.2	SST
6V-6941	1 1/4-11.5	43.2	1 1/4-11.5	43.2	1 1/4-11.5	43.2	Steel
5L-8289	1 1/2-11.5	41.1	1-11.5	36.6	1-11.5	44.5	Iron
371-7168	1 1/2-11.5	52.8	1 1/2-11.5	52.8	1-11.5	67.1	Steel
1L-2782	1 1/2-11.5	49.2	1 1/2-11.5	49.2	1 1/2-11.5	49.2	Iron
6F-7701	1 1/2-11.5	54.1	1 1/2-11.5	54.1	1 1/2-11.5	54.1	Iron
281-5860	1 1/2-11.5	52.8	1 1/2-11.5	52.8	1 1/2-11.5	52.8	SST
439-1877	1 1/2-11.5	49.3	1 1/2-11.5	49.3	1 1/2-11.5	49.3	SST
6V-8251	1 1/2-11.5	51	1 1/2-11.5	51	1 1/2-11.5	51	Steel
328-7438	2-11.5	63.5	2-11.5	63.5	2-11.5	63.5	Iron
385-5789	2-11.5	57.2	2-11.5	57.2	2-11.5	57.2	Iron
6L-7322	2-11.5	57	2-11.5	57	2-11.5	57	Iron
421-6203	2-11.5	57.2	2-11.5	57.2	2-11.5	57.2	SST
287-7287	2 1/2-8	68.6	2 1/2-8	68.6	2 1/2-8	68.6	SST
140-5980	3-8	78.23	3-8	78.23	3-8	78.23	Iron
319-6196	3-8	85.9	3-8	85.9	3-8	85.9	Iron

## Male NPTF / NPTF Port / NPSM Swivel Nut - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
9D-3351	1/2-14	45.2	1/4-18	0	3/8-18	24.9	Steel

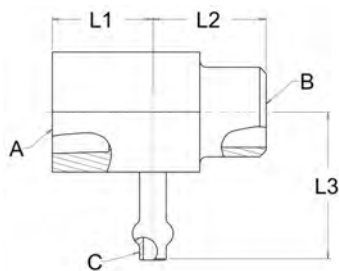
## Male NPTF / NPTF Port / 45° Inverted Flare- SAE J512 Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6V-5513	3/8-18	29.2	1/4-18	21.8	7/16-24	10.7	Brass

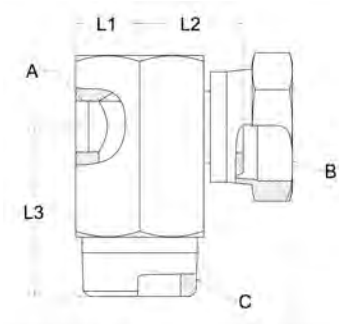
# Tee Adapters

## Male NPTF / NPTF Port / Hose Bead - Tee



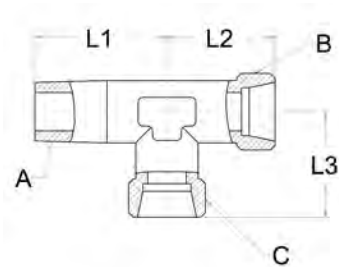
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6N-3802	1/2-14	24	1/2-14	27	6.35	35	Steel

## NPTF Port / NPSM Swivel Nut / Male NPTF - Tee



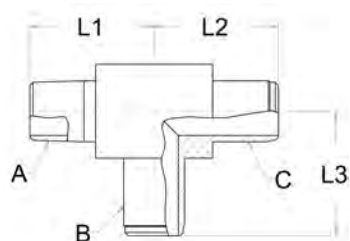
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
8X-6293	1/2-14	27	1 1/2-11.5	43.7	1 1/2-11.5	71.4	Steel

## Male NPTF / Male Metric Flat Face-ISO 9974 / Male Metric Flat Face-ISO 9974 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
221-1584	1/4-19	25	M16x1.5	25	M16x1.50	22	Brass

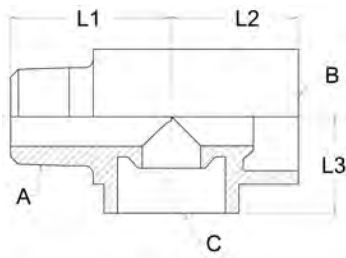
## Male NPTF / Male 45° Flare-SAE J512 / Male 45° Flare-SAE J512 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L3 Length	Thread size	L2 Length	
5P-3932	1/4-18	26.6	5/8-18	26.6	5/8-18	26.6	Brass
1Y-8083	3/8-18	28.4	3/4-16	31	3/4-16	31	Brass

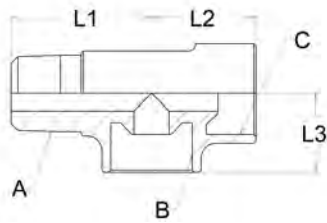
# Tee Adapters

## Male NPTF / 45° Inverted Flare-SAE J512 Port / 45° Flare-SAE J512 Port - Tee



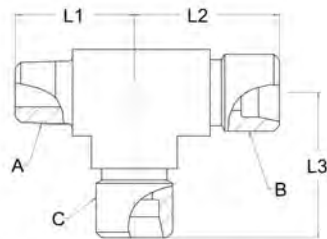
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6K-8214	3/8-18	28.4	3/4-18	22.4	3/4-18	17	Brass

## Male NPTF / 45° Inverted Flare-SAE J512 Port / 45° Inverted Flare-SAE J512 Port - Tee



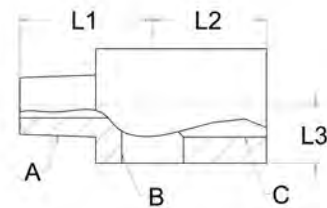
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L3 Length	Thread size	L2 Length	
9L-9045	1/8-27	19.1	7/16-24	10.7	7/16-24	14.2	Brass
9S-7752	1/8-27	21.6	1/2-20	11.4	1/2-20	15.7	Brass
6K-8498	1/4-18	27.5	5/8-18	14.2	5/8-18	19	Brass
6K-8080	1/2-14	35.9	7/8-18	19	7/8-18	24.6	Brass

## Male NPTF / Male 24° Flareless-SAE J514 / Male 24° Flareless-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-5525	1/8-27	19.8	1/2-20	24.1	1/2-20	24.1	Steel
5P-6044	1/4-18	27.7	9/16-18	26.7	9/16-18	26.7	Steel

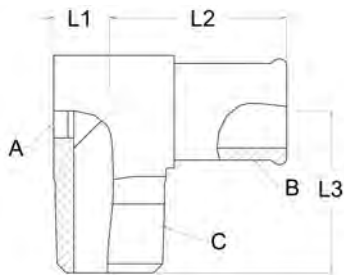
## Male NPTF / BSPP STOR-JIS B2351 Port / BSPP STOR-JIS B2351 Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
291-4211	1/4-28	12	1/8-28	14	1/8-28	14	Steel

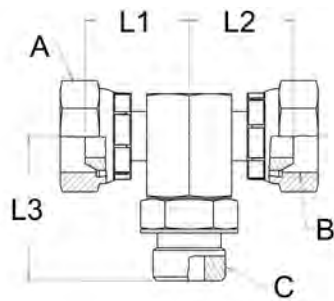
# Tee Adapters

## NPTF Port / Hose Bead / Male NPTF - Tee



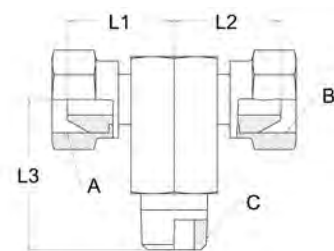
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6V-0676	1/8-27	0	19.05	34.92	1/2-14	31.75	Brass

## NPSM Swivel Nut / NPSM Swivel Nut / Male STOR - Tee



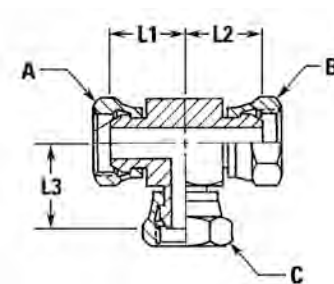
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-7929	1/4-18	21.85	1/4-18	21.85	9/16-18	33	Steel
5P-7930	1/2-14	27.5	1/2-14	27.5	3/4-16	38.1	Steel

## NPSM Swivel Nut / NPSM Swivel Nut / Male NPTF - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
3S-6115	1/4-18	21	1/4-18	21	1/4-18	31	Steel
003-6997	1/4-18	23.35	1/4-18	23.35	1/2-14	45.2	Steel
7J-5996	3/8-18	27.7	3/8-18	27.7	3/8-18	38.9	Steel
4D-4917	1/2-14	25	1/2-14	25	1/2-14	45.9	Steel
4D-0583	1/2-14	27.55	1/2-14	27.55	3/4-14	50.8	Steel

## NPSM Swivel Nut / NPSM Swivel Nut / NPSM Swivel Nut - Tee

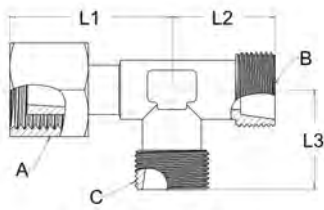


Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
4D-9976	1/4-18	21	1/4-18	21	1/4-18	19.8	Steel



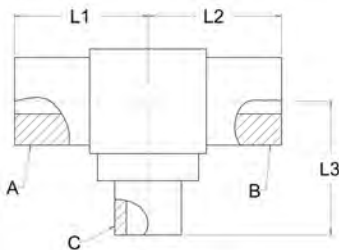
# Tee Adapters

## Male Metric Flat Face-ISO 9974 / Metric Flat Face-ISO 9974 Swivel Nut / Male Metric Flat Face-ISO 9974 - Tee



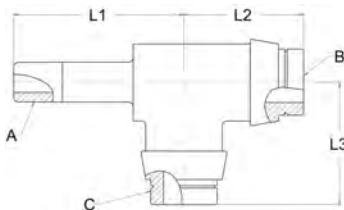
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
330-2595	M16x1.5	33	M16x1.5	21	M16x1.50	20	Steel

## BSPP Flat Face-ISO 1179 Port / BSPP Flat Face-ISO 1179 Port / NPTF Port - Tee



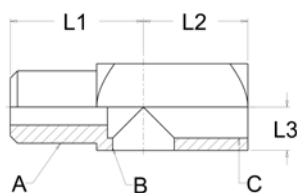
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
492-3329	3/8-19	32	3/8-19	32	3/8-18	32	Steel

## Bulkhead Male BSPP Flat Face-ISO 1179 / BSPP Flat Face-ISO 1179 Port / BSPP Flat Face-ISO 1179 Port - Tee



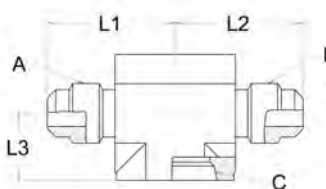
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
420-1549	1/4-19	27.43	1/4-19	19.3	1/4-19	19.81	Steel

## Male BSPP Flat Face-ISO 1179 / BSPT-ISO 7-1 Port / BSPP Flat Face-ISO 1179 Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
250-0241	1/8-28	18.5	1/8-28	6	1/8-28	14.5	Brass

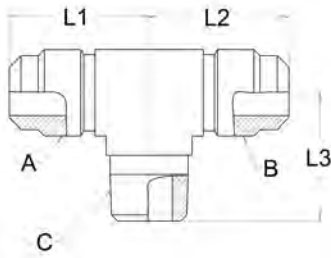
## Male 45° Flare-SAE J512 / Male 45° Flare-SAE J512 / STOR Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
211-4499	7/16-20	24	7/16-20	24	9/16-18	12.5	Brass

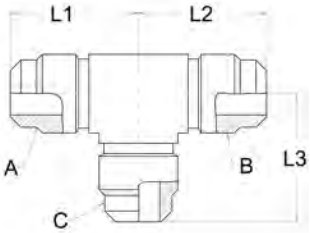
# Tee Adapters

## Male 45° Flare-SAE J512 / Male 45° Flare-SAE J512 / Male NPTF - Tee



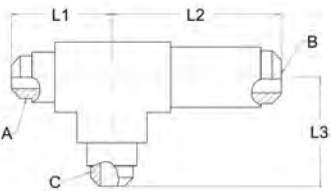
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
3B-9397	7/16-20	21	7/16-20	21	1/8-27	19	Brass
474-2601	3/4-16	31	3/4-16	31	3/8-18	28.4	Brass

## Male 45° Flare-SAE J512 / Male 45° Flare-SAE J512 / Male 45° Flare-SAE J512 - Tee



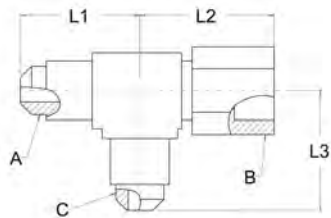
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
133-9660	3/8-24	19	3/8-24	19	3/8-24	19	Brass
474-2609	3/4-16	31	3/4-16	31	3/4-16	31	Brass
476-9410	7/8-14	35.8	7/8-14	35.8	7/8-14	35.8	Brass

## Male 45° Flare-SAE J512 / Bulkhead Male 45° Flare-SAE J512 / Male 45° Flare-SAE J512 - Tee



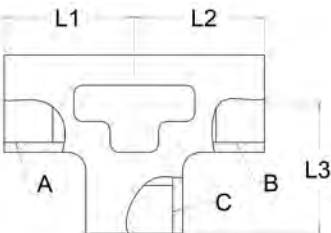
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
507-6903	5/8-18	42.7	3/4-16	42.7	5/8-18	35	Steel

## Male 45° Flare-SAE J512 / 45° Flare-SAE J512 Swivel Nut / Male 45° Flare-SAE J512 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
507-6910	7/16-20	23	7/16-20	25	7/16-20	23	Steel

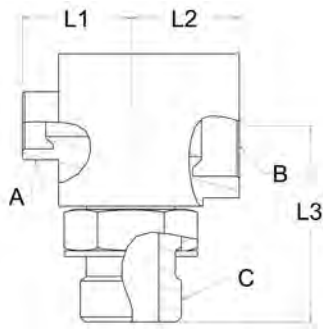
## 45° Flare-SAE J512 Port / 45° Flare-SAE J512 Port / 45° Flare-SAE J512 Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
6R-9166	1/2-20	21.5	1/2-20	21.5	1/2-20	21.5	Brass

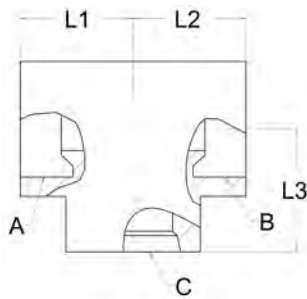
# Tee Adapters

## Male 45° Inverted Flare-SAE J512 / 45° Inverted Flare-SAE J512 Port / Male STOR - Tee



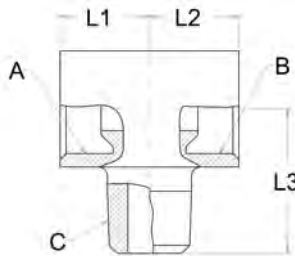
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-7603	7/16-24	23.9	7/8-18	23.9	7/8-14	43.2	Steel

## 45° Inverted Flare-SAE J512 Port / 45° Inverted Flare-SAE J512 Port / STOR Port - Tee



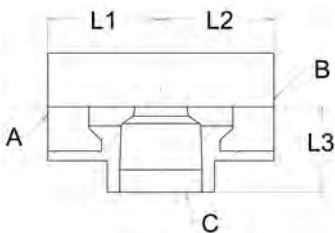
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
9X-2525	5/8-18	18.65	5/8-18	18.65	9/16-18	20.3	Brass
9X-2527	3/4-18	22.2	3/4-18	22.2	9/16-18	23.6	Brass

## 45° Inverted Flare-SAE J512 Port / 45° Inverted Flare-SAE J512 Port / Male NPTF - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
9L-8496	7/16-24	10.7	7/16-24	10.7	1/8-27	16.4	Brass
9S-7728	1/2-20	11.95	1/2-20	11.95	1/8-27	17.1	Brass
5K-9989	5/8-18	14.75	5/8-18	14.75	1/4-18	23.7	Brass
9S-7730	3/4-18	17.55	3/4-18	17.55	3/8-18	25.8	Brass
9S-7731	7/8-18	19.8	7/8-18	19.8	1/2-14	32.6	Brass

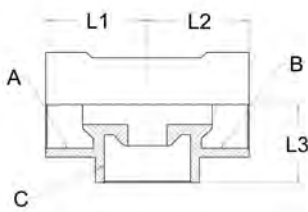
## 45° Inverted Flare-SAE J512 Port / 45° Inverted Flare-SAE J512 Port / NPTF Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
9S-7742	7/16-24	14.2	7/16-24	14.2	1/8-27	10.7	Brass
9S-7744	5/8-18	18.65	5/8-18	18.65	1/4-18	14.2	Brass
6K-8078	3/4-18	22.2	3/4-18	22.2	3/8-18	17	Brass
9S-7747	7/8-18	24.65	7/8-18	24.65	1/2-14	19	Brass

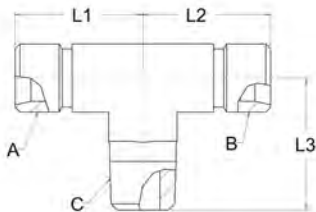
# Tee Adapters

## 45° Inverted Flare-SAE J512 Port / 45° Inverted Flare-SAE J512 Port / 45° Inverted Flare-SAE J512 Port - Tee



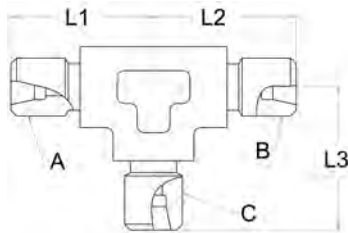
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
7R-6708	3/8-24	13.9	3/8-24	13.9	3/8-24	10.1	Brass
9L-8557	7/16-24	14.2	7/16-24	14.2	7/16-24	10.7	Brass
4D-6956	7/16-24	14.22	7/16-24	14.22	1/2-20	11.68	Brass
4D-8122	7/16-24	12.7	1/2-20	12.7	7/16-24	20.6	Brass
5K-9988	5/8-18	18.65	5/8-18	18.65	5/8-18	14.2	Brass
7K-2543	3/4-18	22.2	3/4-18	22.2	3/4-18	17	Brass

## Male 24° Flareless-SAE J514 / Male 24° Flareless-SAE J514 / Male NPTF - Tee



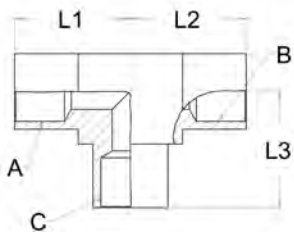
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
5P-7247	9/16-18	26.7	9/16-18	26.7	1/4-18	27.7	Steel

## Male 24° Flareless-SAE J514 / Male 24° Flareless-SAE J514 / Male 24° Flareless-SAE J514 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
8C-9006	5/16-24	19.6	5/16-24	19.6	5/16-24	19.6	Steel
5P-4252	1/2-20	24.1	1/2-20	24.1	1/2-20	24.1	Steel
5P-6985	7/8-14	36.1	7/8-14	36.1	7/8-14	36.1	Steel

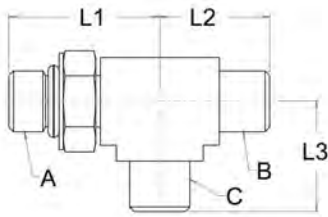
## BSPP STOR-JIS B2351 Port / BSPP STOR-JIS B2351 Port / BSPP STOR-JIS B2351 Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
314-5071	1/4-19	31	1/4-19	31	1/4-19	31	Steel
203-0374	3/8-19	22	3/8-19	22	3/8-19	22	Brass
147-2441	3/4-14	30.5	3/4-14	30.5	3/4-14	24	Brass

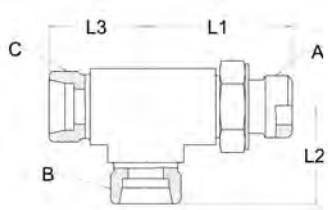
# Tee Adapters

## Male BSPP STOR-JIS B2351 / Male 60° Cone-BS5200 / Male 60° Cone-BS5200 - Tee



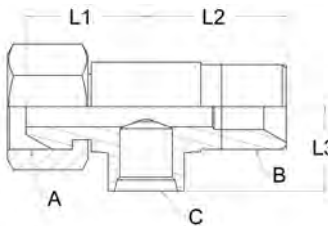
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
121-3738	1/4-19	33	1/4-19	24	1/4-19	24	Steel
140-5113	1/4-19	28	1/4-19	26	1/4-19	26	Steel
121-3737	1/2-14	47	1/2-14	37	1/2-14	37	Steel

## Male BSPP STOR-JIS B2351 / Male 24° Cone-ISO 8434-1 / Male 24° Cone-ISO 8434-1 - Tee



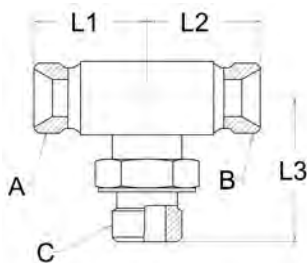
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
175-9565	3/8-19	40.5	M20x1.5	29	M20x1.50	29	Steel
384-2496	1/2-14	50	M18x1.5	26	M18x1.50	26	Steel
234-7415	1/2-14	50	M24x1.5	33	M24x1.50	33	Steel

## BSPP STOR-JIS B2351 Swivel Nut / Male 30° Flare-JIS / STOR Port - Tee



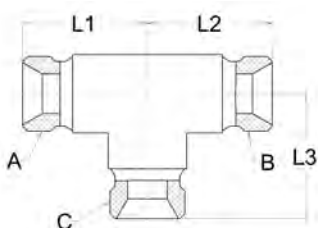
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
7X-2434	1/4-19	27	1/4-19	26.4	9/16-18	16.3	Steel
7X-2435	3/8-19	28.7	3/8-19	30.99	9/16-18	17.5	Steel
7X-2433	1/2-14	30	1/2-14	35	9/16-18	20.83	Steel

## Male 60° Cone-BS5200 / Male 60° Cone-BS5200 / Male BSPP Flat Face-ISO 1179 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
295-1698	1/2-14	34	1/2-14	34	1/2-14	43	Steel

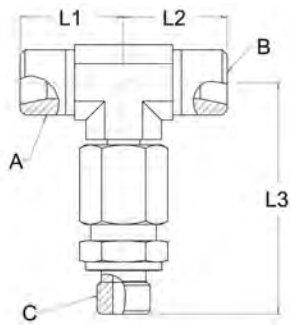
## Male 60° Cone-BS5200 / Male 60° Cone-BS5200 / Male 60° Cone-BS5200 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
465-9012	1/2-14	35	1/2-14	35	1/2-14	35	Steel

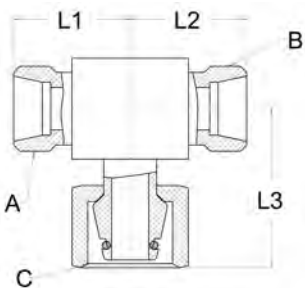
# Tee Adapters

## Male 24° Cone-ISO 8434-1 / Male 24° Cone-ISO 8434-1 / Male BSPP Flat Face-ISO 1179 - Tee



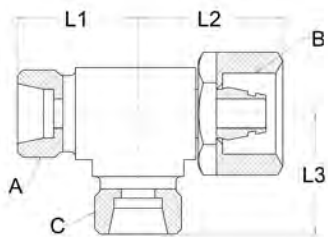
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
453-9926	M12x1.5	19	M12x1.5	19	1/8-18	42.5	Steel

## Male 24° Cone-ISO 8434-1 / Male 24° Cone-ISO 8434-1 / 24° Cone-ISO 8434-1 Swivel Nut - Tee



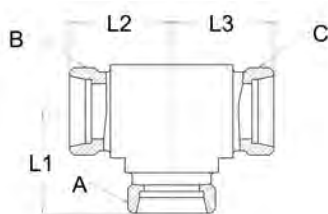
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
468-7741	M16x1.5	22	M16x1.5	22	M16x1.50	29	Steel
373-5676	M16x1.5	22	M16x1.5	22	M16x1.50	29	Steel

## Male 24° Cone-ISO 8434-1 / 24° Cone-ISO 8434-1 Swivel Nut / Male 24° Cone-ISO 8434-1 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
460-9846	M18x1.5	32	M18x1.5	29.2	M18x1.50	32	Steel
498-1845	M18x1.5	25	M18x1.5	30	M18x1.50	25	Steel
460-9845	M22x1.5	36.5	M22x1.5	32.5	M22x1.50	36	Steel

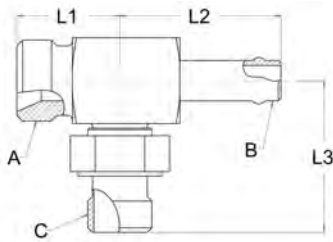
## Male 24° Cone-ISO 8434-1 / Male 24° Cone-ISO 8434-1 / Male 24° Cone-ISO 8434-1 - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
487-7821	10	29.5	10	30	10	30	Steel
474-9219	15	36	12	36	12	36	Steel
487-7919	28	47	28	46.5	28	46.5	Steel
501-7451	28	38	28	41.5	28	38	Steel
487-7921	8	29	8	32	8	32	Steel
515-6283	10	22	10	22	10	29	Steel
511-6054	12	29.35	12	31	12	29	Steel
511-8645	18	31	18	31	18	31	Steel
513-9663	M30x2.00	35	M30x2	35	M30x2	38.5	Steel
508-5814	22	35	22	35	22	35	Steel

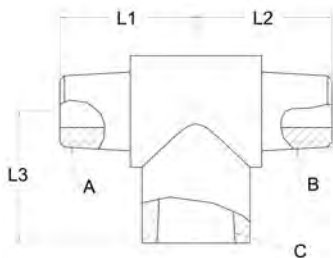
# Tee Adapters

## Male 24° Cone-ISO 8434-1 / Hose Bead / 37° Flare-SAE J514 Swivel Nut - Tee



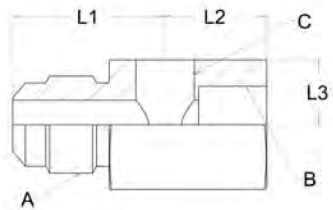
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
386-0825	M16x1.5	20.4	7.94	31.9	1/2-20	30	Steel

## Male BSPT-ISO 7-1 / Male BSPT-ISO 7-1 / BSPT-ISO 7-1 Port - Tee



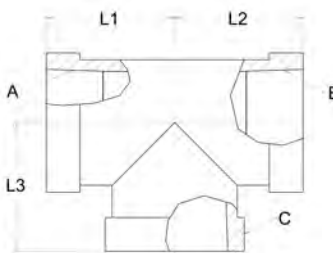
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
212-0095	3/8-19	29	3/8-19	29	3/8-19	28	Steel

## Male BSPT-ISO 7-1 / BSPT-ISO 7-1 Port / BSPT-ISO 7-1 Port - Tee



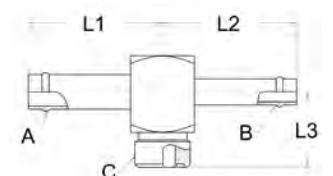
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
203-0394	3/4-16	25	3/8-19	25	1/4-19		Brass

## BSPT-ISO 7-1 Port / BSPT-ISO 7-1 Port / BSPT-ISO 7-1 Port - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
211-3338	1/4-19	22.5	1/4-19	22.5	1/4-19	22.5	Steel
126-4715	3/8-18	25.5	3/8-18	25.5	3/8-18	25.5	Steel
271-9904	3/8-19	26.5	3/8-18	26.5	3/8-19	26.5	Steel
203-0373	1/2-14	26.5	1/2-14	26.5	1/2-14	26.5	Brass
166-4998	1-11	38.1	1-11	38.1	1-11	38.1	Steel

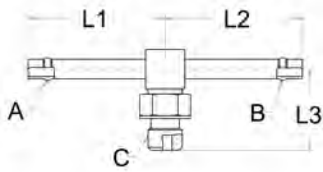
## Hose Bead / Hose Bead / Male ORFS - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
352-6489	12.70	50	9.52	50	13/16-16	28	Steel

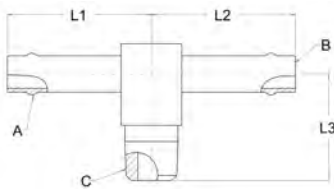
# Tee Adapters

## Hose Bead / Hose Bead / Male STOR - Tee



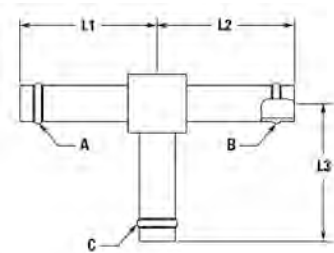
Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
334-1017	6.35	44.5	6.35	44.5	7/16-20	26.2	Steel
274-7407	9.52	45.97	9.52	45.97	9/16-18	31.75	Steel
321-8625	9.52	46.1	9.52	46.1	9/16-18	31.8	Steel
309-5140	12.70	48.51	12.70	48.51	3/4-16	36.83	Steel
122-1113	12.70	50.04	12.70	50.04	7/8-14	43.18	Steel
351-0287	12.70	50	15.88	50	7/8-14	43.2	Steel
326-0300	12.70	40	25.40	45	1 1/16-12	55.1	Steel
297-7932	9.52	75.8	25.40	82.6	1 3/16-12	50.8	Steel
420-7636	38.10	59.5	31.75	59.5	1 5/8-12	82.5	Steel

## Hose Bead / Hose Bead / Male NPTF - Tee



Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
302-4255	9.52	37.64	9.52	37.64	1/4-18	27.74	Steel

## Hose Bead / Hose Bead / Hose Bead - Tee

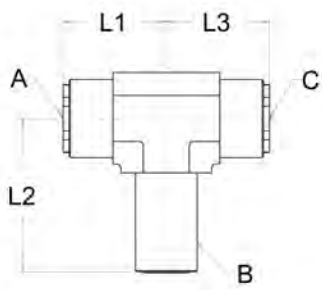


Part Number	End A		End B		End C		Material
	Thread size	L1 Length	Thread size	L2 Length	Thread size	L3 Length	
287-7250	12.70	48.4	12.70	48.4	12.70	48.4	Steel
9X-3965	12.70	45	12.70	45	12.70	45	Steel
478-5154	12.70	31.8	12.70	31.8	4.76	31.8	Brass
7C-0754	15.88	41	15.88	41	15.88	40	Steel
393-5940	15.88	48.4	15.88	48.4	9.52	48.4	Steel
208-5455	19.05	45.7	19.05	45.7	19.05	45.7	Steel
232-0252	19.05	55.3	25.40	55.3	25.40	55.3	Steel
247-7279	25.40	54	19.05	51	19.05	51	Steel
212-3863	25.40	54	25.40	54	12.70	53	Steel
142-8320	25.40	55.3	25.40	55.3	19.05	55.3	Steel
271-0109	25.40	66	25.40	66	25.40	66	SST
319-6188	25.40	46	25.40	46	9.52	46.7	Steel
459-0734	31.75	58.7	25.40	58.7	25.40	58.7	Steel
399-9673	31.75	58.75	31.75	58.75	19.05	58.75	Steel
271-0110	31.75	66	31.75	66	25.40	66	SST
331-6108	44.44	70	44.44	70	25.40	80	SST
278-1541	6.35	49.9	19.05	49.9	25.40	49.9	Steel
192-5425	6.35	31.5	6.35	31.5	6.35	31.5	Steel
451-0479	9.52	48.5	12.70	48.5	9.52	48.5	SST
439-1955	9.52	48.5	9.52	48.5	12.70	48.5	SST
275-0151	9.52	48.4	9.52	48.4	12.70	38.1	Steel
287-7302	9.52	41.9	9.52	41.9	6.35	41.9	Steel
419-5087	9.52	45	9.52	45	9.52	45	SST



# Tee Adapters

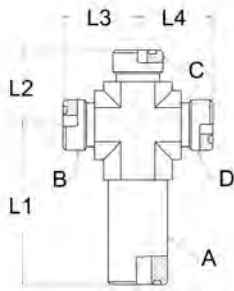
## WEO Plug-In ORFS - Tee



Part Number	End A		End B	End C		Material	
	Dash Size	L1 Length	Thread size	L2 Length	Dash Size		L3 Length
529-7515	-8	42.5	1 - 14	63	-8	42.5	Steel

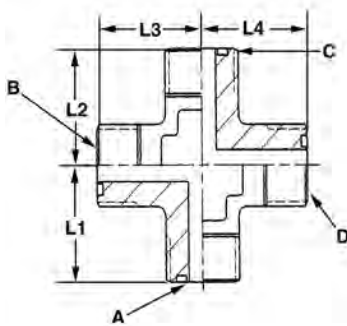
# Cross Adapters

## ORFS Bulkhead / Male / Male / Male-Cross



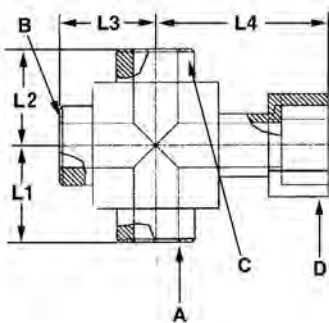
Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
398-5617	13/16 - 16	-8	11/16 - 16	-6	11/16 - 16	-6	11/16 - 16	-6	55.5	26	26	26	Steel
287-7336	13/16 - 16	-8	13/16 - 16	-8	13/16 - 16	-8	13/16 - 16	-8	55.5	28	28	28	Steel
364-7708	13/16 - 16	-8	13/16 - 16	-8	1 7/16 - 12	-16	1 7/16 - 12	-16	67	41	41.5	41.5	Steel
488-2774	13/16 - 16	-8	1 3/16 - 12	-12	1 3/16 - 12	-12	13/16 - 16	-8	62	38.5	38.5	35.4	Steel
224-2684	1 - 14	-10	13/16 - 16	-8	1 - 14	-10	11/16 - 16	-6	63	32	32	26.2	Steel

## ORFS Male / ORFS Male / ORFS Male / ORFS Male-Cross



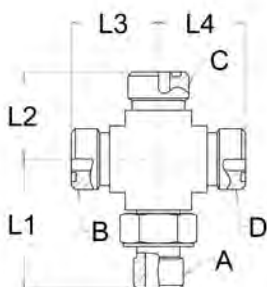
Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
7X-3406	11/16 - 16	-6	11/16 - 16	-6	11/16 - 16	-6	11/16 - 16	-6	25	25	25	25	Steel
241-6194	13/16 - 16	-8	1 - 14	-10	13/16 - 16	-8	11/16 - 16	-6	30.8	33.3	30.8	29.2	Steel
260-9136	1 - 14	-10	1 - 14	-10	1 - 14	-10	1 - 14	-10	33.5	33.5	33.5	33.5	Steel
261-7957	1 3/16 - 12	-12	1 3/16 - 12	-12	1 3/16 - 12	-12	1 3/16 - 12	-12	37.5	37.5	37.5	37.5	Steel

## ORFS Male / Male / Male / Swivel-Nut Cross



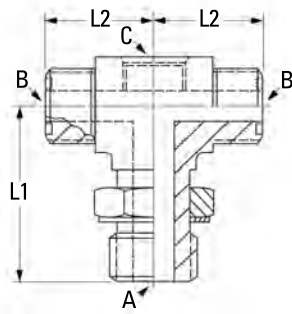
Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
386-6209	9/16 - 18	-4	9/16 - 18	-4	9/16 - 18	-4	9/16 - 18	-4	21.5	21.5	21.5	26.5	Brass
267-4035	9/16 - 18	-4	9/16 - 18	-4	9/16 - 18	-4	9/16 - 18	-4	21.5	21.5	21.5	26.5	Steel
237-7026	13/16 - 16	-8	9/16 - 18	-4	13/16 - 16	-8	13/16 - 16	-8	28	27.6	28	38	Steel
207-2484	13/16 - 16	-8	13/16 - 16	-8	13/16 - 16	-8	13/16 - 16	-8	28	28	28	38	Steel
233-2300	1 - 14	-10	1 - 14	-10	1 - 14	-10	1 - 14	-10	33.3	33.3	33.3	41.2	Steel
117-5208	1 7/16 - 12	-16	1 7/16 - 12	-16	1 7/16 - 12	-16	1 7/16 - 12	-16	41.5	41.5	41.5	53.5	Steel

## STOR Male / ORFS Male / ORFS Male / ORFS Male-Cross



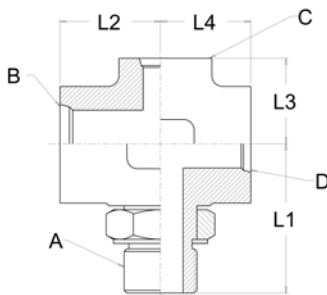
Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
214-4508	9/16 - 18	-6	11/16 - 16	-6	11/16 - 16	-6	11/16 - 16	-6	37	25	25	25	Steel
197-9460	9/16 - 18	-6	13/16 - 16	-8	11/16 - 16	-6	13/16 - 16	-8	36.5	28	26.5	28	Steel
268-1645	3/4 - 16	-8	13/16 - 16	-8	13/16 - 16	-8	13/16 - 16	-8	40.5	28	28	28	Steel
513-9668	7/8 - 14	-10	1 - 14	-10	9/16 - 18	-4	1 - 14	-10	50	33.5	28	33.5	Steel
235-3572	1 1/16 - 12	-12	1 3/16 - 12	-12	1 3/16 - 12	-12	1 3/16 - 12	-12	55	37.5	37.5	37.5	Steel

## STOR Male / ORFS Male / STOR Port / ORFS Male-Cross



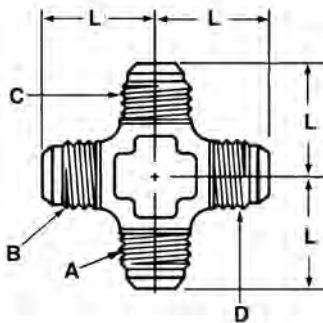
Part Number	End A		End B		End C		L1	L2	L3	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size				
163-6018	3/4 - 16	-8	11/16 - 16	-6	9/16 - 18	-6	40.6	25	11.1	Steel
081-5604	3/4 - 16	-8	11/16 - 16	-6	9/16 - 18	-6	39	25	28.5	Steel

## STOR Male / Port / Port / Port-Cross



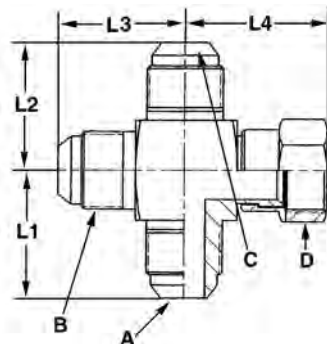
Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
125-2589	3/8 - 24	-3	3/8 - 24	-3	3/8 - 24	-3	7/16 - 20	-4	33.27	11.18	20.57	11.05	Steel
260-9176	1 1/16 - 12	-12	1 1/16 - 12	-12	9/16 - 18	-6	3/4 - 16	-8	55.1	37.3	31.7	33.5	Steel

## JIC 37° Male / JIC 37° Male / JIC 37° Male / JIC 37° Male-Cross



Part Number	End A		End B		End C		End D		L	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size		
6V-0426	7/16 - 20	-4	7/16 - 20	-4	7/16 - 20	-4	7/16 - 20	-4	22.6	Steel
6S-2231	9/16 - 18	-6	9/16 - 18	-6	9/16 - 18	-6	9/16 - 18	-6	26.9	Steel
7J-6742	3/4 - 16	-8	3/4 - 16	-8	3/4 - 16	-8	3/4 - 16	-8	31.8	Steel
5P-5613	1 1/16 - 12	-12	1 1/16 - 12	-12	1 1/16 - 12	-12	1 1/16 - 12	-12	42.2	Steel
459-0608	1 5/16 - 12	-16	1 5/16 - 12	-16	1 5/16 - 12	-16	1 5/16 - 12	-16	46	SST
8C-4066	1 5/16 - 12	-16	1 5/16 - 12	-16	1 5/16 - 12	-16	1 5/16 - 12	-16	46	Steel

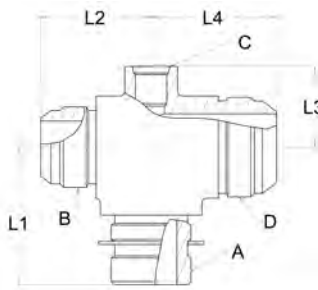
## 37° JIC Male / Male / Male / Swivel Nut-Cross



Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
3E-2344	7/8 - 14	-10	7/8 - 14	-10	7/8 - 14	-10	7/8 - 14	-10	36.8	36.8	36.8	41.1	Steel
201-9897	1 1/16 - 12	-12	1 1/16 - 12	-12	1 1/16 - 12	-12	1 1/16 - 12	-12	42.2	42.2	42.2	44.4	Steel

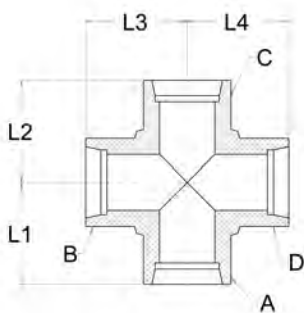
# Cross Adapters

## STOR Male / 37° JIC Male / STOR Port / 37° JIC Male-Cross



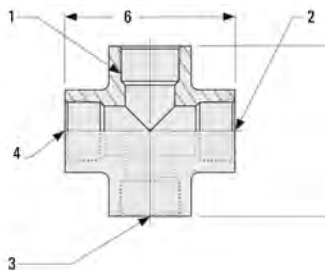
Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
8C-6516	1 5/16 - 12	-16	1 5/16 - 12	-16	9/16 - 18	-6	1 5/8 - 12	-20	57.2	46	33.5	52.3	Steel
8T-7009	1 5/8 - 12	-20	1 5/8 - 12	-20	9/16 - 18	-6	1 5/8 - 12	-20	57.2	52.3	20.64	52.3	Steel

## 24° Cone ISO 8434-1 Male / Male / Male / Male-Cross



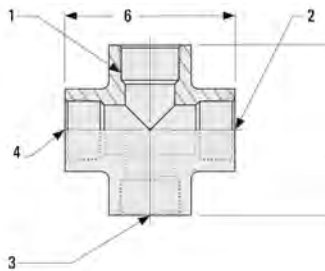
Part Number	End A		End B		End C		End D		L	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size		
422-3520	M12 x 1	8	M12 x 1	8	M12 x 1	8	M12 x 1	8	11.35	SST
488-0371	M30 x 2	22	M30 x 2	22	M30 x 2	22	M30 x 2	22	27.5	Steel

## SAE NPTF Pipe Port / Port / Port / Port-Cross



Part Number	End 1		End 2		End 3		End 4		Length 5	Length 6	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size			
5P-2423	1/8 - 27	-2	1/8 - 27	-2	1/8 - 27	-2	1/8 - 27	-2	33.5	33.5	Steel
194-4940	1/4 - 18	-4	1/4 - 18	-4	1/4 - 18	-4	1/4 - 18	-4	44.8	44.8	Steel
7B-0192	1/4 - 18	-4	1/4 - 18	-4	1/4 - 18	-4	1/4 - 18	-4	37	37	Brass
1Y-7446	3/8 - 18	-6	3/8 - 18	-6	3/8 - 18	-6	3/8 - 18	-6	50	50	Steel
6R-4061	3/8 - 18	-6	3/8 - 18	-6	3/8 - 18	-6	3/8 - 18	-6	41.6	41.6	Brass
130-5977	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	62.4	62.4	Steel
162-6615	1 - 11 1/2	-16	1 - 11 1/2	-16	1 - 11 1/2	-16	1 - 11 1/2	-16	82.2	82.2	SST
387-4391	1 - 11 1/2	-16	1 - 11 1/2	-16	1 - 11 1/2	-16	1 - 11 1/2	-16	83	83	Steel
169-3678	1 1/2 - 11 1/2	-24	1 1/2 - 11 1/2	-24	1 1/2 - 11 1/2	-24	1 1/2 - 11 1/2	-24	105.6	105.6	Steel

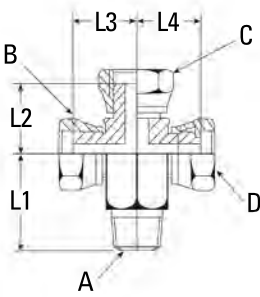
## ASME NPT Pipe Port / Port / Port / Port-Cross



Part Number	End 1		End 2		End 3		End 4		Length 5	Length 6	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size			
319-6192	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	63.6	63.6	Iron
3D-4022	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	57	57	Iron
8L-7971	3/4 - 14	-12	3/4 - 14	-12	3/4 - 14	-12	3/4 - 14	-12	66.7	66.7	Iron
5P-1907	1 - 11 1/2	-16	1 - 11 1/2	-16	1 - 11 1/2	-16	1 - 11 1/2	-16	76.2	76.2	Iron
434-3695	1 1/2 - 11 1/2	-24	1 1/2 - 11 1/2	-24	1 1/2 - 11 1/2	-24	1 1/2 - 11 1/2	-24	98.6	98.6	Iron
385-5790	2 - 11 1/2	-32	2 - 11 1/2	-32	2 - 11 1/2	-32	2 - 11 1/2	-32	114.4	114.4	Iron
349-0734	2 - 11 1/2	-32	2 - 11 1/2	-32	2 - 11 1/2	-32	2 - 11 1/2	-32	127	127	Iron

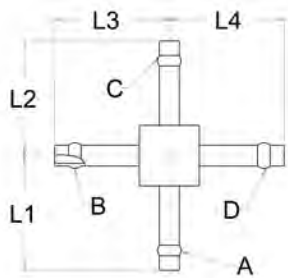
# Cross Adapters

## NPTF Male / NPSM Swivel Nut / NPSM Swivel Nut / NPSM Swivel Nut-Cross



Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size	Thread	Dash Size					
6D-6018	1/4 - 18	-4	1/4 - 18	-4	1/4 - 18	-4	1/4 - 18	-4	31	19.8	21	21	Steel
6V-0581	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	1/2 - 14	-8	45.2	25.4	27.5	27.5	Steel

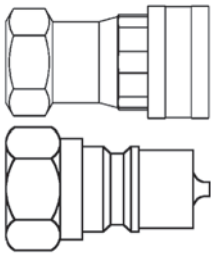
## Hose Bead Male / Male / Male / Male-Cross



Part Number	End A		End B		End C		End D		L1	L2	L3	L4	Material
	Hose ID (mm)	Dash Size	Hose ID (mm)	Dash Size	Hose ID (mm)	Dash Size	Hose ID (mm)	Dash Size					
248-4268	6.35	-4	6.35	-4	6.35	-4	6.35	-4	36	36	36	36	Steel
247-0067	15.88	-10	19.05	-12	19.05	-12	6.35	-4	44	46	46	43	Steel

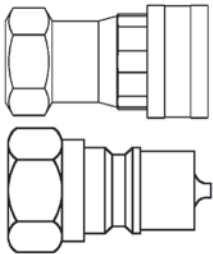
# Quick Disconnect Hose

## ISO 7241 Series A Quick Disconnects



Part Number	Coupler Size mm - in	Coupler End Form	Threaded Connection Type	Thread Form	Thread Size	Body Material	Internal Seal Material	Maximum Working Pressure MPa
5R-5674	10 - 0.375	Female	NPTF-SAE J476/J514	Port	3/8-18	Steel	NBR	31.5
5R-5675	10 - 0.375	Male	NPTF-SAE J476/J514	Port	3/8-18	Steel	NBR	31.5
5R-6868	10 - 0.375	Female	SAE STOR-SAE J1926	Port	9/16-18	Steel	NBR	31.5
5R-6867	10 - 0.375	Male	SAE STOR-SAE J1926	Port	9/16-18	Steel	NBR	31.5
287-7278	12.5 - 0.5	Male	SAE STOR-SAE J1926	Port	3/4-16	Steel	NBR	25
5R-6307	16 - 0.625	Female	SAE STOR-SAE J1926	Port	3/4-16	Steel	NBR	25
5R-6306	16 - 0.625	Male	SAE STOR-SAE J1926	Port	3/4-16	Steel	NBR	25
5R-5700	20 - 0.75	Female	NPTF-SAE J476/J514	Port	3/4-14	Steel	NBR	25
5R-5701	20 - 0.75	Male	NPTF-SAE J476/J514	Port	3/4-14	Steel	NBR	25
5R-6304	20 - 0.75	Female	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
5R-6305	20 - 0.75	Male	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
173-7639	25 - 1.00	Female	SAE STOR-SAE J1926	Port	1-5/16-12	Steel	NBR	20
173-7638	25 - 1.00	Male	SAE STOR-SAE J1926	Port	1-5/16-12	Steel	NBR	20

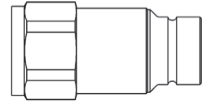
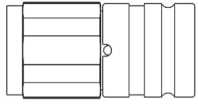
## ISO 7241 Series B Quick Disconnects



Part Number	Coupler Size mm - in	Coupler End Form	Threaded Connection Type	Thread Form	Thread Size	Body Material	Internal Seal Material	Maximum Working Pressure MPa
5R-6303	6.3 - 0.25	Female	NPTF-SAE J476/J514	Port	1/4-18	Brass	NBR	6.8
5R-6398	6.3 - 0.25	Male	NPTF-SAE J476/J514	Port	1/4-18	Brass	NBR	6.8
5R-5560	6.3 - 0.25	Female	NPTF-SAE J476/J514	Port	1/4-18	Steel	NBR	25
5R-5561	6.3 - 0.25	Male	NPTF-SAE J476/J514	Port	1/4-18	Steel	NBR	25
5R-5724	10 - 0.375	Female	NPTF-SAE J476/J514	Port	3/8-18	Brass	NBR	6.8
5R-5725	10 - 0.375	Male	NPTF-SAE J476/J514	Port	3/8-18	Brass	NBR	6.8
5V-8610	12.5 - 0.5	Female	NPTF-SAE J476/J514	Port	1/2-14	Brass	NBR	6.8
6V-7301	25 - 1.0	Male	NPTF-SAE J476/J514	Port	1-11.5	Steel	FKM	10

# Quick Disconnect Hose

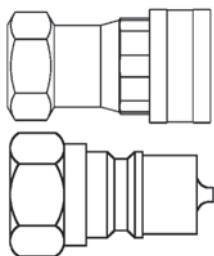
## ISO 16028 Quick Disconnects



Part Number	Coupler Size mm - in	Coupler End Form	Threaded Connection Type	Thread Form	Thread Size	Body Material	Internal Seal Material	Maximum Working Pressure MPa
204-5098	6.3 - 0.25	Female	SAE STOR-SAE J1926	Port	9/16-18	Steel	NBR	31.5
152-8181	6.3 - 0.25	Male	SAE STOR-SAE J1926	Port	9/16-18	Steel	NBR	31.5
426-4049	6.3 - 0.25	Female	ORFS-SAE J1453	Bulkhead Male	11/16-16	Steel	NBR	31.5
426-4048	6.3 - 0.25	Male	ORFS-SAE J1453	Bulkhead Male	11/16-16	Steel	NBR	31.5
153-2997	10 - 0.375	Female	SAE STOR-SAE J1926	Port	3/4-16	Steel	NBR	25
421-6169	10 - 0.375	Male	SAE STOR-SAE J1926	Port	3/4-16	Steel	NBR	25
156-3600	10 - 0.375	Female	SAE STOR-SAE J1926	Male (Stud)	3/4-16	Steel	NBR	25
156-3631	10 - 0.375	Male	SAE STOR-SAE J1926	Male (Stud)	3/4-16	Steel	NBR	25
426-4050	10 - 0.375	Male	ORFS-SAE J1453	Bulkhead Male	13/16-16	Steel	NBR	25
426-4046	12.5 - 0.5	Female	SAE STOR-SAE J1926	Male (Stud)	3/4-16	Steel	NBR	25
426-4044	12.5 - 0.5	Male	SAE STOR-SAE J1926	Male (Stud)	3/4-16	Steel	NBR	25
153-2994	12.5 - 0.5	Female	SAE STOR-SAE J1926	Port	7/8-14	Steel	NBR	25
421-6171	12.5 - 0.5	Male	SAE STOR-SAE J1926	Port	7/8-14	Steel	NBR	25
193-8335	12.5 - 0.5	Female	ORFS-SAE J1453	Bulkhead Male	1-14	Steel	NBR	25
193-8334	12.5 - 0.5	Male	ORFS-SAE J1453	Bulkhead Male	1-14	Steel	NBR	25
195-6525	12.5 - 0.5	Female	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
421-6170	12.5 - 0.5	Male	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
241-6190	12.5 - 0.5	Female	ORFS-SAE J1453	Bulkhead Male	1-7/16-12	Steel	NBR	25
241-6189	12.5 - 0.5	Male	ORFS-SAE J1453	Bulkhead Male	1-7/16-12	Steel	NBR	25
426-4047	16 - 0.625	Female	SAE STOR-SAE J1926	Male (Stud)	7/8-14	Steel	NBR	25
426-4045	16 - 0.625	Male	SAE STOR-SAE J1926	Male (Stud)	7/8-14	Steel	NBR	25
142-8949	16 - 0.625	Female	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
142-8948	16 - 0.625	Male	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
426-4042	19 - 0.75	Female	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
426-4043	19 - 0.75	Male	SAE STOR-SAE J1926	Port	1-1/16-12	Steel	NBR	25
106-0401	19 - 0.75	Female	SAE STOR-SAE J1926	Port	1-5/16-12	Steel	NBR	25
106-0406	19 - 0.75	Male	SAE STOR-SAE J1926	Port	1-5/16-12	Steel	NBR	25
426-4017	25 - 1.00	Female	SAE STOR-SAE J1926	Port	1-5/8-12	Steel	NBR	20
426-4016	25 - 1.00	Male	SAE STOR-SAE J1926	Port	1-5/8-12	Steel	NBR	20

# Quick Disconnect Hose

## ISO 5675 Quick Disconnects



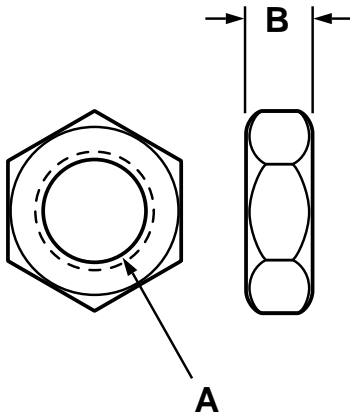
Part Number	Coupler Size mm - in	Coupler End Form	Threaded Connection Type	Thread Form	Thread Size	Body Material	Internal Seal Material	Maximum Working Pressure MPa
149-2847	10 - 0.375	Male	SAE STOR-SAE J1926	Port	9/16-18	Steel	NBR	31.5
9X-2018	12.5 - 0.5	Male	NPTF-SAE J476/J514	Port	1/2-14	Steel	NBR	25
6V-0398	12.5 - 0.5	Female	SAE STOR-SAE J1926	Port	7/8-14	Steel	NBR	25
8R-3303*	12.5 - 0.5	Female	SAE STOR-SAE J1926	Port	7/8-14	Steel	NBR	25
8R-3304*	12.5 - 0.5	Female	SAE STOR-SAE J1926	Port	7/8-14	Steel	NBR	25
159-5898	12.5 - 0.5	Male	SAE STOR-SAE J1926	Port	7/8-14	Steel	NBR	25
005-6985	12.5 - 0.5	Male	SAE STOR-SAE J1926	Port	3/4-16	Steel	NBR	25

\* Part contains a manually operated ball valve.



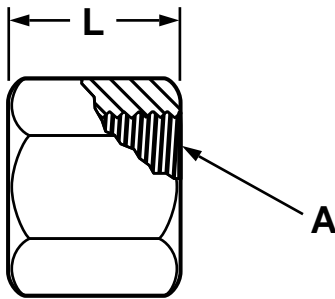
# Swivel and Bulkhead Nuts

## JIC 37° Bulkhead Nuts



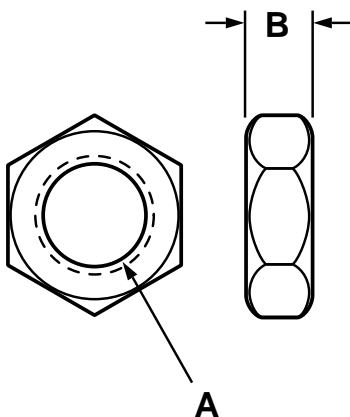
Part Number	THREAD DASH SIZE	THREAD SIZE	NUT THICKNESS (mm - in)
5B-3254	-4	7/16-20	6 - .24
2P-1280	-5	1/2-20	6 - .24
2P-1279	-6	9/16-18	7 - .28
7F-2050	-8	3/4-16	8 - .31
7F-2060	-10	7/8-14	9 - .35
6K-8420	-12	1 1/16-12	10 - .39
2P-1286	-16	1 5/16-12	10 - .39
2V-2043	-20	1 5/8-12	10 - .39

## JIC 37° Swivel Nuts



Part Number	THREAD DASH SIZE	THREAD SIZE	NUT THICKNESS (mm - in)
2P-1308	-3	3/8-24	15 - .59
8L-3161	-4	7/16-20	16 - .63
001-7014	-5	1/2-20	17 - .67
3R-4437	-6	9/16-18	18 - .71
1P-1441	-8	3/4-16	21 - .83
5H-0275	-10	7/8-14	25 - .98
8M-0744	-12	1 1/16-12	26 - 1.02
6S-2898	-14	1 3/16-12	27 - 1.06
1P-0043	-16	1 5/16-12	28 - 1.10
2P-8148	-20	1 5/8-12	31 - 1.22
5P-2454	-24	1 7/8-12	36 - 1.42

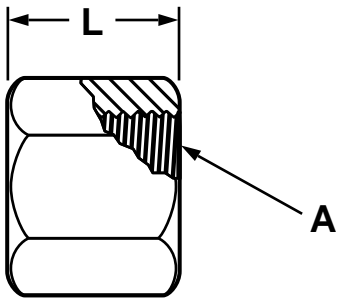
## ORFS Bulkhead



Part Number	THREAD DASH SIZE	THREAD SIZE	NUT THICKNESS (mm - in)
6V-9168	-6	11/16-16	8 - .31
6V-9169	-8	13/16-16	9 - .35
6V-9170	-10	1-14	10 - .39
6V-9172	-16	1 7/16-12	10 - .39
6V-9173	-20	1 11/16-12	10 - .39

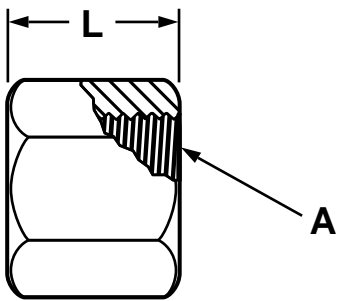
# Swivel and Bulkhead Nuts

## ORFS Swivel Nuts Non-Plated



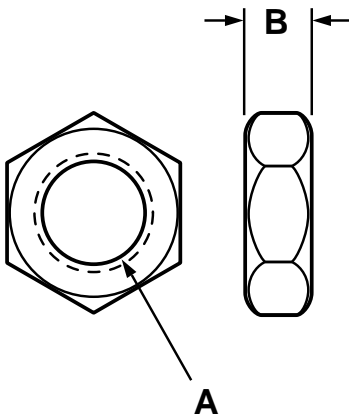
Part Number	THREAD DASH SIZE	THREAD SIZE	NUT THICKNESS (mm - in)
6V-8552	-4	9/16-18	15 - .59
6V-8553	-6	11/16-16	17 - .67
6V-8554	-8	13/16-16	21 - .83
6V-8555	-10	1-14	24 - .94
6V-8556	-12	1 3/16-12	26 - 1.02
6V-8557	-16	1 7/16-12	28 - 1.10
6V-8558	-20	1 11/16-12	28 - 1.10
8T-1681	-24	2-12	28 - 1.10

## ORFS Swivel Nuts Plated



Part Number	THREAD DASH SIZE	THREAD SIZE	NUT THICKNESS (mm - in)
125-2474	-4	9/16-18	15 - .59
9X-6583	-6	11/16-16	17 - .67
9X-6582	-8	13/16-16	21 - .83
9X-6581	-10	1-14	24 - .94
9X-6580	-12	1 3/16-12	26 - 1.02
9X-6579	-16	1 7/16-12	28 - 1.10
9X-6578	-20	1 11/16-12	28 - 1.10
9X-6577	-24	2-12	28 - 1.10

## STOR Bulkhead



Part Number	THREAD DASH SIZE	THREAD SIZE	NUT THICKNESS (mm - in)
9X-6395	-8	3/4-16	10 - .39
9X-6394	-12	1 1/16-12	13 - .51

Protective Caps and Plugs ..... 374  
Metal Caps and Plugs ..... 385

# Protective Caps and Plugs

Thread Dash Size	NPTF Male Pipe	NPTF Female Pipe	NP-SM Female Pipe	Straight Thread O-Ring Boss	JIC 37° Male	JIC 37° Female Swivel	SAE 45° Male	SAE 45° Inverted Male Swivel	SAE 45° Female Swivel	SAE 45° Inverted Female Swivel	SAE Code 61 Flange	SAE Code 62 Flange Caterpillar Flange	ORFS Female Swivel
-2	9U-7069	179-4455			179-4467								
-3					179-4468		179-4434	179-4477	179-4477				
-4	9U-7071	179-4456	179-4435	179-4523	179-4435	179-4436	179-4523	179-4523				179-4524	
-5			179-4437	179-4469	179-4437	179-4437	179-4469	179-4469					
-6	179-4460	179-4457	4C-9521	179-4470	179-4438	179-4438	179-4471	179-4471				179-4525	
-8	179-4461	179-4458	7C-6466	125-1373	7C-6466	6V-1822	125-1373	125-1373	179-4491	179-4445	179-4526		
-10			7C-6465	179-7380	7C-6465	7M-7644	179-7380	179-7380	179-4492		179-4527		
-12	179-4462	179-4459	179-4440	179-4472	179-4440		179-4472	179-4472	243-5685	179-4450	179-4528		
-14			179-4441	179-4474									
-15													
-16	179-4463	7C-7811	179-4442	2P-0470					179-4493	179-4451	179-4529		
-18													
-20	179-4464	9U-7085	179-4443	179-4475					179-4494	179-4452	179-4530		
-22													
-24	179-4465	9U-7088		219-7003					179-4495	179-4453	179-4531		
-26													
-28													
-30													
-32	179-4466	9U-7090		179-4476					179-4496	179-4454			
-34													
-36													
-40									179-4497				
-42													
-45													
-48									179-4498				
-52													

NOTE: The caps and plugs listed above are intended to be used in a protective application only. Do not use these items to plug or cap a pressurized opening of any kind. Using the protective cap or plug to cover a pressurized opening may result in serious injury.

These protective caps and plugs are the best way to prevent contamination from entering the hose assembly. They should not be removed until the hose assembly has been routed and ready for final connection.

# Protective Caps and Plugs

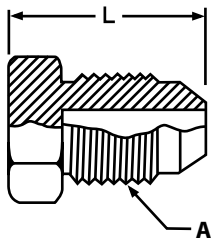
Thread Dash Size	Metric Standpipe	Metric 24° Cone Male-Heavy Duty	Metric 24° Cone Male-Light Duty	Metric Female Swivel-Spherical Seat - Heavy Duty	Metric Female Swivel-Spherical Seat - Light Duty	Metric Female Swivel-Spherical Seat W/ O-Ring - Heavy Duty	Metric Female Swivel-Spherical Seat W/ O-Ring - Light Duty	JIS 60° Cone Male	BSPP 60° Cone Male	JIS-BSP 60° Female Swivel	French GAZ Male	French GAZ Female Swivel	French Metric Female Swivel	JIS-BSPT Tapered
-2														9U-7067
-3														
-4						9U-7071	179-4431							9U-7069
-5														
-6	179-4512					179-4460	179-4432							9U-7072
-8	179-4513					179-4461	179-4433							9U-7075
-10	179-4514					179-4440	179-4523							
-12	179-4515	9U-7146		179-4483	179-4462	179-4522						179-4483	9U-7078	
-14		9U-7147	179-4484	179-4484								179-4484		
-15	179-4516													
-16		9U-7148	9U-7139	9U-7139	179-4463	179-4521							9U-7139	9U-7082
-18	179-4517	9U-7149	179-4485	179-4485									179-4485	
-20		9U-7150	9U-7141		9U-7087	179-4490	9U-7150	9U-7141	9U-7141	9U-7141	9U-7141	9U-7141	9U-7085	
-22	179-4518	9U-7151	179-4486	179-4486									179-4486	
-24		9U-7152	9U-7143			179-7382	9U-7152	9U-7143						
-26		9U-7153		9U-7144										
-28	179-4519													
-30		179-4444	179-7381	179-7381				179-4444	179-7381					
-32														
-34														
-36		179-4509	179-4448	179-4448				179-4446	179-4448					
-40														
-42		179-4510	179-4490	179-4490										
-45		179-4489						179-4489	179-4508					
-48														
-52		179-4511	179-4447											

NOTE: The caps and plugs listed above are intended to be used in a protective application only. Do not use these items to plug or cap a pressurized opening of any kind. Using the protective cap or plug to cover a pressurized opening may result in serious injury.

These protective caps and plugs are the best way to prevent contamination from entering the hose assembly. They should not be removed until the hose assembly has been routed and ready for final connection.

# Protective Caps and Plugs

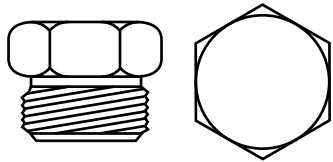
## JIC 37° Plugs



Part Number	Thread Dash Size (A)	Thread Size (A) (in - TPI)	L Length (In)
9S-5518	-4	7/16 - 20	0.79
5P-4996	-5	1/2 - 20	0.79
9S-8927	-6	9/16 - 18	0.83
5P-2909	-8	3/4 - 16	0.94
2P-9697	-10	7/8 - 14	1.10
9S-8895	-12	1 1/16 - 12	1.26
5P-4299	-14	1 3/16 - 12	1.30
5P-2299	-16	1 5/16 - 12	1.34

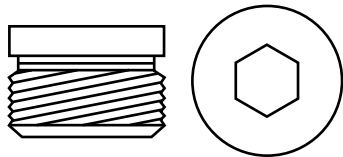
Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

## Heavy Duty Straight Thread O-Ring - Hex Head Plugs



Part Number	Thread Size (in - TPI)	O-Ring Seal
360-3688	5/16-24	4J-7533
360-3689	3/8-24	7J-0204
360-3690	7/16-20	3J-7354
360-3691	1/2-20	1J-9671
360-3692	9/16-18	3J-1907
360-3693	3/4-16	3K-0360
360-3694	7/8-14	2M-9780
360-3695	1-1/16-12	3D-2824
360-3696	1-3/16-12	4K-1388
360-3697	1-5/16-12	7M-8485
360-3698	1-5/8-12	2S-4078
360-3699	1-7/8-12	6K-6307
360-3700	2-1/2-12	030-4606

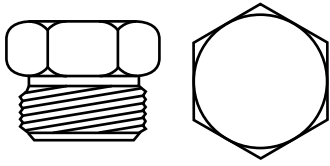
## Heavy Duty Straight Thread O-Ring - Allen Drive Plugs



Part Number	Thread Size (in - TPI)	O-Ring Seal
360-3675	5/16-24	4J-7533
360-3676	3/8-24	7J-0204
360-3677	7/16-20	3J-7354
360-3678	1/2-20	1J-9671
360-3679	9/16-18	3J-1907
360-3680	3/4-16	3K-0360
360-3681	7/8-14	2M-9780
360-3682	1-1/16-12	3D-2824
360-3683	1-3/16-12	4K-1388
360-3684	1-5/16-12	7M-8485
360-3685	1-5/8-12	2S-4078
360-3686	1-7/8-12	6K-6307
360-3687	2-1/2-12	030-4606

# Protective Caps and Plugs

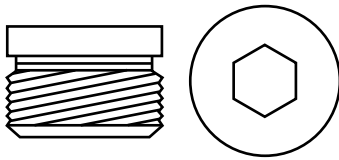
## Straight Thread O-Ring - Hex Head Plugs



Part Number	Thread Size (in - TPI)	O-Ring Seal
9S-4180	5/16 - 24	4J-7533
9S-4181	1 5/16 - 12	7M-8485
9S-4183	1 1/16 - 12	3D-2824
9S-4188	1 3/16 - 12	4K-1388
9S-6130	1 5/8 - 12	2S-4078
9S-7583	2 1/2 - 12	030-4606
1N-5998	1 7/8 - 12	6K-6307
1N-5999	3/8 - 24	7J-0204
3K-8460	1/2 - 20	1J-9671
9S-4190	7/8 - 14	2M-9780
9S-4185	3/4 - 16	3K-0360
9S-4191	9/16 - 18	3J-1907
9S-4182	7/16 - 20	3J-7354

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

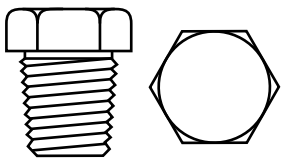
## Straight Thread O-Ring - Allen Drive Plugs



Part Number	Thread Size (in - TPI)	O-Ring Seal
5P-7684	1 7/8 - 12	6K-6307
9S-8001	5/16 - 24	4J-7533
9S-8002	7/16 - 20	3J-7354
9S-8003	1/2 - 20	1J-9671
9S-8004	9/16 - 18	3J-1907
9S-8005	3/4 - 16	3K-0360
9S-8008	1 1/16 - 12	3D-2824
9S-8006	7/8 - 14	2M-9780
9S-8009	1 3/16 - 12	4K-1388
9S-8010	1 5/8 - 12	2S-4078
9S-9334	1 5/16 - 12	7M-8485
9S-8007	3/8 - 24	7J-0204

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

## Pipe - Hex Head Plugs

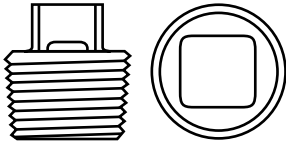


Part Number	Thread Size (in - TPI)
090-9019	1 - 11 1/2
2S-7905	1/16 - 27
3M-7045	3/4 - 14
4J-4382	1/2 - 14
5M-6214	1/8 - 27
3J-5390	3/8 - 18
5M-6213	1/4 - 18

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

# Protective Caps and Plugs

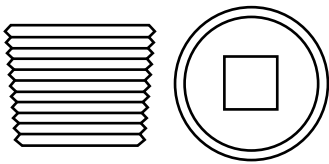
## Pipe - Square Head Plugs



Part Number	Thread Size (in - TPI)
068-0710	1 1/4 - 11 1/2
2B-7408	1/8 - 27
2B-7409	1/4 - 18
2B-7457	3/8 - 18
5P-3320	3/4 - 14
5B-9169	1/2 - 14
7L-2505	1 - 11 1/2
4B-8586	2 - 11 1/2

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

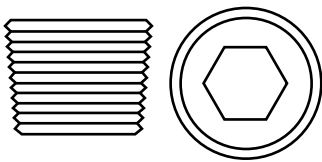
## Pipe - Square Drive Plugs



Part Number	Thread Size (in - TPI)
1B-5170	1 1/4 - 11 1/2
2B-0858	1/2 - 14
4B-4845	3/8 - 18
6V-1897	2 - 11 1/2
6V-3280	2 1/2 - 8
7B-9665	1 1/2 - 11 1/2
1B-5174	3/4 - 14
3B-0551	1 - 11 1/2
7F-9504	1/4 - 18
6V-3257	3 1/2 - 8

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

## Pipe - Allen Drive Plugs



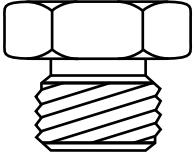
Part Number	Thread Size (in - TPI)
2R-5657	1 - 11 1/2
7H-3171	1/4 - 18
7M-7410	3/8 - 18
9F-2247	1/8 - 27
4D-0514	1/16 - 27
3L-1850	1/2 - 14

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage



# Protective Caps and Plugs

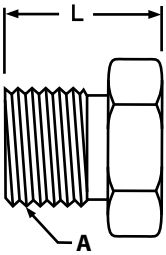
## JIS - BSPP Shipping Plugs



Part Number	JIS-BSPP Thread Size (in - TPI)
093-1321	1/4 - 19
096-6073	3/8 - 19
093-1323	3/4 - 14
096-3829	1 - 11
093-1322	1/2 - 14

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

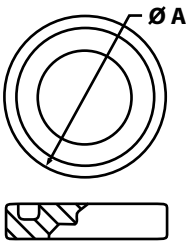
## Metric Plugs



Part Number	Thread Size	Light Duty Tube O.D. (mm)	Heavy Duty Tube O.D. (mm)	L Length (In) (mm)
2Y-6462	M14 x 1.5	8	6	0.63 in, 16 mm
8C-4424	M22 x 1.5	14	14	1.06 in, 27 mm
9T-6322	M14 x 1.5	8	6	0.87 in, 22 mm
2Y-5841	M16 x 1.5	10	8	0.63 in, 16 mm
2Y-6461	M16 x 1.5	10	8	0.71 in, 18 mm

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

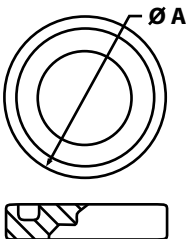
## SAE Code 61 Flange Port Cover



Part Number	Head Size (A) (in)	Flange (mm)
5H-4017	1.19	30.2
5H-4018	1.50	38.1
5H-4019	1.75	44.5
5H-4020	2.00	50.8
2J-2668	2.38	60.3
2J-5608	2.81	71.4

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

## Cat Flange Port Cover

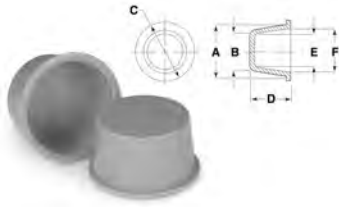


Part Number	Head Size (A) (in)	Flange (mm)
5P-0045	1.25	31.8
5P-0046	1.63	41.3
5P-0047	1.88	47.6
5P-0048	2.12	54.0
5P-0049	2.50	63.5
5P-0050	3.13	79.4

Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage

# Protective Caps and Plugs

## Tapered Dual-Function Caps and Plugs



- The tapered design allows the part to plug multiple inner diameters or cap multiple outside diameters
- Protects against damage, dirt, moisture and corrosion during storage and shipping
- Material: Low-Density Polyethylene
- Color: Blue
- Applicable Spec: NAS 834 (supersedes MIL-C-5501/7, MIL-C-52078)
- Tapered Dual-Function Caps and Plugs

To assure a proper fit, dimension "E" should be approximately .020 in smaller than the opening diameter of the part to be protected, or dimension "A" should be approximately .020 in larger than the opening diameter of the part to be protected.

Part Number	Package Quantity	Length (A)		Length (B)		Length (C)		Length (D)		Length (E)	Length(F)
		(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(in)
9U-7090	50	2.26	57	2.23	57	2.50	64	0.50	13	2.17	2.20
9U-7091	50	2.47	63	2.30	58	2.63	67	1.00	25	2.24	2.40
9U-7067	250	0.40	10	0.33	8	0.56	14	0.38	10	0.27	0.33
9U-7068	250	0.43	11	0.36	9	0.59	15	0.38	10	0.30	0.37
9U-7069	250	0.49	12	0.42	11	0.59	15	0.38	10	0.36	0.42
9U-7070	250	0.55	14	0.49	12	0.72	18	0.50	13	0.41	0.49
9U-7071	250	0.62	16	0.53	13	0.75	19	0.50	13	0.47	0.55
9U-7073	250	0.73	18	0.64	16	0.88	22	0.50	13	0.58	0.67
9U-7074	250	0.75	19	0.67	17	0.88	22	0.63	16	0.62	0.69
9U-7075	250	0.79	20	0.69	18	0.94	24	0.63	16	0.63	0.72
9U-7076	250	0.85	22	0.75	19	1.03	26	0.63	16	0.69	0.79
9U-7077	250	0.91	23	0.80	20	1.09	28	0.75	19	0.74	0.85
9U-7078	250	0.98	25	0.87	22	1.11	28	0.63	16	0.81	0.92
9U-7079	250	1.04	26	0.90	23	1.16	29	0.75	19	0.83	0.98
9U-7080	250	1.09	28	0.97	25	1.25	32	0.75	19	0.90	1.03
9U-7081	250	1.15	29	1.00	25	1.31	33	0.75	19	0.94	1.08
9U-7082	250	1.23	31	1.11	28	1.52	39	0.75	19	1.04	1.18
9U-7085	250	1.60	41	1.45	37	1.75	44	0.75	19	1.39	1.54
9U-7087	100	1.68	43	1.56	40	1.88	48	0.75	19	1.50	1.62
9U-7088	100	1.88	48	1.75	44	2.03	52	0.75	19	1.69	1.82
9U-7089	100	1.94	49	1.81	46	2.13	54	1.00	25	1.75	1.88
276-0748	250	0.67	17	0.58	15	0.87	22	0.53	13	0.52	0.60
276-0749	250	0.69	18	0.61	15	0.84	21	0.50	13	0.54	0.63
276-0750	250	0.93	24	0.82	21	1.12	29	0.62	15	0.75	0.86
276-0751	250	1.35	34	1.22	31	1.50	38	0.75	19	1.16	1.29
276-0752	250	1.45	40	1.29	33	1.62	41	1.00	25	1.22	1.39
276-0753	250	1.46	37	1.31	33	1.62	41	0.75	19	1.24	1.40
276-0754	100	1.75	44	1.60	41	1.93	49	0.75	19	1.56	1.68
276-0755	100	2.02	51	1.84	47	2.12	54	1.00	25	1.78	1.93
276-0756	100	2.16	55	1.98	50	2.25	57	1.00	25	1.91	2.11
276-0757	100	2.25	57	2.06	52	2.43	62	1.03	26	2.00	2.17
276-0731	250	0.18	5	0.11	3	0.31	8	0.40	10	0.05	0.11
276-0740	250	0.24	6	0.17	4	0.37	10	0.37	10	0.10	0.17
276-0741	250	0.27	7	0.20	5	0.43	11	0.37	10	0.15	0.20
276-0742	250	0.30	8	0.24	6	0.46	12	0.37	10	0.17	0.24
276-0743	250	0.33	9	0.26	7	0.46	12	0.37	10	0.20	0.27
276-0744	250	0.36	9	0.30	8	0.53	13	0.37	10	0.23	0.30

# Protective Caps and Plugs

## Tapered Dual-Function Caps and Plugs (Cont'd.)

Part Number	Package Quantity	Length (A)		Length (B)		Length (C)		Length (D)		Length (E)	Length(F)
		(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(in)
276-0745	250	0.46	12	0.39	10	0.62	16	0.37	10	0.32	0.39
276-0746	250	0.51	13	0.44	11	0.62	16	0.40	10	0.38	0.44
9U-7072	250	0.63	16	0.55	14	0.78	20	0.50	13	0.49	0.57
9U-7084	250	1.35	34	1.24	31	1.50	38	0.75	19	1.17	1.30
9U-7086	100	1.60	41	1.52	39	1.75	44	0.75	19	1.46	1.54
276-0758	50	2.60	66	2.39	61	2.62	67	1.00	25	2.33	2.54
276-0759	50	2.69	68	2.56	65	2.87	73	0.75	19	2.50	2.62
6V-7494	50	3.00	76	2.74	70	3.13	79	1.00	25	2.68	2.94
276-0760	50	3.24	82	2.98	76	3.37	86	1.00	25	2.90	3.16
9U-7095	50	3.58	91	3.24	82	3.94	100	1.00	25	3.16	3.49
276-0761	50	3.75	95	3.55	90	4.00	102	1.00	25	3.47	3.67
9U-7096	50	4.46	113	4.22	107	5.00	127	1.00	25	4.14	4.38
6V-7496	50	4.62	117	4.37	111	5.00	127	1.00	25	4.29	4.50
276-0747	250	0.56	14	0.50	13	0.75	19	0.43	11	0.43	0.50
7E-8716	250	1.29	33	1.18	30	1.44	37	0.75	19	1.11	1.22
9U-7092	50	2.79	71	2.65	67	3.00	76	0.50	13	2.58	2.73
9U-7094	50	3.45	88	3.32	84	3.63	92	0.50	13	3.24	3.37
276-0762	50	3.92	100	3.80	97	4.12	105	0.68	17	3.71	3.84

# Protective Caps and Plugs

## Straight Cap



Part Number	Package Quantity	Material*	Length (A)		Length (B)		Length (C)		Length (D)		Length (E)
			(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
217-1591	50	1	1.25	31.65	0.67	17	1	25.22	1.06	26.82	0.05

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

## Non-threaded Caps

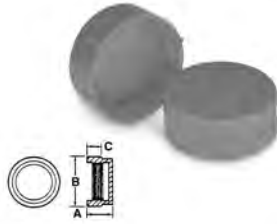


Part Number	Package Quantity	Material*	Diameter (A) (in)	Length (B)	
				(in)	(mm)
9U-7166	250	1	0.13	0.63	16
9U-7167	250	1	0.25	0.88	22
9U-7168	250	1	0.30	0.88	22
9U-7170	250	1	0.44	0.88	22
9U-7171	250	1	0.50	0.88	22
9U-7174	100	1	0.69	0.88	22
9U-7175	100	1	0.75	0.88	22
9U-7176	100	1	0.81	0.88	22
9U-7177	100	1	0.88	0.88	22
9U-7178	100	1	1.00	0.75	19
9U-7180	100	1	1.19	1.00	25
9U-7183	100	1	1.38	0.88	22
9U-7184	100	1	1.44	0.88	22
9U-7185	100	1	1.50	0.88	22
9U-7191	100	1	2.13	0.88	22
9U-7181	100	1	1.25	0.88	22
9U-7169	250	1	0.38	0.88	22
9U-7172	250	1	0.56	0.88	22
9U-7173	250	1	0.63	0.88	22
9U-7179	100	1	1.06	0.88	22
9U-7182	100	1	1.31	0.88	22
9U-7188	100	1	1.75	0.88	22
9U-7187	100	1	1.69	0.88	22
9U-7189	100	1	1.88	0.88	22
9U-7190	100	1	2.00	0.88	22
9U-7193	100	1	2.50	0.88	22
9U-7194	50	1	3.13	1.38	35
9U-7186	100	1	1.63	1.00	25
9U-7192	100	1	2.38	0.88	22

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

# Protective Caps and Plugs

## Metric Threaded Cap Protectors



Part Number	Package Quantity	Material*	Diameter x Pitch	Length (A)		Length (B)		Length (C)	
				(in)	(mm)	(in)	(mm)	(in)	(mm)
9U-7145	100	2	M10 x 1.0	0.39	10	0.54	14	0.29	8
9U-7146	100	2	M12 x 1.5	0.47	12	0.62	16	0.37	10
9U-7149	100	2	M18 x 1.5	0.55	14	0.85	22	0.45	12
9U-7150	100	2	M20 x 1.5	0.55	14	0.92	24	0.37	10
9U-7151	50	2	M22 x 1.5	0.54	14	1.02	26	0.45	12
9U-7152	50	2	M24 x 1.5	0.55	14	1.14	29	0.45	12
9U-7153	50	2	M26 x 1.5	0.55	14	1.18	30	0.45	12
9U-7148	100	2	M16 x 1.5	0.47	12	0.78	20	0.37	10
9U-7147	100	2	M14 x 1.5	0.47	12	0.70	18	0.37	10

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

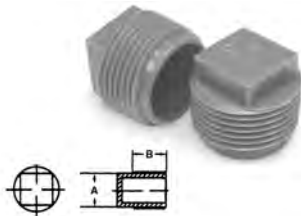
## Metric Threaded Plug Protectors



Part Number	Package Quantity	Material*	Diameter x Pitch	Length (A)		Length (B)		Length (C)	
				(in)	(mm)	(in)	(mm)	(in)	(mm)
9U-7136	100	2	M10 x 1.0	0.57	15	0.60	15	0.41	10
9U-7137	100	2	M12 x 1.0	0.66	17	0.73	19	0.42	11
9U-7140	50	2	M18 x 1.5	0.72	18	0.96	24	0.54	14
9U-7141	50	2	M20 x 1.5	0.72	18	1.04	26	0.55	14
9U-7142	50	2	M22 x 1.5	0.72	18	1.11	28	0.54	14
9U-7143	50	2	M24 x 1.5	0.73	19	1.23	31	0.54	14
9U-7144	50	2	M26 x 1.5	0.73	19	1.46	37	0.54	14
9U-7138	50	2	M14 x 1.5	0.68	17	0.73	19	0.37	10
9U-7139	50	2	M16 x 1.5	0.68	17	0.87	22	0.50	13

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

## Plug Protectors for NPT Thread - Square Head

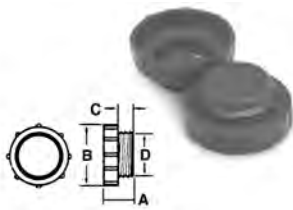


Part Number	Package Quantity	Material*	Thread Size (in - TPI)	Length (A)		Length (B)	
				(in)	(mm)	(in)	(mm)
9U-7098	250	3	1/8 - 27	0.28	7	0.38	10
9U-7099	250	3	1/4 - 18	0.38	10	0.44	11
9U-7101	250	3	1/2 - 14	0.56	14	0.56	14
9U-7100	250	3	3/8 - 18	0.44	11	0.50	13
9U-7102	100	3	3/4 - 14	0.69	17	0.63	16

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

# Protective Caps and Plugs

## Plug Protectors for NPT Thread - Knurled Head



Part Number	Package Quantity	Material*	Thread Size (in - TPI)	Length (A)		Length (B)		Length (C)		Length (D)	
				(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
9U-7103	100	3	1 - 11 1/2	0.50	13	1.57	40	0.25	6	1.18	30

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

## Tear Cap Protectors for Standard Thread



Part Number	Package Quantity	Material*	Thread Size (in - TPI)	JIC/SAE Fitting	Length (A)		Length (B)	
					(in)	(mm)	(in)	(mm)
9U-7122	250	1	9/16 - 18	6-TS	0.48	12	0.55	14
9U-7123	250	1	11/16 - 16	7-TS	0.48	12	0.67	17
9U-7125	250	1	13/16 - 16	9-TS	0.56	14	0.80	20
9U-7128	250	1	11/16 - 12	12-TS	0.75	19	1.05	27
9U-7120	250	1	7/16 - 20	4-TS	0.46	12	0.43	11
9U-7131	100	1	1 7/16 - 12	17-TS	0.75	19	1.43	36
9U-7121	250	1	1/2 - 20	5-TS	0.46	12	0.49	12
9U-7124	250	1	3/4 - 16	8-TS	0.56	14	0.74	19
9U-7126	250	1	7/8 - 14	10-TS	0.65	17	0.87	22
9U-7127	250	1	1 - 14	11-TS	0.65	17	0.99	25
9U-7129	250	1	13/16 - 12	13-TS	0.75	19	1.17	30
9U-7132	100	1	1 5/8 - 12	20-TS	0.83	21	1.62	41
9U-7133	100	1	1 11/16 - 12	21-TS	0.83	21	1.67	42
9U-7134	100	1	1 7/8 - 12	24-TS	0.95	24	1.87	48
9U-7135	50	1	2 1/2 - 12	32-TS	1.20	30	2.49	63
9U-7130	100	1	15/16 - 12	16-TS	0.75	19	1.30	33

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

## WEO Plug-In Female Stop Cap

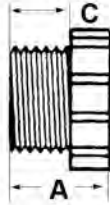
Part Number	Head Dash Size	Material
576-6123	-6	Steel
576-6124	-8	Steel
576-6125	-12	Steel

## WEO Plug-In Male Stop Plug

Part Number	Head Dash Size	Material
576-6126	-6	Steel
576-6127	-8	Steel
576-6128	-12	Steel

# Metal Caps and Plugs

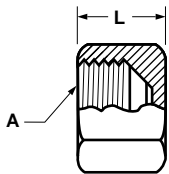
## British Thread - BSP-GAS Plug Protectors



Part Number	Package Quantity	Material*	Thread Size (in - TPI)	Length (A)		Length (B)		Length (C)	
				(in)	(mm)	(in)	(mm)	(in)	(mm)
9U-7195	100	2	1/8 - 28	0.41	11	0.65	16	0.16	4
9U-7197	100	2	3/8 - 19	0.47	12	0.90	23	0.27	6
9U-7200	50	2	3/4 - 14	0.67	17	1.27	32	0.43	11
9U-7196	100	2	1/4 - 19	0.50	13	0.74	19	0.26	7
9U-7198	100	2	1/2 - 14	0.68	17	1.10	28	0.41	10
9U-7199	50	2	5/8 - 14	0.72	18	1.23	31	0.51	13
9U-7201	50	2	7/8 - 14	0.71	18	1.50	38	0.53	14
9U-7202	50	2	1 - 11	0.66	17	1.57	40	0.42	11

\* 1 - Grade 1 Virgin Polyethylene    2 - Low Density Polyethylene    3 - High Density Polyethylene

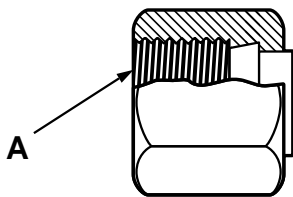
## JIC 37° Cap



Part Number	Thread Dash Size	Thread Size	Length
9L-8493	-4	7/16 - 20	0.59 in, 15.0 mm
5P-0405	-5	1/2 - 20	0.63 in, 16.0 mm
8S-4950	-6	9/16 - 18	0.63 in, 16.0 mm
8S-4951	-8	3/4 - 16	0.75 in, 19.0 mm
6J-7366	-10	7/8 - 14	0.83 in, 21.0 mm
9S-8896	-12	1 1/16 - 12	0.91 in, 23.0 mm
8L-9137	-14	1 3/16 - 12	0.98 in, 25.0 mm
3R-6789	-16	1 5/16 - 12	1.02 in, 26.0 mm
8T-1458	-20	1 5/8 - 12	1.22 in, 31.0 mm

Note: The caps and plugs listed above are composed of metal and may be used in a pressure sealing application. Using these metal caps and plugs will seal an opening port in order to contain fluids and prevent contamination while a hose assembly is being serviced.

## ORFS Cap



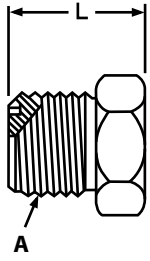
Part Number	Thread Dash Size	Thread Size
6V-9828	-4	9/16 - 18
6V-9829	-6	11/16 - 16
6V-9830	-8	13/16 - 16
6V-9831	-10	1 - 14
6V-9832	-12	1 3/16 - 12
6V-9833	-16	1 7/16 - 12
6V-9834	-20	1 11/16 - 12

Note: The caps and plugs listed above are composed of metal and may be used in a pressure sealing application. Using these metal caps and plugs will seal an opening port in order to contain fluids and prevent contamination while a hose assembly is being serviced.

# Metal Caps and Plugs

## ORFS Plugs

- Used to help protect against damage, dirt and moisture contamination, and corrosion during shipping and storage



Part Number	Thread Dash Size (A)	Thread Size (A) (in - TPI)	L Length
6V-9507	-4	9/16 - 18	0.67 in, 17 mm
6V-9508	-6	11/16 - 16	0.75 in, 19 mm
6V-9509	-8	13/16 - 16	0.87 in, 22 mm
6V-9510	-10	1 - 14	1.02 in, 26 mm
6V-9511	-12	1 3/16 - 12	1.06 in, 27 mm
6V-9512	-16	1 7/16 - 12	1.10 in, 28 mm
6V-9513	-20	1 11/16 - 12	1.10 in, 28 mm
231-3942	-24	2-12	1.10 in, 28 mm



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# Seal Application Chart

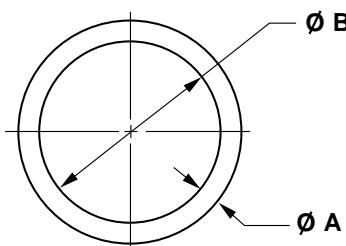
## Application Chart

Material Type	Typical Duro A Hardness <sup>(1)</sup>	Operating Temperature Range <sup>(2)</sup>	Air	Engine Oils	Diesel Fuel	Coolant	Hydraulic Oil / Automatic Transmission Fluid	Biodiesel
Nitrile (NBR)	75, 90	-40°C to 100°C (-40°F to 212°F)	✓	✓	✓	✓	✓	
HNBR	78, 90	-40°C to 115°C (-40°F to 239°F)	✓	✓	✓	✓ <sup>(3)</sup>	✓	✓
EPDM	70	-55°C to 121°C (-67°F to 250°F)	✓			✓		
Silicone	70	-55°C to 150°C (-67°F to 302°F)	✓	✓				
Fluoroelastomer (FKM)	75, 90	-40°C to 175°C (-40°F to 347°F)	✓	✓	✓		✓	✓

Nitrile	<p>This material has good abrasion and cut resistance.</p> <p><b>Compatible With:</b><sup>(3)</sup> air, ethylene glycol, petroleum based fluids (e.g. engine oil, hydraulic oil), diesel fuel, silicone fluids, greases, water, water based coolants, urea, transmission fluids</p> <p><b>Not Compatible With:</b> brake fluids, high levels of ozone, biodiesel fuel</p>							
HNBR	<p>HNBR provides excellent abrasion and cut resistance. It works well with Air, Engine Oil, Diesel Fuel, Hydraulic Oil and Automatic Transmission Fluid applications.</p> <p><b>Compatible With:</b> diesel fuels, petroleum based fluids (e.g. engine oil, hydraulic oil), greases, transmission fluids, silicone fluids, steam, water based coolants<sup>(3)</sup>, urea<sup>(3)</sup></p> <p><b>Not Compatible With:</b> brake fluids, chlorinated hydrocarbons</p>							
EPDM	<p>This material has good abrasion and cut resistance.</p> <p><b>Compatible With:</b> water, water based coolants, urea, alcohols, silicone fluids, steam (200°C max), air, ozone</p> <p><b>Not Compatible With:</b> petroleum based fluids (e.g. engine oil, hydraulic oil), hydrocarbons (e.g. diesel fuel, biodiesel fuel), transmission fluids, brake fluids</p>							
Silicone	<p>This material performs well in a wide range of temperatures - from extremely low to very high. It has limited strength and abrasion/cut resistance. Recommended for low pressure applications.</p> <p><b>Compatible With:</b> air, ethylene glycol, high aniline point oil<sup>(3)</sup>, ozone</p> <p><b>Not Compatible With:</b> organic solvents, petroleum based fluids (e.g. engine oil, hydraulic oil), hydrocarbons (e.g. diesel fuel, biodiesel fuel), low aniline point oil, steam, hot water, water based coolants, transmission fluids, urea</p>							
FKM	<p>This material provides superior performance in most applications, and is highly resistant to compression set. It is effective at high temperatures, and has good abrasion and cut resistance.</p> <p><b>Compatible With:</b> petroleum based fluids (e.g. engine oil, hydraulic oil), hydrocarbons (e.g. diesel fuel, biodiesel fuel), silicone fluids, air</p> <p><b>Not Compatible With:</b> amines, brake fluids, water based coolants, fire resistant fluids, steam, water</p>							

- 1 Material hardness can vary depending on the part number. Typically 75A materials are for applications where pressure < 1500 psi and 90A materials are for applications where pressure is >1500 psi.
- 2 Temperature limits are general and can vary by specific material. Repeated or constant exposure to temperatures higher than the normal operating range can drastically reduce seal life, resulting in premature leakage.
- 3 Compatibility is dependent on the specific type of material. Contact dealer support for additional information.

## SAE Straight Thread O-Ring Boss O-Ring Seals

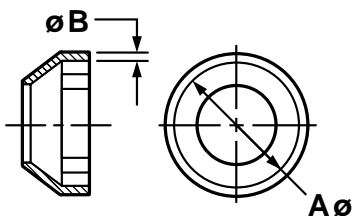


Dash Size	Thread Size	NITRILE	FKM	EPDM	Seal Thickness	Seal Inside Diameter
-2	5/16 - 24	4J-7533	238-5078	8T-9587	0.06 in, 1.63 mm	0.24 in, 6.07 mm
-3	3/8 - 24	7J-0204	238-5079	8K-0001	0.06 in, 1.63 mm	0.30 in, 7.65 mm
-4	7/16 - 20	3J-7354	214-7566	6V-9027	0.07 in, 1.83 mm	0.35 in, 8.92 mm
-5	1/2 - 20	1J-9671	214-7567	291-8144	0.07 in, 1.83 mm	0.41 in, 10.52 mm
-6	9/16 - 18	3J-1907	214-7568	6V-3250	0.08 in, 1.98 mm	0.47 in, 11.89 mm
-8	3/4 - 16	3K-0360	238-5080	6V-6609	0.09 in, 2.21 mm	0.64 in, 16.36 mm
-10	7/8 - 14	2M-9780	238-5081	6V-3251	0.10 in, 2.46 mm	0.76 in, 19.18 mm
-12	1-1/16 - 12	3D-2824	238-5082	6V-5063	0.12 in, 2.95 mm	0.92 in, 23.47 mm
-14	1-3/16 - 12	4K-1388	238-5083	291-8145	0.12 in, 2.95 mm	1.05 in, 26.62 mm
-16	1-5/16 - 12	7M-8485	238-5084	6V-5064	0.12 in, 2.95 mm	1.17 in, 29.74 mm
-20	1-5/8 - 12	2S-4078	228-7096	6V-5065	0.12 in, 3.00 mm	1.48 in, 37.47 mm
-24	1-7/8 - 12	6K-6307	238-5086	8C-0562	0.12 in, 3.00 mm	1.72 in, 43.69 mm
-32	2-1/2 - 12	030-4606	228-7097	-	0.12 in, 3.00 mm	2.34 in, 59.36 mm

## Metric Straight Thread O-ring Seals (Stor)

Thread Size	NITRILE	FKM	EPDM	Seal Thickness	Seal Inside Diameter
M8 x 1	-	228-7099	-	0.06 in, 1.5 mm	0.24 in, 6.2 mm
M10 x 1	8T-7876	8C-3076	262-9990	0.06 in, 1.5 mm	0.32 in, 8.2 mm
M12 x 1.5	6V-9028	228-7100	219-0669	0.08 in, 2.1 mm	0.37 in, 9.4 mm
M14 x 1.5	6V-6560	228-7101	216-8579	0.08 in, 2.1 mm	0.45 in, 11.4 mm
M16 x 1.5	8T-6850	228-7102	291-8174	0.08 in, 2.1 mm	0.53 in, 13.4 mm
M18 x 1.5	8T-7524	228-7103	199-9751	0.08 in, 2.1 mm	0.61 in, 15.4 mm
M20 x 1.5	8T-7877	228-7104	-	0.08 in, 2.1 mm	0.69 in, 17.4 mm
M22 x 1.5	6V-7970	228-7105	216-7485	0.08 in, 2.1 mm	0.76 in, 19.4 mm
M27 x 2	8T-7525	228-7106	216-8578	0.11 in, 2.8 mm	0.93 in, 23.7 mm
M33 x 2	8T-7526	215-4639	216-8580	0.11 in, 2.8 mm	1.17 in, 29.7 mm
M42 x 2	8C-5193	228-7108	-	0.11 in, 2.8 mm	1.52 in, 38.7 mm
M48 x 2	291-8177	216-9642	-	0.11 in, 2.8 mm	1.76 in, 44.7 mm
M60 x 2	291-8178	209-5798	294-9065	0.11 in, 2.8 mm	2.23 in, 56.7 mm

## JIC 37° Copper Seals

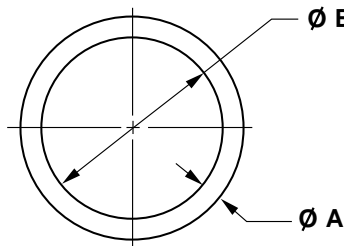


Part Number	Thread Size	Thread Dash Size	Seal O.D.	Seal Thickness
6V-7333	9/16 - 18	-6	0.48 in, 12.2 mm	0.01 in, 0.13 mm
6V-7332	3/4 - 16	-8	0.65 in, 16.5 mm	0.01 in, 0.25 mm
6V-7331	7/8 - 14	-10	0.78 in, 19.8 mm	0.01 in, 0.25 mm
6V-7330	1 1/16 - 12	-12	0.94 in, 23.9 mm	0.01 in, 0.25 mm
6V-7329	1 5/16 - 12	-16	1.19 in, 30.2 mm	0.01 in, 0.25 mm
6V-7328	1 5/8 - 12	-20	1.50 in, 38.1 mm	0.01 in, 0.25 mm
6V-7327	1 7/8 - 12	-24	1.75 in, 44.5 mm	0.01 in, 0.25 mm

NOTE: Copper seals are available for use in stopping leaks on 37° JIC fittings. The seal fits over the 37° tapered seat of the fitting body and interfaces with the mating 37° tube Flare. The copper seal provides a soft malleable material between the two surfaces that deforms under compression - filling scratches, nicks and other surface imperfections which can allow leaks.

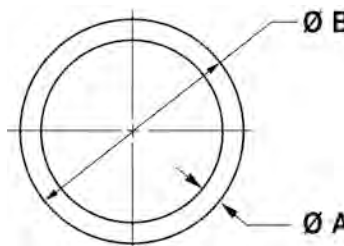
# Seals

## Code 61 Flange O-Ring Seals



Flange Dash Size	NITRILE	FKM	Seal Thickness	Seal Inside Diameter
-8	4J-5140	189-0193	0.14 in, 3.53 mm	0.73 in, 18.64 mm
-12	4J-5267	109-3205	0.14 in, 3.53 mm	0.98 in, 24.99 mm
-16	4J-0520	170-5715	0.14 in, 3.53 mm	1.30 in, 32.92 mm
-20	4J-0522	190-7673	0.14 in, 3.53 mm	1.48 in, 37.69 mm
-24	4J-0524	234-3544	0.14 in, 3.53 mm	1.86 in, 47.22 mm
-32	4J-0527	6V-4590	0.14 in, 3.53 mm	2.23 in, 56.74 mm
-40	6J-2680	8T-0568	0.14 in, 3.53 mm	2.73 in, 69.44 mm
-48	117-1266	-	0.14 in, 3.53 mm	3.36 in, 85.32 mm
-56	9X-4611	5W-5480	0.14 in, 3.53 mm	3.86 in, 98.02 mm
-64	3E-6703	-	0.14 in, 3.53 mm	4.36 in, 110.72 mm
-80	316-2517	-	0.14 in, 3.53 mm	5.36 in, 136.12 mm

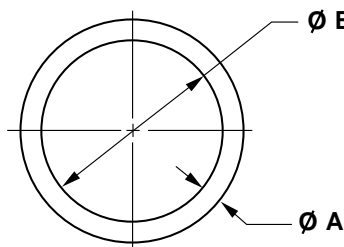
## Cat Flange D-Ring Seals



Flange Dash Size	Head Size	NITRILE	FKM	Seal Thickness	Seal Outside Diameter
-8	1.25 in, 31.8 mm	1P-3700	235-2472	0.19 in, 4.95 mm	1.02 in, 25.83 mm
-12	1.63 in, 41.30 mm	1P-3702	235-2473	0.19 in, 4.95 mm	1.27 in, 32.23 mm
-16	1.88 in, 47.65 mm	1P-3703	235-2474	0.19 in, 4.95 mm	1.52 in, 38.66 mm
-20	2.13 in, 54.00 mm	1P-3704	235-2475	0.19 in, 4.95 mm	1.77 in, 45.00 mm
-24	2.50 in, 63.50 mm	1P-3705	235-2476	0.19 in, 4.95 mm	2.03 in, 51.50 mm
-32	3.13 in, 79.40 mm	1P-3709	235-2480	0.19 in, 4.95 mm	2.78 in, 70.70 mm

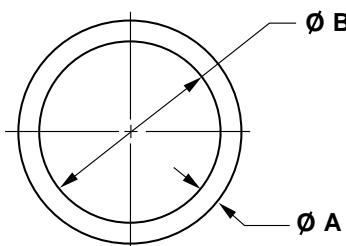
NOTE: For use with Cat Flange Head Couplings only.

## O-Ring Face Seal (ORFS)



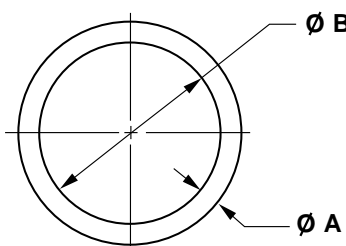
Thread Size	NITRILE	FKM	EPDM	Seal Thickness	Seal Outside Diameter
9/16 – 18	4J-5477	228-7088	121-4345	0.07 in, 1.78 mm	0.44 in, 11.23 mm
11/16 – 16	6V-8397	228-7089	6D-7128	0.07 in, 1.78 mm	0.51 in, 12.83 mm
13/16 – 16	6V-8398	228-7090	180-8424	0.07 in, 1.78 mm	0.63 in, 16.03 mm
1 – 14	7J-9108	228-7091	6V-5138	0.07 in, 1.78 mm	0.76 in, 19.28 mm
1-3/16 – 12	6V-9746	228-7092	294-9072	0.07 in, 1.78 mm	0.89 in, 22.5 mm
1-7/16 – 12	5K-9090	228-7093	-	0.07 in, 1.78 mm	1.07 in, 27.22 mm
1-11/16 – 12	6V-8400	228-7094	-	0.07 in, 1.78 mm	1.32 in, 33.57 mm
2 – 12	8T-0315	228-7095	294-9075	0.07 in, 1.78 mm	1.64 in, 41.54 mm

## O-Rings for ISO Metric - Light Series



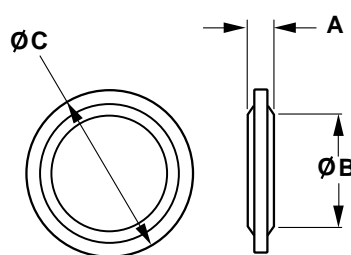
Thread Size	Part Number	Seal Thickness	Seal Inside Diameter
M12 x 1.5	3E-4288	0.06 in, 1.5 mm	0.18 in, 4.5 mm
M14 x 1.5	3E-4289	0.06 in, 1.5 mm	0.26 in, 6.5 mm
M16 x 1.5	-	-	-
M18 x 1.5	8U-0599	0.06 in, 1.5 mm	0.41 in, 10.5 mm
M22 x 1.5	-	-	-
M26 x 1.5	490-8643	0.08 in, 2.0 mm	0.63 in, 16.0 mm
M30 x 2	3E-6761	0.08 in, 2.0 mm	0.79 in, 20.0 mm
M36 x 2	092-2304	0.08 in, 2.0 mm	1.02 in, 26.0 mm
M45 x 2	9X-7447	0.10 in, 2.5 mm	1.26 in, 32.0 mm
M52 x 2	-	-	-

## O-Rings for ISO Metric - Heavy Series



Thread Size	Part Number	Seal Thickness	Seal Inside Diameter
M14 x 1.5	3E-4288	0.06 in, 1.5 mm	0.18 in, 4.5 mm
M16 x 1.5	3E-4289	0.06 in, 1.5 mm	0.26 in, 6.5 mm
M18 x 1.5	-	-	-
M20 x 1.5	8U-0599	0.06 in, 1.5 mm	0.41 in, 10.5 mm
M22 x 1.5	3E-4298	0.08 in, 2.0 mm	0.47 in, 12.0 mm
M24 x 1.5	5W-1749	0.08 in, 2.0 mm	0.55 in, 14.0 mm
M30 x 2	484-7653	0.10 in, 2.5 mm	0.67 in, 17.0 mm
M36 X 2	-	-	-
M42 x 2	490-8667	0.10 in, 2.5 mm	1.06 in, 27.0 mm
M52 x 2	-	-	-

## British Standard Pipe Parallel (BSPP) Dowty Port Seals

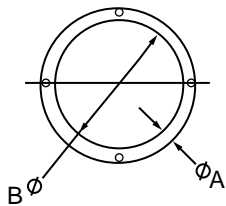


Part Number	Thread Size	Thread Dash Size	Seal Thickness	Seal I.D.	Seal O.D.
6V-0404	1/8 - 28	-2	0.11 in, 2.8 mm	0.41 in, 10.3 mm	0.63 in, 15.9 mm
6V-0405	1/4 - 19	-4	0.11 in, 2.8 mm	0.54 in, 13.7 mm	0.81 in, 20.6 mm
6V-0406	3/8 - 19	-6	0.11 in, 2.8 mm	0.68 in, 17.3 mm	0.94 in, 23.9 mm
6V-0407	1/2 - 14	-8	0.13 in, 3.2 mm	0.85 in, 21.5 mm	1.13 in, 28.6 mm
8C-6504	5/8 - 14	-10	0.13 in, 3.2 mm	0.93 in, 23.5 mm	1.25 in, 31.8 mm
6V-0408	3/4 - 14	-12	0.13 in, 3.2 mm	1.06 in, 27.0 mm	1.38 in, 35.0 mm
6V-0409	1 - 11	-16	0.16 in, 4.1 mm	1.33 in, 33.9 mm	1.69 in, 42.9 mm
9X-7423	1 1/4 - 11	-20	0.16 in, 4.1 mm	1.69 in, 42.9 mm	2.06 in, 52.4 mm
8T-1568	1 1/2 - 11	-24	0.16 in, 4.1 mm	1.91 in, 48.4 mm	2.31 in, 58.7 mm

Seal is required with a port connection only. No seal is required with a BSPP Female Swivel 60° Cone or Spherical Seat.

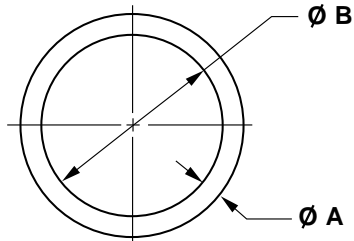
# Seals

## 20° Tapered Face Seals



Part Number	Thread Size	Thread Dash Size	Seal Thickness	Seal I.D.
4I-8888	1 - 14	-10	0.08 in, 2.0 mm	0.62 in, 15.8 mm
4I-8889	1 3/16 - 12	-12	0.08 in, 2.0 mm	0.78 in, 19.8 mm
4I-8891	1 7/16 - 12	-16	0.08 in, 2.0 mm	0.98 in, 24.8 mm

## A/C O-Ring Seals



Part Number	Seal Thickness	Seal Outside Diameter
9X-7380	0.07 in, 1.78 mm	0.30 in, 7.65 mm
9X-7381	0.07 in, 1.78 mm	0.43 in, 10.82 mm
9X-7382	0.07 in, 1.78 mm	0.55 in, 14.00 mm
9X-7383	0.07 in, 1.78 mm	0.68 in, 17.17 mm
9X-7384	0.07 in, 1.78 mm	1.05 in, 26.70 mm

## WEO Plug-In Dust Seal-O-Ring

Part Number	Thread Dash Size	Seal Thickness	Seal I.D.
519-9199	-6	0.06 in, 1.5 mm	0.39 in, 10.0 mm
5D-0834	-8	0.06 in, 1.6 mm	0.50 in, 12.7 mm
8U-5951	-12	0.08 in, 2.0 mm	0.75 in, 19.0 mm

## WEO Plug-In Release Ring

Part Number	Dash Size	Seal Thickness	Seal I.D.
502-2492	-6	0.13 in, 3.2 mm	0.43 in, 11.0 mm
502-2493	-8	0.13 in, 3.2 mm	0.55 in, 14.0 mm
502-2494	-12	0.14 in, 3.6 mm	0.83 in, 21.0 mm

## WEO Plug-In Clip

Part Number	Dash Size	Clip Thickness	Clip I.D.	Clip Height
502-2489	-6	0.15 in, 3.7 mm	0.43 in, 11.0 mm	0.94 in, 24.0 mm
502-2490	-8	0.14 in, 3.6 mm	0.55 in, 14.0 mm	1.10 in, 28.0 mm
502-2491	-12	0.18 in, 4.0 mm	0.83 in, 21.0 mm	1.38 in, 35.0 mm

## O-Ring Seal Kit 270-1528



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
20	1J-9671	Seal-O-Ring	90A NBR
20	2M-9780	Seal-O-Ring-Stor	90A NBR
20	2S-4078	Seal-O-Ring	90A NBR
20	3D-2824	Seal-O-Ring-Stor	90A NBR
20	3J-1907	Seal-O-Ring-Stor	90A NBR
20	3J-7354	Seal-O-Ring-Stor	90A NBR
20	3K-0360	Seal-O-Ring-Stor	90A NBR
15	4J-0519	Seal-O-Ring	90A NBR
15	4J-0520	Seal-O-Ring	90A NBR
15	4J-0521	Seal-O-Ring	90A NBR
15	4J-0522	Seal-O-Ring	90A NBR
15	4J-0523	Seal-O-Ring	90A NBR
15	4J-0524	Seal-O-Ring	90A NBR
10	4J-0525	Seal-O-Ring	90A NBR
10	4J-0526	Seal-O-Ring	90A NBR
10	4J-0527	Seal-O-Ring	90A NBR
20	4J-5140	Seal-O-Ring	90A NBR

Quantity	O-ring Part Number	Name	Material
20	4J-5267	Seal-O-Ring	90A NBR
20	4J-5477	Seal-O-Ring-ORFS	90A NBR
20	4J-7533	Seal-O-Ring-Stor	90A NBR
20	4K-1388	Seal-O-Ring-Stor	90A NBR
20	5K-9090	Seal-O-Ring-ORFS	90A NBR
20	6K-6307	Seal-O-Ring	90A NBR
20	6V-8397	Seal-O-Ring-ORFS	90A NBR
20	6V-8398	Seal-O-Ring-ORFS	90A NBR
20	6V-8400	Seal-O-Ring-ORFS	90A NBR
20	6V-9746	Seal-O-Ring-ORFS	90A NBR
20	7J-0204	Seal-O-Ring	90A NBR
20	7J-9108	Seal-O-Ring-ORFS	90A NBR
20	7M-8485	Seal-O-Ring-Stor	90A NBR
20	8T-0315	Seal-O-Ring-ORFS	90A NBR
10	030-4606	Seal-O-Ring	90A NBR
1	276-9576	Box-Utility	-

<sup>1</sup> (Part of 8S-9967) Recommended spare parts

# Seal Kits

## O-Ring Seal Kit 270-1533



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
5	1S-0004	Seal-O-Ring	70A VMQ
5	2S-2251	Seal-O-Ring	70A VMQ
3	6L-1651	Seal-O-Ring	70A VMQ
5	8M-4389	Seal-O Ring	70A VMQ
3	8M-4390	Seal-O-Ring	70A VMQ
5	8M-4432	Seal-O-Ring	70A VMQ
5	8M-4435	Seal-O-Ring	70A VMQ
3	8M-4436	Seal-O-Ring	70A VMQ
10	8M-4437	Seal-O-Ring	70A VMQ
5	8M-4438	Seal-O Ring	70A VMQ
3	8M-4443	Seal-O-Ring	70A VMQ
5	8M-4445	Seal-O Ring	70A VMQ
5	8M-4446	Seal-O Ring	70A VMQ
10	8M-4986	Seal-O-Ring	70A VMQ
10	8M-4987	Seal-O-Ring	70A VMQ
5	8M-4988	Seal-O Ring	70A VMQ
3	8M-4990	Seal-O-Ring	70A VMQ

Quantity	O-ring Part Number	Name	Material
3	8M-4991	Seal-O-Ring	70A VMQ
3	8M-4992	Seal-O Ring	70A VMQ
3	8M-5010	Seal-O Ring	70A VMQ
5	8M-5248	Seal-O-Ring	70A VMQ
5	8M-5249	Seal-O-Ring	70A VMQ
3	8M-5252	Seal-O Ring	70A VMQ
5	8M-5254	Seal-O-Ring	70A VMQ
3	8M-5661	Seal-O-Ring	70A VMQ
5	8M-8157	Seal-O-Ring	70A VMQ
3	8M-8283	Seal-O Ring	70A VMQ
5	8M-8515	Seal-O Ring	70A VMQ
5	9H-6067	Seal-O-Ring	70A VMQ
5	9M-4849	Seal-O-Ring	70A VMQ
3	9M-7002	Seal-O-Ring	70A VMQ
3	9M-9647	Seal-O-Ring	70A VMQ
1	276-9576	Box-Utility	-



## O-Ring Seal Kit 270-1535



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
10	1P-3700	Seal-Rectangular	90A NBR
10	1P-3702	Seal-Rectangular	90A NBR
10	1P-3703	Seal-Rectangular	90A NBR
10	1P-3704	Seal-Rectangular	90A NBR
10	1P-3705	Seal-Rectangular	90A NBR

Quantity	O-ring Part Number	Name	Material
10	1P-3706	Seal-Rectangular	90A NBR
10	1P-3707	Seal-Rectangular	90A NBR
5	1P-3708	Seal-Rectangular	90A NBR
5	1P-3709	Seal-Rectangular	90A NBR
1	276-9578	Box-Utility	-

<sup>1</sup> Not available for individual sale

## O-Ring Seal Kit 270-1537



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
15	6V-6560	Seal-O-Ring	90A NBR
10	6V-7970	Seal-O-Ring	90A NBR
15	6V-9028	Seal-O-Ring	90A NBR
15	8T-6850	Seal-O-Ring	90A NBR
15	8T-7524	Seal-O-Ring-Stor	90A NBR
10	8T-7525	Seal-O-Ring	90A NBR

Quantity	O-ring Part Number	Name	Material
5	8T-7526	Seal-O-Ring	90A NBR
15	8T-7876	Seal-O-Ring	90A NBR
15	8T-7877	Seal-O-Ring	90A NBR
10	8T-787	Seal-O Ring	90A NBR
1	276-9578	Box-Utility	-

<sup>1</sup> Not available for individual sale

# Seal Kits

## O-Ring Seal Kit 270-1539



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
20	4J-5477	Seal-O-Ring-ORFS	90A NBR
10	5K-9090	Seal-O-Ring-ORFS	90A NBR
20	6V-8397	Seal-O-Ring-ORFS	90A NBR
20	6V-8398	Seal-O-Ring-ORFS	90A NBR
10	6V-8400	Seal-O-Ring-ORFS	90A NBR

Quantity	O-ring Part Number	Name	Material
10	6V-9746	Seal-O-Ring-ORFS	90A NBR
20	7J-9108	Seal-O-Ring-ORFS	90A NBR
10	8T-0315	Seal-O-Ring-ORFS	90A NBR
1	276-9578	Box-Utility	-

<sup>1</sup> Part of 9U-6253 Removal Shaft Assembly and part of 9U-6254 Installation Shaft Assembly (both assemblies are part of 9U-6250 Pump Tool)

<sup>2</sup> Not available for individual sale

## O-Ring Seal Kit 270-1540



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
15	9X-7378	Seal-O-Ring	78A HNBR
15	9X-7379	Seal-O-Ring	78A HNBR
15	9X-7380	Seal-O-Ring	78A HNBR
15	9X-7381	Seal-O-Ring	78A HNBR
15	9X-7382	Seal-O-Ring	78A HNBR
10	9X-7383	Seal-O-Ring	78A HNBR
10	9X-7384	Seal-O-Ring	78A HNBR

Quantity	O-ring Part Number	Name	Material
15	9X-7385	Seal-O-Ring	78A HNBR
10	121-7136	Seal-O-Ring	80A NBR
10	121-7137	Seal-O-Ring	78A HNBR
10	121-7138	Seal-O-Ring	No Info
10	229-4896	Seal-O-Ring	78A HNBR
1	276-9578	Box-Utility	-

<sup>1</sup> Not available for individual sale

## O-Ring Seal Kit 270-1545



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
10	4J-0520	Seal-O-Ring	90A NBR
10	4J-0522	Seal-O-Ring	90A NBR
10	4J-0524	Seal-O-Ring	90A NBR
10	4J-0527	Seal-O-Ring	90A NBR

Quantity	O-ring Part Number	Name	Material
10	4J-5140	Seal-O-Ring	90A NBR
10	4J-5267	Seal-O-Ring	90A NBR
1	276-9578	Box-Utility	-

<sup>1</sup> Not available for individual sale

## O-Ring Seal Kit 271-0459



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
5	228-7088	Seal-O-Ring-ORFS	90A FKM
5	228-7089	Seal-O-Ring-ORFS	90A FKM
5	228-7090	Seal-O-Ring-ORFS	90A FKM
5	228-7091	Seal-O-Ring-ORFS	90A FKM
5	228-7092	Seal-O-Ring-ORFS	90A FKM

Quantity	O-ring Part Number	Name	Material
5	228-7093	Seal-O-Ring-ORFS	90A FKM
5	228-7094	Seal-O-Ring-ORFS	90A FKM
5	228-7095	Seal-O-Ring-ORFS	90A FKM
1	276-9578	Box-Utility	-

<sup>1</sup> Not available for individual sale

# Seal Kits

## O-Ring Seal Kit 271-0460



- Include frequently used o-ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Quantity	O-ring Part Number	Name	Material
5	214-7566	Seal-O-Ring-Stor	90A FKM
5	214-7567	Seal-O-Ring-Stor	90A FKM
5	214-7568	Seal-O-Ring-Stor	90A FKM
5	228-7096	Seal-O-Ring-Stor	90A FKM
5	228-7097	Seal-O-Ring-Stor	90A FKM
5	238-5078	Seal-O-Ring-Stor	90A FKM
5	238-5079	Seal-O-Ring-Stor	90A FKM

Quantity	O-ring Part Number	Name	Material
5	238-5080	Seal-O-Ring-Stor	90A FKM
5	238-5081	Seal-O-Ring-Stor	90A FKM
5	238-5082	Seal-O-Ring-Stor	90A FKM
5	238-5083	Seal-O-Ring-Stor	90A FKM
5	238-5084	Seal-O-Ring-Stor	90A FKM
5	238-5086	Seal-O-Ring-Stor	90A FKM
1	276-9578	Box-Utility	-

<sup>1</sup> Not available for individual sale

## Flanges - Hardware

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Split Flanges and Hardware .....	400
Pre-Install Flanges .....	405
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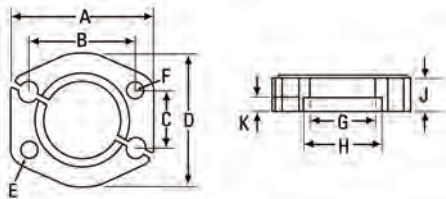
# Split Flanges and Hardware

## Code 61 Split Flanges & Hardware (for Inch Bolts)

Head Size	Flange Dash Size	Split Flange	Bolt	Bolt Size Dia-TPI x LG.	Flat Hard Washer	Washer Size OD x ID x THK (in)
1.19 in, 30.2 mm	-8	1P-4574	-	-	-	-
1.34 in, 34.0 mm	-10	1P-4575	-	-	-	-
1.50 in, 38.1 mm	-12	1P-4576	5S-7382	3/8-16 x 1.38	8T-4896	.728 x .402 x .098
1.75 in, 44.5 mm	-16	1P-4577	5S-7382	3/8-16 x 1.38	8T-4896	.728 x .402 x .098
2.00 in, 50.8 mm	-20	1P-4578	8T-8916	7/16-14 x 1.50	8T-5360	.886 x .472 x .098
2.37 in, 60.3 mm	-24	1P-4579	-	-	-	-
2.81 in, 71.4 mm	-32	1P-4582	-	-	-	-
3.31 in, 84.1 mm	-40	1P-4584	-	-	-	-
4.00 in, 101.6 mm	-48	1P-4585	-	-	-	-
4.50 in, 114.3 mm	-56	1P-7016	-	-	-	-
5.00 in, 127 mm	-64	1P-7017	-	-	-	-

## Code 61 Split Flanges (for Inch Bolts)

Dimensions in mm and inch



Part Number	Head Size	Flange Dash Size	A	B	C	D	E	F	G	H	J	K
1P-4574	1.19 in, 30.2 mm	-8	2.12 in, 53.8 mm	1.50 in, 38.1 mm	0.69 in, 17.5 mm	1.81 in, 46.0 mm	0.33 in, 8.3 mm	0.31 in, 7.9 mm	0.97 in, 24.6 mm	1.22 in, 31.0 mm	0.63 in, 16.0 mm	0.24 in, 6.1 mm
1P-4575	1.34 in, 34.0 mm	-10	2.37 in, 60.3 mm	1.69 in, 42.9 mm	0.78 in, 19.8 mm	1.94 in, 49.2 mm	0.34 in, 8.7 mm	0.31 in, 7.9 mm	1.13 in, 28.6 mm	1.37 in, 34.9 mm	0.66 in, 16.7 mm	0.24 in, 6.2 mm
1P-4576	1.50 in, 38.1 mm	-12	2.56 in, 64.9 mm	1.87 in, 47.6 mm	0.87 in, 22.2 mm	2.05 in, 52.0 mm	0.41 in, 10.3 mm	0.34 in, 8.6 mm	1.28 in, 32.5 mm	1.53 in, 38.9 mm	0.70 in, 17.7 mm	0.24 in, 6.2 mm
1P-4577	1.75 in, 44.5 mm	-16	2.74 in, 69.6 mm	2.06 in, 52.4 mm	1.03 in, 26.2 mm	2.32 in, 59.0 mm	0.41 in, 10.3 mm	0.34 in, 8.6 mm	1.53 in, 38.9 mm	1.78 in, 45.2 mm	0.70 in, 17.7 mm	0.30 in, 7.5 mm
1P-4578	2.00 in, 50.8 mm	-20	3.13 in, 79.5 mm	2.31 in, 58.7 mm	1.19 in, 30.2 mm	2.88 in, 73.2 mm	0.47 in, 11.9 mm	0.41 in, 10.4 mm	1.73 in, 44.0 mm	2.03 in, 51.6 mm	0.70 in, 17.7 mm	0.30 in, 7.5 mm
1P-4579	2.37 in, 60.3 mm	-24	3.69 in, 93.7 mm	2.75 in, 69.9 mm	1.41 in, 35.7 mm	3.23 in, 82.0 mm	0.53 in, 13.5 mm	0.47 in, 11.9 mm	2.02 in, 51.2 mm	2.41 in, 61.1 mm	0.76 in, 19.3 mm	0.29 in, 7.3 mm
1P-4582	2.81 in, 71.4 mm	-32	4.00 in, 101.7 mm	3.06 in, 77.8 mm	1.69 in, 42.9 mm	3.82 in, 97.0 mm	0.53 in, 13.5 mm	0.47 in, 11.9 mm	2.48 in, 63.1 mm	2.84 in, 72.2 mm	0.76 in, 19.3 mm	0.35 in, 8.8 mm

<sup>1</sup> E = Hole Diameter

<sup>2</sup> F = Radius

# Split Flanges and Hardware

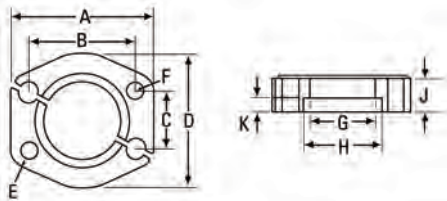
## Code 61 Split Flanges & Hardware (for Metric Bolts)

Flanges and Hardware for use with Bolts with metric threads

Head Size	Flange Dash Size	Split Flange	Bolt	Bolt Size DIA x Pitch x LG.	Flat Hard Washer	Washer Size OD x ID x THK (mm)
1.19 in, 30.2 mm	-8	1P-4574	8T-7547	M8 x 1.25 x 30	8T-4224	16.0 x 8.8 x 2.0
1.34 in, 34.0 mm	-10	1P-4575	8T-7547	M8 x 1.25 x 30	8T-4224	16.0 x 8.8 x 2.0
1.50 in, 38.1 mm	-12	8C-3205	8T-4196	M10 x 1.50 x 35	8T-4121	21.0 x 11.0 x 2.5
1.75 in, 44.5 mm	-16	8C-3206	8T-4196	M10 x 1.50 x 35	8T-4121	21.0 x 11.0 x 2.5
2.00 in, 50.8 mm	-20	6V-0397	8T-4183	M12 x 1.75 x 40	8T-4223	25.5 x 13.5 x 3.0
2.37 in, 60.3 mm	-24	1P-4579	8T-4184	M12 x 1.75 x 45	8T-4223	25.5 x 13.5 x 3.0
2.81 in, 71.4 mm	-32	1P-4582	8T-4184	M12 x 1.75 x 45	8T-4223	25.5 x 13.5 x 3.0

## Code 61 Split Flanges (for Metric Bolts)

Dimensions in mm and inch



Part Number	Head Size	Flange Dash Size	A	B	C	D	E	F	G	H	J	K
1P-4574	1.19 in, 30.2 mm	-8	2.12 in, 53.8 mm	1.50 in, 38.1 mm	0.69 in, 17.5 mm	1.81 in, 46.0 mm	0.33 in, 8.3 mm	0.31 in, 7.9 mm	0.97 in, 24.6 mm	1.22 in, 31.0 mm	0.63 in, 16.0 mm	0.24 in, 6.1 mm
1P-4575	1.34 in, 34.0 mm	-10	2.37 in, 60.3 mm	1.69 in, 42.9 mm	0.78 in, 19.8 mm	1.94 in, 49.2 mm	0.34 in, 8.7 mm	0.31 in, 7.9 mm	1.13 in, 28.6 mm	1.37 in, 34.9 mm	0.66 in, 16.7 mm	0.24 in, 6.2 mm
8C-3205	1.50 in, 38.1 mm	-12	2.56 in, 64.9 mm	1.87 in, 47.6 mm	0.87 in, 22.2 mm	2.05 in, 52.0 mm	0.43 in, 11.0 mm	0.34 in, 8.6 mm	1.28 in, 32.5 mm	1.53 in, 38.9 mm	0.70 in, 17.7 mm	0.24 in, 6.2 mm
8C-3206	1.75 in, 44.5 mm	-16	2.74 in, 69.6 mm	2.06 in, 52.4 mm	1.03 in, 26.2 mm	2.36 in, 60.0 mm	0.43 in, 11.0 mm	0.34 in, 8.6 mm	1.53 in, 38.9 mm	1.78 in, 45.2 mm	0.70 in, 17.7 mm	0.29 in, 7.4 mm
6V-0397	2.00 in, 50.8 mm	-20	3.13 in, 79.5 mm	2.31 in, 58.7 mm	1.19 in, 30.2 mm	2.88 in, 73.2 mm	0.51 in, 13.0 mm	0.41 in, 10.4 mm	1.73 in, 44.0 mm	2.03 in, 51.6 mm	0.70 in, 17.7 mm	0.28 in, 7.1 mm
1P-4579	2.37 in, 60.3 mm	-24	3.69 in, 93.7 mm	2.75 in, 69.9 mm	1.41 in, 35.7 mm	3.23 in, 82.0 mm	0.53 in, 13.5 mm	0.47 in, 11.9 mm	2.02 in, 51.2 mm	2.41 in, 61.1 mm	0.76 in, 19.3 mm	0.29 in, 7.3 mm
1P-4582	2.81 in, 71.4 mm	-32	4.00 in, 101.7 mm	3.06 in, 77.8 mm	1.69 in, 42.9 mm	3.82 in, 97.0 mm	0.53 in, 13.5 mm	0.47 in, 11.9 mm	2.48 in, 63.1 mm	2.84 in, 72.2 mm	0.76 in, 19.3 mm	0.35 in, 8.8 mm

<sup>1</sup> E = Diameter

<sup>2</sup> F = Radius

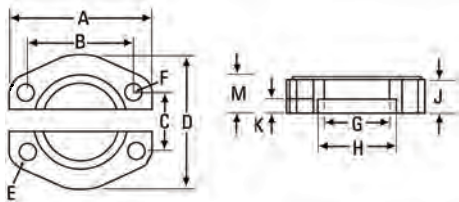
# Split Flanges and Hardware

## Code 62 Split Flanges & Hardware (for Inch Bolts)

Flanges & Hardware for use with Bolts with inch threads

Head Size	Flange Dash Size	Split Flange	Bolt	Bolt Size		Washer Size	
				Dia-TPI x LG.	Flat Hard Washer	D x ID x THK (in)	
1.25 in, 31.8 mm	-8	124-4286	6V-8918	5/16 - 18 x 1.25	8T-4224	.630 x .346 x 0.79	
1.63 in, 41.3 mm	-12	124-4287	4L-9337	3/8 - 16 x 1.50	8T-4896	.728 x .402 x 0.98	
1.87 in, 47.6 mm	-16	124-4288	8C-6877	7/16 - 14 x 1.75	8T-5360	.886 x .472 x 0.98	
2.13 in, 54.0 mm	-20	2T-3001	8T-8919	1/2 - 13 x 1.75	8T-4223	1.004 x .531 x .118	
2.50 in, 63.5 mm	-24	2T-3000	7X-0347	5/8 - 11 x 2.25	8T-4122	1.260 x .669 x .138	
3.13 in, 79.6 mm	-32	124-4289	8C-6857	3/4 - 10 x 2.75	8T-4994	1.438 x .787 x .138	

## Code 62 Split Flanges (for Inch Bolts)



Part Number	Head Size	Flange Dash Size	A	B	C	D	E	F	G	H	J	K	M
124-4287	1.63 in, 41.3 mm	-12	2.81 in, 71.4 mm	2.00 in, 50.8 mm	0.94 in, 24.0 mm	2.36 in, 60.0 mm	0.41 in, 10.3 mm	0.39 in, 10.0 mm	1.28 in, 32.5 mm	1.66 in, 42.1 mm	0.75 in, 19.0 mm	0.33 in, 8.3 mm	1.10 in, 28.0 mm
124-4288	1.87 in, 47.6 mm	-16	3.19 in, 81.0 mm	2.25 in, 57.2 mm	1.17 in, 29.8 mm	2.74 in, 69.6 mm	0.47 in, 11.9 mm	0.47 in, 12.0 mm	1.53 in, 38.9 mm	1.91 in, 48.4 mm	0.94 in, 24.0 mm	0.35 in, 9.0 mm	1.30 in, 33.0 mm
2T-3001	2.13 in, 54.0 mm	-20	3.75 in, 95.2 mm	2.63 in, 66.7 mm	1.21 in, 30.8 mm	3.04 in, 77.2 mm	0.53 in, 13.5 mm	0.55 in, 14.0 mm	1.75 in, 44.5 mm	2.15 in, 54.7 mm	1.06 in, 26.9 mm	0.39 in, 9.8 mm	1.50 in, 38.1 mm
2T-3000	2.50 in, 63.5 mm	-24	4.44 in, 112.8 mm	3.13 in, 79.4 mm	1.44 in, 36.6 mm	3.74 in, 95.0 mm	0.66 in, 16.7 mm	0.67 in, 17.0 mm	2.03 in, 51.6 mm	2.53 in, 64.3 mm	1.18 in, 30.0 mm	0.48 in, 12.1 mm	1.69 in, 43.0 mm
124-4289	3.13 in, 79.6 mm	-32	5.25 in, 133.4 mm	3.81 in, 96.8 mm	1.75 in, 44.4 mm	4.48 in, 113.8 mm	0.78 in, 19.8 mm	0.71 in, 18.0 mm	2.66 in, 67.6 mm	3.16 in, 80.2 mm	1.46 in, 37.0 mm	0.48 in, 12.1 mm	2.05 in, 52.0 mm

Dimensions in mm and inch

<sup>1</sup> NOTE: For use with SAE Code 62 Couplings only

<sup>2</sup> E = Hole Diameter

<sup>3</sup> F = Radius

## Code 62 Split Flanges & Hardware (for Metric Bolts)

Flanges & Hardware for use with Bolts with metric threads

Head Size	Flange Dash Size	Split Flange	Bolt	Bolt Size		Washer Size	
				Dia x Pitch x LG	Flat Hard Washer	OD x ID x Thk (in)	
1.25 in, 31.8 mm	-8	124-4286	8T-7547	M8 x 1.25 x 30	8T-4224	16.0 x 8.8 x 2.0	
1.63 in, 41.3 mm	-12	5W-9857	8T-4196	M10 x 1.50 x 35	8T-4121	21.0 x 11.0 x 2.5	
1.87 in, 47.6 mm	-16	8U-0284	8T-4184	M12 x 1.75 x 45	8T-4223	25.5 x 13.5 x 3.0	
2.13 in, 54.0 mm	-20	131-3025	8T-4184	M12 x 1.75 x 45	8T-4223	25.5 x 13.5 x 3.0	
2.50 in, 63.5 mm	-24	2T-3000	099-0169	M16 x 2.0 x 55	9X-8257	30.0 x 17.5 x 3.5	
3.13 in, 79.6 mm	-32	124-4289	8T-4141	M20 x 2.50 x 70	8T-4123	35.0 x 22.0 x 3.5	



# Split Flanges and Hardware

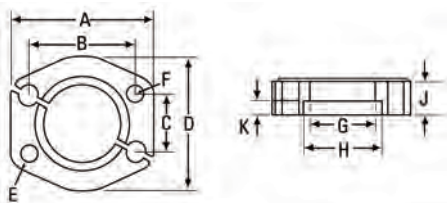
## Cat Flange Split Flanges & Hardware (for Inch Bolts)

Flanges and Hardware for use with Bolts with inch threads

Head Size	Flange Dash Size	Split Flange	Bolt	Bolt Size Dia-TPI x LG.	Flat Hard Washer	Washer Size OD x ID x THK (in)
1.63 in, 41.3 mm	-12	1P-5765	5S-7383	3/8 - 16 x 1.75	8T-4896	.728 x .402 x 0.98
1.87 in, 7.6 mm	-16	1P-5766	8C-6877	7/16 - 14 x 1.75	8T-5360	.886 x .472 x 0.98
2.13 in, 54.0 mm	-20	1P-5767	8T-4835	1/2 - 13 x 2.00	8T-4223	1.004 x .531 x .118
2.50 in, 63.5 mm	-24	5P-8077	8T-6871	5/8 - 11 x 2.50	8T-4122	1.260 x .669 x .138
3.13 in, 79.6 mm	-32	6V-0402	8C-6857	3/4 - 10 x 2.75	8T-4994	1.438 x .787 x .138

## Cat Flange Split Flanges (for Inch Bolts)

Dimensions in mm and inch



Part Number	Head Size	Flange Dash Size	A	B	C	D	E	F	G	H	J	K
1P-5765	1.63 in, 41.3 mm	-12	2.82 in, 71.6 mm	2.00 in, 50.8 mm	0.94 in, 23.8 mm	2.38 in, 60.4 mm	0.41 in, 10.3 mm	0.41 in, 10.4 mm	1.27 in, 32.3 mm	1.63 in, 41.5 mm	1.10 in, 28.0 mm	0.53 in, 13.5 mm
1P-5766	1.87 in, 47.6 mm	-16	3.19 in, 81.0 mm	2.25 in, 57.2 mm	1.09 in, 27.8 mm	2.76 in, 70.0 mm	0.47 in, 11.9 mm	0.47 in, 11.9 mm	1.55 in, 39.4 mm	1.89 in, 47.9 mm	1.10 in, 28.0 mm	0.53 in, 13.5 mm
1P-5767	2.13 in, 54.0 mm	-20	3.75 in, 95.3 mm	2.63 in, 66.7 mm	1.25 in, 31.8 mm	3.07 in, 78.0 mm	0.53 in, 13.5 mm	0.56 in, 14.3 mm	1.70 in, 43.3 mm	2.16 in, 54.8 mm	1.10 in, 28.0 mm	0.53 in, 13.5 mm
5P-8077	2.50 in, 63.5 mm	-24	4.46 in, 113.4 mm	3.13 in, 79.4 mm	1.44 in, 36.5 mm	3.78 in, 96.0 mm	0.66 in, 16.7 mm	0.67 in, 17.0 mm	2.08 in, 52.8 mm	2.51 in, 63.7 mm	1.26 in, 32.0 mm	0.53 in, 13.5 mm
459-0709*	2.50 in, 63.5 mm	-24	4.44 in, 112.8 mm	3.13 in, 79.4 mm	1.44 in, 36.5 mm	3.74 in, 95.0 mm	0.66 in, 16.7 mm	0.67 in, 17.0 mm	2.03 in, 51.6 mm	2.53 in, 64.3 mm	1.26 in, 32.0 mm	0.53 in, 13.5 mm
6V-0402	3.13 in, 79.6 mm	-32	5.24 in, 133.0 mm	3.81 in, 96.8 mm	1.75 in, 44.4 mm	4.49 in, 114.0 mm	0.83 in, 21.0 mm	0.72 in, 18.3 mm	2.64 in, 67.1 mm	3.13 in, 79.6 mm	1.44 in, 36.5 mm	0.53 in, 13.5 mm
459-0710*	3.13 in, 79.6 mm	-32	5.24 in, 133.1 mm	3.81 in, 96.8 mm	1.75 in, 44.5 mm	4.48 in, 113.8 mm	0.83 in, 21.0 mm	0.72 in, 18.3 mm	2.66 in, 67.6 mm	3.16 in, 80.2 mm	1.46 in, 37.0 mm	0.53 in, 13.5 mm

<sup>1</sup> E = Hole Diameter

<sup>2</sup> F = Radius

<sup>3</sup> \* = Not diagonally split for HMS

# Split Flanges and Hardware

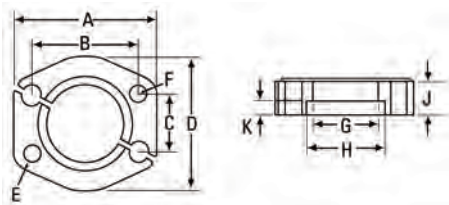
## Cat Flange Split Flanges & Hardware (for Metric Bolts)

Flanges and Hardware for use with Bolts with metric threads

Head Size	Flange Dash Size	Split Flange	Bolt	Bolt Size DIA x Pitch x LG.	Flat Hard Washer	Washer Size OD x ID x THK (mm)
1.63 in, 41.3 mm	-12	8T-9403	8T-4182	M10 x 1.50 x 45	8T-4121	21.0 x 11.0 x 2.5
1.87 in, 47.6 mm	-16	6V-0400	8T-4184	M12 x 1.75 x 45	8T-4223	25.5 x 13.5 x 3.0
2.13 in, 54.0 mm	-20	1P-5767	8T-4194	M12 x 1.75 x 50	8T-4223	25.5 x 13.5 x 3.0
2.50 in, 63.5 mm	-24	5P-8077	8T-4140	M16 x 2.00 x 60	8T-4122	32.0 x 17.0 x 3.5
3.13 in, 79.6 mm	-32	6V-0402	8T-4141	M20 x 2.50 x 70	8T-4994	36.5 x 20.0 x 3.5

## Cat Flange Split Flanges (for Metric Bolts)

Dimensions in mm and inch



Part Number	Head Size	Flange Dash Size	A	B	C	D	E	F	G	H	J	K
8T-9403	1.63 in,	-12	2.82 in,	2.00 in,	0.94 in,	2.36 in,	0.43 in,	0.41 in,	1.27 in,	1.63 in,	1.10 in,	0.53 in,
	41.3 mm		71.6 mm	50.8 mm	23.8 mm	60.0 mm	11.0 mm	10.4 mm	32.3 mm	41.5 mm	28.0 mm	13.5 mm
6V-0400	1.87 in,	-16	3.19 in,	2.25 in,	1.09 in,	2.76 in,	0.51 in,	0.47 in,	1.55 in,	1.89 in,	1.10 in,	0.53 in,
	47.6 mm		81.0 mm	57.2 mm	27.8 mm	70.0 mm	13.0 mm	11.9 mm	39.4 mm	47.9 mm	28.0 mm	13.5 mm
1P-5767	2.13 in,	-20	3.75 in,	2.63 in,	1.25 in,	3.07 in,	0.53 in,	0.56 in,	1.70 in,	2.16 in,	1.10 in,	0.53 in,
	54.0 mm		95.3 mm	66.7 mm	31.8 mm	78.0 mm	13.5 mm	14.3 mm	43.3 mm	54.8 mm	28.0 mm	13.5 mm
235-3570	2.13 in,	-20	3.75 in,	2.63 in,	1.25 in,	3.07 in,	0.59 in,	0.55 in,	1.70 in,	2.16 in,	1.10 in,	0.53 in,
	54.0 mm		95.3 mm	66.7 mm	31.8 mm	78.0 mm	15.0 mm	14.0 mm	43.3 mm	54.8 mm	28.0 mm	13.5 mm
5P-8077	2.50 in,	-24	4.46 in,	3.13 in,	1.44 in,	3.78 in,	0.66 in,	0.67 in,	2.08 in,	2.51 in,	1.26 in,	0.53 in,
	63.5 mm		113.4 mm	79.4 mm	36.5 mm	96.0 mm	16.7 mm	17.0 mm	52.8 mm	63.7 mm	32.0 mm	13.5 mm
459-0709*	2.50 in,	-24	4.44 in,	3.13 in,	1.44 in,	3.74 in,	0.66 in,	0.67 in,	2.03 in,	2.53 in,	1.26 in,	0.53 in,
	63.5 mm		112.8 mm	79.4 mm	36.5 mm	95.0 mm	16.7 mm	17.0 mm	51.6 mm	64.3 mm	32.0 mm	13.5 mm
6V-0402	n/a	-32	5.24 in,	3.81 in,	1.75 in,	4.49 in,	0.83 in,	0.72 in,	2.64 in,	3.13 in,	1.44 in,	0.53 in,
			133.1 mm	96.8 mm	44.5 mm	114.0 mm	21.0 mm	18.3 mm	67.1 mm	79.6 mm	36.5 mm	13.5 mm
459-0710*	3.13 in,	-32	5.24 in,	3.81 in,	1.75 in,	4.48 in,	0.83 in,	0.72 in,	2.66 in,	3.16 in,	1.46 in,	0.53 in,
	79.6 mm		133.1 mm	96.8 mm	44.5 mm	113.8 mm	21.0 mm	18.3 mm	67.6 mm	80.2 mm	37.0 mm	13.5 mm

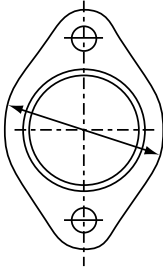
<sup>1</sup> E = Hole Diameter

<sup>2</sup> F = Radius

<sup>3</sup> \* = Not diagonally split for HMS

## 2 Hole Flange (Pre-install)

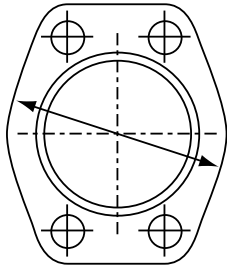
Must be installed on the coupling prior to assembly



Part Number	Used on Couplings
2M-5762	6V-4652, 6V-4659, 6V-4662, 6V-4665, 6V-4669, 6V-4672, 6V-4673, 6V-4676, 6V-4677, 6V-4679
6K-8298	6V-4652, 6V-4659, 6V-4662, 6V-4665, 6V-4669, 6V-4672, 6V-4673, 6V-4676, 6V-4677, 6V-4679
3V-5642	7S-3122, 2P-1313, 1P-7930

## 4 Hole Flange (Pre-install)

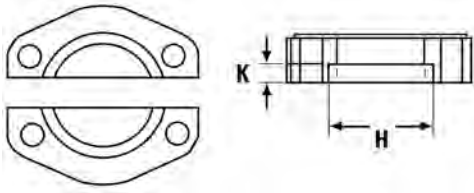
Must be installed on the coupling prior to assembly



Part Number	Used on Couplings
5P-5052	6V-4652, 6V-4659, 6V-4662, 6V-4665, 6V-4669, 6V-4672, 6V-4673, 6V-4676, 6V-4677, 6V-4679

# Thick Flanges

## Thick Flanges



Part Number	Flange Dash Size	Flange Head Size (H) (mm)	Continuous Bore Depth (K) (mm)	Flat Hard Washer
451-0454	12	41.3	13.5	8T-4121
451-0455	16	47.6	13.5	8T-4223
451-0457	20	54.0	13.5	7X-0510
451-0456	24	63.5	13.5	8T-4122
451-0458	32	79.4	13.5	8T-4123

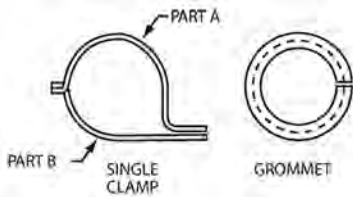
## Hose Accessories

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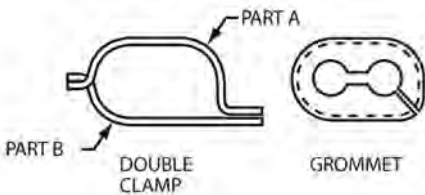
# Hose Clamps Clips and Screw Types

## Single Line Hose Clamps



Grommet I.D.	Grommet Part Number	Clamp Part A Number	Clamp Part B Number	XT-6 ES	XT-6	XT-5	XT-3 ES	1956	716	294	844	1028	2760	556 1130	1543J
0.75 in, 19.0 mm	6V-0683	5P-7462	5P-7463	-6			-6	-6	-8	-6		-8		-8	-10
0.87 in, 22.0 mm	6V-1249	5P-7464	5P-7465	-8	-6		-8	-8	-10	-8				-10	-12
1.18 in, 30.0 mm	5P-8112	5P-7466	5P-7467	-12			-12	-12						-16	
1.06 in, 27.0 mm	6V-4349	5P-7468	5P-7469						-12	-12					-14
0.98 in, 25.0 mm	6V-7359	5P-7464	5P-7465		-8		-10	-10				-12		-12	
0.94 in, 24.0 mm	8T-9518	5P-7468	5P-7469							-10					
1.34 in, 34.0 mm	8T-7087	5P-7468	5P-7469		-12				-16						
1.46 in, 37.0 mm	5P-8444	5P-7468	5P-7469	-16		-16	-16	-16		-16	-16			-20	
1.57 in, 40.0 mm	8T-2525	5P-7468	5P-7469		-16									-24	
1.73 in, 44.0 mm	6V-0545	5P-7468	5P-7469								-20				
1.81 in, 46.0 mm	5P-8182	5P-7470	5P-7471				-20		-20	-20					
1.89 in, 48.0 mm	6V-1875	5P-7470	5P-7471	-20	-20	-20		-20	-24						
2.05 in, 52.0 mm	5P-7703	5P-7470	5P-7471				-24			-24	-24				
2.20 in, 56.0 mm	6V-1574	6V-1572	6V-1573	-24	-24	-24		-24							
2.56 in, 65.0 mm	6V-1869	6V-1867	6V-1868				-32		-32						
1.22 in, 31.0 mm	6V-1874	5P-7468	5P-7469			-12					-12				

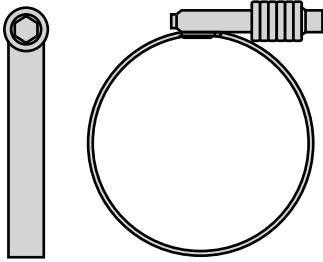
## Double Line Hose Clamps



Grommet I.D.	Part Number	Clamp Part A Number	Clamp Part B Number	XT-6 ES	XT-6	XT-5	XT-3 ES	1956	716	294	844	1028	2760	556, 1130	1543J
0.87 in, 22.0 mm	3G-8047	3G-8057	3G-8054	-8	-8		-8	-8	-10	-10				-10	-12
0.79 in, 20.0 mm	6V-0974	3G-8057	3G-8054		-6		-6	-6	-8	-8		-8			-10
2.20 in, 56.0 mm	6V-1577	6V-1575	6V-1576	-24	-24	-24	-	-24		-	-24				
2.56 in, 65.0 mm	6V-1872	6V-1870	6V-1871				-32		-32						
1.89 in, 48.0 mm	6V-1877	6V-1575	6V-1576	-20	-20	-20		-20	-24		-20				
1.22 in, 31.0 mm	6V-1876	7G-5985	7G-5984			-12					-12				
1.81 in, 46.0 mm	7G-3415	7G-3413	7G-3413				-20			-20					
1.18 in, 30.0 mm	7G-3832	7G-3834	7G-3833	-12			-12	-12						-16	
1.46 in, 37.0 mm	7G-5986	7G-5985	7G-5984	-16		-16	-16	-16		-16	-16			-20	
1.57 in, 40.0 mm	8T-3440	7G-5985	7G-5984		-16				-20					-24	
1.34 in, 34.0 mm	8T-7088	7G-5985	7G-5984	-	-12				-16						
2.05 in, 52.0 mm	6V-1324	7G-3413	7G-3414				-24			-24					
1.02 in, 26.0 mm	8C-3174	7G-3834	7G-3833				-10	-10	-12	-12		-12		-12	-14

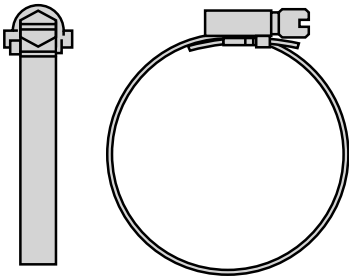
# Hose Clamps Clips and Screw Types

## Screw-Type Hose Clamps - Uniform Load



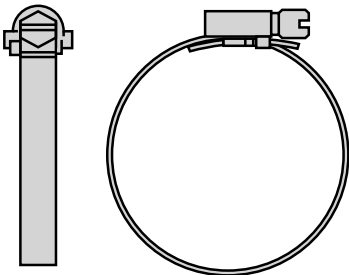
Part Number	MIN. - MAX. (in)	MIN. - MAX. (mm)	Band Thickness (mm)
8T-4983	1 1/4 - 2 1/8	32-54	12.5
8T-6703	1 3/4 - 2 5/8	45-67	12.5
8T-4984	2 1/4 - 3 1/8	57-79	12.5
8T-6675	2 3/4 - 3 5/8	70-92	12.5
8T-4985	3 1/4 - 4 1/8	83-105	12.5
8T-4986	4 1/4 - 5 1/8	108-130	12.5
8T-4987	5 1/4 - 6 1/8	133-156	12.5
8T-4988	6 1/4 - 7 1/8	159-181	12.5
8T-4989	7 1/4 - 8 1/8	184-206	12.5
8T-4990	8 1/4 - 9 1/8	210-232	12.5

## Screw-Type Hose Clamps



Part Number	MIN. - MAX. (in)	MIN. - MAX. (mm)	Band Thickness (mm)
1P-4278	7/32 - 5/8	6-16	12.5
5D-1026	9/16 - 11/16	16-27	12.5
9M-7958	15/16 - 1 3/4	22-45	12.5
9M-0164	1 9/16 - 2 1/2	43-64	12.5
9M-7959	2 9/16 - 3 1/2	65-89	12.5
9M-6738	3 5/16 - 4 1/4	89-108	12.5

## Screw-Type Hose Clamps - Heavy Duty



Part Number	MIN. - MAX. (in)	MIN. - MAX. (mm)	Band Thickness (mm)
5P-2230	1 1/4 - 2	32-54	14.2
5P-0597	1 3/4 - 2 5/8	45-67	14.2
5P-0598	2 1/8 - 4 1/8	54-105	14.2
5P-0599	4 - 6 1/8	133-156	14.2
5P-0600	6 - 9	156-229	14.2

<sup>1</sup> NOTE: Heavy Duty Screw-Type Hose Clamps are made of stainless steel.

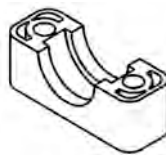
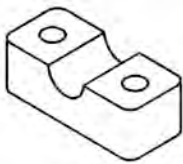
# Hose Clamps Clips and Screw Types

## Stauff Clamps

Hose Type	716			294			4198		
Hose ID	Clamp ID	Clamp or Clamp/Insert Part Number		Clamp ID	Clamp or Clamp/Insert Part Number		Clamp ID	Clamp or Clamp/Insert Part Number	
-4	12.7	491-8031	491-8032	15.0	438-6498		12.7	491-8031	491-8032
-6	16.0	468-9694		17.2	491-8031	468-9702	16.0	468-9694	
-8	19.0	491-8031	520-3708	20.0	468-9679	471-6343	19.0	491-8031	520-3708
-10	24.0	468-9679	471-6342	24.0	468-9679	471-6342	24.0	468-9679	471-6342
-12	26.9	468-9673		26.9	468-9673		26.9	468-9673	
-16	32.0	468-9679	487-0854	35.0	478-0930	468-9710	35.0	478-0930	468-9710
-20	40.0	478-0930	487-0855	45.5	478-0930	503-3024	N/A	N/A	N/A
-24	48.0	478-0930	487-1760	51.0	478-0930	468-9685	N/A	N/A	N/A
-32	60.0	499-6550	468-9686	63.5	499-6550	498-9651	N/A	N/A	N/A

Hose Type	XT3			XT5			XT6		
Hose ID	Clamp ID	Clamp or Clamp/Insert Part Number		Clamp ID	Clamp or Clamp/Insert Part Number		Clamp ID	Clamp or Clamp/Insert Part Number	
-4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
-6	19.0	491-8031	520-3708	N/A	N/A	N/A	19.0	491-8031	520-3708
-8	24.0	468-9679	471-6342	N/A	N/A	N/A	24.0	468-9679	471-6342
-10	25.0	468-9679	468-9682	N/A	N/A	N/A	25.0	468-9679	468-9682
-12	28.0	468-9679	491-1363	30.0	468-9679	468-9681	28.0	468-9679	491-1363
-16	35.0	478-0930	468-9710	35.0	478-0930	468-9710	35.0	478-0930	468-9710
-20	45.5	478-0930	503-3024	45.5	478-0930	503-3024	45.5	478-0930	503-3024
-24	51.0	478-0930	468-9685	53.4	478-0930	487-0853	53.4	478-0930	487-0853
-32	63.5	499-6550	498-9651	68.0	499-6550	486-3340	68.0	499-6550	486-3340



Smooth Clamp

Ribbed Clamp

Ribbed Clamp Insert



## Bulk Metal Armor Guard



Part Number	Guard I.D.	XT-6 ES	XT-6	XT-5 ES	XT-3 ES	1956	716	294	844	1028
6V-0743	0.94 in, 23.8 mm	-6	-6		-6	-6	-8	-6		-8
6V-0754	2.97 in, 75.5 mm			-32						
6V-0744	1.06 in, 27.0 mm	-8	-8		-8	-8	-10	-8		
6V-0745	1.34 in, 34.0 mm	-12			-12	-12		-12		
6V-0746	1.65 in, 42.0 mm	-16	-12	-16	-16	-16	-16	-16	-16	
6V-0747	2.01 in, 51.0 mm		-16		-20		-20	-20		
6V-0748	2.28 in, 58.0 mm				-20			-24		
6V-0749	2.83 in, 71.8 mm				-32	-32	-32	-32	-32	
6V-0752	2.17 in, 55.0 mm	-20	-20	-20		-20	-24			-20
6V-0756	1.41 in, 35.8 mm			-12						-12
6V-0757	2.41 in, 61.3 mm	-24		-24		-24				-24
9X-2856	0.72 in, 18.3 mm						-6	-4-5		-5-6
8C-7557	1.18 in, 30.0 mm				-10	-10	-12			-12
9X-6186	0.56 in, 14.2 mm						-4			-3-4

Note: Sold by the centimeter.

Note: To find the proper bulk armor guard part number, first locate the appropriate hose type column in the chart above. Then, read down to find the hose inside diameter given in dash size and select the corresponding guard part number shown at the far left.

## Armor Guard Clip



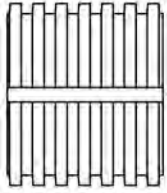
Part Number	Min	Max
3E-4070	1.50 in, 38.1 mm	2.00 in, 50.8 mm
3E-4071	0.37 in, 9.5 mm	1.00 in, 25.4 mm
3E-4062	1.25 in, 31.8 mm	1.50 in, 38.1 mm

## Parts for Improved Spring Guard Retention

Part Number	Description
384-0397	Saddle clamp
385-1393	Band
385-1392	Band

# Armor Guard

## Bulk Air Conditioning (1543J)



CONTINUOUS  
SLIT

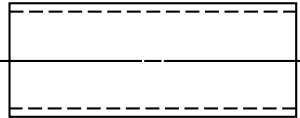
Part Number	Guard I.D.	Hose Dash Size
8C-5063	0.56 in, 14.2 mm	-5
8C-5064	0.70 in, 17.8 mm	-6
7X-7702	0.92 in, 23.4 mm	-10

Note: Sold by centimeter

## Nylon Abrasive Sleeve

For abrasion resistance and bundling of hose lines. Note: MSHA approved. Fire resistant and MSHA approved. Tested against abrasion for 350,000 cycles Meets ISO6945 Abrasion Standards

Installation Method: Attachment of metallic clamps installed over the sleeve at the shell portion of the coupling



Part Number	Guard I.D.	XT-6 ES	XT-6	XT-5	XT-3 ES	1956	716	294	844	Material
541-7087	0.71 in, 18.0 mm									Polyethylene
541-7088	1.00 in, 25.4 mm						-4 -6	-4 -5 -6		Polyethylene
541-7089	1.13 in, 28.7 mm					-6				Polyethylene
541-7090	1.25 in, 31.8 mm	-6			-6					Polyethylene
541-7091	1.59 in, 40.4 mm	-8			-8	-8 -10	-8 -10	-8 -10		Polyethylene
541-7092	1.75 in, 44.5 mm	-12	-12	-12	-10 -12	-12	-12	-12	-12	Polyethylene
541-7093	2.07 in, 52.6 mm					-16	-16	-16	-16	Polyethylene
541-7094	2.38 in, 60.5 mm	-16	-16	-16	-16		-20	-20	-20	Polyethylene
541-7095	2.54 in, 64.5 mm					-24	-24	-24	-24	Polyethylene
541-7096	2.86 in, 72.6 mm	-20 -24	-20 -24	-20 -24	-20 -24		-32	-32	-32	Polyethylene
541-7097	3.34 in, 84.8 mm			-32	-32	-32				Polyethylene

## Double Ply Nylon Sleeve

Intended for spray suppression in high pressure applications such as Mining. Meets ISO 3457.

Withstands a minimum burst pressure of 414 Bar (6000 PSI) without rupture.

Operating Temperature Range: Up to 121°C (250°F)

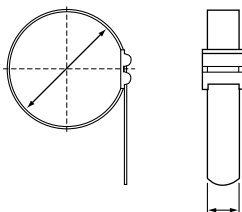
Installation Method: Attachment of metallic clamps installed over the sleeve at the shell portion of the coupling

Part Number	Size
462-8844	30.7
462-8845	35.8
462-8846	41.1
462-8847	46.0
462-8848	53.3

## Single Ply - Red Nylon Sleeve

Part Number	Size
543-0394	31.0
543-0395	53.0
592-6091	73.0

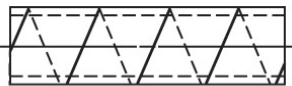
## Nylon Abrasive Sleeve Steel Band



Part Number	Guard I.D. (in - mm)
384-4127	1.37 - 34.9
384-4128	1.98 - 50.4
384-4129	3.00 - 76.2
460-3311	4.00 - 101.6

Used to attach nylon abrasive sleeve to hose assembly. For other applications, use nylon cable ties. Note: Refer to the Tooling section of this guide for related assembly tooling.

## Light Duty Plastic Bulk Guard

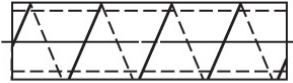


Part Number	Guard I.D.	Wall Thickness	XT-6 ES	XT-6	XT-3 ES	1956	716	294	844
7I-1024	0.79 in, 20.0 mm	0.09 in, 2.3 mm	-6 -8	-6	-6 -8	-6 -8	-8 -10	-8	
7I-7439	0.51 in, 13.0 mm	0.07 in, 1.8 mm					-4 -6	-4 -5 -6	
7Y-5074	0.98 in, 25.0 mm	0.11 in, 2.8 mm	-12	-8	-10 -12	-10	-12	-10 -12	-12

Note: Sold by the centimeter.

# Armor Guard

## Heavy Duty Plastic Bulk Guard



Part Number	Color	Guard I.D.	Wall Thickness	XT-6 ES	XT-6	XT-5	XT-3 ES	1956	716	294	844
206-2725	Black	1.50 in, 38.1 mm	0.14 in, 3.6 mm	-	-12	-12	-	-12	-16	-16	-12
206-2726	Black	2.00 in, 50.8 mm	0.16 in, 4.1 mm	-16 -20	-16 -20	-16 -20	-16 -20	-16	-20	-20	-16
206-2729	Black	3.50 in, 88.9 mm	0.25 in, 6.4 mm	-	-	-	-	-	-	-	-
206-2730	Black	4.00 in, 101.6 mm	0.25 in, 6.4 mm	-	-	-	-	-	-	-	-
206-2722	Black	0.75 in, 19.1 mm	0.11 in, 2.8 mm	-	-	-	-	-	-4 -6	-4 -5 -6	-
206-2723	Black	1.00 in, 25.4 mm	0.12 in, 3.1 mm	-6 -8	-6 -8	-	-6 -8	-6 -8	-8 -10	-8	-
206-2724	Black	1.25 in, 31.8 mm	0.13 in, 3.4 mm	-12	-	-	-10 -12	-10	-12	-10 -12	-
206-2737	Yellow	2.50 in, 63.5 mm	0.21 in, 5.3 mm	-24	-24	-24	-24	-20 -24	-24	-24	-20 -24
206-2738	Yellow	3.00 in, 76.2 mm	0.22 in, 5.5 mm	-	-	-32	-32	-32	-32	-32	-32
206-2739	Yellow	3.50 in, 88.9 mm	0.25 in, 6.4 mm	-	-	-	-	-	-	-	-
206-2740	Yellow	4.00 in, 101.6 mm	0.25 in, 6.4 mm	-	-	-	-	-	-	-	-
206-2741	Yellow	6.00 in, 152.4 mm	0.25 in, 6.4 mm	-	-	-	-	-	-	-	-
206-2732	Yellow	0.75 in, 19.1 mm	0.11 in, 2.8 mm	-	-	-	-	-	-4 -6	-4 -5 -6	-
206-2733	Yellow	1.00 in, 25.4 mm	0.12 in, 3.1 mm	-6 -8	-6 -8	-	-6 -8	-6 -8	-8 -10	-8	-
206-2734	Yellow	1.25 in, 31.8 mm	0.13 in, 3.4 mm	-12	-	-	-10 -12	-10	-12	-10 -12	-
206-2735	Yellow	1.50 in, 38.1 mm	0.14 in, 3.6 mm	-	-12	-12	-	-12	-16	-16	-12
206-2736	Yellow	2.00 in, 50.8 mm	0.16 in, 4.1 mm	-16 -20	-16 -20	-16 -20	-16 -20	-16	-20	-20	-16
206-2727	Black	2.50 in, 63.5 mm	0.21 in, 5.3 mm	-24	-24	-24	-24	-20 -24	-24	-24	-20 -24
206-2728	Black	3.00 in, 76.2 mm	0.22 in, 5.5 mm	-	-	-32	-32	-32	-32	-32	-32
206-2731	Black	6.00 in, 152.4 mm	0.25 in, 6.4 mm	-	-	-	-	-	-	-	-

Note: Sold by the centimeter.

## FRAS Guard

Flame Resistant and Anti-Static  
Tested to AS 1180-10b or ISO 8030

Part Number	Size	Color	Material
450-1577	12.5	Black	Polyethylene
450-1578	16.0	Black	Polyethylene
450-1579	21.0	Black	Polyethylene
450-1580	27.0	Black	Polyethylene
450-1581	34.0	Black	Polyethylene
450-1582	44.0	Black	Polyethylene
450-1583	55.0	Black	Polyethylene
450-1584	66.0	Black	Polyethylene

## FRAS Guard (Cont'd.)

Part Number	Size	Color	Material
450-1585	79.0	Black	Polyethylene
450-1586	99.0	Black	Polyethylene

## Sleeve for Fuel Lines

Armor Guard Part Number	Guard I.D.	Hose I. D.	Hose Type	Hose Dash Size
235-9830	0	9.5	716	-6

## Thermal Protection Guard\*

Silicone coated, fiberglass sleeve for use on hydraulic hose used in applications with exposure to extremely high external heat and flame.

Protects hose from continuous exposure up to 260°C (500°F), and short-term exposure up to 1090°C (1994°F) for 15 minutes and up to 1650°C (3002°F) for 15 seconds.

Installation Method: Attachment of metallic clamps installed over the sleeve at the shell portion of the coupling

Armor Guard Part Number	Guard I.D. (MM)	Hose I. D. (MM)	Hose Type	Hose Dash Size
193-6910	6.4	0	—	—
324-9702	7.9	0	—	—
324-9703	9.5	0	—	—
326-3565	12.7	4.8	743	-3
326-3565	12.7	4.8	1028	-3
326-3565	12.7	4.8	2929	-3
326-3565	12.7	6.4	2760	-3
326-3565	12.7	6.4	2929	-4
324-9704	15.9	6.4	716	-4
324-9704	15.9	6.4	294CPT	-4
324-9704	15.9	6.4	294TG	-4
324-9704	15.9	6.4	716TG	-4
324-9704	15.9	6.4	1028	-4
324-9704	15.9	6.4	2786	-4
324-9704	15.9	6.4	294	-4
324-9704	15.9	7.9	743	-5
324-9704	15.9	7.9	1028	-5
324-9704	15.9	7.9	2760	-5
324-9704	15.9	7.9	2929	-5
324-9704	15.9	9.5	2760	-6
324-9704	15.9	9.5	2929	-6
326-3566	19.1	7.9	294TG	-5
326-3566	19.1	7.9	294	-5
326-3566	19.1	9.5	743	-6
326-3566	19.1	9.5	716TG	-6
326-3566	19.1	9.5	294CPT	-6
326-3566	19.1	9.5	1028	-6
326-3566	19.1	9.5	2786	-6
326-3566	19.1	12.7	1028	-8
326-3566	19.1	12.7	2760	-8

# Armor Guard

## Thermal Protection Guard\* (Cont'd.)

Armor Guard Part Number	Guard I.D. (MM)	Hose I. D. (MM)	Hose Type	Hose Dash Size
326-3566	19.1	12.7	2929	-8
193-6911	22.3	9.5	XT-3ES	-6
193-6911	22.3	9.5	XT-3TG	-6
193-6911	22.3	9.5	294TG	-6
193-6911	22.3	9.5	294	-6
193-6911	22.3	9.5	1956	-6
193-6911	22.3	9.5	XT-6TG	-6
193-6911	22.3	9.5	XT-6ES	-6
193-6911	22.3	12.7	743	-8
193-6911	22.3	12.7	716TG	-8
193-6911	22.3	12.7	716	-8
193-6911	22.3	12.7	294CPT	-8
193-6911	22.3	12.7	2786	-8
541-7154	25.4	12.7	294	-8
541-7154	25.4	12.7	1956	-8
541-7154	25.4	12.7	XT-6TG	-8
541-7154	25.4	12.7	XT-6ES	-8
541-7154	25.4	12.7	294TG	-8
541-7154	25.4	12.7	XT-3TG	-8
541-7154	25.4	12.7	XT-3ES	-8
541-7154	25.4	15.9	2786	-10
541-7154	25.4	15.9	743	-10
541-7154	25.4	15.9	716TG	-10
541-7154	25.4	15.9	716	-10
541-7154	25.4	15.9	294CPT	-10
326-3567	28.6	12.7	1028	-8
326-3567	28.6	15.9	294	-10
326-3567	28.6	15.9	1956	-10
326-3567	28.6	15.9	XT-3TG	-10
326-3567	28.6	15.9	XT-6ES	-10
326-3567	28.6	15.9	294TG	-10
326-3567	28.6	15.9	XT-3ES	-10
326-3567	28.6	19.1	2786	-12
326-3567	28.6	19.1	716	-12
326-3567	28.6	19.1	716TG	-12
326-3567	28.6	19.1	743	-12
541-7155	31.8	0	—	—
324-9706	34.9	19.1	XT-3ES	-12
324-9706	34.9	19.1	844	-12
324-9706	34.9	19.1	294TG	-12
324-9706	34.9	19.1	XT-6ES	-12
324-9706	34.9	19.1	XT-5TG	-12
324-9706	34.9	19.1	XT-5ES	-12
324-9706	34.9	19.1	XT-3TG	-12
324-9706	34.9	19.1	XT-6TG	-12
324-9706	34.9	19.1	1956	-12
324-9706	34.9	19.1	294	-12
326-3568	38.1	25.4	743	-16
326-3568	38.1	25.4	716TG	-16

## Thermal Protection Guard\* (Cont'd.)

Armor Guard Part Number	Guard I.D. (MM)	Hose I. D. (MM)	Hose Type	Hose Dash Size
326-3568	38.1	25.4	716	-16
326-3568	38.1	25.4	2786	-16
326-3569	41.3	25.4	294	-16
326-3569	41.3	25.4	1956	-16
326-3569	41.3	25.4	XT-5TG	-16
326-3569	41.3	25.4	XT-3TG	-16
326-3569	41.3	25.4	XT-5ES	-16
326-3569	41.3	25.4	XT-6ES	-16
326-3569	41.3	25.4	XT-6TG	-16
326-3569	41.3	25.4	294TG	-16
326-3569	41.3	25.4	844	-16
326-3569	41.3	25.4	XT-3ES	-16
541-7156	44.5	0	—	—
541-7157	50.8	31.8	844	-20
324-9708	50.8	31.8	XT-3ES	-20
324-9708	50.8	31.8	716	-20
324-9708	50.8	31.8	294	-20
324-9708	50.8	31.8	1956	-20
324-9708	50.8	31.8	XT-6TG	-20
324-9708	50.8	31.8	XT-6ES	-20
324-9708	50.8	31.8	XT-3TG	-20
324-9708	50.8	31.8	XT-5ES	-20
324-9708	50.8	31.8	XT-5TG	-20
541-7158	60.3	0	—	—
326-3563	63.5	38.1	XT-5TG	-24
326-3563	63.5	38.1	XT-5ES	-24
326-3563	63.5	38.1	XT-6ES	-24
326-3563	63.5	38.1	XT-6TG	-24
326-3563	63.5	38.1	1956	-24
326-3563	63.5	38.1	294	-24
326-3570	69.9	50.8	XT-3ES	-32
326-3570	69.9	50.8	844	-32
326-3570	69.9	50.8	294HT	-32
326-3570	69.9	50.8	716	-32
326-3570	69.9	50.8	1956	-32
326-3570	69.9	50.8	294	-32
541-7159	88.9	0	—	—

\* Color: Red

## Cable Tie Mounts and Straps



Part Number	Description
200-6345	Swivel Mount. Used for hose-to-hose abrasion contact points (pictured)
177-2215	Dual Cable Tie Mount - 13" length. Used to guide two hoses in parallel and prevent abrasion
178-3620	Dual Cable Tie Mount - 19" length. Used to guide two hoses in parallel and prevent abrasion
193-3973	Cable Tie. 0.5" Width and 15" Length

# Whip Checks

Two piece clamp with a grommet and lanyard anchored to random bolt or mounting spot on the machine.

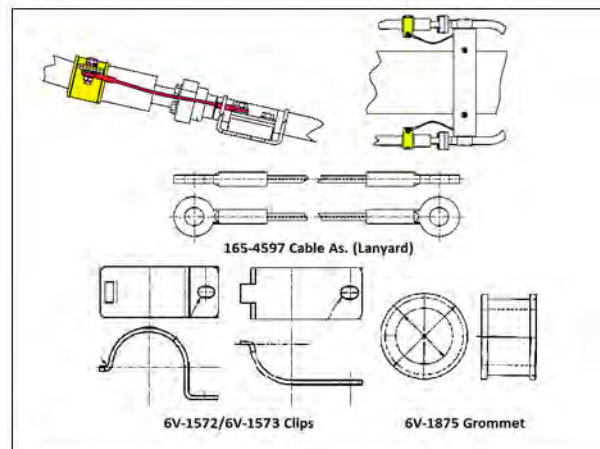
Typically intended for Mining applications.

Clamp (Male & Female)	ID	Grommet	Diameter (OD/ID)	XT Hose Type for this clamp and grommet		
				XT3	XT5	XT6
5P-7462 5P-7463	30	6V-0683	30/19	-6	NA	-6
5P-7464 5P-7465	37	6V-1249 6V-7359	37/22 37/25	-8 -10	NA NA	-8 -10
5P-7466 5P-7467	46	5P-8112	46/30	-12	-12	-12
5P-7468 5P-7469	52	8T-9518	52/24	-10	-12	-10
		6V-4349	52/27			
		6V-1874	52/31			
		8T-7087	52/34	-16	-16	-16
		5P-8444	52/37			
		8T-2525	52/40			
		6V-0545	52/44	-20		
5P-7470 5P-7471	65	5P-8182 5P-7703	65/46 65/52	-24	-20	-20
6V-1572 6V-1573	79	6V-1875 6V-1574	70/48 70/56			
6V-1867 6V-1868	80	6V-1869	80/65	-32	-32	-32



## Lanyards

Lanyard Part Number	All dimensions in mm				Minimum Load	Material
	OAL	Eye 1	Eye 2	Cable		
214-4636	270	12	12	3	1,100 lb	Galvanized Steel
5T-0448	480	12.5	12.5	3.2	2,000 lb	Galvanized Steel
4V-8604	266.3	12.7	12.7	4.8	4,200 lb	Galvanized Steel
253-9770	250	13	13	4	675 lb	Stainless Steel
165-4597	320	13	13	5	3,000 lb	Galvanized Steel
179-2229	375	13	13	5	3,000 lb	Galvanized Steel
312-6065	470	14	14	4	N/A	Galvanized Steel
7T-4209	300	14	24	6.35	2,023 lb	Galvanized Steel
9W-9577	370	14	24	6.35	2,023 lb	Galvanized Steel
7G-8282	425	14	24	6.35	2,023 lb	Galvanized Steel
199-8211	476	14	24	6.35	2,023 lb	Galvanized Steel





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# Hose Assembly Tools

## Technical Support, Warranty and Service

For Technical Support, Warranty on Equipment, or Service Needs, contact:

Global Dealer Solutions Network, Parts Technical Support Team

North America (Toll-Free): 1-877-228-2420

International: 1-309-266-4421

Electronic Requests: Send via Product Support Customer Relationship Management (MSCRM)

For Access and Tutorial visit: <https://gdsn.cat.com/mscrm>

Please provide a basic explanation of the problem, part number, serial number, table values and HMI revisions (found during boot-up on Crimputer.)

## Crimputer (Used on 325 and S6)

The Crimputer software is a proprietary software developed by Cat to make crimping quick, easy, and help assure correct crimp dimensions are built into the product the first time. Through a touch screen panel, the user is able to input the key component information including Hose Type, Coupling Series, and Dash Size. From there, the system tells which crimping dies to install and sets machine parameters to correctly crimp the coupling. Verification can be made with a built-in caliper interface which checks crimp dimensions at four locations to confirm crimp diameter is in tolerance.





Updates are made to the Crimputer software as new hoses are released and made available to dealers. The table below shows which crimping machines use the Crimputer. Updates are available on the HIS website: (<https://his.cat.com/his/servlet/cat.Id.ma.his.controller.UserIdentificationControllerServlet>) Updates are downloaded to a flash drive from the website and then uploaded to the Crimputer via a USB port. Updates are quick and easy. Verifying that you have the most up-to-date software is as easy as comparing the latest revision shown on the website to the revision information seen while the Crimputer is booting up.

The Crimputer package is available on previous and current versions of the 325 and S6. The software has been enhanced such that one software version is able to be used on all controllers to provide the updates as new hoses are released.

The older-style CLC290 is no longer supported but the software remains available on the website.

## Crimputer Software

The latest software updates are available here: <https://dealer.cat.com/en/ps/service-tools/c/crimputer-software.html>

	<p>325: 423-4361</p>
	<p>S6: 533-1146, 533-1147, 533-1148 (Also 358-4532, 457-6037 and 457-6038)</p>
	<p>C3-290 : Crimper no longer available. Some repair parts still available - See Repair Parts section.</p>
	<p>CLC 290: Crimper no longer available. Some repair parts still available - See Repair Parts section.</p>

## Crimputer V (528-5353)

Model Usage: All

Warranty: Manufacturer's One Year:

[See, page 422 Technical Support Section](#)



European Union Compliant, CE marked

- Touch screen
- Built-in electronics (PLC)
- Adjustable viewing position for operator ergonomics
- Easy to use, full color display (menus have embedded help screens)
- Multiple platform software (updatable via USB port)
- Ability to track and store multiple crimp data values
- Password protected for multiple operators
- Die Change Stop and Auto Open features included
- Support for multiple languages

### References

- NEHS1331-00, Tooling Operating Manual

### Overall Dimensions

- Length: 250 mm (9.84 in)
- Width: 200 mm (7.87 in)
- Thickness: 50 mm (1.97 in)

Part Number	Description
528-5353	Crimputer V

Integration with Pressure Test Bench

Not compatible with CLC290 Crimper

# Hose Assembly Tools

## 325 Radial Hose Machine Group

Model Usage: All  
 Warranty: Manufacturer's One Year [See, page 422 Technical Support Section](#)



European Union Compliant, CE marked

- Used to crimp permanent couplings on Caterpillar low, medium, and high-pressure hoses
- Package will crimp all field serviced hose couplings up to 4"

### Hose Machine

- Uses Crimputer V (C5) controller with easy to follow color menus
- Touch screen controller stores values required to crimp a full range of hoses
- Compatible with new XT no-skive hose couplings (XN couplings)
- Compatible with new AC Flat Crimp Couplings
- Lube-less low maintenance radial head design
- Die range 12-121 mm (0.47-4.76 in)
- Shipped without hydraulic oil

Hose machine includes the following (die group sold separately):

- Radial Hose Machine
- Crimputer V (C5) Controller
- 8" digital caliper with caliper cable

- Die-changing Tool
- Die extraction tool
- Calibration mandrel
- Single footswitch (for use with C5 controller)
- Open/close footswitch to operate hose machine.
- Adapter die (423-4367)

### Crimputer V (C5) Controller

- Siemens touch screen
- Adjustable viewing position for operator ergonomics
- Easy to use, full color display (menus have imbedded help screens)
- Multiple platform software (updatable via USB port)
- Ability to track and store multiple crimp data values
- Password protected for multiple operators
- Die Change Stop and Auto Open features included
- Support for multiple languages

### Reference

- NEHS1099 Operating Manual

Specifications		Crimping Capabilities
Dimensions	1600 x 600 x 1600 mm	2.0" XT-3 ES 2.0" XT-5 ES 2.0" XT-6 ES 4.0" LMP
Weight	750 kg (1650 lb)	
Oil Capacity	100 l (26.5 gal)	
Opening with dies	215 mm (8.5 in)	
Electrical Requirements	220 - 480 V, 3 Phase 50/60 Hz (motor 4 kW)	
Die Range	12 - 121 mm (0.47 - 4.76 in)	

Part Number	Description
423-4361	Radial Hose Machine Group
526-5494	Die Group

## 325 Radial Hose Machine Group (Continued)

526-5494 Die Group (Includes the following items)

Part number	Diameter	Retention Pin
<b>239L Die Set Series (requires 423-4367 Adapter)</b>		
526-5529	12 mm (.47 in)	330-3951 <sup>(1)</sup>
526-5530	14 mm (.55 in)	330-3951 <sup>(1)</sup>
526-5531	17 mm (.67 in)	330-3951 <sup>(1)</sup>
526-5532	20 mm (.79 in)	330-3951 <sup>(1)</sup>
526-5533	22 mm (.87 in)	330-3951 <sup>(1)</sup>
526-5534	24 mm (.94 in)	330-3951 <sup>(1)</sup>
526-5535	26 mm (1.02 in)	330-3951 <sup>(1)</sup>
526-5536	28 mm (1.10 in)	330-3951 <sup>(1)</sup>
526-5537	30 mm (1.18 in)	330-3951 <sup>(1)</sup>
526-5538	32 mm (1.26 in)	330-3951 <sup>(1)</sup>
526-5539	36 mm (1.42 in)	330-3951 <sup>(1)</sup>
526-5540	40 mm (1.57 in)	330-3951 <sup>(1)</sup>
526-5541	44 mm (1.73 in)	—
358-4560	47 mm (1.85 in)	330-3951 <sup>(1)</sup>
358-4561	50 mm (1.97 in)	330-3951 <sup>(1)</sup>
358-4562	54 mm (2.13 in)	330-3951 <sup>(1)</sup>
358-4563	57 mm (2.24 in)	330-3951 <sup>(1)</sup>
358-4564	62 mm (2.44 in)	330-3951 <sup>(1)</sup>
<b>237L Die Set Series</b>		
423-4365	67 mm (2.64 in)	233-8077 <sup>(2)</sup>
423-4366	71.0 mm (2.80 in)	233-8077 <sup>(2)</sup>
521-4296	78 mm (3.07 in)	233-8077 <sup>(2)</sup>
424-1400	84.0 mm (3.31 in)	233-8077 <sup>(2)</sup>
424-1401	96.0 mm (3.78 in)	233-8077 <sup>(2)</sup>
424-1402	103.0 mm (4.06 in)	233-8077 <sup>(2)</sup>
526-5543	121 mm (4.76 in)	233-8077 <sup>(2)</sup>

1 Retention pins should be replaced when they are damaged. Package quantity is eight per package.  
 2 Sold and Serviced Individually

# Hose Assembly Tools

## 325 Radial Hose Machine Group (Continued)

CPC325 (Repair Parts)	
Part Number	Description
233-8046	Die Changer Tool for use with 239L Dies
233-8047	Die Release Tool
233-8077	Steel Die Pin (232L/266L/237L Series Large Die and Adapters)
330-3951	Pin - Die Kit 239-L Smaller Dies (8 pieces)
358-4536	Caliper Electronic 3" or Smaller Couplings
358-4537	Cable - Caliper
358-4538	Pedal Foot Switch
358-4539	Crimputer Bracket As. Lever for C3 and C5
358-4544	Double Pedal Foot Switch
421-2654	Screw - Detent
423-4364	Calibration Mandrel for 325
423-4367	Adapter Die for 325
423-4373	Caliper Electronic 8" or Smaller Couplings
457-6033	Pressure Sensor
458-2920	Oil Filter Element 1 (45 X 85 mm (1.8 X 3.3 in)
458-2921	Oil Filter Element 2 (45 X 88 mm (1.8 X 3.5 in)
482-4417	Tool Gp - (Plunger - Master Die)
550-9143	Springs Kit (24 pieces)
561-2025	Bearing Plate Kit Complete
561-2026	Springs Kit (24 pieces)
566-7502	Path Sensor (Potentiometer)
566-7503	Shim Kit - Used to improve roundness or concentricity of die closure, goes under bearing plate.
566-7504	Die As. - Master Complete Master Die Group
566-7505	Plastic Pins For 239 and 239L Series Dies (8 pieces)
578-6149	Screw - Detent Kit (8 pieces)



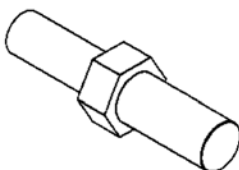
458-2920



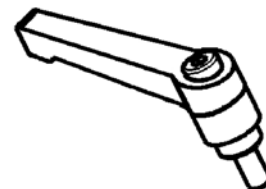
482-4417



233-8047



423-4364



358-4539



## 325 Radial Hose Machine Group (Continued)

CPC325 Radial Hose Machine Capability		
Hose Type	Coupling Type	Dash Size (Hose machine will crimp these coupling sizes)
294	MN	-4, -5, -6, -8, -10, -12, -16, -20, -24, -32, -40, -48
294TG	MN	-4, -6, -8, -10, -12, -16
294CPT	MN	-4, -6, -8, -10, -12, -16
294CPTG	MN	-4, -6
294HT	MN	-32, -40
716	MN	-4, -6, -8, -10, -12, -16, -20, -24, -32
716TG	MN	-4, -6, -8, -10, -12, -16
716CPT	MN	-4, -6, -8, -10, -12, -16
844	MN	-12, -16, -20, -24, -32, -40, -56
	SW	-48
844HP	MN	-40, -56
	SW	-48, -64 <sup>(3)</sup>
XT-3ES	TR	-6, -8, -10, -12, -16
	ESA	-10, -12, -16
	S4G	-6, -8, -16, -20, -24, -32
	XN	-6, -8, -10, -12, -16
	XN4	-20 <sup>(3)</sup> , -24
XT-3ESTG	TR	-6, -8, -10, -12, -16
	ESA	-10, -12, -16
	S4G	-6, -8, -16, -20, -24, -32
	XN	-6, -8, -10, -12, -16
	XN4	-20 <sup>(3)</sup> , -24
XT-5ES	PL	-12, -16
	MCSH	-12, -16, -20, -24, -32
	MCSX	-12, -16, -20, -24
	XN	-10, -12
	XN6	-20, -24
	XS6	-32
XT-5ESTG	PL	-12, -16
	MCSH	-12, -16, -20, -24, -32
	MCSX	-12, -16, -20, -24

CPC325 Radial Hose Machine Capability		
Hose Type	Coupling Type	Dash Size (Hose machine will crimp these coupling sizes)
	XN	-12, -16
	XN6	-20, -24
XT-6ES	IN	-6, -8, -10, -12, -16, -20, -24
	MCSM	-6, -12, -16, -20, -24
	XN	-6, -8, -10, -12, -16
	XN6	-20, -24
	XS6	-32
XT-6ESTG	IN	-6, -8, -10, -12, -16, -20, -24
	MCSM	-6, -12, -16, -20, -24
	XN	-6, -8, -10, -12, -16
	XN6	-20, -24
1028	56	-3, -4, -5, -6, -8, -12
CATACFC	A/C	-6, -8, -10, -12, -14
PARKERAC	A/C	
2760	JN	-4, -5, -6, -8
2786	MN	-4, -6, -8, -10, -12, -16
2929	MH	-4, -5, -6, -8
2929TG	MH	-4, -6
743	MH	-4, -5, -6, -8, -10, -12, -16
	JN	-3
945	MH	-4, -6, -8, -12
	JN	-3
662	MN	-6, -8
2771A	JN	-4, -5, -6, -8, 10, -12
4336	MN	-8, -12 <sup>(3)</sup>
	BN	-10, -16 <sup>(3)</sup>
4639	MN	-8, -12 <sup>(3)</sup>
	BN	-10, -16 <sup>(3)</sup>
4901	MN	-4, -6, -8, 10, -12, -16, -20, -24, -32, -40, -48
5014	MN	-4, -8, -12
5065	DS4	-4, -6

# Hose Assembly Tools

## S6 Radial Hose Machine Group

Warranty: *Manufacturer's One Year*  
[See, page 422](#) *Technical Support Section*

European Union compliant, CE marked

- Used to crimp permanent couplings on Cat low, medium, and high-pressure hose
- Crimps field serviced couplings onto hoses ranging from 1/4 to 3 inch I.D.
- Compatible with new XT no-skive hose couplings (XN series couplings)
- Compatible with new AC Flat Crimp Couplings
- Includes adapter die 421-2653



### Hose Machine

- CE, CSA, and UL compliant
- Uses Crimper V (C5) controller with easy to follow color menus
- Touch screen controller stores values required to crimp a full range of hoses
- Die range 12 through 92 mm
- 533-1148 requires 3-Phase, 220 to 480V, 50-60 Hz, electrical supply for 4kW motor (The use of manufactured or artificially generated 3-phase power with 533-1148 Hose Machine that is not specially approved by the manufacturer or Caterpillar will result in voiding the warranty.)
- 533-1146 requires a single-phase 230V, 50 Hz electrical supply
- 533-1147 requires a single-phase 230V, 60 Hz electrical supply.
- Designed with lubeless, low-maintenance radial crimp head
- Can be bench mounted or used with optional 358-4545 Universal Table Assembly
- Shipped without hydraulic oil

- Includes radial hose machine, Crimper V (C5) controller, 8 inch digital calipers with caliper cable, Die changing tool, Die extraction tool, Calibration mandrel, Single foot switch (for use with C5 controller), Open/close foot switch to operate hose machine and adapter die

- Die group sold separately

### 528-5353 Crimper V (C5) Controller Features

- CE, CSA, and UL compliant
- Siemens touch screen
- Adjustable viewing position for operator ergonomics
- Full-color display with embedded help screens
- Multiple platform software (updatable via USB port)
- Track and store multiple crimp data values
- Password protected for multiple operators
- Die change STOP and OPEN feature included
- Support for multiple languages

### References

- NEHS1098, Tool Operating Manual
- NEHS1099, Tool Operating Manual

Note: Both machine group and die group part numbers must be ordered to crimp hoses.

Part No.	Description
533-1146	Single Phase 230V, 50Hz, Radial Hose Machine
533-1147	Single Phase 230V, 60Hz, Radial Hose Machine
533-1148	3-Phase Radial Hose Machine Group
358-4545	Universal Table Assembly
526-5493	Die Group

Specifications		Crimping Capabilities
Dimensions	1000 x 600 x 700 mm	1.5 in XT-6ES / XT-5ES 2 in XT-3ES 3 in LMP
Weight	260 kg (575 lbs)	
Oil Capacity	50 L (53 qt)	
Opening without Dies	147 mm (5.8 in)	
Die Range	12 to 92 mm	

## S6 Radial Hose Machine Group (Continued)

### 526-5493 Die Group (Includes the Following Items)

Part Number	Diameter	Retention Pin
<b>239L Die Set Series (requires 421-2653 Adapter)</b>		
526-5529	12 mm (.47 in)	330-3951 <sup>(4)</sup>
526-5530	14 mm (.55 in)	330-3951 <sup>(4)</sup>
526-5531	17 mm (.67 in)	330-3951 <sup>(4)</sup>
526-5532	20 mm (.79 in)	330-3951 <sup>(4)</sup>
526-5533	22 mm (0.86 in)	330-3951 <sup>(4)</sup>
526-5534	24 mm (.94 in)	330-3951 <sup>(4)</sup>
526-5535	26 mm (1.02 in)	330-3951 <sup>(4)</sup>
526-5536	28 mm (1.10 in)	330-3951 <sup>(4)</sup>
526-5537	30 mm (3.07 in)	330-3951 <sup>(4)</sup>
526-5538	32 mm (1.26 in)	330-3951 <sup>(4)</sup>
526-5539	36 mm (1.42 in)	330-3951 <sup>(4)</sup>
526-5540	40 mm (1.57 in)	330-3951 <sup>(4)</sup>
526-5541	44 mm (1.73 in)	330-3951 <sup>(4)</sup>
358-4560	47 mm (1.85 in)	330-3951 <sup>(4)</sup>
358-4561	50 mm (1.97 in)	330-3951 <sup>(4)</sup>
358-4562	54 mm (2.13 in)	330-3951 <sup>(4)</sup>
358-4563	57 mm (2.24 in)	330-3951 <sup>(4)</sup>
358-4564	62 mm (2.44 in)	330-3951 <sup>(4)</sup>
<b>266L Die Set Series</b>		
358-4565	67 mm (2.64 in)	233-8077 <sup>(5)</sup>
358-4566	71 mm (2.80 in)	233-8077 <sup>(5)</sup>
526-5542	78 mm (3.07 in)	233-8077 <sup>(5)</sup>
358-4567	84 mm (3.31 in)	233-8077 <sup>(5)</sup>
358-4568	92 mm (3.62 in)	233-8077 <sup>(5)</sup>

4 Retention pins should be replaced when they are damaged. Package quantity is eight per package  
 5 Sold and Serviced Individually

# Hose Assembly Tools

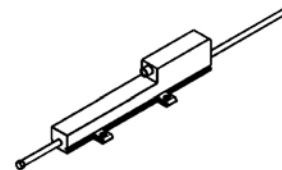
## S6 Radial Hose Machine Group (Continued)

### S6 Hose Crimper (Repair Parts)

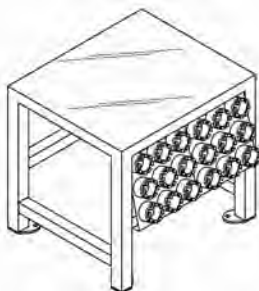
Part No.	Description
233-8045	Calibration Mandrel for S6
233-8046	Die Changer Tool for use with 239L Dies
233-8047	Tool - Die Release
233-8077	Steel Die Pin (232L/266L/237L Series Large Die and Adapters)
330-3951	Pin - Die Kit 239-L Smaller Dies (8 pieces)
358-4536	Caliper Electronic 3" or Smaller Couplings
358-4537	Cable - Caliper
358-4538	Pedal Foot Switch
358-4539	Crimputer Bracket As. Lever for C3 and C5
358-4544	Double Pedal Foot Switch
358-4545	Table with Die Holder Rack
416-6391	Kit - Slide Bearing (Rear) under Master Dies (8 pieces)
416-6395	Master Die Extraction/Capture Tool
416-6396	Kit - Plunger (Master Die)
416-6401	Rear Retainer Ring Slide Bearings
416-6402	Kit - Bolt for Master Dies (8 pieces)
416-6403	Die As. - Master Single Master Die
421-2653	Adapter Die for S6
421-2654	Screw - Detent
423-4373	Caliper Electronic 8" or Smaller Couplings
425-2389	Kit - Slide Bearing (Inside Front Plate) (2 pieces)
457-6033	Pressure Sensor
462-5664	Capacitor (Only for Single Phase Machines)
550-9143	Springs Kit (24 pieces)
566-7502	Path Sensor (Potentiometer)
566-7503	Shim Kit - Used to improve roundness or concentricity of die closure, goes under bearing plate.
566-7505	Plastic Pins for 239 and 239L Series Dies (8 pieces)
578-6149	Screw - Detent Kit (8 pieces)



462-5664



566-7502



### 358-4545 Universal Table Assembly (optional)

- Heavy-duty table supports 533-1146, 533-1147, 533-1148 Radial Hose Machines at a comfortable working height
- Front-facing, die racks conveniently store up to 18 die sets
- Dimensions (L x W x H): 840 x 815 x 765 mm (33 x 32 x 30 in)
- Requires simple assembly

## S6 Radial Hose Machine Group Capability

Hose Type	Coupling Type	Dash Size (Hose machine will crimp these coupling sizes)	Hose Type	Coupling Type	Dash Size (Hose machine will crimp these coupling sizes)
294	MN	-4, -5, -6, -8, -10, -12, -16, -20, -24, -32, -40, 48		XN	-12, -16
294TG	MN	-4, -6, -8, -10, -12, -16		XN6	-20, -24
294CPT	MN	-4, -6, -8, -10, -12, -16	XT-6ES	IN	-6, -8, -10, -12, -16, -20, -24
	BN	-10		MCSM	-6, -12, -16, -20, -24
294CPTG	MN	-4, -6		XN	-6, -8, -10, -12, -16
294HT	MN	-32, -40		XN6	-20, -24
716	MN	-4, -6, -8, -10, -12, -16, -20, -24, -32	XT-6ESTG	IN	-6, -8, -10, -12, -16, -20, -24
716TG	MN	-4, -6, -8, -10, -12, -16		MCSM	-6, -12, -16, -20, -24
716CPT	MN	-4, -6, -8, -10, -12, -16		XN	-6, -8, -10, -12, -16
844	MN	-12, -16, -20, -24, -32, -40		XN6	-20, -24
	SW	-48	1028	56	-3, -4, -5, -6, -8, -12
844HP	MN	-40	CAT A/C FC	A/C	-6, -8, -10, -12, -14
	SW	-48	2760	JN	-4, -5, -6, -8
XT-3ES	TR	-6, -8, -10, -12, -16	2786	MN	-4, -6, -8, -10, -12, -16
	ESA	-10, -12, -16	2929	MH	-4, -5, -6, -8
	S4G	-6, -8, -16, -20, -24, -32	2929TG	MH	-4, -6
	XN	-6, -8, -10, -12		MHT	-4
	XN4	-20 <sup>(6)</sup> , 24	743	MH	-4, -5, -6, -8, -10, -12, -16
XT-3ESTG	TR	-6, -8, -10, -12, -16		JN	-3
	ESA	-10, -12, -16	945	MH	-4, -6, -8, -12
	S4G	-6, -8, -16, -20, -24, -32		JN	-3
	XN	-6, -8, -10, -12, -16	662	MN	-6, -8
	XN4	-20 <sup>(6)</sup> , 24	2771A	JN	-4, -5, -6, -8, 10, -12
XT-5ES	PL	-12, -16	4636	MN	-8, -12
	MCSH	-12, -16, -20, -24, -32		BN	-10, -16
	MCSX	-12, -16, -20, -24	4639	MN	-8, -12
	XN	-12, -16		BN	-10, -16
	XN6	-20, -24	4901	MN	-4, -6, -8, 10, -12, -16, -20, -24, -32, -40, -48
XT-5ESTG	PL	-12, -16	5014	Mn	-4, -8, -12
	MCSH	-12, -16, -20, -24	5065	DS4	-4, -6
	MCSX	-12, -16, -20, -24			

# Hose Assembly Tools

## M6 Hose Crimper

Warranty: Manufacturer's One Year  
See, page 422 Technical Support Section



European Union Compliant, CE marked

- Target Application: advanced do-it-yourself customers, service trucks, hose vans and hose workshops
- Micrometer-controlled crimp dimensions
- Required die kit 526-5493 (order separately)

### Reference

- AEXQ2130 Crimp Chart

Click here for crimp chart for S2 and M6 and Crimper software for S6 and 325: <https://dealer.cat.com/en/ps/service-tools/c/crimper-software.html>

### Specifications

- Dimensions: 508 x 432 x 533 mm (20 x 17 x 21 in)
- Weight: 172 kg (380lb)

### NOTE:

Individual die sets may also be purchased separately.

Part No.	Power	Max. Crimping Capability
508-7865	12V DC; 150A	1.5 in XT-6ES / XT-5ES 2 in XT-3ES 3 in LMP
508-7866	24V DC; 83A	
508-7867	1PH; 230V; 50/60 Hz, 7.8A at 50 Hz and 5.4A at 60 Hz	
508-7868	1PH; 115V; 50/60 Hz; 15.5A at 50 Hz and 10.8A at 60 Hz	

### Serviceable Parts

Part No.	Description
526-5493	Die Kit (Must Order Separately)
330-3951	Retention Die Pin for 12-62 mm Die Sets
233-8077	Retention Die Pin for 67-121 mm and the Adapter Die Sets
421-2653	Adapter Die Set (Provided with Machine Assembly)

### M6 Die Kit Group Parts List

#### 526-5493 Die Group (Includes the Following Items)

Part No.	Diameter	Retention Pin
<b>239L Die Set Series (requires 421-2653 Adapter)</b>		
526-5529	12 mm (.47 in)	330-3951 <sup>(7)</sup>
526-5530	14 mm (.55 in)	330-3951 <sup>(7)</sup>
526-5531	17 mm (.67 in)	330-3951 <sup>(7)</sup>
526-5532	20 mm (.79 in)	330-3951 <sup>(7)</sup>
526-5533	22 mm (.86 in)	330-3951 <sup>(7)</sup>
526-5534	24 mm (.94 in)	330-3951 <sup>(7)</sup>
526-5535	26 mm (1.02 in)	330-3951 <sup>(7)</sup>
526-5536	28 mm (1.10 in)	330-3951 <sup>(7)</sup>
526-5537	30 mm (3.07 in)	330-3951 <sup>(7)</sup>
526-5538	32 mm (1.26 in)	330-3951 <sup>(7)</sup>
526-5539	36 mm (1.42 in)	330-3951 <sup>(7)</sup>
526-5540	40 mm (1.57 in)	330-3951 <sup>(7)</sup>
526-5541	44 mm (1.73 in)	330-3951 <sup>(7)</sup>
358-4560	47 mm (1.85 in)	330-3951 <sup>(7)</sup>
358-4561	50 mm (1.97 in)	330-3951 <sup>(7)</sup>
358-4562	54 mm (2.13 in)	330-3951 <sup>(7)</sup>

7 Retention pins should be replaced when they are damaged. Package quantity is eight per package

## M6 Hose Crimper (Continued)

<b>M6 Die Kit Group Parts List</b>					
<b>526–5493 Die Group (Includes the Following Items)</b>					
<b>Part No.</b>	<b>Diameter</b>	<b>Retention Pin</b>			
<b>239L Die Set Series (requires 421-2653 Adapter)</b>					
358-4563	57 mm (2.24 in)	330-3951 <sup>(8)</sup>			
358-4564	62 mm (2.44 in)	330-3951 <sup>(8)</sup>			
<b>266L Die Set Series</b>					
358-4565	67 mm (2.64 in)	233-8077 <sup>(9)</sup>			
358-4566	71 mm (2.80 in)	233-8077 <sup>(9)</sup>			
526-5542	78 mm (3.07 in)	233-8077 <sup>(9)</sup>			
358-4567	84 mm (3.31 in)	233-8077 <sup>(9)</sup>			
358-4568	92 mm (3.62 in)	233-8077 <sup>(9)</sup>			
<b>Additional Dies Necessary for Specific Hose and Coupling Types</b>					
<b>Part No.</b>	<b>Diameter</b>	<b>Retention Pin</b>	<b>Hose</b>	<b>Coupling Type</b>	<b>Dash Size</b>
<b>239L Die Set Series (requires 423-4367 Adapter)</b>					
591-1614	39 mm (1.54 in)	330-3951 <sup>(8)</sup>	4901	MN	-16
591-1615	48 mm (1.89 in)	330-3951 <sup>(8)</sup>	4901	MN	-20
591-1616	55 mm (2.17 in)	330-3951 <sup>(8)</sup>	4901	MN	-24
			XT5-ES, XT5-ESTG, XT6-ES, XT6-ESTG	XN6	-20
591-1618	64 mm (2.52 in)	330-3951 <sup>(8)</sup>	XT5-ES, XT5-ESTG, XT6-ES, XT6-ESTG	XN6	-24
<b>237L Die Set Series</b>					
591-1619	69 mm (2.72 in)	233-8077 <sup>(9)</sup>	4901	MN	-32
<b>Note:</b> It is important to use the dies listed in the table to avoid damaging the slide bearings. This crimper is designed so that the outside diameter of the coupling can not be 12 mm larger than the die set being used.					

8 Retention pins should be replaced when they are damaged. Package quantity is eight per package  
 9 Sold and Serviced Individually

# Hose Assembly Tools

## M6 Hose Crimper (Continued)

<b>M6 Hose Crimper (Repair Parts)</b>	
<b>Part No.</b>	<b>Description</b>
233-8046	Die Changer Tool for use with 239L Dies
233-8047	Tool - Die Release
233-8077	Steel Die Pin (232L/266L/237L Series Large Die and Adapters)
330-3951	Pin - Die Kit 239-L Smaller Dies (8 pieces)
358-4545	Table with Die Holder Rack
416-6396	Kit - Plunger (Master Die)
421-2653	Adapter Die for M6
421-2654	Screw - Detent
550-9143	Springs Kit (24 pieces)
550-9145	8 T Nut; 16 M6 Bolt; 16 Washer
566-7503	Shim Kit - Used to improve roundness or concentricity of die closure, goes under bearing plate.
566-7505	Plastic Pins For 239 and 239L Series Dies (8 pieces)
578-6149	Screw - Detent Kit (8 pieces)
598-1908	Kit - Slide Bearing (Front & Rear) under Master Dies (16 pieces)



## S2 Hose Crimper

Warranty: Manufacturer's One Year  
See, page 422 Technical Support  
Section



European Union Compliant, CE marked

- Target Application: market entry-level, do-it-yourself customers, service trucks and hose vans
- Micrometer-controlled crimp dimensions
- Required die kit 508-7873 (order separately)

### Reference

- AEXQ 2131 Crimp Chart

Click here for crimp chart for S2 and M6 and Crimputer software for S6 and 325:  
<https://dealer.cat.com/en/ps/service-tools/c/crimputer-software.html>

### Specifications

- Dimensions: 450 x 450 x 450 mm (18 x 18 x 18 in)
- Weight: 41 kg (90lb)

**NOTE:** Individual die sets may also be purchased separately.

Part No.	Description	Max. Crimping Capability
508-7870	1PH; 110V; 60 Hz; 8A	1 in XT-6ES / XT-5ES 1.25 in XT-3ES 1.25 in LMP
508-7871	12V DC; 15.8A	
508-7872	1PH; 230V; 50/60 Hz; 4A	

Serviceable Parts	
Part No.	Description
508-7873	Die Kit (Must Order Separately)

S2 Die Kit Group Parts List		
508-7873 Die Group (Includes the Following Items)		
Part No.	Diameter	Retention Pin
524-4076	14 mm (.55 in)	517-3483
517-2548	17 mm (.67 in)	517-3483
517-2549	20 mm (.79 in)	517-3483
517-2550	24 mm (.94 in)	517-3483
517-3480	28 mm (1.10 in)	517-3483
517-3481	32 mm (1.26 in)	517-3483
517-3482	40 mm (1.57 in)	517-3483
524-4077	47 mm (1.85 in)	517-3483
517-3484	Box-STOR	517-3483

S2 Hose Crimper (Repair Parts)	
Part No.	Description
561-1991	Bearing Plates
561-1992	Front Bearing Plate
561-1993	Master Die Springs (16 pieces)
561-1994	Seal Kit
561-1995	Pressure Pad (8 pieces)
561-1996	Die Pins Kit (8 pieces)
561-1997	Retract Spring (8 pieces)
561-1998	Guide Pin (2 pieces)

# Hose Assembly Tools

## Hose-Cutting Machines

- A fume extraction device including a spark arrester is recommended (533-1184).
- The solid-steel blade used in the Cat® EM range of hose saws provides a clean-cutting operation and greatly reduces shop contamination, fumes and debris during cutting (compared to alternative abrasive blade saws).
- EM series saws are equipped with the long-lasting steel-grooved TM G blade (standard). The advanced TM C blade, with its diamond coated tip, produces a precise cut leading to an even greater reduction in contamination and smoke (ordered separately).
- All saws except EM115 are designed for on/off use and not designed to run continuously. The EM115 can cut the full Cat® hose product line.

### EM115 Hose Saw

Warranty: Manufacturer's One Year [See, page 422](#) Technical Support Section



European Union Compliant, CE marked

- Target application: large mining machines, high-volume production
- Best match with 325

#### Specifications

- Dimensions: 1210 x 650 x 1650 mm (48 x 26 x 65 in)
- Weight: 245 kg (540 lb)

Part No.	Description	Max. Cutting Capability
444-5974	3 PH Multivoltage: 230/380-420V at 50 Hz/26A and 230/380-480V at 60 Hz/15A	2 in XT-5ES / XT-6ES / XT-3ES 3 in LMP

Serviceable Parts	
Part No.	Description
533-1165	TM G Blade
533-1167	TM C Blade

### EM6-P Hose Saw

Warranty: Manufacturer's One Year [See, page 422](#) Technical Support Section



- Pneumatic operation requires minimum 90 psi/ 621 kPa with adequate flow.
- Target Application: advanced do-it-yourself customers, standard hose workshops
- Best match with M6 and/or S6 hose crimpers
- Spark Arrester 583-3538 (recommended)

#### Specifications

- Dimensions: 785 x 760 x 710mm (31 x 30 x 28 in)
- Weight: 110 kg (242 lb)

Part No.	Description	Max. Cutting Capability
517-2540	3PH, 400V; 50 Hz; 9.5A	1.5 in XT-5ES / XT-6ES 2 in XT-3ES 3 in LMP
516-9370	3PH, 220V; 50/60 Hz; 15A	

Serviceable Parts	
Part No.	Description
517-2537	TM G Blade
517-2538	TM C Blade

## EM6-E Hose Saw

Warranty: Manufacturer's One Year  
See, page 422 Technical Support Section



- Target Application: advanced do-it-yourself customers, standard hose workshops
- Best match with M6 hose crimper

### Specifications

- Dimensions: 510 x 700 x 720 mm (20 x 28 x 28 in)
- Weight: 45 kg (99 lb)

Part No.	Description	Max. Cutting Capability
508-7861	1 PH; 110-120V; 50/60 Hz; 15A	1.5 in XT-5ES / XT-6ES 2 in XT-3ES 2 in LMP
508-7862	1 PH; 220-240V; 50/60 Hz; 9.6A	

Serviceable Parts	
Part No.	Description
517-2541	TM G Blade
517-2542	TM C Blade

## EM6-M Hose Saw

Warranty: Manufacturer's One Year  
See, page 422 Technical Support Section



- Target Application: advanced do-it-yourself customers, standard hose workshops
- Best match with M6 and/or S6 hose crimpers
- Spark Arrestor 583-3538 (recommended)

### Specifications

- Dimensions: 700 x 745 x 430 mm (28 x 29 x 17 in)
- Weight: 75 kg (165 lb)

Part No.	Description	Max. Cutting Capability
517-2539	3PH, 400V; 50 Hz; 9.5A	1.5 in XT-5ES / XT-6ES 2 in XT-3ES 3 in LMP
516-9369	3PH, 220V; 50/60 Hz; 15A	

Serviceable Parts	
Part No.	Description
517-2537	TM G Blade
517-2538	TM C Blade

## EM3-E Hose Saw

Warranty: Manufacturer's One Year  
See, page 422 Technical Support Section



- Target Application: market entry level, do-it-yourself customers, service trucks and hose vans
- Best match with S2 hose crimper

### Specifications

- Dimensions: 400 x 510 x 540 mm (16 x 20 x 21 in)
- Weight: 20 kg (44 lb)

Part No.	Description	Max. Cutting Capability
516-9368	1 PH; 230V; 50/60 Hz; 8A	1 in XT-6ES / XT-5ES 1.25 in XT-3ES 1.25 in LMP

Serviceable Parts	
Part No.	Description
517-2535	TM G Blade
517-2536	TM C Blade

# Hose Assembly Tools

## EM3-DC Hose Saw

Warranty: Manufacturer's One Year  
See, page 422 Technical Support Section



- Target Application: market entry level, do-it-yourself customers, service trucks and hose vans
- Best match with S2 hose crimper
- Specifications
  - Dimensions: 470 x 567 x 365 mm (19 x 22 x 14 in)
  - Weight: 29 kg (64 lb)

Part No.	Description	Max. Cutting Capability
517-2531	12V DC; 200A	1 in XT-6ES / XT-5ES
517-2534	24V DC; 115A	1.25 in XT-3ES 1.25 in LMP

Serviceable Parts	
Part No.	Description
517-2532	TM G Blade
517-2533	TM C Blade

## Saw Repair Parts

Model Usage: All  
Warranty: Caterpillar Six Months

Part No.	Description
561-2027	Motor Shaft Break Away Coupling, Support EM3-DC only
561-2028	Hose Bending Pin Kit, Support EM3-DC only
561-2029	Hose Bending Pins, Support EM6-E, EM6-M and EM6-P
576-6137	Stand-Table
583-3538	Spark Arrestor, Support EM6-M and EM6-P
533-1184	Spark Arrestor, Support EM115

## Repair Parts Reference Guide

### Crimpers Repair Parts

Part No.	Alternate Description
<b>CLC 290 Hose Crimper</b>	
233-8077	Steel Die Pin (232L/266L/237L Series Large Die and Adapters)
233-8082	Die Kit - Adapter
233-8085	Path Sensor (Potentiometer)
330-3951	Pin - Die Kit 239-L Smaller Dies (8 pieces)
358-4536	Caliper Electronic 3" or Smaller Couplings
358-4537	Cable - Caliper
358-4538	Pedal Foot Switch
423-4373	Caliper Electronic 8" or Smaller Couplings
457-6033	Pressure Sensor
466-0748	Pad - Deflector (DIRT)
466-0750	Tool Gp - (Lube Ring)
566-7505	Plastic Pins For 239 and 239L Series Dies (8 pieces)
<b>Crimputer</b>	
358-4539	Crimputer Bracket As. Lever for C3 and C5
528-5353	CV (Crimputer 5)
561-2023	Internal USB Connector/Cable Support C3 Panel
561-2024	E-stop Operator Support C3 and C5 Panel

## Repair Parts Reference Guide (Continued)

Part No.	Alternate Description
566-7501	Internal USB Connector/Cable Support C5 Panel
566-7502	Path Sensor (Potentiometer) Support C3 and C5
<b>325 Hose Crimper</b>	
233-8046	Die Changer Tool for use with 239L Dies
233-8047	Die Release Tool
233-8077	Steel Die Pin (232L/266L/237L Series Large Die and Adapters)
330-3951	Pin - Die Kit 239-L Smaller Dies (8 pieces)
358-4536	Caliper Electronic 3" or Smaller Couplings
358-4537	Cable - Caliper
358-4538	Pedal Foot Switch
358-4539	Crimputer Bracket As. Lever for C3 and C5
358-4544	Double Pedal Foot Switch
421-2654	Screw - Detent
423-4364	Calibration Mandrel for 325
423-4367	Adapter Die for 325
423-4373	Caliper Electronic 8" or Smaller Couplings
457-6033	Pressure Sensor
458-2920	Oil Filter Element 1 (45 X 85 mm (1.8 X 3.3 in)
458-2921	Oil Filter Element 2 (45 X 88 mm (1.8 X 3.5 in)
482-4417	Tool Gp - (Plunger - Master Die)
550-9143	Springs Kit (24 pieces)
561-2025	Bearing Plate Kit Complete
561-2026	Springs Kit (24 pieces)
566-7502	Path Sensor (Potentiometer)
566-7503	Shim Kit - Used to improve roundness or concentricity of die closure, goes under bearing plate.
566-7504	Die As. - Master Complete Master Die Group
566-7505	Plastic Pins For 239 and 239L Series Dies (8 pieces)
578-6149	Screw - Detent Kit (8 pieces)
<b>S6 Hose Crimper</b>	
233-8045	Calibration Mandrel for S6
233-8046	Die Changer Tool for use with 239L Dies
233-8047	Tool - Die Release
233-8077	Steel Die Pin (232L/266L/237L Series Large Die and Adapters)
330-3951	Pin - Die Kit 239-L Smaller Dies (8 pieces)
358-4536	Caliper Electronic 3" or Smaller Couplings
358-4537	Cable - Caliper
358-4538	Pedal Foot switch
358-4539	Crimputer Bracket As. Lever for C3 and C5
358-4544	Double Pedal Foot Switch
358-4545	Table with Die Holder Rack
416-6391	Kit - Slid Bearing (Rear) under Master Dies (8 pieces)
416-6395	Master Die Extraction/Capture Tool
416-6396	Kit - Plunger (Master Die)
416-6401	Rear Retainer Ring Slide Bearings
416-6402	Kit - Bolt for Master Dies (8 pieces)
416-6403	Die As. - Master Single Master Die

# Hose Assembly Tools

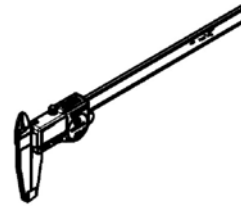
## Repair Parts Reference Guide (Continued)

Part No.	Alternate Description
421-2653	Adapter Die for S6
421-2654	Screw - Detent
423-4373	Caliper Electronic 8" or Smaller Couplings
425-2389	Kit - Slid Bearing (Inside Front plate) (2 pieces)
457-6033	Pressure Sensor
462-5664	Capacitor (Only for single phase machines)
550-9143	Springs Kit (24 pieces)
566-7502	Path Sensor (Potentiometer)
566-7503	Shim Kit - Used to improve roundness or concentricity of die closure, goes under bearing plate.
566-7505	Plastic Pins for 239 and 239L Series Dies (8 pieces)
578-6149	Screw - Detent Kit (8 pieces)
<b>M6 Hose Crimper</b>	
233-8046	Die Changer Tool for use with 239L Dies
233-8047	Tool - Die Release
233-8077	Steel Die Pin (232L/266L/237L Series Large Die and Adapters)
330-3951	Pin - Die Kit 239-L Smaller Dies (8 pieces)
358-4545	Table with Die Holder Rack
416-6396	Kit - Plunger (Master Die)
421-2653	Adapter Die for M6
421-2654	Screw - Detent
550-9143	Springs Kit (24 pieces)
550-9145	8 T Nut; 16 M6 Bolt; 16 Washer
566-7503	Shim Kit - Used to improve roundness or concentricity of die closure, goes under bearing plate.
566-7505	Plastic Pins For 239 and 239L Series Dies (8 pieces)
578-6149	Screw - Detent Kit (8 pieces)
<b>S2 Hose Crimper</b>	
561-1991	Bearing Plates
561-1992	Front Bearing Plate
561-1993	Master Die Springs (16 pieces)
561-1994	Seal Kit
561-1995	Pressure Pad (8 pieces)
561-1996	Die Pins KIT (8 pieces)
561-1997	Retract Spring (8 pieces)
561-1998	Guide Pin (2 pieces)
<b>Hose Saws Repair Parts</b>	
561-2027	Motor Shaft Break Away Coupling, Support EM3-DC only
561-2028	Hose Bending Pin Kit, Support EM3-DC only
561-2029	Hose Bending Pins, Support EM6-E, EM6-M and EM6-P
576-6137	Stand-Table
583-3538	Spark Arrestor, Support EM6-M and EM6-P
533-1184	Spark Arrestor, Support EM115

## Repair Parts Reference Guide (Continued)



457-6033



423-4373

## Fume Exhausters

Model Usage: All  
 Warranty:  
 Caterpillar Six Months



- Optional accessory
- Exhausts fumes and draws dust and debris into cabinet base where it is trapped for later collection
- For best results, use 127 mm (5 in) diameter ducting with a maximum length of 6 m (20 ft)
- 900 CFM capacity

**NOTE:** These machines are not European Union compliant.

**NOTE:** Not for use with cut off saws 9U-7319 & 9U-7320. Single Phase fume exhauster is available via special order. Contact Dealer Service Tools sale representative.

**NOTE:** Ducting not included

Part No.	Description
250-6808	Installed and wired to 250-6807 Hose Cutting Machine, Wired for 460 V, 60 Hz, 3 Phase 900 CFM capacity
251-1207	Installed and wired to 6V-6015 Hose Cutting Machine, Wired for 230 V, 60 Hz, 3 Phase 900 CFM capacity

# Hose Assembly Tools

## Pressure Test Equipment

Warranty: Manufacturer's One Year



528-5347 P160 Cabinet



528-5349 P160 Cabinet with Extension



528-5351 Test Bench Control Stand



528-5350 P350 Cabinet

- The Cat Hose Assembly Pressure Test Equipment is designed to ensure a safe, reliable hose has been built and is ready for installation. The Cat Hose Pressure Test Equipment was designed to comply with the most strict safety standards available, such as MDG 41 Mine Site Guidelines.
- Cat Hose Assembly Pressure Test Equipment can operate as a stand-alone machine and it can also be integrated with the Cat Hose Crimper and Label Printer to maintain hose build and pressure test data for historical records and improved hose business management.
- Creation of Certification number that is comprised of Facility Location, Work Order Number, Hose Part Number, Batch Count and Date Code.
- Detailed hose label auto print
- The Crimputer or Test Bench datalog can be downloaded at anytime via USB and then uploaded for safe, accurate record keeping
- Standard solution requires manual download of data memory for complete record keeping and hose business management. A networked integration set-up option is also available.
- This solution is ideal for hose shops with multiple hose crimpers and is available upon request. Please contact your local ASR or ASC for more information.

**System features include:**

- User identification through login and password
- User-guiding software for improved operation

**NOTE:** Please refer to Dealer Service Tools Catalog PERJ1017 for detailed technical information.

Part No.	Description	Weight	Overall Dimensions
528-5351	Test Bench Control Stand	210 kg	850 x 1390 x 810 mm
528-5347	P160 Cabinet	200 kg	2210 x 950 x 1325 mm
528-5349	P160 Cabinet with Extension	390 kg	4100 x 950 x 1325 mm
528-5350	P350 Cabinet	650 kg	2100 x 2170 x 2650 mm
528-5354	Adapter Kit	85 kg	800 x 600 x 670 mm
528-5353	CV Crimputer. Required for implementation of Integration Software	4 kg	250 x 200 x 50 mm
528-5352	Barcode Scanner. Recommended for use with Integration Software	-	-

**Packages**

Part No.	Description
528-5359	P160 Test Bench (includes P160 cabinet, control stand, adapter kit)
528-5360	P160 Test Bench w/ Extension Cabinet (includes P160 cabinet with extension, control stand, adapter kit)
528-5361	P350 Test Bench (includes P350 cabinet, control stand, adapter kit)

Note: The test fluid needs to be changed regularly every three months, even if the machine is not being utilized with the following Cat Fluid part numbers:

- 351-9431: 3.79 Liter (Concentrate - Must be diluted 92.5% water to 7.5% concentration)
- 351-9432: 20 Liter (Concentrate - Must be diluted 92.5% water to 7.5% concentration)



## Skiver Machine 584-5208 (Not Available Until 2nd Quarter 2020)

### The New Skiving Machine

Multiple arbors allow user to set diameter to minimize change-over time. Higher productivity due to low change-over times and user friendly operation for optimum results.

Specifications	Description
Model	CPS10 S
External Skiving	1.00" - 2"
Tool Revolution	110 rpm
Drive	0.37 kw (3 phase)
L x W x H (mm)	40 x 440 x 545
Weight	35 Kg

The skiver will come with 11 external arbors (4 arbors for XT-3ES serving Hoses from -16 up to -24) plus 3 arbors for XT-5ES serving Hoses from -16 up to -32) plus 3 arbors for XT-6ES serving Hoses from -16 up to -24 and 1 arbor for -32 XT-5ES/XT-6ES -32)

The skiver will come with 11 External Arbors Part Number 584-5552, that service XT-3ES, XT-5ES and XT-6ES

External Arbor DN 25; ID 1" (3 Arbors)

External Arbor DN 31; ID 1 1/4" (3 Arbors)

External Arbor DN 38; ID 1 1/2" (3 Arbors)

External Arbor DN 51; ID 2" (2 Arbors) since XT-5ES, and XT-6ES will be the same

Dash Size	ID (mm, in)	DN	# of Arbors
-16	25.4, 1.00	25	3
-20	31.8, 1.25	31	3
-24	38.1, 1.50	38	3
-32	50.8, 2.00	51	2*

\*Since XT-5ES and XT-6ES will be the same

The rack part number 584-5210

The standard table part number 576-6137



584-5208



584-5552



584-5210

# Hose Assembly Tools

## XT Reusable Press

Model Usage: All

Warranty: *Manufacturer's One Year*  
[See, page 422 Technical Support Section](#)



CE Compliant

- The XT Reusable Press is used to reclaim the couplings from hose assemblies using reusable couplings. All legacy tooling in the following sections used for reclaiming -6 through -32 size reusable couplings can be used with the new XT Reusable Press. New tooling will be released for the XT Reusable Press which will only support sizes for -16 and larger as the reusable couplings for -12 and smaller series have been discontinued. The XT Reusable Press does not function as a hose crimper similar to the legacy models.
- XT Tooling is required to service reusable couplings
- Each unit comes with pump, motor, press, foot pedal. Tooling purchased separately.

- Available in either 115V or 230V, Single Phase
- Integrated stand securely holds equipment and press
- Tooling kit part numbers are currently being developed to support the new XT Reusable Press for -16 sizes and larger. Existing tooling shown in the legacy press section of this catalog can be used with the new press. Please consult your local Hose Pro and the legacy XT Hose Machine section of this catalog for additional guidance on tooling selection.

### Reference

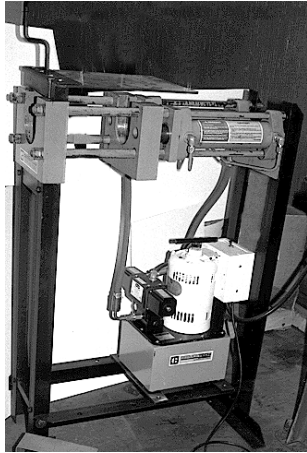
- M0090635 – Assembling Reusable Couplings

Part No.		Description
508-7863	115V, Single Phase	28,000 kPa (1280 bar)1080 x 1200 x 520 mm 60 Tons Pushing Force, 45 Tons Pulling Force
540-1208	230V, Single Phase	

**NOTE:** Tooling for reusable press is purchased separately.

## XT Hose Machine (Pending Discontinuation)

*Warranty: Caterpillar Six Months* When equipped with optional Cat variable crimping bowl assembly and smooth-bore die set, hose machine has capability of crimping many sizes of permanent couplings



Part No.	Description
150-2568 <sup>(10)</sup>	XT Hose Machine

Cat 150-2568/173-9805 XT Hose Machine		
Hose Type	Coupling Type	Dash Size
294	MN	-4, -5, -6, -8, -10, -12, -16, -20
294TG	MN	-4, -6, -8, -10, -12, -16
294CP	MN	-4, -6, -8, -10, -12, -16, -20
294CPTG	MN	-4, -6
716	MN	-4, -6, -8, -10, -12, -16, -20
716TG	MN	-4, -6, -8, -10, -12, -16
716CP	MN	-4, -6, -8, -10, -12, -16
844	MN	-12, -16, -20
XT3ES	TR	-6, -8, -10, -12, -16
	ESA	-6, -8, -10, -12, -16
	S4G	-6, -8, -10, -12, -16
	XN	-6, -8
	XN4	-24
XT3ESTG	TR	-6, -8, -10, -12, -16
	ESA	-6, -8, -10, -12, -16
	S4G	-6, -8, -10, -12, -16
	XN	-6, -8
	XN4	-24
XT5ES	PL	-12
	MCSH	-12
	MCSX	-12
	XN	-10, -12
XT5ESTG	PL	-12
	MCSH	-12

Cat 150-2568/173-9805 XT Hose Machine		
Hose Type	Coupling Type	Dash Size
	MCSX	-12
	XN	-10, -12
XT6ES	IN	-6, -8, -10
	MCSM	-6
	XN	-6, -8
	XT6ESTG	IN
MCSM		-6
XN		-6, -8
1028	55	-3, -4, -5, -6, -8, -12
CATACFC	A/C	-6, -8, -10, -12, -14
PARKEAC	A/C	-6, -8, -10, -12, -14
2760	JN	-4, -5, -6, -8
2786	MN	-4, -6, -8, -10, -12, -16
2929	MH	-4, -5, -6, -8
2929TG	MH	-6
	MHT	-4
743	MH	-5, -6, -8, -10, -12, -16
	MHT	-4
	JN	-3
945	MH	-6, -8, -12
	MHT	-4
	JN	-3
662	MN	-6, -8
2771A	JN	-4, -5, -6, -8, -10, -12

<sup>10</sup> The 150-2568 XT Hose Presses have been replaced by part numbers in the previous section. These two part numbers are no longer supported. Tooling designed for these machines will work in the new machines.

# Hose Assembly Tools

## XT Hose Machine

### To Order:

If 150-2568 (Pending Discontinuation) (non-European Union Compliant) is ordered, choose the correct power and order the parts to Connect the power supply to the hose assembly machine.

1 Horsepower Pump Assembly Single phase, 50/60 HZ	
Part No.	Description
439-5247	115V
439-5248	230V

### Additional Parts Necessary to Connect the Power Supply to 150-2568 XT Hose Assembly Machine

Qty.	Part No.	Description
2	8F-0024	Hose
2	135-2535	Fitting
1	136-2060	Fitting
1	136-2061	Fitting
2	136-2068	Fitting
2	1P-2375	Coupler
2	1P-2376	Coupler

## Variable Crimp Die Bowl (Serving Legacy Machines)

Model Usage: All  
Caterpillar Six Months



European Union Compliant, CE marked

- Precision internal threads and external barrel scale
- Similar to a micrometer, bowl provides nearly infinite adjustment for the smooth-bore dies
- Easy to adjust thickness by twisting the bowl

- Eliminates the need for spacer rings used with stepped dies
- Fewer smooth-bore dies needed to service the same range of hose and coupling sizes in comparison with stepped dies

Part Number	Description
242-3567 <sup>(11)</sup>	Variable Crimp Die Bowl

### Crimping Bowl Assembly (required)

Part Number	Description
133-7362 <sup>(11)</sup>	Die Rest
135-4561 <sup>(11)</sup>	Die Separator
140-9360 <sup>(11)</sup>	Separator Ring
4C-4375 <sup>(11)</sup>	Spring
4C-4376 <sup>(11)</sup>	Snap Ring

<sup>11</sup> The parts in this section support legacy machines 150-2568 and 173-9805 will not work with new XT Press.

## XT-ES General Kit

Model Usage: All  
Warranty:  
Caterpillar Six Months

- Used with XT Hose Assembly Machines as well as the Combination Hose Assembly Machine

**Reference**  
M0090635 Comprehensive Tooling List for Assembling and Disassembling Reusable Couplings

### Kit Introduction Table & Information (Not Available Until 2nd Quarter 2020)

This section provides helpful reusable coupling tooling group information for Assembling and Disassembling Reusable Couplings.

Kit Number	Kit Part Number	Description	Number of Part No.
1	585-4436	General Kit (That can fit all XT-ES Hoses)	46 individual Parts
2	585-4437	Serve XT3-ES Hoses	14 individual Parts
3	585-4438	Serve XT5-ES Hoses	14 individual Parts
4	585-4439	Common for XT3-ES and XT5-ES	6 individual Parts
5	585-4441	Serve XT6-ES Hoses	28 individual Parts

For customers interested in servicing Reusable couplings for the first time, or for those interested in expanding the coverage of their existing Reusable coupling business, 5 tooling groups have been created based on the XT product that will be serviced.

**Note:** For those interested in replacing lost or broken pieces, all part numbers in each group can be purchased individually.

Here are the Reusable tooling groups offered:

General Tool Group (Kit #1) – This group contains tooling that is common between XT-3ES, XT-5ES, and XT-6ES. Anyone in the Reusable business will need the General Tool Group (Kit #1).

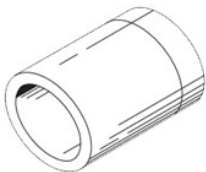
XT-3ES – For anyone interested in servicing XT-3ES hose assemblies, in addition to the General Group, they will also need the XT-3ES kit (Kit #2) and the XT-3ES/XT-5ES common kit (Kit #4).

XT-5ES – For anyone interested in servicing XT-5ES, in addition to the General Group (Kit #1), they will also need the XT-3ES/XT-5ES common kit (Kit#4) and the XT-5ES kit (Kit #3).

XT-6ES – For anyone interested in servicing XT-6ES, in addition to the General Group (Kit #1), they will also need the XT-6ES kit (Kit #5).

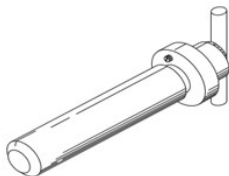
To service all XT products together (XT-3ES, XT-5ES, and XT-6ES), all 5 kits are required. If servicing both XT-3ES and XT-5ES, the XT-3ES/XT-5ES common kit (Kit #4) only needs to be purchased once.

### General Kit 585-4436 (Not Available Until 2nd Quarter 2020)



Skive Guide

Hose Gauge Kit (Skive Guide)		
Part No.	Description and Used on	
226-7145	Black	Fit all XT-ES -16, 1 in (25.4 mm)
226-7146	White	Fit all XT-ES -20, 1 1/4 in (31.75 mm)
226-7147	Red	Fit all XT-ES -24, 1 1/2 in (38.1mm)
226-7148	Green	Fit all XT-ES -32, 2 in (50.8 mm)
226-7149	Depth Gauge	

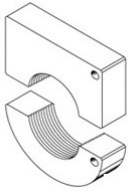


Typical One-Piece Squareness Gauge and Skiving Arbor

Typical One-Piece Squareness Gauge and Skiving Arbor			
Part No.	Description and Used on		
202-3278	Black	1.524+/-0.025 mm	Fit all XT-ES -16
202-3279	White	2.032+/-0.025 mm	Fit all XT-ES -20
202-3280	Red	2.540+/-0.025 mm	Fit all XT-ES -24
202-3281	Green	3.175+/-0.025 mm	Fit all XT-ES -32

# Hose Assembly Tools

## XT-ES General Kit (Continued)



Typical Gripper Collet

Upper and Bottom Gripper Collets:	
Part No.	Description and Used on
1U-9675	1 in (25.4 mm) - 16 XT-ES & 1 1/4 in (31.75 mm) -20 XT-ES
1U-9676	
1U-9677	1 1/2 in (38.1mm) -24 XT-ES
1U-9678	
1U-9679	2 in (50.8 mm) -32 XT-ES
1U-9680	



Depth Gauge

Pusher Assembly <sup>(12)</sup>	
Part No.	Description and Used on
6V-4964	1 in (25.4 mm) -16 XT-ES
8T-3059	1 1/4 in (31.75 mm) -20 XT-ES
8T-3061	1 1/2 in (38.1mm) -24 XT-ES

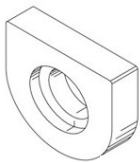
Stem Pusher for all XT-ES	
Part No.	Description and Used on
5S-2834	1 in (25.4 mm) -16 XT-ES
5S-2840	1 1/4 in (31.75 mm) -20 XT-ES
5S-2846	1 1/2 in (38.1mm) -24 XT-ES



Finger Expander

Pusher Plate	
Part No.	Description and Used on
6V-4912	Fit all XT-ES

Finger Expander	
Part No.	Description and Used on
5P-0973	1 in (25.4 mm) -16 XT-ES
5S-2837	1 1/4 in (31.75 mm) -20 XT-ES



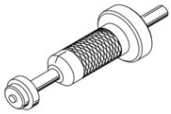
One Piece Collet

Rear one Piece Collet <sup>(13)</sup>	
Part No.	Description and Used on
4C-5890	1 in (25.4 mm) -16 XT-ES
4C-5891	1 1/4 in (31.75 mm) -20 XT-ES
4C-5892	1 1/2 in (38.1 mm) -24 XT-ES
4C-5893	2 in (50.8 mm) -32 XT-ES

<sup>12</sup> Used with Mandrel in General Category

<sup>13</sup> Using for Spreading Coupling Finger

## XT-ES General Kit (Continued)



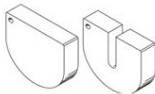
**Mandrel and Stem Pusher**



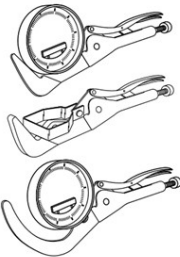
**Beveled Horseshoe Collet**



**Stem Expander**



**Solid and Slotted Pusher Plate**



**Protractor & Skiving Groups**

XT Reclamation Tooling Group	
Part No.	Description and Used on
127-9928	1 in (25.4 mm) -16 XT-ES
127-9929	
127-9930	1 1/4 in (31.75 mm) -20 XT-ES
127-9931	
127-9933	1 1/2 in (38.1mm) -24 XT-ES
127-9934	
127-9936	2 in (50.8 mm) -32 XT-ES
127-9937	
8C-3996 <sup>(14)</sup>	Setscrew

Hose Mandral <sup>(15)</sup>	
Part No.	Description and Used on
6V-4963	1 in (25.4 mm) -16 XT-ES
8T-3058	1 1/4 in (31.75 mm) -20 XT-ES
8T-3060	1 1/2 in (38.1mm) -24 XT-ES
136-3603	2 in (50.8 mm) -32 XT-ES

Beveled Horseshoe Collet	
Part No.	Description and Used on
4C-6188 <sup>(16)(17)</sup>	31 mm Collet Inner Diameter

Stem Expander	
Part No.	Description and Used on
5P-5234	Fit all -20 XT-ES

Slotted Pusher plate	
Part No.	Description and Used on
6V-4913	Fit all XT-ES

Protractor and Skiving Tools		
Part No.	Description and Used on	
7S-1125	Protractor Group	Used to set the angle of orientation on all hose type up to -36
7S-1126	Skiving Tool	Skives ISO Fit all XT-ES

14 Three required per collet for XT Hose Reclamation

15 Use with pusher assembly for Coupling removal

16 Stem Collet for integrated hex coupling.

17 These collets are used on bent-stem with short neck or large-head hose coupling to eliminate clearance problem, where interference normally occurs.

# Hose Assembly Tools

## Hose Assembly Accessory Group

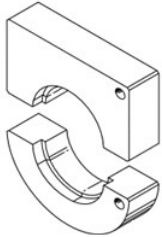
Model Usage: All

Warranty: Caterpillar Six Months

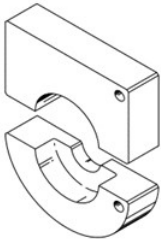
### Reference

M0090635 "Comprehensive Tooling List for Assembling and Disassembling Reusable Couplings"

### XT-3ES Kit 585-4437 (Not Available Until 2nd Quarter 2020)



Typical Sleeve Collet



Typical Stem Collet

Stem & Sleeve Removal Collets - XT-3ES			
Part No. <sup>(18)</sup>	Description		Used On
9U-6743	Red	Top Collet	1 in (25.4 mm), -16 XT-3ES Stem
9U-6744	Red	Bottom Collet	
6V-4897	Orange	Top Collet	1 1/2 in (38.1 mm), -24 XT-3ES Sleeve
6V-4898		Bottom Collet	
6V-4899	White	Top Collet	2 in (50.8 mm), -32 XT-3 ES Sleeve
6V-4901		Bottom Collet	
6V-4893	Silver	Top Collet	1 in (25.4 mm), -16 XT-3ES Sleeve & 1 1/2 in (38.1mm), -24 XT-3ES Stem
6V-4894	Silver	Bottom Collet	
6V-9069	Yellow	Top Collet	2 in (50.8 mm), -32 XT-3ES Steem & 1 1/4 in (31.75 mm), -20 XT-3ES Sleeve
6V-9070		Bottom Collet	
6V-4891 <sup>(19)</sup>	Blue	Top Collet	1 1/4 in (31.75 mm) , -20 XT-3ES Stem
6V-4892 <sup>(19)</sup>	Blue	Bottom Collet	

Stem Expander for all XT-3ES	
Part No.	Description & Used on
5P-5236	2 in (50.8 mm), -32 XT-3ES

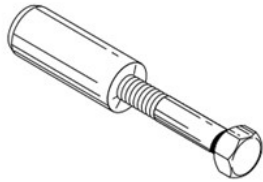
Stem Pusher for all XT-3ES	
Part No.	Description & Used on
5S-2852	2 in (50.8 mm), -32 XT-3ES

18 Note: May be ordered as individual parts  
 19 Common with XT-6ES

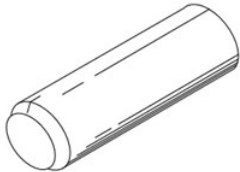


## Hose Assembly Accessory Group (Continued)

XT-5ES Kit 585-4438 (Not Available Until 2nd Quarter 2020)



Stem Expander



Stem Pusher XT-5ES

Stem & Sleeve Collets - XT5ES		
Part No. <sup>(20)</sup>	Description	Used on
8T-0815	Top Collet	1 in (25.4 mm), - 16 XT-5ES Sleeve & 1 1/2 in (38.1 mm), - 24 XT-5ES Stem
8T-0816	Bottom Collet	
6V-4917	Top Collet	1 in (25.4 mm), -16 XT-5ES Stem
6V-4918	Bottom Collet	
122-7321	Top Collet	1 1/4 in (31.75 mm), -20 XT-5ES Stem
122-7322	Bottom Collet	
4C-9433 <sup>(21)</sup>	Top Collet	1 1/4 in (31.75 mm), - 20 XT-5ES sleeve
4C-9474 <sup>(21)</sup>	Bottom Collet	
6V-4924	Top Collet	1 1/2 in (38.1 mm), -24 XT-5ES Sleeve & -32 XT-5ES Stem
6V-4925	Bottom Collet	
442-9651	Top Collet	2 in (50.8 mm), -32 XT-5ES Sleeve
442-9652	Bottom Collet	

Stem Expander XT-5ES	
Part No.	Description & Used on
6V-4972	2 in (50.8 mm), -32 XT-5ES

Stem Pusher for all XT-5ES	
Part No.	Description & Used on
126-1023	2 in (50.8 mm), -32 XT-5ES

<sup>20</sup> May be ordered as individual parts

<sup>21</sup> They are in both XT-5ES and XT-6ES (Stem & Sleeve)

# Hose Assembly Tools

## Hose Assembly Accessory Group (Continued)

Common XT-3ES and XT-5ES Kit 585-4439 (Not Available Until 2nd Quarter 2020)

Stem Expander	
Part No. <sup>(22)</sup>	Used on
170-5689	1 in (25.4 mm), -16 XT-3ES, XT-5ES
5P-5235	1 1/2 in (38.1 mm), -24 XT-3ES, XT-5ES

Pusher Assembly <sup>(23)</sup>	
Part No. <sup>(22)</sup>	Used on
136-3604	2 in (50.8 mm), -32 XT-3ES, XT-5ES

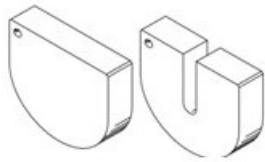
Rear one Piece Collet <sup>(24)</sup>	
Part No. <sup>(22)</sup>	Used on
4C-5893	2 in (50.8 mm), - 32 XT-3ES, XT-5ES

Finger Expander		
Part No. <sup>(22)</sup>	Description and used on	
5S-2843	Orange	1 1/2 in (38.1mm), -24 XT-3EX, XT-5ES
5S-2849	White	2 in (50.8 mm), -32 XT-3ES, XT-5ES

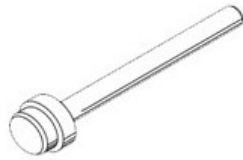
22 May be ordered as individual parts  
 23 Used with Mandrel in General Category  
 24 Using for Spreading Coupling Finger

## Hose Assembly Accessory Group (Continued)

XT-6ES Kit 585-4441 (Not Available Until 2nd Quarter 2020)



**Solid and Slotted Pusher Plate**



**Stem Pusher XT-6ES Kit**



**Finger Expander**

Stem & Sleeve Collets - XT-6ES		
Part No. <sup>(25)</sup>	Description	Used On
6V-4922 <sup>(26)</sup>	Top Collet	1 in (25.4 mm), - 16 XT-6ES Sleeve
6V-4923 <sup>(26)</sup>	Bottom Collet	
6V-4891 <sup>(27)</sup>	Top Collet	1 in (25.4 mm), -16 XT-6ES Stem
6V-4892 <sup>(27)</sup>	Bottom Collet	
4C-9422	Top Collet	1 1/4 in (31.75 mm), -20 XT-6ES Stem
4C-9423	Bottom Collet	
4C-9433 <sup>(28)</sup>	Top Collet	1 1/4 in (31.75 mm), -20 XT-6ES Sleeve
4C-9474 <sup>(28)</sup>	Bottom Collet	
188-1590	Top Collet	1 1/2 in (38.1mm), -24 XT-6ES Sleeve
188-1591	Bottom Collet	
188-1592	Top Collet	1 1/2 in (38.1mm), -24 XT-6ES Stem
188-1593	Bottom Collet	
265-5809	Top Collet	2 in (50.8 mm), -32 XT-6ES Sleeve
265-5810	Bottom Collet	
265-5811	Top Collet	2 in (50.8 mm), -32 XT-6ES Stem
265-5812	Bottom Collet	

Stem Expander XT-6ES	
Part No.	Used on
197-5396	1 in (25.4 mm) -16 XT-6ES
188-1594	1 1/2 in (38.1 mm) -24 XT-6ES
265-5817	2 in (50.8 mm) -32 XT-6ES

Pusher Plate	
Part No.	Used on
265-5814	2 in (50.8 mm) -32 XT-6ES

Stem Pusher for all XT-6ES	
Part No.	Used on
197-5394 <sup>(29)</sup>	1 in (25.4 mm) -16 XT-6ES
265-5813	2 in (50.8 mm) -32 XT-6ES

- 25 May be ordered as individual parts  
 26 Use for non integral Hex Reusable Coupling  
 27 Stem & Sleeve Removal for non integral Hex Reusable Coupling, and also Common Part with XT-3ES  
 28 They are in both XT-5ES and XT-6ES (Stem & Sleeve)  
 29 Non integral Hex Reusable Coupling

# Hose Assembly Tools

## Hose Assembly Accessory Group (Continued)

Finger Expander	
Part No.	Used on
188-1595	1 1/2 in (38.1 mm) -24 XT-6ES
265-5816	2 in (50.8 mm) -32 XT-6ES

Pusher Assembly (Used with Mandrel)	
Part No.	Used on
197-5395 <sup>(30)</sup>	1 in (25.4 mm) -16 XT-6ES
265-5815 <sup>(31)</sup>	2 in (50.8 mm) -32 XT-6ES Stem

## Thermal Transfer Bar Code Printer (Low Volume), Thermal Transfer Bar Code Printer (High Volume)

Manufacturer's One Year  
See, page 422 Technical Support  
Section



- European Union Compliant, CE marked
- Low and high volume hose label printers
  - Allows enhanced information on label (Part Number, Dealer Name and Telephone Number, Assembly Date, QR code)
  - Operates with starter software on a PC or in a standalone mode using optional accessories (not included)
  - Includes basic label template for use with software
  - Uses self-lamination labels with protective layer
  - Operates on Universal Power Supply between 100-240 VAC 50-60hz which connects to a standard PC adapter cable (US PC adapter cable included)
  - Optional plug adapters are available to support regional electrical standards

### 442-0077 Features:

- Small, space saving, low volume printer
- High quality double walled clamshell design
- Economical and suitable for less frequent usage
- Uses industry standard ribbons and media

- Head open sensor
- 8MB SDRAM, 4MB Flash Memory
- Supports Serial and USB 2.0 connectivity, Ethernet optional
- Supports standard industry emulations including Eltron® and Zebra® language support

### 442-0078 Features:

- Heavy duty die-cast aluminum design
- Delivers high-speed performance
- Supports Ethernet, USB 2.0, serial and parallel connectivity
- 300 dpi and 600 dpi resolution options
- Large LCD display with 6-button menus
- Supports a USB keyboard interface for stand-alone printing
- 8MB Flash and 32MB SDRAM memory
- Uses TSPL-EZ™ firmware for plug-n-play

### NOTE:

The latest software updates can be found at:  
<https://dealer.cat.com/en/ps/service-tools/c/crimputer-software.html>.

30 Non integral Hex reusable Coupling( Used with 6V-4963 Mandrel)  
31 Used with 136-3603 Mandrel

# Hose Assembly Tools

## Thermal Transfer Bar Code Printer (Low Volume), Thermal Transfer Bar Code Printer (High Volume) (Continued)

Part Number	442-0077 (Low Volume Printer)		442-0078 (High Volume Printer)	
Voltage	100-240 VAC, 1.8A, 50/60 Hz Universal Power Supply		100-240 VAC, 2A, 50/60 Hz Universal Power Supply	
Display	Single Line LCD		Multiple Line LCD	
Label Feed	Continuous Print (for multiple labels)		Continuous Print with Single Step Present and label backing rewind option (for multiple labels)	
Label Stock Options with Protective Cover	-3 to -16 (S) 490 Labels per roll	-20 to -56 (L) 175 Labels per roll	-3 to -16 (S) 900 Labels per roll	-20 to -d56 (L) 400 Labels per roll
Ribbon	Maximum 90 meters long		Maximum 600 meters long	
Interface	USB cable provided Standalone with USB Keyboard (not incl.)		USB cable provided Standalone with USB Keyboard (not incl.)	
Dimensions	140 mm (W) X 177 mm (H) X 241 mm (D) (5.51 in X 6.97 in X 9.49 in)		270 mm (W) X 308 mm (H) X 505 mm (D) (10.63 in X 12.13 in X 19.88 in)	
Weight	2.5 kg (5.5 lb)		15 kg (33 lb)	

### Consumables

Starter Kit	442-0073	1 Roll 490 Labels (S) 1 Roll 175 Labels (L) 1 Roll 74m Ribbon	442-0069	1 Roll 900 Labels (S) 1 Roll 400 Labels (L) 1 Roll 450m Ribbon
Label Stock	442-0074	3 Rolls of 490 Labels (S)	442-0070	3 Rolls of 900 Labels (S)
	442-0075	3 Rolls of 175 Labels (L)	442-0071	3 Rolls of 400 Labels (L)
Ribbon Stock	442-0076	6 Rolls of 74m Ribbons	442-0072	6 Rolls of 450m Ribbons

### Service Parts

Print Head	445-9430	Single Replacement	445-9432	Single Replacement
Platen Assembly	445-9431	Single Replacement	445-9433	Single Replacement

### Optional Accessories

European Style Plug Adapter	Australian Style Plug Adapter	UK Style Plug Adapter
270-0578	270-0580	447-8886

# Hose Assembly Tools

## Clean Seal Production Heat Shrink Machine, Clean Seal Hand-Held Heat Shrink Tool

Model Usage: All  
 Manufacturer's One Year  
[See, page 422](#) Technical Support  
 Section



546-5746



546-5747



Seal Easy.

Heat Shrink 3-Step Process

### 546-5746 Clean Seal Production Heat Shrink Machine (New) European Union Compliant, CE marked

- European plug only
- Used to apply clean seal capsules in place of plastic plugs and caps to keep contamination out of hose assemblies
- Applies heated air to set capsule on fitting end in under two seconds
- Even heat distribution for a perfect capsule shrink-fit
- Accepts clean seal capsules from 20 mm (1 in) — 80 mm (3 in) ID
- Clean seal capsules help protect fitting threads and seals from damage
- Hex sizes from 12 mm (1/2 in) — 78 mm (3 in)
- Oversized shrink tunnel opening allows multiple assembly ends at once
- Heating unit is thermocouple protected against overheating
- Brushless DC blower motor for trouble free operation
- On/Off timer enables hot air heater to always turn off automatically
- Heater timer can be set in one minute increments up to sixty minutes
- Locking 3-wire grounding power main plug NEMA L6-15 for safe 230VAC connection
- White light indicator lets you know when heater is active
- Green light power on/off rocker switch lets you know when power is on
- Shrink tunnel is insulated to help keep heat in
- System is 100% duty cycle rated for 24/7 continuous operation
- Cool air in vent helps keep heating air clean
- Cap seals used in place of plastic plugs and caps to keep contamination out of hose assemblies

### 546-5747 Clean Seal Hand-Held Heat Shrink Tool

- Includes heat gun with case, flex vacuum pump stand and 95 mm diffuser for 1.5" connection (Case, stand and diffuser not serviced separately)

Part No.	Description	Dimensions	Weight
546-5746	Clean Seal System Heat Shrink Machine (230V, 50/60Hz, Single Phase)	520.7 x 241.3 x 180 mm (20.5 x 9.5 x 7 in)	11.8 kg (26 lbs)
546-5747	Hand-Held Clean Seal System (120V, 60Hz, Single Phase)	342.9 x 330.2 x 127 mm (13.5 x 13 x 5 in)	3.1 kg (6.9 lb)

## Clean Seal Capsules

Consumables (Capsules must be purchased separately)			Hex Size	Pkg Qty
486-7587	Clean Seal Capsules	20 X 30 mm (0.8 x1.2 in)	12 to 18	1300
486-7588	Clean Seal Capsules	25 x 40 mm (1.0 x 1.6 in)	12 to 22	1050
486-7589	Clean Seal Capsules	28 x 40 mm (1.1 x 1.6 in)	22 to 24	684
486-7590	Clean Seal Capsules	31 x 40 mm (1.2 X 1.6 in)	24 to 27	850
486-7591	Clean Seal Capsules	34 X 40 mm (1.3 x 1.6 in)	27 to 30	560
486-7592	Clean Seal Capsules	38 x 40 mm (1.5 x 1.6 in)	30 to 32	756
486-7593	Clean Seal Capsules	46 x 50 mm (1.8 x 2.0 in)	32 to 41	540
486-7594	Clean Seal Capsules	52 x 60 mm (2.1 x 2.4 in)	41 to 50	520
486-7595	Clean Seal Capsules	58 x 60 mm (2.3 x 2.4 in)	49 to 56	585
486-7596	Clean Seal Capsules	67 x 60 mm (2.6 x 2.4 in)	55 to 65	400
486-7597	Clean Seal Capsules	80 x 60 mm (3.2 x 2.4 in )	64 to 78	434

# Hose Assembly Tools

## Hose Cleaning Group (Economy)

Model Usage: All  
 Warranty: Caterpillar Six Months



European Union Compliant, CE marked

- Used to remove waste and contaminants from internal surfaces of tubes, lines, and hoses while machine is at the job site (works great in field service trucks)
- Used with pressurized air or nitrogen gas, existing Caterpillar projectiles and NEEG2955 Projectile Sizing Chart
- Works on 4 mm (0.16 in) through 32 mm (1-1/4 in) or -03 through -20 hoses
- Less expensive alternative to other Caterpillar hose cleaning groups (this group has limited size capabilities, making it less expensive)
- Durable plastic handle with quick-acting threads and internal brass parts
- Clean hydraulic systems (tubes, lines, and hoses) will reduce risk of component failure, increase service life of filters, reduce equipment maintenance costs (less wear), and increase productivity (more time on the job)

- Includes carrying case with foam inserts
- 308-8524 Hose Cleaning Projectile Launcher can also be purchased separately

**NOTE:** The operating pressure is 550 to 760 kPa (80 to 110 PSI) and should be used with a 13mm (1/2") inside diameter air hose. An in-line air filter and regulator are also recommended.

### References

- NEHS0643 "Using the 233-7191, 233-7192, 233-7193 and 265-4959 Hose Cleaning Groups"
- NEHS0634 "Operation Safety Video"
- NEHS0768 "General Information for Hose Assembly"
- NEEG2955 "Projectile Sizing Chart"

**Step 1:** Order the 233-7191 Hose Cleaner Group

Part No.	Description
233-7191	Hose Cleaning Group (Economy)

**233-7191 Hose Cleaner Group Consists Of:**

Part No.	Description
215-4585	Nozzle 4 mm (.16 in)
130-6069	Nozzle 6 mm (.24 in)
130-6070	Nozzle 8 mm (.31 in)
130-6071	Nozzle 10 mm (.40 in)
130-6072	Nozzle 13 mm (.51 in)
130-6073	Nozzle 16 mm (.63 in)
130-6074	Nozzle 19 mm (.75 in)
130-6075	Nozzle 25 mm (.98 in)
130-6076	Nozzle 33 mm (1.3 in)
308-8524	Hose Cleaning Projectile Launcher
130-6068	Air Hose Quick Disconnect (1/2 in male hose barb)

**Step 2:** Order the projectiles for cleaning hose and hose assemblies from the list "Projectile Application Information for Hose Cleaner Groups"



## Hose Cleaner Group

Model Usage: All

Warranty: Caterpillar Six Months



European Union Compliant, CE marked

- Used to remove waste and contaminants from internal surfaces of tubes, lines, and hoses while machine is at the job site (works great in field service trucks)
- Used with pressurized air or nitrogen gas, existing Caterpillar projectiles and NEEG2955 Projectile Sizing Chart
- Works on 4 mm (0.16 in) through 32 mm (1-1/4 in) or -03 through -20 hoses
- Optional nozzles available for use to 50 mm (2 in) or -32 hoses
- 233-7192 Hose Cleaner Group quickly and effectively cleans hose, complete hose assemblies, or other hydraulic lines in order to reduce hydraulic system contamination
- Designed specifically for service vehicle or mobile applications
- Includes a large carrying case with foam inserts

- Fewer nozzles to simplify nozzle and projectile selection
- 233-7190 Hose Cleaning Projectile Launcher can also be purchased separately

**NOTE:** The operating pressure is 550 to 760 kPa (80 to 110 PSI) and should be used with a 13mm (1/2") inside diameter air hose. An in-line air filter and regulator are also recommended. **References**

- NEHS0643 "Using the 233-7191, 233-7192, 233-7193 and 265-4959 Hose Cleaning Groups"
- NEHS0634 "Operation Safety Video"
- NEHS0768 "General Information for Hose Assembly"
- NEEG2955 "Projectile Sizing Chart"

**Step 1:** Order the 233-7192 Hose Cleaner Group

Part No.	Description
233-7192	Hose Cleaning Group

**233-7192 Hose Cleaner Group Consists Of:**

Part Number	Description	Part Number	Description
215-4585	Nozzle 4 mm (.16 in)	130-6084	Nozzle 8 mm (.31 in)
130-6069	Nozzle 6 mm (.24 in)	130-6085	Nozzle 10 mm (.40 in)
130-6070	Nozzle 8 mm (.31 in)	130-6086	Nozzle 13 mm (.51 in)
130-6071	Nozzle 10 mm (.40 in)	130-6087	Nozzle 16 mm (.63 in)
130-6072	Nozzle 13 mm (.51 in)	130-6088	Nozzle 19 mm (.75 in)
130-6073	Nozzle 16 mm (.63 in)	130-6089	Nozzle 25/22 mm
130-6074	Nozzle 19 mm (.75 in)	130-6090	Nozzle 32/25 mm
130-6075	Nozzle 25 mm (.98 in)	233-7190	Hose Cleaning Projectile Launcher
130-6076	Nozzle 32 mm (1.26 in)	130-6062	Ring-Adapter
130-6083	Nozzle 6 mm (.24 in)	130-6068	Coupling Assembly

**Step 2:** Order the projectiles for cleaning hose and hose assemblies from the list "Projectile Application Information for Hose Cleaner Groups"

# Hose Assembly Tools

## Hose Cleaner Group

Model Usage: All

Warranty: Caterpillar Six Months



European Union compliant

- Used to remove waste and contaminants from internal surfaces of tubes, lines, hose & couplings
- Designed specifically for the dealer hose assembly area
- Used with pressurized air or nitrogen gas, existing Caterpillar projectiles and NEEG2955 Projectile Sizing Chart
- Works on 4 mm (0.16 in) through 50 mm (2 in) or -03 through -32 hoses
- Clean hydraulic systems (tubes, lines, and hoses) will reduce risk of component failure, increase service life of filters, reduce equipment maintenance costs (less wear), and increase productivity (more time on the job)
- Includes stand for projectile launcher (Hose Cleaning Projectile Launcher) and nozzle rack

- Does not include carrying case
- 233-7190 Hose Cleaning Projectile Launcher can also be purchased separately

**NOTE:** The operating pressure is 550 to 760 kPa (80 to 110 PSI) and should be used with a 13 mm (1/2") inside diameter air hose. An in-line air filter and regulator are also recommended.

### References

- NEHS0643 "Using the 233-7191, 233-7192, 233-7193 and 265-4959 Hose Cleaning Groups"
- NEHS0634 "Operation Safety Video"
- NEHS0768 "General Information for Hose Assembly"
- NEEG2955 "Projectile Sizing Chart"

**Step 1:** Order the 233-7193 Hose Cleaner Group

Part No.	Description
233-7193	Hose Cleaner Group

### 233-7193 Hose Cleaner Group Consists Of:

Part No.	Description	Part No.	Description
215-4585	Nozzle 4 mm (.16 in)	130-6091	Nozzle 38 mm (1.50 in)
130-6069	Nozzle 6 mm (.24 in)	130-6092	Nozzle 50 mm (2 in)
130-6070	Nozzle 8 mm (.31 in)	130-6097	Nozzle 38 mm (1.50 in)
130-6071	Nozzle 10 mm (.40 in)	130-6062	Ring-Adapter
130-6072	Nozzle 13 mm (.51 in)	130-6068	Coupling Assembly
130-6073	Nozzle 16 mm (.63 in)	156-0050	Stand-Launcher
130-6074	Nozzle 19 mm (.75 in)	156-0055	Rack-Nozzle Organizer
130-6075	Nozzle 25 mm (.98 in)	233-7190	Hose Cleaning Projectile Launcher
130-6076	Nozzle 32 mm (1.26 in)	-	-

**Step 2:** Order the projectiles for cleaning hose and hose assemblies from the list "Projectile Application Information for Hose Cleaner Groups".

## Hose Cleaning Group

Model Usage: All  
 Warranty: Caterpillar Six months



European Union compliant, CE Marked

- Used to remove waste and contaminants from large bore hose and couplings
- Designed specifically for the dealer hose assembly area
- Used with pressurized air or nitrogen gas, existing Caterpillar projectiles and NEEG2955 Projectile Sizing Chart
- Works on 55 mm (2.13 in) through 90 mm (3.5 in) or -40, -48, and -56 hoses
- Clean hydraulic systems will reduce risk of component failure, increase service life of filters, reduce equipment maintenance costs (less wear), and increase productivity (more time on the job)
- Includes stand for projectile launcher (Hose Cleaning Projectile Launcher) and nozzle rack

- Does not include carrying case
- 265-4958 Launcher can also be purchased separately

**NOTE:** The operating pressure is 550 to 760 kPa (80 to 110 PSI) and should be used with a 13 mm (1/2") inside diameter air hose. An in-line air filter and regulator are also recommended.

**References**

- NEHS0643 "Using the 233-7191, 233-7192, 233-7193 and 265-4959 Hose Cleaning Groups"
- NEHS0634 "Operation Safety Video"
- NEHS0768 "General Information for Hose Assembly"
- NEEG2955 "Projectile Sizing Chart"

**Step 1:** Order the 265-4959 Hose Cleaner Group

Part No.	Description
265-4959	Hose Cleaning Group

**265-4959 Hose Cleaner Group Consists Of:**

Part No.	Description
267-1527	Nozzle
130-6062	Adapter
—	Adapter
130-6068	Coupling As (8 mm) Airline Disconnect
156-0055	Stand (not shown)
265-4958	Launcher

**Step 2:** Order the projectiles for cleaning hose and hose assemblies from the list "Projectile Application Information for Hose Cleaner Groups."

# Hose Assembly Tools

## Application Charts for Hose Cleaner Groups

Model Usage: All

Warranty: Six Months

European Union Compliant, CE marked

### Hose Nozzles and Projectiles

Hose Dash Size	Nominal Inch	DM-mm	Cat Nozzle No.	Cat Projectile No.	Hose Cleaner/Projectile Usage			
					233-7193	233-7192	233-7191	265-4959 <sup>(32)</sup>
-3	3/16"	5	130-6069	215-4565	•	•	•	
-4	1/4"	6	130-6069	215-4568	•	•	•	
-5	5/16"	8	130-6070	215-4569	•	•	•	
-6	3/8"	10	130-6071	215-4570	•	•	•	
-8	1/2"	13	130-6072	215-4572	•	•	•	
-10	5/8"	16	130-6073	215-4574	•	•	•	
-12	3/4"	19	130-6074	215-4575	•	•	•	
-16	1"	25	130-6075	215-4578	•	•	•	
-20	1-1/4"	32	130-6076	215-4580	•	•	•	
-24	1-1/2"	38	130-6091	215-4582	•	•		
-32	2"	50	130-6092	215-4584	•	•		
-40	2-1/2"	63	267-1527	265-4953				•
-48	3"	76	267-1527	265-4955				•
-56	3-1/2"	90	267-1527	265-4957				•

### JIC/Pipe Couplings

Coupling Dash Size	Decimal	Cat Nozzle No.	Cat Projectile No.	Hose Cleaner/Projectile Usage			
				233-7193	233-7192	233-7191	265-4959 <sup>(32)</sup>
-4	0.250	130-6083	215-4566	•	•	•	
-5	0.312	130-6084	215-4567	•	•	•	
-6	0.375	130-6085	215-4568	•	•	•	
-8	0.500	130-6086	215-4570	•	•	•	
-10	0.625	130-6087	215-4573	•	•	•	
-12	0.750	130-6088	215-4575	•	•	•	
-16	1.000	130-6089	215-4577	•	•	•	
-20	1.250	130-6090	215-4579	•	•	•	
-24	1.500	130-6097	215-4581	•	•		
-32	2.000	130-6098	215-4583	•	•		
-40	2.500	267-1527	265-4952				•
-48	3.000	267-1527	265-4954				•
-56	3.500	267-1527	265-4956				•

32 265-4959 Hose Cleaner Group can clean all sizes if additional nozzles are purchased.

## Application Charts for Hose Cleaner Groups (Continued)

Coupling Dash Size	Decimal	Cat Nozzle No.	Cat Projectile No.	Hose Cleaner/Projectile Usage			
				233-7193	233-7192	233-7191	265-4959 <sup>(33)</sup>
-4	0.250	215-4585	215-4565	•	•	•	
-6	0.375	130-6069	215-4568	•	•	•	
-8	0.500	130-6071	215-4570	•	•	•	
-10	0.625	130-6072	215-4573	•	•	•	
-12	0.750	130-6073	215-4575	•	•	•	
-16	1.000	130-6074	215-4577	•	•	•	
-20	1.250	130-6075	215-4579	•	•	•	

## Code 61, 62, & Cat Flange Couplings

Coupling Dash Size	Decimal	Cat Nozzle No.	Cat Projectile No.	Hose Cleaner/Projectile Usage			
				233-7193	233-7192	233-7191	265-4959 <sup>(34)</sup>
-8	0.500	130-6071	215-4570	•	•	•	
-10	0.625	130-6072	215-4573	•	•	•	
-12	0.750	130-6073	215-4575	•	•	•	
-16	1.000	130-6074	215-4577	•	•	•	
-20	1.250	130-6075	215-4579	•	•	•	
-24	1.500	130-6076	215-4581	•	•		
-32	2.000	130-6091	215-4583	•	•		
-40	2.500	267-1527	265-4952				•
-48	3.000	267-1527	265-4954				•
-56	3.500	267-1527	265-4956				•

## Hydraulic Tubing

OD x Wall	Cat Nozzle No.	Cat Projectile No.	Hose Cleaner/Projectile Usage			
			233-7193	233-7192	233-7191	265-4959 <sup>(34)</sup>
¼ x 0.035 in (6.35 x .889 mm)	130-6084	215-4567	•	•	•	
¼" x .049 in (6.35 x 1.24 mm)	130-6084	—	•	•	•	
¼" x .065" (6.35 x 1.65 mm)	130-6084	215-4566	•	•	•	
5/16 x 0.035 in (7.9 x .889 mm)	130-6084	215-4568	•	•	•	
3/8 x 0.035 in (9.53 x .889 mm)	130-6095	215-4569	•	•	•	
3/8 x 0.049 (9.53 x 1.24 mm)	130-6095	215-4569	•	•	•	
3/8" x .065 in (9.53 x 1.65 mm)	130-6095	215-4568	•	•	•	
½ x 0.035 in (12.7 x .889 mm)	130-6086	215-4570	•	•	•	
½ x 0.049 in (12.7 x 1.24 mm)	130-6086	215-4570	•	•	•	
½ x 0.065 in (12.7 x 1.65 mm)	130-6086	215-4570	•	•	•	
½" x .083 in (12.7 x 2.10 mm)	130-6086	215-4569	•	•	•	
5/8 x 0.049 in (15.8 x 1.24 mm)	130-6087	215-4573	•	•	•	
5/8 x 0.065 in (15.8 x 1.65 mm)	130-6087	215-4572	•	•	•	
5/8 x 0.083 in (15.8 x 2.10 mm)	130-6087	215-4572	•	•	•	
¾ x 0.049 in (19.05 x 1.24 mm)	130-6088	215-4575	•	•	•	
¾ x 0.065 in (19.05 x 1.65 mm)	130-6088	215-4575	•	•	•	

33 265-4959 Hose Cleaner Group can clean all sizes if additional nozzles are purchased.

34 Cleans all sizes with optional nozzles

# Hose Assembly Tools

## Application Charts for Hose Cleaner Groups (Continued)

OD x Wall	Cat Nozzle No.	Cat Projectile No.	Hose Cleaner/Projectile Usage			
			233-7193	233-7192	233-7191	265-4959 <sup>(35)</sup>
¾ x 0.095 in (19.05 x 2.41 mm)	130-6088	215-4573	•	•	•	
7/8 x 0.049 in (22.2 x 1.24 mm)	130-6089	215-4577	•	•	•	
7/8 x 0.065 in (22.2 x 1.65 mm)	130-6089	215-4576	•	•	•	
7/8 x 0.095 in (22.2 x 2.41 mm)	130-6073	—	•	•	•	
1 x 0.065 in (25.4 x 1.65 mm)	130-6090	215-4577	•	•	•	
1" x .083 in (25.4 x 2.10 mm)	130-6090	215-4577	•	•	•	
1 x 0.095 in (25.4 x 2.41 mm)	130-6090	215-4577	•	•	•	
1 x 0.120 in (25.4 x 3.0 mm)	130-6090	215-4576	•	•	•	
1-¼ x 0.065 in (31.75 x 1.65 mm)	130-6096	215-4579	•	•	•	
1-¼ x .083 in (31.75 x 2.10 mm)	130-6096	215-4579	•	•	•	
1-¼ x 0.095 in (31.75 x 2.41 mm)	130-6096	215-4579	•	•	•	
1-¼ x .109 in (31.75 x 2.77 mm)	130-6096	215-4578	•	•	•	
1-¼ x 0.120 in (31.75 x 3.0 mm)	130-6096	215-4578	•	•	•	
1-½ x 0.065 in (38.1 x 1.65 mm)	130-6097	215-4581	•	•		
1-½ x .083 in (38.1 x .10 mm)	130-6097	215-4581	•	•		
1-½ x 0.095 in (38.1 x 2.41 mm)	130-6097	215-4581	•	•		
1-½ x 0.120 in (38.1 x 3.04 mm)	130-6097	215-4581	•	•		
1-½ x .134 in (38.1 x 3.40 mm)	130-6097	215-4580	•	•		
1-½ x .148 in (38.1 x 3.76 mm)	130-6097	215-4580	•	•		
2 x 0.065 in (50.8 x 1.65 mm)	130-6098	215-4583	•	•		
2 x 0.095 in (50.8 x 2.41 mm)	130-6098	215-4583	•	•		
2 x .109 in (50.8 x 2.77 mm)	130-6098	215-4583	•	•		
2 x 0.120 in (50.8 x 3.04 mm)	130-6098	215-4583	•	•		
2 x 0.134 in (50.8 x 3.40 mm)	130-6098	215-4582	•	•		
2 x .180 in (50.8 x 4.57 mm)	130-6098	215-4582	•	•		
2 x .188 in (50.8 x 4.78 mm)	130-6098	215-4582	•	•		
<b>SCH40</b>						
¼ in (6.35 mm)	130-6070	215-4569	•	•	•	
3/8 in (9.53 mm)	130-6072	215-4571	•	•	•	
½ in (12.7 mm)	130-6073	215-4572	•	•	•	
¾ in (19.05 mm)	130-6074	215-4576	•	•	•	
1 in (25.4 mm)	130-6075	215-4578	•	•	•	
1-¼ in (31.75 mm)	130-6076	215-4580	•	•	•	
1-½ in (38.1 mm)	130-6091	215-4582	•	•	•	
2 in (50.8 mm)	130-6092	215-4584		•	•	
2-½ in (63.5 mm)	267-1527	265-4952		•	•	
3 in (76.2 mm)	267-1527	265-4954		•	•	
3-½ in (88.9 mm)	267-1527	265-4957		•	•	
<b>SCH 80</b>						
¼ in (6.35 mm)	130-6069	215-4568	•	•	•	
3/8 in (9.53 mm)	130-6071	215-4570	•	•	•	
½ in (12.7 mm)	130-6072	215-4573	•	•	•	

35 Cleans all sizes with optional nozzles

## Application Charts for Hose Cleaner Groups (Continued)

OD x Wall	Cat Nozzle No.	Cat Projectile No.	Hose Cleaner/Projectile Usage			
			233-7193	233-7192	233-7191	265-4959 <sup>(36)</sup>
¾ in (19.05 mm)	130-6073	215-4576	•	•	•	
1 in (25.4 mm)	130-6075	215-4578	•	•	•	
1-¼ in (31.75 mm)	130-6076	215-4580	•	•	•	
1-½ in (38.1 mm)	130-6091	215-4581	•	•	•	
2 in (50.8 mm)	130-6091	215-4583	•	•	•	
2-½ in (63.5 mm)	130-6092	–	•	•	•	
3 in (76.2 mm)	267-1527	265-4954	•	•	•	
3-½ in (88.9 mm)	267-1527	265-4957	•	•	•	
<b>SCH160</b>						
½ in (12.7 mm)	130-6071	215-4570	•	•	•	
¾ in (19.05 mm)	130-6073	215-4572	•	•	•	
1 in (25.4 mm)	130-6074	215-4576	•	•	•	
1-¼ in (31.75 mm)	130-6075	215-4578	•	•	•	
1-½ in (38.1 mm)	130-6076	215-4580	•	•	•	
2 in (50.8 mm)	130-6091	215-4582	•	•		
2-½ in (63.5 mm)	130-6092	215-4584	•	•		
3 in (76.2 mm)	267-1527	265-4952	•	•		

**Note:** The previous nozzle and projectile charts apply to all coupling styles. For couplings that jump down in size, use the nozzle that fits the head size. For couplings that jump up in size, use the nozzle that fits the hose size.

## Projectiles for Hose Cleaner Groups

### Reference

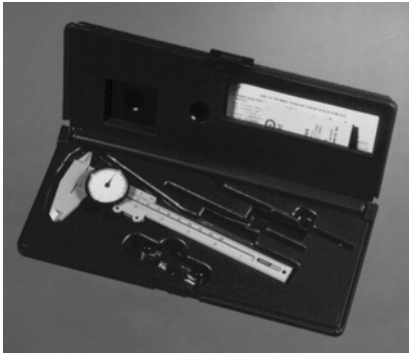
NEEG2955, Hose Cleaning Projectile Sizing Chart

Part No.	Dimensions (Diameter x Length)	Pkg. Qty	Part No.	Dimensions (Diameter x Length)	Pkg. Qty
215-4565	6 x 11 mm (0.24 x 0.43 in)	100	215-4575	26 x 33 mm (1.02 x 1.30 in)	50
215-4566	7 x 12 mm (0.28 x 0.47 in)	100	215-4576	30 x 36 mm (1.18 x 1.42 in)	40
215-4567	10 x 14 mm (0.39 x 0.55 in)	100	215-4577	33 x 40 mm (1.30 x 1.57 in)	40
215-4568	12 x 16 mm (0.47 x 0.63 in)	100	215-4578	36 x 45 mm (1.42 x 1.77 in)	30
215-4569	14 x 18 mm (0.55 x 0.71 in)	100	215-4579	40 x 50 mm (1.57 x 1.97 in)	30
215-4570	16 x 20 mm (0.63 x 0.79 in)	100	215-4580	45 x 55 mm (1.77 x 2.16 in)	20
215-4571	18 x 22 mm (0.71 x 0.87 in)	100	215-4581	50 x 60 mm (1.97 x 2.36 in)	20
215-4572	20 x 25 mm (0.79 x 0.98 in)	100	215-4582	55 x 65 mm (2.16 x 2.56 in)	15
215-4573	22 x 25 mm (0.87 x 0.98 in)	100	215-4583	60 x 70 mm (2.36 x 2.75 in)	15
215-4574	24 x 30 mm (0.94 x 1.18 in)	100	215-4584	65 x 80 mm ( 2.56 x 3.15 in)	15

# Hose Assembly Tools

## Thread Measurement Kit

Model Usage: All  
 Warranty: Caterpillar Six Months



European Union Compliant, CE marked  
 • Allows for measurement and identification of coupling

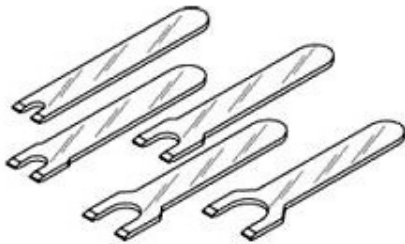
- Includes PEGP2007-01 Coupling Identification Guide
- Recommended for all dealer hose assembly areas

### 8T-0450 Thread Measurement Kit

Part No.	Description
8T-0447	Dial Caliper
8T-0448	Pitch Gauge
8T-0449	Seal Angle Gauge (45° and 37°)
PEGP2007	Coupling Identification Guide

## Snap-to-Connect Coupling Wrenches

Model Usage: All  
 Warranty: Caterpillar Six Months



European Union Compliant, CE marked

- Provides wrenches for snap-to-connect couplings

Part Number	Description
279-1218	Wrench (-6)
279-1219	Wrench (-8)
279-1220	Wrench (-10)
279-1221	Wrench (-12)
279-1222	Wrench (-16)

## Thermoplastic and Air Conditioning Hose Cutter

Model Usage: All  
 Warranty: Caterpillar Six Months



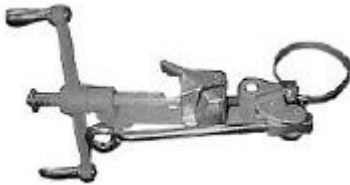
- Used for cutting Thermoplastic Hose (1028), Reduced O.D. Thermoplastic Hose (2760), and Air Conditioning Hose (1543)

Part Number	Description
177-4271	Cutter
177-4272	Blade



## Nylon Abrasion Sleeve Band Tool

Model Usage: All  
Warranty: Caterpillar Six Months



- 166-5853 Band-It Tool is used to secure protective covers to hydraulic hose using the following bands

Part Number	Description
166-5853	Nylon Abrasion Sleeve Band Tool
Bands	
384-4127	34.9 mm (1.37 in) I.D.
384-4128	50.4 mm (1.98 in) I.D.
384-4129	76.2 mm (2.99 in) I.D.
460-3311	101.6 mm (3.99 in) I.D.

## Chain Wrench

Model Usage: All  
Warranty: Caterpillar Six Months



- European Union Compliant, CE marked
- Used during the disassembly of XT hose reusable couplings to break the bond between the hose and coupling
  - Can be used for other applications (Example: fuel and oil filters) for diameters from 19.05 mm (3/4 in) through 82.55 mm (3 1/4 in)

Part Number	Description
1U-8760	Wrench-Chain

## Skiving Vise

Model Usage: All  
Warranty: Caterpillar Six Months



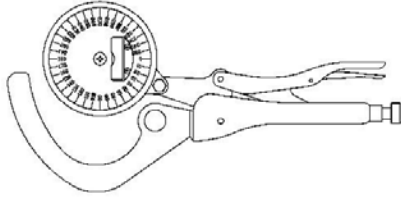
- Allows for easy skiving of hose
- Blocks have rubber pads to prevent damage to hose

Part Number	Description
127-1909	Vise
127-1910	Block Group

# Hose Assembly Tools

## Large-Bore Protractor

Model Usage: All  
 Warranty: Caterpillar Six Months



- Provides a field tool for the technician to set the angle of orientation for large-bore hose 63.5 to 78.9 mm (2-1/2 to 3-1/2 in)

Part Number	Description
266-7533	Large-Bore Protractor

## Containerized Hose Shops

Product Family:  
 Global Mining Products  
 Model Usage: All  
 Warranty: Manufacturer's

- Available in Single Wide and Double wide configurations
- A highly advanced onsite hydraulic workshop solution designed to provide the fastest and most reliable hose assembly replacement services
- Ensures minimal machine downtime during a hose failure situation
- This highly versatile portable shop may also be utilized for other repair shop requirements
- Fully insulated with integrated climate control system. Designed to provide a comfortable work environment in temperatures ranging from -20C (-4F) to 48C (118F).
- Integrated exhaust for increased air quality
- Country compliant electrical and lighting systems
- Highly durable work surfaces
- Innovative hardware & software solution that ensures hose assemblies are built to OEM specs

[Media No. PEHJ0415 details extensive information for the Cat Hose Assembly MOBILE WORKSHOP available at this link.](#)

Dimensions	Weight	Description
6.5 x 2.3 x 2.3m (20' L x 8'W x 9'-6"H)	10550 lbs (4785 kg)	6.5m (20') Single Wide
13 x 2.3 x 2.3m (40'L x 8'W x 9'-6"H)	18460 lbs (8373 kg)	13m (40') Single Wide
13 x 4.6 x 2.3m (40'L x 16'W x 9'-6"H)	41220 lbs (18697 kg)	13m (40') Double Wide



**Single**



**Double**

Hose Shop Container design guidelines and endorsed supplier list by region are available. Please contact your Hydraulic ASC for further details.

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## Information Systems

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Hydraulic Information System	Web Based
Hydraulic Information System-CD ROM Version	JERC2281
Hose & Coupling Information System	JERC2282

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## Training Materials

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Hose and Coupling Workbook	PEGT6025
Quick Reference – Cat Hose and Coupling	PEGJ0001
Coupling Identification Guide	PEGP2007
Parts Pro-Hydraulic Parts A (Online Dealer Performance Center)	20087

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## Hose Work Area Posters / Charts

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Counter Mat - Hose Service for All Equipment Needs (Download)	PEWJ0166
Proper Hose Cleaning Procedures	PEPJ0084
Coupling Identification	PEWP4128
XT Hose Assembly and Coupling Recovery	PEWP3013
Skive Length Chart	NEEG2956
Hose Cleaning Projectile Chart	NEEG2955
Crimp Diameters	NEEG2746
Coupling Crimp Chart	NEEG2973
Hose, Die Group, Spacer Ring Selection Chart-XT Machine And Combo Machine	NEEG2737
Hose, Die Group, Spacer Ring Selection Chart- Non-Current Machines	NEEG2736
Hose, Die Group, Spacer Ring Selection Chart- Bench Model	NEEG2883
Variable Die Bowl & Smooth Bore Dies Hose, Die Group and Spacer Ring Selection Chart for 4C-3660, 4C-5052, 9U-5792 and 9U-7261 Hydraulic Hose Selection Chart	NEEG3000
M6 Machine Crimp Chart	AEXQ2130
S2 Machine Crimp Chart	AEXQ2131
CMC 290 Legacy Machine Crimp Chart	AEXQ2129

# Reference Material

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## Information Release Memos (IRM's)

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Branch Packs for Cat XT-3ES and XT-5ES Hose	PELJ0783
Cat Hose and Coupling Distribution Through Second Level Distributors	PELJ0934
Cat High Temperature, Media Pressure Teflon Lined Hose	PELJ1017
Cat 2929 and 743 Hoses Improve Dealer Hoses Build Capabilities	PELJ1018
Introduction of 2786 - High Temperature Coolant Hose	PELJ0901
Introduction of Dash 6 and Dash 8 No-Skive Couplings for XT Hose	PELJ1097
New XT-5ES Part Numbers	PELJ1252
Flat Crimp Air Conditioning Couplings and Hose for use with Smooth Bore Dies	PELJ1377
Introduction of Dash 10 (0.625inch, 15.9mm) No-Skive Couplings for Hose	PELJ1436
Acrylic Hose Label and Hose Label Printer	PELJ1607
Introduction of Dash 24 No-Skive Couplings for XT-3 Hose	PELJ1643
Introduction of Dash 12 No-Skive Couplings for XT-3, XT-5 and XT-6 Hose	PELJ1665
Pressure Rating Increase for 294 Dash 40 Hose	PELJ1671
Thick Flange for HMS	PELJ1690
HMS Hose IRM	PELJ1703
Introduction of Cat High Temperature General Purpose Hose	PELJ1760
Buildable Hose Assembly Distribution Changes	PELJ1880
Introduction of Cat 716 Compact Hose	PELJ1813
Introduction of 2" Permanent XT-5ES and XT-6ES	PELJ1971
5014 Fire Suppression Hose	PELJ2070
4901 Large Bore Hose	PELJ2071
Coupling Additions for Mixed Fleets	PELJ2114
Introduction of Cat 16XN, 20XN6 and 24XN6 No-Skive Couplings for XT-3ES, XT-5ES and XT-6ES Hose Types	PELJ2185
Review of Cat Coupling Series Identification for XT Hose Type	PELJ2223
Cat Bulk Hose and Armor Guard Transitioning to Metric Unit of Measure	PELJ2234
Cat Bulk Hose and Armor Guard Transition to Metric Unit of Measure Part II	PELJ2260
Cat Hose & Coupling Tooling Products Update	PELJ2259

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## Videos

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Cat Hose & Couplings: The Preferred Connection	Channel One Website
Fluid Contamination-The Silent Thief	Channel One Website
Hose and Coupling Training Package PERV3808 XT Machine Use and Assembly	Channel One Website
Recovery and Assembly of XT Hose Reusable Couplings	Channel One Website
Identifying Hose Rubs on your Cat Equipment	Channel One Website
Performing a Daily Cat Machine Walk-Around	Channel One Website
Hose Rub Identification on your Cat Machine	Channel One Website
1. How to Cut a Cat Hose	Channel One Website
2. How to Clean a Cat Hose	Channel One Website
3. How to Skive a Cat Hose	Channel One Website
4. How to Crimp a Cat Hose	Channel One Website
5. How to set Angle of Orientation on Cat Hose	Channel One Website
6. How to Cut Caterpillar's 2771A Hose	Channel One Website

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## Promotion

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The Cat Hose & Coupling Value Story Brochure	AEXQ1395
Cat Hydraulic Hose Solutions for Mining Brochure	AEXQ1465
Cat Hose & Coupling Solutions Brochure	PEDJ0292
Cat Hose Assembly Tooling Brochure	PEDJ0351
Cat XT Reusable Couplings Value Story Brochure	PEDJ0289
Dealer Service Tools Hose Tooling Announcement	PEDP9135
Cat Hose Assembly Mobile Workshop	PEHJ0415
Bin Labels-XT Hose Couplings	PEEP1003
Bin Labels-Low/Medium Pressure Hose Couplings	PEEP1004
Bin Labels- Special Application Hose Couplings	PEEP6044
Bin Labels- 2760 Hose Couplings	PEXP8025
Reusable Coupling Sticker (Large)	PEEP7210
Cat ToughGuard Hose	PEHJ0077
ToughGuard Hose Display	PEWP9739

Dealer Branch or Rental Store 'Cat Hose Built Here' Banner (3 x 9 ft)  
Hose Routing Management Guides

Download at Dealer.Cat.com - Hydraulics Marketing  
Dealer.Cat.com - Hydraulics Parts Product Information

# Reference Material

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## Technical Information

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Reusable Couplings for Caterpillar XT-3, XT-5, and XT-6	SEBF8176
Crimping Caterpillar 294, 716, 844 Hose and Couplings	NEHS0664
Cleaning Fluid-Carrying Hose and Tube Assemblies in Shop and Field Applications	SEBF8485
Preparation and Use of 6V-6015 Hose Cutoff Machine	SMHS8316
Assembling Reusable Couplings in the 139-5439, 145-3381, and 152-3910 Combination Hose Machines	NEHS0746
Setup and Operation of the 145-7042 and 146-5861 Crimputer Groups	NEHS0754
General Information for Hose Assembly	NEHS0768
Assembling Reusable Couplings in the 4C-9900, 150-2568, and 173-9805 Hydraulic Hose Machines	NEHS0745
Crimping 1028 Thermoplastic and 1543 Air Conditioning Hose	NEHS0749
Crimping Permanent Couplings using the 136-3642 Crimp Tool Group in the Combination and XT Hose Machine	NEHS0748
Comprehensive Tooling List for Assembling and Disassembling Reusable Couplings	NEHS0750
Repair of 139-5459 and 145-3381 Combination Hose Machines	NEHS0752
Setup and Basic Operation of the 145-5161 Floor Model Hose Machine	NEHS0695
150-3622 Bench Model Hose Machine Operating Instructions	NEHS0715
Setup and Basic Operation of the 139-5439 Combination Hose Machine	NEHS0686
Use of the 9U-5792, 4C-5052, 4C-5054, 4C-3670 and 4C-3680 Hydraulic Hose Machines	NEHS0744
Using the 164-2691 Printer Group	NEHS0725
Using the 130-6061 and 156-0058 Hose Cleaner Groups	NEHS0643
Hose Cutting Guide	NEHS6601
358-4530, 358-4532, and 358-4533 Hose Machine Group Set-Up and Operation	NEHS1098
Crimputer 3 Setup and Operation	NEHS1099
423-4361 Radial Hose Machine	NEHS1153
Acrylic Hose Label and Hose Label Printer	Use Manufacturer CD

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