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KURT



KURT HYDRAULICS



Kurt Hydraulics Powerful Advantages

Full line of hose and couplings manufactured to Kurt's, 65-year proven, high quality standards. With millions of feet of hose and millions of couplings both available in stock for immediate delivery, you receive exactly what you need for your application.

Local service and supply with a global cost advantage. Centrally located with the best delivery logistics, you can count on Kurt for on-time delivery at a surprisingly competitive price.

Successful integrator and distributor partnerships strategically located to serve you best. These partnerships augment Kurt's own capabilities for an even stronger supply and service base to assure you of the just right product solution when you need it.

As one of six Kurt divisions, Kurt Hydraulics has vast engineering and manufacturing resources to provide you with custom hydraulic couplings and hose when needed. If it's not in this catalog and you need a solution, Kurt is up to the challenge to create it.

Proudly made in the USA is important to us and our valued customers, and it's the American way of life. As an employee owned company, designing, manufacturing, servicing our products and customers here at home is key to our success.

The fact that thousands of Kurt Hydraulic customers have switched and stayed with us is evidence that we are doing the job right. When you examine and experience Kurt's complete line of hose and coupling products, you will know why Kurt has become the preferred alternative source for thousands of satisfied customers.

To us, customer loyalty is everything. We will continue to work hard providing exactly what you need, when you need it, and strive to keep your loyalty.



Toll Free 866.257.7995
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Kurt AngLock Vises

Employee Owned Company With Over 600 Dedicated Employees

Kurt Manufacturing was founded in 1946, specializing in CNC precision machining, gearing and assembly solutions. Kurt's rapidly growing hydraulic coupling and hose product lines is a natural outgrowth of its high precision capabilities. Kurt Hydraulics proudly stands alongside its product family of world-class Kurt AngLock vises, gaging, automation and Kinetic fitness products.

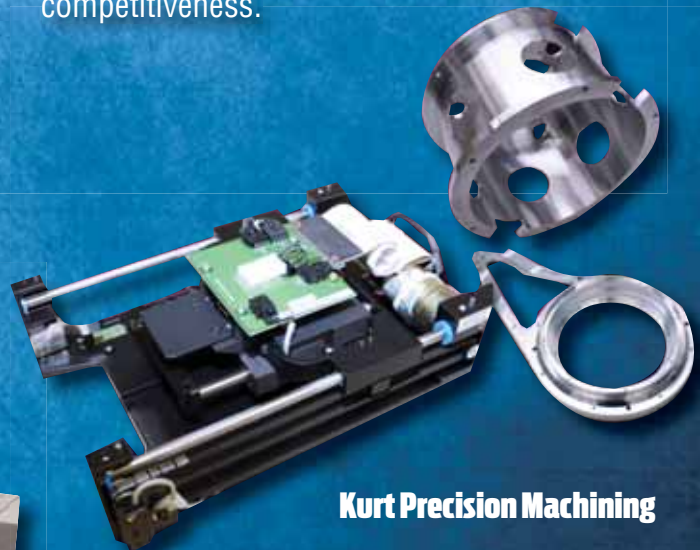
World Class Quality Products

There is no other company like Kurt. As an employee owned business, Kurt's six divisions have earned the confidence and performance awards of many world-leading Fortune 500 companies. Kurt works with



Kurt Kinetic Trainers

many industries including heavy equipment, off-highway, aerospace, automotive, oil, semiconductor and defense, to name just a few. Kurt's many partnership programs have led in quality, on-time performance and global cost competitiveness.



Kurt Precision Machining

Kurt Engineered Gaging Systems





Localized And Global Hydraulic Connections And Product Options

While Kurt supplies a complete catalog line of standard couplings and hose, it provides both a localized manufacturing source for special design needs and it provides a global cost advantage. Kurt has been a manufacturer of hydraulic couplings and systems for over 35 years and maintains the latest in CNC machining technology.

Co-managed local service and supply succeeds for Kurt with successful integrator and distributor relationships. Kurt's pledge to you: We stock over 3 million feet of hose and millions of couplings with hundreds of styles

in stock to keep your systems up and running. Plus, if you need something special to solve a problem, Kurt stands ready to help.

Quality and crimping procedures and systems also play an important part of making high quality hydraulic hose systems. Most applications Kurt deals with have pressure ranges from under 1000 PSI to over 6000 PSI with most requiring validation and testing. Kurt possesses complete life cycle testing capabilities and routinely co-manages the validation process along with a key integrator or distributor.



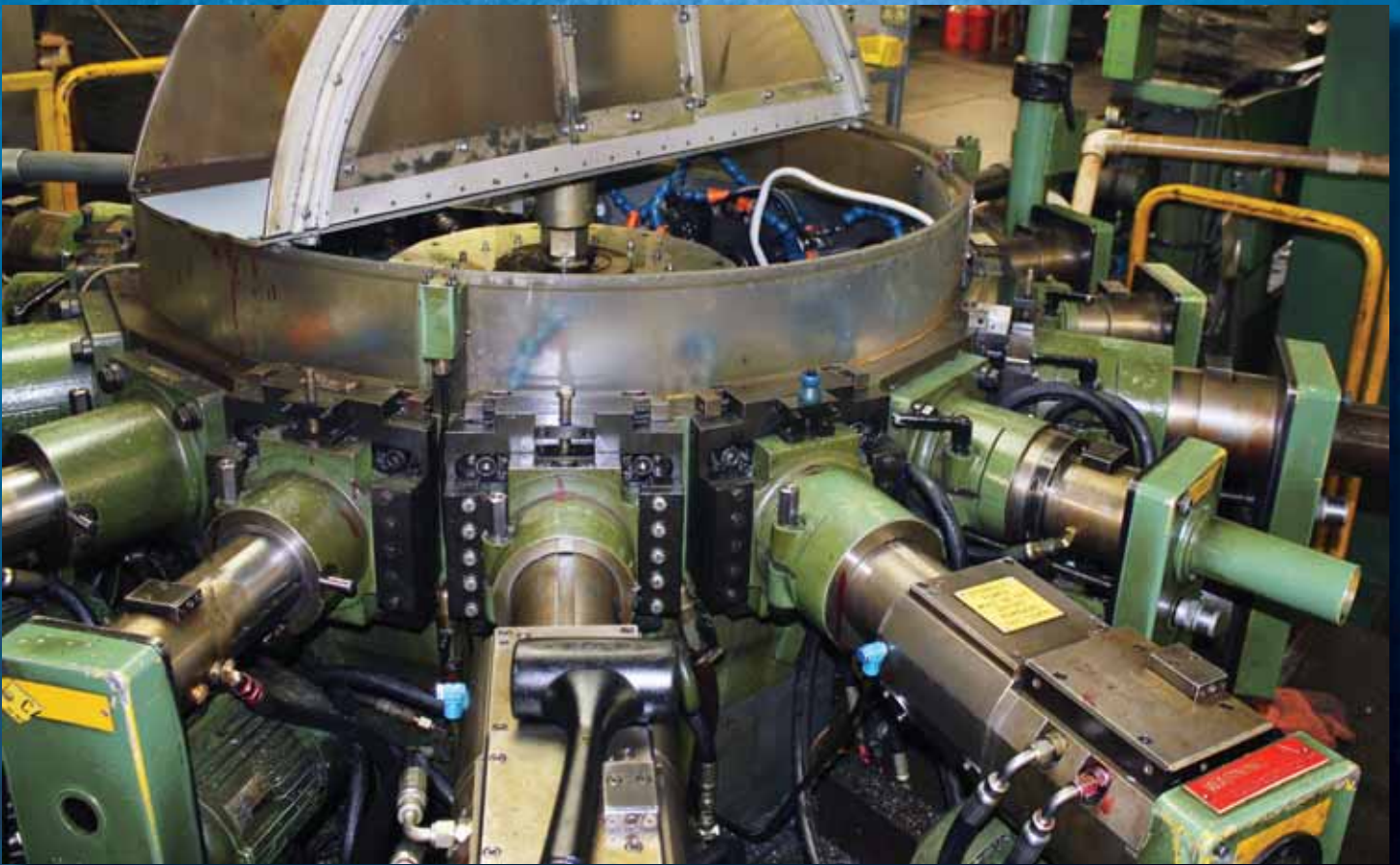
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KURT HYDRAULICS

Commitment To Annual Equipment And Systems Investment

Kurt Hydraulics stays ahead of the curve when it comes to equipment, systems and people. Annual assessments and reviews of all production equipment and systems allows us continued upgrades and provides a “Home Team Advantage” for competitiveness and innovation.





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Hydraulic Hose and Fitting Compatibility

There are a number of SAE Standards that cover the performance requirements of hydraulic hose assemblies. Included are the J517, J516, and J343 Standards.

Hydraulic hoses that are claimed to meet SAE J517 standards (e.g. SAE 100R1 and SAE 100R2) obviously need to be designed for, and certified to, the criteria defined by SAE. That criteria includes stringent dimensional tolerances (inside, outside, and braid diameters), compound and reinforcement types, length changes, cold flexibility, and ozone and heat resistance. There are also burst pressure and impulse requirements in J517. Those requirements are for coupled assemblies, and SAE states that “the general and dimensional standards for hydraulic hose fittings are obtained in SAE J526.”

Hydraulic hose fittings that meet SAE J516 Standards are similarly well defined by SAE as to material type, dimensions, finish, etc. The SAE manual also specifically states that J516 fittings are intended to be used “in conjunction with hydraulic hoses specified in SAE J517, and utilized in hydraulic systems on mobile and stationary equipment.”

SAE J343 is the standard that establishes “uniform methods of the testing and performance evaluation of the SAE 100R series of hydraulic hose and hose assemblies.” Coupled assemblies are expected to meet or exceed SAE performance if the SAE criteria described above are met.

The integrity of any hose assembly depends upon the components, fittings, and hose meeting the rigorous SAE requirements, and then the components being assembled by skilled personnel. This is true regardless of where the components are manufactured. Testing has been completed on Kurt Manufacturing fittings coupled to Semperit hydraulic hose, and the tested assemblies have passed SAE performance criteria.

While there has been an integration of hose and fitting manufacturers, independent hose and fitting manufacturers can and will continue to produce top class products that will provide excellent assemblies just as they have done for decades.

Kurt Manufacturing is committed to customer satisfaction through continuous improvement.

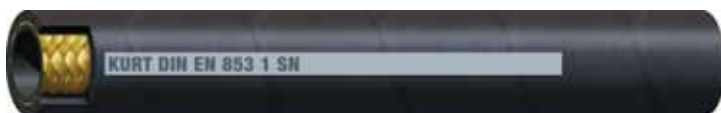
Steve Carlsen
Steve Carlsen – President



Braided Hose



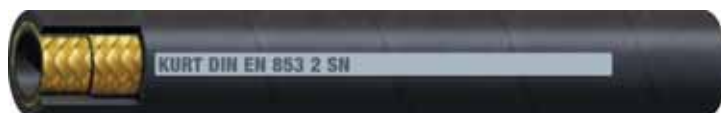
SAE R1S, DIN EN 853 1SN Hydraulic Hose



Recommended for: Medium pressure hydraulic oil lines
Tube: Oil resistant synthetic rubber
Reinforcement: One high tensile steel wire braid
Cover: Abrasion, ozone and weather resistant synthetic rubber
 Meets flame resistant MSHA designation
Temperature Range: -40°F to +212°F (+250°F Max)

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R1S-04	1/4	0.53	3,250	13,000	4	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R1S-06	3/8	0.69	2,500	10,000	5	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R1S-08	1/2	0.81	2,250	9,000	7	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R1S-10	5/8	0.93	1,750	7,000	8	STD pp. 36-61, W pp. 87-112
R1S-12	3/4	1.09	1,500	6,000	9.5	STD pp. 36-61, W pp. 87-112
R1S-16	1	1.40	1,250	5,000	12	STD pp. 36-61, W pp. 87-112
R1S-20	1-1/4	1.71	1,000	4,000	16.5	STD pp. 36-61, W pp. 87-112
R1S-24	1-1/2	1.99	750	3,000	19.5	W pp. 87-112

SAE R2S, DIN EN 853 2SN Hydraulic Hose



Recommended for: High pressure hydraulic oil lines
Tube: Oil resistant synthetic rubber
Reinforcement: Two high tensile steel wire braid
Cover: Abrasion, ozone and weather resistant synthetic rubber
 Meets flame resistant MSHA designation
Temperature Range: -40°F to +212°F (+250°F Max)

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R2S-04	1/4	0.59	5,750	23,000	4	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R2S-06	3/8	0.75	4,750	19,000	5	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R2S-08	1/2	0.87	4,000	16,000	7	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R2S-10	5/8	1.00	3,500	14,000	8	STD pp. 36-61, W pp. 87-112
R2S-12	3/4	1.15	3,000	12,000	9.5	STD pp. 36-61, W pp. 87-112
R2S-16	1	1.50	2,250	9,000	12	STD pp. 36-61, W pp. 87-112
R2S-20	1-1/4	1.90	1,750	7,000	16.5	STD pp. 36-61, W pp. 87-112
R2S-24	1-1/2	2.15	1,300	5,200	19.5	W pp. 87-112
R2S-32	2	2.64	1,250	5,000	24.5	W pp. 87-112

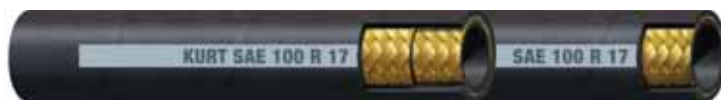
SAE R16S Hydraulic Hose



Recommended for: High pressure hydraulic oil lines
Tube: Oil resistant synthetic rubber
Reinforcement: Two high tensile steel wire braid
Cover: Abrasion, ozone and weather resistant synthetic rubber
 Meets flame resistant MSHA designation
Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R16S-04	1/4	0.57	5,750	23,000	2	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R16S-06	3/8	0.74	4,750	19,000	2.5	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R16S-08	1/2	0.86	4,000	16,000	3.5	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R16S-10	5/8	1.00	3,500	14,000	4	STD pp. 36-61, W pp. 87-112
R16S-12	3/4	1.14	3,000	12,000	4.5	STD pp. 36-61, W pp. 87-112
R16S-16	1	1.44	2,250	9,000	6	STD pp. 36-61, W pp. 87-112

SAE R17 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines
Tube: Oil resistant synthetic rubber
Reinforcement: Up to 1/2" one, from 5/8" two high tensile steel wire braid
Cover: Abrasion, Ozone and weather resistant synthetic rubber
 Meets flame resistant MSHA designation
Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R17-04	1/4	0.49	3,000	12,000	2	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R17-06	3/8	0.65	3,000	12,000	2.5	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R17-08	1/2	0.78	3,000	12,000	3.5	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
R17-10	5/8	0.94	3,000	12,000	4	STD pp. 36-61, W pp. 87-112
R17-12	3/4	1.10	3,000	12,000	4.5	STD pp. 36-61, W pp. 87-112
R17-16	1	1.43	3,000	12,000	6	W pp. 87-112



KURT TUFF Hydraulic Hose

Features:

- Extra flexible high pressure braided hose
- Abrasion resistant tuff cover
- Very high pressure
- Impulse tested up to 1,000,000 cycles
- Light weight
- Uses Std or W Series couplings

Recommended for: High pressure hydraulic oil lines

Tube: Oil resistant synthetic rubber

Reinforcement: Two high tensile steel wire braid

Cover: 10X abrasion, ozone and weather resistant synthetic rubber
Meets flame resistant MSHA designation

Temperature Range: -40°F to +212°F (+250°F Max)
One million impulse cycle hose

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
KT-04	1/4	0.58	6,500	26,000	2	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
KT-06	3/8	0.69	5,500	22,000	3	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
KT-08	1/2	0.81	5,000	20,000	3.5	STD pp. 36-61, W pp. 87-112, K2 pp. 62-79
KT-10	5/8	0.93	4,250	17,000	5	STD pp. 36-61, W pp. 87-112
KT-12	3/4	1.09	4,000	16,000	6.5	STD pp. 36-61, W pp. 87-112
KT-16	1	1.40	3,000	12,000	8	STD pp. 36-61, W pp. 87-112

SAE R2S HIGH TEMP, DIN EN 853 2SN Hydraulic Hose

Recommended for: High pressure hydraulic oil lines

Tube: Black tube, specifically compounded for temperature and chemical resistance, oil-resistant.

Reinforcement: Two high tensile steel wire braid

Cover: Synthetic rubber, blue... weather, oil, fuel, ozone and abrasion-resistant.

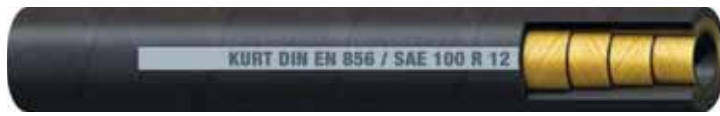
Meets flame resistant MSHA designation

Temperature Range: -40°F to +300°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
KHT2S-04	1/4	0.59	5,750	23,000	4	STD pp. 36-61, W pp. 87-112
KHT2S-06	3/8	0.75	4,750	19,000	5	STD pp. 36-61, W pp. 87-112
KHT2S-08	1/2	0.87	4,000	16,000	7	STD pp. 36-61, W pp. 87-112
KHT2S-10	5/8	1.00	3,500	14,000	8	STD pp. 36-61, W pp. 87-112
KHT2S-12	3/4	1.15	3,000	12,000	9.5	STD pp. 36-61, W pp. 87-112
KHT2S-16	1	1.50	2,250	9,000	12	STD pp. 36-61, W pp. 87-112



SAE R12 DIN EN 856 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines
Tube: Oil resistant synthetic rubber
Reinforcement: Four spiral layers of high tensile steel wire braid
Cover: Abrasion, ozone and weather resistant synthetic rubber
 Meets flame resistant MSHA designation
Temperature Range: -40°F to +250°F

Part Number	Hose I.D. (in.)	Hose O.D.(in.)	Rated W.P.(psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R12-06	3/8	0.80	4,000	16,000	2.5	W pp. 87-112
R12-08	1/2	0.94	4,000	16,000	3.5	W pp. 87-112
R12-12	3/4	1.21	4,000	16,000	5	W pp. 87-112
R12-16	1	1.50	4,000	16,000	6	W pp. 87-112
R12-20	1-1/4	1.85	3,000	12,000	16.5	W pp. 87-112, JJ pp. 113-119
R12-24	1-1/2	2.11	2,500	10,000	20	W pp. 87-112, JJ pp. 113-119
R12-32	2	2.63	2,500	10,000	25	W pp. 87-112, JJ pp. 113-119

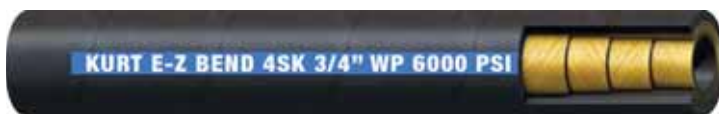
4SH DIN EN 856 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines
Tube: Oil resistant synthetic rubber
Reinforcement: Four spiral layers of high tensile steel wire braid
Cover: Abrasion, ozone and weather resistant synthetic rubber
 Meets flame resistant MSHA designation
Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
4SH-12	3/4	1.27	6,000	24,000	11	W pp. 87-112, WHP pp. 120-125
4SH-16	1	1.52	5,500	22,000	13	W pp. 87-112, WHP pp. 120-125
4SH-20	1-1/4	1.79	5,000	20,000	18	W pp. 87-112, JJ pp. 113-119
4SH-24	1-1/2	2.11	4,250	17,000	22	W pp. 87-112, JJ pp. 113-119
4SH-32	2	2.68	3,500	14,000	27	JJ pp. 113-119

KURT E-Z Bend 4SK Hydraulic Hose



Features:

- More pliable and less force required to bend

Recommended for: High pressure hydraulic oil lines

Tube: Oil resistant synthetic rubber

Reinforcement: Four spiral layers of high tensile steel wire braid

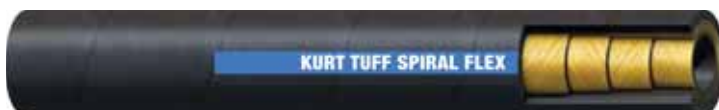
Cover: Abrasion, ozone and weather resistant synthetic rubber

Meets flame resistant MSHA designation

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
4SK-10	5/8	1.07	6,000	24,000	9	W pp. 87-112
4SK-12	3/4	1.27	6,000	24,000	11	W pp. 87-112, WHP pp. 120-125
4SK-16	1	1.52	5,500	22,000	13	W pp. 87-112, WHP pp. 120-125
4SK-20	1-1/4	1.79	5,000	20,000	18	W pp. 87-112, JJ pp. 113-119

KURT TUFF Spiral Flex Hydraulic Hose



Features:

- Extra flexible high pressure braided hose
- Abrasion resistant tuff cover
- Ultra high pressure
- Impulse tested up to 1,000,000 cycles

Recommended for: High pressure hydraulic oil lines

Tube: Oil resistant synthetic rubber

Reinforcement: Four spiral layers of high tensile steel wire braid

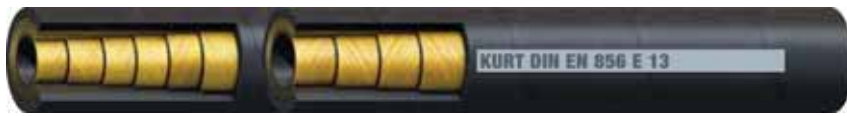
Cover: 10X abrasion resistance, ozone and weather resistant synthetic rubber

Meets flame resistant MSHA designation

Temperature Range: -40°F to +250°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
KTSF-12	3/4	1.27	6,250	25,000	8.5	WHP pp. 120-125
KTSF-16	1	1.52	5,750	23,000	9	WHP pp. 120-125
KTSF-20	1-1/4	1.79	5,250	21,000	9.5	JJ pp. 113-119

SAE R13 DIN EN 856 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines

Tube: Oil resistant synthetic rubber

Reinforcement: Four spiral to 1", six spiral 1-1/4" up of high tensile steel wire braid

Cover: Abrasion, ozone and weather resistant synthetic rubber

Meets flame resistant MSHA designation

Temperature Range: -40°F to +250°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R13-12	3/4	1.26	5,000	20,000	9.5	W pp. 87-112, WHP pp. 120-125
R13-16	1	1.51	5,000	20,000	12	W pp. 87-112, WHP pp. 120-125
R13-20	1-1/4	1.94	5,000	20,000	16.5	JJ pp. 113-119, 6W pp. 80-86
R13-24	1-1/2	2.26	5,000	20,000	19.5	JJ pp. 113-119, 6W pp. 80-86
R13-32	2	2.82	5,000	20,000	25	JJ pp. 113-119, 6W pp. 80-86

SAE R15 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines

Tube: Oil resistant synthetic rubber

Reinforcement: Six spiral of high tensile steel wire braid

Cover: Abrasion, ozone and weather resistant synthetic rubber

Meets flame resistant MSHA designation

Temperature Range: -40°F to +250°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R15-12	3/4	1.26	6,000	24,000	10.5	WHP pp. 120-125
R15-16	1	1.51	6,000	24,000	13	WHP pp. 120-125
R15-20	1-1/4	1.94	6,000	24,000	17.5	JJ pp. 113-119, 6W pp. 80-86
R15-24	1-1/2	2.26	6,000	24,000	21	JJ pp. 113-119, 6W pp. 80-86

Thermoplastic Hose

KURT
HYDRAULICS

Hose



SAE 100R7, DIN EN 855 Hydraulic Hose



Recommended for: Medium pressure hydraulic oil lines
Tube: Nylon
Reinforcement: Synthetic fiber
Cover: Abrasion, ozone and weather resistant black urethane
Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R7-02	1/8	0.34	3,000	12,000	1.0	R7 pp. 126-129
R7-03	3/16	0.43	3,000	12,000	2.0	STD pp. 36-61, R7 pp. 126-129
R7-04	1/4	0.51	3,000	12,000	2.5	STD pp. 36-61, R7 pp. 126-129
R7-05	5/16	0.59	2,500	10,000	3.0	STD pp. 36-61, R7 pp. 126-129
R7-06	3/8	0.67	2,250	9,000	3.5	STD pp. 36-61, R7 pp. 126-129
R7-08	1/2	0.82	2,000	8,000	5.5	STD pp. 36-61, R7 pp. 126-129
R7-12	3/4	1.02	1,250	5,000	7.0	STD pp. 36-61, R7 pp. 126-129
R7-16	1	1.34	1,000	4,000	12.0	STD pp. 36-61, R7 pp. 126-129

SAE 100R7, DIN EN 855 Hydraulic Hose (Non-Conductive)



Recommended for: Medium pressure hydraulic oil lines to non-conductive standards
Tube: Nylon
Reinforcement: Synthetic fiber
Cover: Abrasion, ozone and weather resistant orange urethane
Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R7-02 NC	1/8	0.34	3,000	12,000	1.0	R7 pp. 126-129
R7-03 NC	3/16	0.43	3,000	12,000	2.0	STD pp. 36-61, R7 pp. 126-129
R7-04 NC	1/4	0.51	3,000	12,000	2.5	STD pp. 36-61, R7 pp. 126-129
R7-05 NC	5/16	0.59	2,500	10,000	3.0	STD pp. 36-61, R7 pp. 126-129
R7-06 NC	3/8	0.67	2,250	9,000	3.5	STD pp. 36-61, R7 pp. 126-129
R7-08 NC	1/2	0.82	2,000	8,000	5.5	STD pp. 36-61, R7 pp. 126-129
R7-12 NC	3/4	1.02	1,250	5,000	7.0	STD pp. 36-61, R7 pp. 126-129
R7-16 NC	1	1.34	1,000	4,000	12.0	STD pp. 36-61, R7 pp. 126-129

SAE 100R7, DIN EN 855 Hydraulic Hose Twin Line



Recommended for: Medium pressure hydraulic oil lines twin-line applications

Tube: Nylon

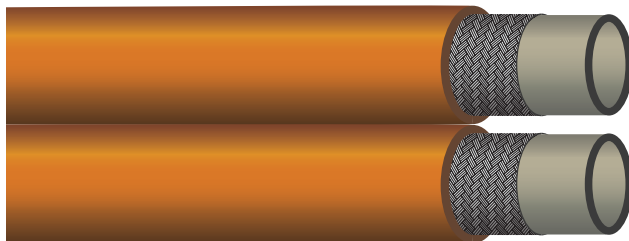
Reinforcement: Synthetic fiber

Cover: Abrasion, ozone and weather resistant black urethane

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R7-03 TW	3/16	0.43	3,000	12,000	2.0	STD pp. 36-61, R7 pp. 126-129
R7-04 TW	1/4	0.51	3,000	12,000	2.5	STD pp. 36-61, R7 pp. 126-129
R7-05 TW	5/16	0.59	2,500	10,000	3.0	STD pp. 36-61, R7 pp. 126-129
R7-06 TW	3/8	0.67	2,250	9,000	3.5	STD pp. 36-61, R7 pp. 126-129
R7-08 TW	1/2	0.82	2,000	8,000	5.5	STD pp. 36-61, R7 pp. 126-129

SAE 100R7, DIN EN 855 1SN Hydraulic Hose Twin Line (Non-Conductive)



Recommended for: Medium pressure hydraulic oil lines for non-conductive twin-line applications

Tube: Nylon

Reinforcement: Synthetic fiber

Cover: Abrasion, ozone and weather resistant orange urethane

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R7-04 TW NC	1/4	0.51	3,000	12,000	2.5	STD pp. 36-61, R7 pp. 126-129
R7-05 TW NC	5/16	0.59	2,500	10,000	3.0	STD pp. 36-61, R7 pp. 126-129
R7-06 TW NC	3/8	0.67	2,250	9,000	3.5	STD pp. 36-61, R7 pp. 126-129
R7-08 TW NC	1/2	0.82	2,000	8,000	5.5	STD pp. 36-61, R7 pp. 126-129

SAE 100R18 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines

Tube: Nylon

Reinforcement: Two synthetic fiber braids

Cover: Abrasion, ozone and weather resistant black urethane

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R18-04	1/4	0.49	3,000	12,000	2.0	STD pp. 36-61, R7 pp. 126-129
R18-05	5/16	0.61	3,000	12,000	2.5	STD pp. 36-61, R7 pp. 126-129
R18-06	3/8	0.66	3,000	12,000	3.0	STD pp. 36-61, R7 pp. 126-129
R18-08	1/2	0.85	3,000	12,000	5.5	STD pp. 36-61, R7 pp. 126-129

SAE 100R8, DIN EN 855 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines

Tube: Nylon

Reinforcement: Two synthetic fiber braids

Cover: Abrasion, ozone and weather resistant black urethane

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R8-03	3/16	0.52	5,000	20,000	2.0	STD pp. 36-61
R8-04	1/4	0.63	5,000	20,000	2.5	STD pp. 36-61
R8-06	3/8	0.77	4,000	16,000	3.5	STD pp. 36-61
R8-08	1/2	0.89	3,500	14,000	5.5	STD pp. 36-61

SAE 100R8, DIN EN 855 Hydraulic Hose (Non-Conductive)



Recommended for: High pressure non-conductive hydraulic oil lines

Tube: Nylon

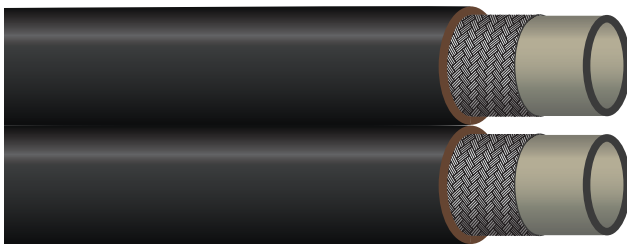
Reinforcement: Two synthetic fiber braids

Cover: Abrasion, ozone and weather resistant orange urethane

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R8-03 NC	3/16	0.52	5,000	20,000	2.0	STD pp. 36-61
R8-04 NC	1/4	0.63	5,000	20,000	2.5	STD pp. 36-61
R8-06 NC	3/8	0.77	4,000	16,000	3.5	STD pp. 36-61
R8-08 NC	1/2	0.89	3,500	14,000	5.5	STD pp. 36-61

SAE 100R8, DIN EN 855 Hydraulic Hose Twin Line



Recommended for: High pressure hydraulic oil lines for twin line applications

Tube: Nylon

Reinforcement: Two synthetic fiber braids

Cover: Abrasion, ozone and weather resistant black urethane

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R8-04 TW	1/4	0.63	5,000	20,000	2.5	STD pp. 36-61
R8-06 TW	3/8	0.77	4,000	16,000	3.5	STD pp. 36-61
R8-08 TW	1/2	0.89	3,500	14,000	5.5	STD pp. 36-61



1SN & 2SN Pressure Wash Hose



Recommended for: Medium pressure wash applications.

Tube: Water resistant synthetic rubber

Reinforcement: One high tensile steel wire braid.

Cover: Abrasion, ozone and weather resistant synthetic rubber. Black & blue covers available.

Temperature range: -40°F to +300°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
PW-06	3/8	0.69	4,000	8,000	3.0	STD pp. 36-61, K2 pp. 62-79
PWB-06	3/8	0.69	4,000	8,000	3.0	STD pp. 36-61, K2 pp. 62-79
PW2-06	3/8	0.69	6,000	12,000	3.5	STD pp. 36-61, K2 pp. 62-79

SAE 100 R14 Stainless Steel PTFE Hose



Recommended for: High temperature or corrosive fluids. Meets or exceeds requirements of SAE 100R14.

Tube: White extruded PTFE

Reinforcement: One braid of high tensile stainless steel wire.

Temperature range: -65°F to +450°F

Skiving Required: No

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R115-04	3/16	0.312	3,000	12,000	1.6	SST pp. 130-134
R115-05	1/4	0.375	3,000	12,000	2.0	SST pp. 130-134
R115-06	5/16	0.445	2,500	10,000	3.0	SST pp. 130-134
R115-06 T	3/8	0.503	2,250	9,000	4.0	SST pp. 130-134
R115-08	7/16	0.549	2,000	8,000	5.0	SST pp. 130-134
R115-10	1/2	0.648	1,500	6,000	5.3	SST pp. 130-134
R115-12	5/8	0.778	1,200	4,800	6.1	SST pp. 130-134
R115-12 T	3/4	0.886	1,100	4,400	7.9	SST pp. 130-134
R115-16 T	1.000	1.135	900	3,600	9.0	SST pp. 130-134

Carpet Cleaner Hose



Reinforcement: One braids of higher tensile steel wire.

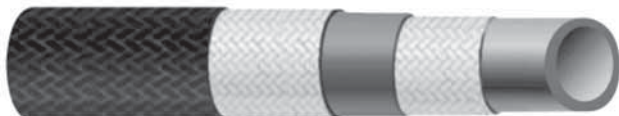
Cover: Blue, smooth, oil and abrasion resistant Neoprene.

Temperature range: -40°F to +212°F

Skiving Required: No

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)
CCH-04	1/4	0.530	350	1,400	4.0

SAE 100 R5 Hydraulic Hose



Recommended for: Medium pressure hydraulic oil lines other air, water, and oil service.
Meets or exceeds requirements of SAE 100R5.

Tube: Black, synthetic rubber

Reinforcement: Textile inner braid and a braid of higher tensile steel wire.

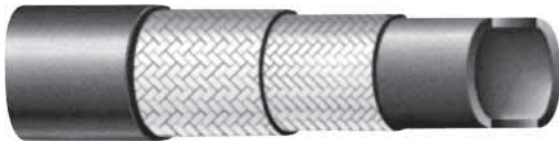
Cover: Black, oil resistant textile braid.

Temperature range: -40°F to +212°F

Skiving Required: No

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R5-04	3/16	0.520	3,000	12,000	3.0	R5 pp. 135-140
R5-05	1/4	0.580	3,000	12,000	3.4	STD pp. 36-61
R5-06	5/16	0.680	2,250	9,000	4.0	R5 pp. 135-140
R5-08	7/16	0.770	2,000	8,000	4.6	R5 pp. 135-140
R5-10	1/2	0.920	1,750	7,000	5.5	STD pp. 36-61
R5-12	5/8	1.080	1,500	6,000	6.5	R5 pp. 135-140
R5-16	7/8	1.230	800	3,200	7.4	R5 pp. 135-140
R5-20	1-1/8	1.500	625	2,500	9.0	R5 pp. 135-140
R5-24	1-3/8	1.750	500	2,000	10.5	R5 pp. 135-140
R5-32	1-13/16	2.200	350	1,400	13.3	R5 pp. 135-140

Jack Hose



Recommended for: High pressure jack oil lines

Tube: Oil resistant synthetic rubber

Reinforcement: Two braids of high tensile steel wire

Cover: Black, oil resistant, Nitrile (BTR)

Temperature range: -40°F to +212°F

Skiving Required: No

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
HJK-04	1/4	0.590	10,000	20,000	4.0	STD pp. 36-61
HJK-06	3/8	0.750	10,000	20,000	7.0	STD pp. 36-61

SAE 100 R3, DIN EN 854 Hydraulic Hose



Recommended for: Low pressure hydraulic oil lines

Tube: Oil resistant synthetic rubber

Reinforcement: Two high tensile synthetic textile braids

Cover: Abrasion, ozone and weather resistant synthetic rubber

Meets flame resistant MSHA designation

Temperature Range: -40°F to +212°F

Part Number	Hose I.D. (in.)	Hose O.D.(in.)	Rated W.P.(psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R3-04	1/4	0.563	1,200	4,800	3.5	STD pp. 36-61
R3-06	3/8	0.752	1,100	4,400	4	STD pp. 36-61
R3-08	1/2	0.937	1,000	4,000	5	STD pp. 36-61
R3-10	5/8	1.063	875	3,500	6	STD pp. 36-61
R3-12	3/4	1.252	750	3,000	6	STD pp. 36-61
R3-16	1	1.500	375	1,500	8	STD pp. 36-61

SAE 100 R4 Suction Hose



Recommended for: Meets or exceeds requirements of SAE 100R4

Tube: Black, oil resistant synthetic rubber.

Reinforcement: Textile reinforcement with Helix wire

Cover: Black, oil and abrasion resistant synthetic rubber.

Temperature range: -40°F to +212°F

Skiving Required: No

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
R4-12	3/4	1.320	300	1,200	5.0	STD pp. 36-61, R4 pp. 140-141
R4-16	1.000	1.480	250	1,000	6.0	STD pp. 36-61, R4 pp. 140-141
R4-20	1-1/4	1.770	200	800	8.0	STD pp. 36-61, R4 pp. 140-141
R4-24	1-1/2	2.050	150	600	10.0	W pp. 87-112, JJ pp. 113-119, R4 pp. 140-141
R4-32	2.000	2.500	100	400	12.0	W pp. 87-112, R4 pp. 140-141

Refrigerant Beadlock Hose



Recommended for: R12 and R134A refrigerant systems.

Tube: Black, oil resistant, Nitrile (BTR) with nylon barrier

Reinforcement: One textile braid

Cover: Black, oil and abrasion EPDM

Temperature range: -22°F to +257°F

Skiving Required: No

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)
BH-06	5/16	0.750	350	1,400	4.0
BH-08	13/32	0.910	350	1,400	4.7
BH-10	1/2	1.000	350	1,400	5.5
BH-12	5/8	1.130	350	1,400	6.5

SAE R2S HIGH TEMP, DIN EN 853 2SN Hydraulic Hose



Recommended for: High pressure hydraulic oil lines.

Tube: Black tube, specifically compounded for temperature and chemical resistance, oil-resistant.

Reinforcement: Two high tensile steel wire braid.

Cover: Synthetic rubber, blue... weather, oil, fuel, ozone and abrasion-resistant.

Meets flame resistant MSHA designation.

Temperature range: -40°F to +300°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Coupling Series
KHT2S-04	1/4	0.59	5,800	23,200	4.0	STD pp. 36-61, W pp. 87-112
KHT2S-06	3/8	0.75	4,800	19,200	5.0	STD pp. 36-61, W pp. 87-112
KHT2S-08	1/2	0.87	4,000	16,000	7.0	STD pp. 36-61, W pp. 87-112
KHT2S-10	5/8	1.00	3,650	14,600	8.0	STD pp. 36-61, W pp. 87-112
KHT2S-12	3/4	1.15	3,120	12,480	9.6	STD pp. 36-61, W pp. 87-112
KHT2S-16	1	1.50	2,400	9,600	12.0	STD pp. 36-61, W pp. 87-112



Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products



Push-On Hose

Cover Color: Black, Blue, Gray, Red, Green or Yellow

Oil Resistance: High

Hose Construction:

Tube: Nitrile, RMA Class A

Cover: Nitrile/PVC, RMA Class A

Reinforcement: Spiral polyester

Temperature Range: -20°F to +180°F (-29°C to +82°C)

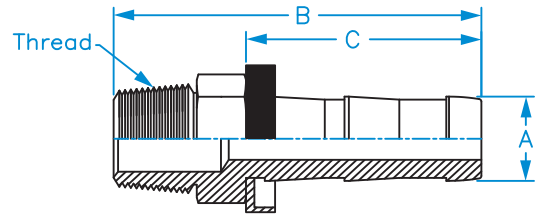
Packaging: Reels - 250 ft.(also available in 700 ft)

Flex-Loc is the state-of-the-art in push-on hose. It allows push-on fittings to be inserted into place easily and quickly. No special crimping tools are required. Flex-Loc has exceptional coupling retention. The superior holding ability is created by a unique spiral angle design and polyester reinforcement that grips the fitting from the inside. Fittings on Flex-Loc will not give even under full working pressure. Flex-Loc is available with a 250 PSI working pressure. Flex-Loc is a high oil resistant, push-on hose. Its tube and cover make this a very effective, working hose for industrial, warehouse and applications where a convenient push-on hose fitting could be used and value is essential.

Part Number	Nominal ID/inches	Nominal OD/inches	Reinforcement Spirals	Working Pressure (PSI)	Min. Bend Radius/In	Weight (Lb/Ft)	Color
KH-404398	1/4	0.5	2	250	1.5	0.09	Black
KH-406398	3/8	0.63	2	250	2.25	0.12	Black
KH-408398	1/2	0.75	2	250	3	0.16	Black
KH-410398	5/8	0.91	2	250	3.75	0.22	Black
KH-412398	3/4	1.03	2	250	4.5	0.25	Black
KH-504398	1/4	0.5	2	250	1.5	0.09	Blue
KH-506398	3/8	0.63	2	250	2.25	0.12	Blue
KH-508398	1/2	0.75	2	250	3	0.16	Blue
KH-604398	1/4	0.5	2	250	1.5	0.09	Gray
KH-606398	3/8	0.63	2	250	2.25	0.12	Gray
KH-608398	1/2	0.75	2	250	3	0.16	Gray
KH-704398	1/4	0.5	2	250	1.5	0.09	Red
KH-706398	3/8	0.63	2	250	2.25	0.12	Red
KH-708398	1/2	0.75	2	250	3	0.16	Red
KH-804398	1/4	0.5	2	250	1.5	0.09	Green
KH-806398	3/8	0.63	2	250	2.25	0.12	Green
KH-808398	1/2	0.75	2	250	3	0.16	Green
KH-904398	1/4	0.5	2	250	1.5	0.09	Yellow
KH-906398	3/8	0.63	2	250	2.25	0.12	Yellow
KH-908398	1/2	0.75	2	250	3	0.16	Yellow

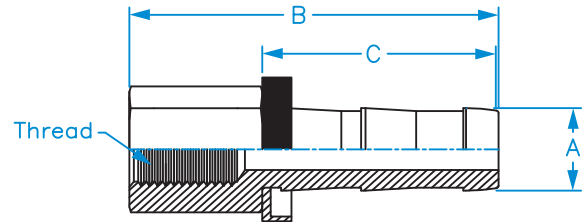
Male Pipe Rigid - Push Loc

Part Number	Hose I.D. (in.) A	B	C	Thread
MP-04-04-PL	1/4	1.66	0.87	1/4 - 18
MP-04-06-PL	1/4	1.66	0.87	3/8 - 18
MP-06-04-PL	3/8	1.76	0.97	1/4 - 18
MP-06-06-PL	3/8	1.76	0.97	3/8 - 18
MP-08-04-PL	1/2	1.76	0.97	1/4 - 18
MP-08-06-PL	1/2	1.76	0.97	3/8 - 18
MP-08-08-PL	1/2	1.97	0.97	1/2 - 14
MP-12-08-PL	3/4	2.45	1.45	1/2 - 14
MP-12-12-PL	3/4	2.45	1.45	3/4 - 14



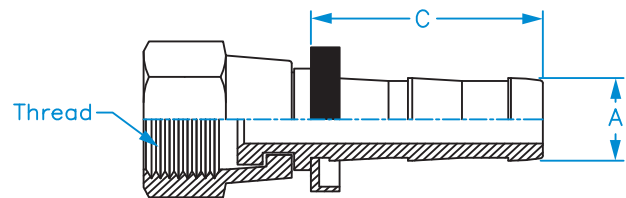
Female Pipe Rigid - Push Loc

Part Number	Hose I.D. (in.) A	B	C	Thread
FP-06-04-PL	3/8	1.61	0.97	1/4 - 18
FP-06-06-PL	3/8	1.63	0.97	3/8 - 18
FP-08-08-PL	1/2	1.77	0.97	1/2 - 14



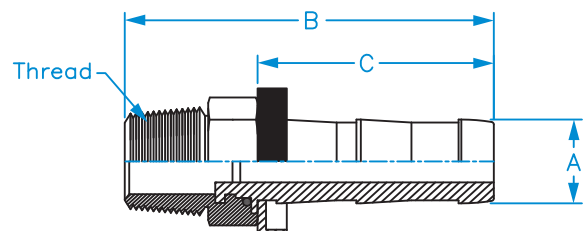
Female SAE Swivel - Push Loc

Part Number	Hose I.D. (in.) A	C	Thread
FSX-04-04-PL	1/4	0.87	7/16 - 20
FSX-06-06-PL	3/8	0.97	5/8 - 18
FSX-06-08-PL	3/8	0.97	3/4 - 16
FSX-08-08-PL	1/2	0.97	3/4 - 16
FSX-10-10-PL	5/8	1.45	7/8 - 14
FSX-12-12-PL	3/4	1.45	1-1/16 - 14



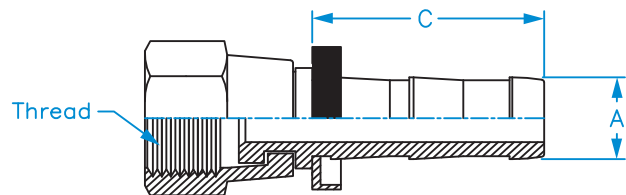
Male Pipe Swivel - Push Loc

Part Number	Hose I.D. (in.) A	B	C	Thread
MPX-04-04-PL	1/4	1.71	0.87	1/4 - 18
MPX-08-08-PL	1/2	2.00	0.97	1/2 - 14

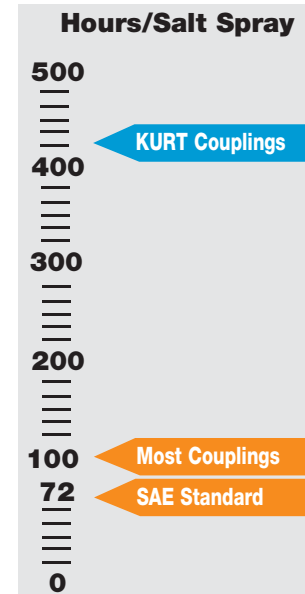


Female JIC Swivel - Push Loc

Part Number	Hose I.D. (in.) A	C	Thread
FJX-06-06-PL	3/8	0.97	9/16 - 18
FJX-12-12-PL	3/4	1.45	1-1/16 - 12



4x Protection With Kurt XL™ Coating Comes Standard On All Couplings.



Proprietary Kurt XL™ finish provides more than Four Times industry standard protection.

For over 65 years, Kurt has been developing better ways to fight corrosion and protect metal couplings and products. Kurt's newest proprietary finishing capabilities, called Kurt XL™, results in four times the protection than required by standard SAE specifications (72 hours salt spray test) and surpasses most other competitor couplings protection.

Rugged resistance for extreme conditions.

Most applications where couplings are subjected to severe conditions such as railways, service trucks, shipboard equipment, mining, and many more, commonly become corroded and risk failure and costly equipment downtime. Kurt couplings and fittings exceed corrosion resistance where most other competitor couplings merely pass SAE standard protection requirements. Kurt's couplings are thoroughly tested under IOS 9227 and ASTM B 117 rigorous requirements.

Kurt couplings won't leave you short.

All Kurt couplings meet RoHS directives and are free of cadmium and hexavalent chromium, so you can be assured Kurt couplings are world-wide compliant and won't leave you short once they leave your facility.

Thousands have switched to Kurt.

Kurt Hydraulics continues to be an ideal alternative source for hydraulic couplings and hose. Kurt offers 95 percent out-of-stock fill rates, competitive pricing and fast delivery. All Kurt products are backed by a strong warranty against defects in materials and workmanship.



F J X 90 L - 08 - 08 W

F = Female
M = Male

Thread
Size

- J = JIC 37 Flare
- P = NPTF Pipe
- B = O-Ring Boss
- F = O-Ring Face Seal
- S = SAE 45 Flare
- T = SAE Male Flareness
- 61 = SAE Code 61 Flange
- 62 = SAE Code 62 Flange
- BSP = British Standard Pipe
- DINL = DIN Light
- DINH = DIN Heavy
- JIS = Japanese Industrial Standard
- KOM = Komatsu 30° Flare
- CAT = CAT Flange

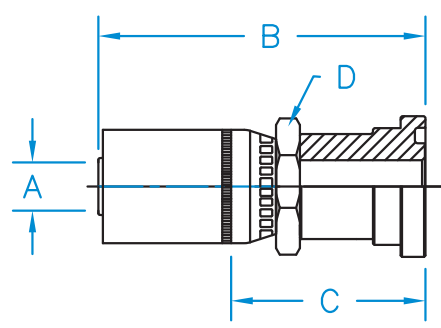
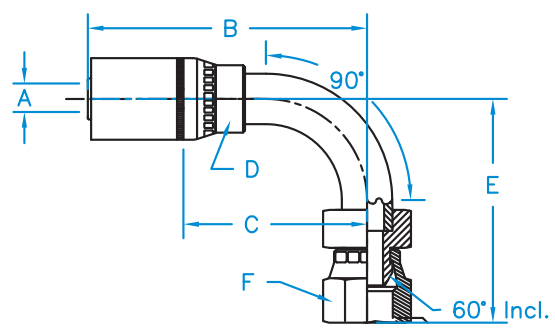
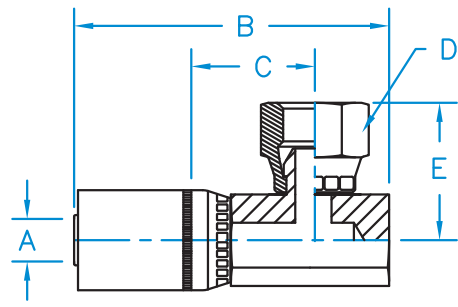
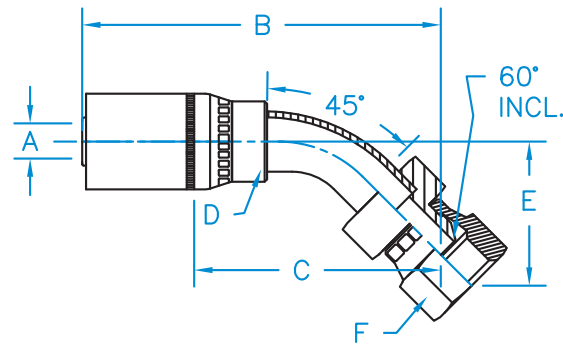
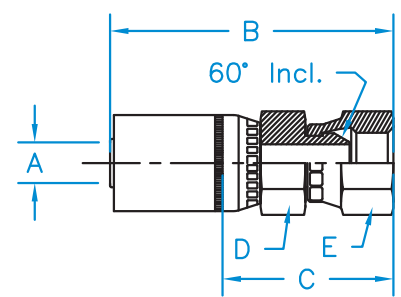
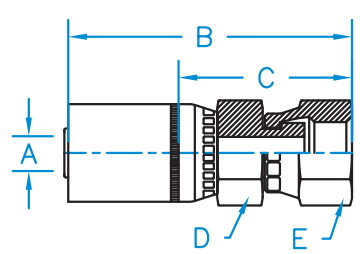
Hose Size
IN 1/16THS

L = Long Drop
Nothing = Short Drop
M = Medium Drop

90 = 90 Angled Nut
45 = 45 Angled Nut

X = Swivel Nut
Nothing = Solid Nut

- W = W Style
- 6W = 6W Style Coupling High Pressure Non-Skive
- JJ = JJ Style
- K2 = K2 Coupling for Braided Hose
- Nothing = Braided Coupling
- WHP = Ultra High Pressure
- PL = PL Coupling (Push Loc style)
- R4 = R4 Coupling
- R5 = R5 Coupling
- R7 = Thermoplastic Swage or Crimp
- R2R = R2 Reusable Coupling
- SST = Steel Coupling for PTFE Hose



Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products

Braided Hose Couplings

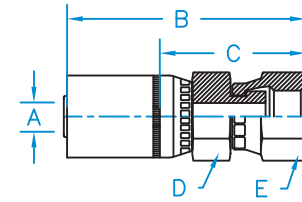
KURT
HYDRAULICS

- Kurt's first design
- Compatible with many crimpers
- Can be used on 1 & 2 wire braided hose
- Can be used on thermoplastic hose
- Great for industrial hose



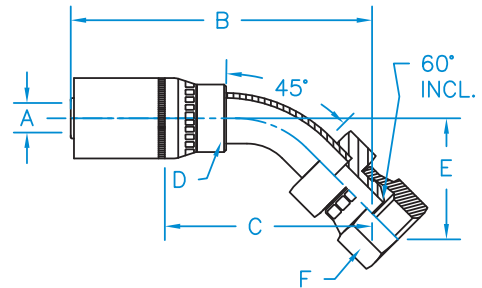
British Flat Face Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-BFPX-06-06	3/8	2.81	1.31	3/4	7/8	3/8 - 19
F-BFPX-06-08	3/8	2.92	1.42	7/8	1	1/2 - 14
F-BFPX-08-08	1/2	3.00	1.49	7/8	1	1/2 - 14
F-BFPX-08-12	1/2				1-1/4	3/4 - 14



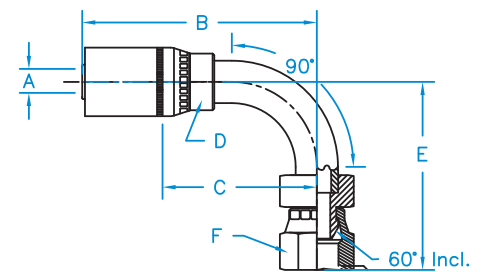
British Standard Pipe 60° Cone 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX45-04-04	1/4	3.45	2.19	3/4	0.75	3/4	1/4 - 19
F-BSPX45-04-06	1/4	3.73	2.48	5/8	0.95	3/4	3/8 - 19
F-BSPX45-06-06	3/8	3.99	2.49	3/4	0.95	7/8	3/8 - 19
F-BSPX45-06-08	3/8	4.31	2.81	3/4	1.00	1	1/2 - 14
F-BSPX45-08-08	1/2	4.38	2.88	7/8	1.00	1	1/2 - 14
F-BSPX45-10-10	5/8	4.21	2.71	1-1/8	1.10	1-1/8	5/8 - 14
F-BSPX45-12-12	3/4	4.23	2.63	1-1/8	1.18	1-1/4	3/4 - 14
F-BSPX45-16-16	1	5.03	3.29	1-3/8	1.33	1-1/2	1 - 11



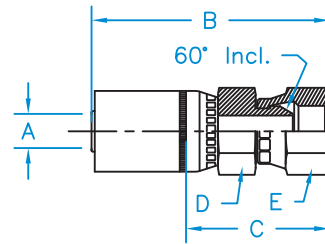
British Standard Pipe 60° Cone 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX90-04-04	1/4	2.37	1.72	5/8	1.33	3/4	1/4 - 19
F-BSPX90-04-06	1/4	3.12	1.87	5/8	1.79	7/8	3/8 - 19
F-BSPX90-06-06	3/8	3.38	1.88	3/4	1.79	7/8	3/8 - 19
F-BSPX90-06-08	3/8	3.68	2.18	3/4 R	1.95	1	1/2 - 14
F-BSPX90-08-08	1/2	2.10	2.25	7/8	1.95	1	1/2 - 14
F-BSPX90-10-10	5/8	3.32	1.55	1-1/8	2.10	1-1/8	5/8 - 14
F-BSPX90-10-12	5/8	3.76	2.26	1-1/8	2.31	1-1/4	3/4 - 14
F-BSPX90-12-12	3/4	3.85	2.26	1-1/8	2.31	1-1/4	3/4 - 14
F-BSPX90-16-16	1	4.59	2.82	1-3/8	2.90	1-1/2	1 - 11



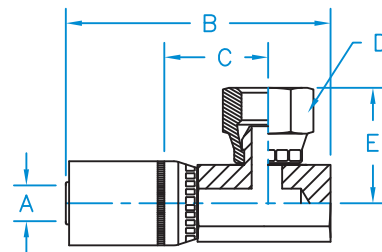
British Standard Pipe 60° Cone Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-BSPX-03-04	3/16	2.17	1.11	5/8	3/4	1/4 - 19
F-BSPX-04-02	1/4	2.30	1.04	9/16	9/16	1/8 - 28
F-BSPX-04-04	1/4	2.35	1.10	9/16	3/4	1/4 - 19
F-BSPX-04-06	1/4	2.53	1.28	11/16	7/8	3/8 - 19
F-BSPX-06-04	3/8	2.58	1.25	3/4	3/4	1/4 - 19
F-BSPX-06-06	3/8	2.80	1.30	11/16	7/8	3/8 - 19
F-BSPX-06-08	3/8	2.92	1.42	7/8	1	1/2 - 14
F-BSPX-08-06	1/2	2.90	1.40	7/8	7/8	3/8 - 19
F-BSPX-08-08	1/2	2.99	1.49	1.00	1	1/2 - 14
F-BSPX-08-10	1/2	2.85	1.34	7/8	1-1/8	5/8 - 14
F-BSPX-10-08	5/8	3.12	1.62	1-1/16	1	1/2 - 14
F-BSPX-10-10	5/8	3.22	1.72	1-1/8	1-1/8	5/8 - 14
F-BSPX-10-12	5/8	3.33	1.83	1-1/16	1-1/4	3/4 - 14
F-BSPX-12-12	3/4	3.39	1.70	1-1/8	1-1/4	3/4 - 14
F-BSPX-12-16	3/4	3.37	1.78	1-1/4	1-1/2	1 - 11
F-BSPX-16-16	1	3.51	1.78	1-3/8	1-1/2	1 - 11
F-BSPX-20-20	1-1/4	4.02	2.02	1-3/4	2	1-1/4 - 11



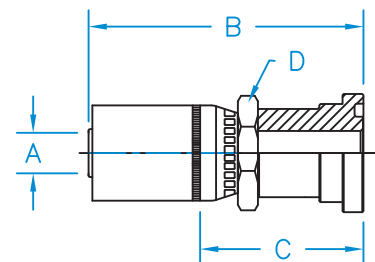
British Std Pipe 60° Cone 90° Block Style Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX90B-04-04	1/4	2.31	0.65	3/4	0.97	5/8	1/4 - 19
F-BSPX90B-06-06	3/8	2.77	0.74	7/8	1.13	13/16	3/8 - 19
F-BSPX90B-06-08	3/8	2.77	0.74	1	1.22	13/16	1/2 - 14
F-BSPX90B-08-08	1/2	2.91	0.88	1	1.29	15/16	1/2 - 14
F-BSPX90B-12-12	3/4	3.45	1.11	1-1/4	1.62	1-1/4	3/4 - 14
F-BSPX90B-16-16	1	4.34	2.06	1-1/2	1.45	1-5/8	1 - 11



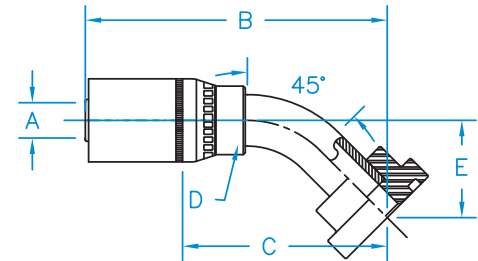
C61 - Code 61 Flange Straight Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C61-08-08	1/2	3.51	1.83	7/8	N/A
C61-08-12	1/2	3.00	1.31	1-1/2	N/A
C61-12-12	3/4	3.74	2.15	1-1/8	N/A
C61-12-16	3/4	3.97	2.09	1-3/8	N/A
C61-16-16	1	4.43	1.29	1-3/8	N/A
C61-16-20	1	5.13	2.85	1-3/8	N/A
C61-20-20	1-1/4	4.02	2.02	2	N/A
C61-20-24	1-1/4	4.18	2.18	2-3/8	N/A



C6145 - Code 61 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6145-08-08	1/2	4.07	2.57	7/8	0.75	N/A
C6145-08-12	1/2	3.84	2.34	1-1/8	0.84	N/A
C6145-12-12	3/4	4.41	2.85	1-1/8	0.84	N/A
C6145-12-16	3/4	4.32	2.72	1-3/8	1.13	N/A
C6145-12-20	3/4	4.45	2.85	1-3/8	0.94	N/A
C6145-16-16	1	4.47	2.74	1-3/8	1.13	N/A
C6145-16-20	1	4.6	2.87	1-3/8	0.94	N/A
C6145-16-24	1	4.98	3.25	1-5/8	1.03	N/A
C6145-20-20	1-1/4	5.63	3.63	1-3/4	1.26	N/A
C6145-20-24	1-1/4			1-3/4		N/A

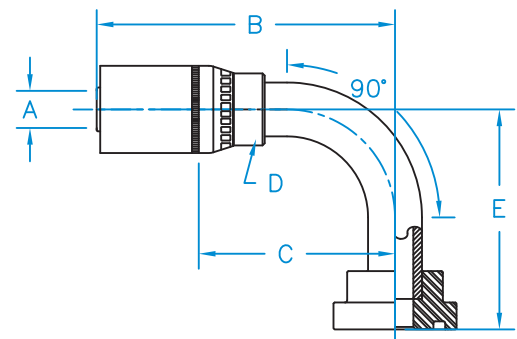


Hose

Braided Hose Couplings

C6190 - Code 61 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190-08-08	1/2	3.40	1.90	7/8	1.63	N/A
C6190-08-12	1/2	3.75	2.25	1-1/8	1.56	N/A
C6190-12-12	3/4	4.00	2.41	1-1/8	2.31	N/A
C6190-12-16	3/4	4.31	2.71	1-3/8	2.90	N/A
C6190-12-20	3/4	4.39	2.80	1-3/8	2.25	N/A
C6190-16-16	1	4.46	2.73	1-3/8	2.90	N/A
C6190-16-20	1	5.43	3.15	1-3/8	2.37	N/A
C6190-16-24	1	6.01	3.73	1-5/8	2.74	N/A
C6190-20-20	1-1/4	5.69	3.69	1-3/4	2.68	N/A
C6190-20-24	1-1/4	5.69	3.69	1-3/4	2.74	N/A

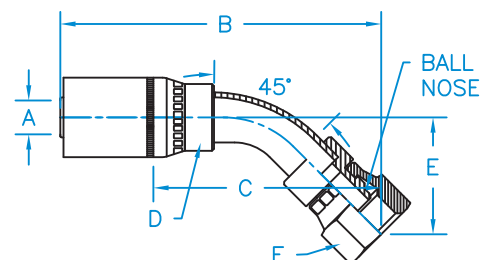


W Style Couplings

Other Couplings

Din Heavy Universal Seat 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DINHX45-04-16	1/4	3.23	1.97	5/8	0.96	7/8	M16 X 1.5
F-DINHX45-04-18	1/4	3.26	2.00	5/8	1.11	15/16	M18 X 1.5
F-DINHX45-06-20	3/8	4.15	2.65	5/8	1.12	15/16	M20 X 1.5
F-DINHX45-06-22	3/8	3.74	2.25	3/4	1.20	1-1/16	M22 X 1.5
F-DINHX45-08-24	1/2	4.58	3.08	7/8	1.26	1-3/16	M24 X 1.5
F-DINHX45-10-30	5/8	4.35	2.85	1-1/8	1.24	1-7/16	M30 X 2.0
F-DINHX45-12-36	3/4	4.98	3.38	1-3/8	1.48	1-3/4	M36 X 2.0
F-DINHX45-16-42	1	5.55	3.27	1-3/8	1.34	2	M42 X 2.0

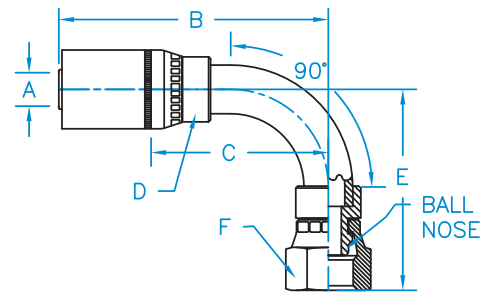


Threads & Connections

Additional Products

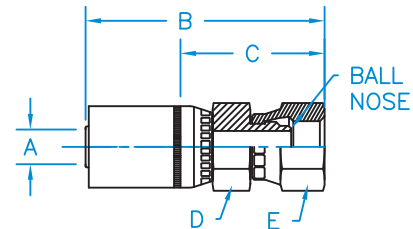
Din Heavy Universal Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DINHX90-04-16	1/4	3.07	1.81	5/8	1.53	7/8	M16 X 1.5
F-DINHX90-04-18	1/4	2.44	1.19	5/8	1.86	15/16	M18 X 1.5
F-DINHX90-06-20	3/8	3.38	1.88	11/16	1.96	15/16	M20 X 1.5
F-DINHX90-06-22	3/8	3.38	1.88	3/4	1.75	1-1/16	M22 X 1.5
F-DINHX90-08-24	1/2	3.75	2.25	7/8	2.31	1-3/16	M24 X 1.5
F-DINHX90-10-30	5/8	3.73	2.23	1-1/8	2.47	1-7/16	M30 X 2.0
F-DINHX90-12-36	3/4	4.83	3.24	1-3/8	3.13	1-3/4	M36 X 2.0
F-DINHX90-16-42	1	4.08	2.37	1-3/8	2.31	2	M42 X 2.0



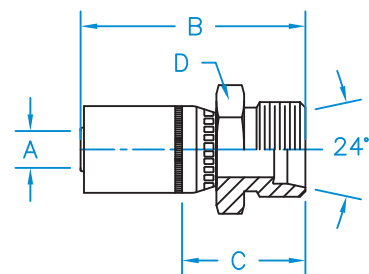
Din Heavy Universal Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DINHX-04-16	1/4	2.51	1.25	11/16	7/8	M16 X 1.5
F-DINHX-04-18	1/4	2.48	1.23	5/8	15/16	M18 X 1.5
F-DINHX-06-16	3/8	2.79	1.29	3/4	7/8	M16 X 1.5
F-DINHX-06-20	3/8	2.92	1.42	11/16	15/16	M20 X 1.5
F-DINHX-06-22	3/8	2.77	1.27	3/4	1-1/16	M22 X 1.5
F-DINHX-08-20	1/2	2.91	1.41	7/8	15/16	M20 X 1.5
F-DINHX-08-24	1/2	2.84	1.34	7/8	1-3/16	M24 X 1.5
F-DINHX-10-30	5/8	3.34	1.84	1-1/8	1-7/16	M30 X 2.0
F-DINHX-12-36	3/4	3.43	1.84	1-5/16	1-3/4	M36 X 2.0
F-DINHX-16-42	1	3.67	1.94	1-1/2	2	M42 X 2.0



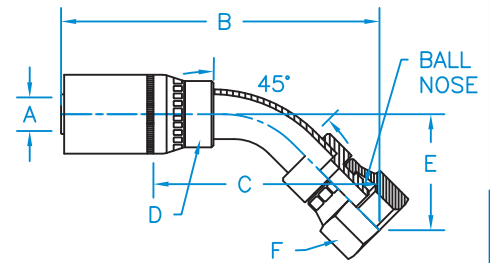
Din Heavy Universal Seat Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-DH04-08-16	1/4	2.38	1.12	11/16	M16 X 1.5
M-DH04-10-18	1/4	2.38	1.12	11/16	M18 X 1.5
M-DH06-10-18	3/8	2.64	1.14	3/4	M18 X 1.5
M-DH06-12-20	3/8	2.71	1.21	15/16	M20 X 1.5
M-DH06-14-22	3/8	2.73	1.23	15/16	M22 X 1.5
M-DH08-16-24	1/2	2.80	1.30	1	M24 X 1.5
M-DH10-20-30	5/8	2.89	1.39	1-3/16	M30 X 2.0
M-DH12-25-36	3/4	3.16	1.57	1-1/2	M36 X 2.0
M-DH16-30-42	1	3.40	1.66	1-11/16	M42 X 2.0



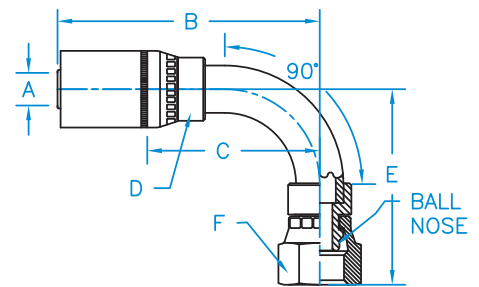
Din Light Universal Seat 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DINLX45-04-14	1/4	3.12	1.87	5/8	0.86	3/4	M14 X 1.5
F-DINLX45-04-16	1/4	3.92	2.66	5/8	1.13	7/8	M16 X 1.5
F-DINLX45-06-16	3/8	4.17	2.67	11/16	1.13	3/4	M16 X 1.5
F-DINLX45-06-18	3/8	4.17	2.67	3/4	1.13	15/16	M18 X 1.5
F-DINLX45-08-22	1/2	3.85	2.16	7/8	1.22	1-1/16	M22 X 1.5
F-DINLX45-10-26	5/8	3.99	2.49	1-1/8	1.40	1-1/4	M26 X 1.5
F-DINLX45-12-30	3/4	4.88	3.28	1-1/8	1.84	1-7/16	M30 X 2.0
F-DINLX45-16-36	1	5.16	3.42	1-3/8	1.44	1-3/4	M36 X 2.0



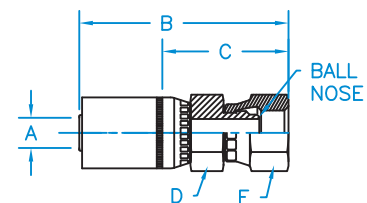
Din Light Universal Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DINLX90-04-14	1/4	2.98	1.72	5/8	1.42	3/4	M14 X 1.5
F-DINLX90-04-16	1/4	2.38	1.13	5/8	1.73	7/8	M16 X 1.5
F-DINLX90-06-16	3/8	3.38	1.88	11/16	1.99	7/8	M16 X 1.5
F-DINLX90-06-18	3/8	3.38	1.88	3/4	1.98	15/16	M18 X 1.5
F-DINLX90-08-22	1/2	3.75	2.25	7/8	2.02	1-1/16	M22 X 1.5
F-DINLX90-10-26	5/8	4.03	2.53	1-1/8	2.37	1-1/4	M26 X 1.5
F-DINLX90-12-30	3/4	3.94	2.06	1-1/8	3.34	1-7/16	M30 X 2.0
F-DINLX90-16-36	1	5.43	3.15	1-3/8	3.22	1-3/4	M36 X 2.0
F-DINLX90-12-30	3/4	3.87	2.28	1-1/8	2.82	1-7/16	M30 X 2.0
F-DINLX90-16-36	1	4.95	3.22	1-3/8	3.22	1-3/4	M36 X 2.0



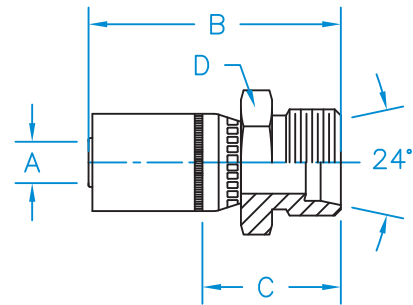
Din Light Universal Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DINLX-04-12	1/4	2.40	1.14	9/16	3/4	M12 X 1.5
F-DINLX-04-14	1/4	2.42	1.16	9/16	18MM	M14 X 1.5
F-DINLX-04-16	1/4	2.47	1.21	5/8	7/8	M16 X 1.5
F-DINLX-06-16	3/8	2.86	1.36	11/16	7/8	M16 X 1.5
F-DINLX-06-18	3/8	2.73	1.24	11/16	15/16	M18 X 1.5
F-DINLX-06-22	3/8	2.89	1.39	7/8	1-1/16	M22 X 1.5
F-DINLX-08-22	1/2	2.85	1.35	7/8	1-1/16	M22 X 1.5
F-DINLX-10-26	5/8	3.11	1.61	1-1/8	1-1/4	M26 X 1.5
F-DINLX-12-30	3/4	3.43	1.69	1-1/8	1-7/16	M30 X 2.0
F-DINLX-16-36	1	3.58	1.86	1-3/8	1-3/4	M36 X 2.0



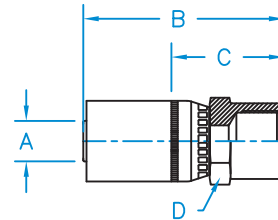
Din Light Universal Seat Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-DL04-06-12	1/4	2.27	1.02	9/16	M12 X 1.5
M-DL04-08-14	1/4	2.14	0.89	5/8	M14 X 1.5
M-DL04-10-16	1/4	2.34	1.08	11/16	M16 X 1.5
M-DL06-10-16	3/8	2.64	1.14	11/16	M16 X 1.5
M-DL06-12-18	3/8	2.60	1.10	11/16	M18 X 1.5
M-DL06-15-22	3/8	2.64	1.14	7/8	M22 X 1.5
M-DL08-15-22	1/2	2.72	1.22	7/8	M22 X 1.5
M-DL10-18-26	5/8	2.73	1.23	1-1/8	M26 X 1.5
M-DL12-22-30	3/4	2.90	1.31	1-3/16	M30 X 2.0
M-DL16-28-36	1	3.16	1.43	1-1/2	M36 X 2.0



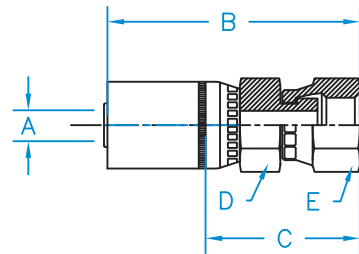
Female Grease Tap Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
GT-04-08	1/4	2.34	1.09	3/4	1/2 - 27
GT-06-08	3/8	2.60	1.10	3/4	1/2 - 27



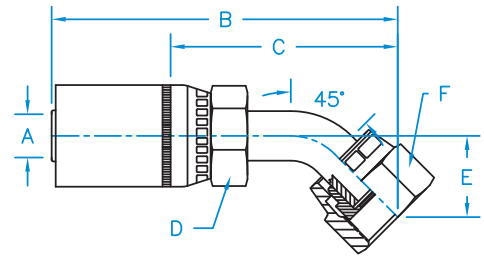
FFX - O-Ring Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-04-04	1/4	2.31	1.06	9/16	11/16	9/16 - 18
FFX-04-06	1/4	2.41	1.20	11/16	13/16	11/16 - 16
FFX-06-04	3/8	2.70	1.20	3/4	11/16	9/16 - 18
FFX-06-06	3/8	2.67	1.15	11/16	13/16	11/16 - 16
FFX-06-08	3/8	2.84	0.70	7/8	15/16	13/16 - 16
FFX-08-06	1/2	2.88	1.43	7/8	13/16	11/16 - 16
FFX-08-08	1/2	2.92	1.42	7/8	15/16	13/16 - 16
FFX-08-10	1/2	3.11	1.60	15/16	1-1/8	1 - 14
FFX-08-12	1/2	3.21	1.71	1-1/8	1-3/8	1-3/16 - 12
FFX-10-08	5/8	3.04	1.54	1-1/8	1	13/16 - 16
FFX-10-10	5/8	3.13	1.63	1-1/8	1-1/8	1 - 14
FFX-10-12	5/8	3.23	1.73	1-1/8	1-3/8	1-3/16 - 12
FFX-12-10	3/4	3.21	1.62	1-1/8	1-1/8	1 - 14
FFX-12-12	3/4	3.23	1.73	1-1/8	1-3/8	1-3/16 - 12
FFX-12-16	3/4	3.38	1.78	1-1/4	1-5/8	1-7/16 - 12
FFX-16-16	1	3.61	1.90	1-1/8	1-5/8	1-7/16 - 12
FFX-16-20	1	3.60	1.87	1-5/8	1-7/8	1-11/16 - 12
FFX-20-20	1-1/4	3.87	1.87	1-3/4	1-7/8	1-11/16 - 12
FFX-20-24	1-1/4	4.21	2.21	1-7/8	2-1/4	2 - 12



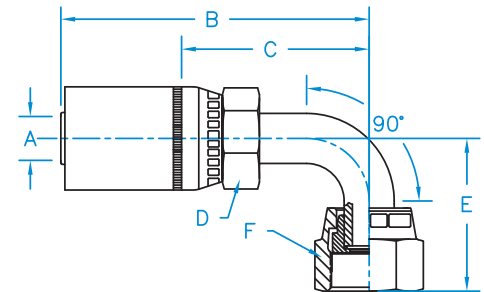
FFX45 - O-Ring Face Seal 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX45-04-04	1/4	3.14	1.88	5/8	0.39	11/16	9/16 - 18
FFX45-04-06	1/4	3.23	1.97	5/8	0.44	13/16	11/16 - 16
FFX45-06-06	3/8	3.47	1.97	3/4	0.43	13/16	11/16 - 16
FFX45-06-08	3/8	3.43	1.93	3/4	0.59	15/16	13/16 - 16
FFX45-08-06	1/2	3.58	2.08	7/8	0.43	13/16	11/16 - 16
FFX45-08-08	1/2	3.50	2.00	7/8	0.59	15/16	13/16 - 16
FFX45-08-10	1/2	3.72	2.21	7/8	0.63	1-1/8	1 - 14
FFX45-08-12	1/2	3.77	2.27	1-1/8	0.83	1-3/8	1-3/16 - 12
FFX45-10-10	5/8	3.74	2.24	1-1/16	0.63	1-1/8	1 - 14
FFX45-10-12	5/8	3.78	2.28	1-1/8	.83	1-3/8	1-3/16 - 12
FFX45-12-10	3/4	3.95	2.36	1-1/8	0.63	1-1/8	1 - 14
FFX45-12-12	3/4	3.87	2.28	1-1/8	0.83	1-3/8	1-3/16 - 12
FFX45-12-16	3/4	4.54	2.95	1-1/8	0.97	1-5/8	1-7/16 - 12
FFX45-16-16	1	4.55	2.82	1-3/8	0.95	1-5/8	1-7/16 - 12
FFX45-16-20	1	5.04	3.31	1-3/8	1.30	1-7/8	1-11/16 - 12
FFX45-20-20	1-1/4	5.71	3.71	1-3/4	1.33	1-7/8	1-11/16 - 12
FFX45L-16-16	1	6.10	4.37	1-3/8	0.94	1-5/8	1-7/16 - 12
FFX45LL-16-16	1	8.10	6.37	1-3/8	0.94	1-5/8	1-7/16 - 12



FFX90 - O-Ring Face Seal 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90-04-04	1/4	2.98	1.72	5/8	0.82	11/16	9/16 - 18
FFX90-04-06	1/4	3.12	1.87	5/8	0.91	13/16	11/16 - 16
FFX90-06-04	3/8	3.24	1.74	11/16	0.82	11/16	9/16 - 18
FFX90-06-06	3/8	3.38	1.88	11/16	0.91	13/16	11/16 - 16
FFX90-06-08	3/8	3.34	1.84	3/4	1.14	15/16	13/16 - 16
FFX90-08-06	1/2	3.46	1.96	7/8	0.91	13/16	11/16 - 16
FFX90-08-08	1/2	3.31	1.81	7/8	1.14	15/16	13/16 - 16
FFX90-08-10	1/2	3.71	2.21	7/8	1.26	1-1/8	1 - 14
FFX90-08-12	1/2	3.78	2.28	1-1/8	1.88	1-3/8	1-3/16 - 12
FFX90-10-10	5/8	3.73	2.23	1-1/16	1.26	1-1/8	1 - 14
FFX90-10-12	5/8	3.80	2.30	1-1/8	1.88	1-3/8	1-3/16 - 12
FFX90-12-10	3/4	3.94	2.35	1-1/8	1.26	1-1/8	1 - 14
FFX90-12-12	3/4	3.89	2.30	1-1/8	1.88	1-3/8	1-3/16 - 12
FFX90-12-16	3/4	4.28	2.68	1-3/8	2.20	1-5/8	1-7/16 - 12
FFX90-16-16	1	4.43	2.71	1-3/8	2.21	1-5/8	1-7/16 - 12
FFX90-16-20	1	5.32	3.58	1-5/8	2.51	1-7/8	1-11/16 - 12
FFX90-20-20	1-1/4	5.44	3.44	1-3/4	3.10	1-7/8	1-11/16 - 12
FFX90M-04-04	1/4	2.32	1.07	5/8	1.26	11/16	9/16 - 18
FFX90M-06-06	3/8	3.38	1.88	11/16	1.50	13/16	11/16 - 16
FFX90M-08-08	1/2	3.31	1.81	7/8	1.61	15/16	13/16 - 16
FFX90M-10-10	5/8	3.05	1.55	1-1/16	1.85	1-1/8	1 - 14
FFX90M-12-12	3/4	3.89	2.30	1-1/8	2.28	1-3/8	1-3/16 - 12
FFX90M-16-16	1	4.24	2.51	1-3/8	2.64	1-5/8	1-7/16 - 12



Hose

Braided Hose Couplings

W Style Couplings

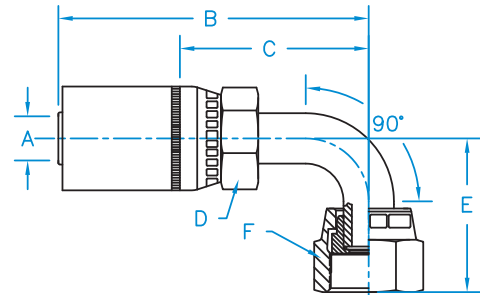
Other Couplings

Threads & Connections

Additional Products

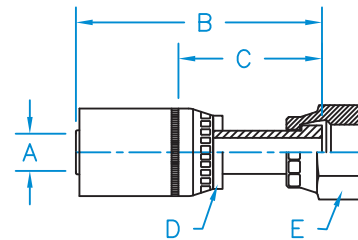
FFX90L - O-Ring Face Seal 90° Long Drop Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90L-04-04	1/4	2.98	1.72	5/8	1.81	11/16	9/16 - 18
FFX90L-06-06	3/8	3.38	1.88	3/4	2.13	13/16	11/16 - 16
FFX90L-06-08	3/8	3.68	2.18	3/4	2.52	15/16	13/16 - 16
FFX90L-08-08	1/2	3.75	2.25	7/8	2.52	15/16	13/16 - 16
FFX90L-08-10	1/2	3.71	2.21	7/8	2.76	1-1/8	1 - 14
FFX90L-10-10	5/8	3.73	2.23	1-1/8	2.77	1-1/8	1 - 14
FFX90L-10-12	5/8	3.72	2.22	1-1/8	3.83	1-3/8	1-3/16 - 12
FFX90L-12-12	3/4	3.89	2.30	1-1/8	3.83	1-3/8	1-3/16 - 12
FFX90L-16-16	1	4.44	2.71	1-3/8	4.48	1-5/8	1-7/16 - 12



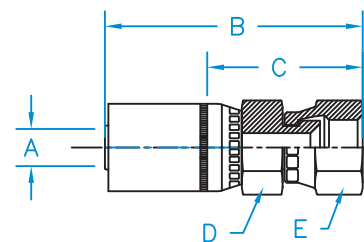
FFXT - O-Ring Face Seal Female Swivel Long

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFXT-04-04	1/4	2.57	1.31	9/16	11/16	9/16 - 18
FFXT-04-06	1/4	2.54	1.28	11/16	13/16	11/16 - 16
FFXT-06-04	3/8	2.87	1.37	11/16	11/16	9/16 - 18
FFXT-06-06	3/8	2.80	1.30	11/16	13/16	11/16 - 16
FFXT-06-08	3/8	2.94	1.44	3/4	15/16	13/16 - 16
FFXT-08-08	1/2	3.03	1.53	7/8	15/16	13/16 - 16
FFXT-08-12	1/2	3.21	1.71	1-1/8	1-3/8	1-3/16 - 12
FFXT-10-10	5/8	3.11	1.61	1-1/8	1-1/8	1 - 14
FFXT-10-12	5/8	3.22	1.72	1-1/8	1-3/8	1-3/16 - 12
FFXT-12-12	3/4	3.66	2.07	1-1/8	1-3/8	1-3/16 - 12
FFXT-16-16	1	3.65	1.92	1-3/8	1-5/8	1-7/16 - 12



FJX - 37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-02-03	1/8	1.65	1.05	1/2	9/16	3/8 - 24
FJX-02-04	1/8	1.72	1.10	1/2	9/16	7/16 - 20
FJX-03-04	3/16	2.19	1.13	9/16	9/16	7/16 - 20
FJX-03-05	3/16	2.19	1.13	9/16	5/8	1/2 - 20
FJX-04-03	1/4	2.44	1.19	5/8	9/16	3/8 - 24
FJX-04-04	1/4	2.36	1.10	9/16	9/16	7/16 - 20
FJX-04-05	1/4	2.50	1.25	9/16	5/8	1/2 - 20
FJX-04-06	1/4	2.45	1.19	9/16	11/16	9/16 - 18
FJX-04-08	1/4	2.63	1.37	3/4	7/8	3/4 - 16
FJX-06-04	3/8	2.62	1.12	11/16	9/16	7/16 - 20
FJX-06-05	3/8	2.76	1.26	3/4	5/8	1/2 - 20
FJX-06-06	3/8	2.70	1.36	11/16	11/16	9/16 - 18
FJX-06-08	3/8	2.86	1.36	11/16	7/8	3/4 - 16
FJX-06-10	3/8	3.01	1.52	7/8	1-1/16	7/8 - 14
FJX-08-06	1/2	2.94	1.43	7/8	11/16	9/16 - 18
FJX-08-08	1/2	2.85	1.59	7/8	7/8	3/4 - 16
FJX-08-10	1/2	3.09	1.59	7/8	1	7/8 - 14
FJX-08-12	1/2	3.19	1.69	1-1/8	1-1/4	1-1/16 - 12
FJX-10-06	5/8	2.90	1.40	1-1/16	11/16	9/16 - 18
FJX-10-08	5/8	3.11	1.61	1-1/8	7/8	3/4 - 16
FJX-10-10	5/8	3.17	1.67	1-1/8	1	7/8 - 14
FJX-10-12	5/8	3.19	1.65	1-1/8	1-1/4	1-1/16 - 12
FJX-10-16	5/8	3.19	1.69	1-1/4	1-1/2	1-5/16 - 12
FJX-12-08	3/4	3.20	1.61	1-1/8	7/8	3/4 - 16
FJX-12-10	3/4	3.26	1.67	1-1/8	1	7/8 - 14
FJX-12-12	3/4	3.25	1.70	1-1/8	1-1/4	1-1/16 - 12
FJX-12-14	3/4	3.35	1.76	1-1/4	1-1/2	1-3/16 - 12
FJX-12-16	3/4	3.23	1.67	1-3/8	1-1/2	1-5/16 - 12
FJX-16-12	1	3.41	1.72	1-3/8	1-1/4	1-1/16 - 12
FJX-16-14	1	3.59	1.86	1-3/8	1-1/2	1-3/16 - 12
FJX-16-16	1	3.39	1.66	1-3/8	1-1/2	1-5/16 - 12
FJX-16-20	1	3.70	1.97	1-11/16	2	1-5/8 - 12
FJX-20-16	1-1/4	3.75	1.75	1-3/4	1-1/2	1-5/16 - 12
FJX-20-20	1-1/4	3.89	1.89	1-3/4	2	1-5/8 - 12



Hose

Braided Hose Couplings

W Style Couplings

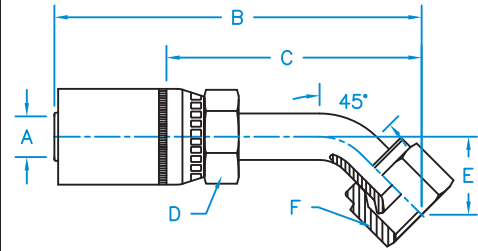
Other Couplings

Threads & Connections

Additional Products

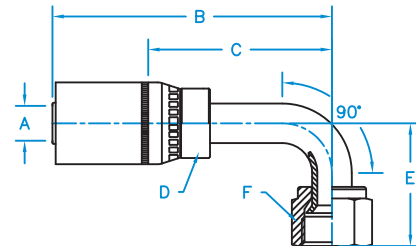
FJX45 - 37° JIC Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-04-04	1/4	3.14	1.88	5/8	0.39	9/16	7/16 - 20
FJX45-04-05	1/4	3.17	1.91	5/8	0.39	5/8	1/2 - 20
FJX45-04-06	1/4	3.21	1.96	5/8	0.43	11/16	9/16 - 18
FJX45-06-04	3/8	2.82	1.32	3/4	0.47	9/16	7/16 - 20
FJX45-06-05	3/8	3.43	1.93	11/16	0.39	5/8	1/2 - 20
FJX45-06-06	3/8	3.47	1.97	11/16	0.43	11/16	9/16 - 18
FJX45-06-08	3/8	3.81	2.31	3/4	0.59	7/8	3/4 - 16
FJX45-08-06	1/2	3.55	2.05	7/8	0.43	11/16	9/16 - 18
FJX45-08-08	1/2	3.91	2.41	7/8	0.59	7/8	3/4 - 16
FJX45-08-10	1/2	3.56	2.06	7/8	0.63	1	7/8 - 14
FJX45-10-10	5/8	3.81	2.31	1-1/8	0.63	1	7/8 - 14
FJX45-10-12	5/8	3.66	2.16	1-1/8	0.83	1-1/4	1-1/16 - 12
FJX45-12-12	3/4	3.94	2.34	1-1/8	0.83	1-1/4	1-1/16 - 12
FJX45-12-16	3/4	4.39	2.79	1-3/8	0.95	1-1/2	1-5/16 - 12
FJX45-16-12	1	4.90	3.16	1-3/8	1.15	1-1/4	1-1/16 - 12
FJX45-16-16	1	4.55	2.82	1-3/8	0.95	1-1/2	1-5/16 - 12
FJX45-16-20	1	5.07	3.33	1-3/8	1.41	2	1-5/8 - 12
FJX45-20-20	1-1/4	5.97	3.97	1-3/4	1.47	2	1-5/8 - 12



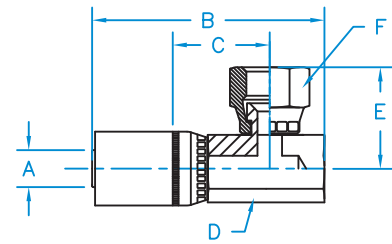
FJX90 - 37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-04-04	1/4	2.98	1.72	5/8	0.83	9/16	7/16 - 20
FJX90-04-05	1/4	3.07	1.81	5/8	0.83	5/8	1/2 - 20
FJX90-04-06	1/4	3.12	1.87	5/8	0.91	11/16	9/16 - 18
FJX90-06-04	3/8	2.58	1.08	3/4	0.88	9/16	7/16 - 20
FJX90-06-05	3/8	3.33	1.83	11/16	0.83	5/8	1/2 - 20
FJX90-06-06	3/8	3.38	1.88	11/16	0.91	11/16	9/16 - 18
FJX90-06-08	3/8	3.63	2.13	3/4	1.12	7/8	3/4 - 16
FJX90-08-06	1/2	3.49	1.99	7/8	0.91	11/16	9/16 - 18
FJX90-08-08	1/2	3.75	2.25	7/8	1.13	7/8	3/4 - 16
FJX90-08-10	1/2	3.25	1.75	7/8	1.23	1	7/8 - 14
FJX90-08-12	1/2	3.78	2.28	1-1/8	1.83	1-1/4	1-1/16 - 12
FJX90-10-10	5/8	3.27	1.77	1-1/8	1.23	1	7/8 - 14
FJX90-10-12	5/8	3.67	2.17	1-1/8	1.92	1-1/4	1-1/16 - 12
FJX90-12-10	3/4	3.48	1.89	1-1/8	1.23	1	7/8 - 14
FJX90-12-12	3/4	3.89	2.30	1-1/8	1.83	1-1/4	1-1/16 - 12
FJX90-12-16	3/4	4.34	2.75	1-3/8	2.80	1-1/2	1-5/16 - 12
FJX90-16-16	1	4.50	2.77	1-3/8	2.80	1-1/2	1-5/16 - 12
FJX90-20-20	1-1/4	5.66	3.66	1-3/4	3.24	2	1-5/8 - 12



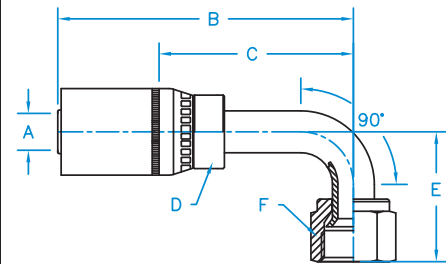
FJX90B - 37° JIC Female 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90B-06-06	3/8	2.77	0.74	13/16	1.15	11/16	9/16 - 18
FJX90B-06-08	3/8	2.77	0.74	13/16	1.18	7/8	3/4 - 16
FJX90B-08-08	1/2	2.91	0.88	15/16	1.27	7/8	3/4 - 16
FJX90B-08-10	1/2	2.91	0.88	15/16	1.40	1	7/8 - 14
FJX90B-10-10	5/8	3.81	1.56	1-1/8	1.54	1	7/8 - 14
FJX90B-12-10	3/4	3.45	1.11	1-1/4	1.57	1	7/8 - 14
FJX90B-12-12	3/4	3.45	1.11	1-1/4	1.60	1-1/4	1-1/16 - 12
FJX90B-12-16	3/4	3.45	1.11	1-1/4	1.67	1-1/2	1-5/16 - 12



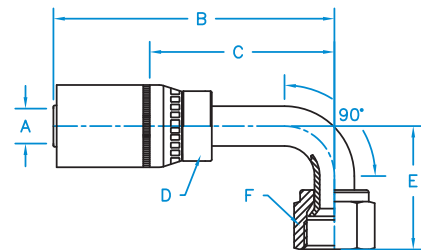
FJX90L - 37° JIC Female 90° Long Drop Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90L-04-04	1/4	2.98	1.72	5/8	1.80	9/16	7/16 - 20
FJX90L-04-05	1/4	3.07	1.81	5/8	1.77	5/8	1/2 - 20
FJX90L-04-06	1/4	3.12	1.87	5/8	2.13	11/16	9/16 - 18
FJX90L-06-04	3/8	2.58	1.08	3/4	1.80	9/16	7/16 - 20
FJX90L-06-06	3/8	3.38	1.88	11/16	2.13	11/16	9/16 - 18
FJX90L-06-08	3/8	3.68	2.18	3/4	2.52	7/8	3/4 - 16
FJX90L-08-08	1/2	3.75	2.25	7/8	2.52	7/8	3/4 - 16
FJX90L-08-10	1/2	3.50	2.00	7/8	2.76	1	7/8 - 14
FJX90L-10-10	5/8	3.73	2.23	1-1/16	2.65	1	7/8 - 14
FJX90L-10-12	5/8	3.67	2.17	1-1/8	3.73	1-1/4	1-1/16 - 12
FJX90L-12-12	3/4	3.89	2.30	1-3/8	3.78	1-1/2	1-1/16 - 12
FJX90L-16-16	1	4.67	2.94	1-3/8	4.30	1-1/2	1-5/16 - 12



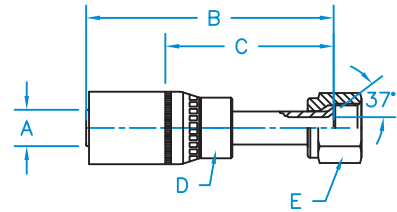
FJX90M - 37° JIC Female 90° Bent Tube Swivel Medium Drop

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90M-04-04	1/4	2.98	1.72	5/8	1.26	9/16	7/16 - 20
FJX90M-06-06	3/8	3.38	1.88	3/4	1.50	11/16	9/16 - 18
FJX90M-08-08	1/2	3.75	2.25	7/8	1.61	7/8	3/4 - 16
FJX90M-08-10	1/2	3.41	1.91	7/8	1.85	1	7/8 - 14
FJX90M-10-10	5/8	3.43	1.93	1-1/8	1.85	1	7/8 - 14
FJX90M-12-12	3/4	3.89	2.30	1-1/8	2.28	1-1/4	1-1/16 - 12



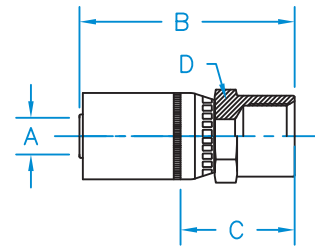
FJXT - 37° JIC Female Swivel Long

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJXT-04-04	1/4	2.98	1.72	5/8	9/16	7/16 - 20
FJXT-04-05	1/4	2.98	1.72	5/8	5/8	1/2 - 20
FJXT-06-05	3/8	3.20	1.70	11/16	5/8	1/2 - 20
FJXT-06-06	3/8	3.76	2.25	11/16	11/16	9/16 - 18
FJXT-06-08	3/8	3.89	2.39	3/4	7/8	3/4 - 16
FJXT-08-08	1/2	3.96	2.46	7/8	7/8	3/4 - 16
FJXT-08-10	1/2	4.22	2.72	7/8	1	7/8 - 14



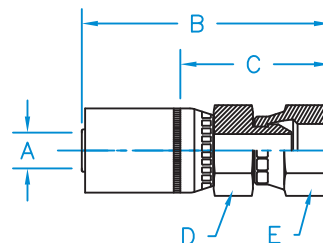
FP - NPTF Female Pipe Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
FP-04-02	1/4	2.34	1.09	5/8	1/8 - 27
FP-04-04	1/4	2.34	1.09	11/16	1/4 - 18
FP-04-06	1/4	2.44	1.18	7/8	3/8 - 18
FP-06-04	3/8	2.70	1.20	11/16	1/4 - 18
FP-06-06	3/8	2.70	1.20	7/8	3/8 - 18
FP-06-08	3/8	2.86	1.36	1	1/2 - 14
FP-08-08	1/2	2.93	1.44	1	1/2 - 14
FP-12-08	3/4	3.11	1.52	1-1/4	1/2 - 14
FP-12-12	3/4	3.14	1.55	1-1/4	3/4 - 14
FP-16-16	1	3.49	1.75	1-1/2	1 - 11-1/2



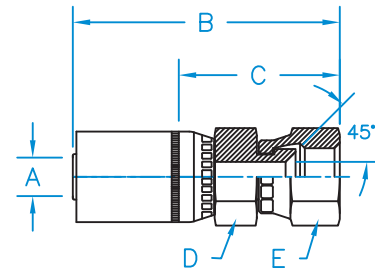
FPX - Female Pipe NPSM Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FPX-03-04	3/16	2.16	1.10	5/8	3/4	1/4 - 18
FPX-04-02	1/4	2.94	1.04	9/16	9/16	1/8 - 27
FPX-04-04	1/4	2.15	1.09	9/16	3/4	1/4 - 18
FPX-06-06	3/8	2.34	1.09	11/16	3/4	3/8 - 18
FPX-06-08	3/8	2.85	1.35	7/8	1	1/2 - 14
FPX-08-08	1/2	2.70	1.43	11/16	7/8	1/2 - 14
FPX-08-12	1/2	3.20	1.70	1	1-1/4	3/4 - 14
FPX-12-12	3/4	2.93	1.70	1	1	3/4 - 14
FPX-16-16	1	3.29	1.78	1-1/8	1-1/4	1 - 11-1/2
FPX-20-20	1-1/4	4.02	2.02	1-3/4	2	1-1/4 - 11-1/2



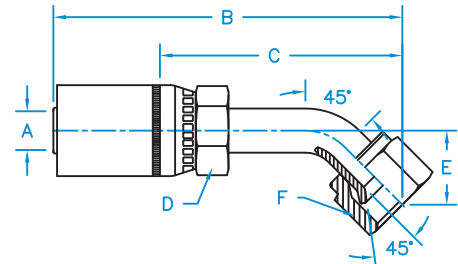
FSX - 45° SAE Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FSX-04-06	1/4	2.60	1.34	11/16	3/4	5/8 - 18
FSX-06-06	3/8	2.86	1.36	11/16	3/4	5/8 - 18
FSX-12-12	3/4	3.25	1.66	1-1/8	1-1/4	1-1/16 - 14



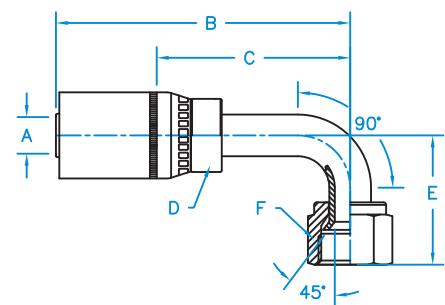
FSX45 - 45° SAE Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FSX45-04-04	1/4	3.14	1.88	5/8	0.39	9/16	7/16 - 20
FSX45-04-05	1/4	3.17	1.91	5/8	0.39	5/8	1/2 - 20
FSX45-06-05	3/8	3.43	1.93	11/16	0.39	5/8	1/2 - 20
FSX45-06-06	3/8	3.47	1.97	11/16	0.43	3/4	5/8 - 18
FSX45-08-08	1/2	3.91	2.41	7/8	0.59	15/16	3/4 - 16
FSX45-08-10	1/2	3.56	2.06	7/8	0.63	1-1/16	7/8 - 14
FSX45-10-12	5/8	3.69	2.19	1-1/8	0.83	1-1/4	1-1/16 - 14
FSX45-12-12	3/4	3.88	2.28	1-1/8	0.83	1-1/4	1-1/16 - 14



FSX90 - 45° SAE Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FSX90-04-04	1/4	2.98	1.72	5/8	0.83	9/16	7/16 - 20
FSX90-04-05	1/4	3.07	1.81	5/8	0.87	5/8	1/2 - 20
FSX90-06-04	3/8	3.24	1.74	11/16	0.83	9/16	7/16 - 20
FSX90-06-05	3/8	3.33	1.83	11/16	0.87	5/8	1/2 - 20
FSX90-06-06	3/8	3.38	1.88	11/16	0.91	3/4	5/8 - 18
FSX90-06-08	3/8	3.68	2.18	3/4	1.13	15/16	3/4 - 16
FSX90-08-08	1/2	3.75	2.25	7/8	1.13	15/16	3/4 - 16
FSX90-08-10	1/2	3.25	1.75	7/8	1.23	1-1/16	7/8 - 14
FSX90-10-12	5/8	3.72	2.22	1-1/8	1.83	1-1/4	1-1/16 - 14
FSX90-12-12	3/4	3.89	2.30	1-1/8	1.83	1-1/4	1-1/16 - 14



Hose

Braided Hose Couplings

W Style Couplings

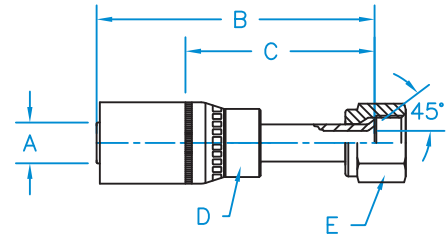
Other Couplings

Threads & Connections

Additional Products

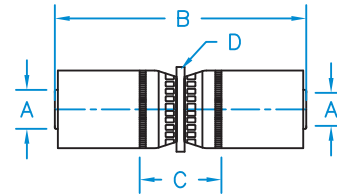
FSXT - 45° SAE Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FSXT-04-04	1/4	3.04	1.79	5/8	9/16	7/16 - 20
FSXT-04-05	1/4	3.05	1.80	5/8	5/8	1/2 - 20
FSXT-06-04	3/8	3.30	1.80	11/16	9/16	7/16 - 20
FSXT-06-05	3/8	3.31	1.81	11/16	5/8	1/2 - 20
FSXT-06-06	3/8	3.85	2.35	11/16	3/4	5/8 - 18
FSXT-06-08	3/8	4.24	2.74	3/4	15/16	3/4 - 16
FSXT-08-08	1/2	4.09	2.59	7/8	15/16	3/4 - 16
FSXT-08-10	1/2	4.38	2.88	7/8	1	7/8 - 14



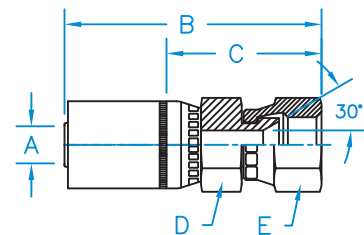
Hose Mender

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MENDER 12	3/4	4.01	0.36	1-1/4	N/A
MENDER 16	1	4.32	0.38	1-1/2	N/A
MENDER 6	3/8	3.72	0.27	7/8	N/A
MENDER 8	1/2	3.88	0.34	1	N/A
MENDER 4	1/4	3.42	0.91	5/8	N/A



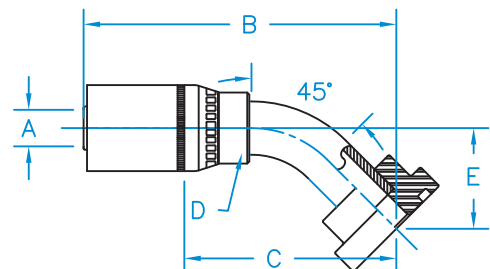
JIS 30° Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-JISX-04-04	1/4	2.58	1.22	9/16	3/4	1/4 - 19
F-JISX-06-06	3/8	2.83	1.33	11/16	7/8	3/8 - 19
F-JISX-08-08	1/2	3.12	1.62	7/8	1	1/2 - 14
F-JISX-10-10	5/8	3.24	1.74	1-1/8	1-1/4	5/8 - 14
F-JISX-12-12	3/4	3.32	1.74	1-1/8	1-1/4	3/4 - 14
F-JISX-16-16	1	3.46	1.72	1-3/8	1-1/2	1 - 11



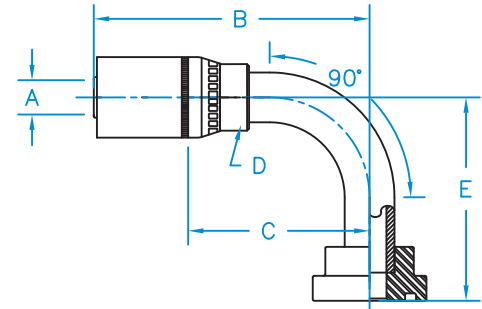
Komatsu Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA45-08-10	1/2	3.81	2.31	0.88	N/A
KOMA45-10-10	5/8	3.83	2.33	0.88	N/A



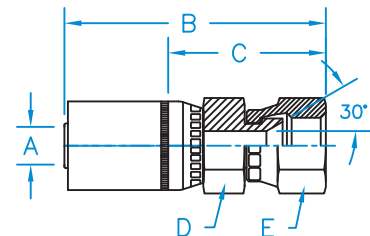
Komatsu Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA90-08-10	1/2	3.71	2.21	1.91	N/A
KOMA90-10-10	5/8	3.73	2.23	1.91	N/A



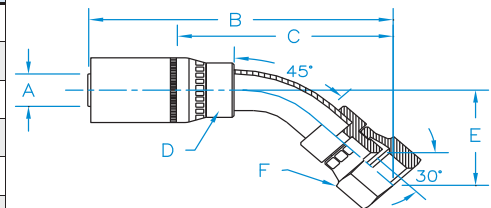
Komatsu JIS 30° Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-KOMX-04-14	1/4	2.55	1.29	9/16	3/4	M14 X 1.5
F-KOMX-06-18	3/8	2.73	1.23	11/16	15/16	M18 X 1.5
F-KOMX-08-22	1/2	3.13	1.62	7/8	1-1/16	M22 X 1.5
F-KOMX-08-24	1/2	3.34	1.84	7/8	1-1/4	M24 X 1.5
F-KOMX-10-24	5/8	3.04	1.54	1-1/8	1-3/16	M24 X 1.5
F-KOMX-12-30	3/4	3.47	1.88	1-1/8	1-1/2	M30 X 1.5
F-KOMX-16-33	1	3.82	2.08	1-3/8	1-5/8	M33 X 1.5



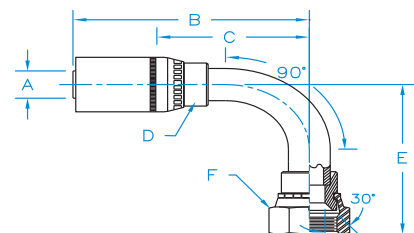
Komatsu JIS 30° Seat 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-KOMX45-04-14	1/4	3.58	2.33	5/8	0.80	3/4	M14 X 1.5
F-KOMX45-06-18	3/8	3.84	2.34	11/16	0.80	15/16	M18 X 1.5
F-KOMX45-08-22	1/2	3.85	2.35	7/8	0.94	1-1/16	M22 X 1.5
F-KOMX45-10-24	5/8	4.14	2.64	1-1/8	1.04	1-3/16	M24 X 1.5
F-KOMX45-12-30	3/4	4.40	2.80	1-1/8	1.17	1-1/2	M30 X 1.5
F-KOMX45-16-33	1	5.03	3.30	1-3/8	1.29	1-5/8	M33 X 1.5



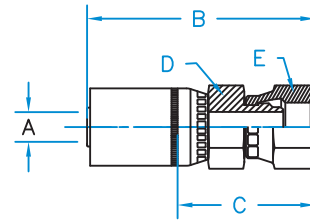
Komatsu JIS 30° Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-KOMX90-04-14	1/4	3.12	1.87	5/8	1.48	3/4	M14 X 1.5
F-KOMX90-06-18	3/8	3.38	1.88	11/16	1.52	15/16	M18 X 1.5
F-KOMX90-08-22	1/2	3.75	2.25	7/8	1.72	1-1/16	M22 X 1.5
F-KOMX90-10-24	5/8	3.27	1.77	1-1/8	2.25	1-3/16	M24 X 1.5
F-KOMX90-12-30	3/4	3.95	2.35	1-1/8	2.45	1-1/2	M30 X 1.5
F-KOMX90-16-33	1	4.56	2.83	1-3/8	2.79	1-5/8	M33 X 1.5



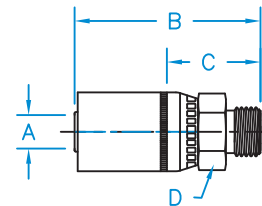
LF - Line Fit Sleeveless design

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
LF-04-04	1/4	2.40	1.15	9/16	9/16	7/16 - 20
LF-04-05	1/4	2.40	1.15	5/8	5/8	1/2 - 20
LF-04-06	1/4	2.49	1.23	9/16	11/16	9/16 - 18
LF-04-08	1/4	2.55	1.30	7/8	7/8	3/4 - 16
LF-06-05	3/8	2.63	1.13	3/4	5/8	1/2 - 20
LF-06-06	3/8	2.73	1.23	11/16	11/16	9/16 - 18
LF-06-08	3/8	2.81	1.31	7/8	7/8	3/4 - 16
LF-06-10	3/8			1-1/16	1	7/8 - 14
LF-08-08	1/2	2.88	1.38	7/8	7/8	3/4 - 16
LF-08-10	1/2			1	1	7/8 - 14
LF-08-12	1/2	3.16	1.66	1	1-1/4	1-1/16 - 12
LF-12-12	3/4	3.27	1.68	1-1/4	1-1/4	1-1/16 - 12



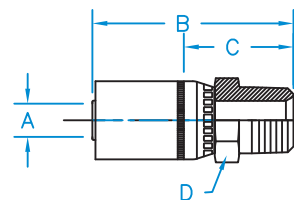
Male British Parallel Pipe 60° Cone Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-BSPP-04-04	1/4	2.40	1.15	13/16	1/4 - 19
M-BSPP-04-06	1/4	2.46	1.20	7/8	3/8 - 19
M-BSPP-06-06	3/8	2.72	1.22	7/8	3/8 - 19
M-BSPP-06-08	3/8	2.83	1.33	1-1/16	1/2 - 14
M-BSPP-08-06	1/2	2.80	1.30	7/8	3/8 - 19
M-BSPP-08-08	1/2	2.92	1.42	1-1/16	1/2 - 14
M-BSPP-10-10	5/8	3.03	1.53	1-1/4	5/8 - 14
M-BSPP-10-12	5/8	2.99	1.15	11/16	3/4 - 14
M-BSPP-12-12	3/4	3.08	1.49	1-3/8	3/4 - 14
M-BSPP-16-16	1	3.41	1.67	1-5/8	1 - 11



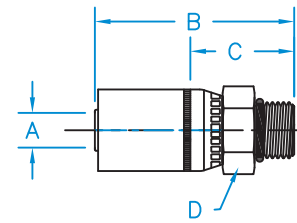
Male British Standard Pipe 60° Cone Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-BSPT-04-02	1/4	2.13	0.88	9/16	1/8 - 27
M-BSPT-04-04	1/4	2.32	1.06	11/16	1/4 - 19
M-BSPT-04-06	1/4	2.40	1.15	11/16	3/8 - 19
M-BSPT-06-06	3/8	2.67	1.50	3/4	3/8 - 19
M-BSPT-06-08	3/8	2.92	1.42	7/8	1/2 - 14
M-BSPT-08-06	1/2	2.74	1.24	7/8	3/8 - 19
M-BSPT-08-08	1/2	3.00	1.51	7/8	1/2 - 14
M-BSPT-12-12	3/4	3.10	1.51	1-1/8	3/4 - 14
M-BSPT-16-16	1	3.45	1.72	1-3/8	1 - 11



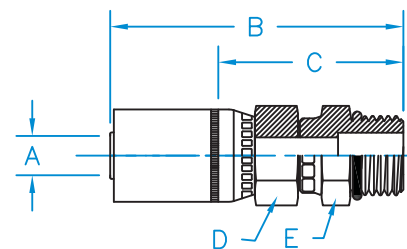
Male Boss O-Ring Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MB-03-04	3/16	1.92	0.86	9/16	7/16 - 20
MB-04-04	1/4	2.11	0.86	5/8	7/16 - 20
MB-04-05	1/4	2.11	0.86	5/8	1/2 - 20
MB-04-06	1/4	2.15	0.89	11/16	9/16 - 18
MB-04-08	1/4	2.34	1.09	7/8	3/4 - 16
MB-06-06	3/8	2.50	1.00	11/16	9/16 - 18
MB-06-08	3/8	2.54	1.04	13/16	3/4 - 16
MB-06-10	3/8	2.65	1.15	1-1/16	7/8 - 14
MB-08-08	1/2	2.68	1.18	1-1/8	3/4 - 16
MB-08-10	1/2	2.75	1.25	1	7/8 - 14
MB-08-12	1/2	2.84	1.34	1-1/4	1-1/16 - 12
MB-10-10	5/8	2.76	1.26	1-1/4	7/8 - 14
MB-10-12	5/8	2.86	1.36	1-1/4	1-1/16 - 12
MB-12-10	3/4	2.75	1.25	1-1/4	7/8 - 14
MB-12-12	3/4	2.95	1.36	1-1/4	1-1/16 - 12
MB-12-14	3/4	2.95	1.36	1-1/2	1-3/16 - 12
MB-12-16	3/4	3.05	1.46	1-1/2	1-5/16 - 12
MB-16-12	1	3.11	1.37	1-1/2	1-1/16 - 12
MB-16-16	1	3.21	1.48	1-1/2	1-5/16 - 12



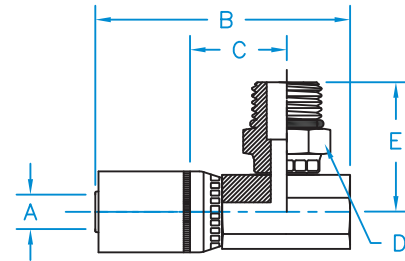
MBX - Male Boss O-Ring Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MBX-04-04	1/4	2.75	1.50	9/16	11/16	7/16 - 20
MBX-04-05	1/4	2.78	1.52	9/16	3/4	1/2 - 20
MBX-04-06	1/4	2.79	1.53	9/16	3/4	9/16 - 18
MBX-06-04	3/8	3.07	1.57	11/16	11/16	7/16 - 20
MBX-06-06	3/8	3.11	1.64	11/16	3/4	9/16 - 18
MBX-06-08	3/8	3.18	1.62	11/16	15/16	3/4 - 16
MBX-06-10	3/8	3.27	1.77	11/16	1	7/8 - 14
MBX-08-08	1/2	3.28	2.03	7/8	15/16	3/4 - 16
MBX-08-10	1/2	3.49	1.85	7/8	1	7/8 - 14
MBX-12-12	3/4	3.92	2.34	1-1/8	1-1/8	1-1/16 - 12
MBX-16-16	1	3.98	2.25	1-3/8	1-1/2	1-5/16 - 12



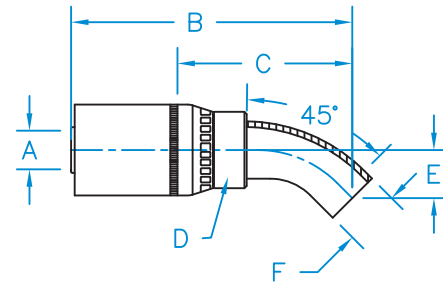
MBX90 - Male Boss O-Ring 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MBX90-04-04	1/4	2.31	0.65	11/16	1.41	7/16 - 20
MBX90-04-06	1/4	2.31	0.65	3/4	1.45	9/16 - 18
MBX90-06-06	3/8	2.77	0.74	3/4	1.54	9/16 - 18
MBX90-06-08	3/8	2.77	0.74	15/16	1.61	3/4 - 16
MBX90-06-10	3/8	2.77	0.74	1	1.61	7/8 - 14
MBX90-08-08	1/2	2.91	0.88	15/16	1.68	3/4 - 16
MBX90-08-10	1/2	2.91	0.88	1	1.74	7/8 - 14
MBX90-10-10	5/8	3.81	1.56	1	1.88	7/8 - 14
MBX90-12-12	3/4	3.63	1.00	1-1/8	2.36	1-1/16 - 12



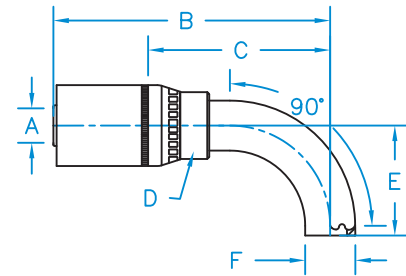
Metric O.D. Stand Pipe 45° Bent Tube

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MMSP45-04-06	1/4	3.40	2.06	5/8	0.66	6MM	N/A
MMSP45-04-08	1/4	3.54	2.19	5/8	0.75	8MM	N/A
MMSP45-04-10	1/4	3.68	2.31	5/8	0.84	10MM	N/A
MMSP45-06-10	3/8	3.69	2.34	3/4	0.84	10MM	N/A
MMSP45-06-12	3/8	3.93	2.56	3/4	0.90	12MM	N/A
MMSP45-06-14	3/8	4.07	2.72	7/8	0.99	14MM	N/A
MMSP45-08-15	1/2	4.18	2.81	7/8	0.96	15MM	N/A
MMSP45-08-16	1/2	4.35	2.00	7/8	1.11	16MM	N/A
MMSP45-08-18	1/2	4.54	2.94	1	1.01	18MM	N/A
MMSP45-10-18	5/8	4.31	2.94	1-1/8	1.01	18MM	N/A
MMSP45-10-20	5/8	4.58	3.19	1-1/8	1.24	20MM	N/A
MMSP45-12-20	3/4	4.58	3.19	1-1/8	1.24	20MM	N/A
MMSP45-12-22	3/4	4.57	3.00	1-1/4	1.08	22MM	N/A
MMSP45-12-25	3/4	4.96	3.38	1-3/8	1.38	25MM	N/A
MMSP45-16-25	1	5.42	3.38	1-3/8	1.38	25MM	N/A
MMSP45-16-28	1	5.22	3.59	1-3/8	1.18	28MM	N/A
MMSP45-16-30	1	5.61	4.00	1-1/2	1.52	30MM	N/A



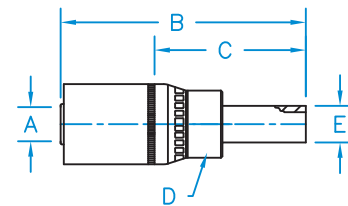
Metric O.D. Stand Pipe 90° Bent Tube

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MMSP90-04-06	1/4	2.95	1.59	5/8	1.14	6MM	N/A
MMSP90-04-08	1/4	3.07	1.72	5/8	1.34	8MM	N/A
MMSP90-04-10	1/4	3.18	1.84	5/8	1.54	10MM	N/A
MMSP90-06-10	3/8	3.20	1.83	3/4	1.54	10MM	N/A
MMSP90-06-12	3/8	3.44	2.09	3/4	1.69	12MM	N/A
MMSP90-06-14	3/8	3.56	2.22	7/8	1.89	14MM	N/A
MMSP90-08-15	1/2	3.75	2.41	7/8	1.89	15MM	N/A
MMSP90-08-16	1/2	3.79	2.44	7/8	2.13	16MM	N/A
MMSP90-08-18	1/2	3.72	2.53	1	2.05	18MM	N/A
MMSP90-10-18	5/8	3.92	2.53	1-1/8	2.05	18MM	N/A
MMSP90-10-20	5/8	4.04	2.66	1-1/8	2.44	20MM	N/A
MMSP90-12-20	3/4	4.04	2.66	1-1/8	2.44	20MM	N/A
MMSP90-12-22	3/4	4.25	2.69	1-1/4	2.28	22MM	N/A
MMSP90-12-25	3/4	4.45	2.88	1-3/8	2.84	25MM	N/A
MMSP90-16-25	1	4.91	2.88	1-3/8	2.84	25MM	N/A
MMSP90-16-28	1	5.01	3.41	1-3/8	2.64	28MM	N/A
MMSP90-16-30	1	5.13	3.50	1-1/2	3.19	30MM	N/A



Metric O.D. Stand Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MMSP-04-06	1/4	3.01	1.66	5/8	6MM	N/A
MMSP-04-08	1/4	3.09	1.72	5/8	8MM	N/A
MMSP-04-10	1/4	3.16	1.81	5/8	10MM	N/A
MMSP-06-10	3/8	3.18	1.81	3/4	10MM	N/A
MMSP-06-12	3/8	3.22	1.80	3/4	12MM	N/A
MMSP-06-14	3/8	3.30	1.94	7/8	14MM	N/A
MMSP-08-15	1/2	3.33	1.97	7/8	15MM	N/A
MMSP-08-16	1/2	3.53	2.16	7/8	16MM	N/A
MMSP-08-18	1/2	3.33	1.97	1	18MM	N/A
MMSP-10-18	5/8	3.34	1.97	1-1/8	18MM	N/A
MMSP-10-20	5/8	3.62	2.22	1-1/8	20MM	N/A
MMSP-12-20	3/4	3.75	2.12	1-1/8	20MM	N/A
MMSP-12-22	3/4	3.40	1.88	1-1/4	22MM	N/A
MMSP-12-25	3/4	3.79	2.22	1-3/8	25MM	N/A
MMSP-16-25	1	4.06	2.44	1-3/8	25MM	N/A
MMSP-16-28	1	3.72	2.09	1-3/8	28MM	N/A
MMSP-16-30	1	4.15	2.53	1-1/2	30MM	N/A



Hose

Braided Hose Couplings

W Style Couplings

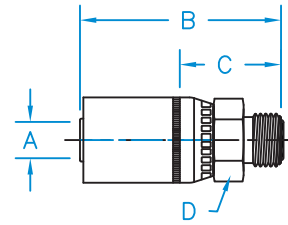
Other Couplings

Threads & Connections

Additional Products

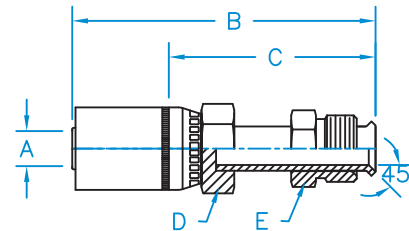
MF - Male O-Ring Face Seal Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MF-04-04	1/4	2.34	1.07	5/8	9/16 - 18
MF-04-06	1/4	2.19	0.94	11/16	11/16-16
MF-06-06	3/8	2.45	0.95	11/16	11/16 - 16
MF-06-08	3/8	2.52	1.02	7/8	13/16 - 16
MF-08-08	1/2	2.59	1.09	7/8	13/16 - 16
MF-08-10	1/2	2.86	1.36	1-1/16	1 - 14
MF-08-12	1/2	2.92	1.42	1-1/4	1-3/16 - 12
MF-10-10	5/8	2.87	1.37	1-1/8	1 - 14
MF-10-12	5/8	2.93	1.43	1-1/4	1-3/16 - 12
MF-12-12	3/4	3.02	1.43	1-1/4	1-3/16 - 12
MF-12-16	3/4	3.04	1.45	1-1/2	1-7/16 - 12
MF-16-12	1	3.18	1.45	1-3/8	1-3/16 - 12
MF-16-16	1	3.20	1.47	1-1/2	1-7/16 - 12



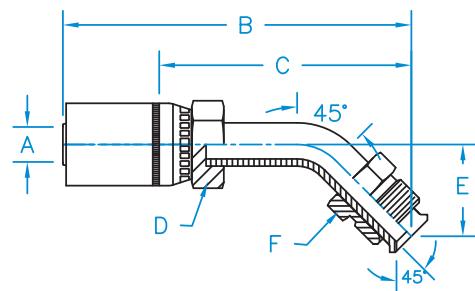
MIX - 45° SAE Male Inverted Flare

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MIX-04-03	1/4	3.01	1.75	9/16	3/8	3/8 - 24
MIX-04-04	1/4	3.20	1.96	5/8	7/16	7/16 - 24
MIX-04-05	1/4	3.26	2.00	5/8	1/2	1/2 - 20
MIX-04-06	1/4	2.90	1.65	5/8	5/8	5/8 - 18
MIX-06-04	3/8	3.48	1.98	11/16	7/16	7/16 - 24
MIX-06-05	3/8	3.17	1.81	3/4	1/2	1/2 - 20
MIX-06-06	3/8	3.16	2.32	3/4	5/8	5/8 - 18
MIX-06-07	3/8	3.16	1.67	3/4	11/16	11/16 - 18
MIX-06-08	3/8	3.42	1.92	3/4	3/4	3/4 - 18
MIX-08-08	1/2	3.81	2.31	7/8	3/4	3/4 - 18
MIX-08-10	1/2	3.46	1.96	7/8	3/4	7/8 - 18



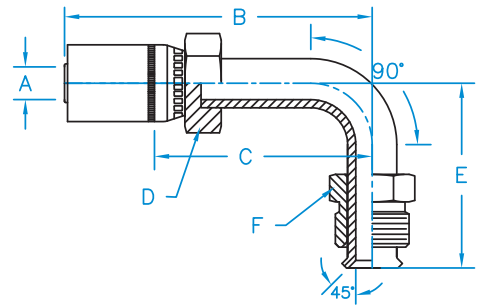
MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX45-04-03	1/4	2.94	1.69	9/16	0.72	3/8	3/8 - 24
MIX45-04-04	1/4	2.96	1.70	5/8	0.78	7/16	7/16 - 24
MIX45-04-05	1/4	3.09	1.84	5/8	0.88	1/2	1/2 - 20
MIX45-04-06	1/4	3.72	2.47	5/8	0.94	5/8	5/8 - 18
MIX45-06-05	3/8	3.34	1.84	3/4	0.88	1/2	1/2 - 20
MIX45-06-06	3/8	3.98	2.48	3/4	0.94	5/8	5/8 - 18
MIX45-06-07	3/8	3.98	2.48	3/4	0.94	11/16	11/16 - 18
MIX45-06-08	3/8	4.31	2.81	3/4	1.06	3/4	3/4 - 18
MIX45-08-08	1/2	4.38	2.88	7/8	1.06	3/4	3/4 - 18
MIX45-08-10	1/2	3.93	2.43	7/8	0.84	7/8	7/8 - 18



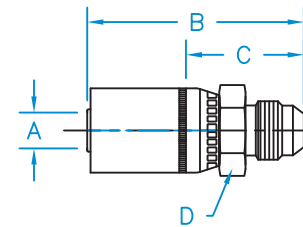
MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX90-03-04	3/16	1.94	1.00	7/16	1.47	7/16	7/16 - 24
MIX90-04-03	1/4	3.02	1.76	9/16	1.38	3/8	3/8 - 24
MIX90-04-04	1/4	2.37	1.11	5/8	1.47	7/16	7/16 - 24
MIX90-04-05	1/4	2.54	1.28	5/8	1.66	1/2	1/2 - 20
MIX90-04-06	1/4	3.93	2.68	5/8	1.69	5/8	5/8 - 18
MIX90-06-04	3/8	2.63	1.13	11/16	1.47	7/16	7/16 - 24
MIX90-06-05	3/8	2.69	1.19	3/4	1.82	1/2	1/2 - 20
MIX90-06-06	3/8	4.19	2.69	3/4	1.69	5/8	5/8 - 18
MIX90-06-07	3/8	4.19	2.69	3/4	1.69	11/16	11/16 - 18
MIX90-06-08	3/8	3.68	2.18	3/4	1.88	3/4	3/4 - 18
MIX90-08-08	1/2	3.75	2.25	7/8	1.88	3/4	3/4 - 18
MIX90-08-10	1/2	3.03	1.53	7/8	1.63	7/8	7/8 - 18



MJ - 37° JIC Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MJ-04-04	1/4	2.30	1.05	9/16	7/16 - 20
MJ-04-05	1/4	2.31	1.05	9/16	1/2 - 20
MJ-04-06	1/4	2.31	1.06	9/16	9/16 - 18
MJ-06-04	3/8	2.66	1.16	11/16	7/16 - 20
MJ-06-05	3/8	2.60	1.10	3/4	1/2 - 20
MJ-06-06	3/8	2.66	1.17	11/16	9/16 - 18
MJ-06-08	3/8	2.76	1.27	3/4	3/4 - 16
MJ-06-10	3/8	2.94	1.44	7/8	7/8 - 14
MJ-08-06	1/2	2.74	1.24	7/8	9/16 - 16
MJ-08-08	1/2	2.85	1.35	7/8	3/4 - 16
MJ-08-10	1/2	3.00	1.51	7/8	7/8 - 14
MJ-08-12	1/2	3.11	1.61	1-1/8	1-1/16 - 12
MJ-10-08	5/8	2.87	1.37	1-1/16	3/4 - 16
MJ-10-10	5/8	3.02	1.52	1-1/8	7/8 - 14
MJ-10-12	5/8	3.13	1.63	1-1/8	1-1/16 - 12
MJ-12-10	3/4	3.06	1.47	1-1/8	7/8 - 14
MJ-12-12	3/4	3.22	1.63	1-1/8	1-1/16 - 12
MJ-12-14	3/4	3.24	1.65	1-1/4	1-3/16 - 12
MJ-12-16	3/4	3.27	1.67	1-3/8	1-5/16 - 12
MJ-16-16	1	3.42	1.69	1-3/8	1-5/16 - 12
MJ-20-20	1-1/4	3.85	1.85	1-3/4	1-5/8 - 12



Hose

Braided Hose Couplings

W Style Couplings

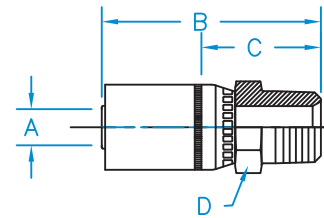
Other Couplings

Threads & Connections

Additional Products

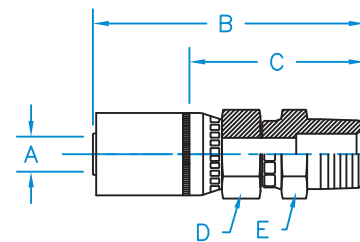
MP - Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-02-02	1/8	1.30	0.74	1/2	1/8 - 27
MP-03-02	3/16	1.93	0.87	9/16	1/8 - 27
MP-04-02	1/4	2.13	0.88	9/16	1/8 - 27
MP-04-04	1/4	2.32	1.06	9/16	1/4 - 18
MP-04-06	1/4	2.41	1.15	11/16	3/8 - 18
MP-04-08	1/4	2.66	1.40	7/8	1/2 - 14
MP-06-04	3/8	2.67	1.17	11/16	1/4 - 18
MP-06-06	3/8	2.67	1.17	11/16	3/8 - 18
MP-06-08	3/8	2.92	1.42	7/8	1/2 - 14
MP-08-06	1/2	2.74	1.25	7/8	3/8 - 18
MP-08-08	1/2	3.00	1.50	7/8	1/2 - 14
MP-08-12	1/2	3.00	1.50	1-1/8	3/4 - 14
MP-10-08	5/8	3.01	1.51	1-1/8	1/2 - 14
MP-10-12	5/8	3.01	1.51	1-1/8	3/4 - 14
MP-12-08	3/4	3.10	1.51	1-1/8	1/2 - 14
MP-12-12	3/4	3.10	1.51	1-1/8	3/4 - 14
MP-12-16	3/4	3.29	1.70	1-3/8	1 - 11-1/2
MP-16-12	1	3.26	1.53	1-1/8	3/4 - 14
MP-16-16	1	3.45	1.72	1-3/8	1 - 11-1/2
MP-16-16-API	1	4.59	2.85	1-3/8	1 - 11-1/2
MP-20-20	1-1/4	3.80	1.80	1-3/4	1-1/4 - 11-1/2



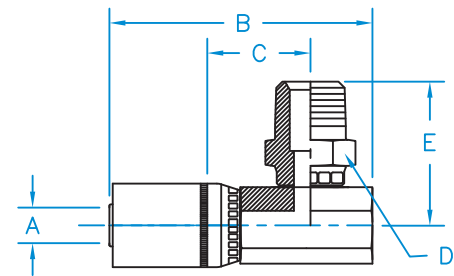
MPX - Male Pipe NPTF Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MPX-04-02	1/4	2.59	1.34	9/16	1/2	1/8 - 27
MPX-04-04	1/4	2.88	1.62	9/16	11/16	1/4 - 18
MPX-04-06	1/4	2.88	1.63	9/16	3/4	3/8 - 18
MPX-06-04	3/8	3.20	1.67	11/16	11/16	1/4 - 18
MPX-06-06	3/8	3.20	1.71	11/16	3/4	3/8 - 18
MPX-06-08	3/8	3.40	1.90	11/16	7/8	1/2 - 14
MPX-08-06	1/2	3.31	1.81	7/8	3/4	3/8 - 18
MPX-08-08	1/2	3.53	2.04	7/8	15/16	1/2 - 14
MPX-08-12	1/2	3.61	2.11	1	1-1/8	3/4 - 14
MPX-10-08	5/8	3.64	2.14	1-1/16	15/16	1/2 - 14
MPX-10-12	5/8	3.69	2.19	1-1/16	1-1/8	3/4 - 14
MPX-12-08	3/4	3.83	2.24	1-1/8	15/16	1/2 - 14
MPX-12-12	3/4	3.70	2.10	1-1/8	1-1/8	3/4 - 14
MPX-16-16	1	4.12	2.38	1-3/8	1-1/2	1 - 11-1/2



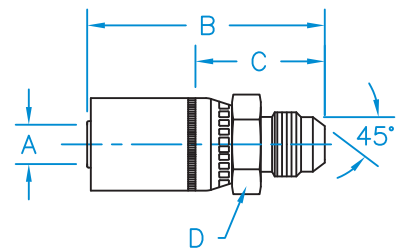
MPX90 - Male Pipe 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MPX90-04-04	1/4	2.31	0.65	11/16	1.54	1/4 - 18
MPX90-04-06	1/4	2.31	0.65	3/4	1.54	3/8 - 18
MPX90-06-04	3/8	2.77	0.74	11/16	1.54	1/4 - 18
MPX90-06-06	3/8	2.77	0.74	3/4	1.64	3/8 - 18
MPX90-06-08	3/8	2.77	0.74	7/8	1.84	1/2 - 14
MPX90-08-08	1/2	2.91	0.88	15/16	1.92	1/2 - 14
MPX90-12-12	3/4	3.63	1.00	1-1/8	2.14	3/4 - 14
MPX90-16-16	1	3.86	1.25	1-1/2	2.58	1 - 11-1/2



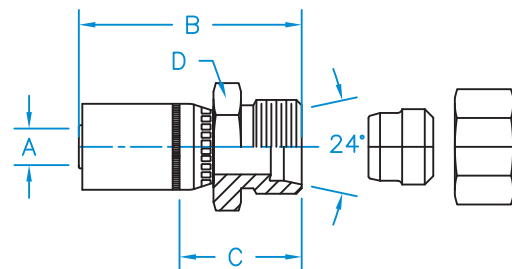
MS - 45° SAE Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MS-04-04	1/4	2.30	1.05	9/16	7/16 - 20
MS-04-06	1/4	2.52	1.27	11/16	5/8 - 18
MS-06-06	3/8	2.73	1.23	3/4	5/8 - 18
MS-06-08	3/8	2.76	1.26	3/4	3/4 - 16
MS-08-08	1/2	2.85	1.35	7/8	3/4 - 16
MS-12-12	3/4	3.35	1.76	1-1/8	1-1/16 - 14



MT - Flareless Compression with Nut and Sleeve Per SAE J514

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MT-04-04	1/4	2.18	0.92	9/16	7/16 - 20
MT-04-05	1/4	2.18	0.92	5/8	1/2 - 20
MT-04-06	1/4	2.19	0.94	3/4	9/16 - 18
MT-04-08	1/4	2.32	1.06	7/8	3/4 - 16
MT-06-04	3/8	2.44	0.94	3/4	7/16 - 20
MT-06-05	3/8	2.53	1.03	3/4	1/2 - 20
MT-06-06	3/8	2.44	0.96	3/4	9/16 - 18
MT-06-08	3/8	2.58	1.08	3/4	3/4 - 16
MT-08-08	1/2	2.66	1.16	7/8	3/4 - 16
MT-08-10	1/2	2.72	1.22	7/8	7/8 - 14
MT-08-12	1/2	2.84	1.34	1-1/4	1-1/16 - 12
MT-12-12	3/4	2.95	1.36	1-1/4	1-1/16 - 12
MT-12-16	3/4	3.03	1.44	1-1/2	1-5/16 - 12
MT-16-16	1	3.18	1.45	1-1/2	1-5/16 - 12



Hose

Braided Hose Couplings

W Style Couplings

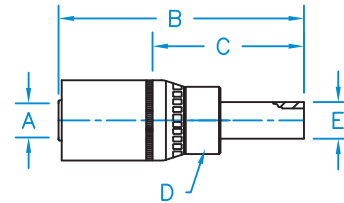
Other Couplings

Threads & Connections

Additional Products

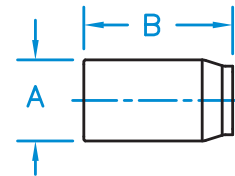
MW - Stand Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MW-04-04	1/4	2.72	1.47	5/8	1/4	N/A
MW-04-05	1/4	2.83	1.58	5/8	5/16	N/A
MW-04-06	1/4	2.91	1.66	5/8	3/8	N/A
MW-06-06	3/8	3.16	1.67	3/4	3/8	N/A
MW-06-08	3/8	3.42	1.92	3/4	1/2	N/A
MW-08-08	1/2	3.61	2.04	7/8	1/2	N/A
MW-08-10	1/2	3.82	2.13	7/8	5/8	N/A
MW-12-12	3/4	4.86	2.98	1-1/8	3/4	N/A
MW-16-16	1	4.79	3.05	1-3/8	1	N/A



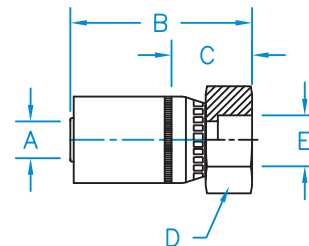
SHELL - Shell Only

Part Number	A	B	Hose I.D. (in.)	Thread
SHELL-10	1-1/4	2.06	5/8	N/A
SHELL-12	1-3/8	2.03	3/4	N/A
SHELL-16	1-11/16	2.57	1	N/A
SHELL-4	3/4	1.50	1/4	N/A
SHELL-6	0.9	1.68	3/8	N/A
SHELL-8	1-1/16	1.87	1/2	N/A



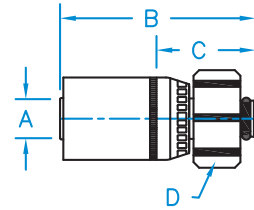
FW - Female Weld Fitting Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FW-03-04	3/16	1.68	0.45	9/16	1/4	N/A
FW-04-04	1/4	1.88	0.63	5/8	1/4	N/A
FW-04-05	1/4	1.88	0.63	5/8	5/16	N/A
FW-04-06	1/4	1.88	0.63	5/8	3/8	N/A
FW-06-06	3/8	2.14	0.64	11/16	3/8	N/A
FW-06-08	3/8	2.14	0.64	3/4	1/2	N/A
FW-08-08	1/2	2.21	0.71	7/8	1/2	N/A
FW-08-10	1/2	2.21	0.71	7/8	5/8	N/A
FW-10-10	5/8	2.23	0.73	1-1/8	5/8	N/A
FW-12-12	3/4	2.48	0.86	1-1/8	3/4	N/A
FW-16-16	1	2.61	0.87	1-3/8	1	N/A
FW-16-20	1	2.73	1.00	1-5/8	1-1/4	N/A
FW-20-20	1-1/4	2.89	0.89	1-3/4	1-1/4	N/A



Karcher Pressure Wash Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	Thread
KAR-04-22	1/4	2.52	1.26	3/4	M22 X 1.5
KAR-06-22	3/8	2.78	1.26	3/4	M22 X 1.5



Hose

Braided Hose Couplings

W Style Couplings

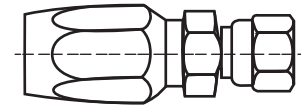
Other Couplings

Threads & Connections

Additional Products

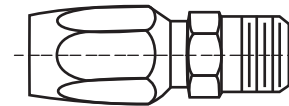
37° JIC Female Swivel 100R2 AT Reusable

Part Number	Hose I.D. (in.) A	Thread
FJX-04-04-R2R	1/4	7/16 – 20
FJX-06-06-R2R	3/8	9/16 – 18
FJX-06-08-R2R	3/8	3/4 – 16
FJX-08-08-R2R	1/2	3/4 – 16
FJX-12-12-R2R	3/4	1-1/16 – 12
FJX-16-16-R2R	1	1-5/16 – 12



Male Pipe Rigid 100R2 AT Reusable

Part Number	Hose I.D. (in.) A	Thread
MP-04-04-R2R	1/4	1/4 – 18
MP-06-06-R2R	3/8	3/8 – 18
MP-06-08-R2R	3/8	1/2 – 14
MP-08-08-R2R	1/2	1/2 – 14
MP-12-12-R2R	3/4	3/4 – 14
MP-16-16-R2R	1	1 – 11-1/2



K2 Style Couplings

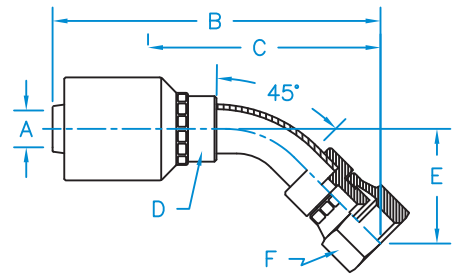
KURT
HYDRAULICS

- New product
- Sizes 4-10
- Reduced size Bite-Wire shell for good compact hose fit
- Excellent performing coupling on new compact hoses
- Large selection of ends available
- Price competitive



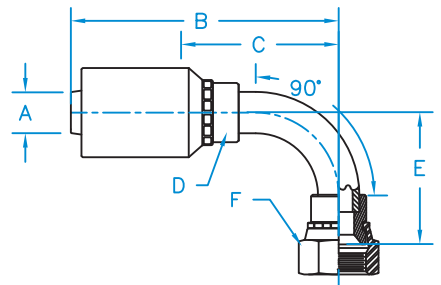
37° JIC Female 45° Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-04-04-K2	1/4	2.86	1.80	9/16	0.39	9/16	7/16 - 20
FJX45-04-05-K2	1/4	2.89	1.83	5/8	0.39	5/8	1/2 - 20
FJX45-04-06-K2	1/4	2.77	1.71	11/16	0.39	11/16	9/16 - 18
FJX45-06-04-K2	3/8	3.19	1.82	11/16	0.39	9/16	7/16 - 20
FJX45-06-05-K2	3/8	3.22	1.85	11/16	0.39	5/8	1/2 - 20
FJX45-06-06-K2	3/8	3.26	1.89	11/16	0.43	11/16	9/16 - 18
FJX45-06-08-K2	3/8	2.82	1.59	7/8	0.71	7/8	3/4 - 16
FJX45-08-06-K2	1/2	3.28	1.94	3/4	0.43	11/16	9/16 - 18
FJX45-08-08-K2	1/2	2.99	2.31	7/8	0.59	7/8	3/4 - 16
FJX45-08-10-K2	1/2	3.30	1.96	1	0.63	1	7/8 - 14
FJX45-08-12-K2	1/2	3.56	2.22	1	0.83	1-1/4	1-1/16 - 12



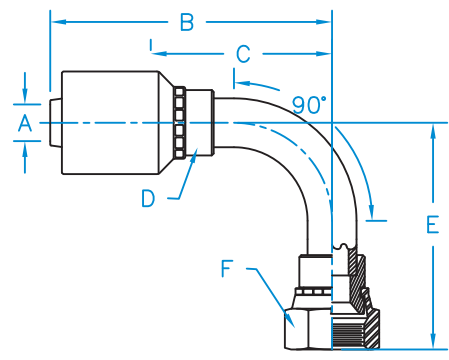
37° JIC Female 90° Long Drop Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90L-04-04-K2	1/4	2.70	1.64	5/8	1.82	9/16	7/16 - 20
FJX90L-04-06-K2	1/4	2.87	1.81	5/8	2.13	11/16	9/16 - 18
FJX90L-06-04-K2	3/8	3.03	1.66	11/16	1.82	9/16	7/16 - 20
FJX90L-06-06-K2	3/8	3.17	1.80	11/16	2.13	11/16	9/16 - 18
FJX90L-06-08-K2	3/8	3.47	2.10	3/4	2.77	7/8	3/4 - 16
FJX90L-08-08-K2	1/2	3.46	2.16	7/8	2.57	7/8	3/4 - 16
FJX90L-08-10-K2	1/2	3.24	1.90	7/8	2.77	1	7/8 - 14



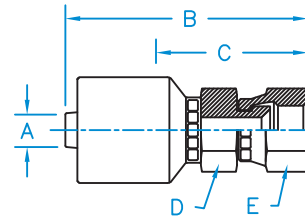
37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-04-04-K2	1/4	2.70	1.64	9/16	0.83	9/16	7/16 - 20
FJX90-04-05-K2	1/4	2.79	1.73	5/8	0.83	5/8	1/2 - 20
FJX90-04-06-K2	1/4	2.67	1.61	11/16	0.85	11/16	9/16 - 18
FJX90-06-04-K2	3/8	3.03	1.66	9/16	0.83	9/16	7/16 - 20
FJX90-06-05-K2	3/8	3.12	1.75	11/16	0.83	5/8	1/2 - 20
FJX90-06-06-K2	3/8	3.03	1.80	11/16	0.91	11/16	9/16 - 18
FJX90-06-08-K2	3/8	3.42	1.30	7/8	1.38	7/8	3/4 - 16
FJX90-08-06-K2	1/2	2.64	1.30	7/8	2.43	11/16	9/16 - 18
FJX90-08-08-K2	1/2	2.77	1.43	1	1.63	7/8	3/4 - 16
FJX90-08-10-K2	1/2	4.82	3.03	1-1/4	2.65	1	7/8 - 14
FJX90-08-12-K2	1/2	5.22	3.11	1-1/2	2.77	1-1/4	1-1/16 - 12
FJX90M-04-04-K2	1/4	2.70	1.64	9/16	1.26	9/16	7/16 - 20
FJX90M-06-06-K2	3/8	3.17	1.80	11/16	1.50	11/16	9/16 - 18
FJX90M-08-08-K2	1/2	3.49	2.15	7/8	1.61	7/8	3/4 - 16



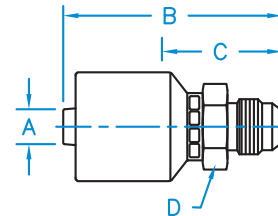
37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-04-03-K2	1/4	2.01	0.95	9/16	9/16	3/8 - 24
FJX-04-04-K2	1/4	2.08	1.02	9/16	9/16	7/16 - 20
FJX-04-05-K2	1/4	2.22	1.16	9/16	5/8	1/2 - 20
FJX-04-06-K2	1/4	2.17	1.09	9/16	11/16	9/16 - 18
FJX-04-08-K2	1/4	2.35	1.29	11/16	7/8	3/4 - 16
FJX-06-04-K2	3/8	2.41	1.04	11/16	9/16	7/16 - 20
FJX-06-05-K2	3/8	2.41	1.04	11/16	5/8	1/2 - 20
FJX-06-06-K2	3/8	2.50	0.72	3/4	3/4	9/16 - 18
FJX-06-08-K2	3/8	2.47	1.24	3/4	7/8	3/4 - 16
FJX-06-10-K2	3/8	2.80	1.43	7/8	1	7/8 - 14
FJX-08-06-K2	1/2	2.52	1.18	11/16	11/16	9/16 - 18
FJX-08-08-K2	1/2	2.64	1.30	7/8	7/8	3/4 - 16
FJX-08-10-K2	1/2	2.80	1.46	7/8	1	7/8 - 14
FJX-08-12-K2	1/2	2.90	1.56	1	1-1/4	1-1/16 - 12



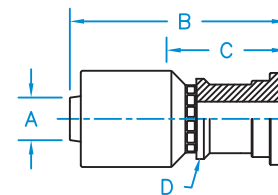
37° JIC Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MJ-04-04-K2	1/4	2.02	0.94	9/16	7/16 - 20
MJ-04-05-K2	1/4	2.03	0.92	9/16	1/2 - 20
MJ-04-06-K2	1/4	2.03	0.95	9/16	9/16 - 18
MJ-06-05-K2	3/8	2.36	0.99	11/16	1/2 - 20
MJ-06-06-K2	3/8	2.12	0.99	3/4	9/16 - 18
MJ-06-08-K2	3/8	2.38	1.15	3/4	3/4 - 16
MJ-06-10-K2	3/8	2.72	1.35	1	7/8 - 14
MJ-08-06-K2	1/2	2.39	1.05	11/16	9/16 - 18
MJ-08-08-K2	1/2	2.57	1.23	7/8	3/4 - 16
MJ-08-10-K2	1/2	2.72	1.38	7/8	7/8 - 14
MJ-08-12-K2	1/2	2.85	1.51	1-1/8	1-1/16 - 12



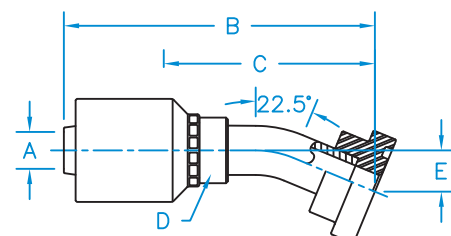
Cat Flange Straight Rigid

Part Number	Hose I.D. (in.) A	Thread
CAT-08-08-K2	1/2	N/A



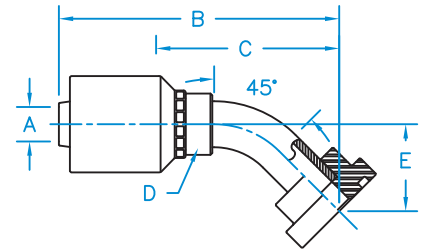
C61 - Code 61 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Thread
C6122-08-08-K2	1/2	N/A



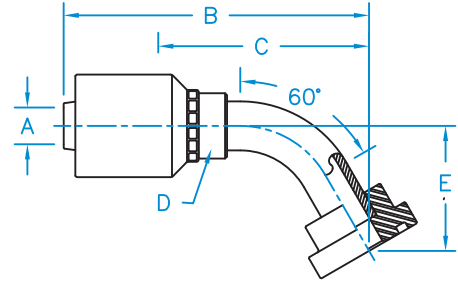
C61 - Code 61 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6145-08-08-K2	1/2	3.80	2.46	7/8	0.75	N/A
C6145-08-12-K2	1/2	3.58	2.24	1	0.84	N/A



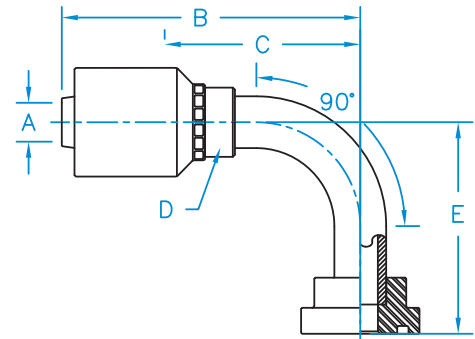
C61 - Code 61 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6160-08-12-K2	1/2	4.30	2.96	1	1.41	N/A



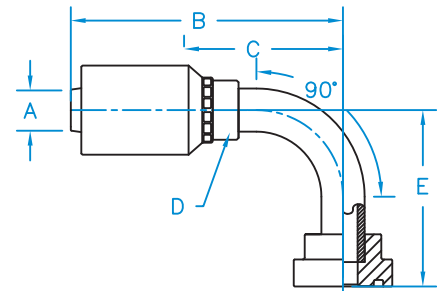
C61 - Code 61 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190-06-08-K2	3/8	3.12	1.75	3/4	1.63	N/A
C6190-08-08-K2	1/2	3.14	1.80	7/8	1.63	N/A
C6190-08-12-K2	1/2	3.48	2.15	1	1.56	N/A



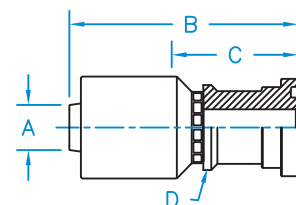
C61 - Code 61 Flange 90° Long Drop Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190L-08-12-K2	1/2	3.49	2.15	1	3.75	N/A



C61 - Code 61 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C61-08-08-K2	1/2	3.18	1.84	1-3/16	N/A
C61-08-12-K2	1/2	2.92	1.58	1-1/2	N/A



Hose

Braided Hose Couplings

W Style Couplings

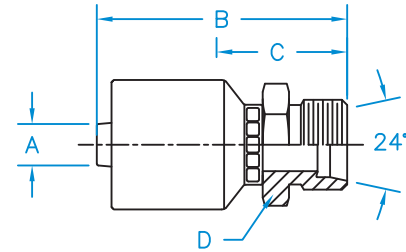
Other Couplings

Threads & Connections

Additional Products

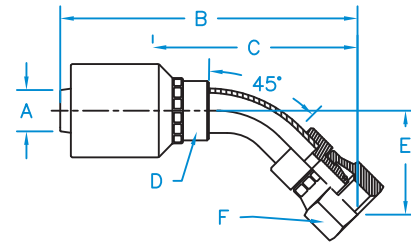
Din Heavy 24° Seat Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-DH04-08-16-K2	1/4	2.10	1.04	11/16	M16 X 1.5
M-DH04-10-18-K2	1/4	2.10	1.04	3/4	M18 X 1.5
M-DH06-08-16-K2	3/8	2.43	1.06	11/16	M16 X 1.5
M-DH06-12-20-K2	3/8	2.43	1.06	15/16	M20 X 1.5
M-DH06-14-22-K2	3/8	2.52	1.15	7/8	M22 X 1.5
M-DH08-16-24-K2	1/2	2.53	1.19	1	M24 X 1.5



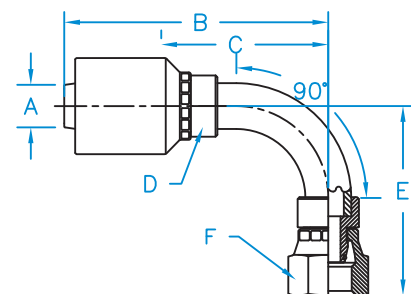
Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH4504-0614-K2	1/4			5/8		3/4	M14 X 1.5
F-DH4504-0816-K2	1/4	3.39	2.33	5/8	0.89	7/8	M16 X 1.5
F-DH4504-1018-K2	1/4	3.38	2.32	5/8	0.92	15/16	M18 X 1.5
F-DH4506-0816-K2	3/8	3.72	2.35	11/16	0.89	7/8	M16 X 1.5
F-DH4506-1018-K2	3/8	3.71	2.34	11/16	0.92	15/16	M18 X 1.5
F-DH4506-1220-K2	3/8	4.20	2.82	3/4	1.16	15/16	M20 X 1.5
F-DH4506-1422-K2	3/8	3.85	2.48	11/16	1.02	1-1/16	M22 X 1.5
F-DH4508-1220-K2	1/2	3.85	2.51	7/8	1.20	15/16	M20 X 1.5
F-DH4508-1422-K2	1/2	3.87	2.53	3/4	1.02	1-1/16	M22 X 1.5
F-DH4508-1624-K2	1/2	4.32	2.98	7/8	1.26	1-3/16	M24 X 1.5



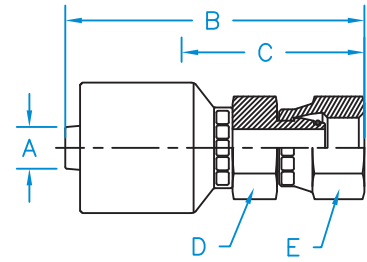
Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH9004-0614-K2	1/4			5/8		3/4	M14 X 1.5
F-DH9004-0816-K2	1/4	2.84	1.78	5/8	1.54	1-1/4	M16 X 1.5
F-DH9004-1018-K2	1/4	2.70	1.64	5/8	1.50	15/16	M18 X 1.5
F-DH9006-0816-K2	3/8	3.17	1.80	11/16	1.54	15/16	M16 X 1.5
F-DH9006-1018-K2	3/8	3.17	1.80	11/16	1.54	7/8	M18 X 1.5
F-DH9006-1220-K2	3/8	3.17	1.80	3/4	2.01	15/16	M20 X 1.5
F-DH9006-1422-K2	3/8	3.17	1.80	11/16	1.75	1-1/16	M22 X 1.5
F-DH9008-1220-K2	1/2	3.49	2.15	7/8	1.99	15/16	M20 X 1.5
F-DH9008-1422-K2	1/2	3.19	1.85	3/4	1.75	1-1/16	M22 X 1.5
F-DH9008-1624-K2	1/2	3.49	2.15	7/8	2.31	1-3/16	M24 X 1.5



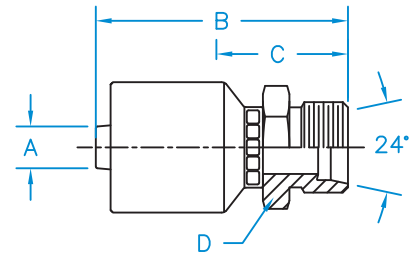
Din Heavy 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DH04-06-14-K2	1/4			11/16	3/4	M14 X 1.5
F-DH04-08-16-K2	1/4	2.07	1.01	9/16	7/8	M16 X 1.5
F-DH04-10-18-K2	1/4	2.08	1.02	5/8	15/16	M18 X 1.5
F-DH06-08-16-K2	3/8	2.60	1.23	11/16	7/8	M16 X 1.5
F-DH06-10-18-K2	3/8	2.52	1.15	11/16	15/16	M18 X 1.5
F-DH06-12-20-K2	3/8	2.51	1.14	11/16	15/16	M20 X 1.5
F-DH06-14-22-K2	3/8	2.65	1.28	3/4	1-1/16	M22 X 1.5
F-DH08-12-20-K2	1/2	2.78	1.44	7/8	15/16	M20 X 1.5
F-DH08-14-22-K2	1/2	2.69	1.34	7/8	1-1/16	M22 X 1.5
F-DH08-16-24-K2	1/2	2.63	1.29	7/8	1-3/16	M24 X 1.5



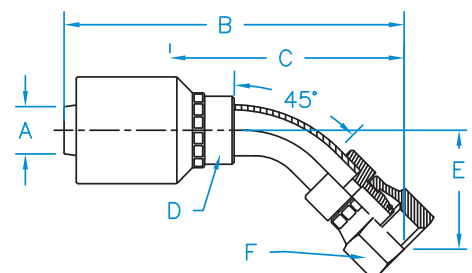
Din Light 24° Seat Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-DL04-06-12-K2	1/4	1.86	0.80	5/8	M12 X 1.5
M-DL04-08-14-K2	1/4	1.86	0.80	5/8	M14 X 1.5
M-DL04-10-16-K2	1/4	2.10	1.04	11/16	M16 X 1.5
M-DL06-10-16-K2	3/8	2.43	1.06	11/16	M16 X 1.5
M-DL06-12-18-K2	3/8	2.39	1.02	3/4	M18 X 1.5
M-DL06-15-22-K2	3/8	2.43	1.06	7/8	M22 X 1.5
M-DL08-12-18-K2	1/2	2.42	1.08	7/8	M18 X 1.5
M-DL08-15-22-K2	1/2	2.45	1.11	7/8	M22 X 1.5



Din Light 24° Seat 45° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DL4504-0612-K2	1/4	3.38	2.32	5/8	0.92	3/4	M12 X 1.5
F-DL4504-0814-K2	1/4	3.37	2.31	5/8	0.91	3/4	M14 X 1.5
F-DL4504-1016-K2	1/4	3.60	2.54	5/8	1.10	7/8	M16 X 1.5
F-DL4506-1016-K2	3/8	3.93	2.56	11/16	1.10	7/8	M16 X 1.5
F-DL4506-1218-K2	3/8	3.82	2.59	3/4	1.13	15/16	M18 X 1.5
F-DL4508-1522-K2	1/2	4.28	2.94	7/8	1.22	1-1/16	M22 X 1.5



Hose

Braided Hose Couplings

W Style Couplings

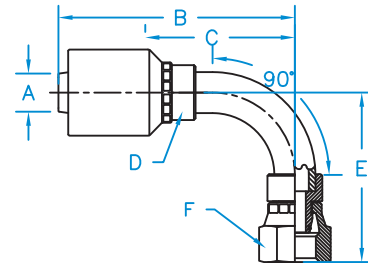
Other Couplings

Threads & Connections

Additional Products

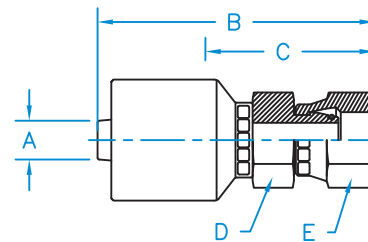
Din Light 24° Seat 90° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DL9004-0814-K2	1/4	2.70	1.64	5/8	1.54	3/4	M14 X 1.5
F-DL9004-1016-K2	1/4	2.84	1.78	5/8	1.63	7/8	M16 X 1.5
F-DL9006-1016-K2	3/8	3.17	1.80	11/16	1.63	7/8	M16 X 1.5
F-DL9006-1218-K2	3/8	2.98	1.60	3/4	1.86	15/16	M18 X 1.5
F-DL9008-1522-K2	1/2	3.49	2.15	7/8	2.26	1-1/16	M22 X 1.5
F-DL9008-1826-K2	1/2	3.49	2.15	7/8	2.37	1-1/4	M26 X 1.5



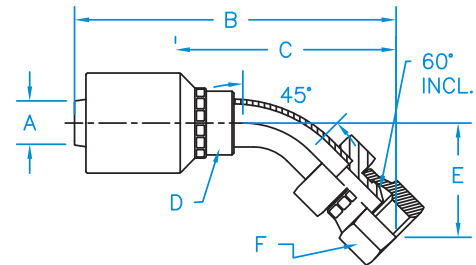
Din Light 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DL04-06-12-K2	1/4	2.18	1.12	11/16	3/4	M12 X 1.5
F-DL04-08-14-K2	1/4	2.30	1.24	9/16	3/4	M14 X 1.5
F-DL04-10-16-K2	1/4	2.23	1.17	11/16	7/8	M16 X 1.5
F-DL06-10-16-K2	3/8	2.56	1.19	3/4	7/8	M16 X 1.5
F-DL06-12-18-K2	3/8	2.60	1.23	3/4	15/16	M18 X 1.5
F-DL06-15-22-K2	3/8	2.71	1.34	3/4	1-1/16	M22 X 1.5
F-DL08-15-22-K2	1/2	2.80	1.46	7/8	1-1/16	M22 X 1.5
F-DL08-18-26-K2	1/2	3.78	1.68	1-1/8	1-1/4	M26 X 1.5



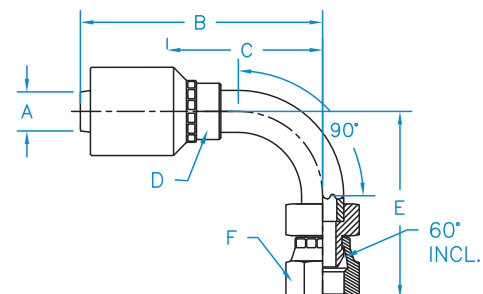
Female British Pipe 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX45-0404-K2	1/4	3.17	2.11	5/8	0.75	3/4	1/4 - 19
F-BSPX45-0406-K2	1/4	3.45	2.39	5/8	0.95	7/8	3/8 - 19
F-BSPX45-0606-K2	3/8	3.78	2.41	3/4	0.95	7/8	3/8 - 19
F-BSPX45-0608-K2	3/8	4.10	2.73	3/4	1.00	1	1/2 - 14
F-BSPX45-0808-K2	1/2	3.36	1.41	7/8	1.00	1	1/2 - 14



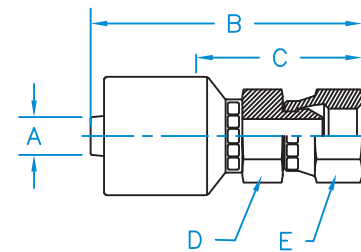
Female British Pipe 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX90-0404-K2	1/4	2.70	1.64	5/8	1.33	3/4	1/4 - 19
F-BSPX90-0406-K2	1/4	2.84	1.78	5/8	1.79	3/4	3/8 - 19
F-BSPX90-0606-K2	3/8	3.17	1.80	3/4	1.79	7/8	3/8 - 19
F-BSPX90-0608-K2	3/8	3.32	2.09	3/4	1.95	1	1/2 - 14
F-BSPX90-0808-K2	1/2	3.49	2.15	7/8	1.95	1	1/2 - 14
F-BSPX90-0810-K2	1/2	2.77	1.43	7/8	2.10	1-1/8	5/8 - 14



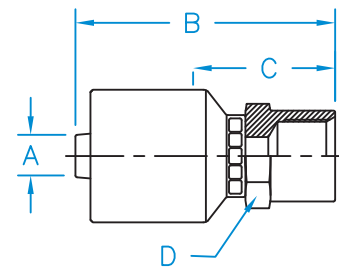
Female British Pipe Straight

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-BSPX-04-02-K2	1/4	2.03	0.97	9/16	9/16	1/8 - 28
F-BSPX-04-04-K2	1/4	2.06	0.98	9/16	3/4	1/4 - 19
F-BSPX-04-06-K2	1/4	2.16	1.10	5/8	7/8	3/8 - 19
F-BSPX-06-04-K2	3/8	2.54	1.17	11/16	3/4	1/4 - 19
F-BSPX-06-06-K2	3/8	2.33	1.10	3/4	7/8	3/8 - 19
F-BSPX-06-08-K2	3/8	2.65	1.28	3/4	1	1/2 - 14
F-BSPX-08-06-K2	1/2	2.68	1.34	7/8	7/8	3/8 - 19
F-BSPX-08-08-K2	1/2	2.66	1.32	7/8	1	1/2 - 14
F-BSPX-08-10-K2	1/2	2.94	1.60	7/8	1-1/8	5/8 - 14



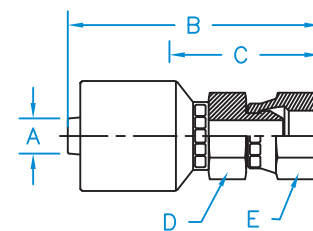
FP - NPTF Female Pipe Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
FP-04-02-K2	1/4	1.98	0.92	5/8	1/8 - 27
FP-04-04-K2	1/4	2.06	1.00	11/16	1/4 - 18
FP-04-06-K2	1/4	2.16	1.10	7/8	3/8 - 18
FP-06-04-K2	3/8	2.49	1.12	11/16	1/4 - 18
FP-06-06-K2	3/8	2.34	1.11	7/8	3/8 - 18
FP-06-08-K2	3/8	2.64	1.27	1	1/2 - 14
FP-08-06-K2	1/2	2.51	1.21	7/8	3/8 - 18
FP-08-08-K2	1/2	2.67	1.33	1	1/2 - 14



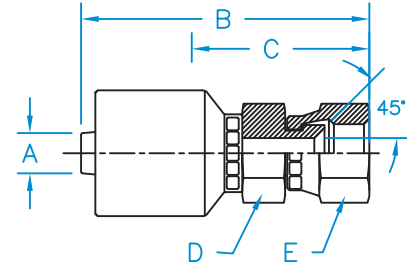
FPX - NPSM Female Pipe Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FPX-04-02-K2	1/4	2.01	0.95	9/16	9/16	1/8 - 27
FPX-04-04-K2	1/4	1.90	1.00	9/16	3/4	1/4 - 18
FPX-04-06-K2	1/4	2.08	1.02	5/8	7/8	3/8 - 18
FPX-06-04-K2	3/8	2.51	1.14	11/16	3/4	1/4 - 18
FPX-06-06-K2	3/8	2.06	1.00	11/16	7/8	3/8 - 18
FPX-06-08-K2	3/8	2.59	1.22	3/4	1	1/2 - 14
FPX-08-08-K2	1/2	2.16	1.10	7/8	1	1/2 - 14
FPX-08-12-K2	1/2	2.93	1.59	1	1-1/4	3/4 - 14



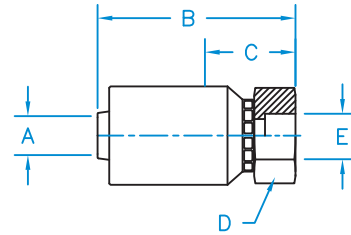
FSX - 45° SAE Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FSX-04-06-K2	1/4	2.32	1.26	5/8	3/4	5/8 - 18
FSX-06-06-K2	3/8	2.65	1.28	11/16	3/4	5/8 - 18



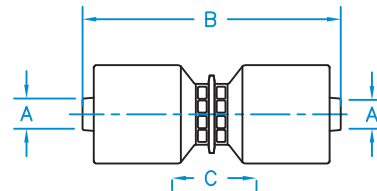
FW - Female Weld Fitting Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FW-04-04-K2	1/4	1.60	0.54	5/8	0.25	N/A
FW-04-05-K2	1/4	1.60	0.54	5/8	0.31	N/A
FW-04-06-K2	1/4	1.60	0.54	5/8	0.37	N/A
FW-06-06-K2	3/8	1.93	0.56	11/16	0.38	N/A
FW-06-08-K2	3/8	1.93	0.56	3/4	0.50	N/A
FW-08-08-K2	1/2	1.95	0.61	7/8	0.50	N/A
FW-08-10-K2	1/2	1.95	0.61	7/8	0.62	N/A



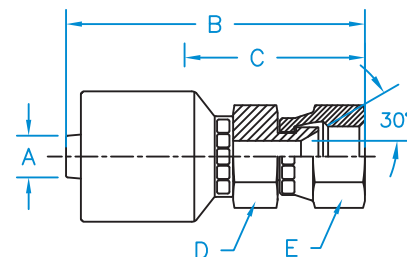
Hose Mender

Part Number	Hose I.D. (in.) A	B	C	Thread
MENDER-04-K2	1/4	2.89	0.74	N/A
MENDER-06-K2	3/8	3.52	0.78	N/A
MENDER-08-K2	1/2	3.56	0.88	N/A



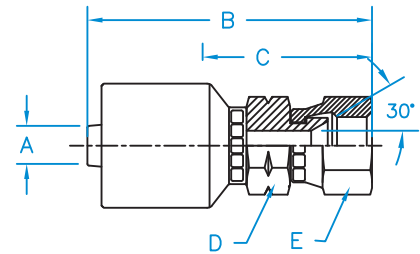
JIS 30° Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-JISX-04-04-K2	1/4	2.20	1.12	9/16	3/4	1/4 - 19
F-JISX-06-06-K2	3/8	2.62	1.25	11/16	7/8	3/8 - 19
F-JISX-06-08-K2	3/8	2.62	1.25	3/4	1	1/2 - 14
F-JISX-08-08-K2	1/2	2.62	1.28	7/8	1	1/2 - 14



Komatsu JIS 30° Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-KOMX-04-14-K2	1/4	2.27	1.21	9/16	3/4	M14 X 1.5
F-KOMX-06-14-K2	3/8	2.48	1.11	11/16	3/4	M14 X 1.5
F-KOMX-06-18-K2	3/8	2.52	1.15	11/16	15/16	M18 X 1.5
F-KOMX-08-22-K2	1/2	2.63	1.29	7/8	1-1/16	M22 X 1.5
F-KOMX-08-24-K2	1/2	2.62	1.28	7/8	1-1/4	M24 X 1.5



Hose

Braided Hose Couplings

W Style Couplings

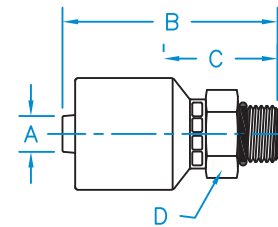
Other Couplings

Threads & Connections

Additional Products

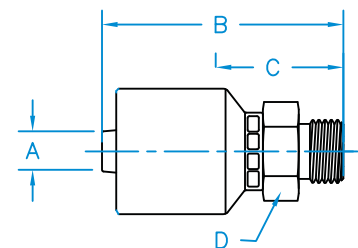
Male Boss O-Ring Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MB-04-04-K2	1/4	1.83	0.74	5/8	7/16 - 20
MB-04-05-K2	1/4	1.81	0.75	5/8	1/2 - 20
MB-04-06-K2	1/4	1.95	0.89	11/16	9/16 - 18
MB-04-08-K2	1/4	2.06	1.00	7/8	3/4 - 16
MB-06-06-K2	3/8	2.12	0.89	11/16	9/16 - 18
MB-06-08-K2	3/8	2.17	0.94	7/8	3/4 - 16
MB-06-10-K2	3/8	2.46	1.09	1	7/8 - 14
MB-08-06-K2	1/2	2.30	0.99	11/16	9/16 - 18
MB-08-08-K2	1/2	2.35	1.01	7/8	3/4 - 16
MB-08-10-K2	1/2	2.48	1.14	1-1/16	7/8 - 14
MB-08-12-K2	1/2	2.56	1.22	1-1/4	1-1/16 - 12



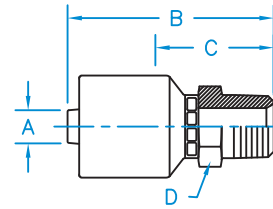
Male British Parallel Pipe 60° Cone Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-BSPP-04-04-K2	1/4	2.12	1.04	13/16	1/4 - 19
M-BSPP-04-06-K2	1/4	2.18	1.12	7/8	3/8 - 19
M-BSPP-06-06-K2	3/8	2.51	1.14	7/8	3/8 - 19
M-BSPP-06-08-K2	3/8	2.62	1.25	1-1/16	1/2 - 14
M-BSPP-08-06-K2	1/2	2.53	1.19	7/8	3/8 - 19
M-BSPP-08-08-K2	1/2	2.65	1.31	1-1/8	1/2 - 14
M-BSPP-08-10-K2	1/2	2.65	1.31	1-1/8	5/8 - 14
M-BSPP-10-10-K2	5/8	3.58	1.48	1-1/4	5/8 - 14
M-BSPP-12-12-K2	3/4	3.27	1.39	1-3/8	3/4 - 14
M-BSPP-16-16-K2	1	3.69	1.58	1-5/8	1 - 11



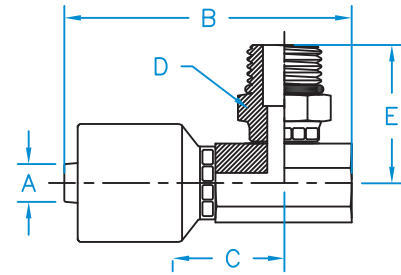
Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-04-02-K2	1/4	1.85	0.79	9/16	1/8 – 27
MP-04-04-K2	1/4	2.03	0.97	9/16	1/4 – 18
MP-04-06-K2	1/4	2.13	1.07	11/16	3/8 – 18
MP-04-08-K2	1/4	2.31	1.255	7/8	1/2 – 14
MP-06-04-K2	3/8	2.45	1.08	11/16	1/4 – 18
MP-06-06-K2	3/8	2.22	0.99	3/4	3/8 – 18
MP-06-08-K2	3/8	2.49	1.26	7/8	1/2 – 14
MP-08-06-K2	1/2	2.39	1.08	7/8	3/8 – 18
MP-08-08-K2	1/2	2.64	1.30	7/8	1/2 – 14
MP-08-12-K2	1/2	2.71	1.37	1-1/16	3/4 – 14



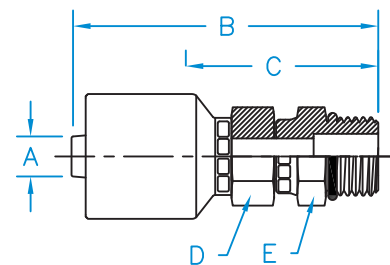
MBX - Male Boss O-Ring 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MBX90-04-04-K2	1/4	2.03	0.56	11/16	1.43	7/16 – 20
MBX90-04-06-K2	1/4	2.03	0.56	3/4	1.46	9/16 – 18
MBX90-06-06-K2	3/8	2.56	1.19	3/4	1.55	9/16 – 18
MBX90-06-08-K2	3/8	2.56	1.19	15/16	1.63	3/4 – 16
MBX90-06-10-K2	3/8	3.01	1.11	1	1.71	7/8 – 14
MBX90-08-08-K2	1/2	2.64	1.33	15/16	1.68	3/4 – 16
MBX90-08-10-K2	1/2	2.64	1.33	1	1.74	7/8 – 14



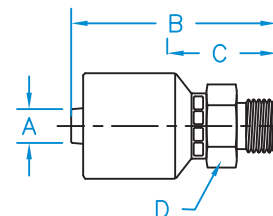
MBX - Male Boss O-Ring Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MBX-04-04-K2	1/4	2.60	1.54	9/16	11/16	7/16 – 20
MBX-04-05-K2	1/4	2.48	1.42	9/16	3/4	1/2 – 20
MBX-04-06-K2	1/4	2.52	1.46	9/16	3/4	9/16 – 18
MBX-06-04-K2	3/8	2.87	1.50	11/16	11/16	7/16 – 20
MBX-06-06-K2	3/8	2.90	1.53	11/16	3/4	9/16 – 18
MBX-06-08-K2	3/8	2.99	1.62	3/4	15/16	3/4 – 16
MBX-08-08-K2	1/2	3.02	1.70	11/16	15/16	3/4 – 16
MBX-08-10-K2	1/2	3.09	1.77	11/16	1	7/8 – 14



MF - Male Face Seal Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MF-04-04-K2	1/4	2.05	0.97	5/8	9/16 - 18
MF-04-06-K2	1/4	1.91	0.85	11/16	11/16 - 16
MF-06-06-K2	3/8	2.24	0.87	11/16	11/16 - 16
MF-06-08-K2	3/8	2.30	0.93	7/8	13/16 - 16
MF-08-08-K2	1/2	2.33	0.99	7/8	13/16 - 16
MF-08-10-K2	1/2	2.59	1.25	1-1/16	1 - 14
MF-08-12-K2	1/2	2.65	1.31	1-1/4	1-3/16 - 12



Hose

Braided Hose Couplings

W Style Couplings

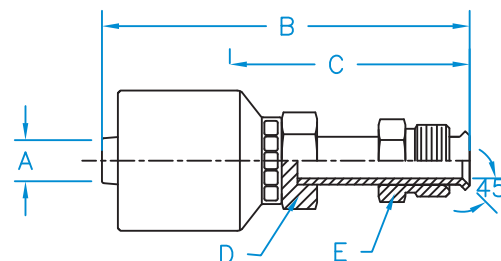
Other Couplings

Threads & Connections

Additional Products

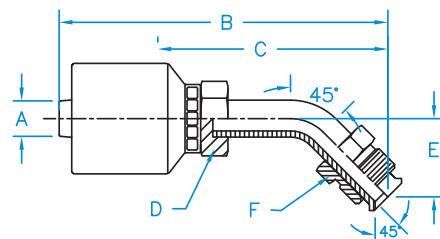
MIX - 45° SAE Male Inverted Flare

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MIX-04-04-K2	1/4	2.93	1.85	5/8	7/16	7/16 - 24
MIX-04-05-K2	1/4	2.94	1.88	5/8	1/2	1/2 - 20
MIX-04-06-K2	1/4	3.29	2.23	5/8	5/8	5/8 - 18
MIX-06-04-K2	3/8	3.26	1.89	11/16	7/16	7/16 - 24
MIX-06-05-K2	3/8	3.37	2.00	3/4	1/2	1/2 - 20
MIX-06-06-K2	3/8	3.65	2.28	3/4	5/8	5/8 - 18
MIX-06-07-K2	3/8	2.97	1.60	11/16	11/16	11/16 - 18
MIX-06-08-K2	3/8	3.35	1.98	3/4	3/4	3/4 - 18
MIX-08-08-K2	1/2	3.55	2.21	7/8	3/4	3/4 - 18
MIX-08-10-K2	1/2	3.19	1.85	3/4	7/8	7/8 - 18



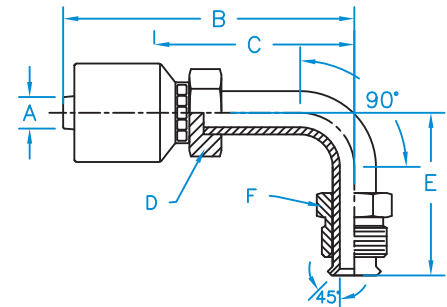
MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX45-04-04-K2	1/4	2.68	1.62	5/8	0.78	7/16	7/16 - 24
MIX45-04-05-K2	1/4	2.82	1.76	5/8	0.88	1/2	1/2 - 20
MIX45-04-06-K2	1/4	3.44	2.36	5/8	0.94	5/8	5/8 - 18
MIX45-06-05-K2	3/8	3.15	1.78	11/16	0.88	1/2	1/2 - 20
MIX45-06-06-K2	3/8	3.77	2.40	3/4	0.94	5/8	5/8 - 18
MIX45-06-07-K2	3/8	3.98	2.61	11/16	0.94	11/16	11/16 - 18
MIX45-06-08-K2	3/8	4.31	2.81	3/4	1.06	7/8	3/4 - 18
MIX45-08-08-K2	1/2	4.12	2.78	7/8	1.06	3/4	3/4 - 18
MIX45-08-10-K2	1/2	3.54	2.20	7/8	0.84	7/8	7/8 - 18



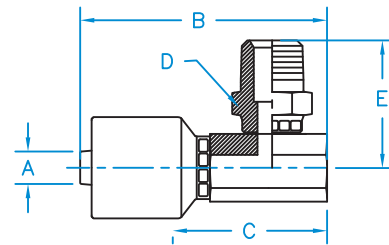
MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX90-04-03-K2	1/4	2.74	1.68	5/8	1.38	3/8	3/8 - 24
MIX90-04-04-K2	1/4	2.09	1.03	5/8	1.47	7/16	7/16 - 24
MIX90-04-05-K2	1/4	2.26	1.20	5/8	1.66	1/2	1/2 - 20
MIX90-04-06-K2	1/4	3.62	2.54	5/8	1.69	5/8	5/8 - 18
MIX90-06-04-K2	3/8	2.42	1.05	11/16	1.47	7/16	7/16 - 24
MIX90-06-05-K2	3/8	2.59	1.22	3/4	1.66	1/2	1/2 - 20
MIX90-06-06-K2	3/8	3.84	2.61	3/4	1.69	5/8	5/8 - 18
MIX90-06-07-K2	3/8	3.98	2.61	11/16	1.69	11/16	11/16 - 18
MIX90-06-08-K2	3/8	3.47	2.10	3/4	1.88	3/4	3/4 - 18
MIX90-08-08-K2	1/2	3.49	2.15	7/8	1.88	3/4	3/4 - 18
MIX90-08-10-K2	1/2	2.77	1.43	7/8	1.63	7/8	7/8 - 18



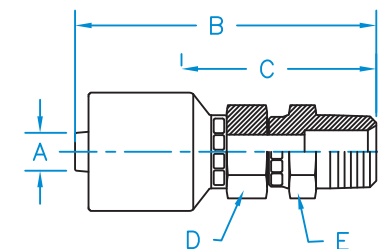
MPX90 - Male Pipe 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MPX90-04-04-K2	1/4	2.03	0.97	11/16	1.54	1/4 - 18
MPX90-04-06-K2	1/4	2.03	0.56	3/4	1.55	3/8 - 18
MPX90-06-04-K2	3/8	3.01	1.11	11/16	1.64	1/4 - 18
MPX90-06-06-K2	3/8	2.56	1.19	3/4	1.72	3/8 - 18
MPX90-06-08-K2	3/8	2.56	0.66	7/8	1.85	1/2 - 14
MPX90-08-08-K2	1/2	2.64	1.33	15/16	1.92	1/2 - 14



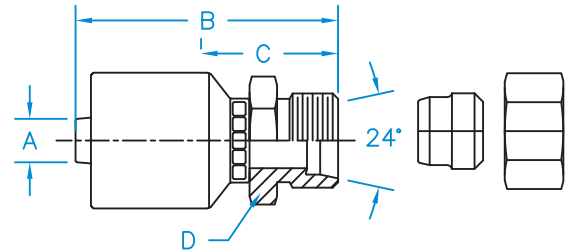
MPX - NPTF Male Pipe Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MPX-04-02-K2	1/4	2.32	1.26	9/16	1/2	1/8 - 27
MPX-04-04-K2	1/4	2.60	1.54	9/16	11/16	1/4 - 18
MPX-04-06-K2	1/4	2.60	1.54	9/16	3/4	3/8 - 18
MPX-06-04-K2	3/8	2.99	1.62	11/16	11/16	1/4 - 18
MPX-06-06-K2	3/8	2.99	1.62	11/16	3/4	3/8 - 18
MPX-06-08-K2	3/8	3.24	1.87	3/4	15/16	1/2 - 14
MPX-08-06-K2	1/2	3.02	1.68	11/16	3/4	3/8 - 18
MPX-08-08-K2	1/2	3.27	1.93	11/16	7/8	1/2 - 14
MPX-08-12-K2	1/2	3.33	1.99	1	1-1/8	3/4 - 14



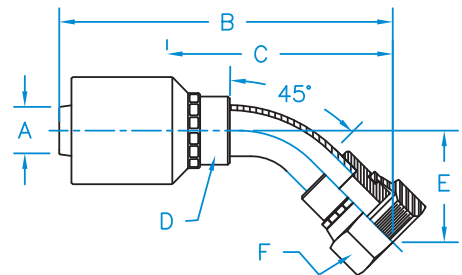
MT - Flareless Compression with Nut and Sleeve Per SAE J514

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MT-04-04-K2	1/4	1.90	0.84	9/16	7/16 - 20
MT-04-05-K2	1/4	1.90	0.84	9/16	1/2 - 20
MT-04-06-K2	1/4	1.92	0.84	5/8	9/16 - 18
MT-04-08-K2	1/4	2.04	0.98	7/8	3/4 - 16
MT-06-04-K2	3/8	2.29	0.92	11/16	7/16 - 20
MT-06-05-K2	3/8	2.23	0.86	11/16	1/2 - 20
MT-06-06-K2	3/8	2.08	0.85	3/4	9/16 - 18
MT-06-08-K2	3/8	2.37	1.00	3/4	3/4 - 16
MT-08-08-K2	1/2	2.39	1.05	7/8	3/4 - 16
MT-08-10-K2	1/2	2.46	1.12	7/8	7/8 - 14
MT-08-12-K2	1/2	2.58	1.24	1-1/8	1-1/16 - 12



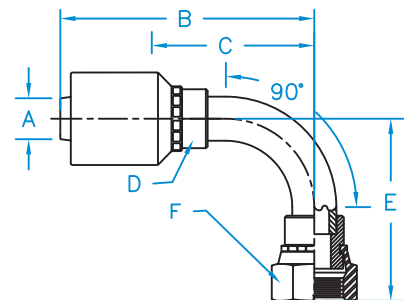
O-Ring Face Seal 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX45-04-04-K2	1/4	2.86	1.80	5/8	0.39	11/16	9/16 - 18
FFX45-04-06-K2	1/4	2.81	1.75	5/8	0.43	5/8	11/16 - 16
FFX45-06-06-K2	3/8	3.29	1.92	3/4	0.43	13/16	11/16 - 16
FFX45-06-08-K2	3/8	3.22	1.85	3/4	0.59	15/16	13/16 - 16
FFX45-08-06-K2	1/2	3.31	1.97	3/4	0.43	13/16	11/16 - 16
FFX45-08-08-K2	1/2	3.24	1.90	7/8	0.59	15/16	13/16 - 16
FFX45-08-10-K2	1/2	3.46	2.12	7/8	0.63	1-1/8	1 - 14
FFX45-08-12-K2	1/2	3.48	2.14	1	0.83	1-3/8	1-3/16 - 12



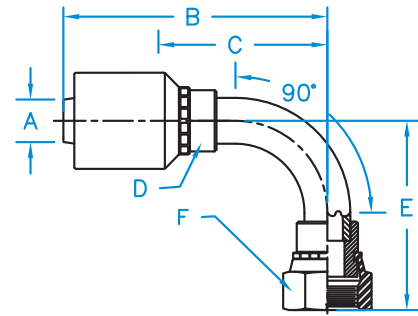
O-Ring Face Seal 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90-04-04-K2	1/4	2.70	1.64	11/16	0.82	11/16	9/16 - 18
FFX90-04-06-K2	1/4	2.67	1.61	13/16	0.90	13/16	11/16 - 16
FFX90-04-08-K2	1/4	2.79	1.73	15/16	1.14	15/16	13/16 - 16
FFX90-06-04-K2	3/8	3.03	1.66	11/16	0.82	11/16	9/16 - 18
FFX90-06-06-K2	3/8	3.17	1.80	13/16	0.90	13/16	11/16 - 16
FFX90-06-08-K2	3/8	3.03	1.66	15/16	1.14	15/16	13/16 - 16
FFX90-08-06-K2	1/2	3.19	1.85	3/4	0.91	13/16	11/16 - 16
FFX90-08-08-K2	1/2	2.68	1.71	15/16	1.14	15/16	13/16 - 16
FFX90-08-10-K2	1/2	2.77	1.43	1-1/8	1.26	1-1/8	1 - 14
FFX90-08-12-K2	1/2	3.87	2.56	1-3/8	1.88	1-3/8	1-3/16 - 12
FFX90L-04-04-K2	1/4	2.70	1.64	5/8	1.81	11/16	9/16 - 18
FFX90L-06-06-K2	3/8	2.92	1.54	13/16	0.90	13/16	11/16 - 16
FFX90L-06-08-K2	3/8	3.47	2.10	3/4	2.52	15/16	13/16 - 16
FFX90L-08-08-K2	1/2	2.68	2.15	15/16	1.14	15/16	13/16 - 16
FFX90L-08-10-K2	1/2	3.45	2.11	7/8	2.76	1-1/8	1 - 14



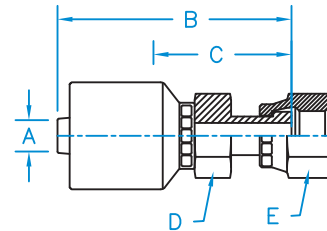
O-Ring Face Seal 90° Medium Drop Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90M-04-04-K2	1/4	2.70	1.64	5/8	1.26	11/16	9/16 - 18
FFX90M-06-06-K2	3/8	3.17	1.80	3/4	1.50	13/16	11/16 - 16
FFX90M-08-08-K2	1/2	3.05	1.71	7/8	1.61	15/16	13/16 - 16
FFX90M-08-10-K2	1/2	2.77	1.43	7/8	1.85	1-1/8	1 - 14



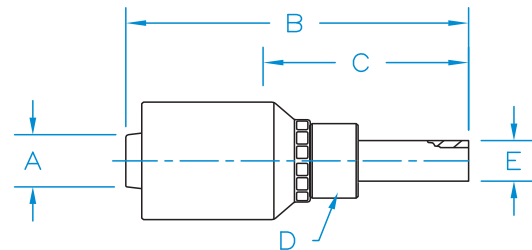
O-Ring Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-04-04-K2	1/4	2.18	1.10	9/16	11/16	9/16 - 18
FFX-04-06-K2	1/4	2.14	1.06	11/16	13/16	11/16 - 16
FFX-04-08-K2	1/4	2.28	1.20	3/4	15/16	13/16 - 16
FFX-06-04-K2	3/8	2.64	1.27	11/16	11/16	9/16 - 18
FFX-06-06-K2	3/8	2.43	1.20	11/16	7/8	11/16 - 16
FFX-06-08-K2	3/8	2.61	1.24	3/4	15/16	13/16 - 16
FFX-08-06-K2	1/2	2.47	1.13	11/16	11/16	11/16 - 16
FFX-08-08-K2	1/2	2.77	1.43	7/8	1-1/16	13/16 - 16
FFX-08-10-K2	1/2	2.86	1.52	15/16	1-1/8	1 - 14
FFX-08-12-K2	1/2	2.95	1.61	1-1/8	1-3/8	1-3/16 - 12



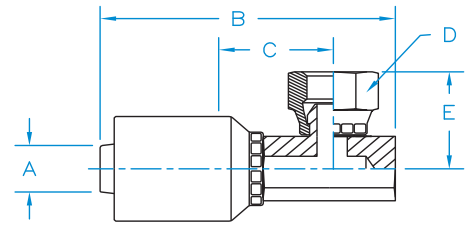
MW - Stand Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MW-04-04-K2	1/4	2.47	1.41	5/8	1/4	N/A
MW-04-05-K2	1/4	2.58	1.52	5/8	5/16	N/A
MW-04-06-K2	1/4	2.66	1.60	5/8	3/8	N/A
MW-06-06-K2	3/8	2.99	1.62	3/4	3/8	N/A
MW-06-08-K2	3/8	3.26	1.89	3/4	1/2	N/A
MW-08-08-K2	1/2	3.28	1.94	7/8	1/2	N/A
MW-08-10-K2	1/2	3.49	2.15	7/8	5/8	N/A



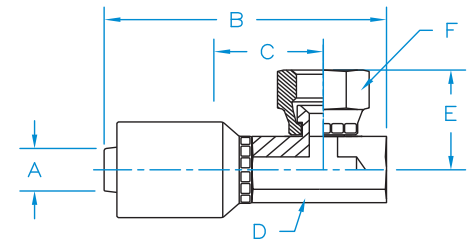
British Std Pipe 60° Cone 90° Block Style Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX9B-0404-K2	1/4	2.48	1.01	3/4	0.93	3/4	1/4 - 19
F-BSPX9B-0606-K2	3/8	3.01	1.11	7/8	1.13	7/8	3/8 - 19
F-BSPX9B-0608-K2	3/8	3.01	1.11	1	1.23	1	1/2 - 14
F-BSPX9B-0808-K2	1/2	2.64	0.77	1	1.29	1	1/2 - 14



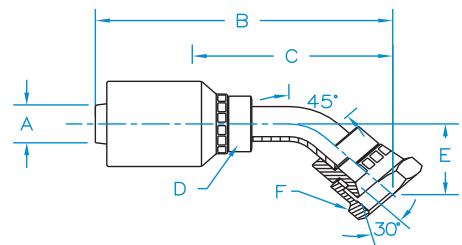
FJX90B - 37° JIC Female 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90B-0606-K2	3/8	3.01	1.11	13/16	1.16	11/16	9/16 - 18
FJX90B-0608-K2	3/8	3.01	1.11	13/16	1.17	7/8	3/4 - 16
FJX90B-0808-K2	1/2	2.64	0.80	15/16	1.36	7/8	3/4 - 16
FJX90B-0810-K2	1/2	2.64	0.80	15/16	1.42	1	7/8 - 14



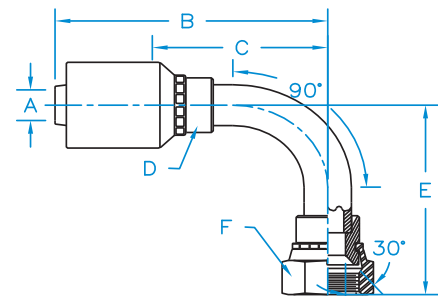
Komatsu JIS 30° Seat 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-KOMX45-0414-K2	1/4	3.30	2.24	5/8	0.80	3/4	M14 X 1.5
F-KOMX45-0614-K2	3/8	3.63	2.26	11/16	0.80	3/4	M14 X 1.5
F-KOMX45-0618-K2	3/8	3.63	2.26	11/16	0.80	15/16	M18 X 1.5
F-KOMX45-0822-K2	1/2	3.59	2.25	7/8	0.94	1-1/16	M22 X 1.5
F-KOMX45-0824-K2	1/2	3.86	2.52	7/8	1.04	1-1/4	M24 X 1.5



Komatsu JIS 30° Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-KOMX90-0414-K2	1/4	2.84	1.78	5/8	1.48	3/4	M14 X 1.5
F-KOMX90-0614-K2	3/8	3.17	1.80	11/16	1.48	3/4	M14 X 1.5
F-KOMX90-0618-K2	3/8	3.17	1.80	11/16	1.52	15/16	M18 X 1.5
F-KOMX90-0822-K2	1/2	3.49	2.15	7/8	1.72	1-1/16	M22 X 1.5
F-KOMX90-0824-K2	1/2	2.99	1.65	7/8	2.25	1-1/4	M24 X 1.5



Hose

Braided Hose Couplings

W Style Couplings

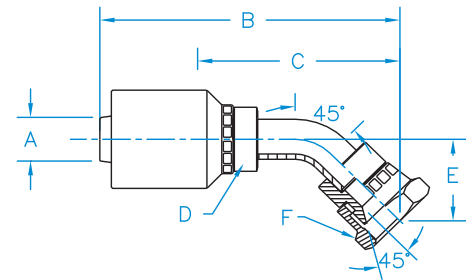
Other Couplings

Threads & Connections

Additional Products

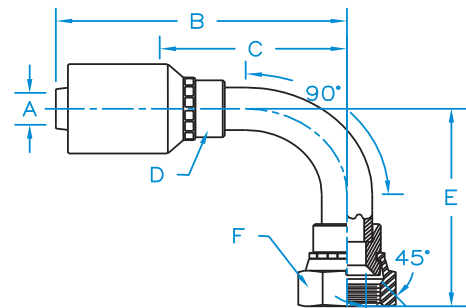
FSX45 - 45° SAE Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FSX45-04-04-K2	1/4	2.86	1.80	5/8	0.39	9/16	7/16 - 20
FSX45-04-05-K2	1/4	2.89	1.83	5/8	0.39	5/8	1/2 - 20
FSX45-06-05-K2	3/8	3.22	1.85	11/16	0.39	5/8	1/2 - 20
FSX45-06-06-K2	3/8	3.26	1.89	11/16	0.43	3/4	5/8 - 18
FSX45-08-08-K2	1/2	3.65	2.31	7/8	0.59	15/16	3/4 - 16
FSX45-08-10-K2	1/2	3.30	1.96	7/8	0.63	1-1/16	7/8 - 14



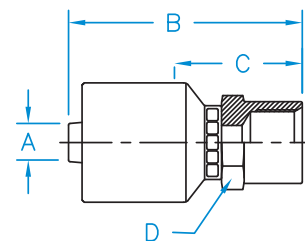
FSX90 - 45° SAE Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FSX90-04-04-K2	1/4	2.70	1.64	5/8	0.83	9/16	7/16 - 20
FSX90-04-05-K2	1/4	2.79	1.73	5/8	0.87	5/8	1/2 - 20
FSX90-06-04-K2	3/8	3.03	1.66	11/16	0.83	9/16	7/16 - 20
FSX90-06-05-K2	3/8	3.12	1.75	11/16	0.87	5/8	1/2 - 20
FSX90-06-06-K2	3/8	3.17	1.80	11/16	0.91	3/4	5/8 - 18
FSX90-06-08-K2	3/8	3.47	2.1	3/4	1.13	15/16	3/4 - 16
FSX90-08-08-K2	1/2	3.49	2.15	7/8	1.13	15/16	3/4 - 16
FSX90-08-10-K2	1/2	2.99	1.65	7/8	1.23	1-1/16	7/8 - 14



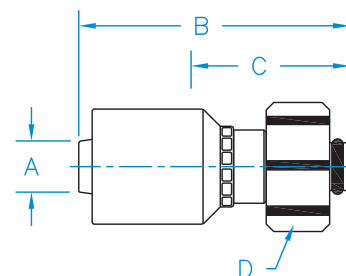
Female Grease Tap Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
GT-04-08-K2	1/4	1.94	0.875	3/4	1/2 - 27
GT-06-08-K2	3/8	2.39	1.02	3/4	1/2 - 27



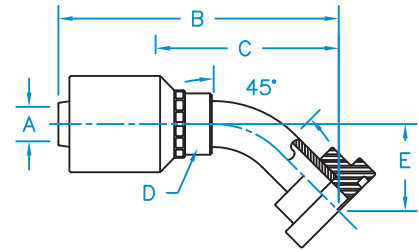
Karcher Pressure Wash Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	Thread
KAR-06-22-K2	3/8	2.57	1.18	3/4	M22 X 1.5



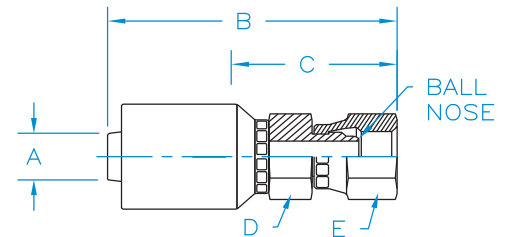
Komatsu Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA45-08-10-K2	1/2	3.71	2.37	0.88	N/A



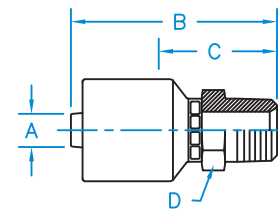
LF - Line Fit Sleeveless design

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
LF-04-04-K2	1/4	2.11	1.05	9/16	9/16	7/16 - 20
LF-06-06-K2	3/8	2.52	1.15	11/16	11/16	9/16 - 18
LF-08-08-K2	1/2	2.70	1.36	7/8	7/8	3/4 - 16



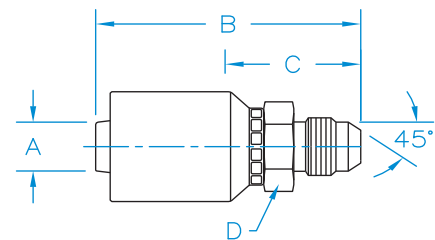
Male British Standard Pipe 60° Cone Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-BSPT-04-02-K2	1/4	1.85	0.79	9/16	1/8 - 27
M-BSPT-04-04-K2	1/4	2.04	0.98	9/16	1/4 - 19
M-BSPT-04-06-K2	1/4	2.12	1.06	11/16	3/8 - 19
M-BSPT-06-06-K2	3/8	2.45	1.08	11/16	3/8 - 19
M-BSPT-06-08-K2	3/8	2.71	1.34	7/8	1/2 - 14
M-BSPT-08-06-K2	1/2	2.48	1.14	7/8	3/8 - 19
M-BSPT-08-08-K2	1/2	2.73	1.39	7/8	1/2 - 14



MS - 45° SAE Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MS-04-04-K2	1/4	1.97	0.91	9/16	7/16 - 20
MS-04-06-K2	1/4	2.25	1.19	11/16	5/8 - 18
MS-06-06-K2	3/8	2.50	1.13	11/16	5/8 - 18
MS-06-08-K2	3/8	2.65	1.28	7/8	3/4 - 16
MS-08-08-K2	1/2	2.67	1.33	7/8	3/4 - 16



6W Style Couplings

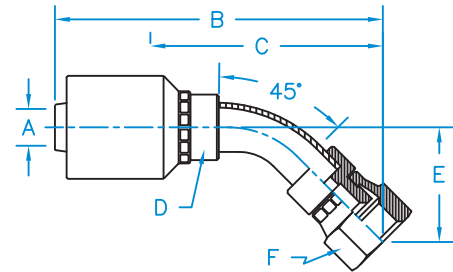
KURT
HYDRAULICS

- Non-skive high pressure coupling
- New product
- For use on R13 20-24-32 and 4SH 20-24 hose
- Many end configurations available
- All one piece design



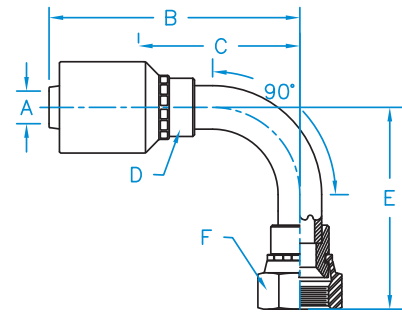
37° JIC Female 45° Swivel

Part Number	Hose I.D. (in.) A	Cut-off C	Drop D	Nut Hex F	Thread
FJX45-20-20-6W	1-1/4	3.90	1.46	50 MM	1-5/8 - 12
FJX45-24-24-6W	1-1/2	4.65	1.71	55 MM	1-7/8 - 12
FJX45-32-32-6W	2	6.39	2.03	70 MM	2-1/2 - 12



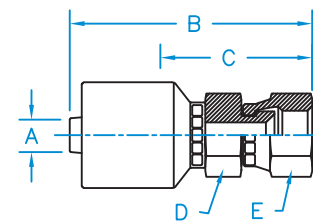
37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	Cut-off C	Drop D	Nut Hex F	Thread
FJX90-20-20-6W	1-1/4	3.31	3.07	50 MM	1-5/8 - 12
FJX90-24-24-6W	1-1/2	4.13	3.62	55 MM	1-7/8 - 12
FJX90-32-32-6W	2	5.81	5.31	70 MM	2-1/2 - 12



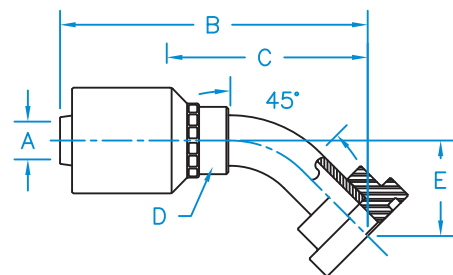
37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	Cut-off C	Fitting Hex D	Nut Hex E	Thread
FJX-20-20-6W	1-1/4	1.70	41 MM	50 MM	1-5/8 - 12
FJX-24-24-6W	1-1/2	1.94	50 MM	55 MM	1-7/8 - 12
FJX-32-32-6W	2	2.64	65 MM	70 MM	2-1/2 - 12



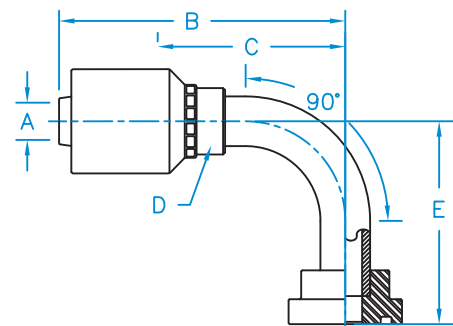
Cat Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
CAT45-20-20-6W	1-1/4	5.91	1.78	N/A
CAT45-20-24-6W	1-1/4	5.98	2.36	N/A
CAT45-24-24-6W	1-1/2	7.13	2.05	N/A
CAT45-32-32-6W	2	7.05	2.48	N/A



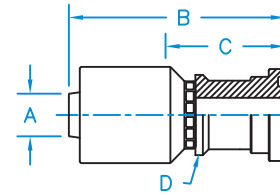
Cat Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
CAT90-20-20-6W	1-1/4	3.82	3.66	N/A
CAT90-20-24-6W	1-1/4	3.82	3.98	N/A
CAT90-24-24-6W	1-1/2	4.61	4.29	N/A



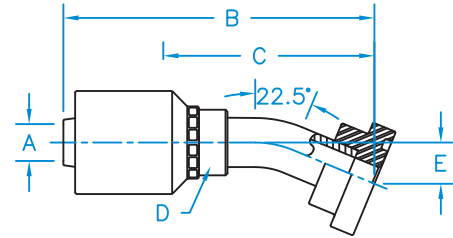
Cat Flange Straight Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Thread
CAT-20-20-6W	1-1/4	3.19	N/A
CAT-20-24-6W	1-1/4	3.43	N/A
CAT-24-24-6W	1-1/2	2.99	N/A
CAT-32-32-6W	2	4.13	N/A



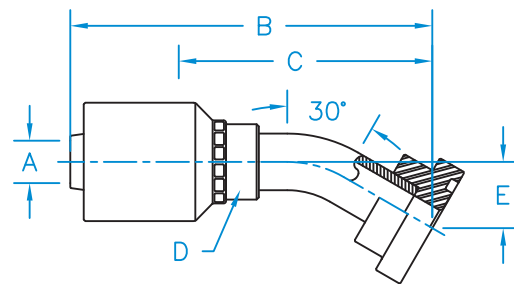
C61 - Code 61 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6122-20-20-6W	1-1/4	4.53	0.63	N/A
C6122-24-24-6W	1-1/2	4.88	0.65	N/A
C6122-32-32-6W	2	6.57	1.28	N/A



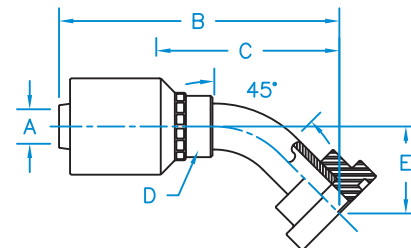
C61 - Code 61 Flange 30° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6130-20-20-6W	1-1/4	4.41	0.98	N/A
C6130-24-24-6W	1-1/2	4.72	1.10	N/A
C6130-32-32-6W	2	6.50	1.28	N/A



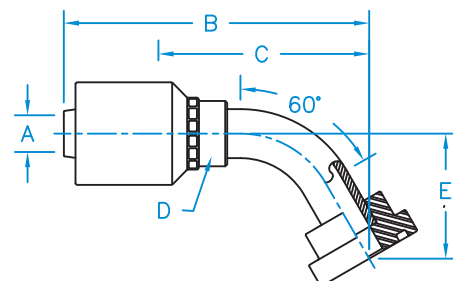
C61 - Code 61 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6145-20-20-6W	1-1/4	4.09	1.52	N/A
C6145-24-24-6W	1-1/2	4.37	1.69	N/A
C6145-24-32-6W	1-1/2	5.51	2.22	N/A
C6145-32-32-6W	2	5.79	2.13	N/A



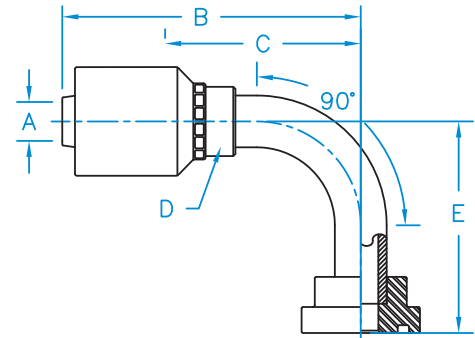
C61 - Code 61 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6160-20-20-6W	1-1/4	4.80	2.36	N/A
C6160-24-24-6W	1-1/2	5.63	2.36	N/A
C6160-24-32-6W	1-1/2	6.54	3.35	N/A
C6160-32-32-6W	2	7.99	3.54	N/A



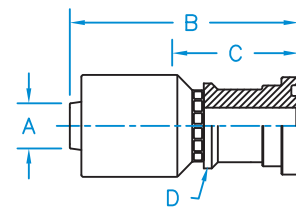
C61 - Code 61 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6190-20-20-6W	1-1/4	3.62	3.19	N/A
C6190-24-24-6W	1-1/2	4.06	3.66	N/A
C6190-24-32-6W	1-1/2	5.43	3.82	N/A
C6190-32-32-6W	2	5.91	5.12	N/A



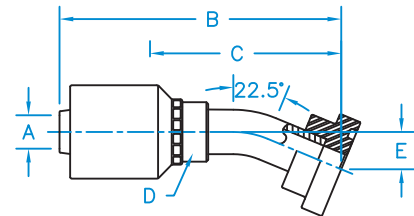
C61 - Code 61 Flange Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Thread
C61-20-20-6W	1-1/4	2.30	N/A
C61-24-24-6W	1-1/2	2.50	N/A
C61-24-32-6W	1-1/2	5.43	N/A
C61-32-32-6W	2	3.35	N/A



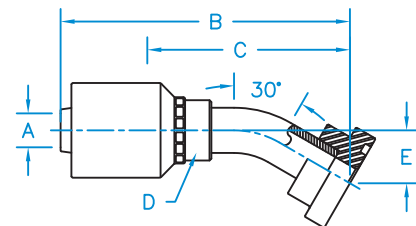
C62 - Code 62 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6222-24-24-6W	1-1/2	6.10	1.18	N/A



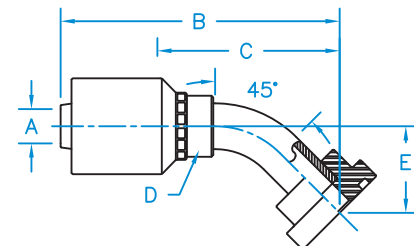
C62 - Code 62 Flange 30° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6230-20-20-6W	1-1/4					N/A
C6230-24-24-6W	1-1/2					N/A



C62 - Code 62 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6245-20-20-6W	1-1/4	4.06	1.61	N/A
C6245-24-24-6W	1-1/2	5.67	1.89	N/A
C6245-32-32-6W	2	6.97	2.40	N/A



Hose

Braided Hose Couplings

W Style Couplings

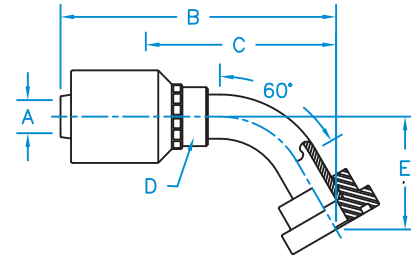
Other Couplings

Threads & Connections

Additional Products

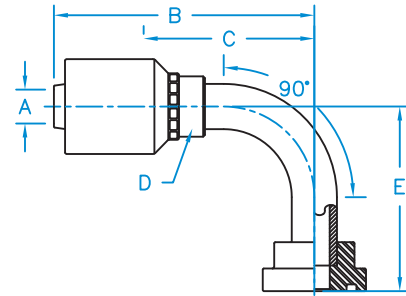
C62 - Code 62 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6260-20-20-6W	1-1/4	5.20	2.54	N/A
C6260-24-24-6W	1-1/2	6.30	2.95	N/A



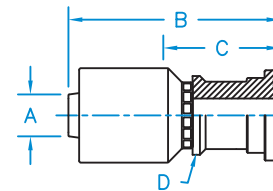
C62 - Code 62 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6290-20-20-6W	1-1/4	3.78	3.58	N/A
C6290-20-24-6W	1-1/4	3.90	4.07	N/A
C6290-24-24-6W	1-1/2	4.49	4.29	N/A
C6290-32-32-6W	2	6.77	5.16	N/A



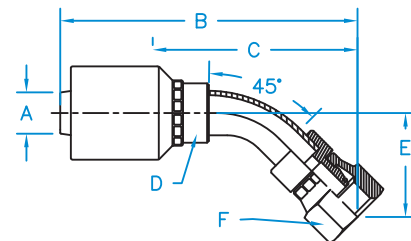
C62 - Code 62 Flange Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Thread
C62-20-20-6W	1-1/4	2.52	N/A
C62-24-24-6W	1-1/2	2.99	N/A
C62-24-32-6W	1-1/2	3.46	N/A
C62-32-32-6W	2	4.06	N/A



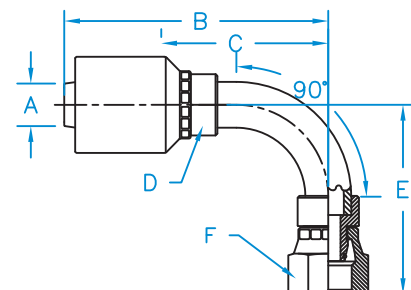
Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Nut Hex F	Thread
F-DH4520-3852-6W	1-1/4	4.72	1.77	60 MM	M52 X 2.0



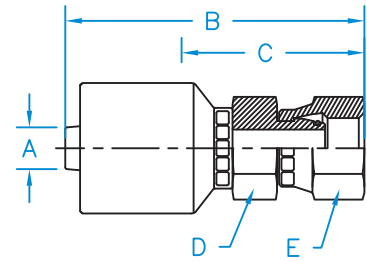
Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Nut Hex F	Thread
F-DH9020-3852-6W	1-1/4	3.82	3.62	60 MM	M52 X 2.0



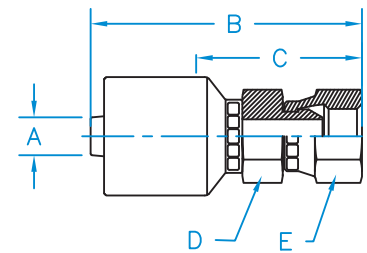
Din Heavy 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	Cut-off C	Nut Hex E	Thread
F-DH20-38-52-6W	1-1/4	2.01	60 MM	M52 X 2.0



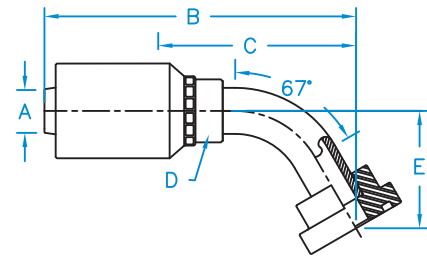
Female British Pipe Straight

Part Number	Hose I.D. (in.) A	Cut-off C	Nut Hex E	Thread
F-BSPX-20-20-6W	1-1/4	1.38	50 MM	1-1/4 - 11



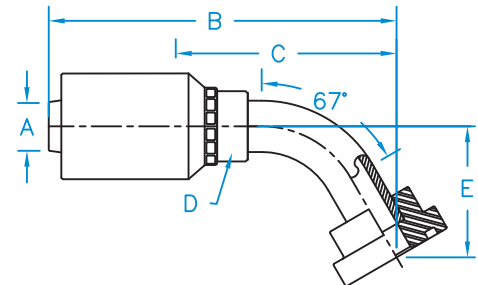
C61 - Code 61 Flange 67° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6167-24-24-6W	1-1/2	5.12	75 MM	N/A
C6167-32-32-6W	2	7.48	100 MM	N/A



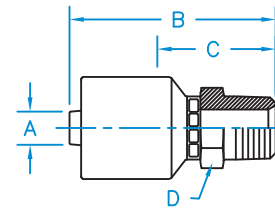
C62 - Code 62 Flange 67° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Thread
C6267-20-20-6W	1-1/4	4.61	3.15	N/A
C6267-24-24-6W	1-1/2	5.83	3.35	N/A
C6267-32-32-6W	2	7.52	5.31	N/A



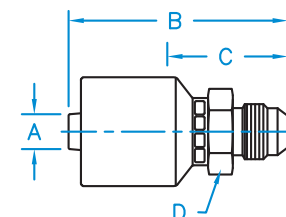
Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Fitting Hex D	Thread
MP-20-20-6W	1-1/4	2.05	46 MM	1-1/4 - 11-1/2
MP-24-24-6W	1-1/2	2.17	50 MM	1-1/2 - 11-1/2
MP-24-32-6W	1-1/2	2.32	65 MM	2 - 11-1/2
MP-32-32-6W	2	2.72	65 MM	2 - 11-1/2
MP-32-32-6W-API	2	3.76	65 MM	2 - 11-1/2



37° JIC Male Rigid

Part Number	Hose I.D. (in.) A	Cut-off C	Fitting Hex D	Thread
MJ-20-20-6W	1-1/4	2.01	46 MM	1-5/8 - 12
MJ-24-24-6W	1-1/2	2.24	50 MM	1-7/8 - 12
MJ-32-32-6W	2	3.03	65 MM	2-1/2 - 12



Hose

Braided Hose Couplings

W Style Couplings

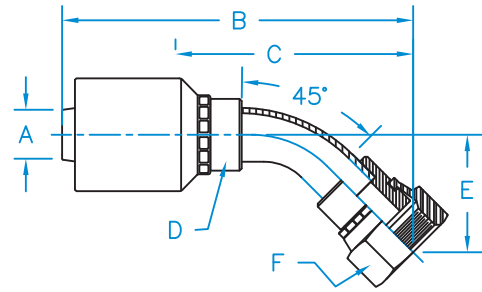
Other Couplings

Threads & Connections

Additional Products

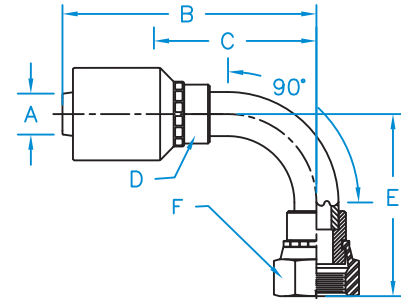
O-Ring Face Seal 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Nut Hex F	Thread
FFX45-20-20-6W	1-1/4	4.33	1.44	50 MM	1-11/16 - 12
FFX45-24-24-6W	1-1/2	4.57	1.46	60 MM	2 - 12



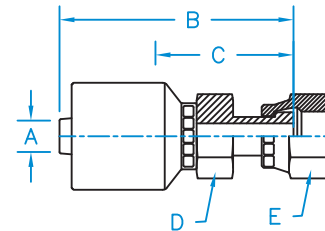
O-Ring Face Seal 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	Cut-off C	Drop E	Nut Hex F	Thread
FFX90-20-20-6W	1-1/4	4.02	3.19	50 MM	1-11/16 - 12
FFX90-24-24-6W	1-1/2	5.12	3.80	60 MM	2 - 12



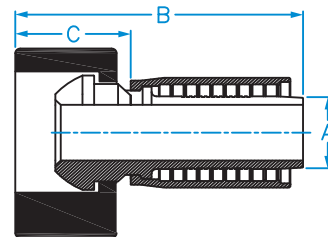
O-Ring Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	Cut-off C	Fitting Hex D	Nut Hex E	Thread
FFX-20-20-6W	1-1/4	2.20	41 MM	50 MM	1-11/16 - 12
FFX-24-24-6W	1-1/2	2.44	50 MM	60 MM	2 - 12



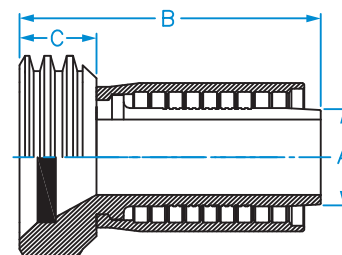
Male Hammer Union (Fig. 1502) with Lug Nut

Part Number	Hose I.D. (in.) A	OAL B	Cut-off C
MHU-32-32-6W	2	7.30	2.36



Female Hammer Union (Fig. 1502) Integral fitting with Rubber Ring

Part Number	Hose I.D. (in.) A	OAL B	Cut-off C
FHU-32-32-6W	2	7.17	2.22



W Style Couplings

KURT
HYDRAULICS

W style couplings can be used on:

- 1 wire braided hose (R1, R17)
- 2 wire braided hose (R2, R16, R17, KT)
- All size R12 non-skive (6-32)
- 4SH non-skive (12-24)
- Industrial hose
- Compatible with many crimp systems

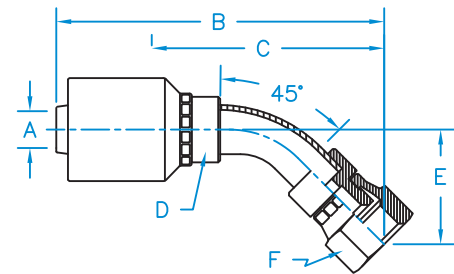


W Style Couplings



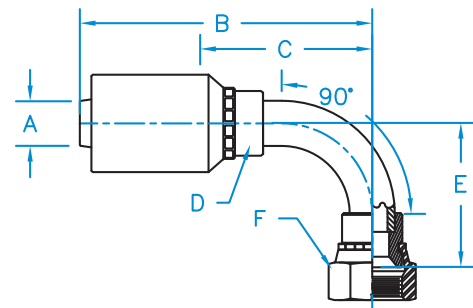
37° JIC Female 45° Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-04-04-W	1/4	2.86	1.80	9/16	0.39	9/16	7/16 - 20
FJX45-04-05-W	1/4	2.89	1.83	5/8	0.39	5/8	1/2 - 20
FJX45-04-06-W	1/4	2.93	1.87	11/16	0.43	11/16	9/16 - 18
FJX45-06-04-W	3/8	3.19	1.82	11/16	0.39	9/16	7/16 - 20
FJX45-06-05-W	3/8	3.22	1.85	11/16	0.39	5/8	1/2 - 20
FJX45-06-06-W	3/8	3.26	1.89	11/16	0.43	11/16	9/16 - 18
FJX45-06-08-W	3/8	2.82	1.59	7/8	0.71	7/8	3/4 - 16
FJX45-08-06-W	1/2	3.28	1.94	3/4	0.43	11/16	9/16 - 18
FJX45-08-08-W	1/2	3.65	2.31	7/8	0.59	7/8	3/4 - 16
FJX45-08-10-W	1/2	3.30	1.96	1	0.63	1	7/8 - 14
FJX45-08-12-W	1/2	3.56	2.22	1	0.83	1-1/4	1-1/16 - 12
FJX45-10-10-W	5/8	4.36	2.26	1	0.63	1	7/8 - 14
FJX45-10-12-W	5/8	4.21	2.11	1-1/4	0.83	1-1/4	1-1/16 - 12
FJX45-12-10-W	3/4	4.16	2.28	1-1/8	0.63	1	7/8 - 14
FJX45-12-12-W	3/4	4.82	3.05	1-1/4	1.15	1-1/4	1-1/16 - 12
FJX45-12-16-W	3/4	5.00	3.12	1-1/2	1.23	1-1/2	1-5/16 - 12
FJX45-16-12-W	1	5.25	3.13	1-5/16	1.15	1-1/4	1-1/16 - 12
FJX45-16-16-W	1	5.14	3.03	1-1/2	1.23	1-1/2	1-5/16 - 12
FJX45-16-20 W	1	5.32	3.21	2	1.41	2	1-5/8 - 12
FJX45-20-20-W	1-1/4	6.53	3.99	2	1.47	2	1-5/8 - 12
FJX45-20-24-W	1-1/4	6.57	4.03	2-1/4	1.50	2-1/4	1-7/8 - 12
FJX45-24-24-W	1-1/2	7.51	4.91	2-1/4	1.84	2-1/4	1-7/8 - 12
FJX45-32-32-W	2	9.49	6.18	2-7/8	3.21	2-7/8	2-1/2 - 12



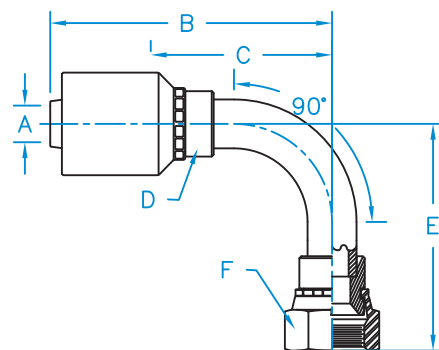
37° JIC Female 90° Long Drop Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90L-04-04-W	1/4	2.70	1.64	5/8	1.82	9/16	7/16 - 20
FJX90L-04-06-W	1/4	2.87	1.81	5/8	2.13	11/16	9/16 - 18
FJX90L-06-04-W	3/8	3.03	1.66	11/16	1.82	9/16	7/16 - 20
FJX90L-06-06-W	3/8	3.17	1.80	11/16	2.13	11/16	9/16 - 18
FJX90L-06-08-W	3/8	3.47	2.10	3/4	2.52	7/8	3/4 - 16
FJX90L-08-08-W	1/2	3.49	2.16	7/8	2.52	7/8	3/4 - 16
FJX90L-08-10-W	1/2	3.24	1.90	7/8	2.76	1	7/8 - 14
FJX90L-10-10-W	5/8	4.28	2.18	1	2.65	1-1/4	7/8 - 14
FJX90L-12-12-W	3/4	4.58	2.71	1	3.78	1-1/4	1-1/16 - 12
FJX90L-16-16-W	1	5.22	3.11	1-5/16	4.49	1-1/2	1-5/16 - 12



37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-04-04-W	1/4	2.70	1.64	9/16	0.83	9/16	7/16 – 20
FJX90-04-05-W	1/4	2.79	1.73	5/8	0.83	5/8	1/2 – 20
FJX90-04-06-W	1/4	2.84	1.78	11/16	0.91	11/16	9/16 – 18
FJX90-06-04-W	3/8	3.03	1.66	9/16	0.83	9/16	7/16 – 20
FJX90-06-05-W	3/8	3.12	1.75	11/16	0.83	5/8	1/2 – 20
FJX90-06-06-W	3/8	3.17	1.80	11/16	0.91	11/16	9/16 – 18
FJX90-06-08-W	3/8	3.42	2.04	7/8	1.12	7/8	3/4 – 16
FJX90-08-06-W	1/2	3.19	1.85	7/8	0.91	11/16	9/16 – 18
FJX90-08-08-W	1/2	3.49	2.15	1	1.13	7/8	3/4 – 16
FJX90-08-10-W	1/2	2.29	1.65	1-1/4	1.23	1	7/8 – 14
FJX90-08-12-W	1/2	3.50	2.16	1-1/2	1.83	1-1/4	1-1/16 – 12
FJX90-10-10-W	5/8	3.82	1.72	2	1.23	1	7/8 – 14
FJX90-10-12-W	5/8	4.286	2.17	2	1.83	1-1/4	1-1/16 – 12
FJX90-12-10-W	3/4	3.62	1.74	1-1/8	1.23	1	7/8 – 14
FJX90-12-12-W	3/4	4.51	2.73	2-1/4	2.57	1-1/4	1-1/16 – 12
FJX90-12-16-W	3/4	4.73	2.94	2-1/4	2.78	1-1/2	1-5/16 – 12
FJX90-16-16-W	1	5.16	3.05	2-7/8	2.80	1-1/2	1-5/16 – 12
FJX90-16-20-W	1	5.16	3.05	2	2.80	2	1-5/8 – 12
FJX90-20-20-W	1-1/4	6.35	3.90	2	3.24	2	1-5/8 – 12
FJX90-20-24-W	1-1/4	6.44	3.90	2-1/4	3.24	2-1/4	1-7/8 – 12
FJX90-24-24-W	1-1/2	6.74	4.14	2-1/4	3.94	2-1/4	1-7/8 – 12
FJX90-32-32-W	2	8.31	5.01	2-7/8	6.16	2-7/8	2-1/2 – 12
FJX90M-04-04-W	1/4	2.70	1.64	9/16	1.26	9/16	7/16 – 20
FJX90M-06-06-W	3/8	3.17	1.80	11/16	1.50	11/16	9/16 – 18
FJX90M-08-08-W	1/2	3.49	2.15	7/8	1.61	7/8	3/4 – 16
FJX90M-10-10-W	5/8	3.98	1.88	1	1.85	1	7/8 – 14
FJX90M-12-12-W	3/4	4.07	2.19	1	2.28	1-1/4	1-1/16 – 12



Hose

Braided Hose Couplings

W Style Couplings

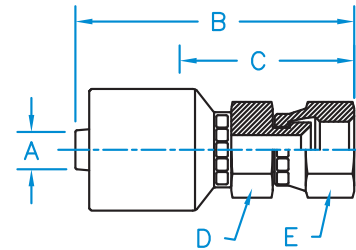
Other Couplings

Threads & Connections

Additional Products

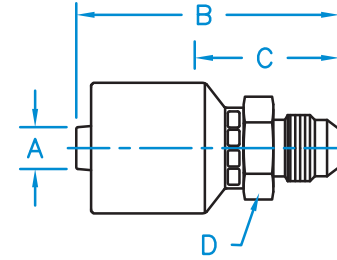
37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-04-03-W	1/4	2.01	0.95	9/16	9/16	3/8 - 24
FJX-04-04-W	1/4	2.08	1.02	9/16	9/16	7/16 - 20
FJX-04-05-W	1/4	2.22	1.16	9/16	5/8	1/2 - 20
FJX-04-06-W	1/4	2.17	1.09	9/16	11/16	9/16 - 18
FJX-04-08-W	1/4	2.35	1.29	11/16	7/8	3/4 - 16
FJX-06-04-W	3/8	2.41	1.04	11/16	9/16	7/16 - 20
FJX-06-05-W	3/8	2.41	1.04	11/16	5/8	1/2 - 20
FJX-06-06-W	3/8	2.50	0.72	3/4	3/4	9/16 - 18
FJX-06-08-W	3/8	2.47	1.24	3/4	7/8	3/4 - 16
FJX-06-10-W	3/8	2.80	1.43	7/8	1	7/8 - 14
FJX-08-06-W	1/2	2.52	1.18	11/16	11/16	9/16 - 18
FJX-08-08-W	1/2	2.64	1.30	7/8	7/8	3/4 - 16
FJX-08-10-W	1/2	2.80	1.46	7/8	1	7/8 - 14
FJX-08-12-W	1/2	2.90	1.56	1	1-1/4	1-1/16 - 12
FJX-10-06-W	5/8	3.43	1.33	1	11/16	9/16 - 18
FJX-10-08-W	5/8	3.51	1.41	7/8	7/8	3/4 - 16
FJX-10-10-W	5/8	3.38	1.52	7/8	1	7/8 - 14
FJX-10-12-W	5/8	3.76	1.66	1-1/16	1-1/4	1-1/16 - 12
FJX-12-08-W	3/4	3.29	1.42	1	7/8	3/4 - 16
FJX-12-10-W	3/4	3.28	1.49	1-1/16	1-1/16	7/8 - 14
FJX-12-12-W	3/4	3.38	1.59	1-1/16	1-1/4	1-1/16 - 12
FJX-12-14-W	3/4	3.38	1.59	1-1/16	1-1/2	1-3/16 - 12
FJX-12-16-W	3/4	3.45	1.66	1-3/8	1-1/2	1-5/16 - 12
FJX-16-12-W	1	3.39	1.60	1-3/8	1-1/4	1-1/16 - 12
FJX-16-14-W	1	3.84	1.72	1-1/4	1-1/2	1-3/16 - 12
FJX-16-16-W	1	3.78	1.67	1-3/8	1-1/2	1-5/16 - 12
FJX-16-20-W	1	4.02	1.90	1-11/16	2	1-5/8 - 12
FJX-20-16-W	1-1/4	4.29	1.75	1-3/4	1-1/2	1-5/16 - 12
FJX-20-20-W	1-1/4	4.37	1.92	1-11/16	2	1-5/8 - 12
FJX-20-24-W	1-1/4	4.54	2.09	2	2-1/4	1-7/8 - 12
FJX-24-24-W	1-1/2	4.76	2.16	2	2-1/4	1-7/8 - 12
FJX-32-32-W	2	5.95	2.70	2-1/2	2-7/8	2-1/2 - 12



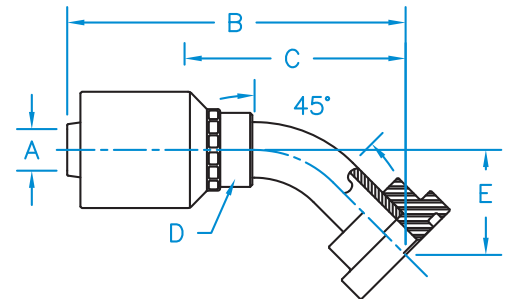
37° JIC Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MJ-04-04-W	1/4	2.02	0.94	9/16	7/16 - 20
MJ-04-05-W	1/4	2.03	0.92	9/16	1/2 - 20
MJ-04-06-W	1/4	2.03	0.95	9/16	9/16 - 18
MJ-06-05-W	3/8	2.36	0.99	11/16	1/2 - 20
MJ-06-06-W	3/8	2.12	0.99	3/4	9/16 - 18
MJ-06-08-W	3/8	2.38	1.15	3/4	3/4 - 16
MJ-06-10-W	3/8	2.72	1.35	1	7/8 - 14
MJ-08-06-W	1/2	2.39	1.05	11/16	9/16 - 18
MJ-08-08-W	1/2	2.57	1.23	7/8	3/4 - 16
MJ-08-10-W	1/2	2.72	1.38	7/8	7/8 - 14
MJ-08-12-W	1/2	2.85	1.51	1-1/8	1-1/16 - 12
MJ-10-10-W	5/8	3.58	1.48	7/8	7/8 - 14
MJ-10-12-W	5/8	3.68	1.58	1-1/8	1-1/16 - 12
MJ-12-10-W	3/4	3.30	1.42	1-1/8	7/8 - 14
MJ-12-12-W	3/4	3.34	1.55	1-1/8	1-1/16 - 12
MJ-12-14-W	3/4	3.41	1.53	1-1/4	1-3/16 - 12
MJ-12-16-W	3/4	3.37	1.58	1-3/8	1-5/16 - 12
MJ-16-16-W	1	3.93	1.81	1-3/8	1-5/16 - 12
MJ-16-20-W	1	3.81	1.69	1-11/16	1-5/8 - 12
MJ-20-20-W	1-1/4	4.40	1.65	1-11/16	1-5/8 - 12
MJ-20-24-W	1-1/4	4.38	1.93	2	1-7/8 - 12
MJ-24-24-W	1-1/2	4.60	2.00	2-1/4	1-7/8 - 12
MJ-32-32-W	2	5.90	2.65	2-5/8	2-1/2 - 12



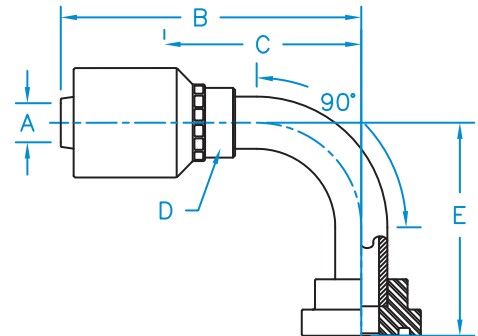
Cat Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT45-12-12-W	3/4	4.73	2.94	1	1.36	N/A
CAT45-12-16-W	3/4	4.66	2.87	1	1.29	N/A
CAT45-16-16-W	1	5.20	3.08	1-5/16	1.43	N/A
CAT45-16-20-W	1	5.22	3.11	1-5/16	1.44	N/A
CAT45-20-20-W	1-1/4	5.74	3.20	1-5/8	1.46	N/A
CAT45-20-24-W	1-1/4	6.04	3.50	1-5/8	1.57	N/A
CAT45-24-24-W	1-1/2	7.32	4.72	2	1.48	N/A
CAT45-32-32-W	2	9.28	5.98	2-1/2	3.02	N/A



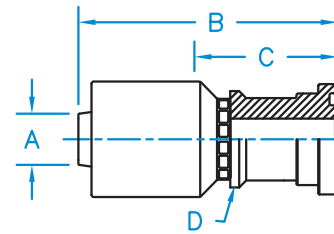
Cat Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT90-12-12-W	3/4	4.10	2.31	1	2.65	N/A
CAT90-12-16-W	3/4	4.31	2.45	1	2.82	N/A
CAT90-16-16-W	1	4.64	2.53	1-5/16	2.90	N/A
CAT90-16-20-W	1	4.77	2.66	1-5/16	2.69	N/A
CAT90-20-20-W	1-1/4	5.10	2.56	1-5/8	3.02	N/A
CAT90-20-24-W	1-1/4	6.00	3.46	1-5/8	3.29	N/A
CAT90-24-24-W	1-1/2	6.18	3.58	2	3.29	N/A
CAT90-32-32-W	2	8.30	5.00	2-1/2	5.10	N/A



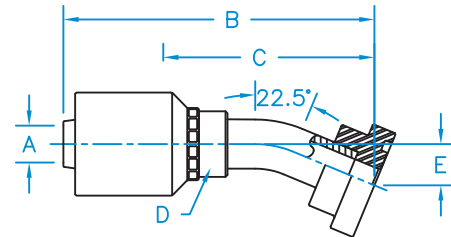
Cat Flange Straight Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
CAT-08-08-W	1/2				N/A
CAT-12-12-W	3/4	3.56	1.77	1-5/8	N/A
CAT-12-16-W	3/4	4.15	2.36	1-7/8	N/A
CAT-16-16-W	1	4.53	2.42	1-7/8	N/A
CAT-16-20-W	1	4.81	2.70	2-1/8	N/A
CAT-20-20-W	1-1/4	5.21	2.81	2-1/8	N/A
CAT-20-24-W	1-1/4	5.44	2.99	2-1/2	N/A
CAT-24-24-W	1-1/2	5.96	3.36	2-1/2	N/A
CAT-32-32-W	2	7.89	4.59	3-1/8	N/A



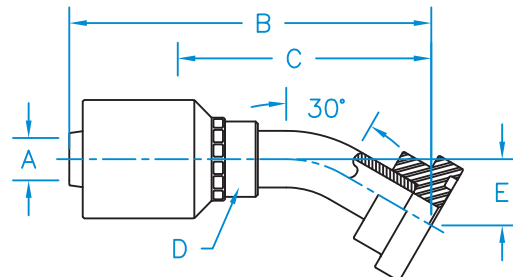
C61 - Code 61 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6122-08-08-W	1/2					N/A
C6122-12-12-W	3/4	4.59	2.71	1	0.49	N/A
C6122-12-16-W	3/4	4.59	2.71	1	0.49	N/A
C6122-16-16-W	1	4.96	2.83	1-5/16	0.55	N/A
C6122-16-20-W	1	4.96	2.83	1-5/16	0.55	N/A
C6122-20-20-W	1-1/4	5.39	2.94	1-5/8	0.55	N/A
C6122-20-24-W	1-1/4	5.53	2.99	1-5/8	0.50	N/A
C6122-24-24-W	1-1/2	6.62	4.02	2	0.70	N/A
C6122-32-32-W	2	8.14	4.84	2-1/2	0.76	N/A



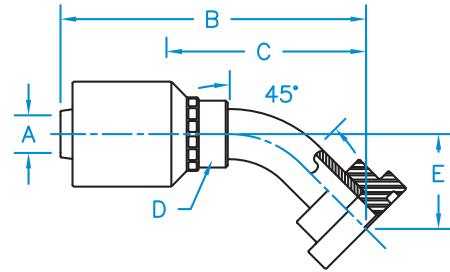
C61 - Code 61 Flange 30° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6130-12-12-W	3/4	4.77	2.89	1	0.67	N/A
C6130-12-16-W	3/4	4.77	2.89	1	0.67	N/A
C6130-16-16-W	1	4.95	2.83	1-5/16	0.60	N/A
C6130-16-20-W	1	4.94	2.81	1-5/16	0.60	N/A
C6130-20-20-W	1-1/4	5.73	3.19	1-5/8	0.72	N/A
C6130-20-24-W	1-1/4	5.71	3.26	1-5/8	0.75	N/A
C6130-24-24-W	1-1/2	6.15	3.55	2	0.88	N/A
C6130-32-32-W	2	8.43	5.13	2-1/2	1.27	N/A



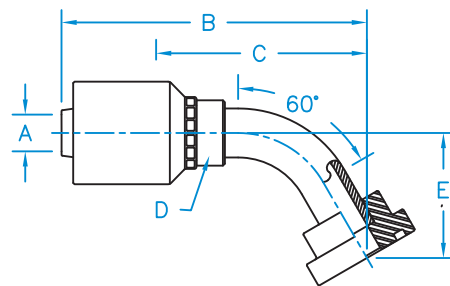
C61 - Code 61 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6145-08-08-W	1/2	3.80	2.46	7/8	0.75	N/A
C6145-08-12-W	1/2	3.58	2.24	1	0.84	N/A
C6145-12-12-W	3/4	4.54	2.75	1	0.84	N/A
C6145-12-16-W	3/4	4.54	2.75	1	0.84	N/A
C6145-12-20-W	3/4	4.62	2.74	1-5/16	0.94	N/A
C6145-16-16-W	1	4.82	2.71	1-5/16	1.13	N/A
C6145-16-20-W	1	4.86	2.74	1-5/16	0.94	N/A
C6145-16-24-W	1	5.81	3.68	1-5/8	1.30	N/A
C6145-20-20-W	1-1/4	6.19	3.65	1-5/8	1.26	N/A
C6145-20-24-W	1-1/4	6.23	3.69	1-5/8	1.30	N/A
C6145-24-24-W	1-1/2	7.05	4.45	2	1.73	N/A
C6145-24-32-W	1-1/2	6.98	4.38	2	1.35	N/A
C6145-32-32-W	2	9.00	5.70	2-1/2	2.74	N/A
C6145-32-40-W	2	9.05	5.75	2-1/2	2.77	N/A



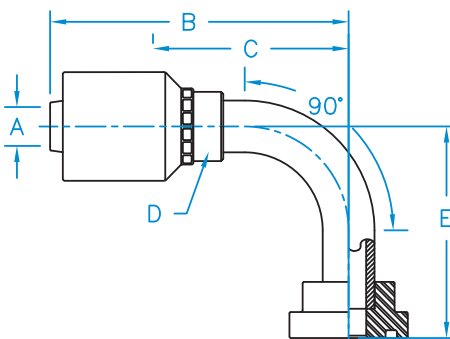
C61 - Code 61 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6160-08-12-W	1/2	4.30	2.96	1	1.41	N/A
C6160-12-12-W	3/4	4.70	2.91	1	1.41	N/A
C6160-12-16-W	3/4	4.70	2.91	1	1.41	N/A
C6160-16-16-W	1	5.35	3.22	1-5/16	1.73	N/A
C6160-16-20-W	1	5.60	3.47	1-5/16	2.16	N/A
C6160-20-20-W	1-1/4	6.45	4.00	1-5/8	1.71	N/A
C6160-20-24-W	1-1/4	6.48	4.03	1-5/8	1.77	N/A
C6160-24-24-W	1-1/2	7.42	4.82	2	2.13	N/A
C6160-32-32-W	2	8.70	5.45	2-1/2	3.07	N/A



C61 - Code 61 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190-06-08-W	3/8	3.12	1.75	3/4	1.63	N/A
C6190-08-08-W	1/2	3.14	1.80	7/8	1.63	N/A
C6190-08-12-W	1/2	3.49	2.15	1	1.56	N/A
C6190-12-12-W	3/4	4.73	2.94	1	2.37	N/A
C6190-12-16-W	3/4	4.73	2.94	1	2.38	N/A
C6190-12-20-W	3/4	4.96	3.08	1-5/16	2.80	N/A
C6190-16-12-W	1	5.14	3.01	1-5/16	2.38	N/A
C6190-16-16-W	1	5.19	3.08	1-5/16	2.80	N/A
C6190-16-20-W	1	4.80	2.69	1-5/16	2.25	N/A
C6190-16-24-W	1	5.82	3.69	1-5/8	2.74	N/A
C6190-20-16-W	1-1/4	5.73	3.19	1-5/8	2.80	N/A
C6190-20-20-W	1-1/4	6.18	3.73	1-5/8	2.68	N/A
C6190-20-24-W	1-1/4	6.38	3.93	1-5/8	2.74	N/A
C6190-24-20-W	1-1/2	6.43	3.83	2	2.68	N/A
C6190-24-24-W	1-1/2	6.74	4.14	2	3.26	N/A
C6190-24-32-W	1-1/2	6.74	4.14	2	3.26	N/A
C6190-32-32-W	2	8.30	5.00	2-1/2	5.46	N/A



Hose

Braided Hose Couplings

W Style Couplings

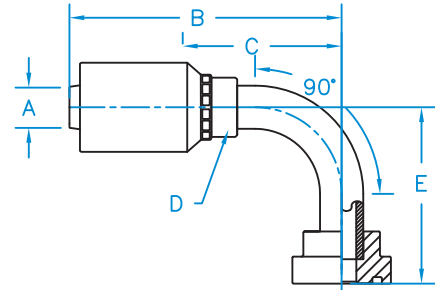
Other Couplings

Threads & Connections

Additional Products

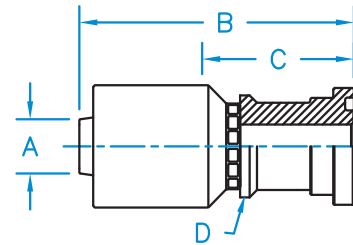
C61 - Code 61 Flange 90° Long Drop Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190L-08-12-W	1/2	3.49	2.15	1	3.75	N/A
C6190L-12-12-W	3/4	4.44	2.56	1	3.75	N/A
C6190L-12-16-W	3/4	4.96	3.08	1-5/16	4.62	N/A
C6190L-16-16-W	1	5.21	3.09	1-5/16	4.04	N/A
C6190L-16-20-W	1	5.21	3.08	1-5/16	4.62	N/A



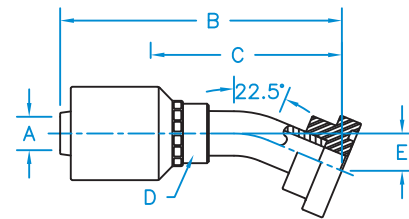
C61 - Code 61 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C61-08-08-W	1/2	3.18	1.84	1-3/16	N/A
C61-08-12-W	1/2	2.92	1.58	1-1/2	N/A
C61-12-12-W	3/4	3.40	1.61	1-1/2	N/A
C61-12-16-W	3/4	3.70	1.91	1-3/4	N/A
C61-12-20-W	3/4	3.79	1.91	1.79	N/A
C61-16-16-W	1	4.02	1.91	1-3/4	N/A
C61-16-20-W	1	4.02	1.91	2	N/A
C61-16-24-W	1	4.20	2.07	2-3/8	N/A
C61-20-20-W	1-1/4	4.40	1.95	2	N/A
C61-20-24-W	1-1/4	4.56	2.11	2-3/8	N/A
C61-24-20-W	1-1/2	4.60	2.00	2	N/A
C61-24-24-W	1-1/2	4.69	2.09	2-3/8	N/A
C61-24-32-W	1-1/2	5.30	2.70	2-13/16	N/A
C61-32-32-W	2	6.02	2.77	2-13/16	N/A



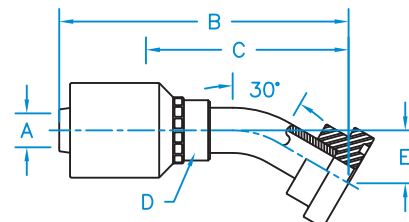
C62 - Code 62 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6222-12-12-W	3/4	4.71	2.83	1	0.54	N/A
C6222-12-16-W	3/4	4.82	3.03	1	0.59	N/A
C6222-16-16-W	1	5.19	3.06	1-5/16	0.65	N/A
C6222-16-20-W	1	5.36	3.24	1-5/16	0.72	N/A
C6222-20-20-W	1-1/4	5.89	3.35	1-5/8	0.65	N/A
C6222-20-24-W	1-1/4	5.98	3.53	1-5/8	0.72	N/A
C6222-24-24-W	1-1/2	7.02	4.42	2	0.88	N/A
C6222-32-32-W	2	8.84	5.59	2-1/2	1.12	N/A



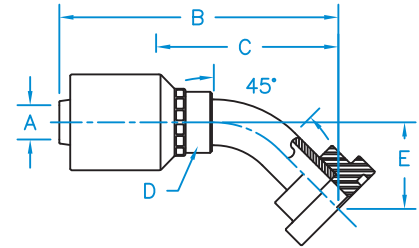
C62 - Code 62 Flange 30° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6230-12-12-W	3/4	4.77	2.89	1	0.67	N/A
C6230-12-16-W	3/4	4.89	3.10	1	0.79	N/A
C6230-16-16-W	1	5.15	3.03	1-5/16	0.72	N/A
C6230-16-20-W	1	5.33	3.21	1-5/16	0.82	N/A
C6230-20-20-W	1-1/4	6.04	3.59	1-5/8	0.94	N/A
C6230-20-24-W	1-1/4	6.20	3.75	1-5/8	1.03	N/A
C6230-24-24-W	1-1/2	6.54	3.94	2	1.10	N/A
C6230-32-32-W	2	9.17	5.92	2-1/2	1.56	N/A



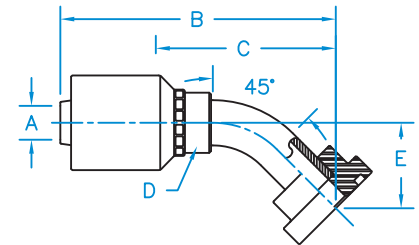
C62 - Code 62 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6245-12-12-W	3/4	4.63	2.84	1	0.93	N/A
C6245-12-16-W	3/4	4.71	2.93	1	1.02	N/A
C6245-16-16-W	1	5.38	3.26	1-5/16	1.25	N/A
C6245-16-12-W	1	5.04	2.92	1-5/16	0.93	N/A
C6245-16-20-W	1	5.51	3.40	1-5/16	1.39	N/A
C6245-20-20-W	1-1/4	6.49	3.95	1-5/8	1.48	N/A
C6245-20-24-W	1-1/4	6.62	4.08	1-5/8	1.61	N/A
C6245-24-24-W	1-1/2	7.37	4.77	2	1.72	N/A
C6245-32-32-W	2	9.53	6.23	2-1/2	3.25	N/A



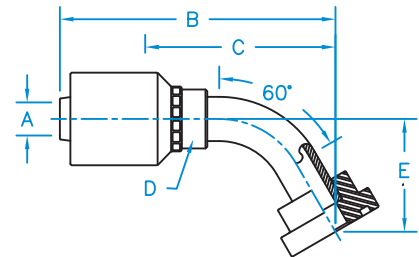
C62 - Code 62 Flange 45° Long Drop Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6245L-20-20-W	1-1/4	8.69	6.15	1-5/8	2.73	N/A



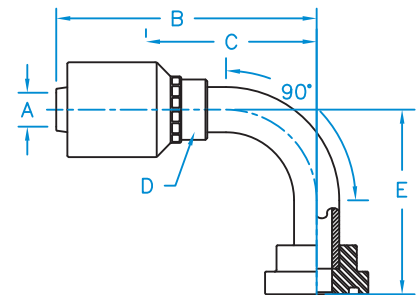
C62 - Code 62 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6260-24-32-W	1-1/2	7.50	4.90	2	3.27	N/A



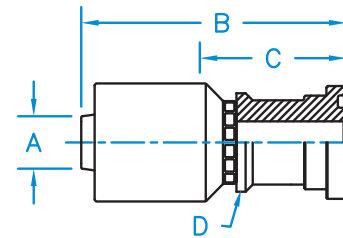
C62 - Code 62 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6290-12-12-W	3/4	4.73	2.94	1	2.51	N/A
C6290-12-16-W	3/4	4.73	2.94	1	2.62	N/A
C6290-16-16-W	1	4.80	2.69	1-5/16	2.50	N/A
C6290-16-20-W	1	4.80	2.69	1-5/16	2.69	N/A
C6290-20-16-W	1-1/4	5.34	2.80	1-5/8	2.50	N/A
C6290-20-20-W	1-1/4	6.25	3.71	1-5/8	3.12	N/A
C6290-20-24-W	1-1/4	6.25	3.71	1-5/8	3.32	N/A
C6290-24-24-W	1-1/2	6.73	4.13	2	3.71	N/A
C6290-32-32-W	2	8.31	5.01	2-1/2	5.56	N/A



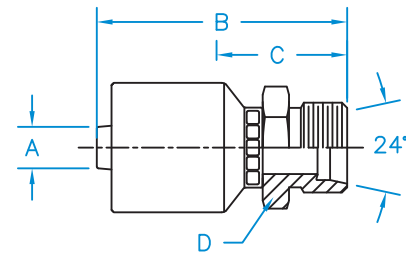
C62 - Code 62 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C62-12-08-W	3/4	3.79	2.00	1-1/4	N/A
C62-12-12-W	3/4	3.56	1.77	1-5/8	N/A
C62-12-16-W	3/4	4.15	2.36	1-7/8	N/A
C62-16-16-W	1	4.53	2.42	1-7/8	N/A
C62-16-20-W	1	4.81	2.70	2-1/8	N/A
C62-20-20-W	1-1/4	5.21	2.81	2-1/8	N/A
C62-20-24-W	1-1/4	5.44	2.99	2-1/2	N/A
C62-24-24-W	1-1/2	5.59	2.99	2-7/8	N/A
C62-32-32-W	2	6.58	3.33	3-1/8	N/A



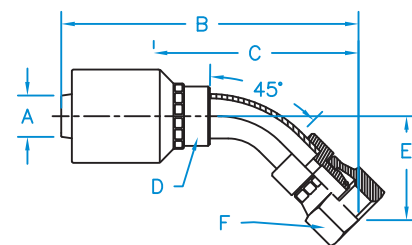
Din Heavy 24° Seat Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-DH04-08-16-W	1/4	2.10	1.04	11/16	M16 X 1.5
M-DH04-10-18-W	1/4	2.10	1.04	3/4	M18 X 1.5
M-DH06-08-16-W	3/8	2.43	1.06	11/16	M16 X 1.5
M-DH06-12-20-W	3/8	2.43	1.06	15/16	M20 X 1.5
M-DH06-14-22-W	3/8	2.52	1.15	7/8	M22 X 1.5
M-DH08-16-24-W	1/2	2.53	1.19	1	M24 X 1.5
M-DH10-20-30-W	5/8	3.44	1.34	1-3/16	M30 X 2.0
M-DH12-25-36-W	3/4	3.34	1.47	1-1/2	M36 X 2.0
M-DH16-30-42-W	1	3.68	1.55	1-11/16	M42 X 2.0
M-DH20-38-52-W	1-1/4	4.19	1.65	2-1/4	M52 X 2.0



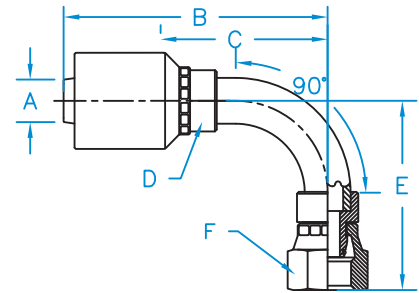
Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH4504-06-14-W	1/4			5/8		3/4	M14 X 1.5
F-DH4504-08-16-W	1/4	3.39	2.33	5/8	0.89	7/8	M16 X 1.5
F-DH4504-10-18-W	1/4	3.38	2.32	5/8	0.92	15/16	M18 X 1.5
F-DH4506-08-16-W	3/8	3.72	2.35	11/16	0.89	7/8	M16 X 1.5
F-DH4506-10-18-W	3/8	3.71	2.34	11/16	0.92	15/16	M18 X 1.5
F-DH4506-12-20-W	3/8	3.83	2.46	3/4	1.20	15/16	M20 X 1.5
F-DH4506-14-22-W	3/8	3.85	2.48	11/16	1.02	1-1/16	M22 X 1.5
F-DH4508-12-20-W	1/2	3.85	2.51	7/8	1.20	15/16	M20 X 1.5
F-DH4508-14-22-W	1/2	3.87	2.53	3/4	1.02	1-1/16	M22 X 1.5
F-DH4508-16-24-W	1/2	4.32	2.98	7/8	1.26	1-3/16	M24 X 1.5
F-DH4510-20-30-W	5/8	5.46	3.36	1	1.40	1-7/16	M30 X 2.0
F-DH4512-20-30-W	3/4	5.18	3.30	1	1.40	1-7/16	M30 X 2.0
F-DH4512-25-36-W	3/4	4.93	3.05	1	1.26	1-3/4	M36 X 2.0
F-DH4516-25-36-W	1	5.27	3.14	1-5/16	1.26	1-3/4	M36 X 2.0
F-DH4516-30-42-W	1	5.83	3.70	1-5/16	1.69	2	M42 X 2.0
F-DH4520-30-42-W	1-1/4	6.36	3.82	1-5/8	1.69	2	M42 X 2.0
F-DH4520-38-52-W	1-1/4	7.00	4.46	1-5/8	1.82	2-3/8	M52 X 2.0
F-DH4524-38-52-W	1-1/2	7.18	4.58	2	1.82	2-3/8	M52 X 2.0



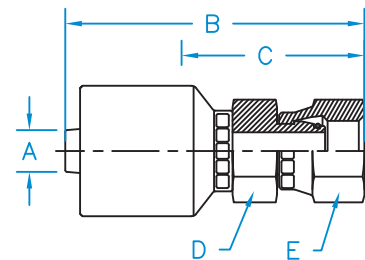
Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH9004-06-14-W	1/4			5/8		3/4	M14 X 1.5
F-DH9004-08-16-W	1/4	2.84	1.78	5/8	1.54	1-1/4	M16 X 1.5
F-DH9004-10-18-W	1/4	2.70	1.64	5/8	1.50	15/16	M18 X 1.5
F-DH9006-08-16-W	3/8	3.17	1.80	11/16	1.54	15/16	M16 X 1.5
F-DH9006-10-18-W	3/8	3.17	1.80	11/16	1.54	7/8	M18 X 1.5
F-DH9006-12-20-W	3/8	3.47	2.10	3/4	1.99	15/16	M20 X 1.5
F-DH9006-14-22-W	3/8	3.17	1.80	11/16	1.75	1-1/16	M22 X 1.5
F-DH9008-12-20-W	1/2	3.49	2.15	7/8	1.99	15/16	M20 X 1.5
F-DH9008-14-22-W	1/2	3.19	1.85	3/4	1.75	1-1/16	M22 X 1.5
F-DH9008-16-24-W	1/2	3.49	2.15	7/8	1.89	1-3/16	M24 X 1.5
F-DH9010-20-30-W	5/8	4.96	2.86	1	2.69	1-7/16	M30 X 2.0
F-DH9012-20-30-W	3/4	4.69	2.81	1	2.69	1-7/16	M30 X 2.0
F-DH9012-25-36-W	3/4	4.12	2.24	1	2.71	1-3/4	M36 X 2.0
F-DH9016-25-36-W	1	4.46	2.33	1-5/16	2.71	1-3/4	M36 X 2.0
F-DH9016-30-42-W	1	5.17	3.05	1-5/16	3.27	2	M42 X 2.0
F-DH9020-30-42-W	1-1/4	5.71	3.16	1-5/8	3.27	2	M42 X 2.0
F-DH9020-38-52-W	1-1/4	6.42	3.88	1-5/8	3.78	2-3/8	M52 X 2.0
F-DH9024-38-52-W	1-1/2	6.60	4.00	2	3.78	2-3/8	M52 X 2.0



Din Heavy 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DH04-06-14-W	1/4			11/16	3/4	M14 X 1.5
F-DH04-08-16-W	1/4	2.07	1.01	9/16	7/8	M16 X 1.5
F-DH04-10-18-W	1/4	2.08	1.02	5/8	15/16	M18 X 1.5
F-DH06-08-16-W	3/8	2.60	1.23	11/16	7/8	M16 X 1.5
F-DH06-10-18-W	3/8	2.52	1.15	11/16	15/16	M18 X 1.5
F-DH06-12-20-W	3/8	2.51	1.14	11/16	15/16	M20 X 1.5
F-DH06-14-22-W	3/8	2.65	1.28	3/4	1-1/16	M22 X 1.5
F-DH08-12-20-W	1/2	2.78	1.44	7/8	15/16	M20 X 1.5
F-DH08-14-22-W	1/2	2.69	1.34	7/8	1-1/16	M22 X 1.5
F-DH08-16-24-W	1/2	2.63	1.29	7/8	1-3/16	M24 X 1.5
F-DH10-20-30-W	5/8	3.38	1.50	1-1/4	1-7/16	M30 X 2.0
F-DH12-20-30-W	3/4	3.38	1.50	1-1/4	1-7/16	M30 X 2.0
F-DH12-25-36-W	3/4	3.36	1.48	1-1/4	1-3/4	M36 X 2.0
F-DH16-25-36-W	1	3.82	1.73	1-1/4	1-3/4	M36 X 2.0
F-DH16-30-42-W	1	3.70	1.60	1-1/2	2	M42 X 2.0
F-DH20-30-42-W	1-1/4	4.37	1.83	1-3/4	2	M42 X 2.0
F-DH20-38-52-W	1-1/4	4.14	1.60	2	2-3/8	M52 X 2.0
F-DH24-38-52-W	1-1/2	4.61	2.01	2	2-3/8	M52 X 2.0



Hose

Braided Hose Couplings

W Style Couplings

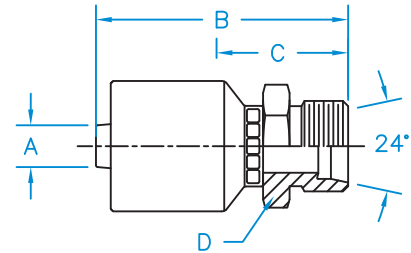
Other Couplings

Threads & Connections

Additional Products

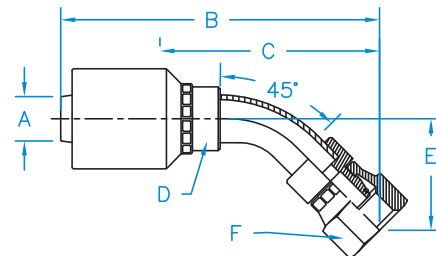
Din Light 24° Seat Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-DL04-06-12-W	1/4	1.86	0.80	5/8	M12 X 1.5
M-DL04-08-14-W	1/4	1.86	0.80	5/8	M14 X 1.5
M-DL04-10-16-W	1/4	2.10	1.04	11/16	M16 X 1.5
M-DL06-10-16-W	3/8	2.43	1.06	11/16	M16 X 1.5
M-DL06-12-18-W	3/8	2.39	1.02	3/4	M18 X 1.5
M-DL06-15-22-W	3/8	2.43	1.06	7/8	M22 X 1.5
M-DL08-12-18-W	1/2	2.42	1.08	7/8	M18 X 1.5
M-DL08-15-22-W	1/2	2.45	1.11	7/8	M22 X 1.5
M-DL10-18-26-W	5/8	3.25	1.15	1-1/16	M26 X 1.5
M-DL12-18-26-W	3/4	2.99	1.11	1-1/16	M26 X 1.5
M-DL12-22-30-W	3/4	3.10	1.22	1-3/16	M30 X 2.0
M-DL16-28-36-W	1	3.44	1.32	1-1/2	M36 X 2.0



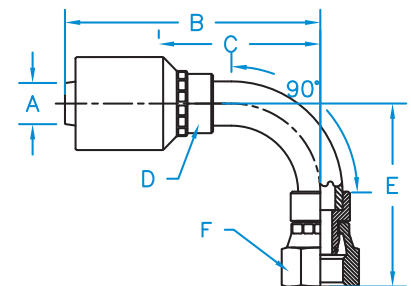
Din Light 24° Seat 45° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DL4504-06-12-W	1/4	3.38	2.32	5/8	0.92	3/4	M12 X 1.5
F-DL4504-08-14-W	1/4	3.37	2.31	5/8	0.91	3/4	M14 X 1.5
F-DL4504-10-16-W	1/4	3.60	2.54	5/8	1.10	7/8	M16 X 1.5
F-DL4506-10-16-W	3/8	3.93	2.56	11/16	1.10	7/8	M16 X 1.5
F-DL4506-12-18-W	3/8	3.82	2.59	3/4	1.13	15/16	M18 X 1.5
F-DL4508-15-22-W	1/2	4.28	2.94	7/8	1.22	1-1/16	M22 X 1.5
F-DL4510-18-26-W	5/8	4.88	2.78	1	1.28	1-1/4	M26 X 1.5
F-DL4512-18-26-W	3/4	4.68	2.80	1	1.28	1-1/4	M26 X 1.5
F-DL4512-22-30-W	3/4	4.82	2.94	1	1.42	1-7/16	M30 X 2.0
F-DL4516-28-36-W	1	5.81	3.68	1-5/16	1.66	1-3/4	M36 X 2.0
F-DL4520-35-45-W	1-1/4	7.01	4.47	1-5/8	1.77	2	M45 X 2.0



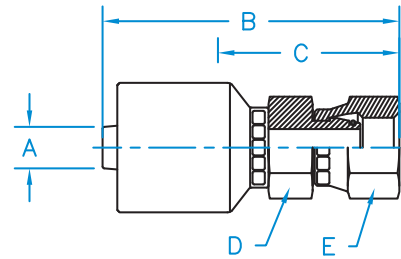
Din Light 24° Seat 90° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DL9004-08-14-W	1/4	2.70	1.64	5/8	1.54	3/4	M14 X 1.5
F-DL9004-10-16-W	1/4	2.84	1.78	5/8	1.63	7/8	M16 X 1.5
F-DL9006-10-16-W	3/8	3.17	1.80	11/16	1.63	7/8	M16 X 1.5
F-DL9006-12-18-W	3/8	2.98	1.60	3/4	1.86	15/16	M18 X 1.5
F-DL9008-15-22-W	1/2	3.49	2.15	7/8	2.26	1-1/16	M22 X 1.5
F-DL9008-18-26-W	1/2	3.49	2.15	7/8	2.37	1-1/4	M26 X 1.5
F-DL9010-18-26-W	5/8	4.61	2.51	1	2.55	1-1/4	M26 X 1.5
F-DL9012-18-26-W	3/4	4.34	2.47	1	2.55	1-1/4	M26 X 1.5
F-DL9012-22-30-W	3/4	4.69	2.81	1	2.67	1-7/16	M30 X 2.0
F-DL9012-28-36-W	3/4	4.77	2.89	1-5/16	3.13	1-3/4	M36 X 2.0
F-DL9016-28-36-W	1	5.02	2.89	1-5/16	3.13	1-3/4	M36 X 2.0
F-DL9020-35-45-W	1-1/4	6.44	3.90	1-5/8	3.68	2	M45 X 2.0



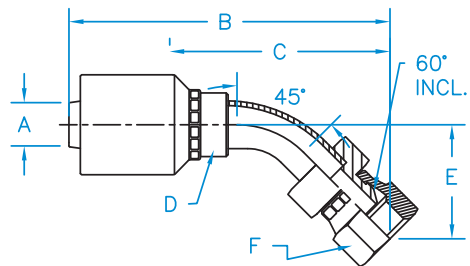
Din Light 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DL04-06-12-W	1/4	2.18	1.12	11/16	3/4	M12 X 1.5
F-DL04-08-14-W	1/4	2.30	1.24	9/16	3/4	M14 X 1.5
F-DL04-10-16-W	1/4	2.23	1.17	11/16	7/8	M16 X 1.5
F-DL06-10-16-W	3/8	2.56	1.19	3/4	7/8	M16 X 1.5
F-DL06-12-18-W	3/8	2.60	1.23	3/4	15/16	M18 X 1.5
F-DL06-15-22-W	3/8	2.71	1.34	3/4	1-1/16	M22 X 1.5
F-DL08-15-22-W	1/2	2.80	1.46	7/8	1-1/16	M22 X 1.5
F-DL08-18-26-W	1/2	3.78	1.68	1-1/8	1-1/4	M26 X 1.5
F-DL10-18-26-W	5/8	3.63	1.53	1	1-1/4	M26 X 1.5
F-DL12-18-26-W	3/4	3.44	1.56	1-1/8	1-1/4	M26 X 1.5
F-DL12-22-30-W	3/4	3.57	1.70	1-3/16	1-7/16	M30 X 2.0
F-DL16-28-36-W	1	3.86	1.76	1-1/2	1-3/4	M36 X 2.0
F-DL20-35-45-W	1-1/4	4.22	1.82	1-11/16	2	M45 X 2.0
F-DL24-42-52-W	1-1/2				2-3/8	M52 X 2.0



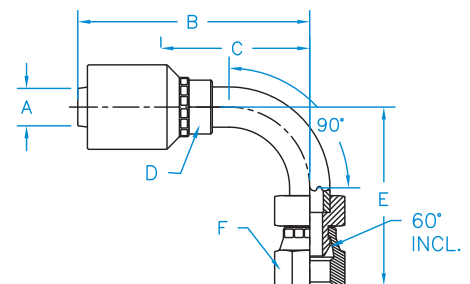
Female British Pipe 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX45-04-04-W	1/4	3.17	2.11	5/8	0.75	3/4	1/4 - 19
F-BSPX45-04-06-W	1/4	3.45	2.39	5/8	0.95	7/8	3/8 - 19
F-BSPX45-06-06-W	3/8	2.64	1.41	3/4	0.59	7/8	3/8 - 19
F-BSPX45-06-08-W	3/8	4.10	2.73	3/4	1	1	1/2 - 14
F-BSPX45-08-08-W	1/2	3.36	2.02	7/8	0.71	1	1/2 - 14
F-BSPX45-10-10-W	5/8	4.76	2.66	1	1.10	1-1/8	5/8 - 14
F-BSPX45-12-12-W	3/4	4.51	2.72	1	1.18	1-1/4	3/4 - 14
F-BSPX45-16-16-W	1	5.35	3.24	1-5/16	1.36	1-1/2	1 - 11
F-BSPX45-20-20-W	1-1/4	6.87	4.33	1-5/8	1.94	2	1-1/4 - 11
F-BSPX45-24-24-W	1-1/2	7.80	5.20	2	2.14	2-3/8	1-1/2 - 11



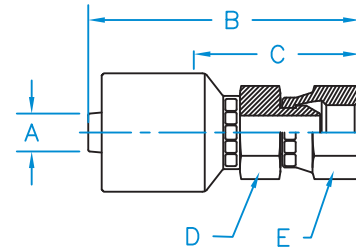
Female British Pipe 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX90-04-04-W	1/4	2.70	1.64	5/8	1.33	3/4	1/4 - 19
F-BSPX90-04-06-W	1/4	2.84	1.78	5/8	1.79	3/4	3/8 - 19
F-BSPX90-06-06-W	3/8	3.17	1.80	3/4	1.79	7/8	3/8 - 19
F-BSPX90-06-08-W	3/8	3.47	2.10	3/4	1.95	1	1/2 - 14
F-BSPX90-08-08-W	1/2	3.49	2.15	7/8	1.95	1	1/2 - 14
F-BSPX90-08-10-W	1/2	2.77	1.43	7/8	2.10	1-1/8	5/8 - 14
F-BSPX90-10-10-W	5/8	3.82	1.72	1	2.34	1-1/8	5/8 - 14
F-BSPX90-10-12-W	5/8	4.31	2.21	1	2.31	1-1/4	3/4 - 14
F-BSPX90-12-12-W	3/4	4.05	2.26	1	2.47	1-1/4	3/4 - 14
F-BSPX90-16-16-W	1	4.80	2.69	1-5/16	2.89	1-1/2	1 - 11
F-BSPX90-20-20-W	1-1/4	6.26	3.72	1-5/8	3.64	2	1-1/4 - 11



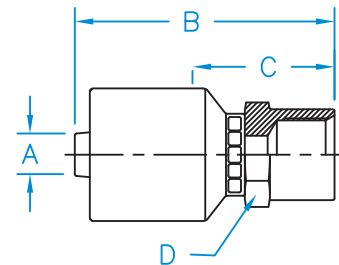
Female British Pipe Straight

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-BSPX-04-02-W	1/4	2.03	0.97	9/16	9/16	1/8 - 28
F-BSPX-04-04-W	1/4	2.06	0.98	9/16	3/4	1/4 - 19
F-BSPX-04-06-W	1/4	2.16	1.10	5/8	7/8	3/8 - 19
F-BSPX-06-04-W	3/8	2.54	1.17	11/16	3/4	1/4 - 19
F-BSPX-06-06-W	3/8	2.33	1.10	3/4	7/8	3/8 - 19
F-BSPX-06-08-W	3/8	2.65	1.28	3/4	1	1/2 - 14
F-BSPX-08-06-W	1/2	2.68	1.34	7/8	7/8	3/8 - 19
F-BSPX-08-08-W	1/2	2.66	1.32	7/8	1	1/2 - 14
F-BSPX-08-10-W	1/2	2.94	1.60	7/8	1-1/8	5/8 - 14
F-BSPX-10-08-W	5/8	3.60	1.50	1	1	1/2 - 14
F-BSPX-10-10-W	5/8	3.66	1.56	1	1-1/8	5/8 - 14
F-BSPX-10-12-W	5/8	3.80	1.70	1	1-1/4	3/4 - 14
F-BSPX-12-12-W	3/4	3.40	1.61	1-1/8	1-1/4	3/4 - 14
F-BSPX-12-16-W	3/4	3.52	1.64	1-1/4	1-1/2	1 - 11
F-BSPX-16-16-W	1	3.72	1.61	1-3/8	1-1/2	1 - 11
F-BSPX-20-20-W	1-1/4	4.39	1.94	1-3/4	2	1-1/4 - 11
F-BSPX-24-24-W	1-1/2	4.85	2.25	2-1/4	2-3/8	1-1/2 - 11



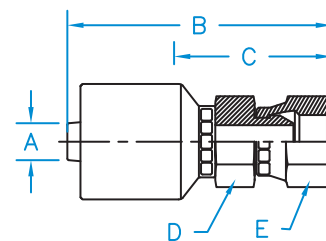
FP - NPTF Female Pipe Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
FP-04-02-W	1/4	1.98	0.92	5/8	1/8 - 27
FP-04-04-W	1/4	2.06	1.00	11/16	1/4 - 18
FP-04-06-W	1/4	2.16	1.10	7/8	3/8 - 18
FP-06-04-W	3/8	2.49	1.12	11/16	1/4 - 18
FP-06-06-W	3/8	2.34	1.11	7/8	3/8 - 18
FP-06-08-W	3/8	2.64	1.27	1	1/2 - 14
FP-08-06-W	1/2	2.51	1.21	7/8	3/8 - 18
FP-08-08-W	1/2	2.67	1.33	1	1/2 - 14
FP-12-08-W	3/4	3.30	1.42	1-1/4	1/2 - 14
FP-12-12-W	3/4	3.33	1.45	1-1/4	3/4 - 14
FP-16-16-W	1	3.77	1.66	1-1/2	1 - 11-1/2



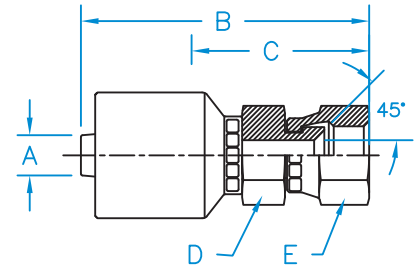
FPX - NPTF Female Pipe Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FPX-04-02-W	1/4	2.01	0.95	9/16	9/16	1/8 - 27
FPX-04-04-W	1/4	1.90	1.00	9/16	3/4	1/4 - 18
FPX-04-06-W	1/4	2.08	1.02	5/8	7/8	3/8 - 18
FPX-06-04-W	3/8	2.51	1.14	11/16	3/4	1/4 - 18
FPX-06-06-W	3/8	2.06	1.00	11/16	7/8	3/8 - 18
FPX-06-08-W	3/8	2.59	1.22	3/4	1	1/2 - 14
FPX-08-08-W	1/2	2.16	1.10	7/8	1	1/2 - 14
FPX-08-12-W	1/2	2.93	1.59	1	1-1/4	3/4 - 14
FPX-12-12-W	3/4	2.34	1.11	7/8	1-1/4	3/4 - 14
FPX-16-16-W	1	3.42	1.61	1-3/8	1-1/2	1 - 11-1/2
FPX-20-20-W	1-1/4	4.50	1.96	1-3/4	2	1-1/4 - 11-1/2



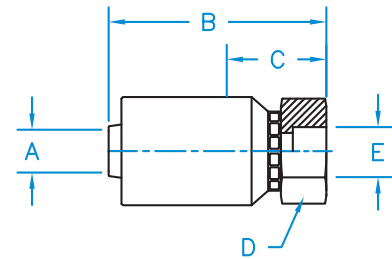
FSX - 45° SAE Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FSX-04-06-W	1/4	2.32	1.26	5/8	3/4	5/8 - 18
FSX-06-06-W	3/8	2.65	1.28	11/16	3/4	5/8 - 18
FSX-12-12-W	3/4	3.44	1.56	1-1/8	1-1/4	1-1/16 - 14



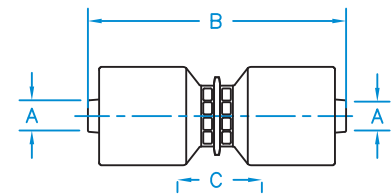
FW - Female Weld Fitting Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FW-04-04-W	1/4	1.60	0.54	5/8	0.25	N/A
FW-04-05-W	1/4	1.60	0.54	5/8	0.31	N/A
FW-04-06-W	1/4	1.6	0.54	5/8	0.37	N/A
FW-06-06-W	3/8	1.93	0.56	11/16	0.38	N/A
FW-06-08-W	3/8	1.93	0.56	3/4	0.50	N/A
FW-08-08-W	1/2	1.95	0.61	7/8	0.50	N/A
FW-08-10-W	1/2	1.95	0.61	7/8	0.62	N/A
FW-10-10-W	5/8	2.78	0.68	1	0.62	N/A
FW-10-12-W	5/8	2.78	0.68	1	0.75	N/A
FW-12-12-W	3/4	2.50	0.71	1	3/4	N/A
FW-16-16-W	1	2.92	0.79	1-5/16	1	N/A
FW-16-20-W	1	3.01	0.89	1-5/8	1.26	N/A
FW-24-24-W	1-1/2	3.63	1.03	2	1.51	N/A



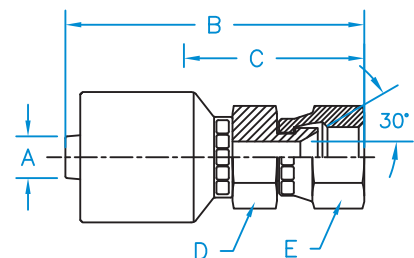
Hose Mender

Part Number	Hose I.D. (in.) A	B	C	Thread
MENDER-04-W	1/4	2.89	0.74	N/A
MENDER-06-W	3/8	3.52	0.78	N/A
MENDER-08-W	1/2	3.56	0.88	N/A
MENDER-12-W	3/4	4.73	0.98	N/A
MENDER-16-W	1	5.32	1.09	N/A



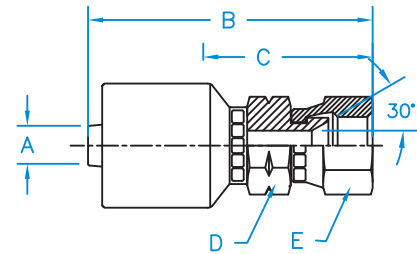
JIS 30° Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-JISX-04-04-W	1/4	2.20	1.12	9/16	3/4	1/4 - 19
F-JISX-06-06-W	3/8	2.62	1.25	11/16	7/8	3/8 - 19
F-JISX-06-08-W	3/8	2.62	1.25	3/4	1	1/2 - 14
F-JISX-08-08-W	1/2	2.62	1.28	7/8	1	1/2 - 14
F-JISX-10-10-W	5/8	3.69	1.59	1-1/8	1-1/4	5/8 - 14
F-JISX-10-12-W	5/8	3.81	1.71	1-1/16	1-1/4	3/4 - 14
F-JISX-12-12-W	3/4	3.52	1.64	1-1/8	1-1/4	3/4 - 14
F-JISX-16-16-W	1	3.74	1.63	1-3/8	1-1/2	1 - 11
F-JISX-20-20-W	1-1/4	4.49	1.95	1-3/4	2	1-1/4 - 11



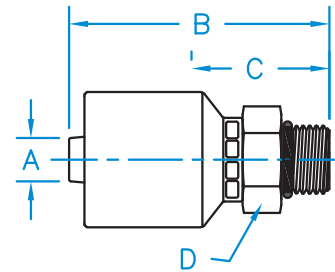
Komatsu JIS 30° Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-KOMX-04-14-W	1/4	2.27	1.21	9/16	3/4	M14 X 1.5
F-KOMX-06-14-W	3/8	2.48	1.11	11/16	3/4	M14 X 1.5
F-KOMX-06-18-W	3/8	2.52	1.15	11/16	15/16	M18 X 1.5
F-KOMX-08-22-W	1/2	2.63	1.29	7/8	1-1/16	M22 X 1.5
F-KOMX-08-24-W	1/2	2.62	1.28	7/8	1-1/4	M24 X 1.5
F-KOMX-10-24-W	5/8	3.45	1.35	7/8	1-1/4	M24 X 1.5
F-KOMX-12-30-W	3/4	3.62	1.74	1-1/8	1-1/2	M30 X 1.5
F-KOMX-16-33-W	1	4.10	1.97	1-3/8	1-5/8	M33 X 1.5
F-KOMX-20-36-W	1-1/4					M36 X 2.0



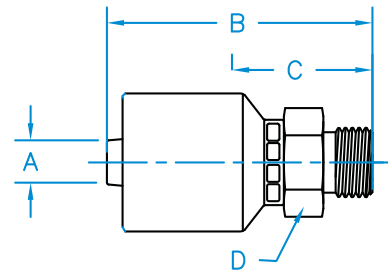
Male Boss O-Ring Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MB-04-04-W	1/4	1.83	0.74	5/8	7/16 - 20
MB-04-05-W	1/4	1.81	0.75	5/8	1/2 - 20
MB-04-06-W	1/4	1.95	0.89	11/16	9/16 - 18
MB-04-08-W	1/4	2.06	1.00	7/8	3/4 - 16
MB-06-06-W	3/8	2.12	0.89	11/16	9/16 - 18
MB-06-08-W	3/8	2.17	0.94	7/8	3/4 - 16
MB-06-10-W	3/8	2.46	1.09	1	7/8 - 14
MB-08-06-W	1/2	2.30	0.99	11/16	9/16 - 18
MB-08-08-W	1/2	2.35	1.01	7/8	3/4 - 16
MB-08-10-W	1/2	2.48	1.14	1-1/16	7/8 - 14
MB-08-12-W	1/2	2.56	1.22	1-1/4	1-1/16 - 12
MB-10-10-W	5/8	3.31	1.21	1-1/16	7/8 - 14
MB-10-12-W	5/8	3.39	1.29	1-1/4	1-1/16 - 12
MB-12-10-W	3/4	3.05	1.17	1-1/8	7/8 - 14
MB-12-12-W	3/4	2.05	1.26	1-1/4	1-1/16 - 12
MB-12-14-W	3/4	3.14	1.26	1-1/4	1-3/16 - 12
MB-12-16-W	3/4	3.05	1.26	1-1/2	1-5/16 - 12
MB-16-12-W	1	3.39	1.29	1-1/4	1-1/16 - 12
MB-16-16-W	1	3.38	1.27	1-1/2	1-5/16 - 12
MB-16-20-W	1	3.57	1.46	1-7/8	1-5/8 - 12
MB-20-20-W	1-1/4	4.07	1.62	1-7/8	1-5/8 - 12
MB-20-24-W	1-1/4	3.94	1.49	1-1/8	1-7/8 - 12
MB-24-24-W	1-1/2	4.31	1.71	1-1/4	1-7/8 - 12
MB-32-32-W	2	5.16	1.91	2-3/4	2-1/2 - 12



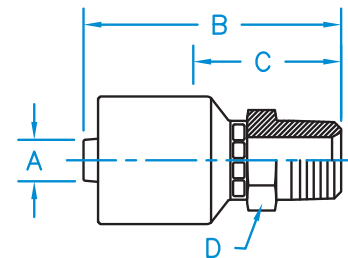
Male British Parallel Pipe 60° Cone Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-BSPP-04-04-W	1/4	2.12	1.04	13/16	1/4 – 19
M-BSPP-04-06-W	1/4	2.18	1.12	7/8	3/8 – 19
M-BSPP-06-06-W	3/8	2.51	1.14	7/8	3/8 – 19
M-BSPP-06-08-W	3/8	2.62	1.25	1-1/16	1/2 – 14
M-BSPP-08-06-W	1/2	2.53	1.19	7/8	3/8 – 19
M-BSPP-08-08-W	1/2	2.65	1.31	1-1/8	1/2 – 14
M-BSPP-08-10-W	1/2	2.65	1.31	1-1/8	5/8 – 14
M-BSPP-10-10-W	5/8	3.58	1.48	1-1/4	5/8 – 14
M-BSPP-12-12-W	3/4	3.27	1.39	1-3/8	3/4 – 14
M-BSPP-16-16-W	1	3.69	1.58	1-5/8	1 – 11



Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-04-02-W	1/4	1.85	0.79	9/16	1/8 – 27
MP-04-04-W	1/4	2.03	0.97	9/16	1/4 – 18
MP-04-06-W	1/4	2.13	1.07	11/16	3/8 – 18
MP-04-08-W	1/4	2.31	1.255	7/8	1/2 – 14
MP-06-04-W	3/8	2.45	1.08	11/16	1/4 – 18
MP-06-06-W	3/8	2.22	0.99	3/4	3/8 – 18
MP-06-08-W	3/8	2.49	1.26	7/8	1/2 – 14
MP-08-06-W	1/2	2.39	1.08	7/8	3/8 – 18
MP-08-08-W	1/2	2.64	1.30	7/8	1/2 – 14
MP-08-12-W	1/2	2.71	1.37	1-1/16	3/4 – 14
MP-10-06-W	5/8	3.31	1.21	7/8	3/8 – 18
MP-10-08-W	5/8	3.32	1.36	7/8	1/2 – 14
MP-10-12-W	5/8	3.19	1.43	1-1/16	3/4 – 14
MP-12-08-W	3/4	3.30	1.42	1-1/8	1/2 – 14
MP-12-12-W	3/4	3.19	1.40	1-1/16	3/4 – 14
MP-12-16-W	3/4	3.39	1.61	1-3/8	1 – 11-1/2
MP-16-12-W	1	3.51	1.42	1-3/8	3/4 – 14
MP-16-16-W	1	3.73	1.62	1-3/8	1 – 11-1/2
MP-16-16-W-API	1	4.72	2.61	1-3/8	1 – 11-1/2
MP-16-20-W	1	3.80	1.69	1-11/16	1-1/4 – 11-1/2
MP-20-20-W	1-1/4	4.15	1.70	1-11/16	1-1/4 – 11-1/2
MP-20-24-W	1-1/4	4.26	1.81	2	1-1/2 – 11-1/2
MP-24-24-W	1-1/2	4.48	1.51	2	1-1/2 – 11-1/2
MP-32-32-W	2	5.41	2.16	2-1/2	2 – 11-1/2
MP-32-32-W-API	2	7.56	4.31	2-1/2	2 – 11-1/2



Hose

Braided Hose Couplings

W Style Couplings

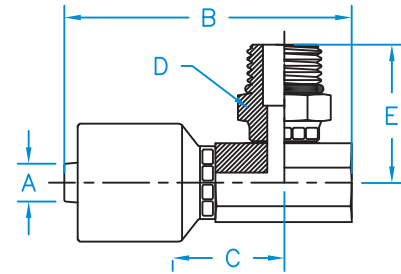
Other Couplings

Threads & Connections

Additional Products

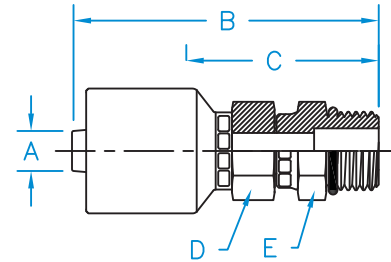
MBX - Male Boss O-Ring 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MBX90-04-04-W	1/4	2.03	0.56	11/16	1.43	7/16 - 20
MBX90-04-06-W	1/4	2.03	0.56	3/4	1.46	9/16 - 18
MBX90-06-06-W	3/8	2.56	1.19	3/4	1.55	9/16 - 18
MBX90-06-08-W	3/8	2.56	1.19	15/16	1.63	3/4 - 16
MBX90-06-10-W	3/8	3.01	1.11	1	1.71	7/8 - 14
MBX90-08-08-W	1/2	2.64	1.33	15/16	1.68	3/4 - 16
MBX90-08-10-W	1/2	2.64	1.33	1	1.74	7/8 - 14
MBX90-10-10-W	5/8	4.56	1.71	1	1.96	7/8 - 14
MBX90-12-12-W	3/4	4.30	1.67	1-1/4	2.41	1-1/16 - 12



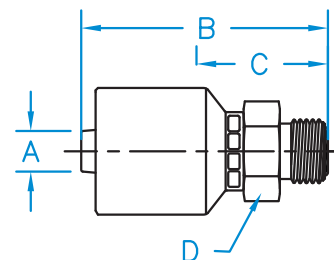
MBX - Male Boss O-Ring Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MBX-04-04-W	1/4	2.60	1.54	9/16	11/16	7/16 - 20
MBX-04-05-W	1/4	2.48	1.42	9/16	3/4	1/2 - 20
MBX-04-06-W	1/4	2.52	1.46	9/16	3/4	9/16 - 18
MBX-06-04-W	3/8	2.87	1.50	11/16	11/16	7/16 - 20
MBX-06-06-W	3/8	2.90	1.53	11/16	3/4	9/16 - 18
MBX-06-08-W	3/8	2.99	1.62	3/4	15/16	3/4 - 16
MBX-08-08-W	1/2	3.02	1.70	11/16	15/16	3/4 - 16
MBX-08-10-W	1/2	3.09	1.77	11/16	1	7/8 - 14
MBX-12-12-W	3/4	4.11	2.23	1-1/8	1-1/4	1-1/16 - 12
MBX-16-16-W	1	4.26	2.14	1-3/8	1-1/2	1-5/16 - 12



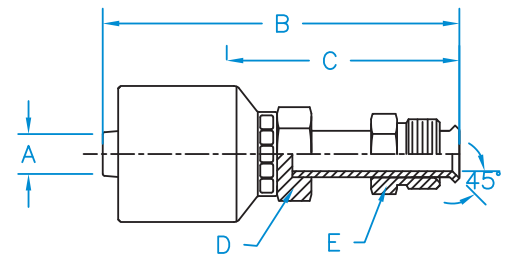
MF - Male Face Seal Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MF-04-04-W	1/4	2.05	0.97	5/8	9/16 - 18
MF-04-06-W	1/4	1.91	0.85	11/16	11/16 - 16
MF-06-06-W	3/8	2.24	0.87	11/16	11/16 - 16
MF-06-08-W	3/8	2.30	0.93	7/8	13/16 - 16
MF-08-08-W	1/2	2.33	0.99	7/8	13/16 - 16
MF-08-10-W	1/2	2.59	1.25	1-1/16	1 - 14
MF-08-12-W	1/2	2.65	1.31	1-1/4	1-3/16 - 12
MF-10-10-W	5/8	3.42	1.32	1-1/16	1 - 14
MF-10-12-W	5/8	3.48	1.38	1-1/4	1-3/16 - 12
MF-12-12-W	3/4	3.22	1.34	1-1/4	1-3/16 - 12
MF-12-16-W	3/4	3.23	1.35	1-1/2	1-7/16 - 12
MF-16-12-W	1	3.46	1.34	1-1/4	1-3/16 - 12
MF-16-16-W	1	3.48	1.35	1-1/2	1-7/16 - 12



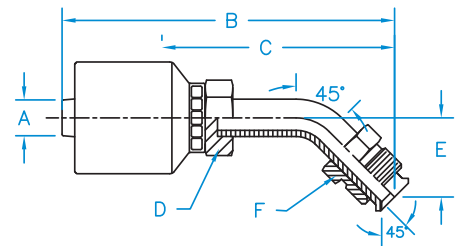
MIX - 45° SAE Male Inverted Flare

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MIX-04-04-W	1/4	2.93	1.85	5/8	7/16	7/16 - 24
MIX-04-05-W	1/4	2.94	1.88	5/8	1/2	1/2 - 20
MIX-04-06-W	1/4	3.29	2.23	5/8	5/8	5/8 - 18
MIX-06-04-W	3/8	3.26	1.89	11/16	7/16	7/16 - 24
MIX-06-05-W	3/8	3.37	2.00	3/4	1/2	1/2 - 20
MIX-06-06-W	3/8	3.65	2.28	3/4	5/8	5/8 - 18
MIX-06-07-W	3/8	2.97	1.60	11/16	11/16	11/16 - 18
MIX-06-08-W	3/8	3.35	1.98	3/4	3/4	3/4 - 18
MIX-08-08-W	1/2	3.55	2.21	7/8	3/4	3/4 - 18
MIX-08-10-W	1/2	3.19	1.85	3/4	7/8	7/8 - 18



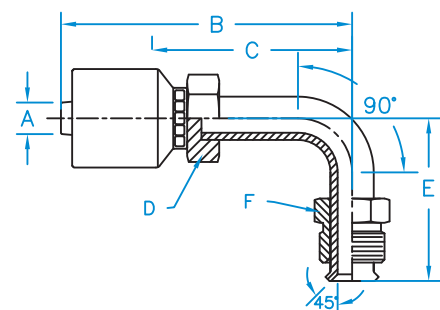
MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX45-04-04-W	1/4	2.68	1.62	5/8	0.78	7/16	7/16 - 24
MIX45-04-05-W	1/4	2.82	1.76	5/8	0.88	1/2	1/2 - 20
MIX45-04-06-W	1/4	3.44	2.38	5/8	0.94	5/8	5/8 - 18
MIX45-06-05-W	3/8	3.15	1.78	11/16	0.88	1/2	1/2 - 20
MIX45-06-06-W	3/8	3.63	2.40	3/4	0.94	5/8	5/8 - 18
MIX45-06-07-W	3/8	3.98	2.61	11/16	0.94	11/16	11/16 - 18
MIX45-06-08-W	3/8	4.10	2.73	3/4	1.06	7/8	3/4 - 18
MIX45-08-08-W	1/2	4.12	2.78	7/8	1.06	3/4	3/4 - 18
MIX45-08-10-W	1/2	3.54	2.20	7/8	0.84	7/8	7/8 - 18



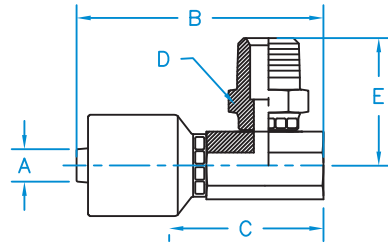
MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX90-04-03-W	1/4	2.74	1.68	5/8	1.38	3/8	3/8 - 24
MIX90-04-04-W	1/4	2.09	1.03	5/8	1.47	7/16	7/16 - 24
MIX90-04-05-W	1/4	2.26	1.20	5/8	1.66	1/2	1/2 - 20
MIX90-04-06-W	1/4	3.65	2.59	5/8	1.69	5/8	5/8 - 18
MIX90-06-04-W	3/8	2.42	1.05	11/16	1.47	7/16	7/16 - 24
MIX90-06-05-W	3/8	2.48	1.11	3/4	1.82	1/2	1/2 - 20
MIX90-06-06-W	3/8	3.98	2.61	3/4	1.69	5/8	5/8 - 18
MIX90-06-07-W	3/8	3.98	2.61	11/16	1.69	11/16	11/16 - 18
MIX90-06-08-W	3/8	3.47	2.10	3/4	1.88	3/4	3/4 - 18
MIX90-08-08-W	1/2	3.49	2.15	7/8	1.88	3/4	3/4 - 18
MIX90-08-10-W	1/2	2.77	1.43	7/8	1.63	7/8	7/8 - 18



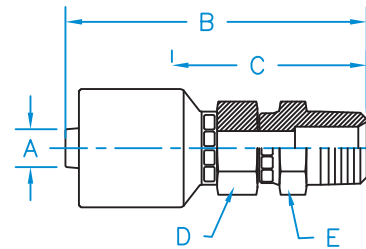
MPX90 - Male Pipe 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MPX90-04-04-W	1/4	2.03	0.97	11/16	1.54	1/4 - 18
MPX90-04-06-W	1/4	2.03	0.56	3/4	1.55	3/8 - 18
MPX90-06-04-W	3/8	3.01	1.11	11/16	1.64	1/4 - 18
MPX90-06-06-W	3/8	2.56	1.19	3/4	1.72	3/8 - 18
MPX90-06-08-W	3/8	2.56	0.66	7/8	1.85	1/2 - 14
MPX90-08-08-W	1/2	2.64	1.33	15/16	1.92	1/2 - 14
MPX90-12-12-W	3/4	4.30	1.67	1-1/8	2.18	3/4 - 14
MPX90-16-16-W	1	5.14	1.79	1-1/2	2.82	1 - 11-1/2



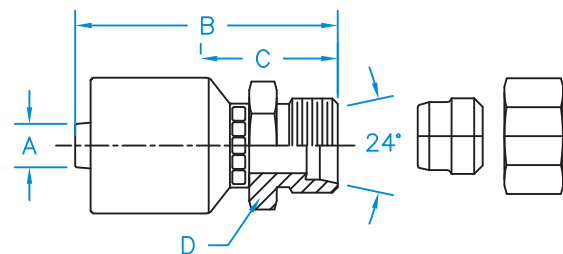
MPX - NPTF Male Pipe Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MPX-04-02-W	1/4	2.32	1.26	9/16	1/2	1/8 - 27
MPX-04-04-W	1/4	2.60	1.54	9/16	11/16	1/4 - 18
MPX-04-06-W	1/4	2.60	1.54	9/16	3/4	3/8 - 18
MPX-06-04-W	3/8	2.99	1.62	11/16	11/16	1/4 - 18
MPX-06-06-W	3/8	2.99	1.62	11/16	3/4	3/8 - 18
MPX-06-08-W	3/8	3.24	1.87	3/4	15/16	1/2 - 14
MPX-08-06-W	1/2	3.02	1.68	11/16	3/4	3/8 - 18
MPX-08-08-W	1/2	3.27	1.93	11/16	7/8	1/2 - 14
MPX-08-12-W	1/2	3.33	1.99	1	1-1/8	3/4 - 14
MPX-10-08-W	5/8	4.18	2.08	1	15/16	1/2 - 14
MPX-10-12-W	5/8	4.25	2.15	1	1-1/8	3/4 - 14
MPX-12-08-W	3/4	4.02	2.14	1-1/8	15/16	1/2 - 14
MPX-12-12-W	3/4	3.89	2.01	1-1/8	1-1/8	3/4 - 14
MPX-16-16-W	1	4.40	2.27	1-3/8	1-1/2	1 - 11-1/2



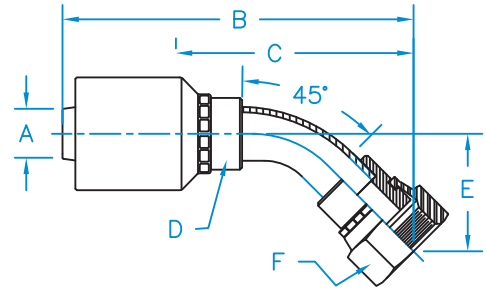
MT - Flareless Compression with Nut and Sleeve Per SAE J514

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MT-04-04-W	1/4	1.90	0.84	9/16	7/16 - 20
MT-04-05-W	1/4	1.90	0.84	9/16	1/2 - 20
MT-04-06-W	1/4	1.92	0.84	5/8	9/16 - 18
MT-04-08-W	1/4	2.04	0.98	7/8	3/4 - 16
MT-06-04-W	3/8	2.29	0.92	11/16	7/16 - 20
MT-06-05-W	3/8	2.23	0.86	11/16	1/2 - 20
MT-06-06-W	3/8	2.08	0.85	3/4	9/16 - 18
MT-06-08-W	3/8	2.37	1.00	3/4	3/4 - 16
MT-08-08-W	1/2	2.39	1.05	7/8	3/4 - 16
MT-08-10-W	1/2	2.46	1.12	7/8	7/8 - 14
MT-08-12-W	1/2	2.58	1.24	1-1/8	1-1/16 - 12
MT-12-12-W	3/4	3.14	1.26	1-1/4	1-1/16 - 12
MT-12-16-W	3/4	3.22	1.34	1-3/8	1-5/16 - 12
MT-16-16-W	1	3.47	1.34	1-1/2	1-5/16 - 12



O-Ring Face Seal 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX45-04-04-W	1/4	2.86	1.80	5/8	0.39	11/16	9/16 – 18
FFX45-04-06-W	1/4	2.95	1.89	5/8	0.44	5/8	11/16 – 16
FFX45-06-06-W	3/8	3.29	1.92	3/4	0.43	13/16	11/16 – 16
FFX45-06-08-W	3/8	3.22	1.85	3/4	0.59	15/16	13/16 – 16
FFX45-08-06-W	1/2	3.31	1.97	3/4	0.43	13/16	11/16 – 16
FFX45-08-08-W	1/2	3.24	1.90	7/8	0.59	15/16	13/16 – 16
FFX45-08-10-W	1/2	3.46	2.12	7/8	0.63	1-1/8	1 – 14
FFX45-08-12-W	1/2	3.48	2.14	1	0.83	1-3/8	1-3/16 – 12
FFX45-10-10-W	5/8	4.29	2.19	1	0.63	1-1/8	1 – 14
FFX45-10-12-W	5/8	4.21	2.11	1	0.83	1-3/8	1-1/16 – 12
FFX45-12-10-W	3/4	4.09	2.21	1-1/8	0.63	1-1/8	1 – 14
FFX45-12-12-W	3/4	4.58	2.70	1	0.81	1-3/8	1-3/16 – 12
FFX45-12-16-W	3/4	4.65	2.77	1	0.87	1-5/8	1-7/16 – 12
FFX45-16-16-W	1	5.11	3.00	1-5/16	0.94	1-5/8	1-7/16 – 12
FFX45-16-20-W	1	5.29	3.18	1-5/16	1.30	2	1-11/16 – 12
FFX45-20-20-W	1-1/4	6.16	3.62	1-5/8	1.09	2	1-11/16 – 12
FFX45-20-24-W	1-1/4	6.57	4.03	1-5/8	1.5	2-1/4	2 – 12
FFX45-24-24-W	1-1/2	6.62	4.02	2	1.65	2-1/4	2 – 12



Hose

Braided Hose Couplings

W Style Couplings

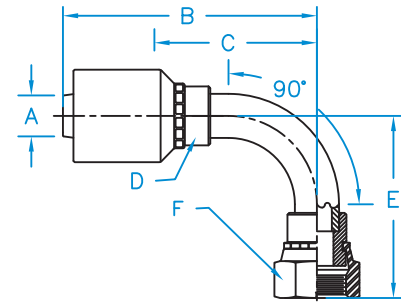
Other Couplings

Threads & Connections

Additional Products

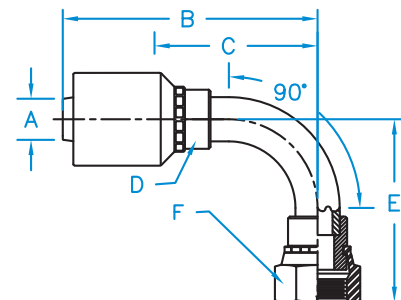
O-Ring Face Seal 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90-04-04-W	1/4	2.70	1.64	11/16	0.82	11/16	9/16 – 18
FFX90-04-06-W	1/4	2.84	1.78	13/16	0.91	13/16	11/16 – 16
FFX90-04-08-W	1/4	2.79	1.73	15/16	1.14	15/16	13/16 – 16
FFX90-06-04-W	3/8	3.03	1.66	11/16	0.82	11/16	9/16 – 18
FFX90-06-06-W	3/8	3.17	1.80	13/16	0.91	13/16	11/16 – 16
FFX90-06-08-W	3/8	3.13	1.76	15/16	1.14	15/16	13/16 – 16
FFX90-08-06-W	1/2	3.19	1.85	3/4	0.91	13/16	11/16 – 16
FFX90-08-08-W	1/2	3.05	1.71	15/16	1.14	15/16	13/16 – 16
FFX90-08-10-W	1/2	3.45	2.11	1-1/8	1.33	1-1/8	1 – 14
FFX90-08-12-W	1/2	3.52	2.18	1-3/8	1.88	1-3/8	1-3/16 – 12
FFX90-10-08-W	5/8	3.98	1.88	15/16	1.14	15/16	13/16 – 16
FFX90-10-10-W	5/8	4.28	2.18	1-1/8	1.26	1-1/8	1 – 14
FFX90-10-12-W	5/8	4.41	2.31	1-3/8	1.88	1-3/8	1-3/16 – 12
FFX90-12-10-W	3/4	4.07	2.20	1-1/8	1.26	1-1/8	1 – 14
FFX90-12-12-W	3/4	4.36	2.57	1-3/8	1.88	1-3/8	1-3/16 – 12
FFX90-12-16-W	3/4	4.36	2.57	1-5/8	2.21	1-5/8	1-7/16 – 12
FFX90-16-16-W	1	5.05	2.94	1-5/8	2.21	1-5/8	1-7/16 – 12
FFX90-16-20-W	1	5.17	3.05	2	2.50	1-7/8	1-11/16 – 12
FFX90-20-20-W	1-1/4	6.16	3.71	2	2.51	1-7/8	1-11/16 – 12
FFX90-20-24-W	1-1/4	6.03	3.49	2-1/4	3.09	2-1/4	2 – 12
FFX90-24-24-W	1-1/2	6.72	4.12	2-1/4	3.36	2-1/4	2 – 12
FFX90L-04-04-W	1/4	2.70	1.64	5/8	1.81	11/16	9/16 – 18
FFX90L-06-06-W	3/8	2.92	1.55	13/16	2.13	13/16	11/16 – 16
FFX90L-06-08-W	3/8	3.47	2.10	3/4	2.52	15/16	13/16 – 16
FFX90L-08-08-W	1/2	3.49	2.15	15/16	2.52	15/16	13/16 – 16
FFX90L-08-10-W	1/2	3.45	2.11	7/8	2.76	1-1/8	1 – 14
FFX90L-10-10-W	5/8	4.28	2.18	1	2.77	1-1/8	1 – 14
FFX90L-10-12-W	5/8	4.35	2.25	1	3.83	1-3/8	1-3/16 – 12
FFX90L-12-12-W	3/4	4.36	2.57	1-3/8	3.78	1-3/8	1-3/16 – 12
FFX90L-16-16-W	1	5.08	2.96	1-5/8	4.63	1-5/8	1-7/16 – 12
FFX90L-20-20-W	1-1/4	6.31	3.77	2	5.08	1-7/8	1-11/16 – 12



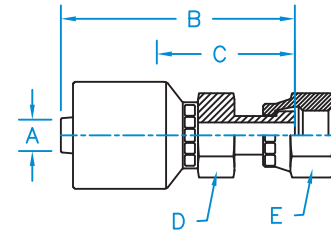
O-Ring Face Seal 90° Medium Drop Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90M-04-04-W	1/4	2.70	1.64	5/8	1.26	11/16	9/16 – 18
FFX90M-06-06-W	3/8	3.17	1.80	3/4	1.50	13/16	11/16 – 16
FFX90M-08-08-W	1/2	3.05	1.71	7/8	1.61	15/16	13/16 – 16
FFX90M-08-10-W	1/2	2.77	1.43	7/8	1.85	1-1/8	1 – 14
FFX90M-10-10-W	5/8	3.60	1.50	1	1.85	1-1/8	1 – 14
FFX90M-12-12-W	3/4	4.43	2.56	1	2.28	1-3/8	1-3/16 – 12
FFX90M-16-16-W	1	5.19	3.08	1-5/16	2.85	1-5/8	1-7/16 – 12



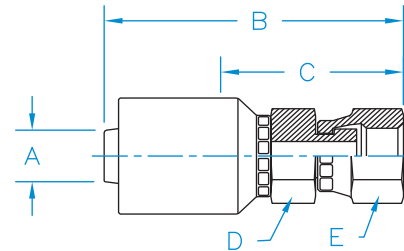
O-Ring Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-04-04-W	1/4	2.18	1.10	9/16	11/16	9/16 - 18
FFX-04-06-W	1/4	2.14	1.06	11/16	13/16	11/16 - 16
FFX-04-08-W	1/4	2.28	1.20	3/4	15/16	13/16 - 16
FFX-06-04-W	3/8	2.64	1.27	11/16	11/16	9/16 - 18
FFX-06-06-W	3/8	2.43	1.20	11/16	7/8	11/16 - 16
FFX-06-08-W	3/8	2.61	1.24	3/4	15/16	13/16 - 16
FFX-08-06-W	1/2	2.47	1.13	11/16	11/16	11/16 - 16
FFX-08-08-W	1/2	2.77	1.43	7/8	1-1/16	13/16 - 16
FFX-08-10-W	1/2	2.86	1.52	15/16	1-1/8	1 - 14
FFX-08-12-W	1/2	2.95	1.61	1-1/8	1-3/8	1-3/16 - 12
FFX-10-08-W	5/8	3.46	1.36	7/8	15/16	13/16 - 16
FFX-10-10-W	5/8	3.44	1.58	15/16	1-1/8	1 - 14
FFX-10-12-W	5/8	3.78	1.68	1-1/8	1-3/8	1-3/16 - 12
FFX-12-10-W	3/4	3.39	1.52	1-1/8	1-1/8	1 - 14
FFX-12-12-W	3/4	3.64	1.85	1-1/8	1-3/8	1-3/16 - 12
FFX-12-16-W	3/4	3.68	1.81	1-3/8	1-5/8	1-7/16 - 12
FFX-16-12-W	1	3.76	1.64	1-3/8	1-3/8	1-3/16 - 12
FFX-16-16-W	1	3.90	1.79	1-3/8	1-5/8	1-7/16 - 12
FFX-16-20-W	1	3.99	1.88	1-5/8	2	1-11/16 - 12
FFX-20-20-W	1-1/4	4.34	1.89	1-5/8	2	1-11/16 - 12
FFX-20-24-W	1-1/4	4.57	2.12	2-1/4	2-1/4	2 - 12
FFX-24-24-W	1-1/2	4.79	2.19	2-1/4	2-1/4	2 - 12



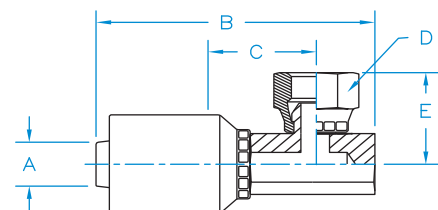
British Flat Face Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-BFPX-06-06-W	3/8	2.63	1.26	7/8	11/16	3/8 - 19
F-BFPX-06-08-W	3/8	2.72	1.35	3/4	1	1/2 - 14
F-BFPX-08-08-W	1/2	2.76	1.42	7/8	1	1/2 - 14
F-BFPX-08-12-W	1/2					3/4 - 14



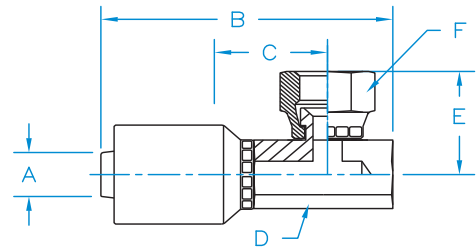
British Std Pipe 60° Cone 90° Block Style Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX90B-0404-W	1/4	2.48	1.01	3/4	0.93	3/4	1/4 - 19
F-BSPX90B-0606-W	3/8	3.01	1.11	7/8	1.13	7/8	3/8 - 19
F-BSPX90B-0608-W	3/8	3.01	1.11	1	1.23	1	1/2 - 14
F-BSPX90B-0808-W	1/2	2.64	0.77	1	1.29	1	1/2 - 14
F-BSPX90B-1212-W	3/4	4.30	1.67	1-1/4	1.63	1-1/4	3/4 - 14
F-BSPX90B-1616-W	1	5.14	1.77	1-1/2	1.96	1-1/2	1 - 11



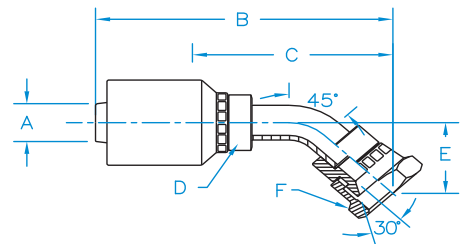
FJX90B - 37° JIC Female 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90B-0606-W	3/8	3.01	1.11	13/16	1.16	11/16	9/16 - 18
FJX90B-0608-W	3/8	3.01	1.11	13/16	1.17	7/8	3/4 - 16
FJX90B-0808-W	1/2	2.64	0.80	15/16	1.36	7/8	3/4 - 16
FJX90B-0810-W	1/2	2.64	0.80	15/16	1.42	1	7/8 - 14
FJX90B-1010-W	5/8	4.56	1.71	1-1/4	1.62	1	7/8 - 14
FJX90B-1210-W	3/4	4.30	1.67	1-1/4	1.56	1	7/8 - 14
FJX90B-1212-W	3/4	4.30	1.67	1-1/4	1.62	1-1/4	1-1/16 - 12



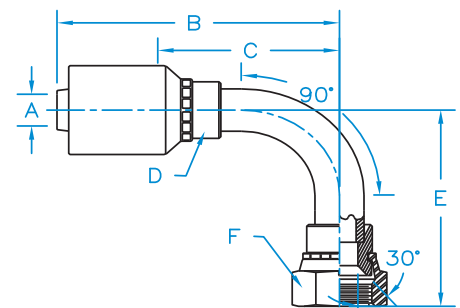
Komatsu JIS 30° Seat 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-KOMX45-04-14-W	1/4	3.30	2.24	5/8	0.80	3/4	M14 X 1.5
F-KOMX45-06-14-W	3/8	3.63	2.26	11/16	0.80	3/4	M14 X 1.5
F-KOMX45-06-18-W	3/8	3.63	2.26	11/16	0.80	15/16	M18 X 1.5
F-KOMX45-08-22-W	1/2	3.59	2.25	7/8	0.94	1-1/16	M22 X 1.5
F-KOMX45-08-24-W	1/2	3.86	2.52	7/8	1.04	1-1/4	M24 X 1.5
F-KOMX45-10-24-W	5/8	4.69	2.59	1	1.04	1-1/4	M24 X 1.5
F-KOMX45-12-30-W	3/4	4.57	2.69	1	1.17	1-1/2	M30 X 1.5
F-KOMX45-16-33-W	1	5.30	3.17	1-5/16	1.29	1-5/8	M33 X 1.5



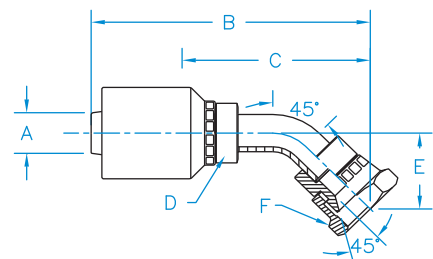
Komatsu JIS 30° Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-KOMX90-04-14-W	1/4	2.84	1.78	5/8	1.48	3/4	M14 X 1.5
F-KOMX90-06-14-W	3/8	3.17	1.80	11/16	1.48	3/4	M14 X 1.5
F-KOMX90-06-18-W	3/8	3.17	1.80	11/16	1.52	15/16	M18 X 1.5
F-KOMX90-08-22-W	1/2	3.49	2.15	7/8	1.72	1-1/16	M22 X 1.5
F-KOMX90-08-24-W	1/2	2.99	1.65	7/8	2.25	1-1/4	M24 X 1.5
F-KOMX90-10-24-W	5/8	3.82	1.72	1	2.25	1-1/4	M24 X 1.5
F-KOMX90-12-30-W	3/4	4.12	2.24	1	2.45	1-1/2	M30 X 1.5
F-KOMX90-16-33-W	1	4.82	2.70	1-5/16	2.79	1-5/8	M33 X 1.5



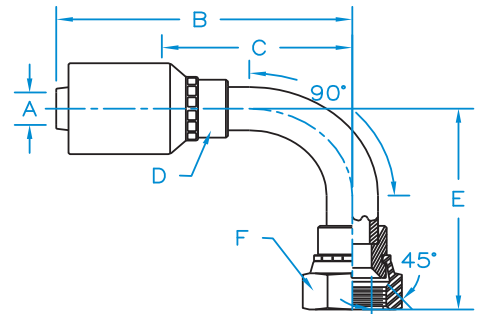
FSX45 - 45° SAE Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FSX45-04-04-W	1/4	2.86	1.80	5/8	0.39	9/16	7/16 - 20
FSX45-04-05-W	1/4	2.89	1.83	5/8	0.39	5/8	1/2 - 20
FSX45-06-05-W	3/8	3.22	1.85	11/16	0.39	5/8	1/2 - 20
FSX45-06-06-W	3/8	3.26	1.89	11/16	0.43	3/4	5/8 - 18
FSX45-08-08-W	1/2	3.65	2.31	7/8	0.59	15/16	3/4 - 16
FSX45-08-10-W	1/2	3.30	1.96	7/8	0.63	1-1/16	7/8 - 14
FSX45-10-12-W	5/8	4.32	2.22	1	0.83	1-1/4	1-1/16 - 14
FSX45-12-12-W	3/4	4.04	2.16	1	0.83	1-1/4	1-1/16 - 14



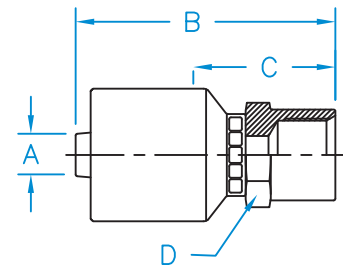
FSX90 - 45° SAE Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FSX90-04-04-W	1/4	2.70	1.64	5/8	0.83	9/16	7/16 - 20
FSX90-04-05-W	1/4	2.79	1.73	5/8	0.87	5/8	1/2 - 20
FSX90-06-04-W	3/8	3.03	1.66	11/16	0.83	9/16	7/16 - 20
FSX90-06-05-W	3/8	3.12	1.75	11/16	0.87	5/8	1/2 - 20
FSX90-06-06-W	3/8	3.17	1.80	11/16	0.91	3/4	5/8 - 18
FSX90-06-08-W	3/8	3.47	2.1	3/4	1.13	15/16	3/4 - 16
FSX90-08-08-W	1/2	3.49	2.15	7/8	1.13	15/16	3/4 - 16
FSX90-08-10-W	1/2	2.99	1.65	7/8	1.23	1-1/16	7/8 - 14
FSX90-10-12-W	5/8	4.34	2.25	1	1.83	1-1/4	1-1/16 - 14
FSX90-12-12-W	3/4	4.07	2.19	1	1.83	1-1/4	1-1/16 - 14



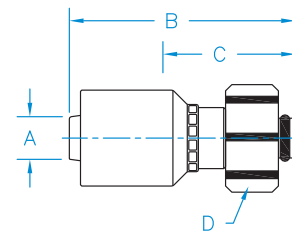
Female Grease Tap Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
GT-04-08-W	1/4	1.94	0.875	3/4	1/2 - 27
GT-06-08-W	3/8	2.39	1.02	3/4	1/2 - 27



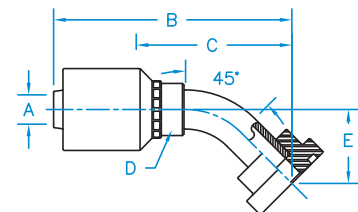
Karcher Pressure Wash Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	Thread
KAR-06-22-W	3/8	2.57	1.18	3/4	M22 X 1.5



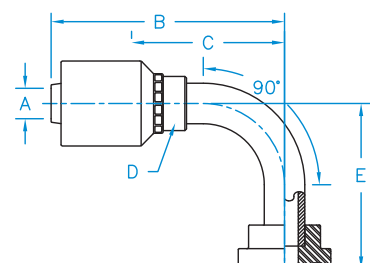
Komatsu Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA45-08-10-W	1/2	3.71	2.37	0.88	N/A
KOMA45-10-10-W	5/8	4.38	2.28	0.88	N/A



Karcher Pressure Wash Female Swivel

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA90-10-10-W	5/8	4.28	2.18	1.91	N/A



Hose

Braided Hose Couplings

W Style Couplings

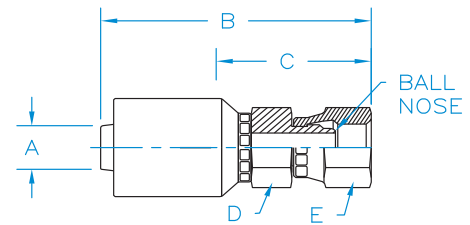
Other Couplings

Threads & Connections

Additional Products

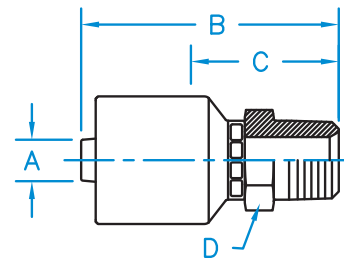
LF - Line Fit Sleeveless design

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
LF-04-04-W	1/4	2.11	1.05	9/16	9/16	7/16 - 20
LF-06-06-W	3/8	2.52	1.15	11/16	11/16	9/16 - 18
LF-08-08-W	1/2	2.70	1.36	7/8	7/8	3/4 - 16
LF-12-12-W	3/4	3.47	1.59	1-1/4	1-1/4	1-1/16 - 12



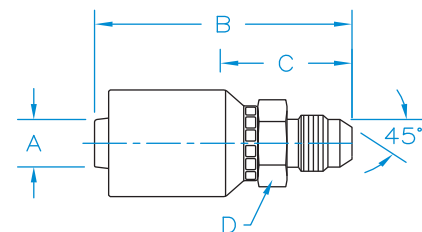
Male British Standard Pipe 60° Cone Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-BSPT-04-02-W	1/4	1.85	0.79	9/16	1/8 - 27
M-BSPT-04-04-W	1/4	2.04	0.98	9/16	1/4 - 19
M-BSPT-04-06-W	1/4	2.12	1.06	11/16	3/8 - 19
M-BSPT-06-06-W	3/8	2.45	1.08	11/16	3/8 - 19
M-BSPT-06-08-W	3/8	2.71	1.34	7/8	1/2 - 14
M-BSPT-08-06-W	1/2	2.48	1.14	7/8	3/8 - 19
M-BSPT-08-08-W	1/2	2.73	1.39	7/8	1/2 - 14
M-BSPT-12-12-W	3/4	3.30	1.42	1-1/8	3/4 - 14
M-BSPT-16-16-W	1	3.73	1.63	1-3/8	1 - 11



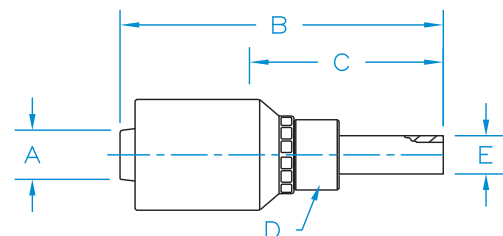
MS - 45° SAE Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MS-04-04-W	1/4	1.97	0.91	9/16	7/16 - 20
MS-04-06-W	1/4	2.25	1.19	11/16	5/8 - 18
MS-06-06-W	3/8	2.50	1.13	11/16	5/8 - 18
MS-06-08-W	3/8	2.65	1.28	7/8	3/4 - 16
MS-08-08-W	1/2	2.67	1.33	7/8	3/4 - 16
MS-12-12-W	3/4	3.55	1.67	1-1/8	1-1/16 - 14



MW - Stand Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MW-04-04-W	1/4	2.47	1.41	5/8	1/4	N/A
MW-04-05-W	1/4	2.58	1.52	5/8	5/16	N/A
MW-04-06-W	1/4	2.66	1.60	5/8	3/8	N/A
MW-06-06-W	3/8	2.99	1.62	3/4	3/8	N/A
MW-06-08-W	3/8	3.26	1.89	3/4	1/2	N/A
MW-08-08-W	1/2	3.28	1.94	7/8	1/2	N/A
MW-08-10-W	1/2	3.49	2.15	7/8	5/8	N/A
MW-12-12-W	3/4	4.75	2.88	1	3/4	N/A
MW-16-16-W	1	5.08	2.96	1-5/16	1	N/A



JJ Couplings

KURT
HYDRAULICS

JJ Style Size 20-24-32

- Can be used on R2, R12, R13, 4SH and R15 hose
- External Skive in all applications

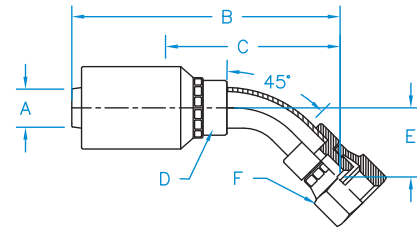


Other Couplings



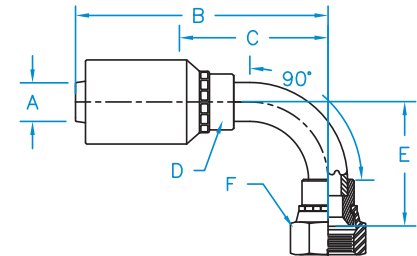
37° JIC Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-20-20-JJ	1-1/4	6.83	4.23	1-3/4	1.38	2	1-5/8 - 12
FJX45-24-24-JJ	1-1/2	7.06	4.41	2-1/8	2.02	2-1/4	1-7/8 - 12
FJX45-32-32-JJ	2	8.46	5.91	2-3/4	2.71	2-7/8	2-1/2 - 12



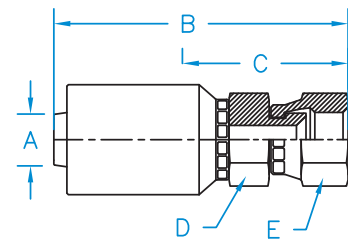
37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-20-20-JJ	1-1/4	6.57	3.94	1-3/4	3.08	2	1-5/8 - 12
FJX90-24-24-JJ	1-1/2	6.33	3.62	2-1/8	3.79	2-1/4	1-7/8 - 12
FJX90-32-32-JJ	2	8.86	5.09	2-3/4	4.80	2-7/8	2-1/2 - 12



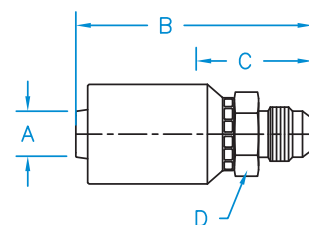
37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-20-20-JJ	1-1/4	4.92	2.32	1-3/4	2	1-5/8 - 12
FJX-24-24-JJ	1-1/2	5.38	2.17	2	2	1-7/8 - 12
FJX-32-32-JJ	2	6.92	2.70	2-5/8	2-5/8	2-1/2 - 12



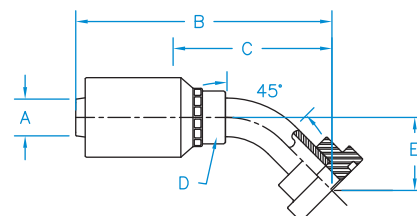
37° JIC Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MJ-20-20-JJ	1-1/4	4.81	2.21	2	1-5/8 - 12
MJ-24-24-JJ	1-1/2	5.06	2.53	2-1/8	1-7/8 - 12
MJ-32-32-JJ	2	6.72	3.13	2-5/8	2-1/2 - 12



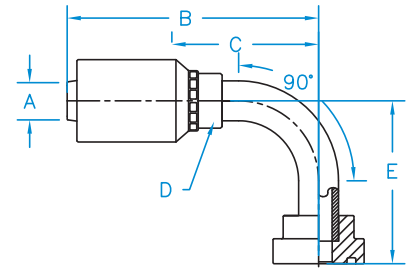
Cat Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT45-20-20-JJ	1-1/4	6.13	3.53	1-3/4	1.46	N/A
CAT45-20-24-JJ	1-1/4	6.44	3.84	1-3/4	1.57	N/A
CAT45-24-24-JJ	1-1/2	7.50	4.85	2-1/8	1.48	N/A
CAT45-32-32-JJ	2	9.88	6.11	2-3/4	3.02	N/A



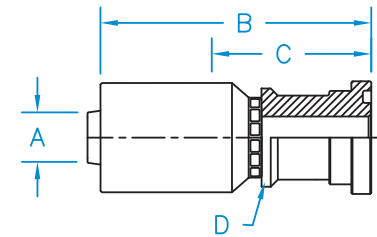
Cat Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT90-20-20-JJ	1-1/4	6.39	3.79	1-3/4	3.10	N/A
CAT90-20-24-JJ	1-1/4	6.39	3.79	1-3/4	3.29	N/A
CAT90-24-24-JJ	1-1/2	6.12	3.41	2-1/8	3.43	N/A
CAT90-32-32-JJ	2	8.90	5.13	2-3/4	5.10	N/A



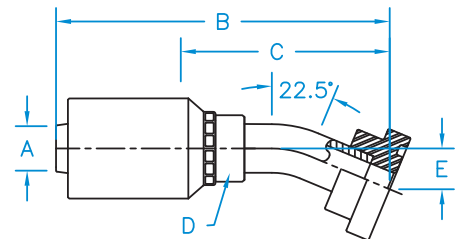
Cat Flange Straight Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
CAT-20-20-JJ	1-1/4	5.63	3.03	2-1/8	N/A
CAT-20-24-JJ	1-1/4	6.02	3.42	2-1/2	N/A
CAT-24-24-JJ	1-1/2	6.10	3.39	2-1/2	N/A
CAT-32-32-JJ	2	8.45	4.68	3-1/8	N/A



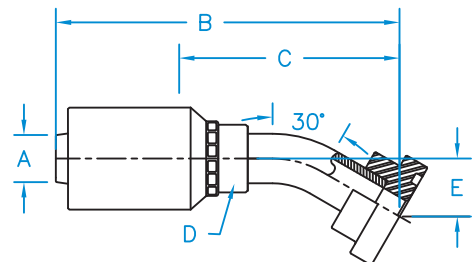
Code 61 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6122-20-20-JJ	1-1/4	5.87	3.27	1-3/4	0.48	N/A
C6122-24-24-JJ	1-1/2	6.78	4.13	2-1/8	0.70	N/A
C6122-24-32-JJ	1-1/2	6.90	4.19	2-1/8	0.68	N/A
C6122-32-32-JJ	2	8.68	4.88	2-3/4	0.97	N/A



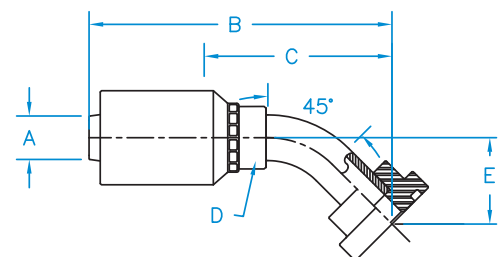
Code 61 Flange 30° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6130-20-20-JJ	1-1/4	6.13	3.53	1-3/4	0.72	N/A
C6130-24-24-JJ	1-1/2	6.34	3.69	2-1/8	0.88	N/A
C6130-24-32-JJ	1-1/2	6.70	4.17	2-1/8	1.05	N/A
C6130-32-32-JJ	2	8.92	5.34	2-3/4	1.33	N/A



Code 61 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6145-20-20-JJ	1-1/4	6.26	3.66	1-3/4	1.50	N/A
C6145-24-24-JJ	1-1/2	6.82	4.17	2-1/8	1.73	N/A
C6145-24-32-JJ	1-1/2	6.83	2.90	2-1/8	1.67	N/A
C6145-32-32-JJ	2	9.29	5.70	2-3/4	2.21	N/A



Hose

Braided Hose Couplings

W Style Couplings

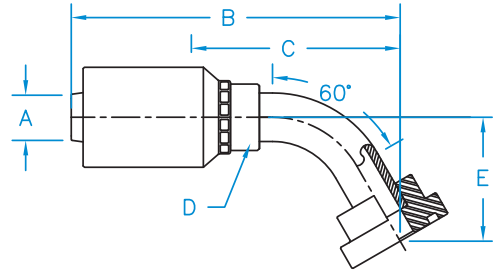
Other Couplings

Threads & Connections

Additional Products

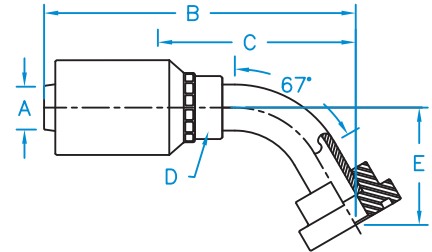
Code 61 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6160-20-20-JJ	1-1/4	6.92	4.32	1-3/4	1.71	N/A
C6160-24-24-JJ	1-1/2	7.59	4.95	2-1/8	2.14	N/A
C6160-24-32-JJ	1-1/2	7.61	5.09	2-1/8	2.32	N/A
C6160-32-32-JJ	2	9.35	5.77	2-3/4	3.12	N/A



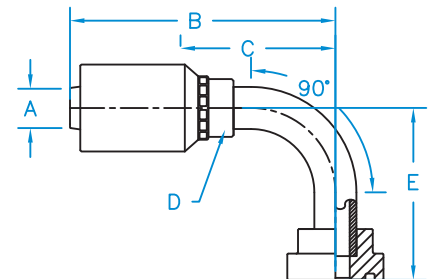
Code 61 Flange 67° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6167-20-20-JJ	1-1/4	6.19	3.59	1-3/4	2.52	N/A
C6167-24-24-JJ	1-1/2	6.94	4.23	2-1/8	2.91	N/A
C6167-24-32-JJ	1-1/2	6.94	4.23	2-1/8	2.91	N/A
C6167-32-32-JJ	2	9.05	5.28	2-3/4	2.80	N/A



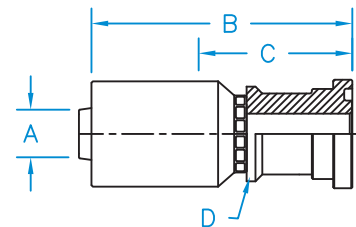
Code 61 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190-20-20 JJ	1-1/4	5.85	3.25	1-3/4	2.80	N/A
C6190-24-24 JJ	1-1/2	6.36	3.72	2-1/8	3.43	N/A
C6190-24-32 JJ	1-1/2	6.49	3.78	2-1/8	4.09	N/A
C6190-32-32 JJ	2	8.83	5.25	2-3/4	4.88	N/A



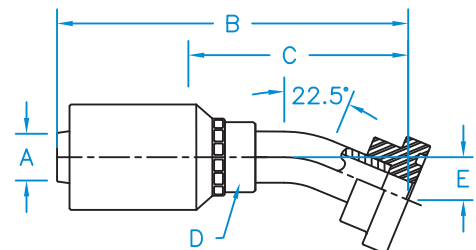
Code 61 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C61-20-20-JJ	1-1/4	4.66	2.06	1-3/4	N/A
C61-24-24-JJ	1-1/2	4.82	2.11	2-1/8	N/A
C61-24-32-JJ	1-1/2	5.44	2.73	2-1/8	N/A
C61-32-32-JJ	2	6.63	2.86	2-3/4	N/A



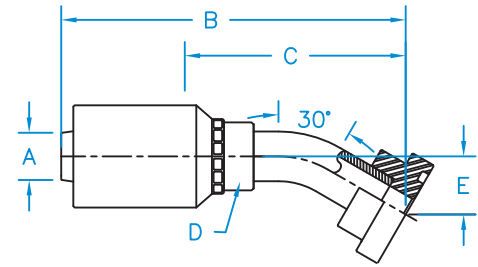
Code 62 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6222-20-20-JJ	1-1/4	6.28	3.68	1-3/4	0.65	N/A
C6222-24-24-JJ	1-1/2	7.19	4.54	2-1/8	0.85	N/A
C6222-24-32-JJ	1-1/2	7.58	4.59	2-1/8	0.97	N/A
C6222-32-32-JJ	2	9.14	5.56	2-3/4	1.12	N/A



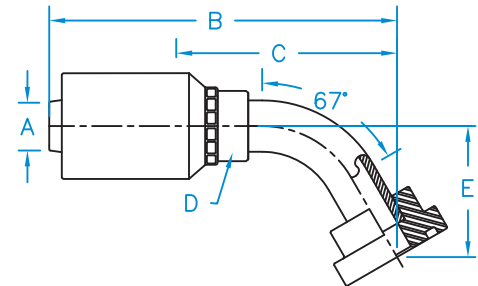
Code 62 Flange 30° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6230-20-20-JJ	1-1/4	6.51	3.91	1-3/4	0.94	N/A
C6230-24-24-JJ	1-1/2	6.72	4.07	2-1/8	1.10	N/A
C6230-24-32-JJ	1-1/2	7.58	4.55	2-1/8	1.02	N/A
C6230-32-32-JJ	2	9.16	5.45	2-3/4	1.14	N/A



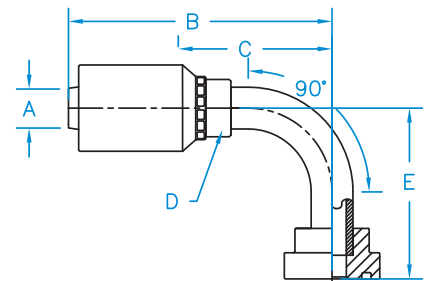
Code 62 Flange 67° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6267-20-20-JJ	1-1/4	6.19	3.59	1-3/4	2.53	N/A
C6267-24-24-JJ	1-1/2	6.99	4.28	2-1/8	2.91	N/A
C6267-24-32-JJ	1-1/2	6.82	4.17	2-1/8	2.80	N/A
C6267-32-32-JJ	2			2-3/4		N/A



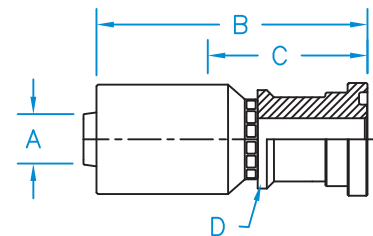
Code 62 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6290-20-20-JJ	1-1/4	5.85	3.25	1-3/4	2.99	N/A
C6290-20-24-JJ	1-1/4	6.66	4.06	1-3/4	3.32	N/A
C6290-24-24-JJ	1-1/2	6.90	4.26	2-1/8	3.71	N/A
C6290-24-32-JJ	1-1/2	6.31	4.78	2-1/8	3.53	N/A
C6290-32-32-JJ	2	8.87	5.10	2-3/4	6.41	N/A



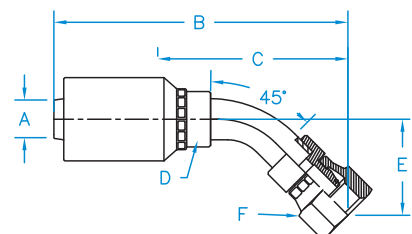
Code 62 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C62-20-20-JJ	1-1/4	5.47	2.87	2-1/8	N/A
C62-24-24-JJ	1-1/2	5.73	3.02	2-1/2	N/A
C62-24-32-JJ	1-1/2	6.00	3.29	3-1/8	N/A
C62-32-32-JJ	2	7.19	3.42	3-1/8	N/A



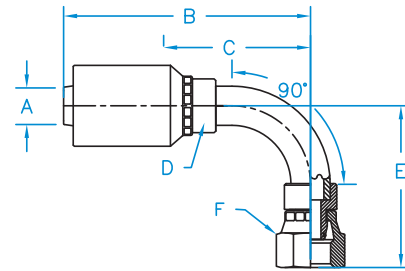
Din Heavy 24° Seat 45° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH4520-3852-JJ	1-1/4	7.39	4.79	1-3/4	1.82	2-3/8	M52 X 2.0
F-DH4524-3852-JJ	1-1/2			2-1/8		2-3/8	M52 X 2.0



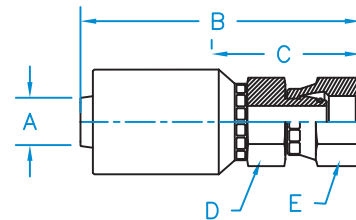
Din Heavy 24° Seat 90° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH9020-3852-JJ	1-1/4	6.82	4.22	1-3/4R	3.78	2-3/8	M52 X 2.0
F-DH9024-3852-JJ	1-1/2			2-1/8R		2-3/8	M52 X 2.0



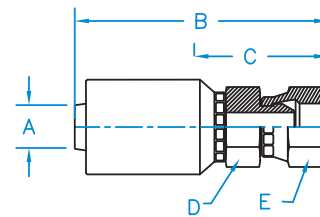
Din Heavy 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DH20-38-52-JJ	1-1/4	4.33	1.73	2	2-3/8	M52 X 2.0
F-DH24-38-52-JJ	1-1/2	4.65	2.01	2	2-3/8	M52 X 2.0



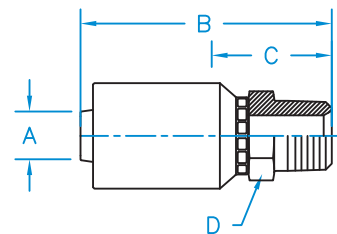
Female British Pipe Swivel Straight

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-BSPX-24-24-JJ	1-1/2	5	2.29	2	2-3/8	1-1/2 - 11
F-BSPX-32-32-JJ	2					



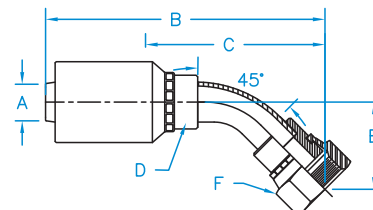
Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-20-20-JJ	1-1/4	4.83	2.23	2	1-1/4 - 11-1/2
MP-24-24-JJ	1-1/2	4.98	1.98	2-1/8	1-1/2 - 11-1/2
MP-24-32-JJ	1-1/2	5.24	2.53	2-1/2	2 - 11-1/2
MP-32-32-JJ	2	6.42	2.13	2-5/8	2 - 11-1/2
MP-32-32-JJ-API	2	8.17	4.4	2-5/8	2 - 11-1/2



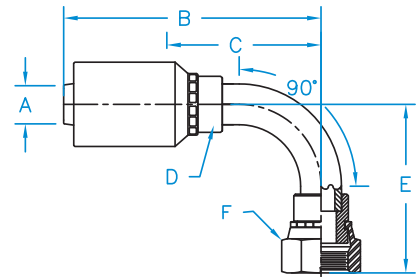
O-Ring Face Seal 45° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX45-20-20-JJ	1-1/4	6.19	3.59	1-3/4	1.259	1-7/8	1-11/16 - 12
FFX45-24-24-JJ	1-1/2	6.92	4.28	2-1/8	1.72	2-1/4	2 - 12



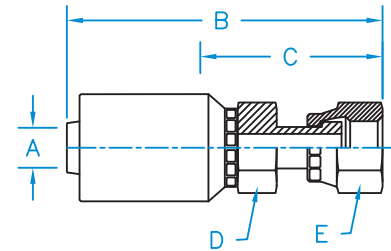
O-Ring Face Seal 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90-20-20-JJ	1-1/4	5.85	3.25	1-3/4	2.91	1-7/8	1-11/16 - 12
FFX90-24-24-JJ	1-1/2	6.36	3.72	2-1/8	3.62	2-1/4	2 - 12



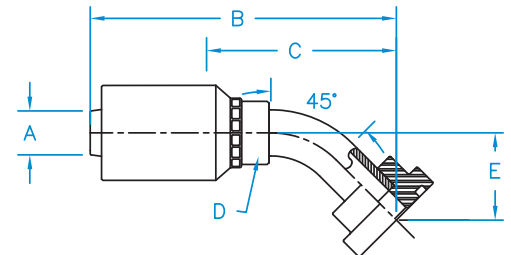
O-Ring Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-20-20-JJ	1-1/4	4.45	1.85	1-13/16	1-7/8	1-11/16 - 12
FFX-24-24-JJ	1-1/2	4.84	2.12	2-1/4	2-1/4	2 - 12



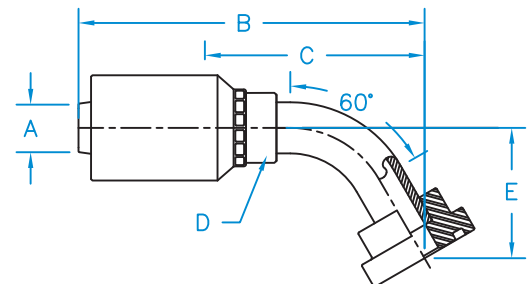
Code 62 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6245-20-20-JJ	1-1/4	6.26	3.66	1-3/4	1.50	N/A
C6245-24-24-JJ	1-1/2	6.95	4.30	2-1/8	1.65	N/A
C6245-24-32-JJ	1-1/2	7.89	1.32	2-1/8	2.15	N/A
C6245-32-32-JJ	2	9.80	6.03	2-3/4	2.74	N/A



Code 62 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6260-20-20-JJ	1-1/4	7.14	4.54	1-3/4	2.10	N/A
C6260-24-24-JJ	1-1/2	7.81	5.16	2-1/8	2.52	N/A
C6260-24-32-JJ	1- 1/2	7.61	8.09	2-1/8	2.32	N/A
C6260-32-32-JJ	2	9.35	5.77	2-3/4	3.12	N/A



Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products

WHP Couplings

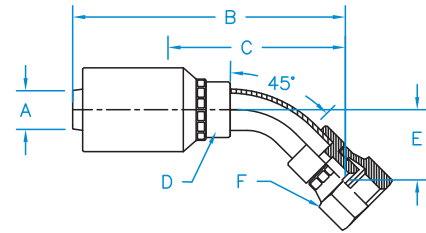
KURT
HYDRAULICS

- WHP sizes 12-16
- High pressure non-skive coupling
- Can be used on R12, R13, 4SH and R15 hose
- Non-skive



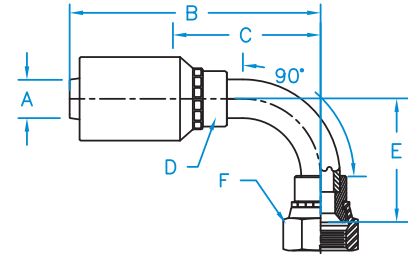
37° JIC Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-12-12-WHP	3/4	5.52	3.09	1-3/16	1.15	1-1/4	1-1/16 - 12
FJX45-16-16-WHP	1	5.67	3.14	1-7/16	1.23	1-1/2	1-5/16 - 12



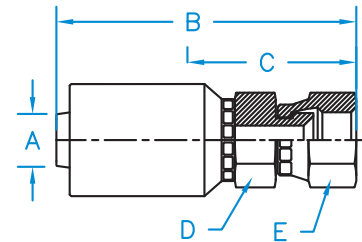
37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-12-12-WHP	3/4	5.18	2.75	1-3/16	2.57	1-1/4	1-1/16 - 12
FJX90-16-16-WHP	1	5.69	3.16	1-7/16	2.80	1-1/2	1-5/16 - 12



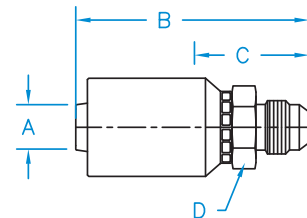
37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-12-12-WHP	3/4	5.38	2.17	2-1/4	2-1/4	1-1/16 - 12
FJX-16-16-WHP	1	4.29	1.76	1-3/8	1-1/2	1-5/16 - 12



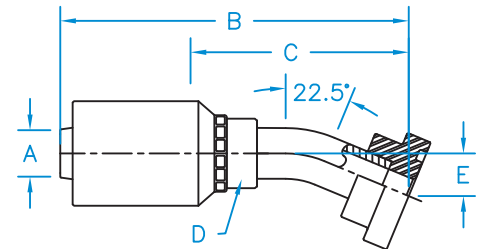
37° JIC Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MJ-12-12-WHP	3/4	4.00	1.57	1-1/8	1-1/16 - 12
MJ-16-16-WHP	1	4.43	1.90	1-3/8	1-5/16 - 12



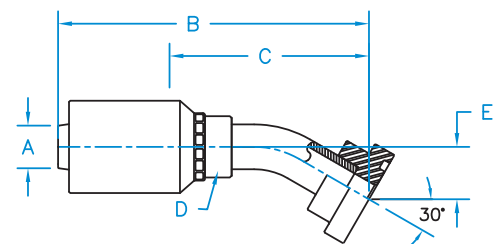
CAT Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT22-12-12-WHP	3/4	5.49	3.06	1-3/16	0.62	N/A



CAT Flange 30° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT30-12-12-WHP	3/4	5.85	3.42	1-3/16	0.84	N/A



Hose

Braided Hose Couplings

W Style Couplings

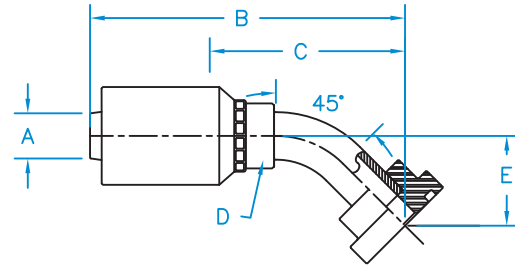
Other Couplings

Threads & Connections

Additional Products

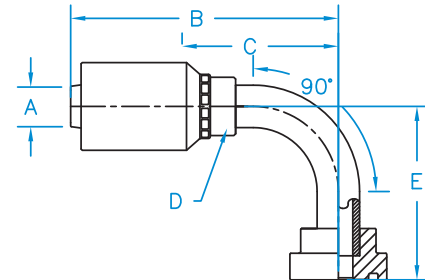
CAT Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT45-12-12-WHP	3/4	4.73	2.94	1-3/16	1.36	N/A
CAT45-16-16-WHP	1	5.72	3.19	1-7/16	1.43	N/A
CAT45-16-20-WHP	1	5.73	3.20	1-7/16	1.44	N/A



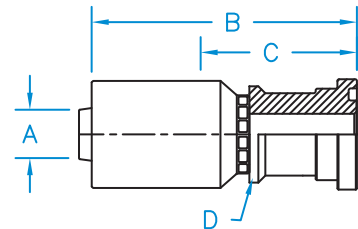
CAT Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT90-12-12-WHP	3/4	4.76	2.33	1-3/16	2.65	N/A
CAT90-16-16-WHP	1	5.17	2.64	1-7/16	2.90	N/A
CAT90-16-20-WHP	1	5.30	2.77	1-7/16	2.69	N/A



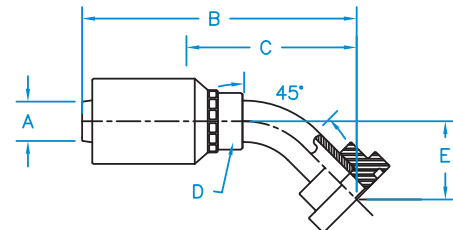
CAT Flange Straight Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
CAT-12-12-WHP	3/4	4.94	2.51	1-5/8	N/A
CAT-12-16-WHP	3/4	5.00	2.58	1-7/8	N/A
CAT-16-16-WHP	1	5.18	2.65	1-7/8	N/A
CAT-16-20-WHP	1	5.52	2.99	2-1/8	N/A



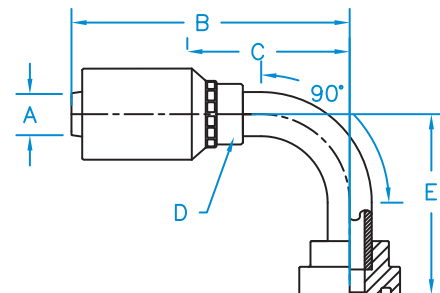
Code 61 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6145-12-12-WHP	3/4	5.20	2.77	1-3/16	0.86	N/A
C6145-16-16-WHP	1	5.35	2.82	1-7/16	1.13	N/A



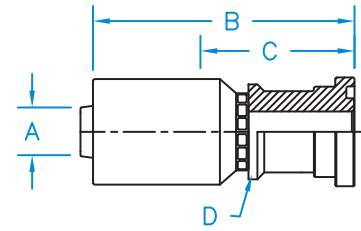
Code 61 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190-12-12-WHP	3/4	5.39	2.96	1-3/16	2.38	N/A
C6190-16-16-WHP	1	5.72	3.19	1-7/16	2.80	N/A



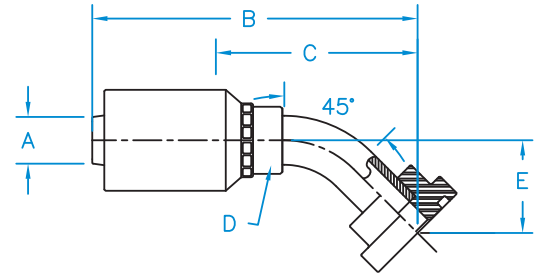
Code 61 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C61-12-12-WHP	3/4	4.15	1.72	1-1/2	N/A
C61-16-16-WHP	1	4.53	2.00	1-3/4	N/A



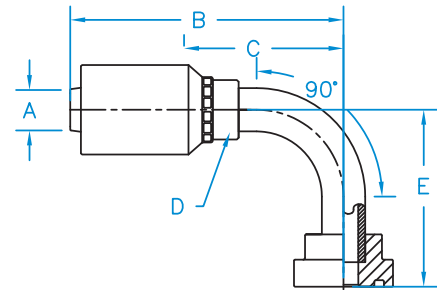
Code 62 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6245-12-12-WHP	3/4	5.27	2.84	1-3/16	0.93	N/A
C6245-16-16-WHP	1	5.90	3.37	1-7/16	1.25	N/A



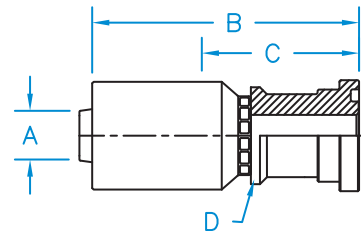
Code 62 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6290-12-12-WHP	3/4	5.39	2.96	1-3/16	2.51	N/A
C6290-12-16-WHP	3/4	5.39	2.96	1-3/16	2.55	N/A
C6290-16-16-WHP	1	5.33	2.80	1-7/16	2.50	N/A
C6290-16-20-WHP	1	5.33	2.80	1-7/16	2.69	N/A



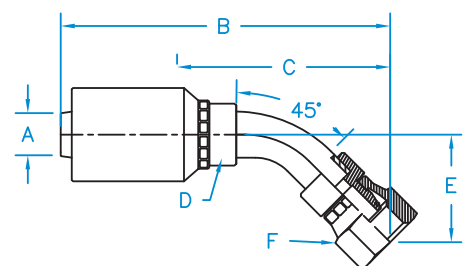
Code 62 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C62-12-12-WHP	3/4	4.23	1.80	1-5/8	N/A
C62-16-16-WHP	1	5.04	2.51	1-7/8	N/A



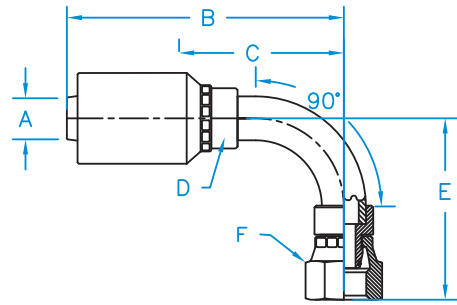
Din Heavy 24° Seat 45° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH4512-2536-WHP	3/4	5.52	3.09	1-3/16	1.26	1-3/4	M36 X 2.0
F-DH4516-3042-WHP	1	6.34	3.81	1-7/16	1.69	2	M42 X 2.0



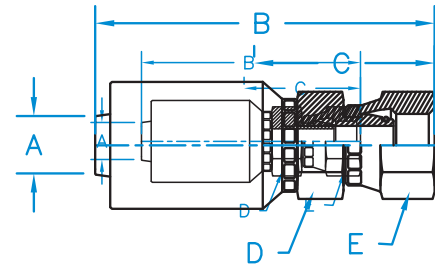
Din Heavy 24° Seat 90° Bent Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH9012-2536-WHP	3/4	4.71	2.28	1-3/16	2.71	1-3/4	M36 X 2.0
F-DH9016-3042-WHP	1	5.69	3.16	1-7/16	3.27	2	M42 X 2.0



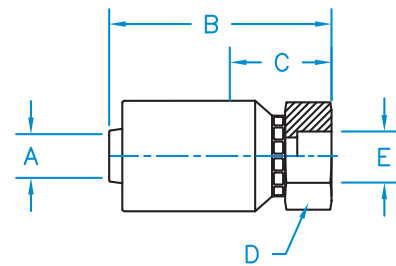
Din Heavy 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DH12-25-36-WHP	3/4	3.85	1.42	1-1/4	1-3/4	M36 X 2.0
F-DH16-30-42-WHP	1	4.22	1.69	1-1/2	2	M42 X 2.0



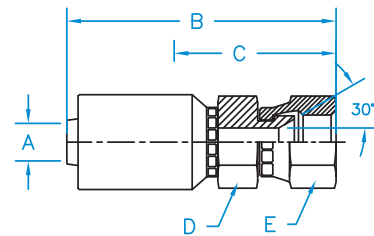
FW - Female Weld Fitting Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FW-12-12-WHP	3/4	3.17	0.74	1-3/16	0.75	N/A
FW-12-16-WHP	3/4	3.26	0.83	1-5/16	1.00	N/A



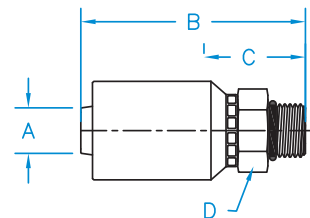
JIS 30° Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-JISX-12-12-WHP	3/4	4.06	1.63	1-1/8	1-1/4	3/4 - 14
F-JISX-16-16-WHP	1	4.25	1.72	1-3/8	1-1/2	1 - 11



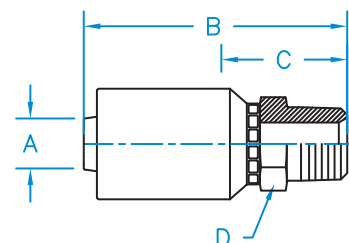
Male Boss O-Ring Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MB-12-12-WHP	3/4	3.71	1.28	1-1/4	1-1/16 - 12
MB-16-16-WHP	1	3.89	1.36	1-1/2	1-5/16 - 12



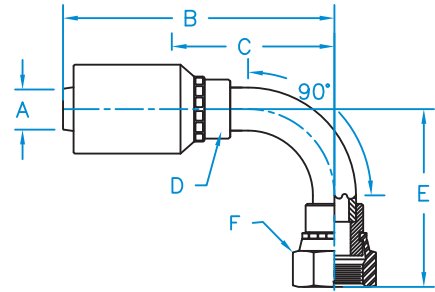
Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-12-12-WHP	3/4	3.86	1.43	1-1/8	3/4 - 14
MP-16-16-WHP	1	4.24	1.71	1-3/8	1 - 11-1/2
MP-16-16-WHP-API	1	5.38	2.85	1-3/8	1 - 11-1/2



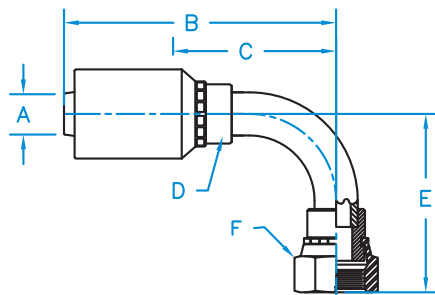
O-Ring Face Seal 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90-12-12-WHP	3/4	5.02	2.59	1-3/16	1.88	1-3/8	1-3/16 - 12
FFX90-16-16-WHP	1	5.58	3.05	1-7/16	2.21	1-5/8	1-7/16 - 12



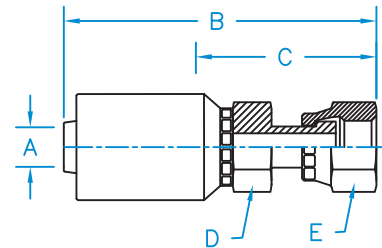
O-Ring Face Seal 90° Bent Tube Female Swivel Long Drop

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90L-12-12-WHP	3/4	5.02	2.59	1-3/16	3.78	1-3/8	1-3/16 - 12
FFX90L-16-16-WHP	1	5.59	3.06	1-7/16	4.49	1-5/8	1-7/16 - 12



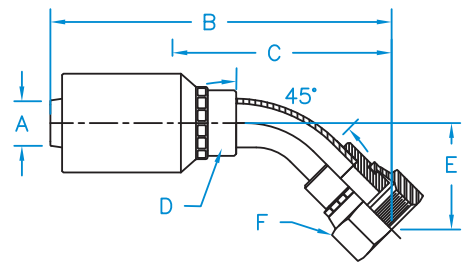
O-Ring Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-12-12-WHP	3/4	4.10	1.67	1-1/8	1-3/8	1-3/16 - 12
FFX-16-16-WHP	1	4.45	1.92	1-3/8	1-5/8	1-7/16 - 12



O-Face Seal Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX45-12-12-WHP	3/4	5.17	2.74	1-3/16	0.81	1-3/8	1-3/16 - 12
FFX45-16-16-WHP	1	5.64	3.11	1-7/16	0.94	1-5/8	1-7/16 - 12



Hose

Braided Hose Couplings

W Style Couplings

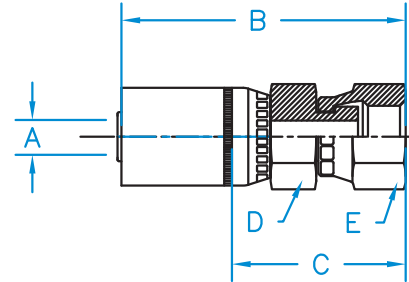
Other Couplings

Threads & Connections

Additional Products

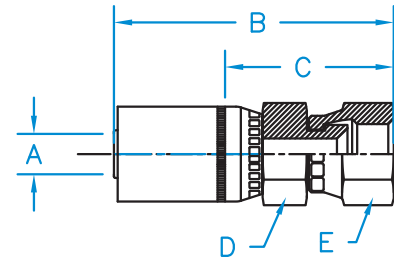
FFX - O-Ring Face Seal Female Coupling

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-04-04-R7	1/4	2.57	1.31	9/16	11/16	9/16 - 18
FFX-04-06-R7	1/4	2.51	1.25	11/16	13/16	11/16 - 16
FFX-05-06-R7	5/16	2.58	1.27	11/16	13/16	11/16 - 16
FFX-06-04-R7	3/8	2.84	1.35	3/4	11/16	9/16 - 18
FFX-06-06-R7	3/8	2.77	1.27	11/16	7/8	11/16 - 16
FFX-06-08-R7	3/8	2.95	1.45	7/8	15/16	13/16 - 16
FFX-08-08-R7	1/2	3.03	1.53	7/8	15/16	13/16 - 16
FFX-12-12-R7	3/4	3.66	2.07	1-1/8	1-3/8	1-3/16 - 12
FFX-16-16-R7	1	4.33	2.05	1-3/8	1-5/8	1-7/16 - 12



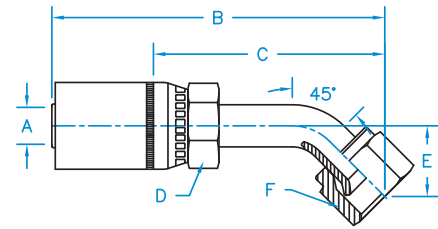
FJX - 37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-02-03-R7	1/8	1.65	1.05	1/2	9/16	3/8 - 24
FJX-02-04-R7	1/8	1.72	1.10	1/2	5/8	7/16 - 20
FJX-03-04-R7	3/16	2.19	1.13	9/16	5/8	7/16 - 20
FJX-03-05-R7	3/16	2.19	1.13	9/16	3/4	1/2 - 20
FJX-04-03-R7	1/4	2.44	1.19	5/8	9/16	3/8 - 24
FJX-04-04-R7	1/4	2.36	1.10	9/16	5/8	7/16 - 20
FJX-04-05-R7	1/4	2.50	1.25	9/16	3/4	1/2 - 20
FJX-04-06-R7	1/4	2.45	1.19	9/16	3/4	9/16 - 18
FJX-04-08-R7	1/4	2.63	1.37	3/4	7/8	3/4 - 16
FJX-05-04-R7	5/16	2.56	1.25	5/8	5/8	7/16 - 20
FJX-05-05-R7	5/16	2.56	1.25	5/8	3/4	1/2 - 20
FJX-05-06-R7	5/16	2.51	1.20	5/8	3/4	9/16 - 18
FJX-06-04-R7	3/8	2.62	1.12	11/16	5/8	7/16 - 20
FJX-06-05-R7	3/8	2.76	1.26	3/4	3/4	1/2 - 20
FJX-06-06-R7	3/8	2.70	1.36	11/16	3/4	9/16 - 18
FJX-06-08-R7	3/8	2.86	1.34	11/16	15/16	3/4 - 16
FJX-08-06-R7	1/2	2.94	1.43	7/8	11/16	9/16 - 18
FJX-08-08-R7	1/2	2.85	1.59	7/8	15/16	3/4 - 16
FJX-08-10-R7	1/2	3.09	1.59	7/8	1-1/16	7/8 - 14
FJX-12-10-R7	3/4	3.26	1.67	1-1/8	1-1/16	7/8 - 14
FJX-12-12-R7	3/4	3.25	1.70	1-1/8	1-1/4	1-1/16 - 12
FJX-12-14-R7	3/4	3.35	1.76	1-3/8	1-1/2	1-3/16 - 12
FJX-12-16-R7	3/4	3.23	1.67	1-3/8	1-1/2	1-5/16 - 12
FJX-16-12-R7	1	3.41	1.72	1-3/8	1-1/4	1-1/16 - 12
FJX-16-16-R7	1	3.39	1.66	1-3/8	1-1/2	1-5/16 - 12



FJX45 - 37° JIC Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-03-04-R7	3/16	2.36	1.30	9/16	0.39	9/16	7/16 - 20
FJX45-03-05-R7	3/16	2.50	1.44	9/16	0.53	5/8	1/2 - 20
FJX45-04-04-R7	1/4	3.14	1.88	5/8	0.39	9/16	7/16 - 20
FJX45-04-05-R7	1/4	3.17	1.91	5/8	0.39	5/8	1/2 - 20
FJX45-04-06-R7	1/4	3.21	1.96	5/8	0.43	11/16	9/16 - 18
FJX45-05-04-R7	5/16	3.19	1.88	5/8	0.39	9/16	7/16 - 20
FJX45-05-06-R7	5/16	3.29	1.98	5/8	0.43	11/16	9/16 - 18
FJX45-06-04-R7	3/8	2.81	1.30	3/4	0.47	9/16	7/16 - 20
FJX45-06-05-R7	3/8	2.95	1.45	11/16	0.53	5/8	1/2 - 20
FJX45-06-06-R7	3/8	3.47	1.97	11/16	0.43	11/16	9/16 - 18
FJX45-06-08-R7	3/8	3.81	2.31	3/4	0.59	7/8	3/4 - 16
FJX45-08-06-R7	1/2	3.17	1.48	7/8	0.59	11/16	9/16 - 18
FJX45-08-08-R7	1/2	3.91	2.41	7/8	0.59	7/8	3/4 - 16
FJX45-08-10-R7	1/2	3.56	2.06	7/8	0.63	1	7/8 - 14
FJX45-12-12-R7	3/4	3.90	2.56	1-1/8	0.83	1-1/4	1-1/16 - 12
FJX45-16-16-R7	1	4.92	2.64	1-3/8	1.15	1-1/2	1-5/16 - 12



Hose

Braided Hose Couplings

W Style Couplings

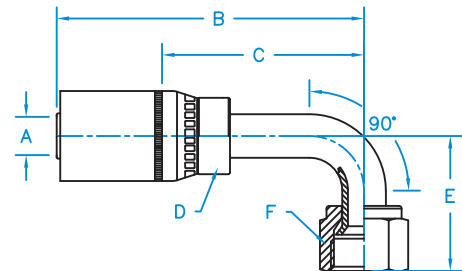
Other Couplings

Threads & Connections

Additional Products

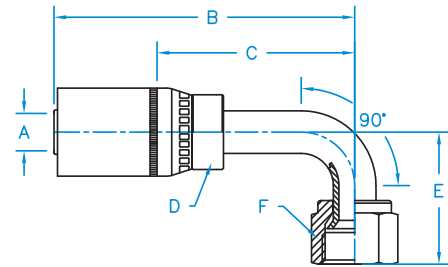
FJX90L - 37° JIC Female 90° Long Drop Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90L-04-04-R7	1/4	2.32	1.72	5/8	0.83	9/16	7/16 - 20
FJX90L-04-06-R7	1/4	2.44	1.19	5/8	2.18	11/16	9/16 - 18
FJX90L-06-04-R7	3/8	2.58	1.06	3/4	1.81	9/16	7/16 - 20
FJX90L-06-06-R7	3/8	3.38	1.19	11/16	2.13	11/16	9/16 - 18
FJX90L-06-08-R7	3/8	3.63	2.13	3/4	2.52	7/8	3/4 - 16
FJX90L-08-08-R7	1/2	3.75	2.25	7/8	2.52	7/8	3/4 - 16
FJX90L-08-10-R7	1/2	3.50	2.00	7/8	2.76	1	7/8 - 14
FJX90L-12-12-R7	3/4	3.78	2.42	1-3/8	4.33	1-1/2	1-1/16 - 12
FJX90L-16-16-R7	1	4.65	2.37	1-3/8	4.33	1-1/2	1-5/16 - 12



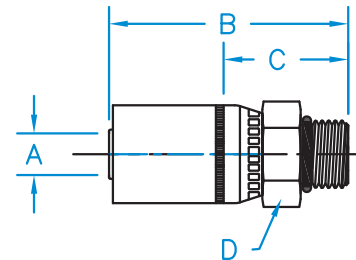
FJX90 - 37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-03-04-R7	3/16	1.89	0.95	7/16	0.88	9/16	7/16 - 20
FJX90-03-05-R7	3/16	2.30	1.25	9/16	0.875	5/8	1/2 - 20
FJX90-04-04-R7	1/4	3.04	1.78	5/8	0.83	9/16	7/16 - 20
FJX90-04-05-R7	1/4	3.07	1.81	5/8	0.83	5/8	1/2 - 20
FJX90-04-06-R7	1/4	3.17	1.91	5/8	0.91	11/16	9/16 - 18
FJX90-05-06-R7	5/16	2.69	1.38	5/8	0.94	11/16	9/16 - 18
FJX90-06-04-R7	3/8	2.56	1.06	3/4	0.88	9/16	7/16 - 20
FJX90-06-05-R7	3/8	2.77	1.27	11/16	0.88	5/8	1/2 - 20
FJX90-06-06-R7	3/8	3.38	1.88	11/16	0.86	11/16	9/16 - 18
FJX90-06-08-R7	3/8	3.63	2.13	3/4	1.12	7/8	3/4 - 16
FJX90-08-08-R7	1/2	3.75	2.25	7/8	1.13	7/8	3/4 - 16
FJX90-08-10-R7	1/2	3.25	1.75	7/8	1.23	1	7/8 - 14
FJX90-12-10-R7	3/4	3.48	1.89	1-1/8	1.23	1	7/8 - 14
FJX90-12-12-R7	3/4	3.76	2.30	1-1/8	1.83	1-1/4	1-1/16 - 12
FJX90-12-16-R7	3/4	4.19	2.31	1-3/8	2.50	1-1/2	1-5/16 - 12
FJX90-16-16-R7	1	4.65	2.37	1-3/8	2.5	1-1/2	1-5/16 - 12



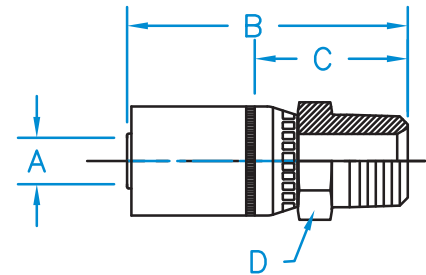
Male Boss O-Ring Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MB-03-04-R7	3/16	1.92	0.86	9/16	7/16 - 20
MB-04-04-R7	1/4	2.11	0.86	5/8	7/16 - 20
MB-04-05-R7	1/4	2.11	0.86	5/8	1/2 - 20
MB-04-06-R7	1/4	2.15	0.89	11/16	9/16 - 18
MB-04-08-R7	1/4	2.34	1.09	7/8	3/4 - 16
MB-06-06-R7	3/8	2.50	1.00	3/4	9/16 - 18
MB-06-08-R7	3/8	2.54	1.04	7/8	3/4 - 16
MB-06-10-R7	3/8	2.65	1.15	1	7/8 - 14
MB-08-08-R7	1/2	2.68	1.18	15/16	3/4 - 16
MB-08-10-R7	1/2	2.75	1.85	1-1/16	7/8 - 14
MB-08-12-R7	1/2	2.84	1.34	1-1/4	1-1/16 - 12
MB-12-12-R7	3/4	2.95	1.36	1-1/4	1-1/16 - 12
MB-12-16-R7	3/4	3.05	1.46	1-1/2	1-5/16 - 12
MB-16-16-R7	1	3.21	1.48	1-1/2	1-5/16 - 12



MP - Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-02-02-R7	1/8	1.34	0.74	1/2	1/8 - 27
MP-03-02-R7	3/16	1.93	0.87	9/16	1/8 - 27
MP-03-04-R7	3/16	1.90	0.96	11/16	1/4 - 18
MP-04-02-R7	1/4	2.13	0.88	5/8	1/8 - 27
MP-04-04-R7	1/4	2.32	1.06	11/16	1/4 - 18
MP-04-06-R7	1/4	2.41	1.15	3/4	3/8 - 18
MP-04-08-R7	1/4	2.66	1.40	15/16	1/2 - 14
MP-05-04-R7	5/16	2.37	1.06	11/16	1/4 - 18
MP-05-06-R7	5/16	2.46	1.15	3/4	3/8 - 18
MP-06-04-R7	3/8	2.67	1.17	3/4	1/4 - 18
MP-06-06-R7	3/8	2.67	1.17	3/4	3/8 - 18
MP-06-08-R7	3/8	2.92	1.42	15/16	1/2 - 14
MP-08-06-R7	1/2	2.74	1.25	7/8	3/8 - 18
MP-08-08-R7	1/2	3.00	1.50	15/16	1/2 - 14
MP-12-12-R7	3/4	3.10	1.51	1-1/8	3/4 - 14
MP-12-16-R7	3/4	3.29	1.70	1-3/8	1-11 - 1/2
MP-16-12-R7	1	3.26	1.53	1-1/8	3/4 - 14
MP-16-16-R7	1	3.45	1.72	1-3/8	1-11 - 1/2



Hose

Braided Hose Couplings

W Style Couplings

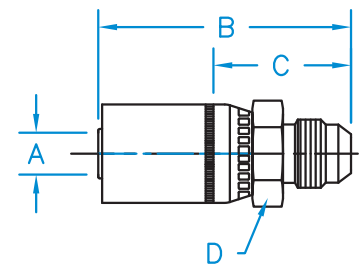
Other Couplings

Threads & Connections

Additional Products

MJ - 37° JIC Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MJ-03-04-R7	3/16	2.11	1.05	9/16	7/16 - 20
MJ-04-04-R7	1/4	2.30	1.05	5/8	7/16 - 20
MJ-04-05-R7	1/4	2.31	1.05	5/8	1/2 - 20
MJ-04-06-R7	1/4	2.31	1.06	3/4	9/16 - 18
MJ-05-05-R7	5/16	2.36	1.05	5/8	1/2 - 20
MJ-05-06-R7	5/16	2.36	1.05	11/16	9/16 - 18
MJ-06-04-R7	3/8	2.66	1.16	11/16	7/16 - 20
MJ-06-06-R7	3/8	2.66	1.17	3/4	9/16 - 18
MJ-06-08-R7	3/8	2.76	1.27	13/16	3/4 - 16
MJ-06-10-R7	3/8	2.94	1.44	7/8	7/8 - 14
MJ-08-06-R7	1/2	2.74	1.24	7/8	9/16 - 16
MJ-08-08-R7	1/2	2.85	1.35	7/8	3/4 - 16
MJ-08-10-R7	1/2	3.00	1.51	15/16	7/8 - 14
MJ-08-12-R7	1/2	3.11	1.61	1-1/8	1-1/16 - 12
MJ-12-10-R7	3/4	3.06	1.47	1-1/8	7/8 - 14
MJ-12-12-R7	3/4	3.22	1.63	1-1/8	1-1/16 - 12
MJ-12-14-R7	3/4	3.24	1.65	1-1/4	1-3/16 - 12
MJ-12-16-R7	3/4	3.27	1.67	1-3/8	1-5/16 - 12
MJ-16-16-R7	1	3.42	1.69	1-3/8	1-5/16 - 12



PTFE Couplings

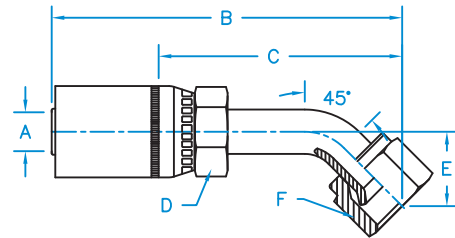
KURT
HYDRAULICS

- Slide on coupling (non expanding)
- Crimp on coupling (no special tooling)
- Very large selection
- Price competitive
- Carbon steel only



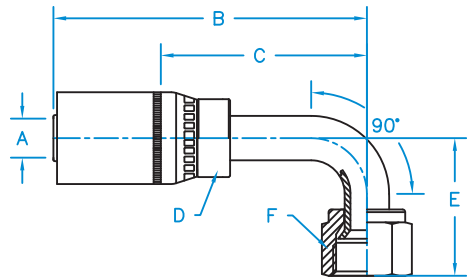
37° JIC Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-03-04-SST	3/16	1.85	1.18	9/16	0.47	9/16	7/16 - 20
FJX45-04-04-SST	1/4	3.14	1.88	5/8	0.39	9/16	7/16 - 20
FJX45-04-05-SST	1/4	2.57	1.47	5/8	0.47	9/16	1/2 - 20
FJX45-04-06-SST	1/4	2.92	1.50	3/4	0.59	11/16	9/16 - 18
FJX45-05-04-SST	5/16	3.19	1.88	5/8	0.39	9/16	7/16 - 20
FJX45-05-06-SST	5/16	3.29	1.98	5/8	0.43	11/16	9/16 - 18
FJX45-06-04-SST	3/8	2.57	1.47	5/8	0.47	9/16	7/16 - 20
FJX45-06-06-SST	3/8	2.92	1.50	3/4	0.59	11/16	9/16 - 18
FJX45-07-06-SST	7/16	3.42	1.95	3/4	0.43	11/16	9/16 - 18
FJX45-07-08-SST	7/16	3.79	2.32	7/8	0.59	7/8	3/4 - 16
FJX45-08-08-SST	1/2	3.28	1.63	7/8	0.71	7/8	3/4 - 16
FJX45-08-10-SST	1/2	3.56	2.06	1	0.63	1	7/8 - 14
FJX45-10-10-SST	5/8	3.52	1.84	1	0.84	1	7/8 - 14
FJX45-10-12-SST	5/8	4.33	2.44	1-1/4	1.18	1-1/4	1-1/16 - 12
FJX45-12-12-SST	3/4	4.33	2.44	1-1/4	1.18	1-1/4	1-1/16 - 12
FJX45-16-16-SST	1	4.88	2.88	1-1/2	0.93	1-1/2	1-5/16 - 12



37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-03-04-SST	3/16	1.61	0.94	9/16	1.00	9/16	7/16 - 20
FJX90-04-04-SST	1/4	2.28	1.31	5/8	0.88	9/16	7/16 - 20
FJX90-04-05-SST	1/4	2.28	1.31	5/8	0.88	9/16	1/2 - 20
FJX90-04-06-SST	1/4	2.44	1.19	5/8	1.13	11/16	9/16 - 18
FJX90-05-04-SST	5/16	3.03	1.72	5/8	0.83	9/16	7/16 - 20
FJX90-05-06-SST	5/16	3.17	1.86	5/8	0.91	11/16	9/16 - 18
FJX90-06-04-SST	3/8	2.28	1.31	5/8	0.88	9/16	7/16 - 20
FJX90-06-06-SST	3/8	2.63	1.19	3/4	1.13	11/16	9/16 - 18
FJX90-07-06-SST	7/16	3.33	1.86	3/4	0.91	11/16	9/16 - 18
FJX90-07-08-SST	7/16	3.63	2.16	7/8	1.13	7/8	3/4 - 16
FJX90-08-08-SST	1/2	3.66	2.16	7/8	1.13	7/8	3/4 - 16
FJX90-08-10-SST	1/2	3.25	1.75	1.000	1.23	1	7/8 - 14
FJX90-10-10-SST	5/8	3.54	1.66	1.000	1.23	1	7/8 - 14
FJX90-10-12-SST	5/8	3.88	2.06	1-1/8	2.31	1-1/4	1-1/16 - 12
FJX90-12-12-SST	3/4	3.88	2.06	1-1/8	2.31	1-1/4	1-1/16 - 12
FJX90-16-16-SST	1	4.75	2.31	1-1/2	2.50	1-1/2	1-5/16 - 12



Hose

Braided Hose Couplings

W Style Couplings

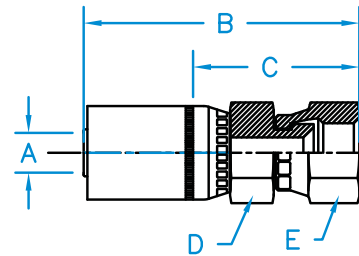
Other Couplings

Threads & Connections

Additional Products

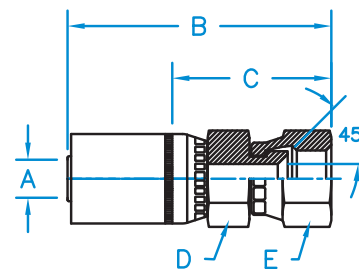
37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-03-04-SST	3/16	2.24	1.44	5/8	5/8	7/16 – 20
FJX-03-05-SST	3/16	2.24	1.44	5/8	3/4	1/2 – 20
FJX-04-04-SST	1/4	2.53	1.44	9/16	5/8	7/16 – 20
FJX-04-05-SST	1/4	2.53	1.44	5/8	3/4	1/2 – 20
FJX-04-06-SST	1/4	2.53	1.44	9/16	3/4	9/16 – 18
FJX-05-04-SST	5/16	2.56	1.25	5/8	9/16	7/16 – 20
FJX-05-05-SST	5/16	2.58	1.27	5/8	5/8	1/2 – 20
FJX-05-06-SST	5/16	2.51	1.20	5/8	11/16	9/16 – 18
FJX-06-06-SST	3/8	2.81	1.38	3/4	3/4	9/16 – 18
FJX-06-08-SST	3/8	2.88	1.38	11/16	7/8	3/4 – 16
FJX-07-06-SST	7/16	2.81	1.34	3/4	11/16	9/16 – 18
FJX-07-08-SST	7/16	2.82	1.35	3/4	7/8	3/4 – 16
FJX-08-06-SST	1/2	2.95	1.45	7/8	11/16	9/16 – 18
FJX-08-08-SST	1/2	3.16	1.50	7/8	15/16	3/4 – 16
FJX-08-10-SST	1/2	3.16	1.50	7/8	1	7/8 – 14
FJX-10-08-SST	5/8	3.24	1.50	7/8	15/16	3/4 – 16
FJX-10-10-SST	5/8	3.35	1.50	7/8	1-1/16	7/8 – 14
FJX-10-12-SST	5/8	3.45	1.62	1-1/8	1-1/4	1-1/16 – 12
FJX-12-12-SST	3/4	3.44	1.63	1-1/8	1-1/4	1-1/16 – 12
FJX-12-14-SST	3/4	3.44	1.63	1-1/8	1-1/4	1-3/16 – 12
FJX-12-16-SST	3/4	3.50	1.69	1-3/8	1-1/2	1-5/16 – 12
FJX-16-12-SST	1	3.62	1.63	1-1/8	1-1/4	1-1/16 – 16
FJX-16-16-SST	1	4.06	1.69	1-3/8	1-1/2	1-5/16 – 12



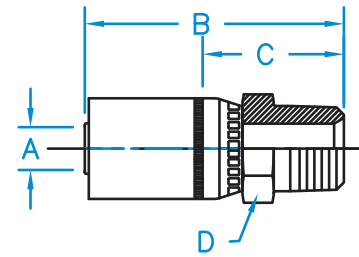
45° SAE Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FSX-06-06-SST	3/8	2.81	1.38	3/4	15/16	5/8 – 18
FSX-12-12-SST	3/4	3.44	1.63	1-1/8	1-1/4	1-1/16 – 14



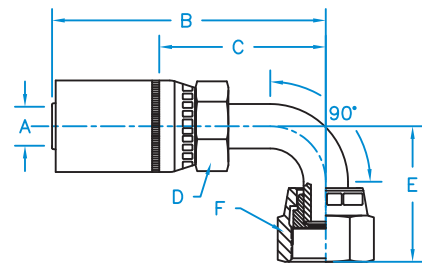
Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-03-02-SST	3/16	1.93	0.87	9/16	1/8 - 27
MP-03-04-SST	3/16	1.61	0.94	9/16	1/4 - 18
MP-04-02-SST	1/4	2.13	0.88	9/16	1/8 - 27
MP-04-04-SST	1/4	2.31	1.25	9/16	1/4 - 18
MP-04-06-SST	1/4	2.41	1.15	11/16	3/8 - 18
MP-05-04-SST	5/16	2.37	1.06	5/8	1/4 - 18
MP-05-06-SST	5/16	2.46	1.15	11/16	3/8 - 18
MP-06-04-SST	3/8	2.67	1.17	11/16	1/4 - 18
MP-06-06-SST	3/8	2.59	1.13	3/4	3/8 - 18
MP-06-08-SST	3/8	2.92	1.42	7/8	1/2 - 14
MP-07-06-SST	7/16	2.53	1.06	3/4	3/8 - 18
MP-07-08-SST	7/16	2.87	1.40	7/8	1/2 - 14
MP-08-06-SST	1/2	2.74	1.24	7/8	3/8 - 18
MP-08-08-SST	1/2	3.03	1.38	15/16	1/2 - 14
MP-10-08-SST	5/8	3.03	1.38	15/16	1/2 - 14
MP-10-12-SST	5/8	3.22	1.38	1-1/8	3/4 - 14
MP-12-08-SST	3/4	3.28	1.40	1-1/8	1/2 - 14
MP-12-12-SST	3/4	3.22	1.38	1-1/8	3/4 - 14
MP-12-16-SST	3/4	3.97	1.56	1-3/8	1 - 11-1/2
MP-16-12-SST	1	3.45	1.38	1-3/8	3/4 - 14
MP-16-16-SST	1	3.97	1.56	1-3/8	1 - 11-1/2



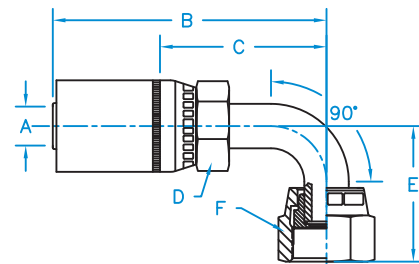
O-Face Seal Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX45-04-04-SST	1/4	2.55	1.47	5/8	0.41	11/16	9/16 - 18
FFX45-04-06-SST	1/4	2.65	1.51	3/4	0.43	13/16	11/16 - 16
FFX45-06-06-SST	3/8	2.83	1.51	3/4	0.43	13/16	11/16 - 16
FFX45-06-08-SST	3/8	3.15	1.75	7/8	0.59	15/16	13/16 - 16
FFX45-08-08-SST	1/2	3.32	1.75	7/8	0.59	15/16	13/16 - 16
FFX45-08-10-SST	1/2	3.58	2.31	7/8	0.69	1-1/8	1 - 14
FFX45-10-10-SST	5/8	3.61	2.22	7/8	0.69	1-1/8	1 - 14
FFX45-10-12-SST	5/8	4.11	2.57	1-1/8	0.83	1-3/8	1-3/16 - 12
FFX45-12-12-SST	3/4	4.33	2.57	1-1/8	0.83	1-3/8	1-3/16 - 12
FFX45-16-16-SST	1	4.55	2.84	1-3/8	0.97	1-5/8	1-7/16 - 12



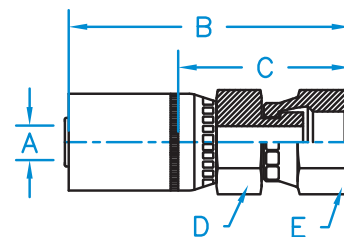
O-Face Seal Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90-03-04-SST	3/16	2.27	1.6	9/16	1.10	11/16	9/16 – 18
FFX90-04-04-SST	1/4	2.31	1.23	5/8	0.78	11/16	9/16 – 18
FFX90-04-06-SST	1/4	2.65	1.43	3/4	0.90	13/16	11/16 – 16
FFX90-06-06-SST	3/8	2.74	1.43	3/4	0.90	13/16	11/16 – 16
FFX90-06-08-SST	3/8	2.85	1.48	7/8	1.15	15/16	13/16 – 16
FFX90-08-08-SST	1/2	3.04	1.48	7/8	1.15	15/16	13/16 – 16
FFX90-08-10-SST	1/2	3.47	2.22	7/8	1.33	1-1/8	1 – 14
FFX90-10-10-SST	5/8	3.47	2.13	7/8	1.33	1-1/8	1 – 14
FFX90-10-12-SST	5/8	3.57	2.02	1-1/8	1.88	1-3/8	1-3/16 – 12
FFX90-12-12-SST	3/4	3.78	2.02	1-1/8	1.88	1-3/8	1-3/16 – 12
FFX90-16-16-SST	1	4.45	2.84	1-3/8	2.25	1-5/8	1-7/16 – 12



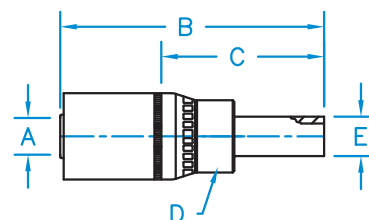
O-Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-03-04-SST	3/16	1.80	1.14	9/16	11/16	9/16 – 18
FFX-04-04-SST	1/4	2.60	1.52	9/16	11/16	9/16 – 18
FFX-04-06-SST	1/4	2.65	1.52	5/8	11/16	11/16 – 16
FFX-05-06-SST	5/16	2.48	1.17	5/8	13/16	11/16 – 16
FFX-06-06-SST	3/8	2.92	1.61	3/4	13/16	11/16 – 16
FFX-06-08-SST	3/8	3.22	1.72	7/8	15/16	13/16 – 16
FFX-07-08-SST	7/16	2.82	1.35	3/4	15/16	13/16 – 16
FFX-08-08-SST	1/2	3.29	1.72	7/8	15/16	13/16 – 16
FFX-08-10-SST	1/2	3.29	1.72	7/8	15/16	1 – 14
FFX-08-12-SST	1/2	3.35	1.95	1-1/8	1-3/8	1 – 14
FFX-10-10-SST	5/8	3.29	1.72	7/8	15/16	1 – 14
FFX-10-12-SST	5/8	3.71	1.95	1-1/8	1-3/8	1-3/16 – 12
FFX-12-12-SST	3/4	3.71	1.95	1-1/8	1-3/8	1-3/16 – 12
FFX-16-16-SST	1	4.36	2.11	1-3/8	1-5/8	1-7/16 – 12



Stand Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MW-04-04-SST	1/4	2.75	1.50	5/8	0.25	N/A
MW-04-05-SST	1/4	2.86	1.61	5/8	0.3125	N/A
MW-04-06-SST	1/4	2.94	1.69	5/8	0.375	N/A
MW-06-06-SST	3/8	3.18	1.68	11/16	0.375	N/A
MW-06-08-SST	3/8	3.45	1.95	3/4	0.500	N/A
MW-08-08-SST	1/2	3.63	1.95	7/8	0.500	N/A
MW-08-10-SST	1/2	3.84	0.71	7/8	0.625	N/A
MW-12-12-SST	3/4	4.77	2.89	1-1/8	0.750	N/A
MW-16-16-SST	1	4.79	3.05	1-3/8	1.000	N/A



R5 & R4 Couplings

KURT
HYDRAULICS

- All sizes 4-32
- Slide on crimp coupling (non reusable)
- Easy to install
- Large selection of ends available
- Price competitive

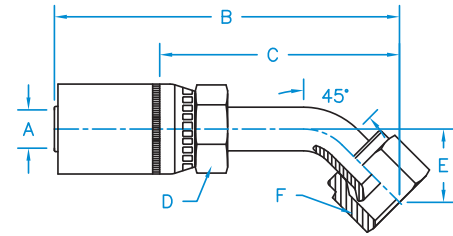


Other Couplings



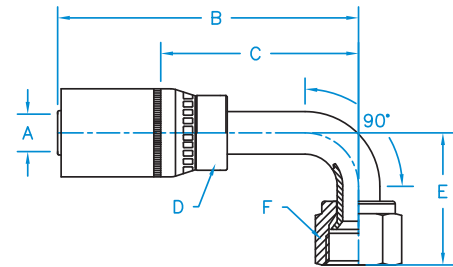
37° JIC Female 45° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX45-03-04-R5	3/16	2.13	1.19	7/16	0.47	9/16	7/16 – 20
FJX45-03-05-R5	3/16	2.75	1.81	5/8	0.39	5/8	1/2 – 20
FJX45-05-04-R5	5/16	3.19	1.88	5/8	0.39	9/16	7/16 – 20
FJX45-05-06-R5	5/16	3.29	1.98	5/8	0.43	11/16	9/16 – 18
FJX45-07-06-R5	7/16	3.42	1.95	3/4	0.43	11/16	9/16 – 18
FJX45-07-08-R5	7/16	3.79	2.32	7/8	0.59	7/8	3/4 – 16
FJX45-10-10-R5	5/8	3.81	2.31	1-1/8	0.63	1	7/8 – 14
FJX45-10-12-R5	5/8	3.66	2.16	1-1/8	0.83	1-1/4	1-1/16 – 12
FJX45-14-16-R5	7/8	4.75	2.31	1-1/2	2.50	1-1/2	1-5/16 – 12



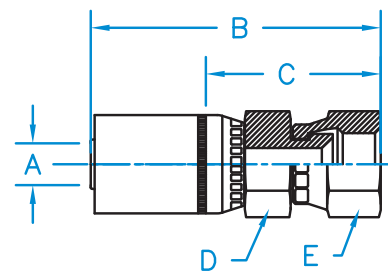
37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-03-04-R5	3/16	1.89	0.95	7/16	0.88	9/16	7/16 – 20
FJX90-03-05-R5	3/16	2.65	1.71	5/8	0.83	1/2	1/2 – 20
FJX90-05-04-R5	5/16	3.03	1.72	5/8	0.83	9/16	7/16 – 20
FJX90-05-05-R5	5/16	3.12	1.81	5/8	0.83	1/2	1/2 – 20
FJX90-05-06-R5	5/16	3.17	1.86	5/8	0.91	11/16	9/16 – 18
FJX90-07-06-R5	7/16	3.33	1.86	3/4	0.91	11/16	9/16 – 18
FJX90-07-08-R5	7/16	3.63	2.16	7/8	1.13	7/8	3/4 – 16
FJX90-10-10-R5	5/8	3.27	1.77	1-1/8	1.23	1	7/8 – 14
FJX90-10-12-R5	5/8	3.67	2.17	1-1/8	1.92	1-1/4	1-1/16 – 12
FJX90-14-16-R5	7/8	4.75	2.31	1-1/2	2.50	1-1/2	1-5/16 – 12



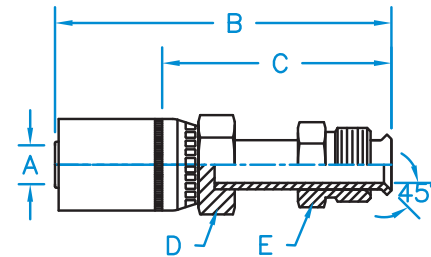
37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-03-04-R5	3/16	2.24	1.02	7/16	5/8	7/16 – 20
FJX-03-05-R5	3/16	2.24	1.44	5/8	3/4	1/2 – 20
FJX-04-04-R5	1/4	2.53	1.44	5/8	5/8	7/16 – 20
FJX-05-04-R5	5/16	2.56	1.25	5/8	9/16	7/16 – 20
FJX-05-05-R5	5/16	2.56	1.25	5/8	5/8	1/2 – 20
FJX-05-06-R5	5/16	2.51	1.20	5/8	5/8	9/16 – 18
FJX-07-06-R5	7/16	2.81	1.34	3/4	11/16	9/16 – 18
FJX-07-08-R5	7/16	2.82	1.35	3/4	7/8	3/4 – 16
FJX-08-08-R5	1/2	3.52	1.59	7/8	15/16	3/4 – 16
FJX-08-10-R5	1/2	3.52	1.50	7/8	1-1/16	7/8 – 14
FJX-10-08-R5	5/8	3.24	1.50	7/8	15/16	3/4 – 16
FJX-10-10-R5	5/8	3.35	1.50	7/8	1-1/16	7/8 – 14
FJX-10-12-R5	5/8	3.45	1.63	1-1/8	1-1/4	1-1/16 – 12
FJX-14-12-R5	7/8	3.29	1.69	1-3/8	1-1/4	1-1/16 – 12
FJX-14-16-R5	7/8	2.35	1.76	1-3/8	1-1/2	1-5/16 – 12
FJX-18-20-R5	1-1/8	3.73	1.99	1-11/16	2	1-5/8 – 12
FJX-22-24-R5	1-3/8	4.07	2.10	2	2-1/4	1-7/8 – 12
FJX-29-32-R5	1-3/16	5.06	2.56	2-1/2	2-7/8	2-1/2 – 12



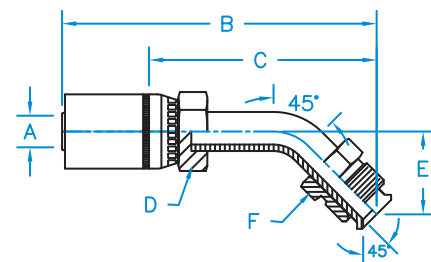
45° SAE Male Inverted Flare

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MIX-03-04-R5	3/16	2.79	1.95	7/16	7/16	7/16 - 24
MIX-04-04-R5	1/4	3.20	1.94	5/8	7/16	7/16 - 24
MIX-04-05-R5	1/4	3.26	2.00	5/8	1/2	1/2 - 20
MIX-04-06-R5	1/4	2.90	1.65	5/8	5/8	5/8 - 18
MIX-05-05-R5	5/16	3.37	2.06	5/8	1/2	1/2 - 20
MIX-05-06-R5	5/16	3.75	2.41	5/8	5/8	5/8 - 18
MIX-07-08-R5	7/16	3.69	2.22	7/8	3/4	3/4 - 18
MIX-08-08-R5	1/2	3.59	1.92	7/8	3/4	3/4 - 18



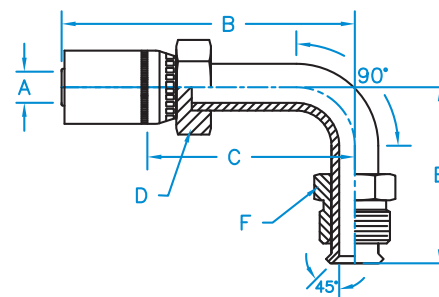
45° SAE Male Inverted Flare 45° Bent Tube

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX45-03-04-R5	3/16	2.53	1.59	7/6	0.78	7/16	7/16 - 24
MIX45-04-04-R5	1/4	2.73	1.46	5/8	0.60	7/16	7/16 - 24
MIX45-04-05-R5	1/4	2.86	1.59	5/8	0.69	1/2	1/2 - 20
MIX45-04-06-R5	1/4	2.90	1.65	5/8	0.94	5/8	5/8 - 18
MIX45-05-05-R5	5/16	2.96	1.65	5/8	0.76	1/2	1/2 - 20
MIX45-05-06-R5	5/16	3.75	2.41	5/8	0.94	5/8	5/8 - 18
MIX45-07-08-R5	7/16	4.26	2.79	7/8	1.06	3/4	3/4 - 18
MIX45-08-08-R5	1/2	3.59	1.92	7/8	0.96	3/4	3/4 - 18



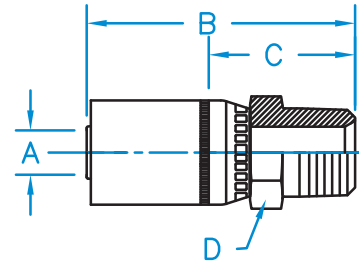
45° SAE Male Inverted Flare 90° Bent Tube

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MIX90-03-04-R5	3/16	1.94	1.00	7/16	1.47	7/16	7/16 - 24
MIX90-04-04 R5	1/4	3.28	1.94	5/8	1.47	7/16	7/16 - 24
MIX90-04-05-R5	1/4	3.52	2.16	5/8	1.66	1/2	1/2 - 20
MIX90-04-06-R5	1/4	3.50	2.16	5/8	1.69	5/8	5/8 - 18
MIX90-05-04-R5	5/16	2.42	1.11	5/8	1.47	7/16	7/16 - 24
MIX90-05-05-R5	5/16	4.00	2.30	5/8	1.66	1/2	1/2 - 20
MIX90-05-06-R5	5/16	4.05	2.69	5/8	1.69	5/8	5/8 - 18
MIX90-07-08-R5	7/16	3.63	2.16	7/8	1.88	3/4	3/4 - 18
MIX90-08-08-R5	1/2	3.10	1.41	7/8	0.78	3/4	3/4 - 18



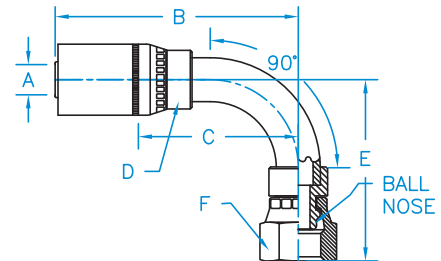
Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-03-02-R5	3/16	1.93	0.87	9/16	1/8 – 27
MP-03-04-R5	3/16	1.90	0.96	9/16	1/4 – 18
MP-04-04-R5	1/4	2.31	1.25	11/16	1/4 – 18
MP-05-04-R5	5/16	2.37	1.06	5/8	1/4 – 18
MP-05-06-R5	5/16	2.46	1.15	11/16	3/8 – 18
MP-07-06-R5	7/16	2.53	1.06	3/4	3/8 – 18
MP-07-08-R5	7/16	2.87	1.40	7/8	1/2 – 14
MP-08-08-R5	1/2	3.03	1.38	15/16	1/2 – 14
MP-10-08-R5	5/8	3.03	1.38	15/16	1/2 – 14
MP-10-12-R5	5/8	3.22	1.38	1-1/8	3/4 – 14
MP-14-12-R5	7/8	3.09	1.49	1-3/8	3/4 – 14
MP-14-16-R5	7/8	3.28	1.69	1-3/8	1 – 11-1/2
MP-18-20-R5	1-1/8	3.51	1.78	1-11/16	1-1/4 – 11-1/2
MP-22-24-R5	1-3/8	3.86	1.89	2	1-1/2 – 11-1/2
MP-29-32-R5	1-13/16	4.48	1.98	2-1/2	2 – 11-1/2



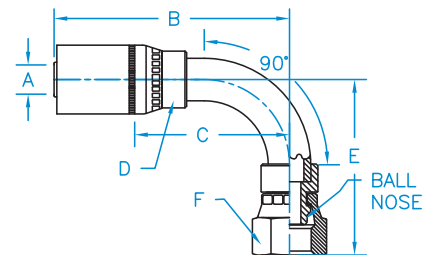
Din Heavy Universal Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DINHX90-05-18-R5	5/16	2.49	1.18	5/8	2.05	15/16	M18 X 1.5



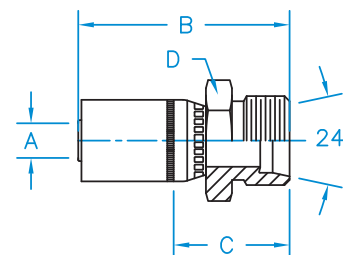
Din Light Universal Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DINLX90-05-16-R5	5/16	3.17	1.86	5/8	1.99	7/8	M18 X 1.5



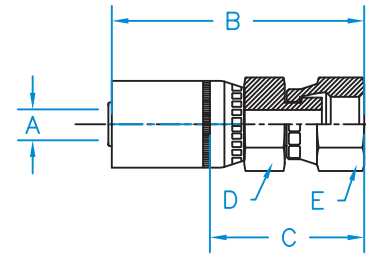
Din Light Universal Seat Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
M-DL05-12-18-R5	5/16	2.60	1.10	11/16	M18 X 1.5



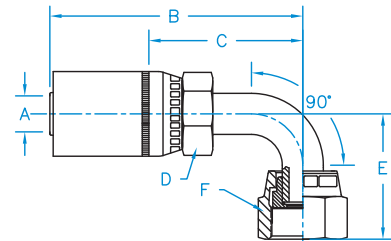
FFX - O-Ring Face Seal Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FFX-05-06-R5	5/16	2.52	1.21	5/8	13/16	11/16 - 16
FFX-10-12-R5	5/8	3.23	1.73	1-1/8	1-3/8	1-3/16 - 12
FFX-18-20-R5	1-1/4	3.60	1.87	1-5/8	1-7/8	1-11/16 - 12



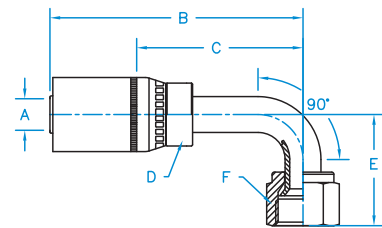
FFX90 - O-Ring Face Seal 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90-05-06-R5	5/16	3.17	1.86	5/8	0.91	13/16	11/16 - 16
FFX90-10-10-R5	5/8	3.32	1.44	1-1/16	1.26	1-1/8	1 - 14



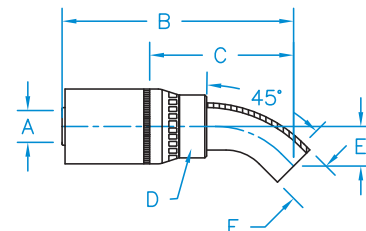
FJX90L - 37° JIC Female 90° Long Drop Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90L-10-10-R5	5/8	2.13	1.44	1-1/16	2.57	1	7/8 - 14
FJX90L-14-16-R5	7/8	4.51	2.92	1-3/8	4.30	1-1/2	1-5/16 - 12



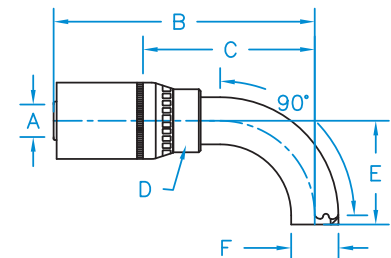
Metric O.D. Stand Pipe 45° Bent Tube

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MMSP45-05-10-R5	5/16	3.71	2.34	5/8	0.94	10MM	N/A
MMSP45-05-12-R5	5/16	3.95	2.59	5/8	0.90	12MM	N/A



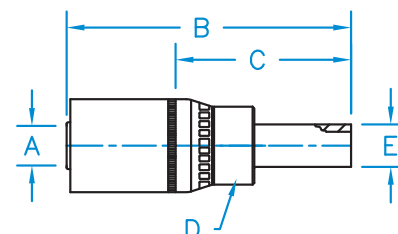
Metric O.D. Stand Pipe 90° Bent Tube

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
MMSP90-05-10-R5	5/16	3.22	1.88	5/8	1.54	10MM	N/A
MMSP90-05-12-R5	5/16	3.46	2.09	5/8	1.69	12MM	N/A



Metric O.D. Stand Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MMSP-05-10-R5	5/16	3.20	1.83	5/8	10MM	N/A
MMSP-05-12-R5	5/16	3.23	1.88	5/8	12MM	N/A



Hose

Braided Hose Couplings

W Style Couplings

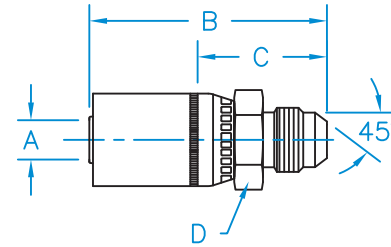
Other Couplings

Threads & Connections

Additional Products

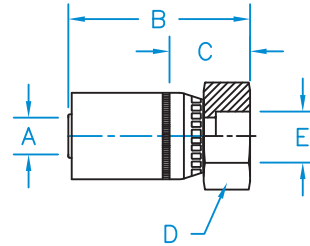
MS - 45° SAE Male Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MS-05-05-R5	5/16	2.37	1.06	5/8	1/2 - 20
MS-05-06-R5	5/16	2.58	1.27	7/8	5/8 - 18



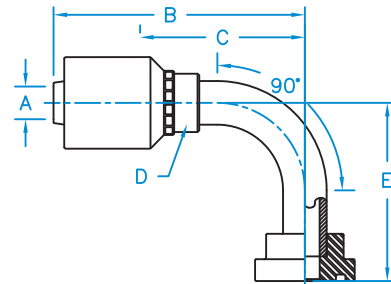
FW - Female Weld Fitting Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FW-03-04-R5	3/16	1.46	0.52	7/16	1/4	N/A
FW-05-06-R5	5/16	1.93	0.60	5/8	3/8	N/A
FW-07-08-R5	7/16	2.09	0.62	7/8	1/2	N/A



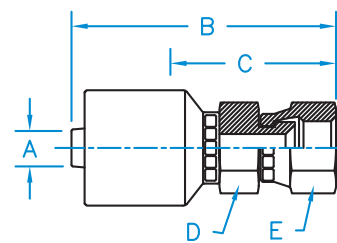
Code 61 Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6190-12-12-R4	3/4	4.82	2.94	1	2.37	N/A
C6190-12-16-R4	3/4	4.82	2.94	1	2.38	N/A
C6190-16-16-R4	1	5.22	3.08	1-5/16	2.80	N/A
C6190-16-20-R4	1	5.22	2.69	1-5/16	2.25	N/A
C6190-20-20-R4	1-1/4	6.23	3.78	1-5/8	2.67	N/A
C6190-20-24-R4	1-1/4	6.23	3.93	1-5/8	2.74	N/A
C6190-24-24-R4	1-1/2	6.74	4.14	2	3.26	N/A
C6190-24-32-R4	1-1/2	6.74	4.14	2	3.26	N/A
C6190-32-32-R4	2	8.26	5.01	2-1/2	4.68	N/A



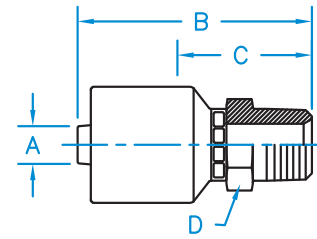
FJX - 37° JIC Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FJX-12-12-R4	3/4	3.38	1.59	1-1/16	1-1/4	1-1/16 - 12
FJX-12-16-R4	3/4	3.45	1.66	1-3/8	1-1/2	1-5/16 - 12
FJX-16-12-R4	1	3.39	1.60	1-3/8	1-1/4	1-1/16 - 12
FJX-16-16-R4	1	3.78	1.67	1-3/8	1-1/2	1-5/16 - 12
FJX-16-20-R4	1	4.02	1.90	1-11/16	2	1-5/8 - 12
FJX-20-16-R4	1-1/4	4.29	1.75	1-3/4	1-1/2	1-5/16 - 12
FJX-20-20-R4	1-1/4	4.37	1.92	1-11/16	2	1-5/8 - 12
FJX-20-24-R4	1-1/4	4.54	2.09	2	2-1/4	1-7/8 - 12
FJX-24-24-R4	1-1/2	4.76	2.16	2	2-1/4	1-7/8 - 12
FJX-32-32-R4	2	5.95	2.70	2-1/2	2-7/8	2-1/2 - 12



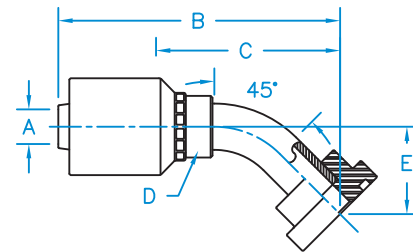
Male Pipe NPTF Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
MP-12-12-R4	3/4	3.19	1.40	1-1/16	3/4 - 14
MP-12-16-R4	3/4	3.39	1.61	1-3/8	1 - 11-1/2
MP-16-12-R4	1	3.51	1.42	1-3/8	3/4 - 14
MP-16-16-R4	1	3.73	1.62	1-3/8	1 - 11-1/2
MP-16-20-R4	1	3.80	1.69	1-11/16	1-1/4 - 11-1/2
MP-20-20-R4	1-1/4	4.15	1.70	1-11/16	1-1/4 - 11-1/2
MP-20-24-R4	1-1/4	4.26	1.81	2	1-1/2 - 11-1/2
MP-24-24-R4	1-1/2	4.48	1.51	2	1-1/2 - 11-1/2
MP-32-32-R4	2	5.41	2.16	2-1/2	2 - 11-1/2



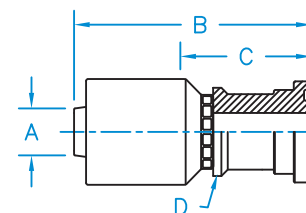
Code 61 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6145-12-12-R4	3/4	4.62	2.75	1	0.84	N/A
C6145-12-16-R4	3/4	4.62	2.75	1	0.84	N/A
C6145-16-16-R4	1	4.70	2.71	1-5/16	1.13	N/A
C6145-16-20-R4	1	4.83	2.74	1-5/16	0.94	N/A
C6145-20-20-R4	1-1/4	5.40	3.65	1-5/8	1.26	N/A
C6145-20-24-R4	1-1/4	5.03	3.69	1-5/8	1.30	N/A
C6145-24-24-R4	1-1/2	5.98	4.38	2	1.35	N/A
C6145-24-32-R4	1-1/2	6.98	4.38	2	1.35	N/A
C6145-32-32-R4	2	8.57	5.32	2-1/2	2.11	N/A
C6145-32-40-R4	2	9.05	5.75	2-1/2	2.77	N/A



Code 61 Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	D	Thread
C61-12-12-R4	3/4	3.40	1.61	1-1/2	N/A
C61-12-16-R4	3/4	3.70	1.91	1-3/4	N/A
C61-16-16-R4	1	4.02	1.91	1-3/4	N/A
C61-16-20-R4	1	4.02	1.91	2	N/A
C61-16-24-R4	1	4.20	2.07	2-3/8	N/A
C61-20-20-R4	1-1/4	4.40	1.95	2	N/A
C61-20-24-R4	1-1/4	4.56	2.11	2-3/8	N/A
C61-24-24-R4	1-1/2	4.69	2.09	2-3/8	N/A
C61-24-32-R4	1-1/2	5.30	2.70	2-13/16	N/A
C61-32-32-R4	2	6.02	2.77	2-13/16	N/A



Hose

Braided Hose Couplings

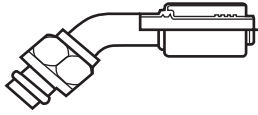
W Style Couplings

Other Couplings

Threads & Connections

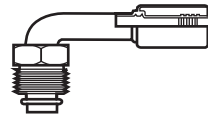
Additional Products

45° Female O-Ring Swivel Bent Tube



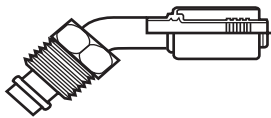
Part Number	Hose I.D. (in.)	Thread
BL06-06TF45T	5/16	5/8 – 18
BL08-08TF45T	13/32	3/4 – 18
BL10-10TF45T	1/2	7/8 – 18
BL12-12TF45T	5/8	1-1/16 – 16

90° Male O-Ring Swivel



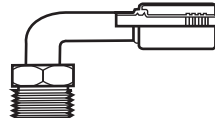
Part Number	Hose I.D. (in.)	Thread
BL-06-06TM90T	5/16	5/8 – 18
BL-08-08TM90T	13/32	3/4 – 18
BL-10-10TM90T	1/2	7/8 – 18
BL-12-12TM90T	5/8	1-1/16 – 16

45° Male O-Ring Swivel



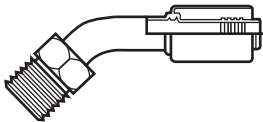
Part Number	Hose I.D. (in.)	Thread
BL-06-06TM45T	5/16	5/8 – 18
BL-08-08TM45T	13/32	3/4 – 18
BL-10-10TM45T	1/2	7/8 – 18
BL-12-12TM45T	5/8	1-1/16 – 16

90° Straight Male Insert O-Ring



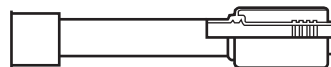
Part Number	Hose I.D. (in.)	Thread
BL-06-06MOR90	5/16	5/8 – 18
BL-08-08MOR90	13/32	3/4 – 18
BL-10-10MOR90	1/2	7/8 – 18
BL-12-12MOR90	5/8	1-1/16 – 16

45° Straight Male Insert O-Ring



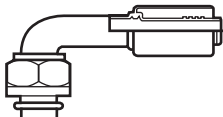
Part Number	Hose I.D. (in.)	Thread
BL-06-06MOR45	5/16	5/8 – 18
BL-08-08MOR45	13/32	3/4 – 18
BL-10-10MOR45	1/2	7/8 – 18
BL-12-12MOR45	5/8	1-1/16 – 16

Braze on For Beadlock System



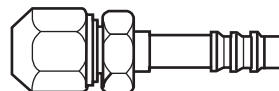
Part Number	Hose I.D. (in.)	Thread
BL-06-06BR	5/16	N/A
BL-08-08BR	13/32	N/A
BL-10-10BR	1/2	N/A
BL-12-12BR	5/8	N/A

90° Female O-Ring Swivel Bent Tube



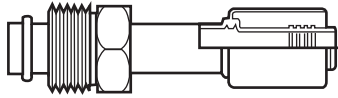
Part Number	Hose I.D. (in.)	Thread
BL06-06TF90T	5/16	5/8 – 18
BL08-08TF90T	13/32	3/4 – 18
BL10-10TF90T	1/2	7/8 – 18
BL12-12TF90T	5/8	1-1/16 – 16

Compression Repair Coupling



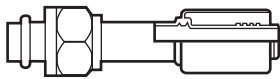
Part Number	Hose I.D. (in.)	Thread
BL-06-06MV	5/16	N/A
BL-08-08MV	13/32	N/A
BL-10-10MV	1/2	N/A
BL-12-12MV	5/8	N/A

Male O-Ring Swivel



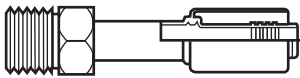
Part Number	Hose I.D. (in.)	Thread
BL-06-06TMS	5/16	5/8 – 18
BL-08-08TMS	13/32	3/4 – 18
BL-10-10TMS	1/2	7/8 – 18
BL-12-12TMS	5/8	1-1/16 – 16

Straight Female O-Ring Swivel



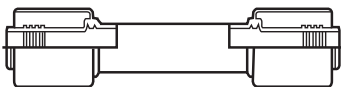
Part Number	Hose I.D. (in.)	Thread
BL06-06TFS	5/16	5/8 – 18
BL08-08TFS	13/32	3/4 – 18
BL10-10TFS	1/2	7/8 – 18
BL12-12TFS	5/8	1-1/16 – 16

Straight Male Insert O-Ring



Part Number	Hose I.D. (in.)	Thread
BL-06-06MOR	5/16	5/8 – 18
BL-08-08MOR	13/32	3/4 – 18
BL-10-10MOR	1/2	7/8 – 18
BL-12-12MOR	5/8	1-1/16 – 16

Straight Splicer



Part Number	Hose I.D. (in.)	Thread
BL-06-06RM	5/16	N/A
BL-08-08RM	13/32	N/A
BL-10-10RM	1/2	N/A
BL-12-12RM	5/8	N/A

Braze in Service Port



Part Number
ACP348

Braze in Service Port



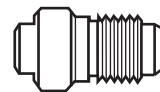
Part Number
ACP349

Braze in Service Port



Part Number
ACP350

Braze in Service Port



Part Number
ACP351
ACP352

Braze in Service Port



Part Number
ACPM12A

Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products

Important: This is intended as a guide only to machine types, country of origin, thread form and example thread series numbers. Changes made by OEM's or End User's may prove otherwise. Always check for yourself.

MACHINE TYPE	COUNTRY OF ORIGIN	THREAD FORM
Atlas Cranes	German	DKL/DKS
Atlas Excavators	German	DKL/DKS/Flange
Belarus Traactor	Russian	DKLL
Biteli	Italy	DKL/DKS/DKO
Bobcat	American	JIC
Bomag	German	DKL/DKS/DKO
Case	American	JIC/NPT/ORFS/Flange
Caterpillar	American	JIC/NPT/ORFS/Flange
Cougar	American	JIC/NPT
Clarke Michigan	American	JIC/NPT
Demag	German	DKL/DKS/DKO/Flange
Ditchwitch	American	JIC/NPT/ORFS
Dynapac	Sweden	DKL/DKS/DKO/Flange
Fiat	Italy	DKL/DKS
Finlay	British	BSP
Ford B/Hoe	American	JIC
Gradall	American	JIC/NPT/ORFS
Grove Cranes	American	JIC/NPT/ORFS/Flange
Hanamag	German	DKL/DKS/DKO
Hitachi	Japan	ORFS/Flanges
J.C.B.	British	BSP
John Deere	American	ORFS/Flange
Hiabb	British	BSPP Flatface
Kato	Japan	BSP/Flange
Kobelco	France	Millimetric/Flange
Koehring	American	JIC/NPT/Flange
Komatsu	Japan	JIS Metric/Flange
Dramer B/Hoe	German	DKL/DKS/DKO
Drupp Cranes	German	DKL/DKS/DKO
Kubota	Japan	BSP
Liebherr	German	DKL/DKS/DKO/Flange
Linkbelt	British/American	BSP/Flange/JIC/NPT
Manato	Japan	JIS (BSPP)
Massey Ferguson	American	JIC/NPT
Mitsubishi-mobile	Japan	JIS(BSPP)
Mitsubishi-industrial	Japan	JIS (BSPP) /BSPP
Mustang	American	JIC
O & K	German	DKL/DKS/DKO/Flange
P & H	German	JIS (BSPP) /Flange
Poclain	French	GAZ/DKL/DKS/Flange
Power Screen	British	BSP
Terex	American	JIC/NPT/Flange
Vibromax	German	DKL/DKS/DKO
Volvo	Sweden	DKL/DKS/DKO/Flange
Zetor Tractor	Yugoslavia	DKL/DKS/DKO

Rubber Hose Air Brake Fittings

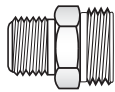
Recommended for: Use with SAE J1402 air brake hose in making hose assemblies.

Working pressure: Up to 225 psi.

D.O.T. - Meets FVSS571.106 standard when used with SAE J1402 air hose.

Temperature range: 50° F to 212° F

Adapter



Part Number	Hose Size	Pipe Size
A64	3/8	1/4
A66	3/8	3/8
A68	3/8	1/2
A86	1/2	3/8

Union, Complete



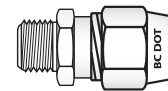
Part Number	Hose Size	Pipe Size
770038	3/8	3/4-20
770012	1/2	3/4-20

Male Connector with Spring Guard

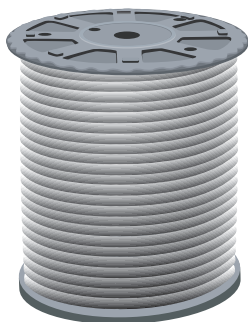


Part Number	Hose Size	Pipe Size
883814S	3/8	1/4
883838S	3/8	3/8
883812S	3/8	1/2
881238S	1/2	3/8

Male Connector



Part Number	Hose Size	Pipe Size
883814	3/8	1/4
883838	3/8	3/8
883812	3/8	1/2
881238	1/2	3/8



Bulk Air Brake Hose

Bulk rubber hose for use in making brake chamber hose assemblies to custom lengths. It can be used with reusable style brass hose ends and/or fittings designed for use with a portable crimping machine. Bulk Air brake hose is certified to meet all pertinent SAE and DOT requirements.

Made in the U.S.A.

Part Number	Length	I.D.	O.D.
38250	250'	3/8"	3/4"
12250	250'	1/2"	7/8"

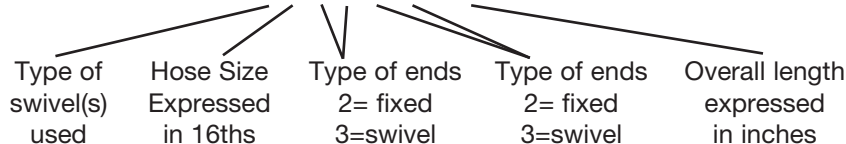
Hose Assemblies



Top quality air brake hose assemblies are in use by most major trailer manufacturers and meet all pertinent SAE and DOT standards.

How to read air brake hose assembly part numbers:

EXAMPLE: 262366-24



Hose Assembly Part Numbers	
3/8" Hose w/ 3/8" Fixed & Swivel	
262366-24	262366-42
262366-30	262366-48
262366-36	262366-60
1/2" Hose w/ 3/8" Fixed & Swivel	
282366-18	282366-42
282366-24	282366-48
282366-30	282366-60
282366-36	282366-72

Code 61 Flange Kits

C61-08 KIT	O-Rings/Flange Kits
C61-12 KIT	O-Rings/Flange Kits
C61-16 KIT	O-Rings/Flange Kits
C61-20 KIT	O-Rings/Flange Kits
C61-24 KIT	O-Rings/Flange Kits
C61-32 KIT	O-Rings/Flange Kits

Code 62 Flange Kits

C62-08 KIT	O-Rings/Flange Kits
C62-12 KIT	O-Rings/Flange Kits
C62-16 KIT	O-Rings/Flange Kits
C62-20 KIT	O-Rings/Flange Kits
C62-24 KIT	O-Rings/Flange Kits
C62-32 KIT	O-Rings/Flange Kits

CAT Flange Halves

CAT-12 H	Flange Kits
CAT-16 H	Flange Kits
CAT-20 H	Flange Kits
CAT-24 H	Flange Kits
CAT-32 H	Flange Kits

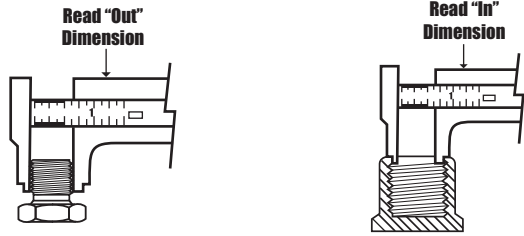
O-Rings

BOSS-O-02	O-Rings
BOSS-O-03	O-Rings
BOSS-O-04	O-Rings
BOSS-O-05	O-Rings
BOSS-O-06	O-Rings
BOSS-O-08	O-Rings
BOSS-O-10	O-Rings
BOSS-O-14	O-Rings
BOSS-O-14	O-Rings
BOSS-O-16	O-Rings
BOSS-O-20	O-Rings
BOSS-O-24	O-Rings
C61-2-O-08	O-Rings
C61-2-O-12	O-Rings
C61-2-O-16	O-Rings
C61-2-O-20	O-Rings
C61-2-O-24	O-Rings
C61-2-O-32	O-Rings
ORFS-O-04	O-Rings
ORFS-O-06	O-Rings
ORFS-O-08	O-Rings
ORFS-O-10	O-Rings
ORFS-O-12	O-Rings
ORFS-O-16	O-Rings
ORFS-O-20	O-Rings
ORFS-O-24	O-Rings

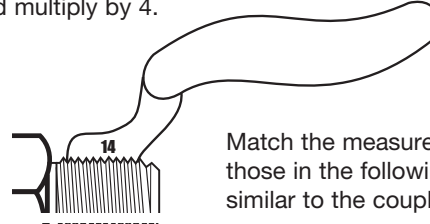


Measuring Threads

Using a caliper measure the thread diameter of the largest point. (Outside diameter (O.D.) of male threads - Inside Diameter (I.D.) of female threads.)



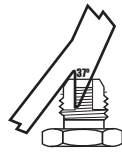
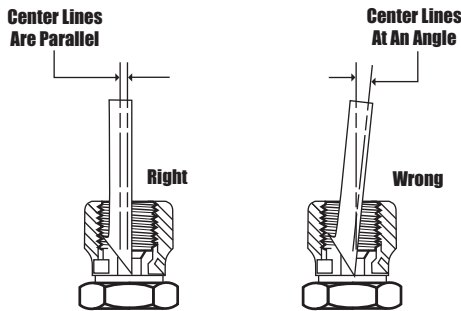
Using a thread gauge, determine the number of threads per inch. Next, compare the gauge and coupling threads against a lighted background to ensure accuracy. As an alternate method count the number of threads over a 1/4" distance on a machinist scale or ruler and multiply by 4.



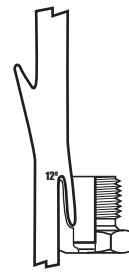
Match the measurements taken above against those in the following tables that appear to be similar to the coupling under review.

Measuring Seat Angles

Using a seat gauge, determine the angle of the seat as shown. When the centerline of the seat gauge extends parallel with the projected longitudinal axis of the coupling, then the angles of the gauge and seat match.



DIN 37°



DIN 24°

Center Lines Are Parallel

Compare the measurements taken to a coupling shown in the following tables that appear to be similar.

NOTE: Binding of the threads will occur when different thread configurations are used. DO NOT mix thread configurations.

Thread Chart

DASH SIZE	2	3	4	5	6	7	8	10	12	14	16	20	24	32	40	48
NPTF Pipe Thread	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	2-1/2-8	3-8
NPSM Swivel Thread	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		
JIC 37° Flare Thread	5/16-24	3/8-24	7/16-20	1/2-20	9/16-18		3/4-16	7/8-14	1-1/16-12	1-3/16-12	1-5/16-12	1-5/8-12	1-7/8-12	2-1/2-12	3-12	3-1/2-12
SAE 45° Flare Thread	5/16-24	3/8-24	7/16-20	1/2-20	5/8-18	11/16-16	3/4-16	7/8-14	1-1/16-14							
SAE O-Ring Thread	5/16-24	3/8-24	7/16-20	1/2-20	9/16-18		3/4-16	7/8-14	1-1/16-12	1-3/16-12	1-5/16-12	1-5/8-12	1-7/8-12	2-1/2-12		
Flat-Face Thread		9/16-18		11/16-16		13/16-16	1-14	1-3/16-12		1-7/16-12	1-11/16-12	2-12				
Inverted Flare Thread	5/16-28	3/8-24	7/16-24	1/2-20	5/8-18	11/16-18	3/4-18	7/8-18	1/16-16							
Compression Thread	5/16-24	3/8-24	7/16-24	1/2-24	9/16-24	5/8-24	11/16-20	13/16-18	1-18							
Code 61 Flange Head O.D.							1.19	1.34	1.50		1.75	2.00	2.38	2.81	3.31	4.00
Code 62 Flange Head O.D.							1.25		1.62		1.88	2.12	2.50	3.12		
BSPP Thread	1/8-28		1/4-19		3/8-19		1/2-14	5/8-14	3/4-14		1-11	1-1/4-11	1-1/2-11	2-11		
BSPT Thread	1/8-28		1/4-19		3/8-19		1/2-14	5/8-14	3/4-14		1-11	1-1/4-11	1-1/2-11	2-11		
Japanese Pipe Tapered Thread	1/8-28		1/4-19		3/8-19		1/2-14	5/8-14	3/4-14		1-11	1-1/4-11	1-1/2-11	2-11		
Japanese Flare Thread	1/8-28		1/4-19		3/8-19		1/2-14	5/8-14	3/4-14		1-11	1-1/4-11	1-1/2-11	2-11		
Copper/Nylon Air Brake Thread			7/16-24		17/32-24		11/16-20	13/16-18	1-18							

METRIC (mm)	8	10	12	14	16	18	20	22	24	26	30	33	36	42	45	52
Whitworth	8 x 1.0	10 x 1.0	12 x 1.5		M16 x 1.5	M18 x 1.5		M22 x 1.5								
MDL			M12 x 1.5	M14 x 1.5	M16 x 1.5	M18 x 1.5		M22 x 1.5		M26 x 1.5	M30 x 2.0		M36 x 2.0		M45 x 2.0	M52 x 2.0
MDH					M16 x 1.5	M18 x 1.5	M20 x 1.5		M24 x 1.5		M30 x 2.0		M36 x 2.0	M42 x 2.0	M45 x 2.0	M52 x 2.0
Komatsu						M18 x 1.5		M22 x 1.5	M24 x 1.5		M30 x 1.5	M33 x 1.5	M36 x 1.5	M42 x 1.5		
French							M20 x 1.5		M24 x 1.5		M30 x 1.5		M36 x 1.5		M45 x 1.5	M52 x 1.5

NNPTF/NPSM Pipe Thread (P)

The NPTF male will mate with the NPTF, NPSF, or NPSM female.

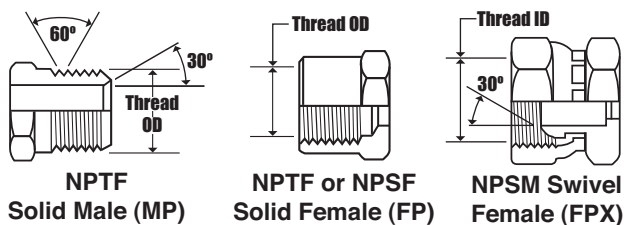
The NPTF male has tapered threads and a 30° inverted seat.

The NPTF female has tapered threads and no seat. The seal takes place by deformation of the threads. The NPSM female has straight threads and a 30° inverted seat. The seal takes place on the 30° seat.

The NPTF connector is similar to, but not interchangeable with, the BSPT connector. The thread pitch is different for most sizes. Also, the thread angle is 60° instead of the 55° angle found on BSPT threads.

*NOTES:

1. Torque values can vary considerably depending on thread condition. Only use enough torque to achieve adequate sealing.
2. Thread sealant is to only be used on tapered threads.

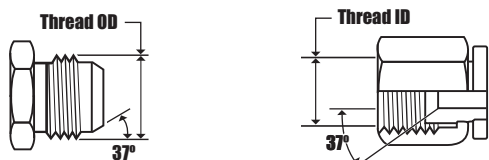


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	27	23/64	13/32
-4	1/4	18	15/32	35/64
-6	3/8	18	19/32	43/64
-8	1/2	14	3/4	27/32
-12	3/4	14	61/64	1-1/16
-16	1	11-1/2	1-13/64	1-5/16
-20	1-1/4	11-1/2	1-17/32	1-43/64
-24	1-1/2	11-1/2	1-25/32	1-29/32
-32	2	11-1/2	2-1/4	2-3/8

JIC 37° Flare (J)

The JIC 37° flare male will only mate with a JIC female. The JIC male has straight threads and a 37° flare seat. The JIC female has straight threads and a 37° flare seat. The seal is made on the 37° flare seat.

Some sizes have the same threads as the SAE 45° flare. Precisely measure the seat angle to differentiate carefully.



JIC 37° Male (MJ, MJLN) JIC 37° Flare Female (FJX)

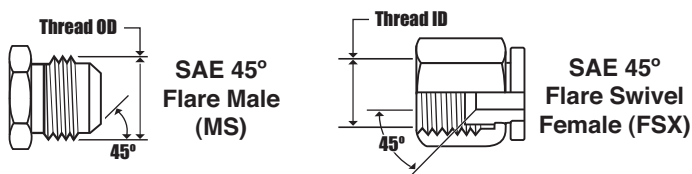
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	24	17/64	5/16
-3	3/16	24	21/64	3/8
-4	1/4	20	25/64	7/16
-5	5/16	20	29/64	1/2
-6	3/8	18	1/2	9/16
-8	1/2	16	11/16	3/4
-10	5/8	14	13/16	7/8
-12	3/4	12	31/32	1-1/16
-14	7/8	12	1-7/64	1-3/16
-16	1	12	1-15/64	1-5/16
-20	1-1/4	12	1-35/64	1-5/8
-24	1-1/2	12	1-51/64	1-7/8
-32	2	12	2-27/64	2-1/2

SAE 45° Flare (S)

The SAE 45° flare male will mate with an SAE 45° flare female only or a dual seat JIC/SAE 45°.

The SAE male has straight threads and a 45° flare seat. The SAE female has straight threads and a 45° flare seat. The seal is made on the 45° flare seat.

Certain sizes have the same threads as the SAE 37° flare. Precisely measure the seat angle to differentiate carefully.



Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	24	17/64	5/16
-3	3/16	24	21/64	3/8
-4	1/4	20	25/64	7/16
-5	5/16	20	29/64	1/2
-6	3/8	18	9/16	5/8
-7	7/16	16	5/8	11/16
-8	1/2	16	11/16	3/4
-10	5/8	14	13/16	7/8
-12	3/4	14	63/64	1-1/16

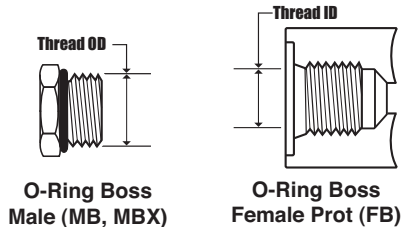
Special Power Steering Thread End

Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
3/8	11/16	18	5/8	11/16

O-Ring Boss (B)

The O-ring boss male will only mate with an O-ring boss female. The female is generally found on ports.

The male has straight threads, a sealing face and an O-ring. The female has straight threads and a sealing face. The seal is made at the O-ring location on the male and the sealing face location on the female.

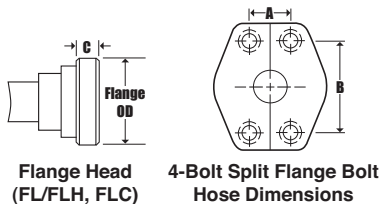


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread	Male Thread	O-Ring
			I.D. (In.)	O.D. (In.)	I.D. (In.)
-2	1/8	24	17/64	5/16	0.239
-3	3/16	24	21/64	3/8	0.301
-4	1/4	20	25/64	7/16	0.351
-5	5/16	20	29/64	1/2	0.414
-6	3/8	18	1/2	9/16	0.468
-8	1/2	16	11/16	3/4	0.644
-10	5/8	14	13/16	7/8	0.755
-12	3/4	12	31/32	1-1/16	0.924
-14	7/8	12	1-7/64	1-3/16	1.048
-16	1	12	1-15/64	1-5/16	1.171
-20	1-1/4	12	1-35/64	1-5/8	1.475
-24	1-1/2	12	1-51/64	1-7/8	1.720
-32	2	12	2-27/64	2-1/2	2.337

O-Ring Flange (C61 & C62)

The SAE Code 61 and Code 62 4-Bolt Split Flange are used worldwide, commonly as a connection on pumps and motors. These are the three exceptions:

1. The -10 size, which is common outside of North America, is not an SAE Standard size. Usually found on Komatsu equipment.
2. Caterpillar flanges, which are the same flange O.D. as SAE Code 62, have a thicker flange head ("C" dimension in Table).

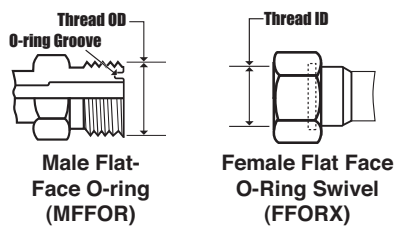


Dash Size	Nominal Flange Size (In.)	Code 61 (FL)				Code 62 (FLH)				Caterpillar Code 62 (FLC)			
		Flange O.D. (In.)	A (In.)	B (In.)	C (In.)	Flange O.D. (In.)	A (In.)	B (In.)	C (In.)	Flange O.D. (In.)	A (In.)	B (In.)	C (In.)
-8	1/2	1.188	0.688	1.500	0.265	1.250	0.718	1.594	0.305				
-10	5/8	1.345		0.265									
-12	3/4	1.500	0.875	1.875	0.265	1.625	0.937	2.000	0.345	1.625	0.938	2.000	0.560
-16	1	1.750	1.031	2.062	0.315	1.875	1.093	2.250	0.375	1.875	1.094	2.250	0.560
-20	1-1/4	2.000	1.188	2.312	0.315	2.125	1.250	2.625	0.405	2.125	1.250	2.625	0.560
-24	1-1/2	2.375	1.406	2.750	0.315	2.500	1.437	3.125	0.495	2.500	1.438	3.125	0.560
-32	2	2.812	1.688	3.062	0.375	3.125	1.750	3.812	0.495	3.125	1.750	3.812	0.560
-40	2-1/2	3.312	2.000	3.500	0.375								
-48	3	4.000	2.438	4.188	0.375								
-56	3-1/2	4.500	2.750	4.750	0.422								
-64	4	5.000	3.062	5.125	0.442								
-80	5	6.000	3.625	6.000	0.442								

O-Ring Face Seal (F)

The solid male O-ring face seal fitting will only mate with a swivel female O-ring face seal SAE J1453 fitting.

An O-ring rests in the O-ring groove in the male. When the O-ring in the male contacts the flat face on the female, a seal is made.

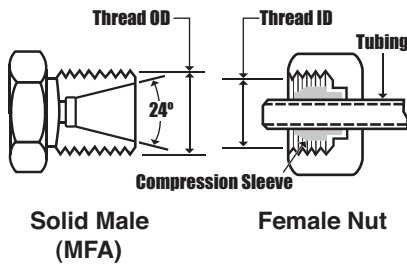


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-4	1/4	18	1/2	9/16
-6	3/8	16	5/8	11/16
-8	1/2	16	3/4	13/16
-10	5/8	14	15/16	1
-12	3/4	12	1-1/8	1-3/16
-16	1	12	1-11/32	1-7/16
-20	1-1/4	12	1-19/32	1-11/16
-24	1-1/2	12	1-29/32	2

Flareless Tube (MT & LF)

The flareless solid male assembly will mate with the female flareless nut and compression sleeve on a tube or a line fit female flareless fitting. The components are a male flareless, compression sleeve and nut.

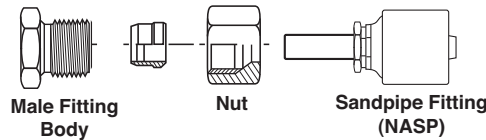
The male has straight threads and a 24° seat. For a sealing surface the female has straight threads and has a compression sleeve. The seal is made between the compression sleeve and the 24° seat on the male, and between the compression sleeve and tubing on the female.



Dash Size	Tube Size (In.)	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	5/16	24	17/64	5/16
-3	3/16	3/8	24	21/64	3/8
-4	1/4	7/16	20	25/64	7/16
-5	5/16	1/2	20	29/64	1/2
-6	3/8	9/16	18	1/2	9/16
-8	1/2	3/4	16	11/16	3/4
-10	5/8	7/8	14	13/16	7/8
-12	3/4	1-1/16	12	31/32	1-1/16
-14	7/8	1-3/16	12	1-7/64	1-3/16
-16	1	1-5/16	12	1-15/64	1-5/16
-20	1-1/4	1-5/8	12	1-35/64	1-5/8
-24	1-1/2	1-7/8	12	1-51/64	1-7/8
-32	2	2-1/2	12	2-27/64	2-1/2

North American Standpipe (MW)

A standpipe assembly is comprised of a blank tube only. The tube can mate with a Bite Sleeve and Nut or pressed and brazed to other components. The Nut is placed over the Standpipe, followed by the Bite Sleeve (see illustration). The Bite Sleeve and Standpipe are selected on the basis of tube O.D. required.

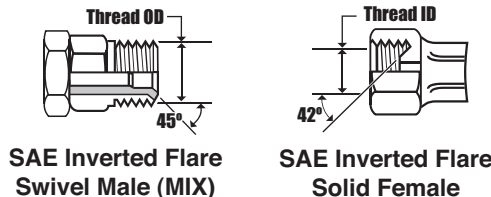


Dash Size	Tube Size (In.)	Tube Length (In.)
-4	0.25	0.88
-6	0.38	0.88
-8	0.50	1.00
-12	0.75	1.16
-16	1.00	1.12

SAE Inverted Flare Swivel Male (MIX)

The SAE 45° inverted flare male will only mate with an SAE 42° inverted flare female.

The male has straight threads and a 45° inverted flare. The female has straight threads and a 42° inverted flare. The seal is made on the 45° flare seat on the male and the 42° flare seat on the female.



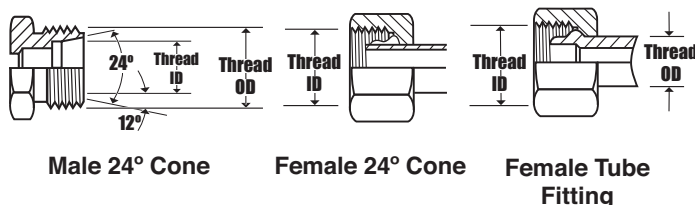
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	28	9/32	5/16
-3	3/16	24	21/64	3/8
-4	1/4	24	25/64	7/16
-5	5/16	20	29/64	1/2
-6	3/8	18	37/64	5/8
-7	7/16	18	5/8	11/16
-8	1/2	18	45/64	3/4
-10	5/8	18	13/16	7/8
-12	3/4	16	1	1-1/16

French Metric 24° Cone (GAZ)

The GAZ male will mate with the female 24° cone or the female tube fitting.

The male has a 24° seat and straight metric threads. The female has a 24° seat or a tubing sleeve and straight metric threads.

To measure the flare angle with the seat angle gauge, utilize the 12° gauge. (The seat angle gauge measures the angle from the connector centerline.)



Metric Thread Size	Female Thread I.D. (mm)	Male Thread O.D. (mm)	Tube O.D. (mm)
M20 x 1.5	18.5	20.0	13.25
M24 x 1.5	22.5	24.0	16.75
M30 x 1.5	28.5	30.0	21.25
M36 x 1.5	34.5	36.0	26.75
M45 x 1.5	43.5	45.0	33.50
M52 x 1.5	50.5	52.0	42.25

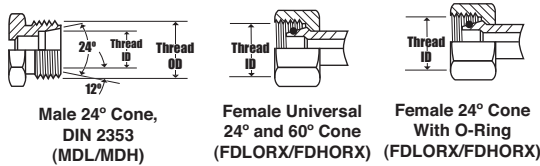
DIN 24° Cone (DINL & DINH or DL & DH)

The DIN 24° cone male will mate with any of the three females shown.

The male has a 24° seat, straight metric threads, and a recessed counterbore that matches the tube O.D. of the coupling used with it. The mating female is a 24° cone with a-ring, a metric tube fitting or a universal 24° and 60° cone.

A light and heavy series DIN coupling are available. Correct identification is made by measuring both the thread size and the tube O.D. (The heavy series has a smaller tube O.D., but a thicker wall section than the light series.)

To measure the flare angle with a seat angle gauge, utilize the 12° gauge. (The seat angle gauge measures the angle from the connector centerline.)



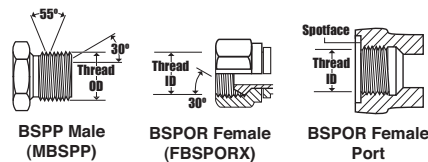
Metric Thread Size	Female Thread I.D. (mm)	Male Thread O.D. (mm)	Tube O.D. (mm)	
			Light Series	Heavy Series
M12 x 1.5	10.5	12.0	6	-
M14 x 1.5	12.5	14.0	8	-
M16 x 1.5	14.5	16.0	10	8
M18 x 1.5	16.5	18.0	12	10
M20 x 1.5	18.5	20.0	14	12
M22 x 1.5	20.5	22.0	15	14
M24 x 1.5	22.5	24.0	-	16
M26 x 1.5	24.5	26.0	18	-
M30 x 2.0	28.0	30.0	22	20
M36 x 2.0	34.0	36.0	28	25
M42 x 2.0	40.0	42.0	-	30
M45 x 2.0	43.0	45.0	35	-
M52 x 2.0	50.0	52.0	42	38

British Standard Pipe Parallel (BSP)

The BSP male will mate with a BSP female or a female port.

The BSP male has straight threads and a 30° seat. The BSP female has straight threads, a 30° seat, and O-ring. The female port has straight threads and a spotface. An O-ring or soft metal washer on the male is used to make a seal on the port.

The BSP connector is similar to, but not interchangeable with, the NPSM connector. The thread pitch differs in most sizes, and the thread angle is 55° instead of the 60° angle found on NPSM threads.



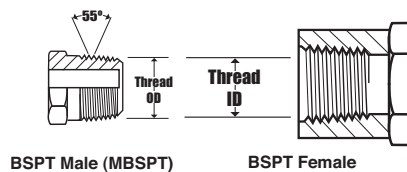
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Parallel Thread I.D. (In.)	Male Parallel Thread O.D. (In.)
-2	1/8	28	11/32	3/8
-4	1/4	19	15/32	17/32
-6	3/8	19	19/32	21/32
-8	1/2	14	3/4	13/16
-10	5/8	14	13/16	29/32
-12	3/4	14	31/32	1-1/32
-16	1	11	1-7/32	1-11/32
-20	1-1/4	11	1-17/32	1-21/32
-24	1-1/2	11	1-25/32	1-7/8
-32	2	11	2-7/32	2-11/32

British Standard Pipe Tapered (BSPT)

The BSPT male will mate with a BSPT female, or a BSP female.

The BSPT male has tapered threads. When mating with either the BSPT female or the BSP female port, the seal is made on the threads.

The BSPT connector is similar to, but not interchangeable with, the NPTF connector. The thread pitch differs in most cases, and the thread angle is 55° instead of the 60° angle found on NPTF threads.

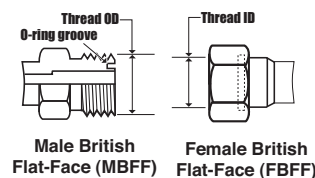


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Parallel Thread I.D. (In.)	Male Parallel Thread O.D. (In.)
-2	1/8	28	11/32	3/8
-4	1/4	19	15/32	17/32
-6	3/8	19	19/32	21/32
-8	1/2	14	3/4	13/16
-10	5/8	14	13/16	29/32
-12	3/4	14	31/32	1-1/32
-16	1	11	1-7/32	1-11/32
-20	1-1/4	11	1-17/32	1-21/32
-24	1-1/2	11	1-25/32	1-7/8
-32	2	11	2-7/32	2-11/32

Female British Flat-Face Swivel (BFP)

The solid male British O-ring face seal fitting will only mate with a swivel female British O-ring face seal fitting.

An O-ring rests in the O-ring groove in the male. When the O-ring in the male contacts the flat face on the female a seal is made.



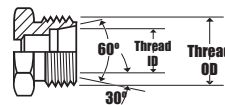
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Parallel Thread I.D. (In.)	Male Parallel Thread O.D. (In.)
-6	3/8	19	19/32	21/32
-8	1/2	14	3/4	13/16
-12	3/4	14	31/32	1-1/32

DIN 60° Cone

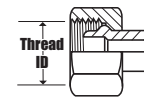
The DIN 60° cone male will only mate with the female universal 24° and 60° cone connector.

The male has a 60° seat and straight metric threads. The female has a 24° or 60° universal seat and straight metric threads.

When measuring the flare angle with the seat angle gauge, use the 30° gauge. (The seat angle gauge measures the angle from the connector centerline.)



Male
60° Cone, DIN 6711

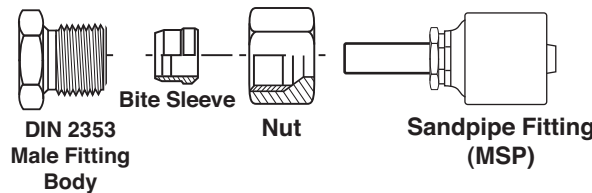


Female
Universal 24° and
60° Cone

Metric Thread Size	Female Thread I.D. (mm)	Mate Thread O.D. (mm)	Tube O.D. (mm)
M14 x 1.5	12.5	14.0	8
M16 x 1.5	14.5	16.0	10
M18 x 1.5	16.5	18.0	12
M22 x 1.5	20.5	22.0	15
M26 x 1.5	24.5	26.0	18
M30 x 1.5	28.5	30.0	22
M38 x 1.5	36.5	38.0	28
M45 x 1.5	43.5	45.0	35
M52 x 2.0	50.5	52.0	42

Metric Standpipe Assembly (MSP)

A metric standpipe assembly is made up of three components attached to a male fitting. The components are: a Standpipe tube, Bite Sleeve and Metric Nut. The nut is placed over the Standpipe, followed by the Bite Sleeve (see illustration below). For DIN light assemblies, a DIN light metric nut is used. For DIN heavy assemblies, a DIN heavy metric nut is used. The Bite Sleeve and Standpipe are selected on the basis of tube O.D. required.



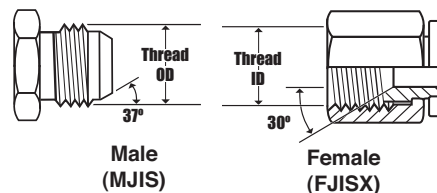
Metric Standpipe DIN Tube O.D. (mm)	Bite Sleeve DIN Tube O.D. (mm)	Metric Nut Thread	
		Light	Heavy
6	6	M12 x 1.5	-
8	8	M14 x 1.5	M16 x 1.5
10	10	M16 x 1.5	M18 x 1.5
12	12	M18 x 1.5	M20 x 1.5
15	15	M22 x 1.5	-
16	16	-	M24 x 1.5
18	18	M26 x 1.5	-
20	20	-	M30 x 2.0
22	22	M30 x 2.0	-
25	25	-	M36 x 2.0
28	28	M36 x 2.0	-
30	30	-	M42 x 2.0
35	35	M45 x 2.0	-
38	38	-	M52 x 2.0
42	42	M52 x 2.0	-

Japanese 30° Flare Parallel Threads (JIS)

The Japanese 30° flare male connector will only mate with a Japanese 30° flare female.

Both male and female have straight threads and a 30° seat. The seal is made on the 30° seat.

The threads on the Japanese 30° flare connector adhere to JIS B 0202, that are the same as the BSPP threads. The British and Japanese connectors have a 30° seat, but the British seat is inverted which makes them **not interchangeable**.

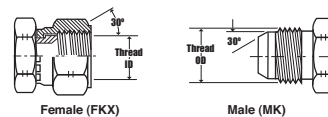


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Parallel Thread I.D. (In.)	Male Parallel Thread O.D. (In.)
-2	1/8	28	11/32	3/8
-4	1/4	19	7/16	17/32
-6	3/8	19	19/32	21/32
-8	1/2	14	3/4	13/16
-10	5/8	14	13/16	29/32
-12	3/4	14	15/16	1-1/32
-16	1	11	1-13/16	1-15/16
-20	1-1/4	11	1-17/32	1-21/32
-24	1-1/2	11	1-25/32	1-7/8
-32	2	11	2-7/32	2-11/32

Komatsu 30° Flare Parallel Threads (KOM)

The Komatsu-style 30° flare parallel thread connector is identical to the Japanese 30° flare parallel thread connector except for the threads. The Komatsu-style connector utilizes metric fine threads that adhere to JIS B 0207.

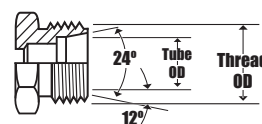
The Komatsu-style connector seals on the 30° flare.



Dash Size	Nominal Size		Metric Thread Size	Female Thread I.D. (mm)	Male Thread O.D. (mm)
	(In.)	(mm)			
-6	3/8	9.5	M18.5	16.5	18
-8	1/2	13	M22.5	20.5	22
-10	5/8	16	M24.5	22.5	24
-12	3/4	19	M30.5	28.5	30
-16	1	25	M33.5	31.5	33
-20	1-1/4	32	M36.5	34.5	36
-24	1-1/2	38	M42.5	40.5	42

Metric Kobelco

They are similar to the German DIN 24° Cone, however the DIN style utilizes coarser threads. For that reason the Kobelco and German DIN are not interchangeable.



Male 24° Cone (MKB)

Dash Size	Metric Thread Size	Female Thread I.D. (mm)	Male Thread O.D. (mm)
-22	M30 x 1.5	28	30
-28	M36 x 1.5	34	36
-35	M45 x 1.5	43	45

Hammer Union (HU)

These fittings are figure number 1502 unions specifically. The male hammer union has a rubber ring and female has a lug nut designed for slugging in order to seal. There are many figure number designs of hammer unions and are not interchangeable, extreme care should be taken when selecting each fitting.



Additional Products

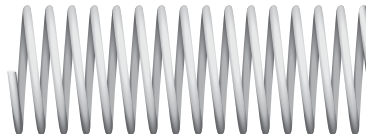
Nylon Sleeving

Part Number	Flat Measurement	Nominal Inside ID
NGB-0201	2-1/32	1.293
NGB-0218	2-9/16	1.632
NGB-0226	2-13/16	1.791
NGB-0310	3-5/16	2.109
NGB-0402	4-1/16	2.587
NGB-0418	4-9/16	2.906
NGB-0526	5-13/16	3.702
NGB-0106	1-3/16	0.756
NGB-0121	1-21/32	1.054
NGB-0128	1-7/8	1.194



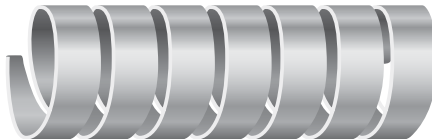
Springs for Jack Hose

Part Number	
HJK04-95	(Approx. 5.4 Inches Long)
HJK06-95	(Approx. 6 Inches Long)



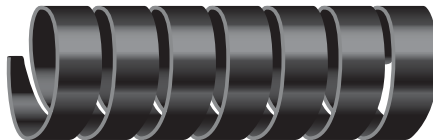
Steel Armor Guard

Part Number	
AG-.84	(0.84 ID)
AG-1.22	(1.22 ID)



Plastic Hose Wrap

Part Number	
PHW-.38	(0.38 ID)
PHW-.5	(0.50 ID)
PHW-.63	(0.63 ID)
PHW-1.06	(1.06 ID)
PHW-1.34	(1.34 ID)
PHW-1.73	(1.73 ID)
PHW-2.17	(2.17 ID)
PHW-2.6	(2.60 ID)
PHW-3.0	(3.00 ID)
PHW-3.9	(3.90 ID)



Steel Spring Guard

Part Number	
SG-.84	(0.84 ID)
SG-.97	(0.97 ID)
SG-1.06	(1.06 ID)
SG-1.66	(1.66 ID)



Warning Tags



Table of Chemical Resistance

Medium	Suitability	Medium	Suitability	Medium	Suitability
Acetic acid	C	Diethyl phthalate	C	Naphtalene	C
Acetic acid ethyl ester	C	Diethyl sebacate	C	Natural gas	C
Acetone	C			Nitric acid	C
Allyl alcohol	A	Ethanol	A	Nitric acid, aqueous	C
Alum, aqueous	A	Ethyl acetate	C	Nitro benzene	C
Aluminium acetate, aqueous	A	Ethyl alcohol	A		
Aluminium phosphate, aqueous	A	Ethyl chloride	C	Octane	A
Aluminium sulfate, aqueous	A	Ethyl ether	C		
Ammonia water 25%	A	Ethyl glycol acetate	C	Paraffine	A
Ammonia, gaseous	C	Ethyl methyl ketone	C	Paraffine oils	A
Ammonia, liquid	C	Ethylene glycol monoethyl ether	A	Pentane	A
Ammonium diphosphate, aqueous	A	Ethylene chloride	C	Petrol	B
Ammonium hydroxide, solution of 25%	A	Ethylene glycol	A	Petroleum	A
Ammonium phosphate, aqueous	A	Ethylene glycol monobutyl ether	A	Petroleum ether	A
Ammonium sulfate, aqueous	A	Ethylene glycol monoethyl ether acetate	C	Phenol	C
Amyl acetate	C			Phosphoric acid ester	C
Amyl alcohol	A	Formaldehyde, aqueous	B	Phthalic diethyl ester	C
		Formic acid	C	Picric acid, aqueous	B
Benzene	C	Freon	X	Potassium aluminium sulfate	A
Benzine	A	Fuel oil S	A	Potassium hydroxide solution	B
Bitumen emulsion	A	Fuel oils	A	Potassium nitrate, aqueous	A
Bleaching powder	C			Potassium sulfate, aqueous	A
Bleaching solution	C	Gasoline	C	Propanediol (1,2)	A
Borax, aqueous	A	Glacial acetic acid	C	Propanol	A
Boric acid, aqueous	A	Glycerol	A	Propyl alcohol	A
Brine	X	Glycol	A	Propylene glycol	A
Butanol	A	Glycol ethyl ether	A		
Butanon (2)	C	Glystantin (anti-freeze)	A	RME (Rapeseedmethylester)	A
Butyl alcohol	A				
Butyl diglycol acetate	C	Heptane	A	Sea water	X
Butyl glycol acetate	C	Hexane	A	Silicone oils	A
		Hydraulic fluids, biodegradable liquids	A	Soda	A
Calcium hydroxide	A	Hydraulic fluids, glycol-water-mixtures	A	Sodium carbonate, aqueous	A
Calcium hypochlorite, aqueous	C	Hydraulic fluids, mineral oil based	A	Sodium chloride, solution of	X
Calcium nitrate, aqueous	A	Hydraulic fluids, phosphate ester liquids	C	Sodium hydroxide, solution of < 20%	B
Carbon disulfide	C	Hydraulic fluids, water-oil-emulsions	A	Sodium hypochlorite	C
Carbon tetrachloride	C	Hydrochloric acid	C	Sodium nitrate, wäßrig	A
Castor oil	A	Hydrochloric acid, anhydrous	C	Sodium silicate, aqueous	A
Caustic soda solution < 20%	B	Hydrogen chloride anhydrous	C	Sodium sulfate	A
Chloric gas dry	C			Sulfuric acid	C
Chloric gas wet	C	Iron (II) nitrate	A	Sulfuric acid, aqueous	C
Chlorinated solvents	C	Iron (II) sulfate	A	Sulfurous acid	C
Chlorine bleaching	C	Iron (III) nitrate	A		
Chlorine water	C	Iron (III) sulfate	A	Tar < 100°C	B
Chloroacetic acid	C	Isocetane	A	Tetrachlorethane	C
Chloroethane	C	Isopropanol	A	Tetrachlorethylene	C
Chlorosulfonic acid	C			Tetrachloromethane	C
Chlorothene	C	Light gasoline	A	Tetrahydrofurane	C
Crude oil, aromatic base	C	Lime water	A	Toluene	C
Cyclohexane	A	Linseed oil	A	Trichloroethane (1,1,1)	C
Cyclohexanol	A	Liquid petrol gas	X	Trichloroethylene	C
Cyclohexanone	C			Turpentine	B
		Magnesium lye	A		
Decahydronaphtalene	A	Magnesium sulfate, aqueous	A	Varnish	C
Decalin cis-/trans-	A	Methanol	X	Vaseline	A
Dichloro ethane(1,2)	C	Methyl alcohol	X		
Dichloro ethylene	C	Methyl chloride	C	Water glass	A
Dichloro methane	C	Methyl ethyl ketone	C	Water, demineralized	A
Diesel fuel	C	Methylene chloride	C	Water, distilled	A
Diethylene glycol	A	Monochloromethane	C	White spirit	C
Dimethyl formamide -N,N	C				
Dimethyl sulfoxide	C	Naphta	B	Xylene	C

A = Unlimited Suitability

B = Limited Suitability

C = No Suitability

X = Please contact Kurt Hydraulics

PRESSURE RATINGS HOSE ASSEMBLIES - PSI

THE MAXIMUM DYNAMIC WORKING PRESSURE OF THE HOSE ASSEMBLY IS THE LESSER OF THE RATED WORKING PRESSURE OF THE HOSE AND THE END CONNECTIONS USED.

	SAE J514		SAE J514		SAE J514
DASH SIZE	JIC THREAD RIGID and MALE O-RING BOSS	WORKING PRESSURE	SAE MALE RIGID	WORKING PRESSURE	JIC/SAE FEMALE SWIVEL NUT
-2	5/16 – 24	5,000	5/16 – 24	5,000	5,000
-3	3/8 – 24	5,000	3/8 – 24	5,000	5,000
-4	7/16 – 20	5,000	7/16 – 20	5,000	4,500
-5	1/2 – 20	5,000	1/2 – 20	5,000	4,000
-6	9/16 – 18	5,000	9/16 – 18	5,000	4,000
-8	3/4 – 16	4,500	3/4 – 16	4,500	4,000
-10	7/8 – 14	3,500	7/8 – 14	3,500	3,000
-12	1-1/16 – 12	3,500	1-1/16 – 12	3,500	3,000
-14	1-3/16 – 12	3,000	1-3/16 – 12	3,000	2,500
-16	1-5/16 – 12	3,000	1-5/16 – 12	3,000	2,500
-20	1-5/8 – 12	2,500	1-5/8 – 12	2,500	2,000
-24	1-7/8 – 12	2,000	1-7/8 – 12	2,000	1,500
-32	2-1/2 – 12	1,500	2-1/2 – 12	1,500	1,125

	SAE J514		SAE J1453		SAE J1453
DASH SIZE	NPTF THREADS	WORKING PRESSURE	Male O-Ring Face Straight	WORKING PRESSURE	Female O-Ring Face Swivel
-2	1/8 – 27	5,000			
-3					
-4	1/4 – 18	5,000	9/16 – 18	6,000	6,000
-5					
-6	3/8 – 18	4,000	11/16 – 16	6,000	6,000
-8	1/2 – 14	3,000	13/16 – 16	6,000	6,000
-10			1 – 14	6,000	6,000
-12	3/4 – 14	2,500	1-3/16 – 12	6,000	6,000
-14					
-16	1 – 11-1/2	2,000	1-7/16 – 12	6,000	5,000
-20	1-1/4 – 11-1/2	1,150	1-11/16 – 12	4,000	4,000
-24	1-1/2 – 11-1/2	1,000	2 – 12	4,000	3,000
-32	2 – 11-1/2	1,000			

	SAE J518		SAE J518			
DASH SIZE	CODE 61 FLANGE SIZE OD INCHES	WORKING PRESSURE	CODE 62 FLANGE SIZE OD INCHES	WORKING PRESSURE	CAT FLANGE XT-5 SIZE OD INCHES	WORKING PRESSURE
-8	1-3/16	5,000	1-1/4	6,000		
-12	1-1/2	5,000	1-5/8	6,000	1.63	6,000
-16	1-3/4	5,000	1-7/8	6,000	1.88	6,000
-20	2"	4,000	2-1/8	6,000	2.13	6,000
-24	2-3/8	3,000	2-1/2	6,000	2.5	6,000
-32	2-13/16	3,000	3-1/8	6,000	3.13	6,000
-40	3-5/16	2,500				
-48	4"	2,000				
-56	4-1/2	500				
-64	5"	500				
-80	6"	500				

NOTE: ALL THE ABOVE RATINGS ARE BASED ON LOW CARBON STEEL HOSE FITTINGS. HIGHER PRESSURE RATINGS CAN BE ATTAINED WITH MEDIUM CARBON AND ALLOY STEEL HOSE FITTINGS AND MATING ADAPTERS.

Warranty

For 90 days after the date of purchase, Kurt Hydraulics warrants its products to be free from defect in materials and workmanship when properly installed and maintained. Products covered include those items contained in this catalog.

Any claim for defects must be in writing and each notification to Kurt Hydraulics must be in writing within 90 days of the receipt of the product. Kurt Hydraulics must have a reasonable opportunity thereafter to examine and investigate.

The customer's exclusive remedy with respect to any claim of any kind whatsoever shall be refund of the purchase price or replacement of the product at the option of Kurt Hydraulics. In no event shall Kurt Hydraulics be liable for any incidental or consequential damages whatsoever.

Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products



1000 Swage Tool

Built by Kurt Manufacturing Co.

- Built for field use
- Simple to operate - hose repairs can be made in minutes. All it takes is a solid surface and a "C" clamp
- Fast, for on-the-farm/ranch repairs
- Portable, for use in the shop or in the field
- Lightweight, 13 pounds!
- Economical, low initial cost



2000 Swage Machine

Built by Kurt Manufacturing Co.

- Fixtured for shop use/or field use
- Jack-operated for ease in use
- Fast, for professional shop repairs on the farm/ranch
- Compact, requiring minimum space
- Durable, 50 pounds!

Pushers and Dies Available



KH-60 Crimper (Basic)

- Heavy duty 60+ ton capacity
- 1/8" to 1-1/4" 6-wire capability
- Fully adjustable crimp settings
- 0.125" to 2.75" crimp capability
- Auto microswitch shut-off
- Good crimp visibility
- Comes with 5 dies standard
- Included dies holder
- Quick crimp cycle time
- Well accepted Dayco die configuration
- Interchangeable with Dayco dies
- Built for longevity

Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products



KH-60-P Portable Crimper (Basic)

- Heavy duty 60+ ton capacity
- 1/8" to 1-1/4" 6 wire capability
- Fully adjustable crimp settings
- 0.350" to 2.50" crimp capability
- Good crimp visibility
- Interchangeable with Dayco dies
- Built for longevity



KH-80 Crimper

- Heavy duty 80+ ton capacity
- 1/8" to 2" 6-wire capability
- Fully adjustable crimp settings
- 0.125" to 2.75" crimp capability
- Auto microswitch shut-off
- Good crimp visibility
- Comes with 10 dies
- Included dies holder
- Quick crimp cycle time
- Well accepted Dayco die configuration
- Interchangeable with Dayco dies
- Built for longevity

Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products



KH4-50 Crimper

- Heavy duty 340+ ton capacity
- 1/8" to 2" 6-wire capability
- Fully adjustable crimp settings
- 0.125" to 2.75" crimp capability
- Fully programmable crimp settings
- Ideal for repeated crimps
- Comes with 13 dies
- Included dies holder
- Quick crimp cycle time
- Built for longevity

Kurt Hydraulics Recommended Assembly Torque

The table below is the recommended torque values for installation of various fittings. These are based on the SAE torque testing requirements to seal, but from our testing they normally seal at lower torque values. It is possible to install using the SAE over torque values and still have to coupling operate properly. These values are not on this list but are tested on our fittings.

Proper assembly practices apply during any installation. Keep the threads clean, dry, and not lubricated. Restrain the stem and hose from twisting during tightening by using a second wrench. Verify the manufacturer’s recommended assembly torque for the mating part so that it is not exceeded prior to installation.

SAE Dash Size	JIC Fittings Torque (ft-lbs)	Straight Thread O-Ring Fittings Torque (ft-lbs)	Face Seal Torque (ft-lbs)	NPTF Torque (ft-lbs)
-4	11-12	13-15	10-12	25
-6	18-20	22-24	18-20	40
-8	36-49	40-43	32-35	54
-10	57-63	43-48	45-50	--
-12	79-88	68-75	65-70	78
-16	108-113	112-123	92-100	112
-20	127-133	146-161	125-140	154
-24	158-167	--	150-165	211
-32	245-258	--	--	300

Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products



Recommended Practices for Hydraulic Hose Assemblies

Foreword — This SAE Recommended Practice is intended as a guide to consider when selecting, routing, fabricating, installing, replacing, maintaining and storing hose for fluid-power systems. It is subject to change to keep pace with experience and technical advances. For those new to hose use in fluid-power systems, this guide outlines practices to note during each phase of system design and use. Experienced designers and users skilled in achieving proper results, as well as the less experienced, can use this outline as a list of considerations to keep in mind.

Fluid power systems are complex and require extensive knowledge of both the system requirements and the various types of hose. Therefore, all-inclusive, detailed, step-by-step instructions are not practical and are beyond the scope of this document. Less experienced designers and users who need more information can consult specialists such as hose suppliers and manufacturers. This guide can improve the communication process.

Safety Considerations — These recommended practices involve safety considerations; note these carefully during all phases of design and use of hose systems. Improper selection, fabrication, installation or maintenance of hose and hose assemblies for fluid-power systems may result in serious personal injury or property damage. These recommended practices can reduce the likelihood of component or system failure, thereby reducing the risk of injury or damage.

1. Scope

SAE J1273 provides guidelines for selection, routing, Fabrication, installation, replacement, Maintenance and storage of hose and hose assemblies for fluid-power systems. Many of these SAE Recommended Practices also may be suitable for other hose and systems.

2. References

2.1 Applicable Documents

The following publications form a part of this specification to the extent specified herein. Unless otherwise specified, the latest issue of SAE publications shall apply. SAE J343 – Test and Procedures for SAE 100 R Series Hydraulic Hose and Hose Assemblies. SAE J514 – Hydraulic Tube Fittings SAE J517 – Hydraulic Hose SAE J1927 – Cumulative Damage Analysis for Hydraulic Hose Assemblies

2.1.2 ISO Publication

Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002. ISO 3457 – Earth Moving Machinery—Guards and Shields – Definitions and Specifications

3. Explanation of Terms

These explanations serve only to clarify this document and are not intended to stand-alone. They are presented sequentially, with the former helping to explain the latter.

3.1 Fluid Power

Energy transmitted and controlled using pressurized hydraulic fluids or compressed air.

3.2 Hose

Flexible conductor. In this document, the term hose may also refer to a hose assembly with related accessories used in fluid power applications.

3.3 Hose Fitting or Fitting

Connector, which can be attached to the end of a hose.

3.4 Hose Assembly

Hose with hose fittings attached.

3.5 Hose Failure

Occurrence in which a hose stops meeting system requirements.

3.6 Hose Service Life

Length of time a hose meets system requirements without needing replacement.

4. Safety Considerations

Listed in 4.1 to 4.7 are some potential conditions and situations that may lead to personal injury and/or property damage. The list is not necessarily all-inclusive.

Consider reasonable and feasible means, including those described in this section, to reduce the risk of injuries or property damage.

4.1 Fluid Injections

Fine streams of escaping pressurized fluid can penetrate skin and enter a human body. These fluid injections may cause severe tissue damage and loss of limb. Consider various means to reduce the risk of fluid injections, particularly in areas normally occupied by operators.

Consider careful routing, adjacent components, warnings, guards, shields and training programs. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Avoid contact with escaping fluids. Treat all leaks as though pressurized and hot enough to burn skin. Never use any part of your body to check for hose leaks. If a fluid-injection accident occurs, see a doctor immediately.

DO NOT DELAY OR TREAT AS A SIMPLE CUT! Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should consult a knowledgeable medical source.

4.2 Whipping Hose

If a pressurized hose assembly blows apart, the fittings can be thrown off at high speed, and the loose hose can flail or whip with great force. This is especially true in compressible-fluid systems. When this risk exists, consider guards and restraints to protect against injury.

4.3 Burns from Conveyed Fluids

Fluid-power media may reach temperatures that can burn human skin. If there is risk of burns from escaping fluid, consider guards and shields to prevent injury, particularly in areas normally occupied by operators.

4.4 Fire and Explosion from Conveyed Fluids

Most fluid-power media, including fire-resistant hydraulic fluids, will burn under certain conditions. Fluids, which escape from pressurized systems, may form a mist or fine spray, which can flash or explode upon contact with an ignition source. Consider selecting, guarding, and routing hose to minimize the risk of combustion. (See Section 5 and ISO 3457).

4.5 Fire and Explosions from Static-Electric Discharge

Fluid passing through hose can generate static electricity, resulting in static-electric discharge. This may create sparks that can ignite system fluids or gases in the surrounding atmosphere. When this potential exists, select hose specifically designed to carry the static-electric charge to ground.

4.6 Electrical Shock

Electrocution could occur if hose conducts electricity through a person. Most hoses are conductive. Many contain metal or have metal fittings. Even nonconductive hoses can be conduits for electricity if they carry conductive fluids. Be aware of routing or using hose near electrical sources. When this cannot be avoided, select appropriate hose. Nonconductive hoses should be considered. SAE J517-100R7 and 100R8 hoses, with orange covers marked "Nonconductive" are available for applications requiring nonconductive hose.

4.7 Mechanisms Controlled by Fluid Power

Mechanisms controlled by fluid in hoses can become hazardous when a hose fails. For example, when a hose bursts, objects supported by fluid pressure may fall, or vehicles or machines may lose their brakes or steering. If mechanisms are controlled by fluid power, consider safe modes of failure that minimize risks of injury or damage.

5. Hose Selection and Routing

A wide variety of interacting factors influence hose service life and the ability of each fluid-power system to operate satisfactorily, and the combined effects of these factors on service life are often unpredictable. Therefore, these documents should not be construed as design standards. For applications outside the specifications in SAE J517, SAE J514, or other relevant design standards, performance of hose assemblies should be determined by appropriate testing. Carefully analyze each system. Then design routings and select hose and related components to meet the system-performance and hose-service-life requirements, and to minimize the risks of personal injury and/or property damage. Consider the following factors:

5.1 System Pressures

Excessive pressure can accelerate hose assembly failure. Analyze the steady state pressures, and the frequency and the amplitude of pressure surges, such as pulses and spikes. These are rapid and transient rises in pressure, which may not be indicated on many common pressure gauges and can be identified best on high-frequency-response electronic measuring instruments. For maximum hose service life, hose selection should be based on a system pressure, including surges, that is less than the hose maximum working pressure. Hose may be used above its maximum working pressure where reduced life expectancy is acceptable. SAE J1927 provides on method to help predict wire-reinforced hose service for a given hydraulic application, where the surge pressure peaks vary,

and/or the highest-pressure peaks occur infrequently.

5.2 Suction

For suction applications, such as inlet flow to pumps, select hose to withstand both the negative and positive pressures the system imposes on the hose.

5.3 External Pressure

In certain applications, such as in autoclaves or under water, the external environmental pressures may exceed the fluid pressure inside the hose. In these applications, consider the external pressures, and, if necessary, consult the manufacturers.

5.4 Temperature

Exceeding hose temperature ratings may significantly reduce hose life. Select hose so the fluid and ambient temperatures, both static and transient, fall within the hose ratings. The effects of external heat sources should not raise the temperature of the hose above its maximum operating temperature. Select hose, heat shields, sleeving, and other methods for these requirements, and route or shield hose to avoid hose damage from external heat sources.

5.5 Permeation

Permeation, or effusion, is seepage of fluid through the hose. Certain materials in hose construction are more permeable than others. Consider the effects of permeation when selecting hose, especially with gaseous fluids. Consult the hose and fluid manufacturers for permeability information.

5.6 Hose-Material Compatibility

Variables that can affect compatibility of system fluids with hose materials include, but are not limited to:

- A. Fluid Pressure
- B. Temperature
- C. Concentration
- D. Duration of exposure

Because of permeation (see 5.5), consider compatibility of system fluids with the hose, tube, cover, reinforcement, and fittings. Consult the fluid and hose manufacturers for compatibility information.

NOTE – Many fluid/elastomer compatibility tables in manufacturers' catalogs show ratings based on fluids at 21°C, room temperature. These ratings may change at other temperatures. Carefully read the notes on the compatibility tables, and if in doubt, consult the manufacturer.

5.7 Environment – Environmental conditions can cause hose and fitting degradation. Conditions to evaluate include, but are not limited to:

- A. Ultraviolet light
- B. Salt water
- C. Air pollutants
- D. Temperature
- E. Ozone
- F. Chemicals
- G. Electricity
- H. Abrasion

If necessary, consult the manufacturers for more information.

5.8 Static-Electric Discharge

Fluid passing through hose can generate static electricity resulting in static-electric discharge. This may create sparks that can puncture hose. If this potential exists, select hose with sufficient conductivity to carry the static-electric charge to the ground.

5.9 Sizing

The power transmitted by pressurized fluid varies with pressure and rate of flow. Select hose with adequate size to minimize pressure loss, and to avoid hose damage from heat generation or excessive velocity. Conduct calculations, or consult the manufacturers for sizing at flow velocities.

5.10 Unintended Uses

Hose assemblies are designed for the internal forces of conducted fluids. Do not pull hose or use it for purposes that may apply external forces for which the hose or fittings were not designed.

5.11 Specifications and Standards

When selecting hose and fittings for specific applications, refer to applicable government, industry, and manufacturer's specifications and standards.

5.12 Unusual Applications

Applications not addressed by the manufacturer or by industry standards may require special testing prior to selecting hose.

5.13 Hose Cleanliness

The cleanliness requirements of system components, other than hose, will determine the cleanliness requirements of the application. Consult the component manufacturers' cleanliness information for all components in the system. Hose assemblies vary in cleanliness levels; therefore, specify hose assemblies with adequate cleanliness for the system.

5.14 Hose Fittings

Selection of the proper hose fittings for the hose and application is essential for proper operation and safe use of hose and related assembly equipment. Hose fittings are qualified with the hose. Therefore, select only hose fittings compatible with the hose for the applications. Improper selection of hose fittings or related assembly equipment for the application can result in injury or damage from leaks, or from hose assemblies blowing apart (see 4.2, 6.2, 6.3 and 6.4).

5.15 Vibration

Vibration can reduce hose service life. If required, conduct tests to evaluate the frequency and amplitude of system vibration. Clamps or other means may be used to reduce the effects of vibration. Consider the vibration requirements when selecting hose and predicting service life.

5.16 Hose Cover Protection

Protect the hose cover from abrasion, erosion, snagging and cutting. Special abrasion-resistant hoses and hose guards are available for additional protection. Route hose to reduce abrasion from hose rubbing other hose or objects that may abrade it.

5.17 External Physical Abuse

Route hose to avoid:

- A. Tensile loads
- B. Side loads
- C. Flattening
- D. Thread damage
- E. Kinking
- F. Damage to sealing surfaces
- G. Abrasion
- H. Twisting

5.18 Swivel-Type Adapters

Swivel-type fittings or adapters do not transfer torque to hose while being tightened. Use these as needed to prevent twisting during installation.

5.19 Live Swivels

If two components in the system are rotating in relation to each other, live swivels may be necessary. These connectors reduce the torque transmitted to the hose.

5.20 Slings and Clamps

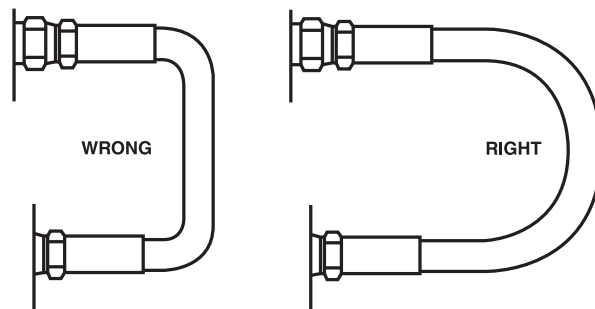
Use slings and clamps to support heavy or long hose and to keep it away from moving parts. Use clamps that prevent hose movement that will cause abrasion.

5.21 Minimum Bend Radius

The minimum bend radius is defined in SAE J343 and is specified in other SAE standards and hose manufacturer's product literature.

Routing at less than minimum bend radius may reduce hose life. Sharp bending at the hose/fitting juncture may result in leaking, hose rupturing, or the hose assembly blowing apart (see 4.2 and Figure 1).

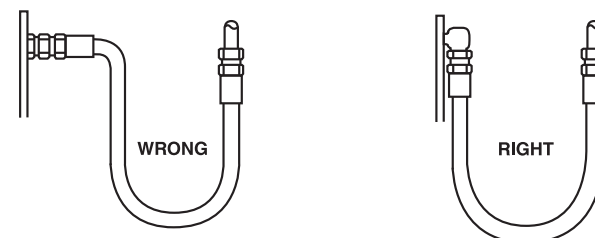
FIGURE 1 – MINIMUM BEND RADIUS



5.22 Elbows and Adapters

In special cases, use elbows and adapters to relieve hose strain (see Figure 2).

FIGURE 2 – ELBOWS AND ADAPTERS



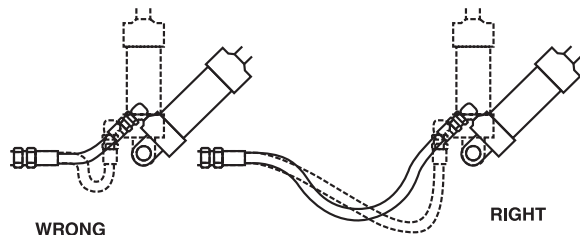
5.23 Lengths

Unnecessarily long hose can increase pressure drop and affect system performance. When pressurized, hose that is too short may pull loose from its fittings, or stress the fitting connections, causing premature metallic or seal failures. When establishing hose length, refer to Figures 3, 4, and 5; and use the following practices:

5.23.1 Motion Absorption – Provide adequate hose length to distribute movement and prevent bends smaller than the minimum bend radius.

FIGURE 3 – MOTION ABSORPTION

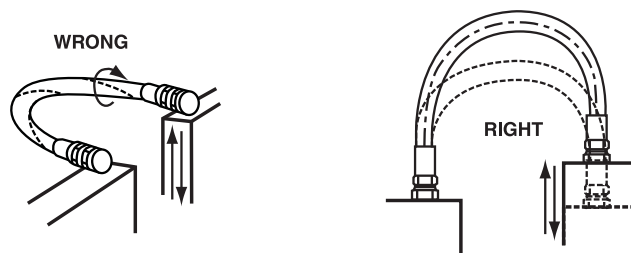
5.23.2 Hose and Machine Tolerances



Design hose to allow for changes in length due to machine motion and tolerances.

FIGURE 4 – HOSE AND MACHINE TOLERANCES

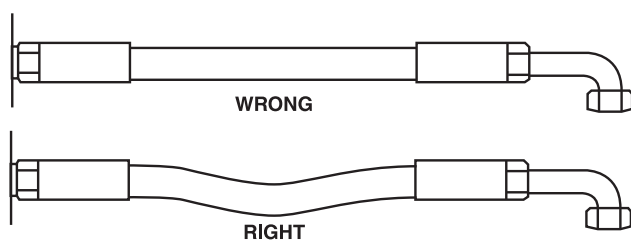
5.23.3 Hose Length Due To Pressure



Design hose to accommodate length changes from changing pressures. Do not cross or clamp together high- and low-pressure hoses. The difference in length changes could wear the hose covers.

FIGURE 5 – HOSE LENGTH DUE TO PRESSURE

5.24 Hose Movement and Bending

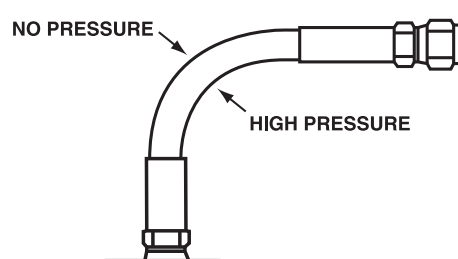


Hose allows relative motion between system components. Analyze this motion when designing hose systems. The number of cycles per day may significantly affect hose life. Also avoid multiple planes of motion and twisting motion. Consider the motion of the hose when selecting hose and predicting service life. In applications that require hose to move or bend, refer to Figures 6 and 7; and use these practices:

5.24.1 Bend in Only One Plane to Avoid Twisting

FIGURE 6 – BEND IN ONLY ONE PLANE TO AVOID TWISTING

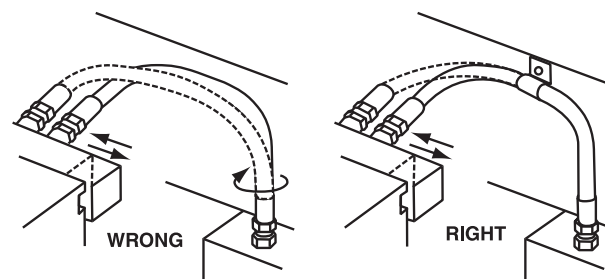
5.24.2 Prevent Hose Bending in More Than One Plane



If hose follows a compound bend, couple it into separate segments, or clamp into segments that flex in only one plane.

FIGURE 7 – PREVENT HOSE BENDING IN MORE THAN ONE PLANE

6. Hose-Assembly Fabrication



Persons fabricating hose assemblies should be trained in the proper use of equipment and materials. The manufacturers' instructions and the practices listed as follows must be followed. Properly assembled fittings are vital to the integrity of a hose assembly. Improperly assembled fittings can separate from the hose and may cause serious injury or property damage from whipping hose, or from fire or explosion of vapor expelled from the hose.

6.1 Component Inspection

Prior to assembly, examine components for:

- A. Style or type
- B. Cleanliness
- C. Loose covers
- D. Nicks
- E. Size
- F. Inside obstructions
- G. Visible defects
- H. Damage
- I. Length
- J. Blisters
- K. Burrs

Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products

6.2 Hose Fittings

Hose fitting components from one manufacturer are not usually compatible with fittings components supplied by another manufacturer. For example, do not use a hose fitting nipple from one manufacturer with a hose socket from another manufacturer. It is the responsibility of the fabricator to consult the manufacturer's written instructions or the manufacturer directly for information on proper fitting components.

6.3 Hose and Fitting Compatibility

Care must be taken to determine proper compatibility between the hose and fitting. Base selection on the manufacturers' recommendations substantiated by testing to industry standards such as SAE J517. Hose from one manufacturer is not usually compatible with fittings from another. Do not intermix hose and fittings from two manufacturers without approval from both manufacturers.

6.4 Hose Assembly Equipment

Assembly equipment from one manufacturer is usually not interchangeable with that from another manufacturer. Hoses and fittings from one manufacturer should not generally be assembled with the equipment of another manufacturer.

6.5 Safety Equipment

During fabrication, use proper safety equipment, including eye protection, breathing apparatus, and adequate ventilation.

6.6 Reuse of Hose and Fittings

When fabricating hose assemblies, do not reuse:

- A. Field-attachable fittings that have blown or pulled off hose.
- B. Any part of hose fittings that were permanently crimped or swaged to hose.
- C. Hose that has been in service after system check out (see 7.7).

6.7 Cleanliness of Hose Assemblies

Hose assemblies may be contaminated during fabrication. Clean hoses to specified cleanliness levels (see 5.13).

7. Hose Installation and Replacement

Use the following practices when installing hose assemblies in new systems or replacing hose assemblies in existing systems:

7.1 Pre-Installation Inspection

Before installing hose assemblies, examine:

- A. Hose length and routing for compliance with original design.
- B. Assemblies for correct style, size, length and visible nonconformities.
- C. Fitting sealing surfaces for burrs, nicks, or other damage.

NOTE: When replacing hose assemblies in existing systems, verify that the replacement is of equal quality to the original assembly

7.2 Handling During Installation

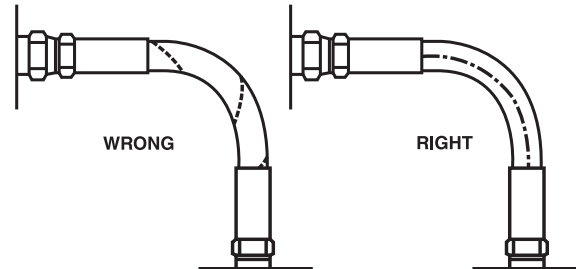
Handle hose with care during installation. Kinking hose, or bending at less than minimum bend radius may reduce hose life. Avoid sharp bending at the hose/fitting juncture

(see 5.21).

7.3 Twist Angle and Orientation

Pressure applied to a twisted hose may shorten the life of the hose or loosen the connections. To avoid twisting, use the hose lay line or marking as a reference (see Figure 8).

FIGURE 8 – TWIST ANGLE AND ORIENTATION



7.4 Securement and Protection

Install necessary restraints and protective devices. Determine that such devices do not create additional stress or wear points.

7.5 Routing

Review proper routing practices provided in Section 5 and make appropriate corrections to obtain optimum performance.

7.6 Assembly Torque

The connection end of a hose is normally threaded to obtain a tight pressure seal when attached to a port, an adapter, or another fitting. Sometimes bolts or screws provide the threaded connection. Each size and type of connection requires different torque values, and these may vary due to type of material or exterior coating.

7.7 System Checkouts

In hydraulic or other liquid systems, eliminate all air entrapment after completing the installation. Follow manufacturers' instructions to test the system for possible malfunctions and leaks.

7.7.1 To avoid injury during system checkouts:

- A. Do not touch any part of the system when checking for leaks (see 4.1).
- B. Stay out of potentially hazardous areas while testing hose systems (see Section 4).
- C. Relieve system pressure before tightening connections.

8. Maintenance Inspection

A hose and fitting maintenance program may reduce equipment downtime, maintain peak operating performance, and reduce the risk of personal injury and/or property damage. The user should design and implement a maintenance program that suits the specific application and each specific hose in that application.

8.1 Inspection Frequency

Evaluate factors such as the nature and severity of the application, past history, and manufacturers' information to establish the frequency of visual inspections and functional tests.

8.2 Visual Inspection (Hose and Fittings)

Visually inspect hose and fittings for:

- A. Leaks at hose fitting or in hose.
- B. Damaged, cut or abraded cover.
- C. Exposed reinforcement.
- D. Kinked, crushed, flattened, or twisted hose.
- E. Hard, stiff, heat cracked, or charred hose.
- F. Blistered, soft, degraded, or loose cover.
- G. Cracked, damaged, or badly corroded fittings.
- H. Fitting slippage on hose.
- I. Other signs of significant deterioration.

If any of these conditions exist, evaluate the hose assemblies for correction or replacement.

8.3 Visual Inspection (All Other Components)

When visually inspecting hose and fittings, inspect for related items including:

- A. Leaking ports.
- B. Damaged or missing hose clamps, guards or shields.
- C. Excessive dirt and debris around hose.
- D. System fluid: Level, type, contamination, condition and air entrainment. If any of these are found, address them appropriately.

8.4 Functional Test

Functional tests determine if systems are leak free and operating properly. Carry out functional tests per information from equipment manufacturers.

9. Hose Storage

Age control and the manner of storage can affect hose life. Use the following practices when storing hose.

9.1 Age Control

Maintain a system of age control to determine that hose is used before its shelf life has expired. Shelf life is the period of time when it is reasonable to expect the hose to retain full capabilities for rendering the intended service. Store hose in a manner that facilitates age control and first-in, first-out usage based on manufacturing date on hose or hose assembly. Per SAE J517:

- A. Shelf life of rubber hose in bulk form, or in hose assemblies passing visual inspection and proof test, is forty quarters (ten years) from the date of vulcanization.
- B. Shelf life of thermoplastic and polytetrafluoroethylene hose is considered to be unlimited.

9.2 Storage

Store hose and hose assemblies in a cool, dark, dry area with the ends capped. When storing hose, take care to avoid damage that could reduce hose life, and follow the manufacturers' information for storage and shelf life. Examples of factors that can adversely affect hose product in storage are:

- A. Temperature
- B. Ozone
- C. Oils
- D. Corrosive liquids and fumes
- E. Rodents
- F. Humidity
- G. Ultraviolet light
- H. Solvents
- I. Insects
- J. Radioactive materials

If there are any questions regarding the quality or usability of hose or hose assemblies, evaluate appropriately:

- A. Flex the hose to the minimum bend radius and compare it with new hose. After flexing, examine the cover and tube for cracks. If any appear, no matter how small, reject the hose.
- B. If the hose is wire reinforced, and the hose is unusually stiff, or a cracking sound is heard during flexing, check for rust by cutting away a section of the cover from a sample. Rust would be another reason for rejection.
- C. If doubt still persists, contact hose assembler to conduct proof-pressure tests or any other tests needed to verify hose quality.

Ten Routing Tips

Pay particular attention to hydraulic hose routing. Hose must be properly installed to prevent potential hazards and ensure productivity. There are ten routing tips that, if followed, help avoid premature hydraulic hose failure.

1. Don't position hose next to heat sources.

An increase of 18 deg F above the maximum operating temperature of a hose may cause cracking and cut its life in half. Cracks are also caused by flexing, especially at excessively low temperatures.

Always select a hose that meets the temperature and flow requirements of the application. Avoid using an undersized hose, which is a source of overheating.

2. Avoid routes that result in twisting.

Twisting misaligns hose reinforcement and reduces its ability to withstand pressure. Twisting a high-pressure hose 7 deg can reduce service life by 90%. Pressure applied to a twisted hose can cause loosening of connections. Prevent twisting and distortion by bending in the same plane as the motion of the port to which the hose is connected.

The use of bent tube or block-style couplings and adapters may improve routing.

3. Don't position hose next to metal edges or too close to other hoses.

Continuous rubbing against equipment components, other hoses, or objects in the operating environment can result in the hose cover wearing away, exposing the reinforcement. Exposed reinforcement is susceptible to rust and accelerated damage leading to failure.

Prevent abrasion by bundling together hoses that flex in the same direction. Clamps, bent tube couplings, nylon ties, spring guards, and sleeving can be used to keep hose away from abrasive sources. Protective sleeving can be used to protect hose covers from abrasion (Fig. 1).

Manufacturers produce hoses with tough abrasion-resistant covers that last up to 300 times longer than standard rubber-covered versions in hose-to-hose and hose-to-metal testing.

4. Avoid straining hose.

Use elbows and adapters to relieve strain on the assembly and provide neat installations accessible for inspection and maintenance. They can be used in the following situations.

- To avoid fitting orientation. Do not use an angle fitting on both ends of a hose assembly. Use a straight fitting and an angle adapter on the other end. This method makes installation easier and eliminates the need for orientation.
- To change size when jump-size fittings are not available. Make the jump with an adapter.
- To ease port connection and hose installation.
- To change to a different thread configuration.
- To promote laminar flow and reduce pressure drop. It is better to use a straight adapter and bent tube coupling than an angled adapter and straight hose end.

5. Avoid exceeding the minimum bend radius.

Bending hose tighter than recommended places excessive stress on the reinforcement, can open large gaps between strands of reinforcement, and severely reduces the hose's ability to withstand pressure. The result could be a burst hose.

Reroute hose to eliminate excessive flexing and exceeding the minimum recommended bend radius. Refer to hose specification tables for minimum bend radii.

6. Allow for length changes when the hose is pressurized.

Hydraulic hose can elongate up to 2% or contract up to 4%, depending on construction. Routing must take this into account (Fig. 2).

If hose length is excessive, the installation's appearance will be unsatisfactory, and unnecessary equipment costs will be incurred. Service life is reduced if hose assemblies are too short to permit adequate flexing and allow for length changes due to expansion or contraction.

7. Don't mix and match.

It is critical that the hose and coupling manufacturer are the same, and that they are assembled using the recommended equipment, components, and procedures.

8. Consider mechanical movement when bundling.

Never bundle high-pressure with low-pressure hose, or rubber with thermoplastic or PTFE hose. Under pressure they can work against each other. Bundles, like individual hoses, should only bend in one plane (Fig. 3).

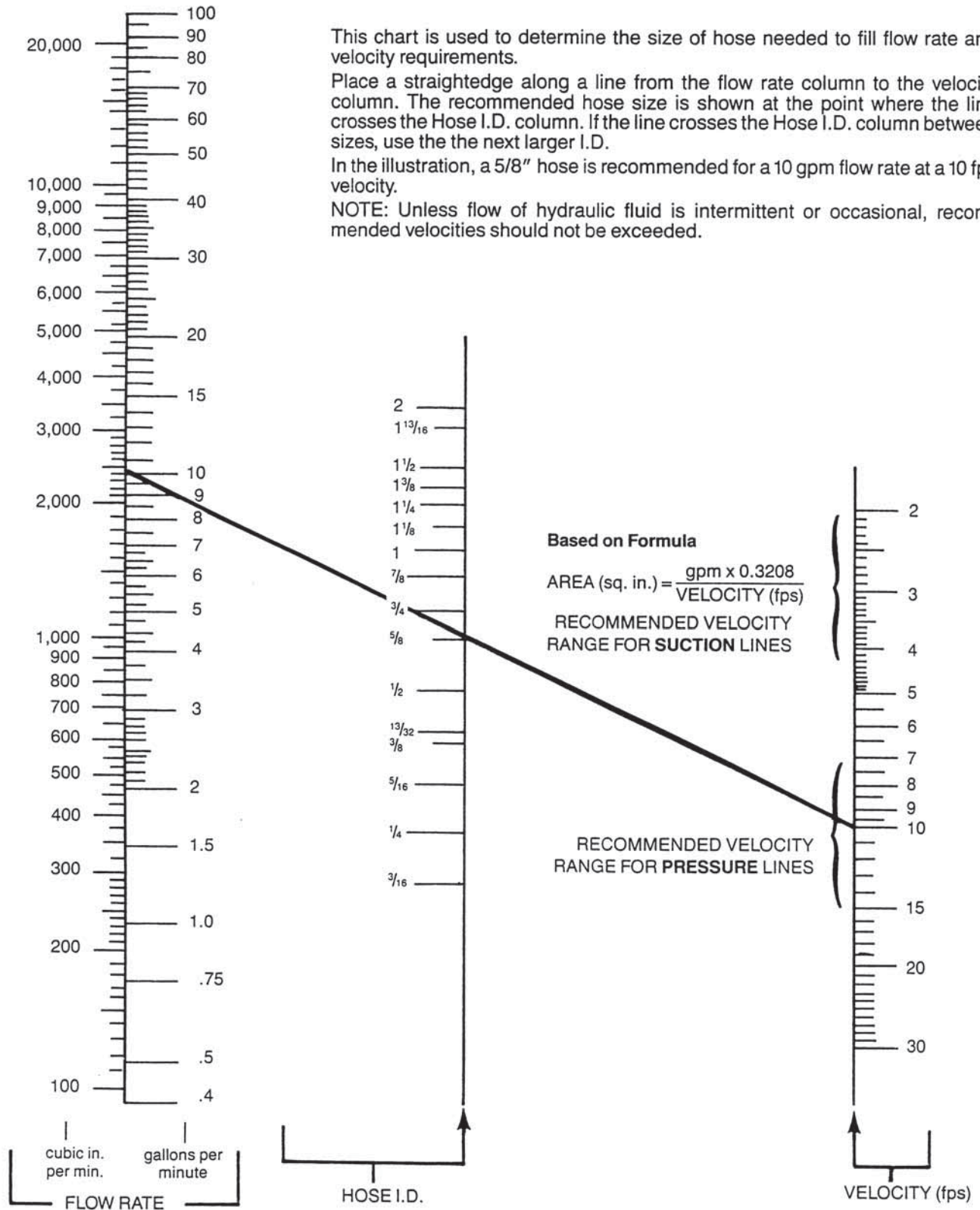
9. Route high-pressure hydraulic lines parallel to machine contours whenever possible.

This practice helps save money by reducing line lengths and minimizes the number of hard angle, flow restricting bends. This kind of routing protects lines from external damage and promotes easier servicing.

10. Use adapters to make installation and orientation easier.

Adapters are used to ease port connections and hose installation or to change to a different thread configuration (Fig. 4). As a rule, a straight adapter and bent tube coupling are a better choice than an angled adapter and straight hose end. This combination promotes laminar flow and reduces pressure drop.

Selecting Hose I.D. - Flow and Velocity



Hose

Braided Hose Couplings

W Style Couplings

Other Couplings

Threads & Connections

Additional Products

Part Number Index



Table listing various hydraulic parts with part numbers and descriptions. Columns include part numbers, descriptions, and corresponding part numbers for similar or related items. Examples include BOSS-0-04, BOSS-0-05, BOSS-0-06, etc.

www.kurthydraulics.com

Other Kurt Division Sites

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