



KURT

Your home team advantage...American made couplings



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
www.kurthydraulics.com



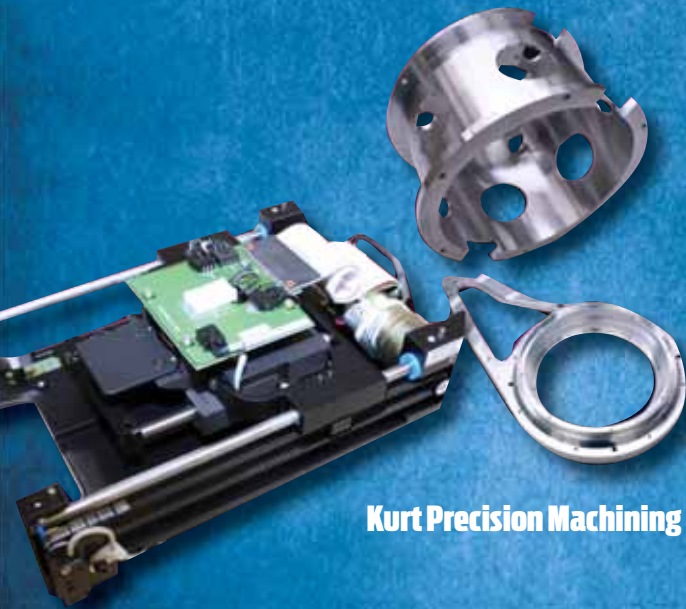
KURT HYDRAULICS

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



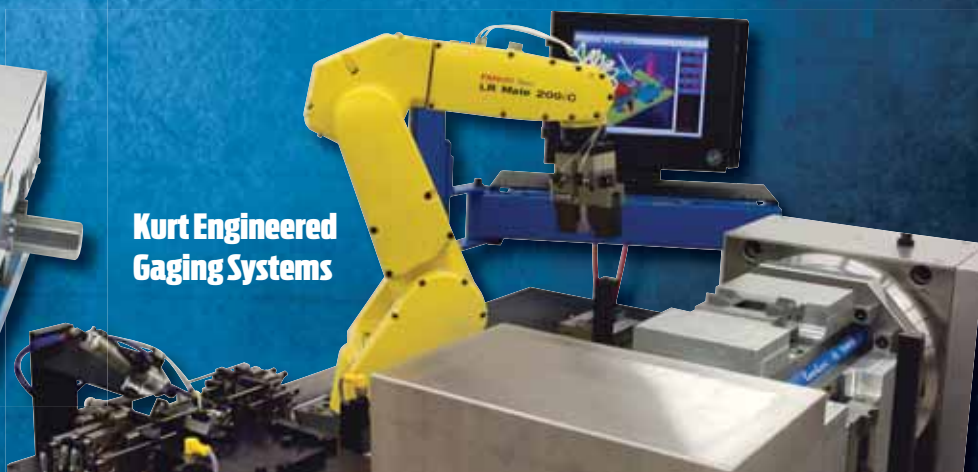
Kurt Precision Machining



Kurt Kinetic Trainers



Kurt AngLock Vises



**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.



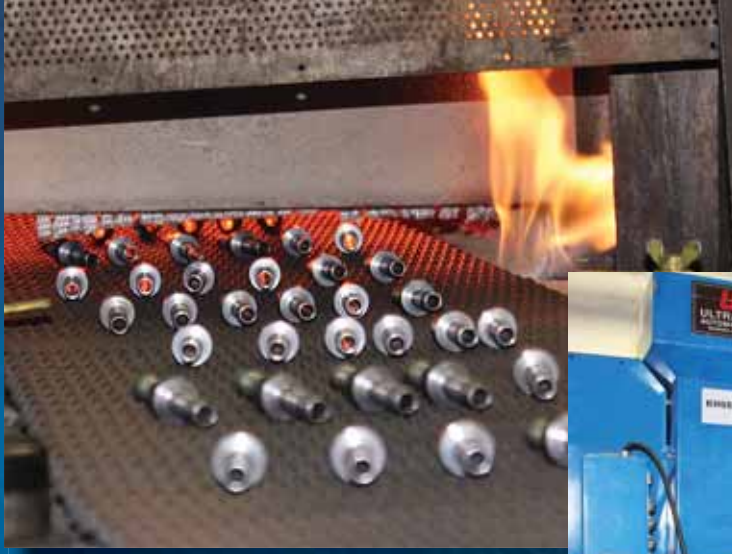


KURT HYDRAULICS

Commitment To Annual Equipment And Systems Investment

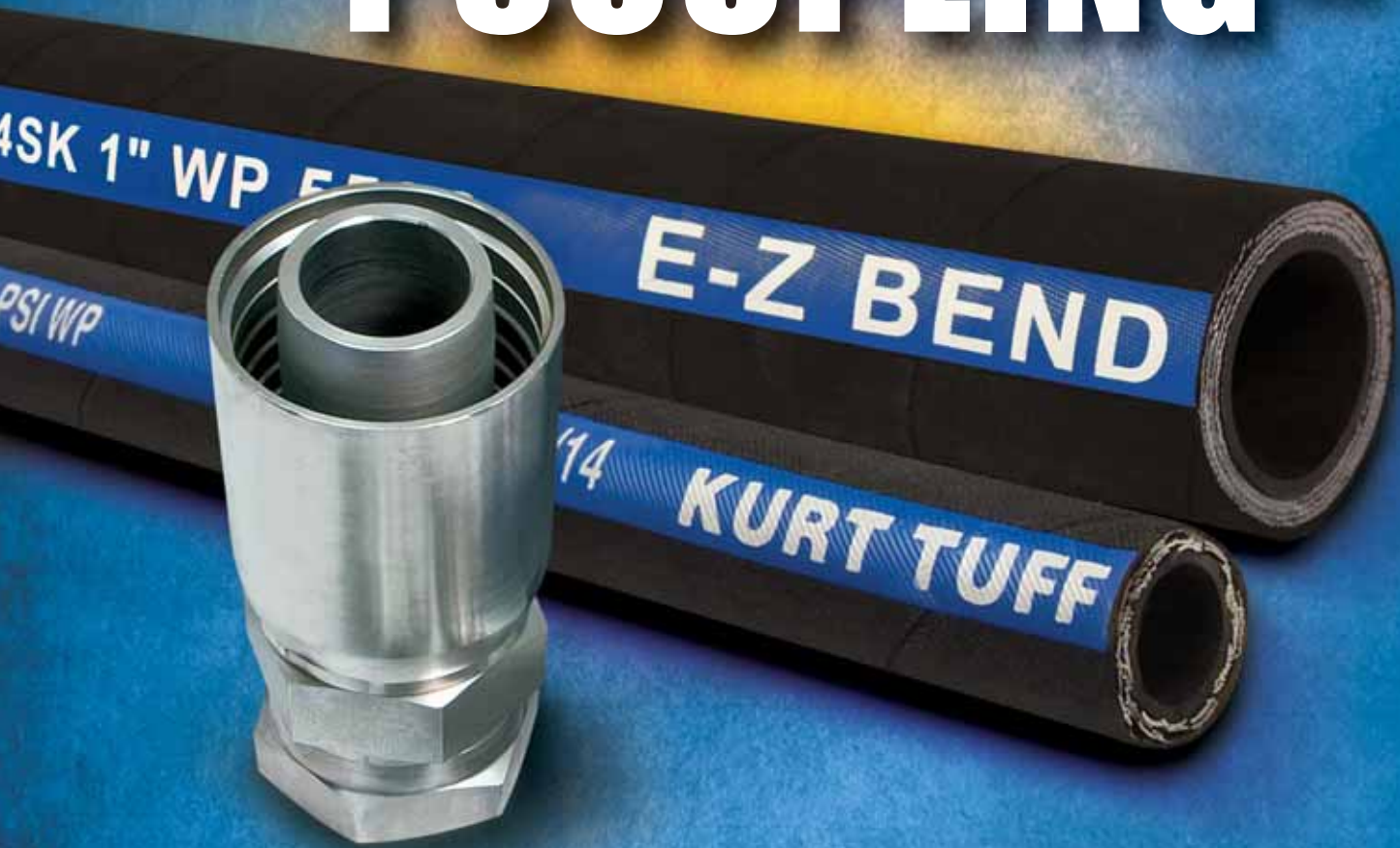
Kurt Hydraulics stays ahead of the curve when it comes to equipment, systems and people. Annual assessments and reviews of all production equipment and systems allows us continued upgrades and provides a “Home Team Advantage” for competitiveness and innovation.





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2 HOSES+ 1 COUPLING=

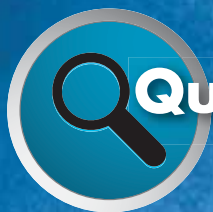


TOTAL HYDRAULIC HOSE SOLUTION

Now hydraulic system designers can handle the most common pressure ranges for their applications by selecting from just two different hose styles and a single coupling style from KURT HYDRAULICS. That really simplifies life for everyone, and reduces inventory.

For pressure ranges of 3,000 to 6,500 PSI, KURT TUFF™ and E-Z BEND™ hydraulic hose along with KURT W-Style couplings provide a Total Hydraulic Solution.

Start simplifying your life today – call KURT customer service today to learn more:
TOLL FREE 1-866-257-7995.



Quick Finder for Hose & Couplings



Braided Hose
Pages 13-16



Spiral Hose
Pages 17-20



Thermoplastic Hose
Pages 21-25



Specialty Hose
Pages 26-31



Push-Loc Hose
Page 32



Push-Loc Hose Couplings
Page 33



Braided Hose Couplings
Pages 36-60



K2 Style Couplings
Pages 61-78



W Style Couplings
Pages 79-104



WHP Couplings
Pages 105-110



JJ Couplings
Pages 111-117



6W Couplings
Pages 118-124



R7 Couplings
Pages 125-129



PTFE Couplings
Pages 130-134



R5 & R4 Couplings
Pages 135-141



Hose Guard Products
Pages 147-148

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

The KURT Hydraulics Advantage	2-7	FP - NPTF Female Pipe Rigid	48	MPX - NPTF Male Pipe Swivel	73
Hose and Couplings Quick Finder	8-9	FPX - Female Pipe NPSM Swivel	48	MT - Flareless Compression with Nut and Sleeve Per SAE J514 ..	74
Table of Contents	10-11	FSX - 45° SAE Female Swivel	49	O-Ring Face Seal 45° Bent Tube Female Swivel	74
Hydraulic Hose and Fitting Compatibility	12	FSX45 - 45° SAE Female 45° Bent Tube Swivel	49	O-Ring Face Seal 90° Bent Tube Female Swivel	74
Braided Hose	13-16	FSX90 - 45° SAE Female 90° Bent Tube Swivel	49	O-Ring Face Seal 90° Long Drop Bent Tube Female Swivel	74
SAE R1S, DIN EN 853 1SN Hydraulic Hose	14	FSXT - 45° SAE Female Swivel	50	O-Ring Face Seal 90° Medium Drop Bent Tube Female Swivel ..	75
SAE R2S, DIN EN 853 2SN Hydraulic Hose	14	Hose Mender	50	O-Ring Face Seal Female Swivel	75
SAE R16S Hydraulic Hose	15	JIS 30° Female Swivel	50	MW - Stand Tube Rigid	75
SAE R17 Hydraulic Hose	15	Komatsu Flange 45° Bent Tube Rigid	50	British Std Pipe 60° Cone 90° Block Style Female Swivel	76
KURT TUFF Hydraulic Hose	16	Komatsu Flange 90° Bent Tube Rigid	51	FJX90B - 37° JIC Female 90° Swivel Block Style	76
Spiral Hose	17-20	Komatsu JIS 30° Seat Female Swivel	51	Komatsu JIS 30° Seat 45° Bent Tube Female Swivel	76
SAE R12 DIN EN 856 Hydraulic Hose	18	Komatsu JIS 30° Seat 45° Bent Tube Female Swivel	51	Komatsu JIS 30° Seat 90° Bent Tube Female Swivel	76
4SH DIN EN 856 Hydraulic Hose	18	Komatsu JIS 30° Seat 90° Bent Tube Female Swivel	51	FSX45 - 45° SAE Female 45° Bent Tube Swivel	77
KURT E-Z Bend 4SK Hydraulic Hose	19	LF - Line Fit Sleeveless design	52	FSX90 - 45° SAE Female 90° Bent Tube Swivel	77
KURT TUFF Spiral Flex Hydraulic Hose	19	Male British Parallel Pipe 60° Cone Rigid	52	Female Grease Tap Rigid	77
SAE R13 DIN EN 856 Hydraulic Hose	20	Male British Standard Pipe 60° Cone Rigid	52	Karcher Pressure Wash Female Swivel	77
SAE R15 Hydraulic Hose	20	Male Boss O-Ring Rigid	53	Komatsu Flange 45° Bent Tube Rigid	78
Thermoplastic Hose	21-25	MBX - Male Boss O-Ring Swivel	53	LF - Line Fit Sleeveless design	78
SAE 100R7, DIN EN 855 Hydraulic Hose	22	MBX90 - Male Boss O-Ring 90° Swivel Block Style	54	Male British Standard Pipe 60° Cone Rigid	78
SAE 100R7, DIN EN 855 Hydraulic Hose (Non-Conductive)	22	Metric O.D. Stand Pipe 45° Bent Tube	54	MS - 45° SAE Male Rigid	78
SAE 100R7, DIN EN 855 Hydraulic Hose Twin Line	23	Metric O.D. Stand Pipe 90° Bent Tube	55	W Style Braided or Spiral Hose Couplings	79-104
SAE 100R7, DIN EN 855 1SN Hydraulic Hose Twin Line (Non-Conductive)	23	Metric O.D. Stand Tube Rigid	55	37° JIC Female 45° Swivel	80
SAE 100R18 Hydraulic Hose	24	MF - Male O-Ring Face Seal Rigid	56	37° JIC Female 90° Long Drop Bent Tube Swivel	80
SAE 100R8, DIN EN 855 Hydraulic Hose	24	MIX - 45° SAE Male Inverted Flare	56	37° JIC Female 90° Bent Tube Swivel	81
SAE 100R8, DIN EN 855 Hydraulic Hose (Non-Conductive)	25	MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel	56	37° JIC Female 90° Medium Drop Bent Tube Female Swivel	81
SAE 100R8, DIN EN 855 Hydraulic Hose Twin Line	25	MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel	57	37° JIC Female Swivel	82
Specialty Hose	26-31	MJ - 37° JIC Male Rigid	57	37° JIC Male Rigid	83
SAE 100 R14 Stainless Steel PTFE Hose	27	MP - Male Pipe NPTF Rigid	58	Cat Flange 45° Bent Tube Rigid	83
SAE 100 R5 Hydraulic Hose	27	MPX - Male Pipe NPTF Swivel	58	Cat Flange 90° Bent Tube Rigid	83
Jack Hose	28	MPX90 - Male Pipe 90° Swivel Block Style	59	Cat Flange Straight Rigid	84
SAE 100 R4 Suction Hose	28	MS - 45° SAE Male Rigid	59	C61 - Code 61 Flange 22° Bent Tube Rigid	84
Refrigerant Beadlock Hose	29	MT - Flareless Compression with Nut and Sleeve Per SAE J514 ..	59	C61 - Code 61 Flange 30° Bent Tube Rigid	84
SAE R1S, DIN EN 853 1SN High Temp Marine Hose	30	MW - Stand Tube Rigid	60	C61 - Code 61 Flange 45° Bent Tube Rigid	85
SAE R2S, DIN EN 853 2SN High Temp Hydraulic Hose	30	SHELL - Shell Only	60	C61 - Code 61 Flange 60° Bent Tube Rigid	85
1SN & 2SN Pressure Washer Hose	31	FW - Female Weld Fitting Rigid	60	C61 - Code 61 Flange 90° Bent Tube Rigid	85
Carpet Cleaner Hose	31	Karcher Pressure Wash Female Swivel	60	C61 - Code 61 Flange 90° Long Drop Bent Tube Rigid	86
Push-Loc Hose	32	K2 Style Couplings	61-78	C61 - Code 61 Flange Rigid	86
Push-Loc Hose Couplings	33	37° JIC Female 45° Swivel	62	C62 - Code 62 Flange 22° Bent Tube Rigid	86
Male Pipe Rigid - Push-Loc	33	37° JIC Female 90° Bent Tube Swivel	62	C62 - Code 62 Flange 30° Bent Tube Rigid	86
Female Pipe Rigid - Push-Loc	33	37° JIC Female 90° Long Drop Bent Tube Swivel	62	C62 - Code 62 Flange 45° Bent Tube Rigid	87
Female SAE Swivel - Push-Loc	33	37° JIC Female 90° Medium Drop Bent Tube Female Swivel	62	C62 - Code 62 Flange 45° Long Drop Bent Tube Rigid	87
Male Pipe Swivel - Push-Loc	33	37° JIC Female Swivel	63	C62 - Code 62 Flange 60° Bent Tube Rigid	87
Female JIC Swivel - Push-Loc	33	37° JIC Male Rigid	63	C62 - Code 62 Flange 90° Bent Tube Rigid	87
Plating	34	Cat Flange Straight Rigid	63	C62 - Code 62 Flange Rigid	88
Part Number System	35	C61 - Code 61 Flange 22° Bent Tube Rigid	63	Din Heavy 24° Seat Male Rigid	88
Braided Hose Couplings	36-60	C61 - Code 61 Flange 45° Bent Tube Rigid	64	Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring ..	88
British Flat Face Seat Female Swivel	37	C61 - Code 61 Flange 60° Bent Tube Rigid	64	Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring ..	89
British Standard Pipe 60° Cone 45° Bent Tube Female Swivel	37	C61 - Code 61 Flange 90° Bent Tube Rigid	64	Din Heavy 24° Seat Female Swivel With O-Ring	89
British Standard Pipe 60° Cone Female Swivel	37	C61 - Code 61 Flange 90° Long Drop Bent Tube Rigid	64	Din Light 24° Seat Male Rigid	90
British Std Pipe 60° Cone 90° Block Style Female Swivel	38	C61 - Code 61 Flange Rigid	64	Din Light 24° Seat 45° Bent Tube Female Swivel With O-Ring ..	90
C61 - Code 61 Flange Straight Rigid	38	Din Heavy 24° Seat Male Rigid	65	Din Light 24° Seat 90° Bent Tube Female Swivel With O-Ring ..	90
C6145 - Code 61 Flange 45° Bent Tube Rigid	39	Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring ..	65	Din Light 24° Seat Female Swivel With O-Ring	91
C6190 - Code 61 Flange 90° Bent Tube Rigid	39	Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring ..	65	Female British Pipe 45° Bent Tube Swivel	91
Din Heavy Universal Seat 45° Bent Tube Female Swivel	39	Din Heavy 24° Seat Female Swivel With O-Ring	66	Female British Pipe 90° Bent Tube Swivel	91
Din Heavy Universal Seat 90° Bent Tube Female Swivel	40	Din Light 24° Seat Male Rigid	66	Female British Pipe Straight	92
Din Heavy Universal Seat Female Swivel	40	Din Light 24° Seat 45° Bent Tube Female Swivel With O-Ring ..	66	FP - NPTF Female Pipe Rigid	92
Din Heavy Universal Seat Male Rigid	40	Din Light 24° Seat 90° Bent Tube Female Swivel With O-Ring ..	67	FPX - NPTF Female Pipe Swivel	92
Din Light Universal Seat 45° Bent Tube Female Swivel	41	Din Light 24° Seat Female Swivel With O-Ring	67	FSX - 45° SAE Female Swivel	93
Din Light Universal Seat 90° Bent Tube Female Swivel	41	Female British Pipe 45° Bent Tube Swivel	67	FW - Female Weld Fitting Rigid	93
Din Light Universal Seat Female Swivel	41	Female British Pipe 90° Bent Tube Swivel	67	Hose Mender	93
Din Light Universal Seat Male Rigid	42	Female British Pipe Straight	68	JIS 30° Female Swivel	93
Female Grease Tap Rigid	42	FP - NPTF Female Pipe Rigid	68	Komatsu JIS 30° Seat Female Swivel	94
FFX - O-Ring Face Seal Female Swivel	42	FPX - NPSM Female Pipe Swivel	68	Male Boss O-Ring Rigid	94
FFX45 - O-Ring Face Seal 45° Bent Tube Female Swivel	43	FSX - 45° SAE Female Swivel	69	Male British Parallel Pipe 60° Cone Rigid	95
FFX90 - O-Ring Face Seal 90° Bent Tube Female Swivel	43	FW - Female Weld Fitting Rigid	69	Male Pipe NPTF Rigid	95
FFX90L - O-Ring Face Seal 90° Long Drop Female Swivel	44	Hose Mender	69	MBX - Male Boss O-Ring Swivel	96
FFX90M - O-Ring Face Seal 90° Medium Drop Bent Tube Female Swivel	44	JIS 30° Female Swivel	69	MBX - Male Boss O-Ring Swivel	96
FFXT - O-Ring Face Seal Female Swivel Long	44	Komatsu JIS 30° Seat Female Swivel	70	MF - Male Face Seal Rigid	96
FJX - 37° JIC Female Swivel	45	Male Boss O-Ring Rigid	70	MIX - 45° SAE Male Inverted Flare	97
FJX45 - 37° JIC Female 45° Bent Tube Swivel	46	Male British Parallel Pipe 60° Cone Rigid	70	MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel	97
FJX90 - 37° JIC Female 90° Bent Tube Swivel	46	Male Pipe NPTF Rigid	71	MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel	97
FJX90B - 37° JIC Female 90° Swivel Block Style	47	MBX - Male Boss O-Ring 90° Swivel Block Style	71	MPX90 - Male Pipe 90° Swivel Block Style	98
FJX90L - 37° JIC Female 90° Long Drop Swivel	47	MBX - Male Boss O-Ring Swivel	71	MPX - NPTF Male Pipe Swivel	98
FJX90M - 37° JIC Female 90° Bent Tube Swivel Medium Drop	47	MF - Male Face Seal Rigid	72	MT - Flareless Compression with Nut and Sleeve Per SAE J514 ..	98
FJXT - 37° JIC Female Swivel Long	48	MIX - 45° SAE Male Inverted Flare	72	O-Ring Face Seal 45° Bent Tube Female Swivel	99
		MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel	72	O-Ring Face Seal 90° Bent Tube Female Swivel	100
		MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel	73	O-Ring Face Seal 90° Long Drop Bent Tube Female Swivel	100
		MPX90 - Male Pipe 90° Swivel Block Style	73	O-Ring Face Seal 90° Medium Drop Bent Tube Female Swivel ..	100

O-Ring Face Seal Female Swivel	101	Cat Flange 45° Bent Tube Rigid	119	90° Straight Male Insert O-Ring	142
British Flat Face Seat Female Swivel	101	Cat Flange 90° Bent Tube Rigid	119	Braze on For Beadlock System	142
British Std Pipe 60° Cone 90° Block Style Female Swivel	101	Cat Flange Straight Rigid	120	Compression Repair Coupling	142
FJX90B - 37° JIC Female 90° Swivel Block Style	102	C61 - Code 61 Flange 22° Bent Tube Rigid	120	Male O-Ring Swivel	143
Komatsu JIS 30° Seat 45° Bent Tube Female Swivel	102	C61 - Code 61 Flange 30° Bent Tube Rigid	120	Straight Female O-Ring Swivel	143
Komatsu JIS 30° Seat 90° Bent Tube Female Swivel	102	C61 - Code 61 Flange 45° Bent Tube Rigid	120	Straight Male Insert O-Ring	143
FSX45 - 45° SAE Female 45° Bent Tube Swivel	102	C61 - Code 61 Flange 60° Bent Tube Rigid	120	Straight Splicer	143
FSX90 - 45° SAE Female 90° Bent Tube Swivel	103	C61 - Code 61 Flange 90° Bent Tube Rigid	121	Braze in Service Port	143
Female Grease Tap Rigid	103	C61 - Code 61 Flange Rigid	121	Air Brake Hoses 144-145	
Karcher Pressure Wash Female Swivel	103	C62 - Code 62 Flange 22° Bent Tube Rigid	121	Rubber Hose Air Brake Fittings, Adapter	145
Komatsu Flange Rigid	103	C62 - Code 62 Flange 30° Bent Tube Rigid	121	Rubber Hose Air Brake Fittings, Union, Complete	145
Komatsu Flange 45° Bent Tube Rigid	103	C62 - Code 62 Flange 45° Bent Tube Rigid	121	Rubber Hose Air Brake Fittings, Male Connector with Spring Guard	145
Komatsu Flange 90° Bent Tube Rigid	103	C62 - Code 62 Flange 60° Bent Tube Rigid	122	Rubber Hose Air Brake Fittings, Male Connector	145
LF - Line Fit Sleeveless design	104	C62 - Code 62 Flange 90° Bent Tube Rigid	122	Bulk Air Brake Hose	145
Male British Standard Pipe 60° Cone Rigid	104	C62 - Code 62 Flange Rigid	122	Hose Assemblies	145
MS - 45° SAE Male Rigid	104	Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring	122	O-Rings / Flange Kits 146	
MW - Stand Tube Rigid	104	Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring	122	Code 61 Flange Kits	146
WHP Ultra High Pressure Non Skive Couplings 105-110		Din Heavy 24° Seat Female Swivel With O-Ring	123	Code 62 Flange Kits	146
37° JIC Female 45° Bent Tube Swivel	106	Female British Pipe Straight	123	CAT Flange Halves	146
37° JIC Female 90° Bent Tube Swivel	106	C61 - Code 61 Flange 67° Bent Tube Rigid	123	CAT Flange O-Rings	146
37° JIC Female Swivel	106	C62 - Code 62 Flange 67° Bent Tube Rigid	123	O-Rings	146
37° JIC Male Rigid	106	Male Pipe NPTF Rigid	123	Hose Guard Products 147-148	
CAT Flange 22° Bent Tube Rigid	106	37° JIC Male Rigid	123	Nylon Sleaving	148
CAT Flange 30° Bent Tube Rigid	106	O-Ring Face Seal 45° Bent Tube Female Swivel	124	Springs for Jack Hose	148
CAT Flange 45° Bent Tube Rigid	107	O-Ring Face Seal 90° Bent Tube Female Swivel	124	Steel Armor Guard	148
CAT Flange 90° Bent Tube Rigid	107	O-Ring Face Seal Female Swivel	124	Plastic Hose Wrap	148
CAT Flange Straight Rigid	107	Male Hammer Union (Fig. 1502) with Lug Nut	124	Steel Spring Guard	148
Code 61 Flange 45° Bent Tube Rigid	107	Female Hammer Union (Fig. 1502) Integral fitting with Rubber Ring	124	Warning Tags	148
Code 61 Flange 90° Bent Tube Rigid	107	R7 Couplings 125-129		Notes 149	
Code 61 Flange Rigid	108	FFX - O-Ring Face Seal Female Coupling	126	Swagers 150	
Code 62 Flange 45° Bent Tube Rigid	108	FJX - 37° JIC Female Swivel	126	1000 Swage Tool	150
Code 62 Flange 90° Bent Tube Rigid	108	FJX45 - 37° JIC Female 45° Bent Tube Swivel	127	2000 Swage Machine	150
Code 62 Flange Rigid	108	FJX90L - 37° JIC Female 90° Long Drop Swivel	127	Crimpers 151-154	
Din Heavy 24° Seat 45° Bent Tube Female Swivel With O-Ring	108	FJX90 - 37° JIC Female 90° Bent Tube Swivel	128	KH-60 Crimper Kit	151
Din Heavy 24° Seat 90° Bent Tube Female Swivel With O-Ring	109	Male Boss O-Ring Rigid	128	KH-60-P Portable Crimper (Basic)	152
Din Heavy 24° Seat Female Swivel With O-Ring	109	MP - Male Pipe NPTF Rigid	129	KH-80 Crimper Kit	153
FW - Female Weld Fitting Rigid	109	MJ - 37° JIC Male Rigid	129	KH4-50 Crimper Kit	154
JIS 30° Female Swivel	109	PTFE Couplings 130-139		Technical Guide 155-157	
Male Boss O-Ring Rigid	109	37° JIC Female 45° Bent Tube Swivel	131	Measuring Threads 158	
Male Pipe NPTF Rigid	109	37° JIC Female 90° Bent Tube Swivel	131	Measuring Seat Angles 158	
O-Ring Face Seal 90° Bent Tube Female Swivel	110	37° JIC Female Swivel	132	Thread Chart 158	
O-Ring Face Seal 90° Bent Tube Female Swivel Long Drop	110	45° SAE Female Swivel	132	North American Connections 159-161	
O-Ring Face Seal Female Swivel	110	Male Pipe NPTF Rigid	133	NNPTF/NPSM Pipe Thread (P)	159
O-Face Seal Female 45° Bent Tube Swivel	110	O-Face Seal Female 45° Bent Tube Swivel	133	JIC 37° Flare (J)	159
JJ Ultra High Pressure Skive Style Couplings 111-117		O-Face Seal Female 90° Bent Tube Swivel	134	SAE 45° Flare (S)	159
37° JIC Female 45° Bent Tube Swivel	112	O-Face Seal Female Swivel	134	Special Power Steering Thread End	159
37° JIC Female 90° Bent Tube Swivel	112	Stand Tube Rigid	134	O-Ring Boss (B)	160
37° JIC Female Swivel	112	R5 Couplings 135-140		O-Ring Flange (C61 & C62)	160
37° JIC Male Rigid	112	37° JIC Female 45° Bent Tube Swivel	136	O-Ring Face Seal (F)	160
Cat Flange 45° Bent Tube Rigid	112	37° JIC Female 90° Bent Tube Swivel	136	Flareless Tube (MT & LF)	161
Cat Flange 90° Bent Tube Rigid	113	37° JIC Female Swivel	137	North American Standpipe (MW)	161
Cat Flange Straight Rigid	113	45° SAE Male Inverted Flare	137	SAE Inverted Flare Swivel Male (MIX)	161
Code 61 Flange 22° Bent Tube Rigid	113	45° SAE Male Inverted Flare 45° Bent Tube	137	French Connections 161	
Code 61 Flange 30° Bent Tube Rigid	113	45° SAE Male Inverted Flare 90° Bent Tube	137	French Metric 24° Cone (GAZ)	161
Code 61 Flange 45° Bent Tube Rigid	113	Male Pipe NPTF Rigid	138	German Connections 162	
Code 61 Flange 60° Bent Tube Rigid	114	Din Heavy Universal Seat 90° Bent Tube Female Swivel	138	DIN 24° Cone (DINL & DINH or DL & DH)	162
Code 61 Flange 67° Bent Tube Rigid	114	Din Light Universal Seat 90° Bent Tube Female Swivel	138	British Connections 162-163	
Code 61 Flange 90° Bent Tube Rigid	114	Din Light Universal Seat Male Rigid	138	British Standard Pipe Parallel (BSP)	162
Code 61 Flange Rigid	114	FFX - O-Ring Face Seal Female Swivel	139	British Standard Pipe Tapered (BSPT)	162
Code 62 Flange 22° Bent Tube Rigid	114	FFX90 - O-Ring Face Seal 90° Bent Tube Female Swivel	139	Female British Flat-Face Swivel (BFP)	162
Code 62 Flange 30° Bent Tube Rigid	115	FJX90L - 37° JIC Female 90° Long Drop Swivel	139	DIN 60° Cone	163
Code 62 Flange 67° Bent Tube Rigid	115	Metric O.D. Stand Pipe 45° Bent Tube	139	Metric Standpipe Assembly (MSP)	163
Code 62 Flange 90° Bent Tube Rigid	115	Metric O.D. Stand Pipe 90° Bent Tube	139	Japanese Connections 163	
Code 62 Flange Rigid	115	Metric O.D. Stand Tube Rigid	139	Japanese 30° Flare Parallel Threads (JIS)	163
Din Heavy 24° Seat 45° Bent Tube Female Swivel With O-Ring	115	MS - 45° SAE Male Rigid	140	Komatsu 30° Flare Parallel Threads (KOM)	163
Din Heavy 24° Seat 90° Bent Tube Female Swivel With O-Ring	116	FW - Female Weld Fitting Rigid	140	Metric Kobelco	163
Din Heavy 24° Seat Female Swivel With O-Ring	116	R4 Couplings 140-141		Hammer Union (HU)	163
Female British Pipe Swivel Straight	116	Code 61 Flange 90° Bent Tube Rigid	140	Recommended Practices for Hydraulic Hose Assemblies 164-171	
Male Pipe NPTF Rigid	116	FJX - 37° JIC Female Swivel	140	Selecting Hose I.D. - Flow and Velocity	172
O-Ring Face Seal 45° Bent Tube Female Swivel	116	Male Pipe NPTF Rigid	141	Kurt Hydraulics Recommended Assembly Torque 173	
O-Ring Face Seal 90° Bent Tube Female Swivel	117	Code 61 Flange 45° Bent Tube Rigid	141	Pressure Specifications 174-175	
O-Ring Face Seal Female Swivel	117	Code 61 Flange Rigid	141	Pressure Conversion Table 175	
Code 62 Flange 45° Bent Tube Rigid	117	Refrigerant Beadlock Hose Couplings 142-143		Warranty 175	
Code 62 Flange 60° Bent Tube Rigid	117	45° Female O-Ring Swivel Bent Tube	142	Part Number Index 176-179	
6W Ultra High Pressure Non Skive Couplings 118-124		45° Male O-Ring Swivel	142		
37° JIC Female 45° Swivel	119	45° Straight Male Insert O-Ring	142		
37° JIC Female 90° Bent Tube Swivel	119	90° Female O-Ring Swivel Bent Tube	142		
37° JIC Female Swivel	119	90° Male O-Ring Swivel	142		

Hose

Braided Hose Couplings

K2 Style Couplings

W Style Couplings

WHP Couplings

JJ Couplings

6W Couplings

R7, PTFE, R5, R4 Couplings

Additional Products

Technical Data

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 J516.”

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.

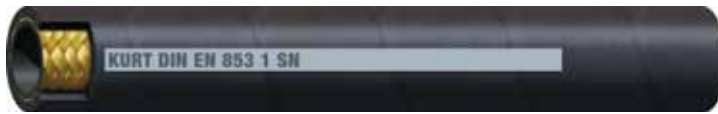
Steve Carlsen
Steve Carlsen – President



Braided Hose



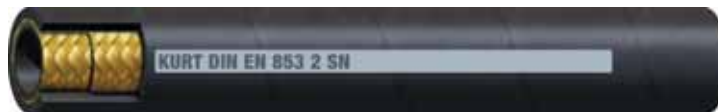
SAE R1S, DIN EN 853 1SN Hydraulic Hose



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.)	Weight (Lb/Ft)	Coupling Series
R1S-04	1/4	0.51	3,250	13,000	4	0.13	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R1S-06	3/8	0.61	2,500	10,000	5	0.19	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R1S-08	1/2	0.79	2,250	9,000	7	0.24	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R1S-10	5/8	0.91	1,750	7,000	8	0.30	STD pp. 36-60, W pp. 79-104
R1S-12	3/4	1.07	1,500	6,000	9.5	0.38	STD pp. 36-60, W pp. 79-104
R1S-16	1	1.38	1,250	5,000	12	0.56	STD pp. 36-60, W pp. 79-104
R1S-20	1-1/4	1.67	1,000	4,000	16.5	0.72	STD pp. 36-60, W pp. 79-104
R1S-24	1-1/2	1.97	750	3,000	19.5	0.95	W pp. 79-104

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.)	Weight (Lb/Ft)	Coupling Series
R2S-04	1/4	0.59	5,750	23,000	4	0.21	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R2S-06	3/8	0.75	4,750	19,000	5	0.30	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R2S-08	1/2	0.87	4,000	16,000	7	0.36	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R2S-10	5/8	1.00	3,500	14,000	8	0.44	STD pp. 36-60, W pp. 79-104
R2S-12	3/4	1.15	3,000	12,000	9.5	0.56	STD pp. 36-60, W pp. 79-104
R2S-16	1	1.50	2,250	9,000	12	0.83	STD pp. 36-60, W pp. 79-104
R2S-20	1-1/4	1.84	1,750	7,000	16.5	1.19	STD pp. 36-60, W pp. 79-104
R2S-24	1-1/2	2.15	1,300	5,200	19.5	1.46	W pp. 79-104
R2S-32	2	2.63	1,250	5,000	24.5	1.87	W pp. 79-104

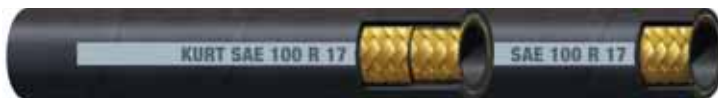
SAE R16S Hydraulic Hose



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.)	Weight (Lb/Ft)	Coupling Series
R16S-04	1/4	0.54	5,750	23,000	2	0.17	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R16S-06	3/8	0.67	4,750	19,000	2.5	0.24	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R16S-08	1/2	0.81	4,000	16,000	3.5	0.31	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R16S-10	5/8	0.94	3,500	14,000	4	0.42	STD pp. 36-60, W pp. 79-104
R16S-12	3/4	1.09	3,000	12,000	4.5	0.52	STD pp. 36-60, W pp. 79-104
R16S-16	1	1.39	2,250	9,000	6	0.78	STD pp. 36-60, W pp. 79-104

SAE R17 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines, SAE J1942 U.S.C.G Accepted Hydraulic Only
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.)	Weight (Lb/Ft)	Coupling Series
R17-04	1/4	0.49	3,000	12,000	2	0.11	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R17-06	3/8	0.63	3,000	12,000	2.5	0.18	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R17-08	1/2	0.77	3,000	12,000	3.5	0.26	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
R17-10	5/8	0.94	3,000	12,000	4	0.41	STD pp. 36-60, W pp. 79-104
R17-12	3/4	1.09	3,000	12,000	4.5	0.51	STD pp. 36-60, W pp. 79-104
R17-16	1	1.43	3,000	12,000	6	0.85	W pp. 79-104

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data



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

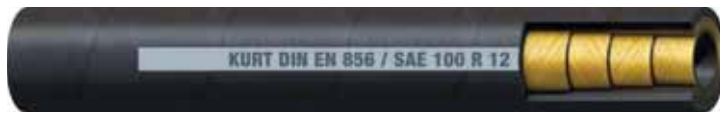
Temperature Range: -40°F to +212°F (+250°F Max)

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.)	Weight (Lb/Ft)	Coupling Series
KT-04	1/4	0.53	6,500	26,000	2	0.18	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
KT-06	3/8	0.67	5,500	22,000	3	0.26	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
KT-08	1/2	0.81	5,000	20,000	3.5	0.35	STD pp. 36-60, W pp. 79-104, K2 pp. 61-78
KT-10	5/8	0.93	4,250	17,000	5	0.41	STD pp. 36-60, W pp. 79-104
KT-12	3/4	1.09	4,000	16,000	6.5	0.53	STD pp. 36-60, W pp. 79-104
KT-16	1	1.40	3,000	12,000	8	0.77	STD pp. 36-60, W pp. 79-104



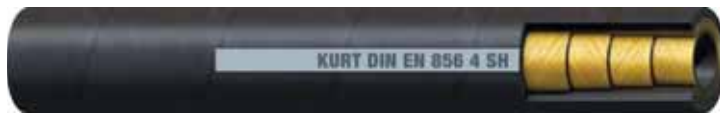
SAE R12 DIN EN 856 Hydraulic Hose



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.)	Weight (Lb/Ft)	Coupling Series
R12-06	3/8	0.80	4,000	16,000	2.5	0.44	W pp. 79-104
R12-08	1/2	0.94	4,000	16,000	3.5	0.56	W pp. 79-104
R12-12	3/4	1.21	4,000	16,000	5	0.84	W pp. 79-104
R12-16	1	1.50	4,000	16,000	6	1.25	W pp. 79-104
R12-20	1-1/4	1.85	3,000	12,000	16.5	1.67	W pp. 79-104, JJ pp. 111-117
R12-24	1-1/2	2.11	2,500	10,000	20	1.90	W pp. 79-104, JJ pp. 111-117
R12-32	2	2.63	2,500	10,000	25	3.00	W pp. 79-104, JJ pp. 111-117

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.)	Weight (Lb/Ft)	Coupling Series
4SH-12	3/4	1.27	6,000	24,000	11	0.96	W pp. 79-104, WHP pp. 105-110
4SH-16	1	1.52	5,500	22,000	13	1.48	W pp. 79-104, WHP pp. 105-110
4SH-20	1-1/4	1.79	5,000	20,000	18	1.73	W pp. 79-104, JJ pp. 111-117
4SH-24	1-1/2	2.11	4,250	17,000	22	2.22	W pp. 79-104, JJ pp. 111-117
4SH-32	2	2.68	3,500	14,000	27	3.32	JJ pp. 111-117

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 +250°F



Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Weight (Lb/Ft)	Coupling Series
4SK-10	5/8	1.07	6,000	24,000	4	0.94	W pp. 79-104
4SK-12	3/4	1.27	6,000	24,000	4.7	1.08	W pp. 79-104, WHP pp. 105-110
4SK-16	1	1.52	5,500	22,000	5.9	1.34	W pp. 79-104, WHP pp. 105-110
4SK-20	1-1/4	1.79	5,000	20,000	9	1.68	W pp. 79-104, JJ pp. 111-117
4SK-24	1-1/2	2.11	4,250	17,000	11	2.08	W pp. 79-104, JJ pp. 111-117
4SK-32	2	2.68	3,500	14,000	27	3.02	W pp. 79-104, JJ pp. 111-117

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.)	Weight (Lb/Ft)	Coupling Series
KTSF-12	3/4	1.27	6,250	25,000	8.5	0.96	WHP pp. 105-110
KTSF-16	1	1.52	5,750	23,000	9	1.40	WHP pp. 105-110
KTSF-20	1-1/4	1.79	5,250	21,000	9.5	1.73	JJ pp. 111-117

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

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.)	Weight (Lb/Ft)	Coupling Series
R13-12	3/4	1.26	5,000	20,000	9.5	1.05	W pp. 79-104, WHP pp. 105-110
R13-16	1	1.51	5,000	20,000	12	1.29	W pp. 79-104, WHP pp. 105-110
R13-20	1-1/4	1.94	5,000	20,000	16.5	2.42	JJ pp. 111-117, 6W pp. 118-124
R13-24	1-1/2	2.26	5,000	20,000	19.5	3.23	JJ pp. 111-117, 6W pp. 118-124
R13-32	2	2.82	5,000	20,000	25	4.43	JJ pp. 111-117, 6W pp. 118-124

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.)	Weight (Lb/Ft)	Coupling Series
R15-12	3/4	1.26	6,000	24,000	10.5	0.96	WHP pp. 105-110
R15-16	1	1.51	6,000	24,000	13	1.45	WHP pp. 105-110
R15-20	1-1/4	1.94	6,000	24,000	17.5	1.99	JJ pp. 111-117, 6W pp. 118-124
R15-24	1-1/2	2.26	6,000	24,000	21	3.43	JJ pp. 111-117, 6W pp. 118-124



SAE 100R7, DIN EN 855 Hydraulic Hose



Recommended for: Medium pressure hydraulic oil lines
Tube: Thermoplastic
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	0.31	3,000	12,000	1.0	R7 pp. 125-129
R7-03	3/16	0.41	3,000	12,000	2.0	STD pp. 36-60, R7 pp. 125-129
R7-04	1/4	0.49	3,000	12,000	2.5	STD pp. 36-60, R7 pp. 125-129
R7-05	5/16	0.59	2,500	10,000	3.0	STD pp. 36-60, R7 pp. 125-129
R7-06	3/8	0.65	2,250	9,000	3.5	STD pp. 36-60, R7 pp. 125-129
R7-08	1/2	0.81	2,000	8,000	5.5	STD pp. 36-60, R7 pp. 125-129
R7-12	3/4	1.1	1,250	5,000	7.0	STD pp. 36-60, R7 pp. 125-129
R7-16	1	1.38	1,000	4,000	12.0	STD pp. 36-60, R7 pp. 125-129

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



Recommended for: Medium pressure hydraulic oil lines to non-conductive standards
Tube: Thermoplastic
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	0.31	3,000	12,000	1.0	R7 pp. 125-129
R7-03 NC	3/16	0.41	3,000	12,000	2.0	STD pp. 36-60, R7 pp. 125-129
R7-04 NC	1/4	0.49	3,000	12,000	2.5	STD pp. 36-60, R7 pp. 125-129
R7-05 NC	5/16	0.59	2,500	10,000	3.0	STD pp. 36-60, R7 pp. 125-129
R7-06 NC	3/8	0.65	2,250	9,000	3.5	STD pp. 36-60, R7 pp. 125-129
R7-08 NC	1/2	0.81	2,000	8,000	5.5	STD pp. 36-60, R7 pp. 125-129
R7-12 NC	3/4	1.1	1,250	5,000	7.0	STD pp. 36-60, R7 pp. 125-129
R7-16 NC	1	1.38	1,000	4,000	12.0	STD pp. 36-60, R7 pp. 125-129

SAE 100R7, DIN EN 855 Hydraulic Hose Twin Line



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

Tube: Thermoplastic

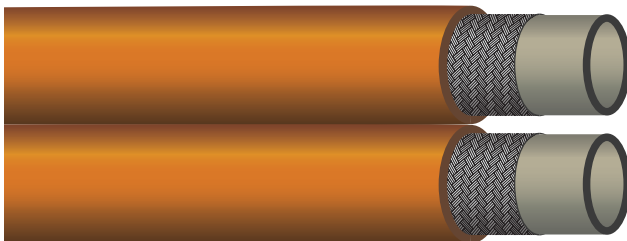
Reinforcement: Synthetic fiber

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	0.41	3,000	12,000	2.0	STD pp. 36-60, R7 pp. 125-129
R7-04 TW	1/4	0.49	3,000	12,000	2.5	STD pp. 36-60, R7 pp. 125-129
R7-05 TW	5/16	0.59	2,500	10,000	3.0	STD pp. 36-60, R7 pp. 125-129
R7-06 TW	3/8	0.65	2,250	9,000	3.5	STD pp. 36-60, R7 pp. 125-129
R7-08 TW	1/2	0.81	2,000	8,000	5.5	STD pp. 36-60, R7 pp. 125-129

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: Thermoplastic

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	0.49	3,000	12,000	2.5	STD pp. 36-60, R7 pp. 125-129
R7-05 TW NC	5/16	0.59	2,500	10,000	3.0	STD pp. 36-60, R7 pp. 125-129
R7-06 TW NC	3/8	0.65	2,250	9,000	3.5	STD pp. 36-60, R7 pp. 125-129
R7-08 TW NC	1/2	0.81	2,000	8,000	5.5	STD pp. 36-60, R7 pp. 125-129

SAE 100R18 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines

Tube: Thermoplastic

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	0.50	3,000	12,000	2.0	STD pp. 36-60
R18-05	5/16	0.61	3,000	12,000	2.5	STD pp. 36-60
R18-06	3/8	0.66	3,000	12,000	3.0	STD pp. 36-60
R18-08	1/2	0.88	3,000	12,000	5.5	STD pp. 36-60

SAE 100R8, DIN EN 855 Hydraulic Hose



Recommended for: High pressure hydraulic oil lines

Tube: Thermoplastic

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	0.41	5,000	20,000	2.0	STD pp. 36-60
R8-04	1/4	0.49	5,000	20,000	2.5	STD pp. 36-60
R8-06	3/8	0.65	4,000	16,000	3.5	STD pp. 36-60
R8-08	1/2	0.76	3,500	14,000	5.5	STD pp. 36-60

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



Recommended for: High pressure non-conductive hydraulic oil lines

Tube: Thermoplastic

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	0.41	5,000	20,000	2.0	STD pp. 36-60
R8-04 NC	1/4	0.49	5,000	20,000	2.5	STD pp. 36-60
R8-06 NC	3/8	0.65	4,000	16,000	3.5	STD pp. 36-60
R8-08 NC	1/2	0.76	3,500	14,000	5.5	STD pp. 36-60

SAE 100R8, DIN EN 855 Hydraulic Hose Twin Line



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

Tube: Thermoplastic

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	0.49	5,000	20,000	2.5	STD pp. 36-60
R8-06 TW	3/8	0.65	4,000	16,000	3.5	STD pp. 36-60
R8-08 TW	1/2	0.76	3,500	14,000	5.5	STD pp. 36-60



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

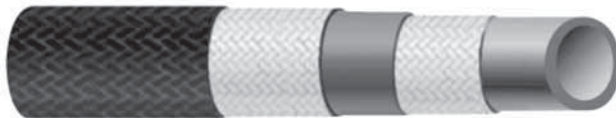
Reinforcement: One braid of high tensile stainless steel wire.

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	2.0	SST pp. 130-134
R115-05	1/4	0.375	3,000	12,000	3.0	SST pp. 130-134
R115-06	5/16	0.445	2,500	10,000	4.0	SST pp. 130-134
R115-06 T	3/8	0.503	2,250	9,000	4.5	SST pp. 130-134
R115-08	13/32	0.549	2,000	8,000	5.2	SST pp. 130-134
R115-10	1/2	0.648	1,500	6,000	6.5	SST pp. 130-134
R115-12	5/8	0.778	1,200	4,800	7.7	SST pp. 130-134
R115-12 T	3/4	0.886	1,100	4,400	8.2	SST pp. 130-134
R115-16 T	1.000	1.135	900	3,600	10.0	SST pp. 130-134

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.

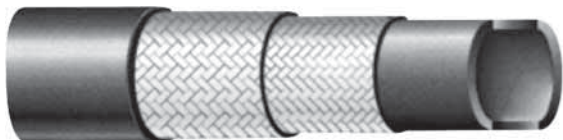
Cover: Black, oil resistant textile braid.

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. 36-60
R5-06	5/16	0.680	2,250	9,000	4.0	R5 pp. 135-140
R5-08	13/32	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. 36-60
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, 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
HJK-04	1/4	0.590	10,000	20,000	4.0	STD pp. 36-60
HJK-06	3/8	0.750	10,000	20,000	7.0	STD pp. 36-60

SAE 100 R4 Suction Hose



Recommended for: Meets or exceeds requirements of SAE 100R4

Tube: Black, smooth, antistatic, 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.)	Weight (Lb/Ft)	Coupling Series
R4-12	3/4	1.320	300	1,200	3.8	0.40	STD pp. 36-60, R4 pp. 140-141
R4-16	1.000	1.480	250	1,000	5.0	0.47	STD pp. 36-60, R4 pp. 140-141
R4-20	1-1/4	1.770	200	800	6.3	0.60	STD pp. 36-60, R4 pp. 140-141
R4-24	1-1/2	2.050	150	600	7.9	0.74	W pp. 79-104, JJ pp. 111-117, R4 pp. 140-141
R4-32	2.000	2.500	100	400	10.1	0.91	W pp. 79-104, 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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

SAE R1S, DIN EN 853 1SN High Temp Marine Hose



Recommended for: Medium pressure, high temperature oil lines, truck engine, compressors, oil and fuel service. SAE J1942 U.S.C.G Accepted All Services.

Tube: High temperature, oil resistant synthetic rubber.

Reinforcement: One high tensile steel wire braid.

Cover: Blue abrasion, ozone, and weather resistant synthetic rubber, MSHA approved.

Temperature range: -10°F to +300°F. Water & water-based fluids +158°F max.

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Weight (Lb/Ft)	Coupling Series
KEH-04	1/4	0.54	3,250	13,000	4.0	0.16	K2 pp. 61-78
KEH-06	3/8	0.68	2,500	10,000	5.0	0.23	K2 pp. 61-78
KEH-08	1/2	0.78	2,250	9,000	7.1	0.27	K2 pp. 61-78
KEH-10	5/8	0.84	1,750	7,000	8.9	0.31	W pp. 79-104
KEH-12	3/4	1.07	1,500	6,000	9.5	0.41	W pp. 79-104
KEH-16	1	1.39	1,250	5,000	12.0	0.61	W pp. 79-104

SAE R2S, DIN EN 853 2SN High Temp Hydraulic Hose



Recommended for: High pressure, high temperature hydraulic oil lines. SAE J1942 U.S.C.G Accepted Hydraulic Only.

Tube: High temperature, oil resistant synthetic rubber.

Reinforcement: Two high tensile steel wire braids.

Cover: Blue abrasion, ozone, and weather resistant synthetic rubber, MSHA approved.

Temperature range: -10°F to +300°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Weight (Lb/Ft)	Coupling Series
KHT2S-04	1/4	0.59	5,750	23,000	4.0	0.25	K2 pp. 61-78
KHT2S-06	3/8	0.68	4,750	19,000	5.0	0.34	K2 pp. 61-78
KHT2S-08	1/2	0.78	4,000	16,000	7.1	0.43	K2 pp. 61-78
KHT2S-10	5/8	0.84	3,500	14,000	8.0	0.50	W pp. 79-104
KHT2S-12	3/4	1.07	3,000	12,000	9.5	0.61	W pp. 79-104
KHT2S-16	1	1.39	2,250	9,000	12.0	0.89	W pp. 79-104

1SN & 2SN Pressure Washer Hose



Recommended for: Cold and hot water applications. Not suitable for Steam or Oil.
Tube: Synthetic rubber, resistant against cold and hot water with usual cleaning agents.
Reinforcement: Two braids of high tensile steel wire.
Cover: Abrasion and ozone resistant synthetic rubber.
Temperature range: -10°F to +310°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Weight (Lb/Ft)	Available Lengths	Coupling Series
BLACK-PW04	1/4	0.46	4,000	12,000	1.4	0.12	500, 50	STD pp. 36-60, K2 pp. 61-78
BLUE-PW04	1/4	0.46	4,000	12,000	1.4	0.12	500, 50	STD pp. 36-60, K2 pp. 61-78
BLACK-PW06	3/8	0.63	4,000	12,000	3.0	0.18	500, 50, 75, 100	STD pp. 36-60, K2 pp. 61-78
BLUE-PW06	3/8	0.63	4,000	12,000	3.0	0.18	500, 50, 100	STD pp. 36-60, K2 pp. 61-78
BLACK-PW206	3/8	0.69	6,000	18,000	3.6	0.28	450, 50, 75, 100	STD pp. 36-60, K2 pp. 61-78
BLUE-PW206	3/8	0.69	6,000	18,000	3.6	0.28	450, 50, 100	STD pp. 36-60, K2 pp. 61-78
BLACK-PW208	1/2	0.83	4,500	13,500	5.2	0.40	300, 50	STD pp. 36-60, K2 pp. 61-78

Carpet Cleaner Hose



Reinforcement: One braid of high tensile steel wire.
Cover: Blue, smooth, oil and abrasion resistant Neoprene.
Temperature range: -40°F to +275°F

Part Number	Hose I.D. (in.)	Hose O.D. (in.)	Rated W.P. (psi)	Min. Burst (psi)	Min. Bend (in.)	Weight (Lb/Ft)	Coupling Series
CCH-04	1/4	0.53	3,000	12,000	4.0	0.14	STD pp. 36-60

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data



Cover Color: Black, Blue, Gray, Red, Green or Yellow
Oil Resistance: High
Hose Construction: Spiral angle design
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 of 250 ft. (also available in 700 ft)

Push-Loc is the state-of-the-art in push-on hose. It allows push-on style fittings to be inserted into place easily and quickly. No special crimping tools are required. Push-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 Push-Loc will not give even under full working pressure. Push-Loc is available with a 250 PSI working pressure. Push-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 can be used and value is essential.

Kurt Part Number	Catalog Part Number	Nominal ID/inches	Nominal OD/inches	Reinforcement Spirals	Working Pressure (PSI)	Min. Bend Radius/In	Weight (Lb/Ft)	Color
KPL-04-250-BLK	KH-404398	1/4	0.5	2	250	1.5	0.09	Black
KPL-06-250-BLK	KH-406398	3/8	0.63	2	250	2.25	0.12	Black
KPL-08-250-BLK	KH-408398	1/2	0.75	2	250	3	0.16	Black
KPL-10-250-BLK	KH-410398	5/8	0.91	2	250	3.75	0.22	Black
KPL-12-250-BLK	KH-412398	3/4	1.03	2	250	4.5	0.25	Black
KPL-04-250-BLU	KH-504398	1/4	0.5	2	250	1.5	0.09	Blue
KPL-06-250-BLU	KH-506398	3/8	0.63	2	250	2.25	0.12	Blue
KPL-08-250-BLU	KH-508398	1/2	0.75	2	250	3	0.16	Blue
KPL-04-250-GRY	KH-604398	1/4	0.5	2	250	1.5	0.09	Gray
KPL-06-250-GRY	KH-606398	3/8	0.63	2	250	2.25	0.12	Gray
KPL-08-250-GRY	KH-608398	1/2	0.75	2	250	3	0.16	Gray
KPL-04-250-RED	KH-704398	1/4	0.5	2	250	1.5	0.09	Red
KPL-06-250-RED	KH-706398	3/8	0.63	2	250	2.25	0.12	Red
KPL-08-250-RED	KH-708398	1/2	0.75	2	250	3	0.16	Red
KPL-04-250-GRN	KH-804398	1/4	0.5	2	250	1.5	0.09	Green
KPL-06-250-GRN	KH-806398	3/8	0.63	2	250	2.25	0.12	Green
KPL-08-250-GRN	KH-808398	1/2	0.75	2	250	3	0.16	Green
KPL-04-250-YEL	KH-904398	1/4	0.5	2	250	1.5	0.09	Yellow
KPL-06-250-YEL	KH-906398	3/8	0.63	2	250	2.25	0.12	Yellow
KPL-08-250-YEL	KH-908398	1/2	0.75	2	250	3	0.16	Yellow



Hose

Braided Hose Couplings

K2 Style Couplings

W Style Couplings

WHP Couplings

JJ Couplings

GW Couplings

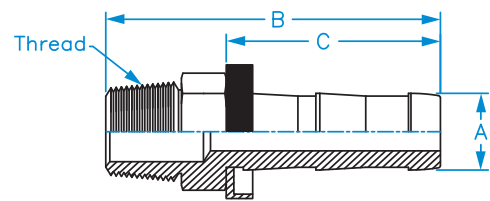
R7, PTFE, R5, R4 Couplings

Additional Products

Technical Data

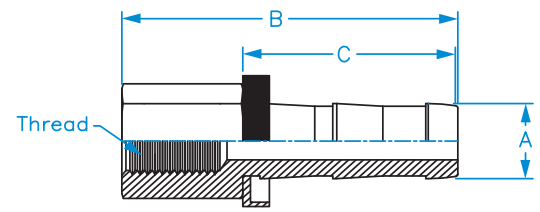
Male Pipe Rigid - Push-Loc

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



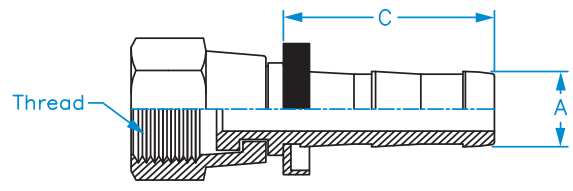
Female Pipe Rigid - Push-Loc

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



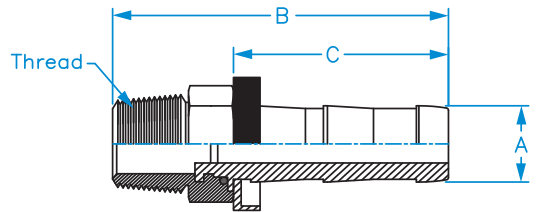
Female SAE Swivel - Push-Loc

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



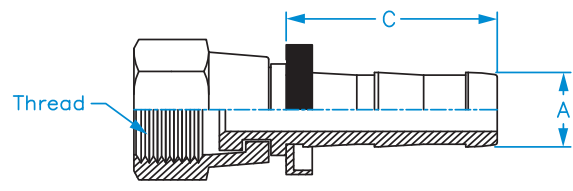
Male Pipe Swivel - Push-Loc

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 Than SAE Standard With Kurt XL Coating. Comes Standard On All Kurt 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 (96 hours salt spray test) and surpasses most other competitor couplings protection. In recent testing Kurt achieved 1000 hours of salt spray resistance and will be working towards that goal as a standard across our product line.

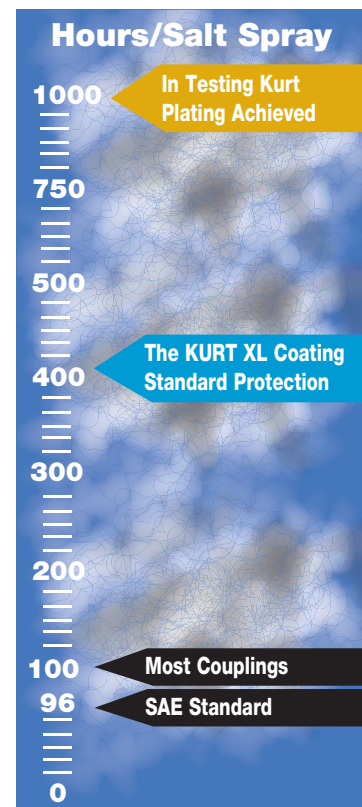
Rugged resistance for extreme conditions.

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 ISO 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.



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 Flareless
- 61 = SAE Code 61 Flange
- 62 = SAE Code 62 Flange
- BFP = British Face Seal
- BSP = British Standard Pipe
- CAT = CAT Flange
- DINL/DL = DIN Light
- DINH/DH = DIN Heavy
- HU = Hammer Union
- JIS = Japanese Industrial Standard
- KOM = Komatsu 30° Flare
- MSP = Metric Stand Pipe

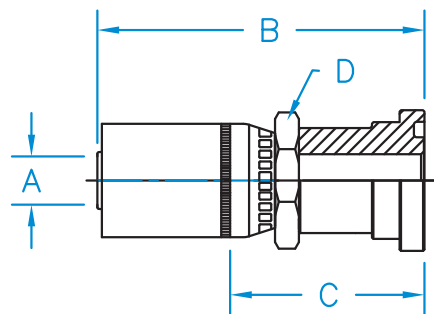
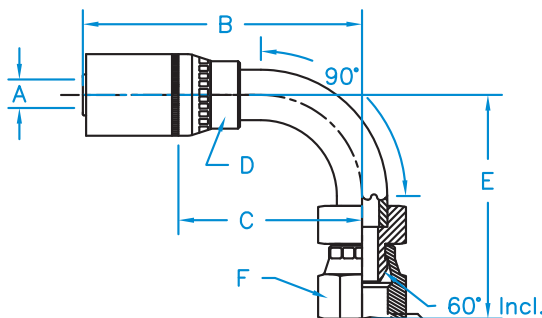
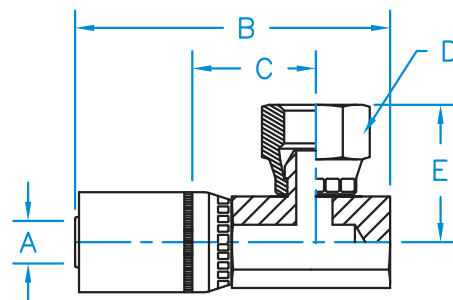
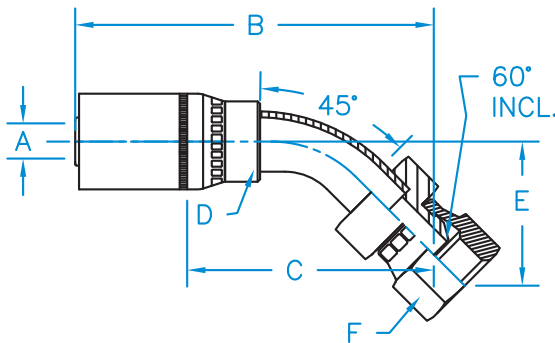
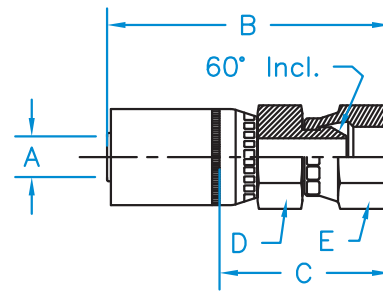
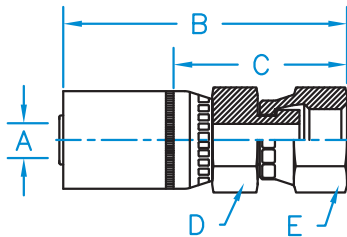
Hose Size IN
1/16THS

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

Braided Hose Couplings

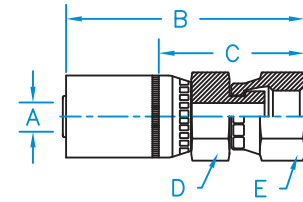
KURT
HYDRAULICS

- 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



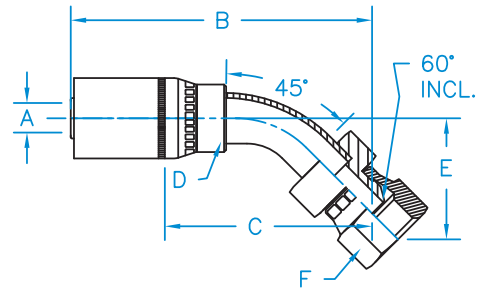
British Flat Face Seat Female Swivel

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	3/4	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	2.87	1.37	1-1/4	1-1/4	3/4 – 14



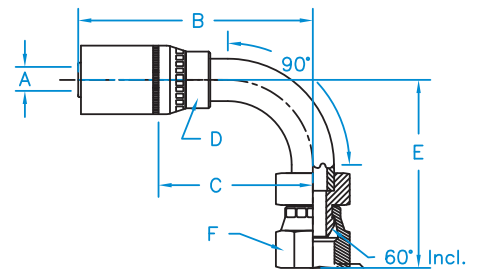
British Standard Pipe 60° Cone 45° Bent Tube Female Swivel

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



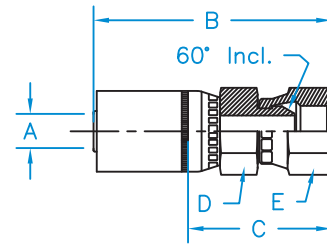
British Standard Pipe 60° Cone 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-BSPX90-03-04	3/16	2.78	1.72	9/16	1.33	3/4	1/4 – 19
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



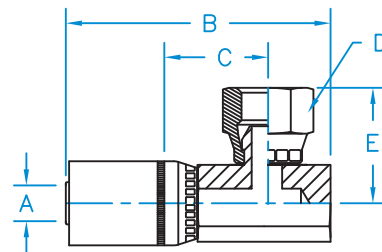
British Standard Pipe 60° Cone Female Swivel

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



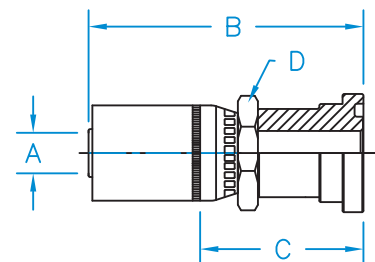
British Std Pipe 60° Cone 90° Block Style Female Swivel

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



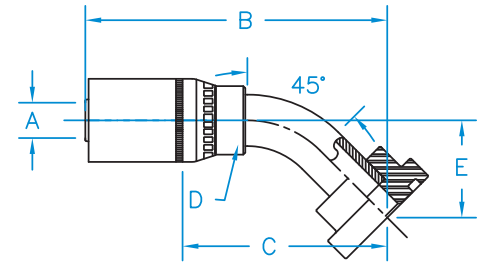
C61 - Code 61 Flange Straight Rigid

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



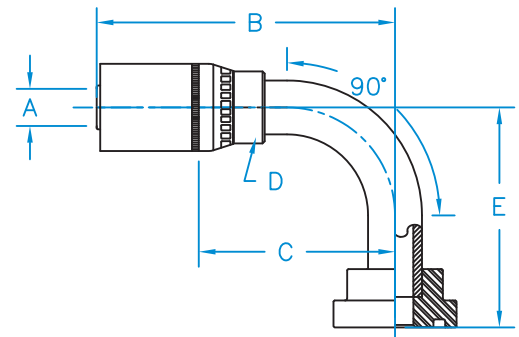
C6145 - Code 61 Flange 45° Bent Tube Rigid

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	4.60	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	5.14	3.14	1-3/4	1.03	N/A



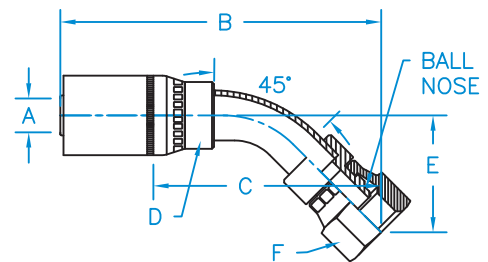
C6190 - Code 61 Flange 90° Bent Tube Rigid

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



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	3/4	M16 X 1.5
F-DINHX45-04-18	1/4	3.26	2.00	5/8	1.11	7/8	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	1-5/8	M36 X 2.0
F-DINHX45-16-42	1	5.55	3.27	1-3/8	1.34	1-7/8	M42 X 2.0



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

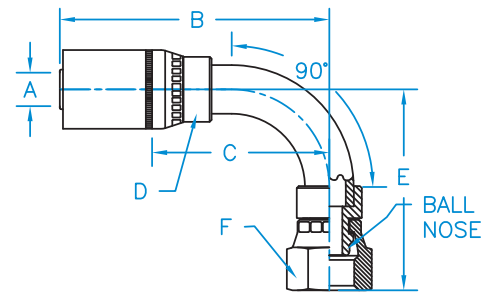
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

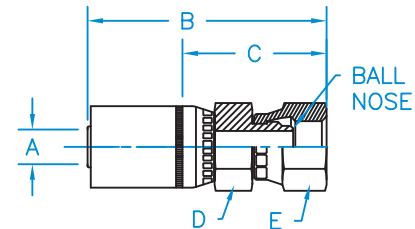
Din Heavy Universal Seat 90° Bent Tube Female Swivel

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	3/4	M16 X 1.5
F-DINHX90-04-18	1/4	2.44	1.19	5/8	1.86	7/8	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	1-5/8	M36 X 2.0
F-DINHX90-16-42	1	4.08	2.37	1-3/8	2.31	1-7/8	M42 X 2.0



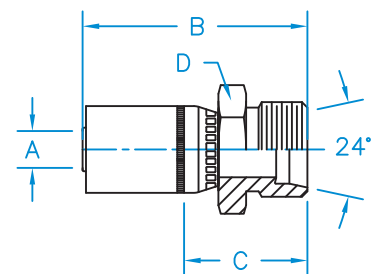
Din Heavy Universal Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DINHX-04-16	1/4	2.51	1.25	11/16	3/4	M16 X 1.5
F-DINHX-04-18	1/4	2.48	1.23	5/8	7/8	M18 X 1.5
F-DINHX-06-16	3/8	2.79	1.29	3/4	3/4	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	1-5/8	M36 X 2.0
F-DINHX-16-42	1	3.67	1.94	1-1/2	1-7/8	M42 X 2.0



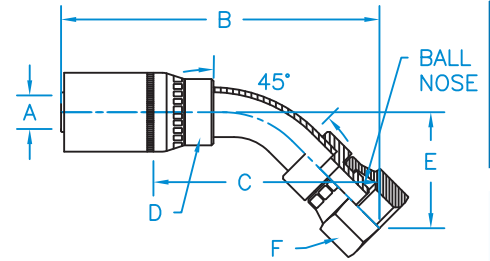
Din Heavy Universal Seat Male Rigid

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



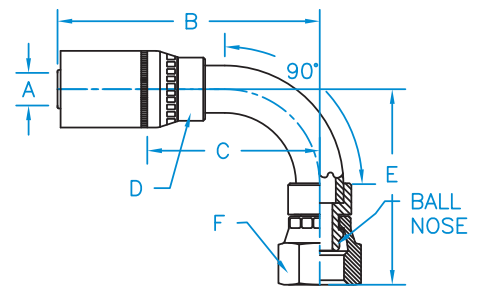
Din Light Universal Seat 45° Bent Tube Female Swivel

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	11/16	M14 X 1.5
F-DINLX45-04-16	1/4	3.92	2.66	5/8	1.13	3/4	M16 X 1.5
F-DINLX45-06-16	3/8	4.27	2.77	11/16	1.77	3/4	M16 X 1.5
F-DINLX45-06-18	3/8	4.17	2.67	3/4	1.13	7/8	M18 X 1.5
F-DINLX45-08-22	1/2	4.38	2.88	7/8	1.06	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	1-5/8	M36 X 2.0



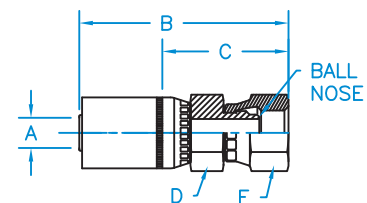
Din Light Universal Seat 90° Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DINLX90-04-12	1/4	2.98	1.72	5/8	1.44	9/16	M12 X 1.5
F-DINLX90-04-14	1/4	2.98	1.72	5/8	1.42	11/16	M14 X 1.5
F-DINLX90-04-16	1/4	2.38	1.13	5/8	1.73	3/4	M16 X 1.5
F-DINLX90-06-16	3/8	3.38	1.88	11/16	1.99	3/4	M16 X 1.5
F-DINLX90-06-18	3/8	3.38	1.88	3/4	1.98	7/8	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	3.87	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	1-5/8	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	9/16	M12 X 1.5
F-DINLX-04-14	1/4	2.42	1.16	9/16	11/16	M14 X 1.5
F-DINLX-04-16	1/4	2.47	1.21	5/8	3/4	M16 X 1.5
F-DINLX-06-16	3/8	2.86	1.36	11/16	3/4	M16 X 1.5
F-DINLX-06-18	3/8	2.73	1.24	11/16	7/8	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	1-5/8	M36 X 2.0



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

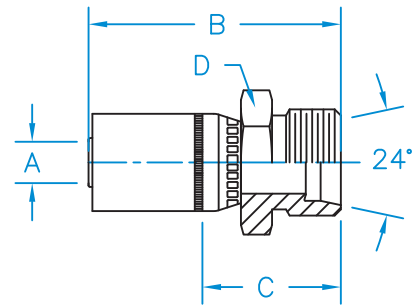
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

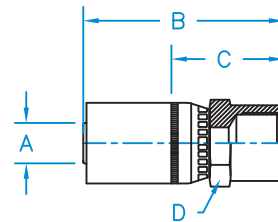
Din Light Universal Seat Male Rigid

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



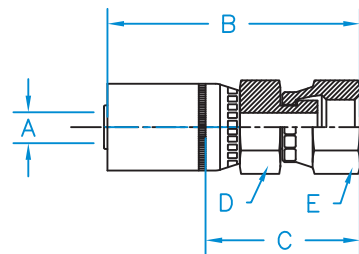
Female Grease Tap Rigid

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



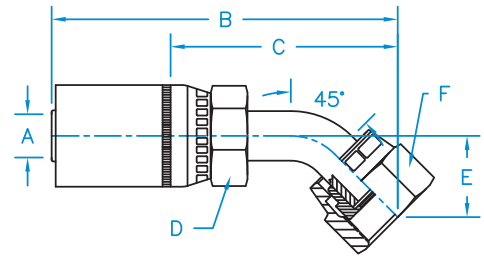
FFX - O-Ring Face Seal Female Swivel

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



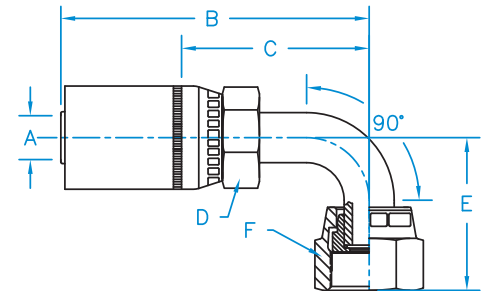
FFX45 - O-Ring Face Seal 45° Bent Tube Female Swivel

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



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	1.98	1-3/8	1-3/16 - 12
FFX90-10-08	5/8	3.43	1.93	1-1/8	1.14	15/16	13/16 - 16
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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

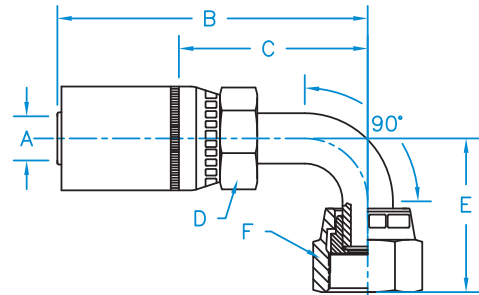
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

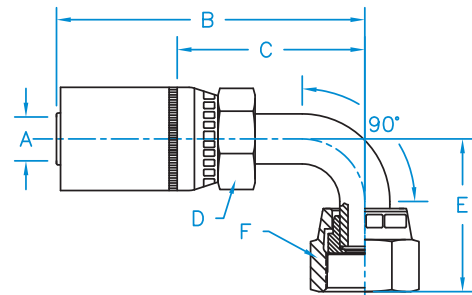
FFX90L - O-Ring Face Seal 90° Long Drop Female Swivel

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	3.92	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



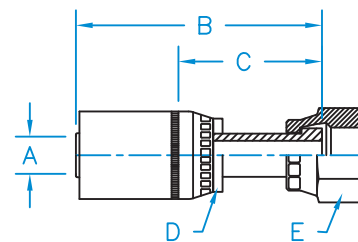
FFX90M - O-Ring Face Seal 90° Medium Drop Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FFX90M-04-04	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	1.53	13/16	11/16 - 16
FFX90M-06-08	3/8	3.24	1.74	3/4	1.61	15/16	13/16 - 16
FFX90M-08-06	1/2	3.46	1.96	7/8	1.53	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



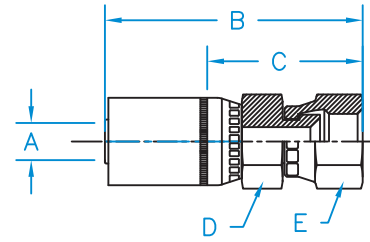
FFXT - O-Ring Face Seal Female Swivel Long

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	7/8 - 14
FJX-06-12	3/8	3.09	1.59	1	1-1/4	1-1/16 - 12
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-08-16	1/2	3.22	1.72	1-1/4	1-1/2	1-5/16 - 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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

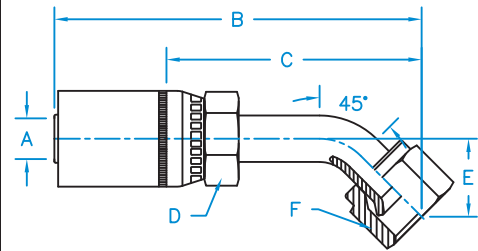
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

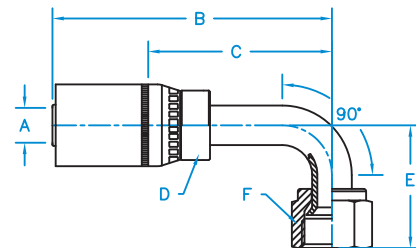
FJX45 - 37° JIC Female 45° Bent Tube Swivel

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	3.58	2.08	1-1/8	0.72	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	4.80	3.20	1-3/8	1.29	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	4.91	3.17	1-3/8	1.38	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



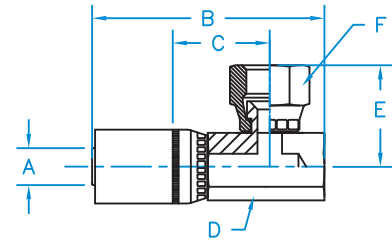
FJX90 - 37° JIC Female 90° Bent Tube Swivel

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



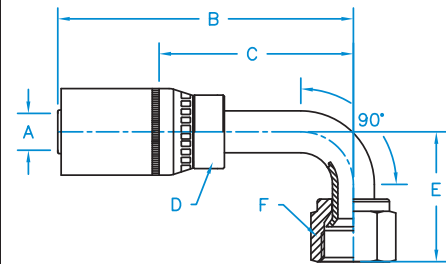
FJX90B - 37° JIC Female 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90B-04-04	1/4	2.31	0.65	5/8	0.62	9/16	7/16 - 20
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



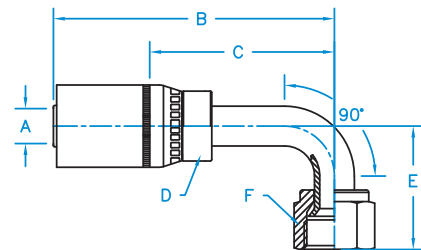
FJX90L - 37° JIC Female 90° Long Drop Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90L-04-04	1/4	2.98	1.72	5/8	1.81	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	3.80	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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

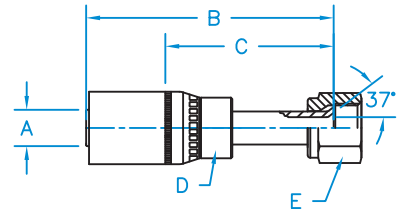
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

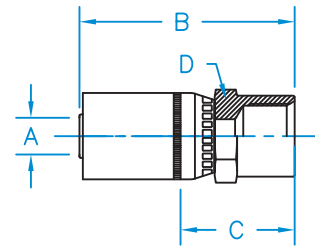
FJXT - 37° JIC Female Swivel Long

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



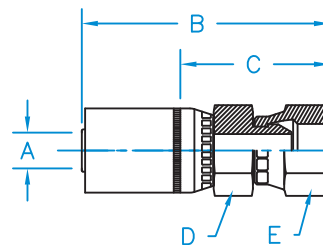
FP - NPTF Female Pipe Rigid

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



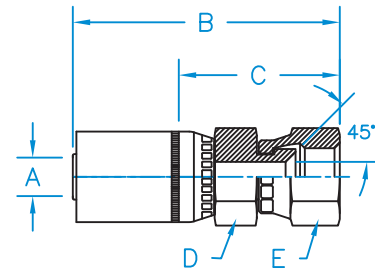
FPX - Female Pipe NPSM Swivel

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-08-06	1/2	2.81	1.31	7/8	7/8	3/8 - 18
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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

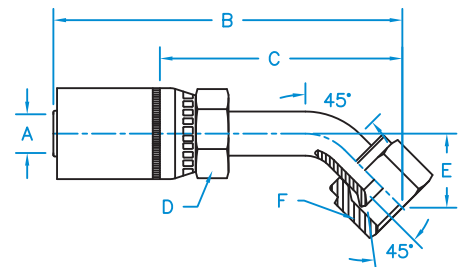
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

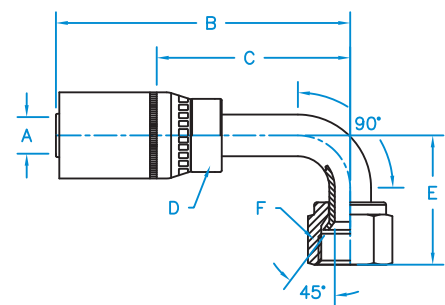
FSX45 - 45° SAE Female 45° Bent Tube Swivel

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	3.78	2.28	1-1/8	0.92	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



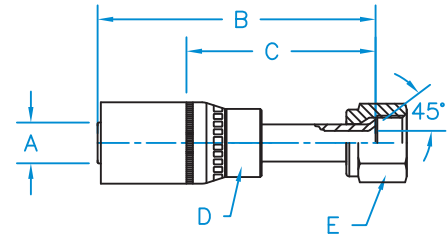
FSX90 - 45° SAE Female 90° Bent Tube Swivel

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



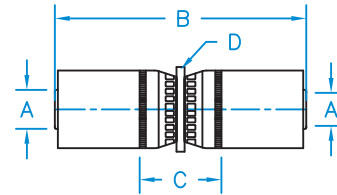
FSXT - 45° SAE Female Swivel

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



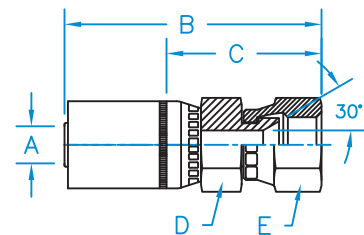
Hose Mender

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



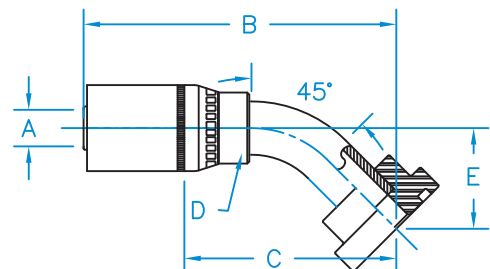
JIS 30° Female Swivel

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



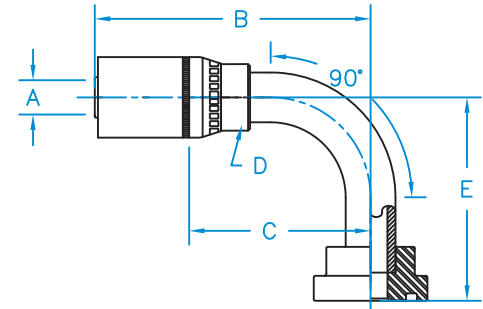
Komatsu Flange 45° Bent Tube Rigid

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



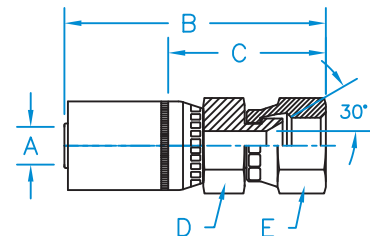
Komatsu Flange 90° Bent Tube Rigid

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



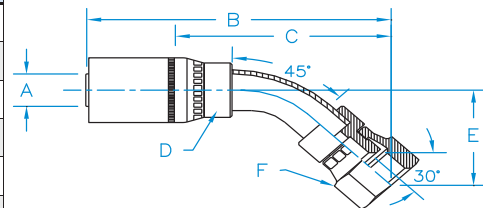
Komatsu JIS 30° Seat Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-KOMX-04-14	1/4	2.55	1.29	9/16	11/16	M14 X 1.5
F-KOMX-06-18	3/8	2.73	1.23	11/16	7/8	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	1-1/4	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



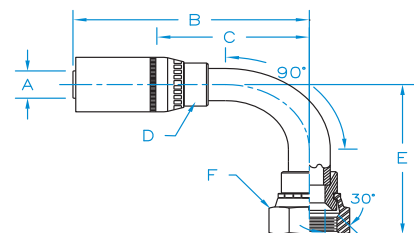
Komatsu JIS 30° Seat 45° Bent Tube Female Swivel

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	11/16	M14 X 1.5
F-KOMX45-06-18	3/8	3.84	2.34	11/16	0.80	7/8	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	1-1/4	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	11/16	M14 X 1.5
F-KOMX90-06-18	3/8	3.38	1.88	11/16	1.52	7/8	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	1-1/4	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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

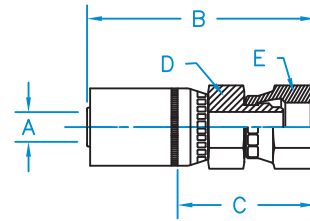
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

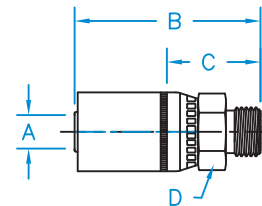
LF - Line Fit Sleeveless design

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	2.74	1.24	7/8	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	2.82	1.32	7/8	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



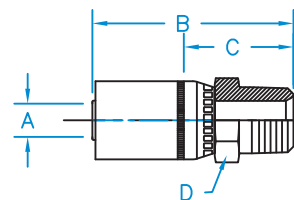
Male British Parallel Pipe 60° Cone Rigid

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



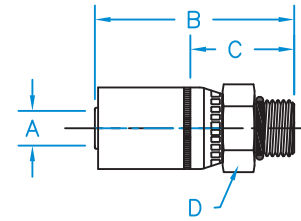
Male British Standard Pipe 60° Cone Rigid

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



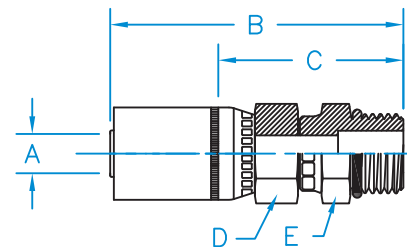
Male Boss O-Ring Rigid

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-12-10	3/4	3.82	2.23	1-1/8	1	3/8 - 18
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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

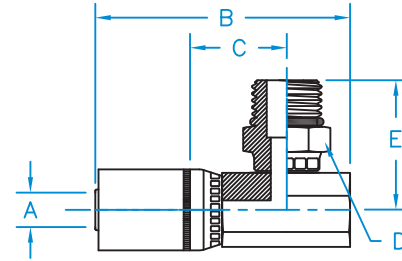
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

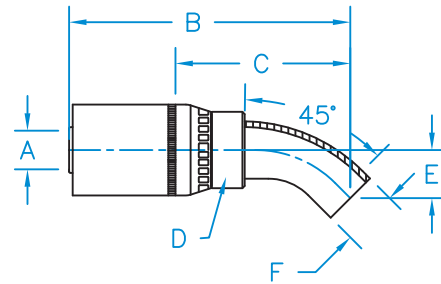
MBX90 - Male Boss O-Ring 90° Swivel Block Style

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



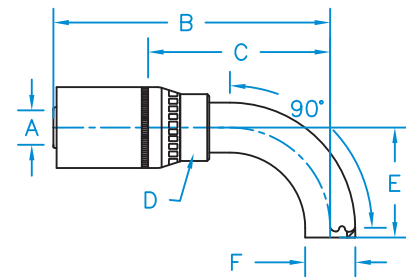
Metric O.D. Stand Pipe 45° Bent Tube

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



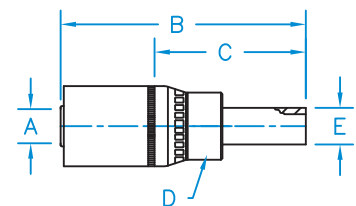
Metric O.D. Stand Pipe 90° Bent Tube

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

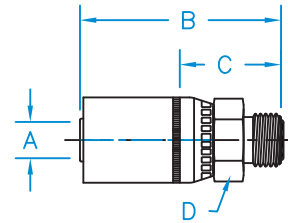
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

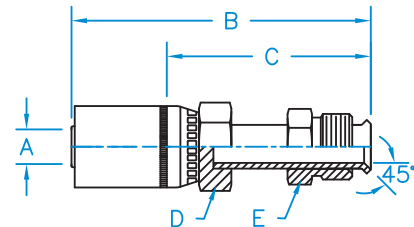
MF - Male O-Ring Face Seal Rigid

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



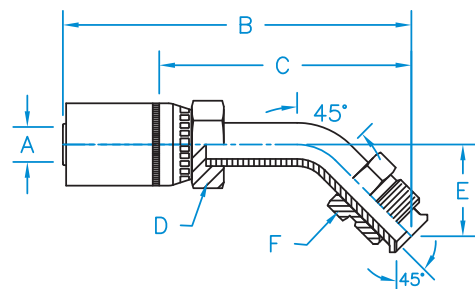
MIX - 45° SAE Male Inverted Flare

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



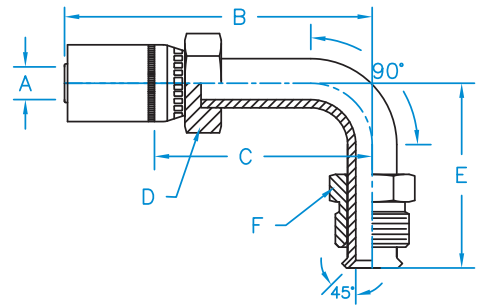
MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel

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



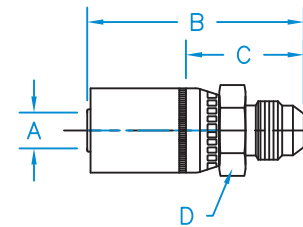
MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel

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 - 18
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-16-14	1	3.4	1.67	1-3/8	1-3/16 - 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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

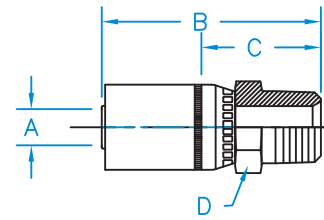
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

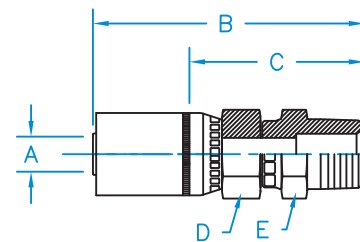
MP - Male Pipe NPTF Rigid

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-08-04	1/2	2.81	1.31	7/8	1/4 - 18
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



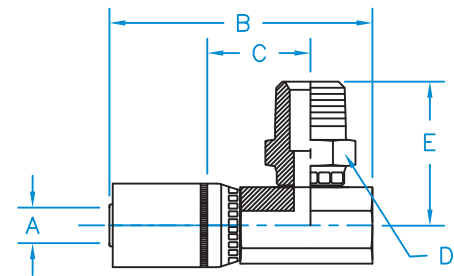
MPX - Male Pipe NPTF Swivel

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



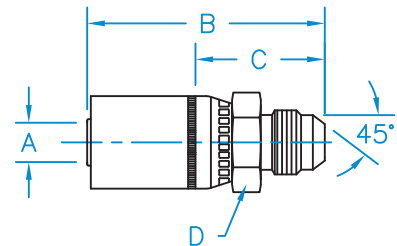
MPX90 - Male Pipe 90° Swivel Block Style

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
MPX90-08-06	1/2	2.91	0.88	3/4	1.07	3/8 - 18
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



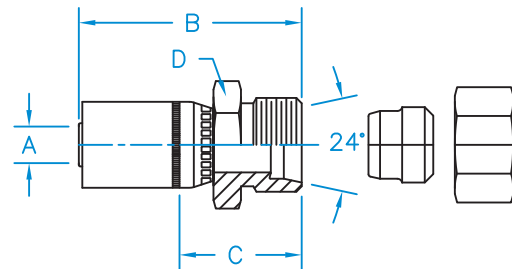
MS - 45° SAE Male Rigid

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

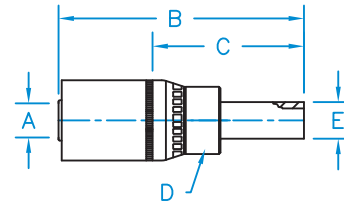
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

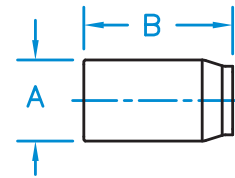
MW - Stand Tube Rigid

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



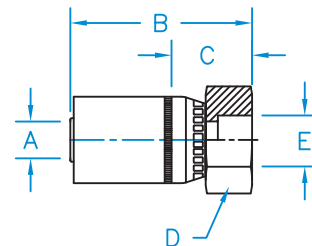
SHELL - Shell Only

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



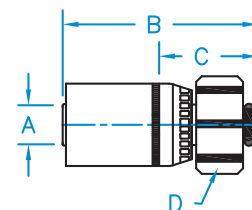
FW - Female Weld Fitting Rigid

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



K2 Style Couplings

KURT
HYDRAULICS

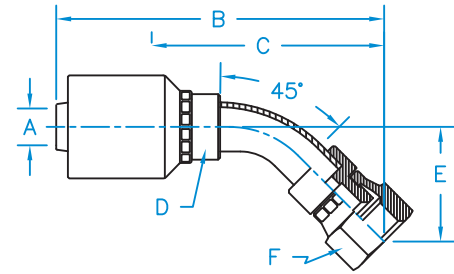
- New product
- Sizes 4-10
- Reduced size Bite-Wire shell for good compact hose fit
- Excellent performing coupling on new compact hoses
- Large selection of ends available
- Price competitive

K2 Style
Couplings



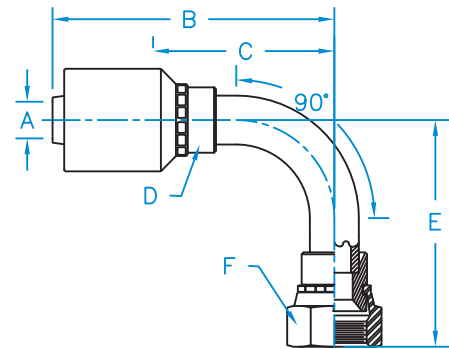
37° JIC Female 45° Swivel

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	2.93	1.87	11/16	0.43	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	3.60	2.23	7/8	0.59	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



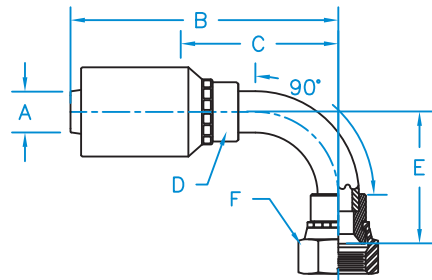
37° JIC Female 90° Bent Tube Swivel

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	2.04	7/8	1.12	7/8	3/4 - 16
FJX90-08-06-K2	1/2	3.19	1.85	7/8	0.91	11/16	9/16 - 18
FJX90-08-08-K2	1/2	3.49	2.15	1	1.13	7/8	3/4 - 16
FJX90-08-10-K2	1/2	2.95	1.61	1-1/4	1.26	1	7/8 - 14
FJX90-08-12-K2	1/2	3.50	2.16	1-1/2	1.83	1-1/4	1-1/16 - 12



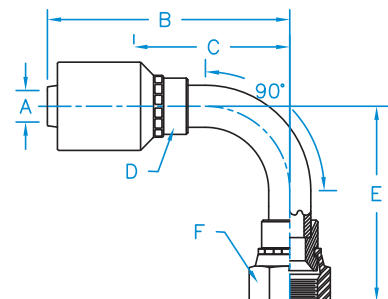
37° JIC Female 90° Long Drop Bent Tube Swivel

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	2.52	7/8	3/4 - 16
FJX90L-08-08-K2	1/2	3.49	2.15	7/8	2.52	7/8	3/4 - 16
FJX90L-08-10-K2	1/2	2.95	1.61	7/8	2.78	1	7/8 - 14



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

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90M-04-04-K2	1/4	2.70	1.64	9/16	1.26	9/16	7/16 - 20
FJX90M-04-06-K2	1/4	2.84	1.78	5/8	1.50	11/16	9/16 - 18
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
FJX90M-08-10-K2	1/2	2.95	1.61	13/16	1.85	1	7/8 - 14



Hose

Braided Hose Couplings

K2 Style Couplings

W Style Couplings

WHP Couplings

JJ Couplings

GW Couplings

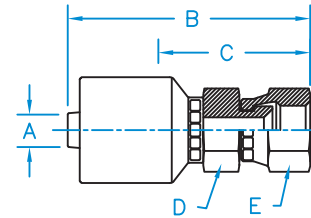
R7, PTFE, R5, R4 Couplings

Additional Products

Technical Data

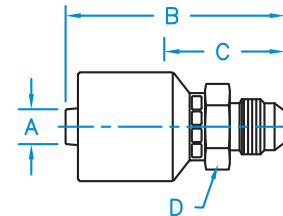
37° JIC Female Swivel

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



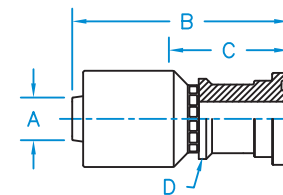
37° JIC Male Rigid

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



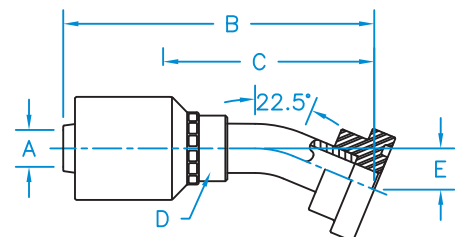
Cat Flange Straight Rigid

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



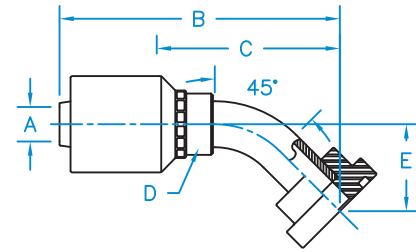
C61 - Code 61 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6122-08-08-K2	1/2	3.80	2.46	7/8	0.35	N/A



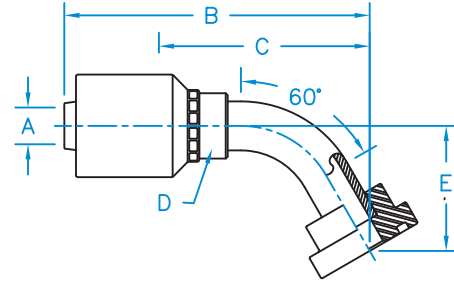
C61 - Code 61 Flange 45° Bent Tube Rigid

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



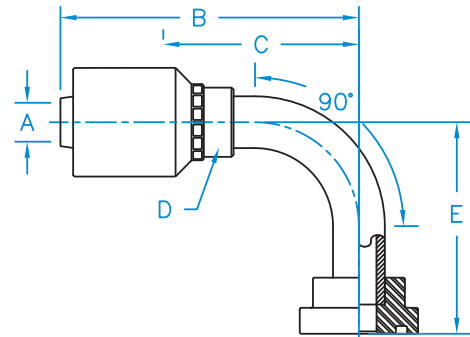
C61 - Code 61 Flange 60° Bent Tube Rigid

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



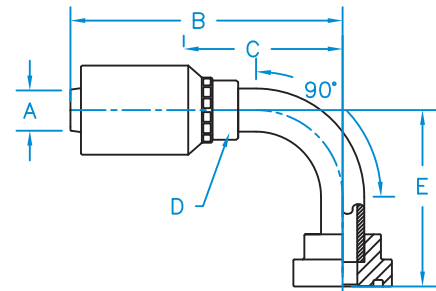
C61 - Code 61 Flange 90° Bent Tube Rigid

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



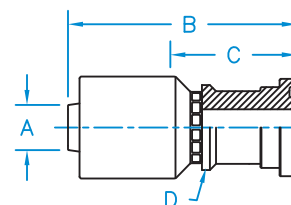
C61 - Code 61 Flange 90° Long Drop Bent Tube Rigid

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



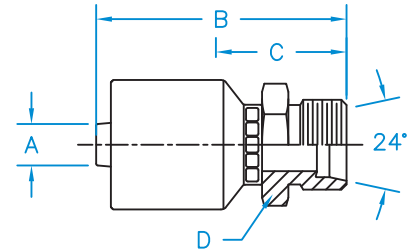
C61 - Code 61 Flange Rigid

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



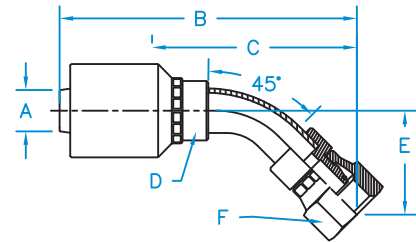
Din Heavy 24° Seat Male Rigid

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



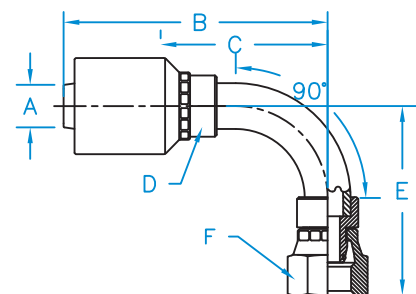
Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH4504-0614-K2	1/4			5/8		11/16	M14 X 1.5
F-DH4504-0816-K2	1/4	3.39	2.33	5/8	0.89	3/4	M16 X 1.5
F-DH4504-1018-K2	1/4	3.38	2.32	5/8	0.92	7/8	M18 X 1.5
F-DH4506-0816-K2	3/8	3.72	2.35	11/16	0.89	3/4	M16 X 1.5
F-DH4506-1018-K2	3/8	3.71	2.34	11/16	0.92	7/8	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		11/16	M14 X 1.5
F-DH9004-0816-K2	1/4	2.84	1.78	5/8	1.54	3/4	M16 X 1.5
F-DH9004-1018-K2	1/4	2.70	1.64	5/8	1.50	7/8	M18 X 1.5
F-DH9006-0816-K2	3/8	3.17	1.80	11/16	1.54	3/4	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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

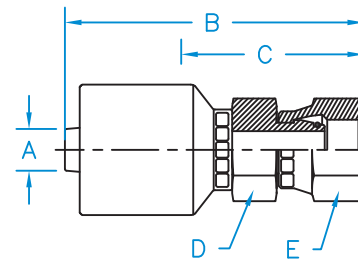
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

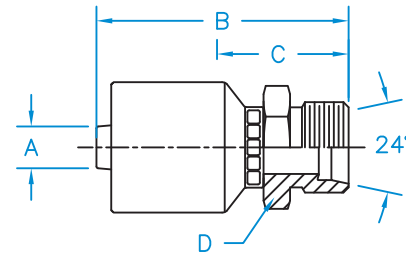
Din Heavy 24° Seat Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
F-DH04-06-14-K2	1/4			11/16	11/16	M14 X 1.5
F-DH04-08-16-K2	1/4	2.07	1.01	9/16	3/4	M16 X 1.5
F-DH04-10-18-K2	1/4	2.08	1.02	5/8	7/8	M18 X 1.5
F-DH06-08-16-K2	3/8	2.60	1.23	11/16	3/4	M16 X 1.5
F-DH06-10-18-K2	3/8	2.52	1.15	11/16	7/8	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



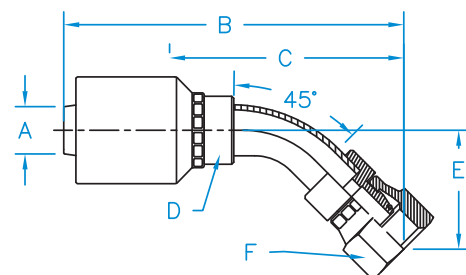
Din Light 24° Seat Male Rigid

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



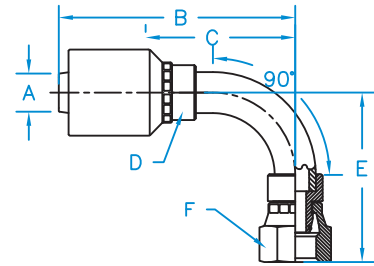
Din Light 24° Seat 45° Bent Tube Female Swivel With O-Ring

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	9/16	M12 X 1.5
F-DL4504-0814-K2	1/4	3.37	2.31	5/8	0.91	11/16	M14 X 1.5
F-DL4504-1016-K2	1/4	3.60	2.54	5/8	1.10	3/4	M16 X 1.5
F-DL4506-1016-K2	3/8	3.93	2.56	11/16	1.10	3/4	M16 X 1.5
F-DL4506-1218-K2	3/8	3.82	2.59	3/4	1.13	7/8	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



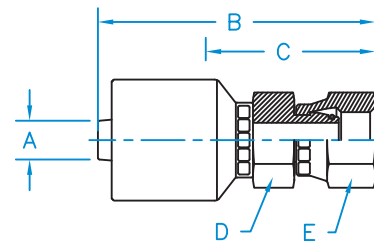
Din Light 24° Seat 90° Bent Tube Female Swivel With O-Ring

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	9/16	M14 X 1.5
F-DL9004-1016-K2	1/4	2.84	1.78	5/8	1.63	3/4	M16 X 1.5
F-DL9006-1016-K2	3/8	3.17	1.80	11/16	1.63	3/4	M16 X 1.5
F-DL9006-1218-K2	3/8	2.98	1.60	3/4	1.86	7/8	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



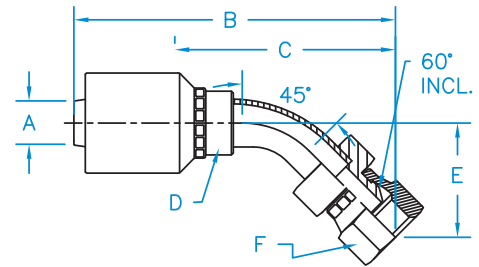
Din Light 24° Seat Female Swivel With O-Ring

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	9/16	M12 X 1.5
F-DL04-08-14-K2	1/4	2.30	1.24	9/16	11/16	M14 X 1.5
F-DL04-10-16-K2	1/4	2.23	1.17	11/16	3/4	M16 X 1.5
F-DL06-10-16-K2	3/8	2.56	1.19	3/4	3/4	M16 X 1.5
F-DL06-12-18-K2	3/8	2.60	1.23	3/4	7/8	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



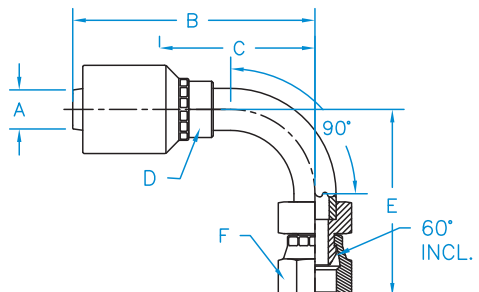
Female British Pipe 45° Bent Tube Swivel

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	2.02	7/8	0.71	1	1/2 - 14



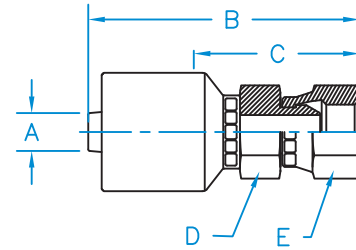
Female British Pipe 90° Bent Tube Swivel

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



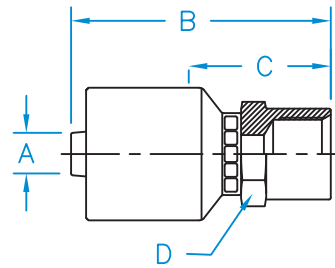
Female British Pipe Straight

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



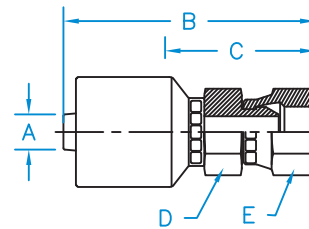
FP - NPTF Female Pipe Rigid

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



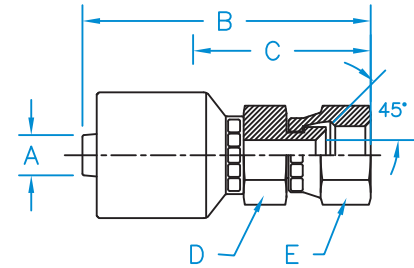
FPX - NPSM Female Pipe Swivel

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



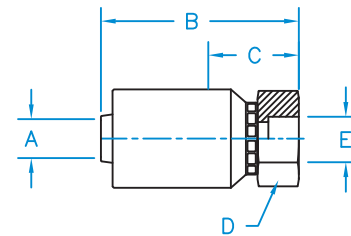
Hose

Braided Hose
Couplings

K2 Style
Couplings

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

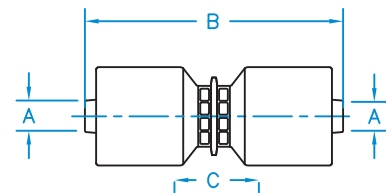


W Style
Couplings

WHP
Couplings

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

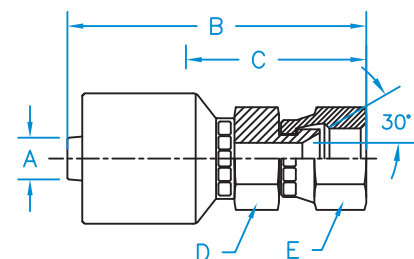


JJ
Couplings

6W
Couplings

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



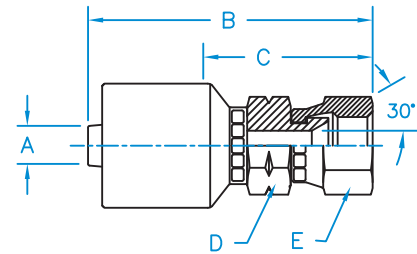
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

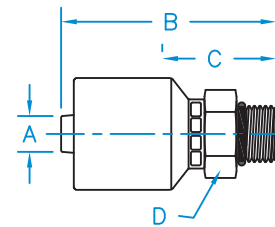
Komatsu JIS 30° Seat Female Swivel

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	11/16	M14 X 1.5
F-KOMX-06-14-K2	3/8	2.48	1.11	11/16	11/16	M14 X 1.5
F-KOMX-06-18-K2	3/8	2.52	1.15	11/16	7/8	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



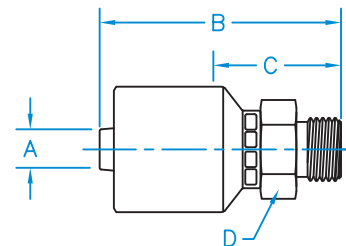
Male Boss O-Ring Rigid

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



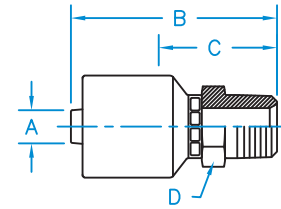
Male British Parallel Pipe 60° Cone Rigid

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



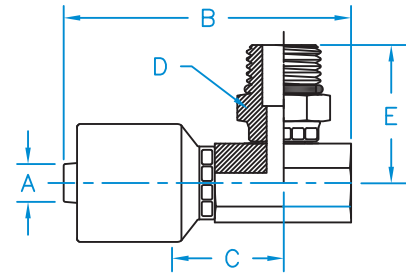
Male Pipe NPTF Rigid

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



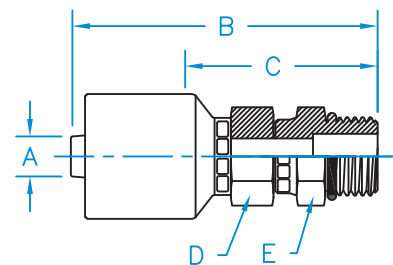
MBX - Male Boss O-Ring 90° Swivel Block Style

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



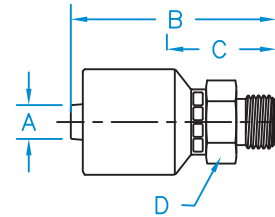
MBX - Male Boss O-Ring Swivel

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



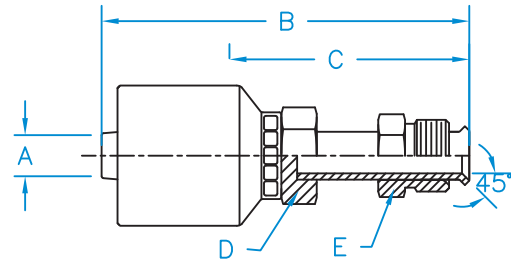
MF - Male Face Seal Rigid

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



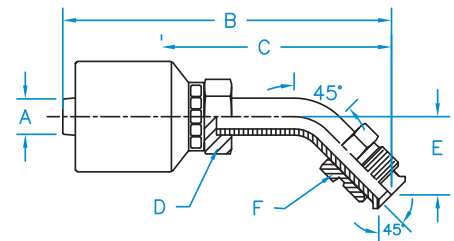
MIX - 45° SAE Male Inverted Flare

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



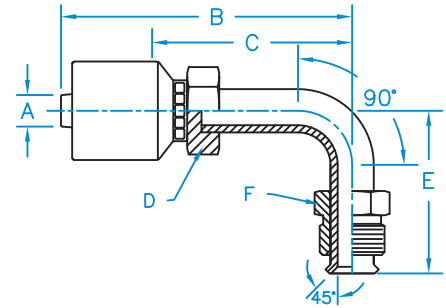
MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel

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



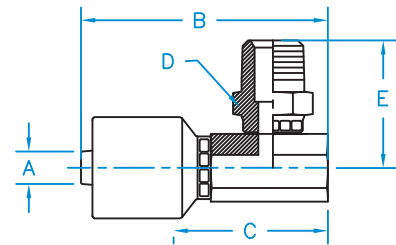
MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel

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



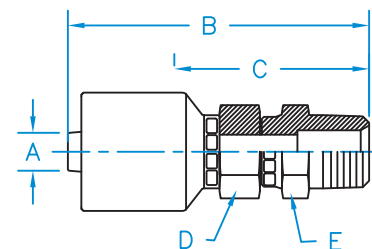
MPX90 - Male Pipe 90° Swivel Block Style

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
MPX90-04-02-K2	1/4	2.31	0.65	1/2	1.3	1/8 - 27
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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

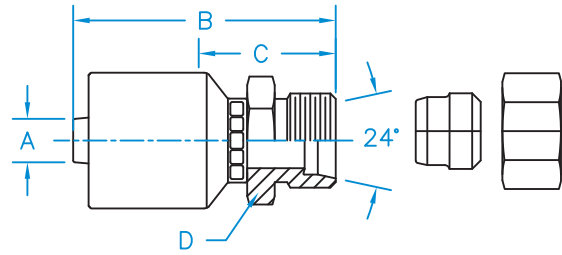
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

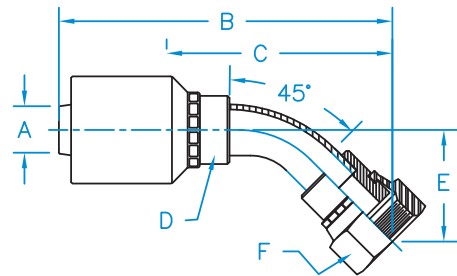
MT - Flareless Compression with Nut and Sleeve Per SAE J514

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



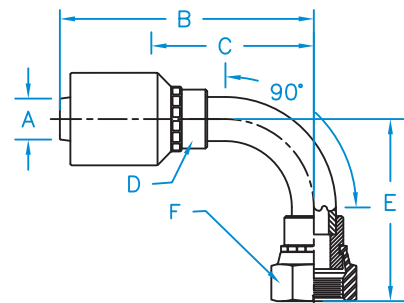
O-Ring Face Seal 45° Bent Tube Female Swivel

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	0.44	11/16	9/16 - 18
FFX45-04-06-K2	1/4	2.81	1.75	5/8	0.44	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	3.43	2.09	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



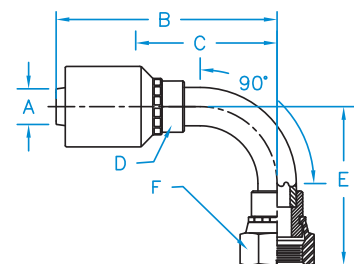
O-Ring Face Seal 90° Bent Tube Female Swivel

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	3.43	1.78	13/16	0.91	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	2.95	1.61	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



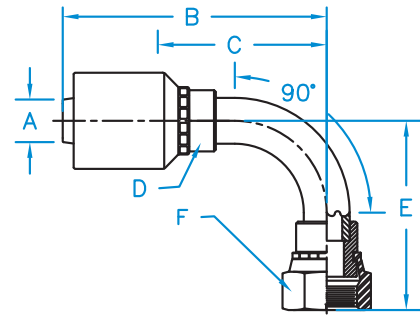
FFX90L - O-Ring Face Seal 90° Long Drop Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
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	3.17	1.80	13/16	2.13	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	3.49	2.15	15/16	2.52	15/16	13/16 - 16
FFX90L-08-10-K2	1/2	2.95	1.61	7/8	2.78	1-1/8	1 - 14



FFX90M - 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	2.95	1.61	7/8	1.85	1-1/8	1 - 14



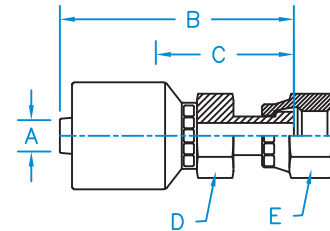
Hose

Braided Hose Couplings

K2 Style Couplings

FFX - 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



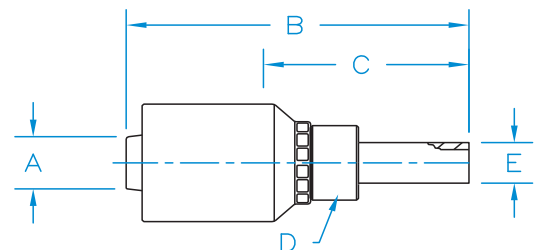
W Style Couplings

WHP Couplings

JJ Couplings

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



GW Couplings

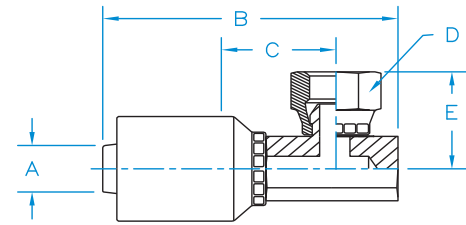
R7, PTFE, R5, R4 Couplings

Additional Products

Technical Data

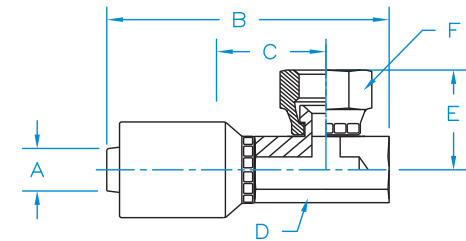
British Std Pipe 60° Cone 90° Block Style Female Swivel

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



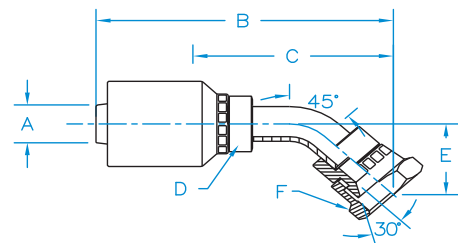
FJX90B - 37° JIC Female 90° Swivel Block Style

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



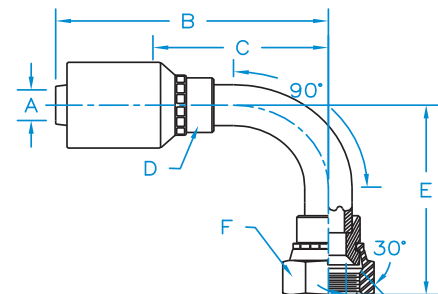
Komatsu JIS 30° Seat 45° Bent Tube Female Swivel

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	11/16	M14 X 1.5
F-KOMX45-0614-K2	3/8	3.63	2.26	11/16	0.80	11/16	M14 X 1.5
F-KOMX45-0618-K2	3/8	3.63	2.26	11/16	0.80	7/8	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



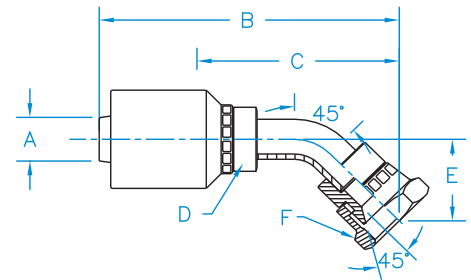
Komatsu JIS 30° Seat 90° Bent Tube Female Swivel

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	11/16	M14 X 1.5
F-KOMX90-0614-K2	3/8	3.17	1.80	11/16	1.48	11/16	M14 X 1.5
F-KOMX90-0618-K2	3/8	3.17	1.80	11/16	1.52	7/8	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



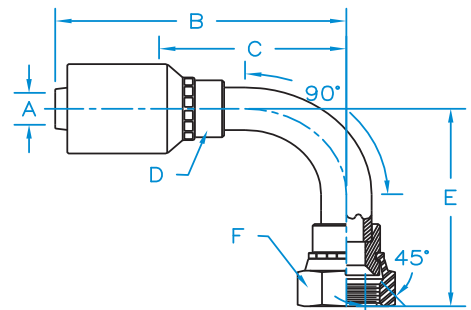
FSX45 - 45° SAE Female 45° Bent Tube Swivel

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



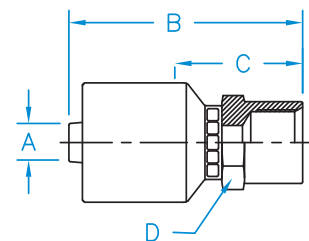
FSX90 - 45° SAE Female 90° Bent Tube Swivel

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	2.95	1.61	7/8	1.26	1-1/16	7/8 - 14



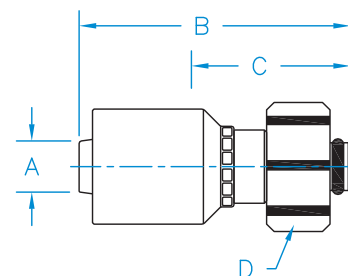
Female Grease Tap Rigid

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-04-22-K2	1/4	2.24	1.18	3/4	M22 X 1.5
KAR-06-22-K2	3/8	2.57	1.18	3/4	M22 X 1.5



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

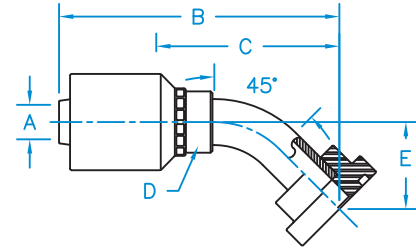
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

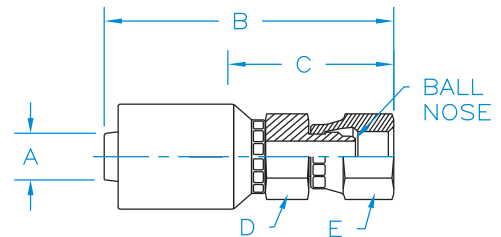
Komatsu Flange 45° Bent Tube Rigid

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



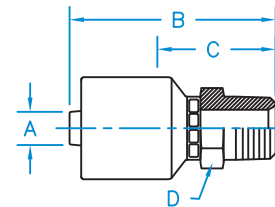
LF - Line Fit Sleeveless design

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



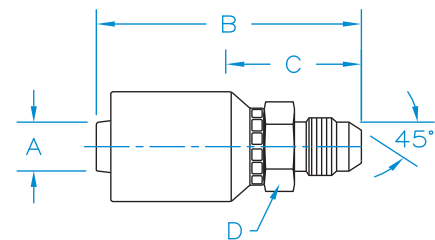
Male British Standard Pipe 60° Cone Rigid

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



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

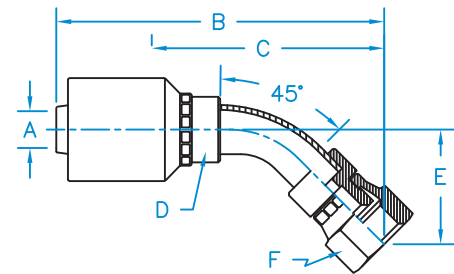


W Style
Couplings



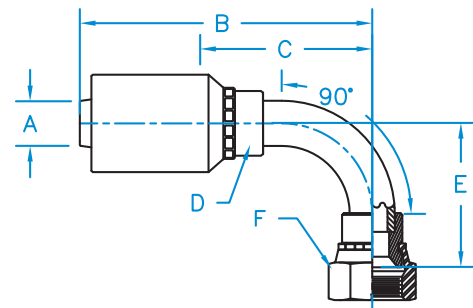
37° JIC Female 45° Swivel

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	3.60	2.23	7/8	0.59	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	3.42	2.08	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	3.81	2.16	1	0.63	1	7/8 - 14
FJX45-10-12-W	5/8	3.75	2.09	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	4.44	2.56	1-1/4	1.04	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	5.17	3.04	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



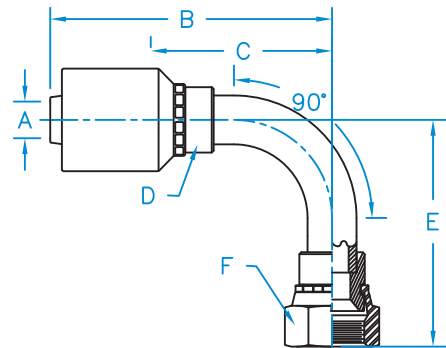
37° JIC Female 90° Long Drop Bent Tube Swivel

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	2.95	1.61	7/8	2.78	1	7/8 - 14
FJX90L-10-10-W	5/8	3.33	1.68	1	2.78	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



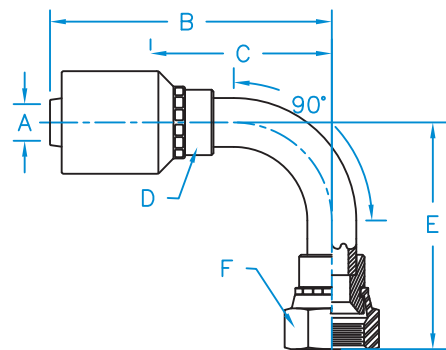
37° JIC Female 90° Bent Tube Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
FJX90-04-04-W	1/4	2.55	1.49	9/16	0.68	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	2.67	1.61	11/16	0.85	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	2.95	1.61	1-1/4	1.26	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	3.33	1.68	2	1.26	1	7/8 - 14
FJX90-10-12-W	5/8	3.84	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	4.80	2.92	2-1/4	2.66	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	5.18	3.06	2-7/8	2.81	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



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

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
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	3.53	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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

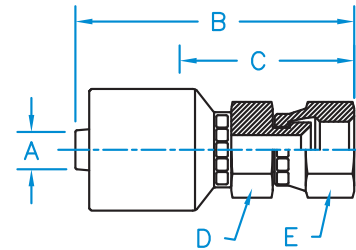
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

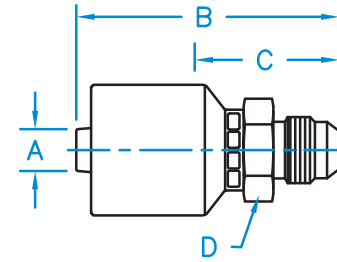
37° JIC Female Swivel

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



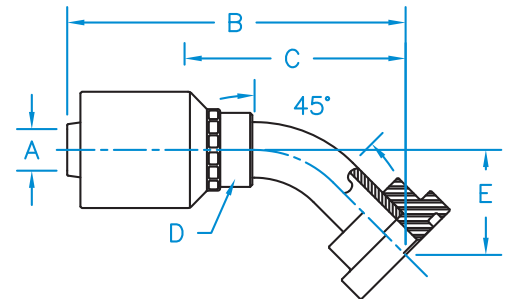
37° JIC Male Rigid

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



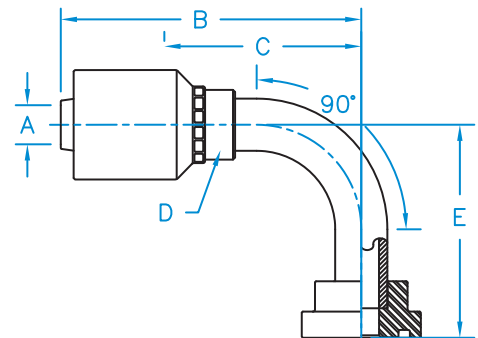
Cat Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT45-12-12-W	3/4	4.81	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



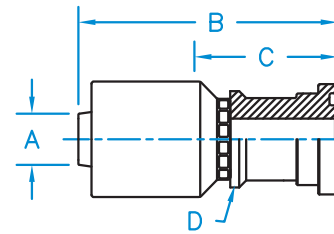
Cat Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
CAT90-12-12-W	3/4	4.18	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



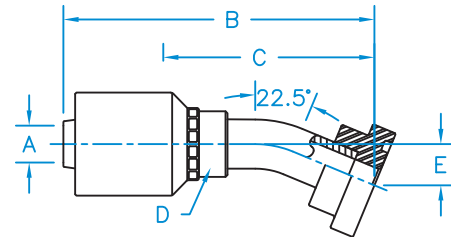
Cat Flange Straight Rigid

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



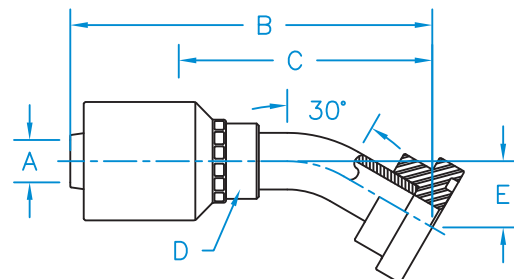
C61 - Code 61 Flange 22° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6122-08-08-W	1/2	3.80	2.46	7/8	0.35	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	8.11	4.81	2-1/2	0.76	N/A



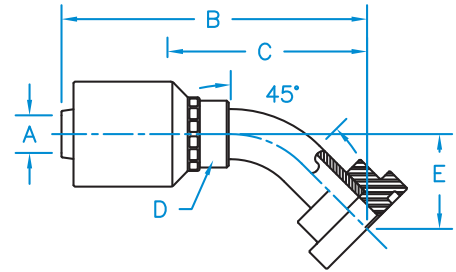
C61 - Code 61 Flange 30° Bent Tube Rigid

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	5.40	3.28	1-5/16	0.87	N/A
C6130-16-20-W	1	5.40	3.28	1-5/16	0.87	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



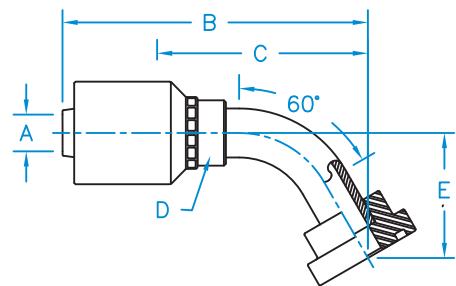
C61 - Code 61 Flange 45° Bent Tube Rigid

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	4.62	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



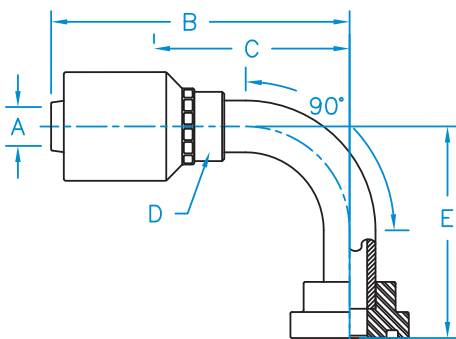
C61 - Code 61 Flange 60° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6160-08-12-W	1/2	4.23	2.89	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	9.11	5.81	2-1/2	2.70	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	4.81	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	6.25	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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

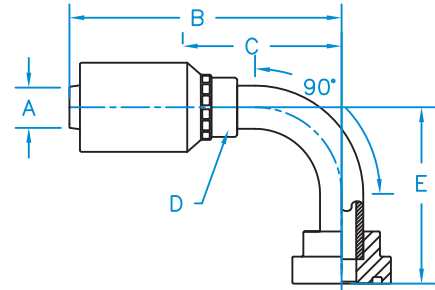
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

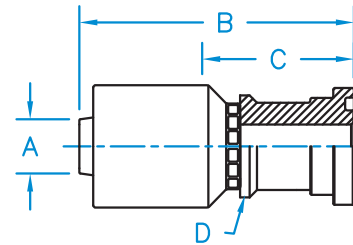
C61 - Code 61 Flange 90° Long Drop Bent Tube Rigid

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



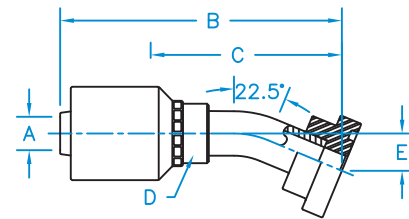
C61 - Code 61 Flange Rigid

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



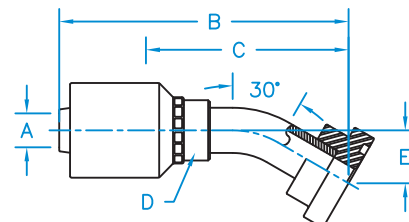
C62 - Code 62 Flange 22° Bent Tube Rigid

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	6.06	3.52	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



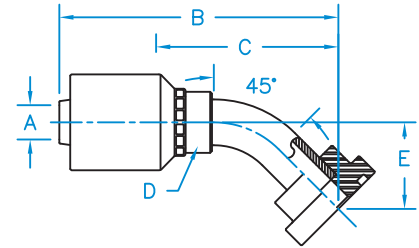
C62 - Code 62 Flange 30° Bent Tube Rigid

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	5.20	3.07	1-5/16	0.75	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	6.11	3.57	1-5/8	0.94	N/A
C6230-20-24-W	1-1/4	6.28	3.74	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



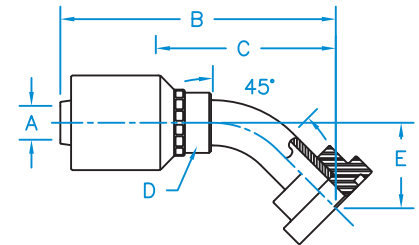
C62 - Code 62 Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
C6245-12-12-W	3/4	4.71	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



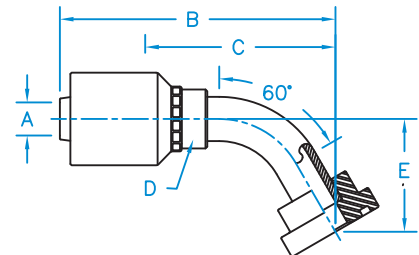
C62 - Code 62 Flange 45° Long Drop Bent Tube Rigid

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



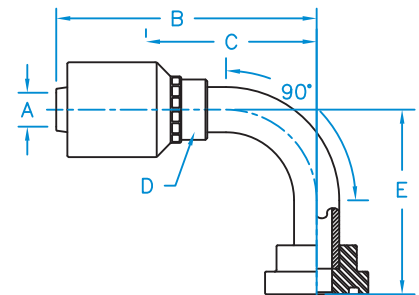
C62 - Code 62 Flange 60° Bent Tube Rigid

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	4.80	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	8.30	5.00	2-1/2	5.58	N/A



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

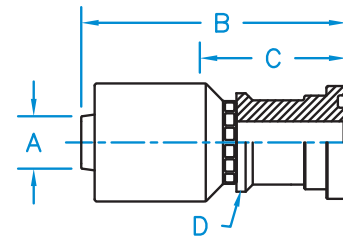
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

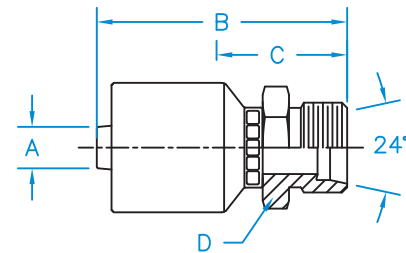
C62 - Code 62 Flange Rigid

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



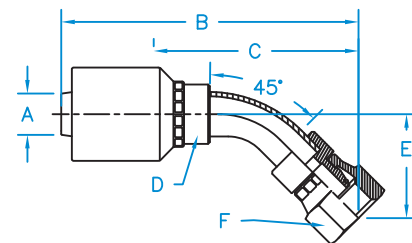
Din Heavy 24° Seat Male Rigid

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



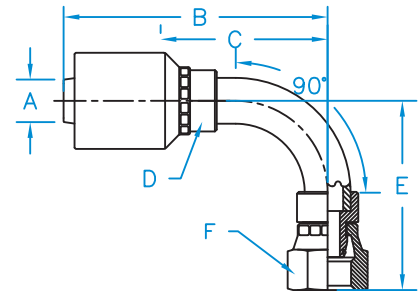
Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH4504-06-14-W	1/4			5/8		9/16	M14 X 1.5
F-DH4504-08-16-W	1/4	3.39	2.33	5/8	0.89	3/4	M16 X 1.5
F-DH4504-10-18-W	1/4	3.38	2.32	5/8	0.92	7/8	M18 X 1.5
F-DH4506-08-16-W	3/8	3.72	2.35	11/16	0.89	3/4	M16 X 1.5
F-DH4506-10-18-W	3/8	3.71	2.34	11/16	0.92	7/8	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	1-5/8	M36 X 2.0
F-DH4516-25-36-W	1	5.27	3.14	1-5/16	1.26	1-5/8	M36 X 2.0
F-DH4516-30-42-W	1	5.83	3.70	1-5/16	1.69	1-7/8	M42 X 2.0
F-DH4520-30-42-W	1-1/4	6.36	3.82	1-5/8	1.69	1-7/8	M42 X 2.0
F-DH4520-38-52-W	1-1/4	7.00	4.46	1-5/8	1.82	2-5/16	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



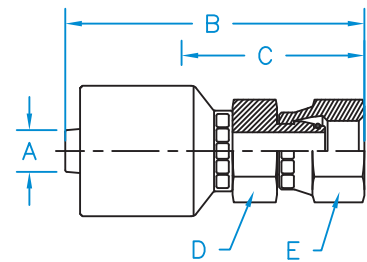
Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
F-DH9004-06-14-W	1/4			5/8		11/16	M14 X 1.5
F-DH9004-08-16-W	1/4	2.84	1.78	5/8	1.54	3/4	M16 X 1.5
F-DH9004-10-18-W	1/4	2.70	1.64	5/8	1.50	7/8	M18 X 1.5
F-DH9006-08-16-W	3/8	3.17	1.80	11/16	1.54	3/4	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	4.51	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	1-5/8	M36 X 2.0
F-DH9016-25-36-W	1	4.46	2.33	1-5/16	2.71	1-5/8	M36 X 2.0
F-DH9016-30-42-W	1	5.17	3.05	1-5/16	3.27	1-7/8	M42 X 2.0
F-DH9020-30-42-W	1-1/4	5.71	3.16	1-5/8	3.27	1-7/8	M42 X 2.0
F-DH9020-38-52-W	1-1/4	6.42	3.88	1-5/8	3.78	2-5/16	M52 X 2.0
F-DH9024-38-52-W	1-1/2	6.60	4.00	2	3.78	2-5/16	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	2.15	1.09	11/16	11/16	M14 X 1.5
F-DH04-08-16-W	1/4	2.07	1.01	9/16	3/4	M16 X 1.5
F-DH04-10-18-W	1/4	2.08	1.02	5/8	7/8	M18 X 1.5
F-DH06-08-16-W	3/8	2.60	1.23	11/16	3/4	M16 X 1.5
F-DH06-10-18-W	3/8	2.52	1.15	11/16	7/8	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	1-5/8	M36 X 2.0
F-DH16-25-36-W	1	3.82	1.73	1-1/4	1-5/8	M36 X 2.0
F-DH16-30-42-W	1	3.70	1.60	1-1/2	1-7/8	M42 X 2.0
F-DH20-30-42-W	1-1/4	4.37	1.83	1-3/4	1-7/8	M42 X 2.0
F-DH20-38-52-W	1-1/4	4.14	1.60	2	2-5/16	M52 X 2.0
F-DH24-38-52-W	1-1/2	4.61	2.01	2	2-5/16	M52 X 2.0



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

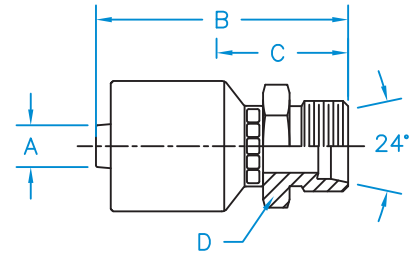
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

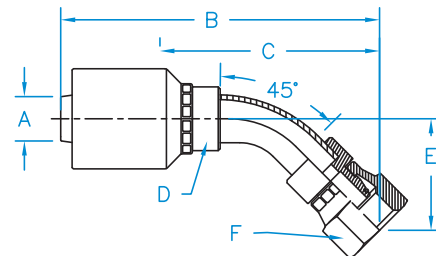
Din Light 24° Seat Male Rigid

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



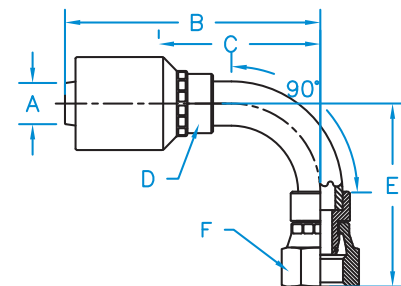
Din Light 24° Seat 45° Bent Tube Female Swivel With O-Ring

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	9/16	M12 X 1.5
F-DL4504-08-14-W	1/4	3.37	2.31	5/8	0.91	11/16	M14 X 1.5
F-DL4504-10-16-W	1/4	3.60	2.54	5/8	1.10	3/4	M16 X 1.5
F-DL4506-10-16-W	3/8	3.93	2.56	11/16	1.10	3/4	M16 X 1.5
F-DL4506-12-18-W	3/8	3.82	2.59	3/4	1.13	7/8	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	1-5/8	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



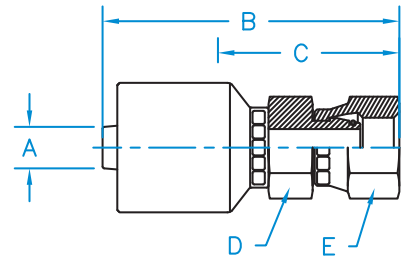
Din Light 24° Seat 90° Bent Tube Female Swivel With O-Ring

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	11/16	M14 X 1.5
F-DL9004-10-16-W	1/4	2.84	1.78	5/8	1.63	3/4	M16 X 1.5
F-DL9006-10-16-W	3/8	3.17	1.80	11/16	1.63	3/4	M16 X 1.5
F-DL9006-12-18-W	3/8	2.98	1.60	3/4	1.86	7/8	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	4.16	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	1-5/8	M36 X 2.0
F-DL9016-28-36-W	1	5.02	2.89	1-5/16	3.13	1-5/8	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



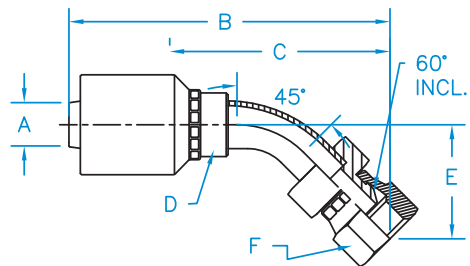
Din Light 24° Seat Female Swivel With O-Ring

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	9/16	M12 X 1.5
F-DL04-08-14-W	1/4	2.30	1.24	9/16	11/16	M14 X 1.5
F-DL04-10-16-W	1/4	2.23	1.17	11/16	3/4	M16 X 1.5
F-DL06-10-16-W	3/8	2.56	1.19	3/4	3/4	M16 X 1.5
F-DL06-12-18-W	3/8	2.60	1.23	3/4	7/8	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	1-5/8	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				2-5/16	M52 X 2.0



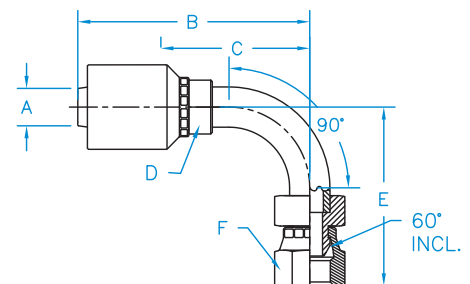
Female British Pipe 45° Bent Tube Swivel

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	4.72	2.62	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



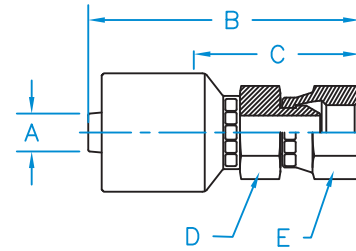
Female British Pipe 90° Bent Tube Swivel

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	2.95	1.61	7/8	2.01	1-1/8	5/8 - 14
F-BSPX90-10-10-W	5/8	3.78	1.68	1	2.01	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



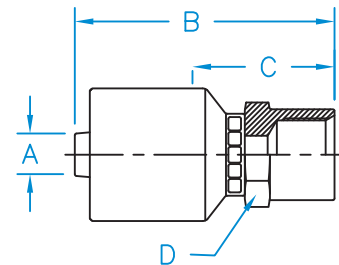
Female British Pipe Straight

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



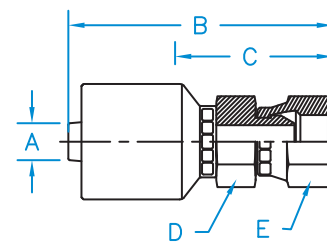
FP - NPTF Female Pipe Rigid

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

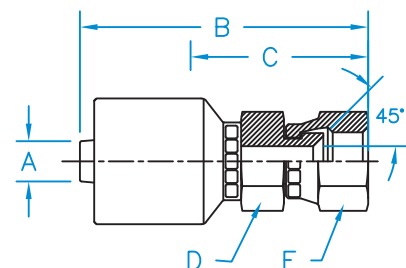
Part Number	Hose I.D. (in.) A	B	C	D	E	Thread
FPX-04-02-W	1/4	2.01	0.95	9/16	9/16	1/8 - 27
FPX-04-04-W	1/4	1.90	1.00	9/16	3/4	1/4 - 18
FPX-04-06-W	1/4	2.08	1.02	5/8	7/8	3/8 - 18
FPX-06-04-W	3/8	2.51	1.14	11/16	3/4	1/4 - 18
FPX-06-06-W	3/8	2.06	1.00	11/16	7/8	3/8 - 18
FPX-06-08-W	3/8	2.59	1.22	3/4	1	1/2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



Hose
Braided Hose Couplings
K2 Style Couplings
W Style Couplings
WHP Couplings
JJ Couplings
GW Couplings
R7, PTFE, R5, R4 Couplings
Additional Products
Technical Data

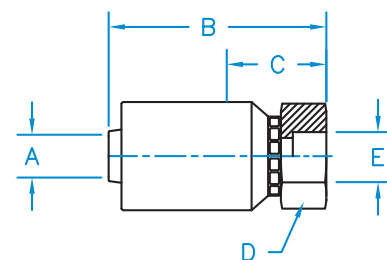
FSX - 45° SAE Female Swivel

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



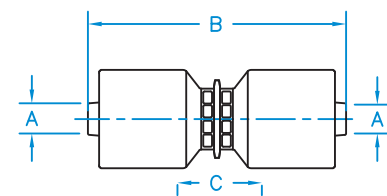
FW - Female Weld Fitting Rigid

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



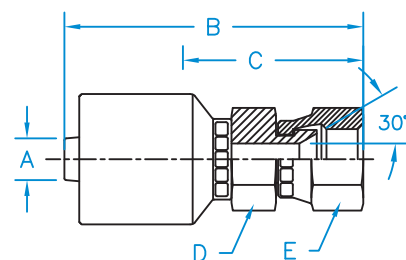
Hose Mender

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



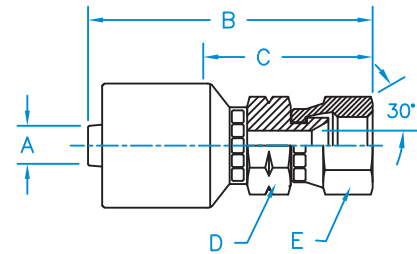
JIS 30° Female Swivel

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



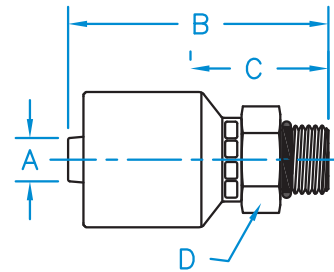
Komatsu JIS 30° Seat Female Swivel

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	11/16	M14 X 1.5
F-KOMX-06-14-W	3/8	2.48	1.11	11/16	11/16	M14 X 1.5
F-KOMX-06-18-W	3/8	2.52	1.15	11/16	7/8	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



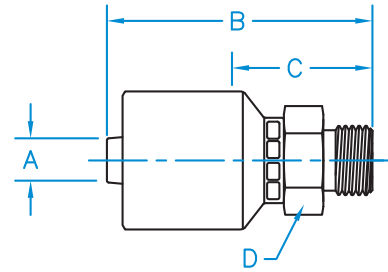
Male Boss O-Ring Rigid

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



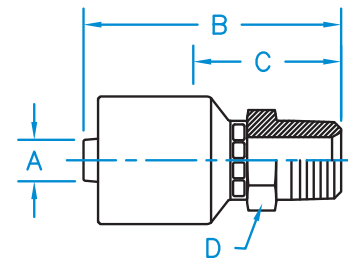
Male British Parallel Pipe 60° Cone Rigid

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

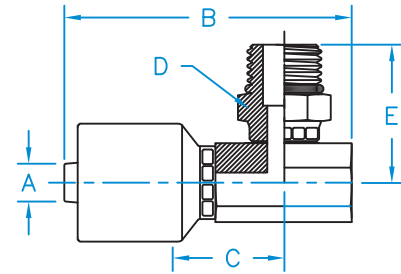
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

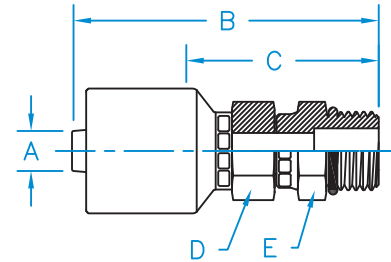
MBX - Male Boss O-Ring 90° Swivel Block Style

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



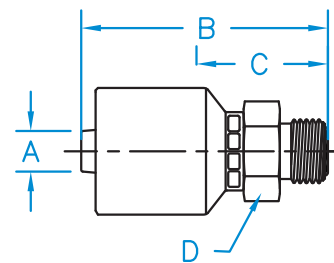
MBX - Male Boss O-Ring Swivel

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-10-10-W	5/8	3.56	1.91	1	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



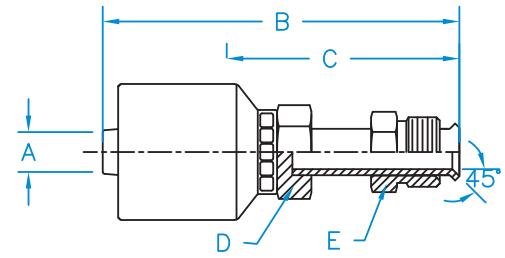
MF - Male Face Seal Rigid

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



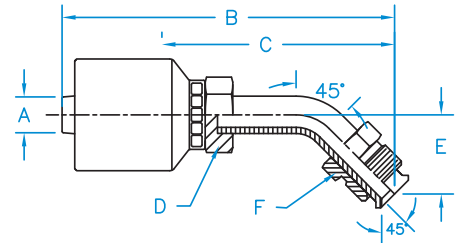
MIX - 45° SAE Male Inverted Flare

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



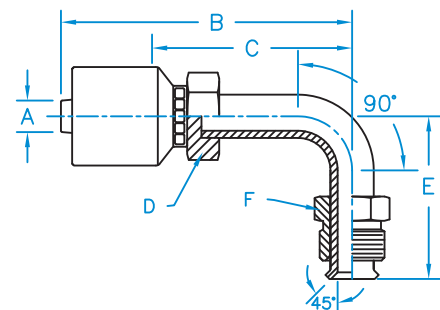
MIX45 - 45° SAE Male Inverted Flare 45° Bent Tube Swivel

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	3.77	2.40	3/4	0.94	5/8	5/8 - 18
MIX45-06-07-W	3/8	3.77	2.40	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	3.72	2.38	7/8	0.84	7/8	7/8 - 18



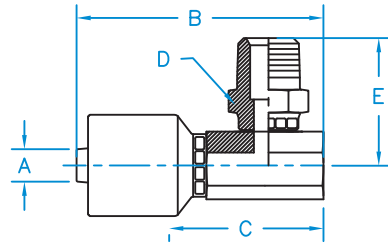
MIX90 - 45° SAE Male Inverted Flare 90° Bent Tube Swivel

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	2.95	1.61	7/8	1.26	7/8	7/8 - 18



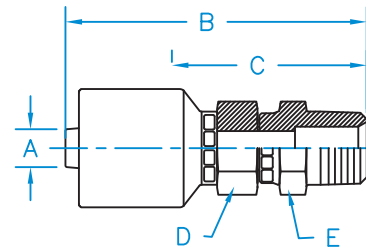
MPX90 - Male Pipe 90° Swivel Block Style

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



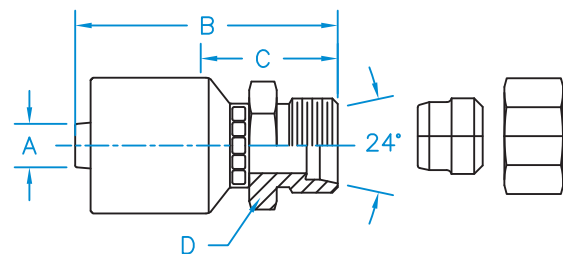
MPX - NPTF Male Pipe Swivel

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



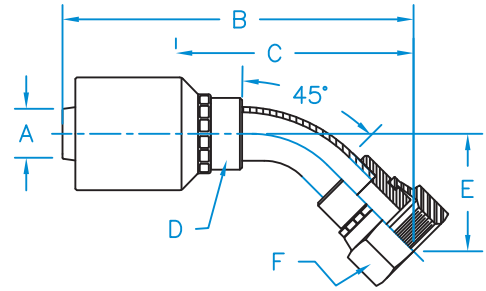
MT - Flareless Compression with Nut and Sleeve Per SAE J514

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	3.43	2.09	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	3.81	2.16	1	0.63	1-1/8	1 – 14
FFX45-10-12-W	5/8	3.74	2.09	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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

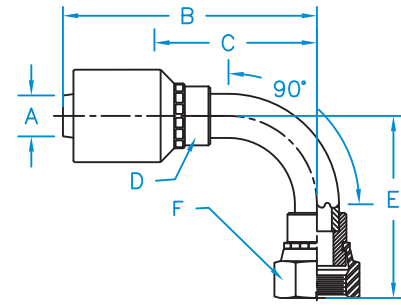
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

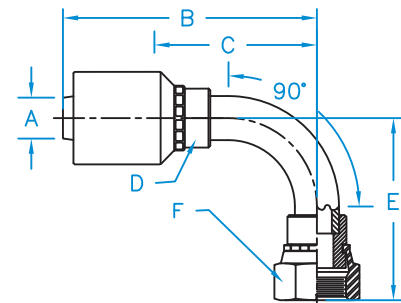
O-Ring Face Seal 90° Bent Tube Female Swivel

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	2.95	1.61	1-1/8	1.26	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	3.53	1.88	15/16	1.14	15/16	13/16 - 16
FFX90-10-10-W	5/8	3.33	1.68	1-1/8	1.26	1-1/8	1 - 14
FFX90-10-12-W	5/8	3.96	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



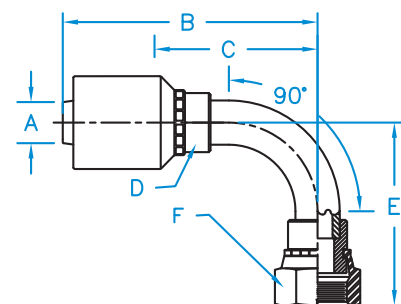
O-Ring Face Seal 90° Long Drop Bent Tube Female Swivel

Part Number	Hose I.D. (in.) A	B	C	D	E	F	Thread
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	3.17	1.80	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	2.95	1.61	7/8	2.78	1-1/8	1 - 14
FFX90L-10-10-W	5/8	2.50	1.68	1	2.78	1-1/8	1 - 14
FFX90L-10-12-W	5/8	3.88	2.23	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



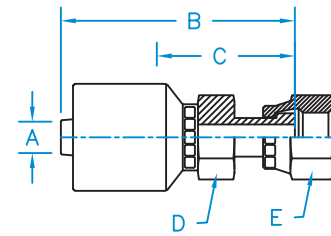
O-Ring Face Seal 90° Medium Drop Bent Tube Female Swivel

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	2.95	1.61	7/8	1.85	1-1/8	1 - 14
FFX90M-10-10-W	5/8	3.33	1.68	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



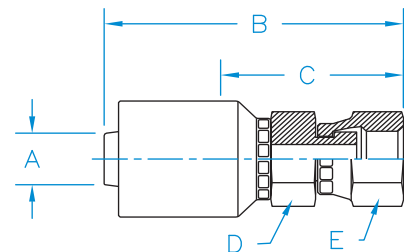
O-Ring Face Seal Female Swivel

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	3.33	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



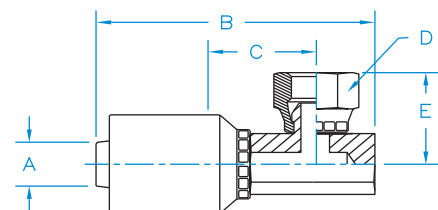
British Flat Face Seat Female Swivel

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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

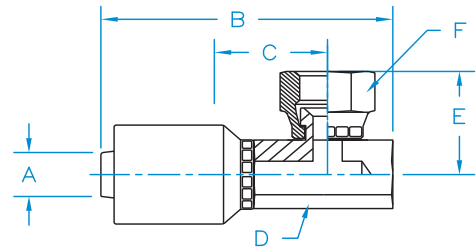
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

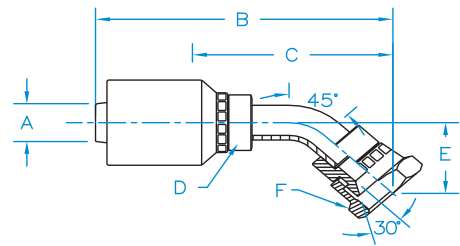
FJX90B - 37° JIC Female 90° Swivel Block Style

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



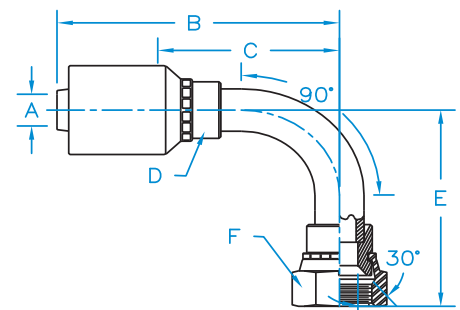
Komatsu JIS 30° Seat 45° Bent Tube Female Swivel

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	11/16	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	7/8	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	3.91	2.57	7/8	1.03	1-1/4	M24 X 1.5
F-KOMX45-10-24-W	5/8	4.74	2.64	1	1.03	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



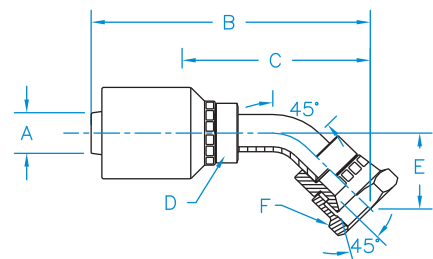
Komatsu JIS 30° Seat 90° Bent Tube Female Swivel

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	11/16	M14 X 1.5
F-KOMX90-06-14-W	3/8	3.17	1.80	11/16	1.48	11/16	M14 X 1.5
F-KOMX90-06-18-W	3/8	3.17	1.80	11/16	1.52	7/8	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	2.95	1.61	7/8	1.92	1-1/4	M24 X 1.5
F-KOMX90-10-24-W	5/8	3.78	1.68	1	1.92	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



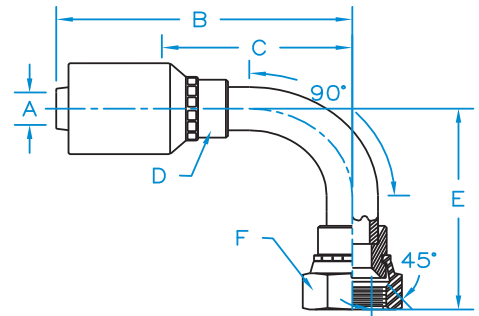
FSX45 - 45° SAE Female 45° Bent Tube Swivel

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



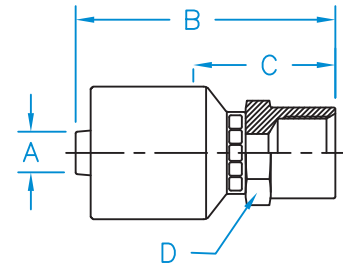
FSX90 - 45° SAE Female 90° Bent Tube Swivel

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	2.95	1.61	7/8	1.26	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



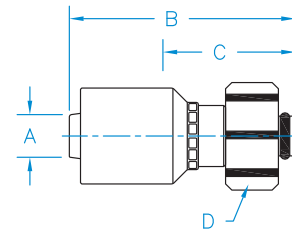
Female Grease Tap Rigid

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



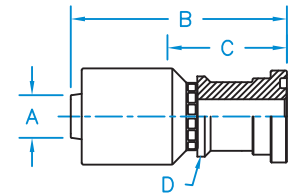
Karcher Pressure Wash Female Swivel

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



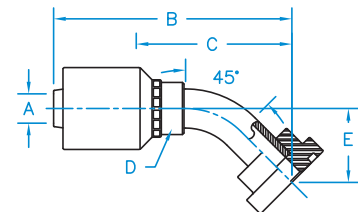
Komatsu Flange Rigid

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA-08-10-W	1/2	3.73	2.39	7/8	N/A
KOMA-10-10-W	5/8	4.12	2.46	13/16	N/A



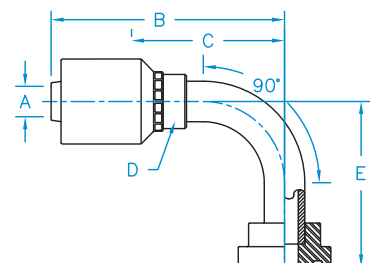
Komatsu Flange 45° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA45-08-10-W	1/2	3.70	1.68	0.88	N/A
KOMA45-10-10-W	5/8	4.53	1.75	0.88	N/A



Komatsu Flange 90° Bent Tube Rigid

Part Number	Hose I.D. (in.) A	B	C	E	Thread
KOMA90-10-10-W	5/8	3.78	1.68	1.91	N/A



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

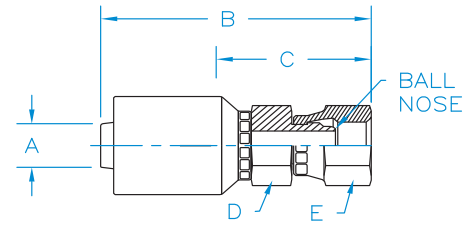
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

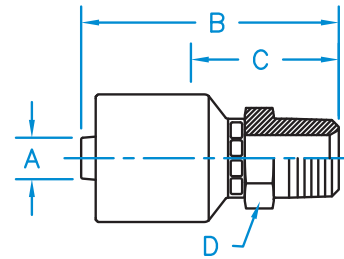
LF - Line Fit Sleeveless design

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



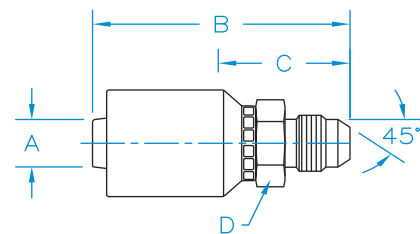
Male British Standard Pipe 60° Cone Rigid

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



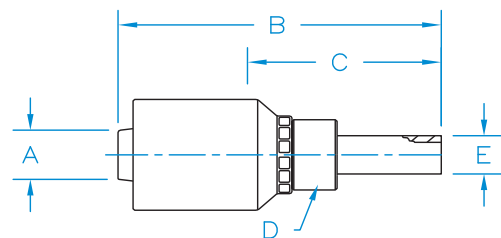
MS - 45° SAE Male Rigid

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



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



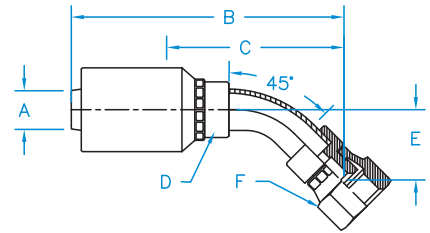
WHP
Couplings



Made In USA

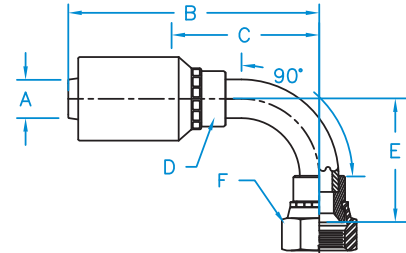
37° JIC Female 45° Bent Tube Swivel

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



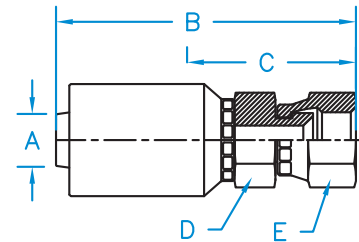
37° JIC Female 90° Bent Tube Swivel

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



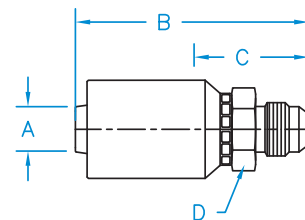
37° JIC Female Swivel

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



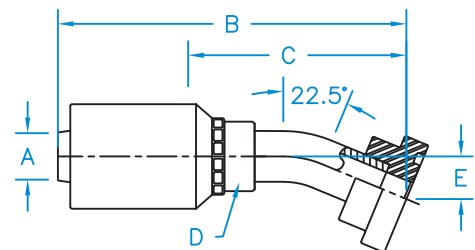
37° JIC Male Rigid

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



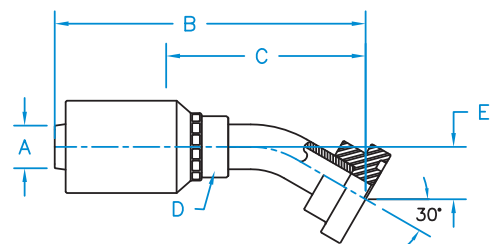
CAT Flange 22° Bent Tube Rigid

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



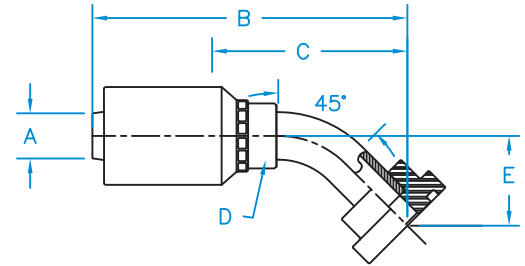
CAT Flange 30° Bent Tube Rigid

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



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

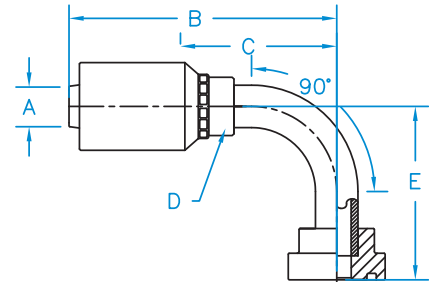


Hose

Braided Hose
Couplings

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

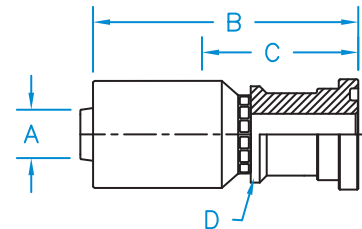


K2 Style
Couplings

W Style
Couplings

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

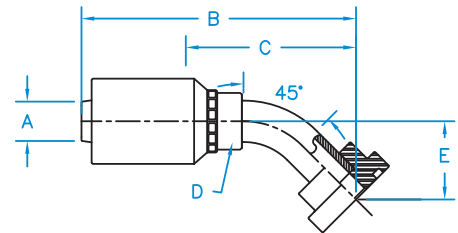


WHP
Couplings

JJ
Couplings

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

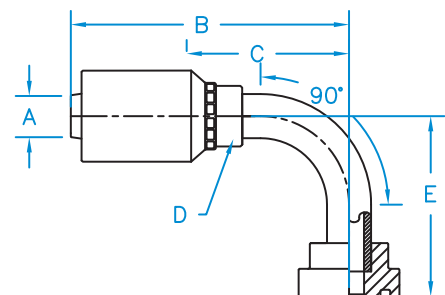


6W
Couplings

R7, PTFE, R5,
R4 Couplings

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

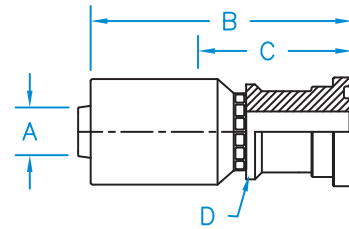


Additional
Products

Technical
Data

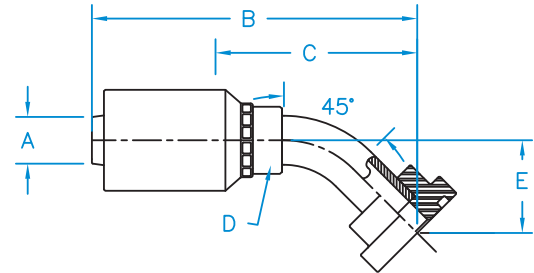
Code 61 Flange Rigid

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



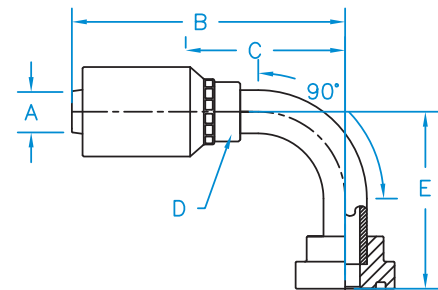
Code 62 Flange 45° Bent Tube Rigid

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



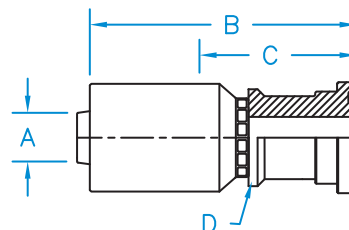
Code 62 Flange 90° Bent Tube Rigid

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



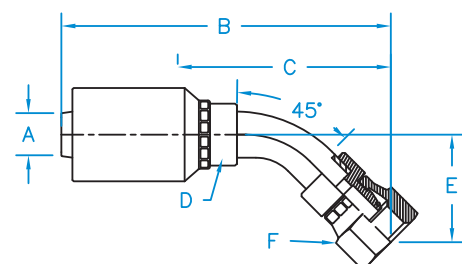
Code 62 Flange Rigid

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



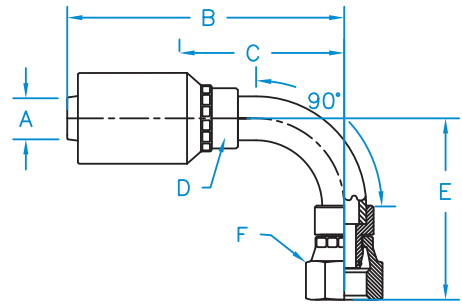
Din Heavy 24° Seat 45° Bent Tube Female Swivel With O-Ring

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	1-5/8	M36 X 2.0
F-DH4516-3042-WHP	1	6.34	3.81	1-7/16	1.69	1-7/8	M42 X 2.0



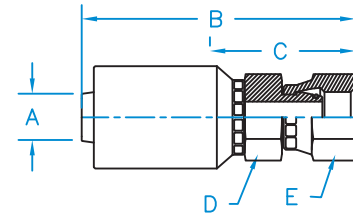
Din Heavy 24° Seat 90° Bent Tube Female Swivel With O-Ring

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	1-5/8	M36 X 2.0
F-DH9016-3042-WHP	1	5.69	3.16	1-7/16	3.27	1-7/8	M42 X 2.0



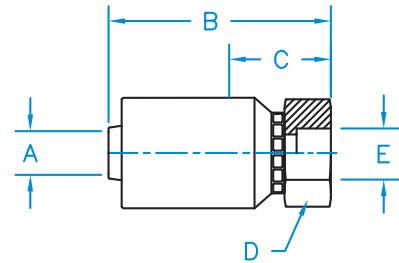
Din Heavy 24° Seat Female Swivel With O-Ring

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	1-5/8	M36 X 2.0
F-DH16-30-42-WHP	1	4.22	1.69	1-1/2	1-7/8	M42 X 2.0



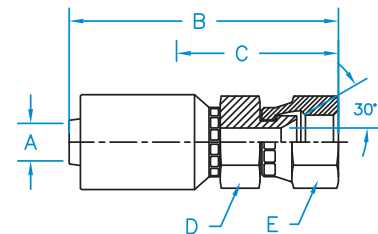
FW - Female Weld Fitting Rigid

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



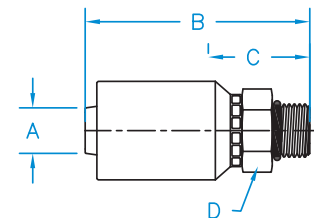
JIS 30° Female Swivel

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



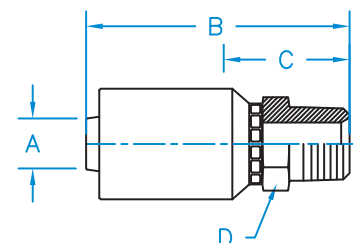
Male Boss O-Ring Rigid

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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

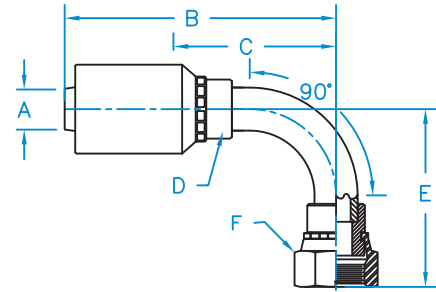
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

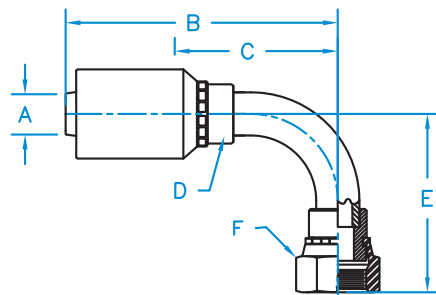
O-Ring Face Seal 90° Bent Tube Female Swivel

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



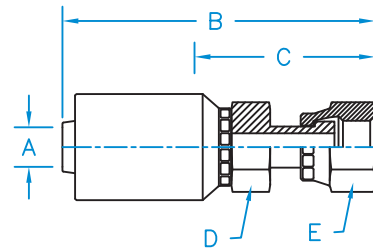
O-Ring Face Seal 90° Bent Tube Female Swivel Long Drop

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



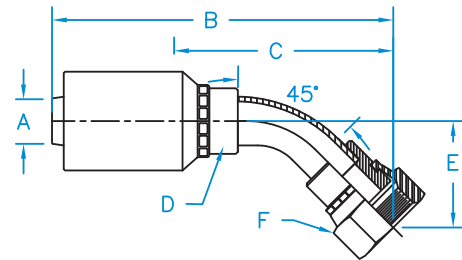
O-Ring Face Seal Female Swivel

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



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

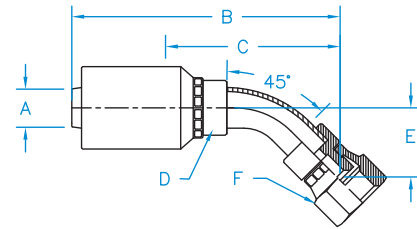


JJ
Couplings



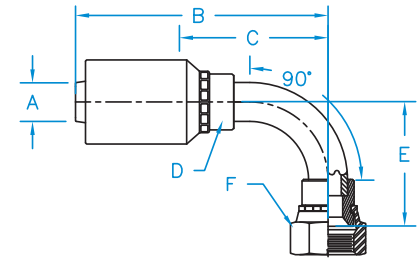
37° JIC Female 45° Bent Tube Swivel

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



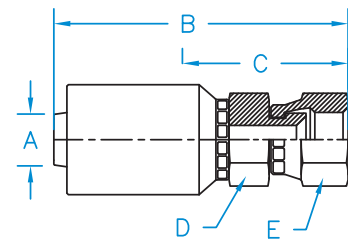
37° JIC Female 90° Bent Tube Swivel

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



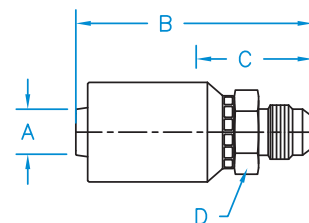
37° JIC Female Swivel

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



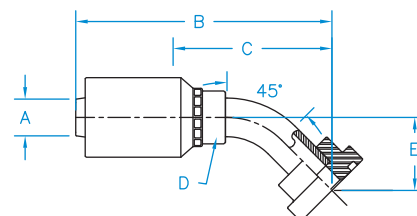
37° JIC Male Rigid

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



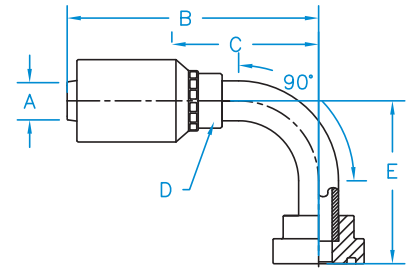
Cat Flange 45° Bent Tube Rigid

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



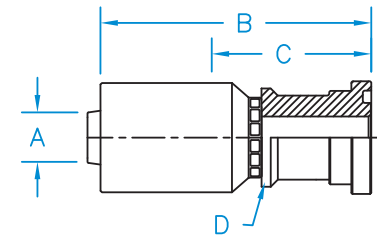
Cat Flange 90° Bent Tube Rigid

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



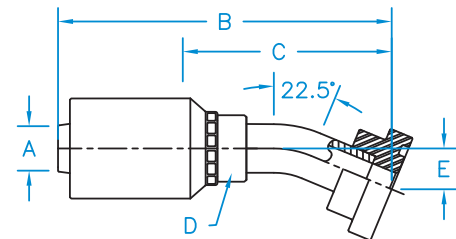
Cat Flange Straight Rigid

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



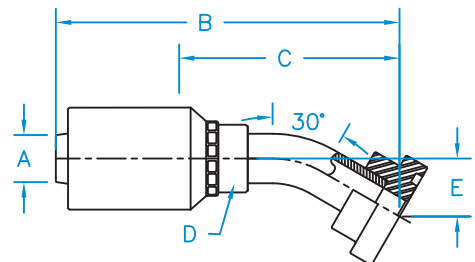
Code 61 Flange 22° Bent Tube Rigid

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



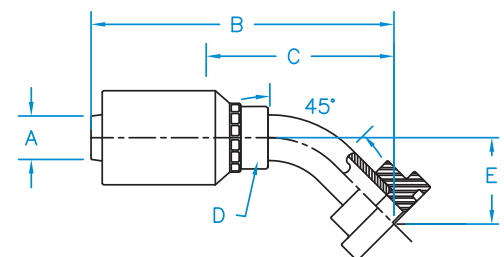
Code 61 Flange 30° Bent Tube Rigid

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

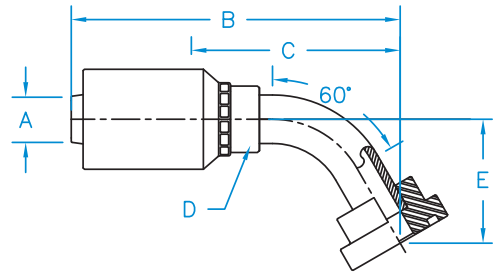
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

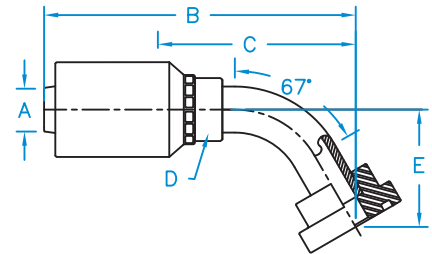
Code 61 Flange 60° Bent Tube Rigid

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



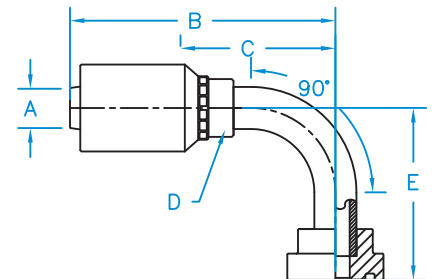
Code 61 Flange 67° Bent Tube Rigid

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



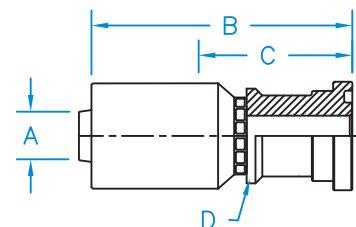
Code 61 Flange 90° Bent Tube Rigid

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



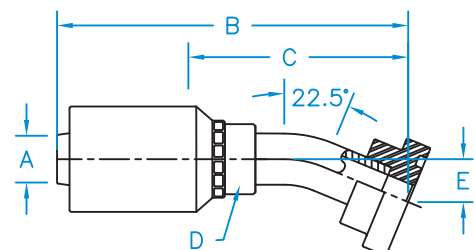
Code 61 Flange Rigid

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



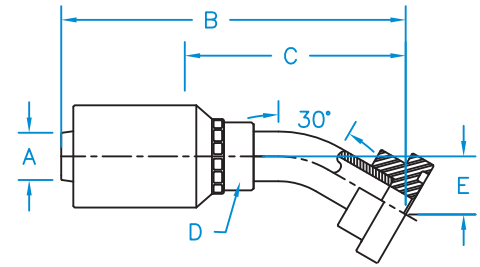
Code 62 Flange 22° Bent Tube Rigid

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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

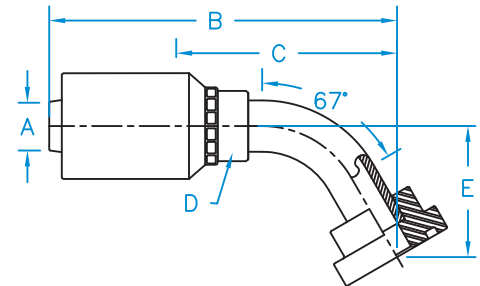
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

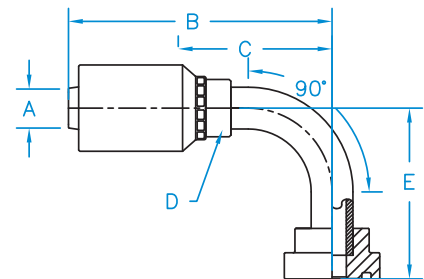
Code 62 Flange 67° Bent Tube Rigid

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



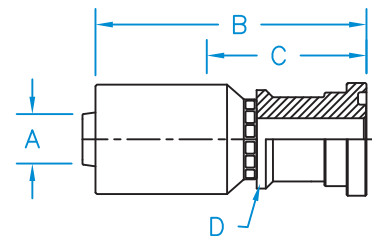
Code 62 Flange 90° Bent Tube Rigid

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



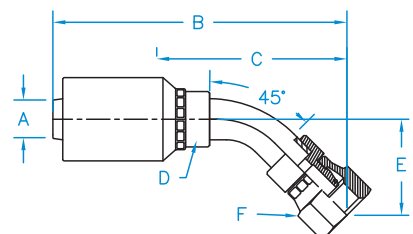
Code 62 Flange Rigid

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



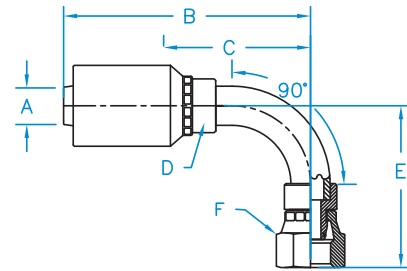
Din Heavy 24° Seat 45° Bent Tube Female Swivel With O-Ring

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



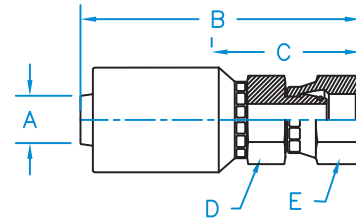
Din Heavy 24° Seat 90° Bent Tube Female Swivel With O-Ring

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



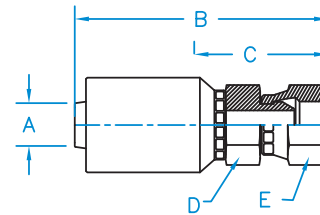
Din Heavy 24° Seat Female Swivel With O-Ring

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	2-5/16	M52 X 2.0
F-DH24-38-52-JJ	1-1/2	4.65	2.01	2	2-3/8	M52 X 2.0



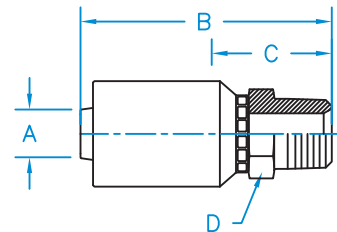
Female British Pipe Swivel Straight

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					



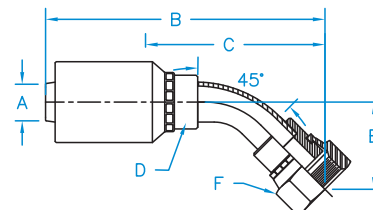
Male Pipe NPTF Rigid

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



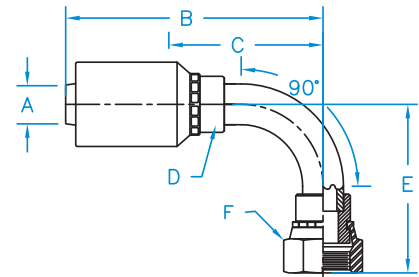
O-Ring Face Seal 45° Bent Tube Female Swivel

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



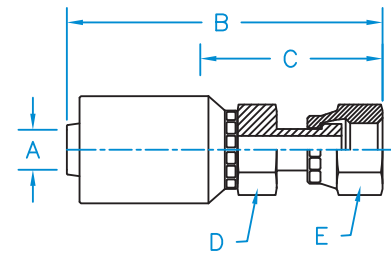
O-Ring Face Seal 90° Bent Tube Female Swivel

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



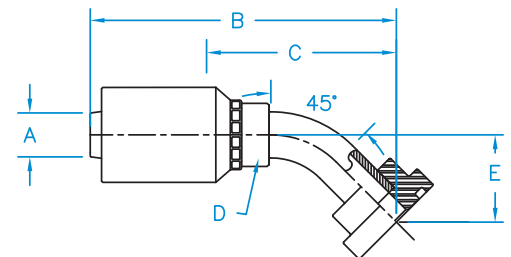
O-Ring Face Seal Female Swivel

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



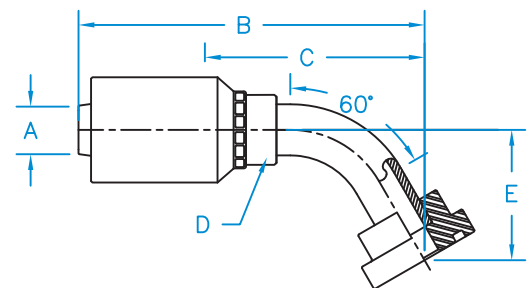
Code 62 Flange 45° Bent Tube Rigid

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

6W Style Couplings

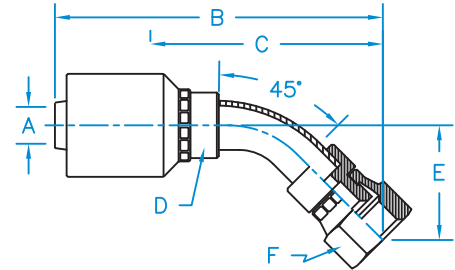
KURT
HYDRAULICS

- 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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

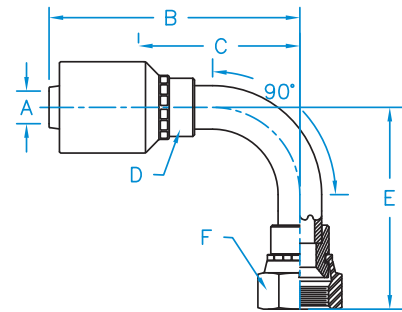
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

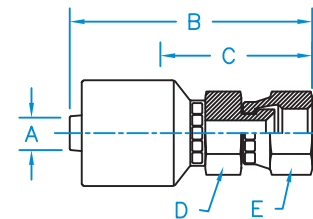
37° JIC Female 90° Bent Tube Swivel

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



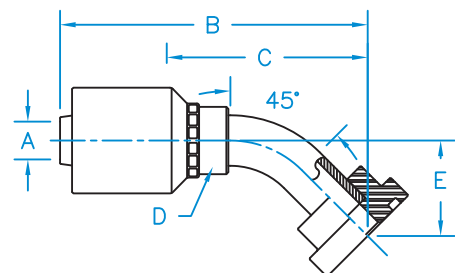
37° JIC Female Swivel

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



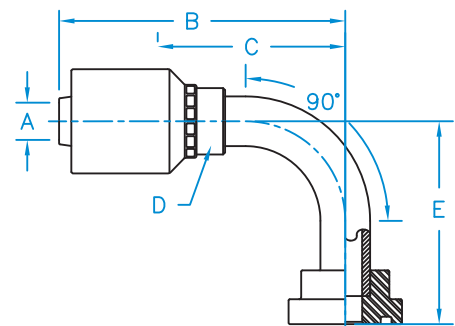
Cat Flange 45° Bent Tube Rigid

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



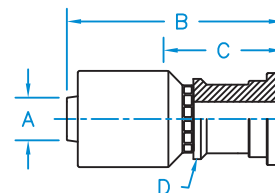
Cat Flange 90° Bent Tube Rigid

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



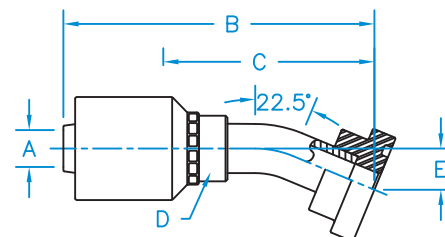
Cat Flange Straight Rigid

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



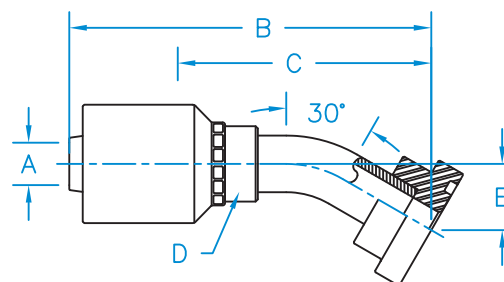
C61 - Code 61 Flange 22° Bent Tube Rigid

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



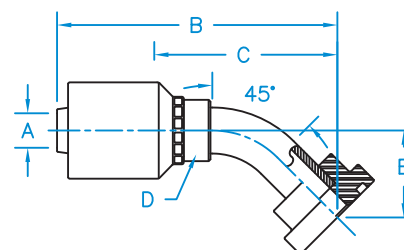
C61 - Code 61 Flange 30° Bent Tube Rigid

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



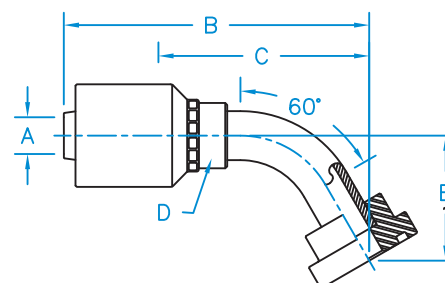
C61 - Code 61 Flange 45° Bent Tube Rigid

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



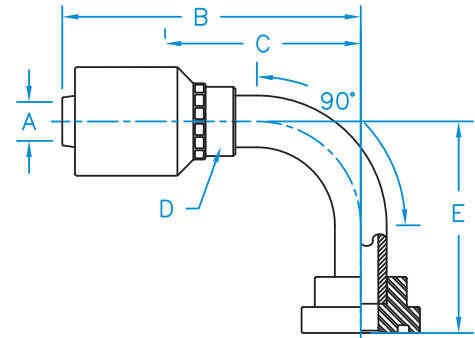
C61 - Code 61 Flange 60° Bent Tube Rigid

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



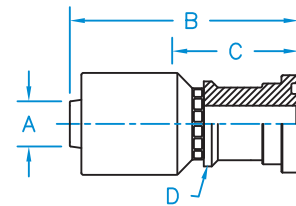
C61 - Code 61 Flange 90° Bent Tube Rigid

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



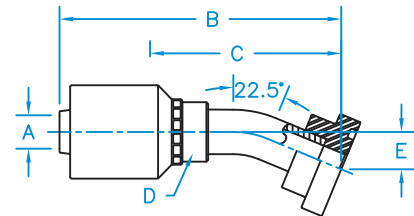
C61 - Code 61 Flange Rigid

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



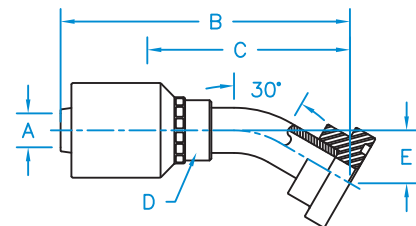
C62 - Code 62 Flange 22° Bent Tube Rigid

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



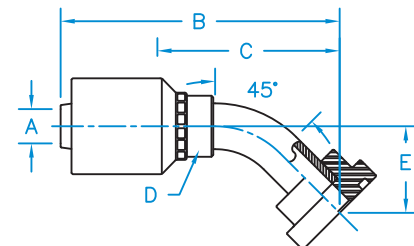
C62 - Code 62 Flange 30° Bent Tube Rigid

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

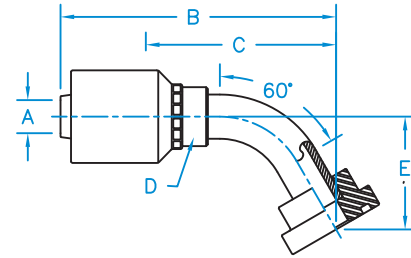
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

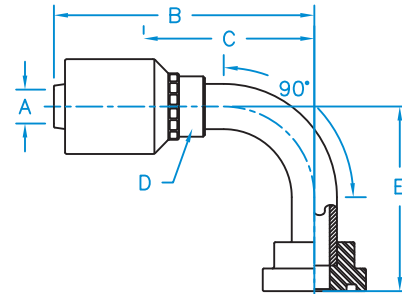
C62 - Code 62 Flange 60° Bent Tube Rigid

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



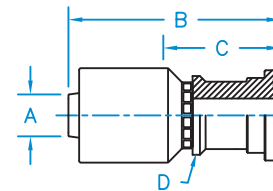
C62 - Code 62 Flange 90° Bent Tube Rigid

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



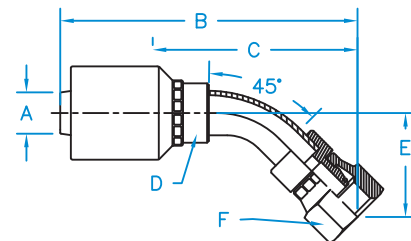
C62 - Code 62 Flange Rigid

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



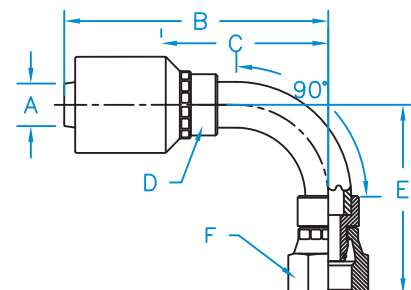
Din Heavy Universal Seat 45° Tube Female Swivel With O-Ring

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



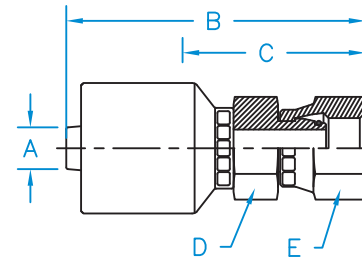
Din Heavy Universal Seat 90° Tube Female Swivel With O-Ring

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



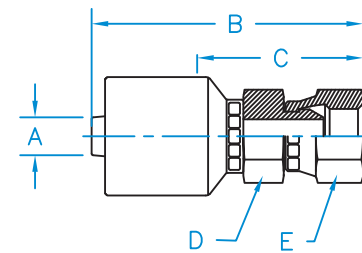
Din Heavy 24° Seat Female Swivel With O-Ring

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



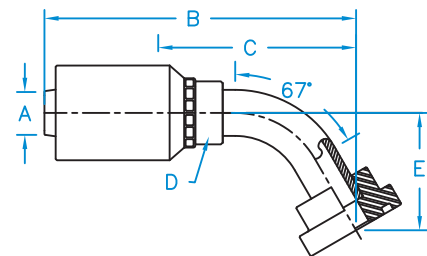
Female British Pipe Straight

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



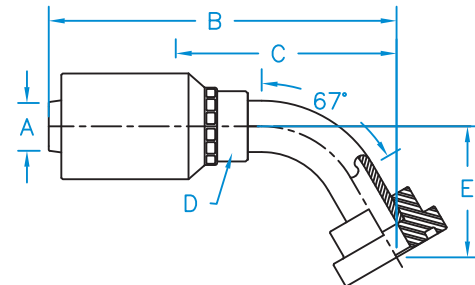
C61 - Code 61 Flange 67° Bent Tube Rigid

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



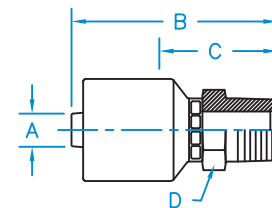
C62 - Code 62 Flange 67° Bent Tube Rigid

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



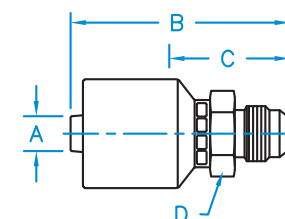
Male Pipe NPTF Rigid

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

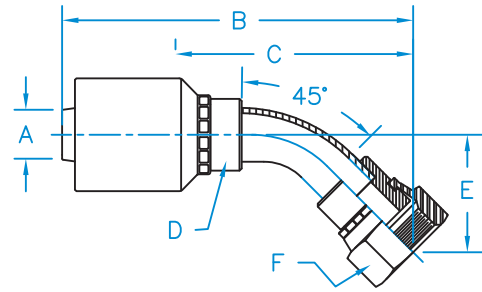
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

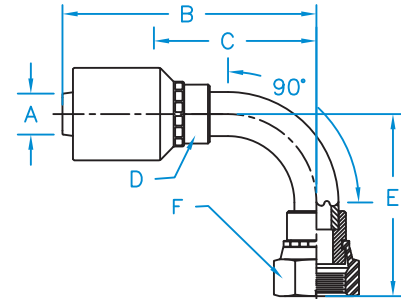
O-Ring Face Seal 45° Bent Tube Female Swivel

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



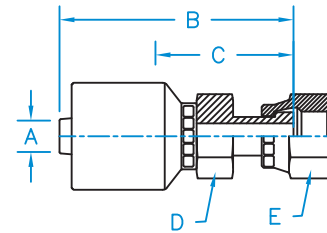
O-Ring Face Seal 90° Bent Tube Female Swivel

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



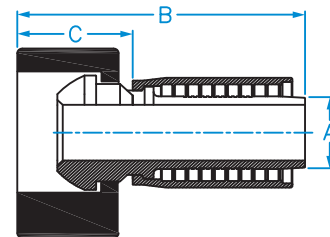
O-Ring Face Seal Female Swivel

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



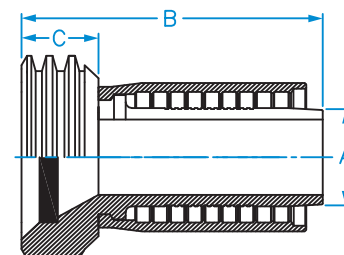
Male Hammer Union (Fig. 1502) with Lug Nut

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



R7 Couplings

KURT
HYDRAULICS

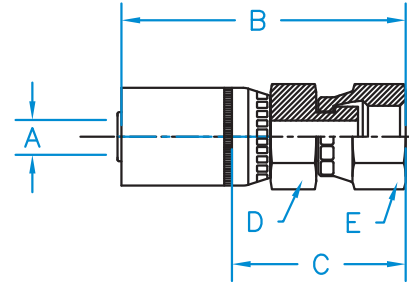


R7, PTFE, R5,
R4 Couplings



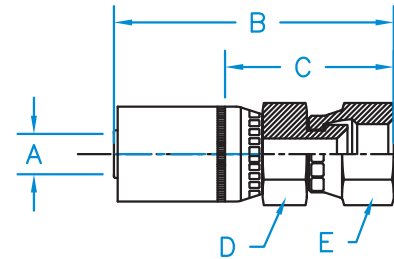
FFX - O-Ring Face Seal Female Coupling

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



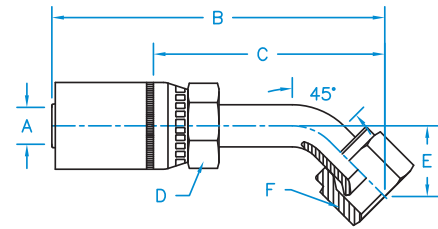
FJX - 37° JIC Female Swivel

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

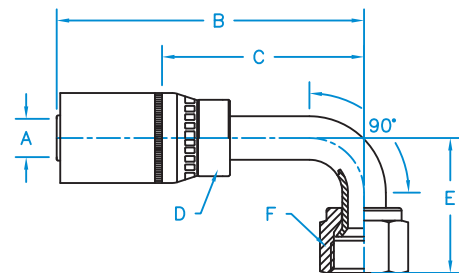
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

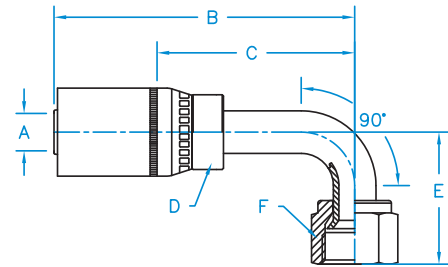
FJX90L - 37° JIC Female 90° Long Drop Swivel

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



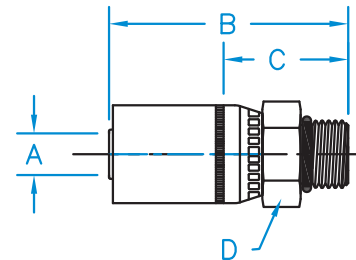
FJX90 - 37° JIC Female 90° Bent Tube Swivel

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



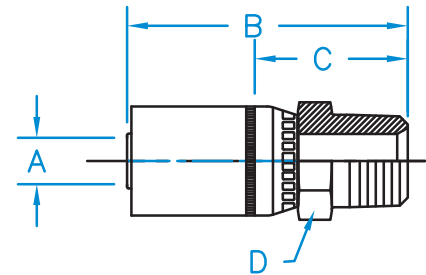
Male Boss O-Ring Rigid

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



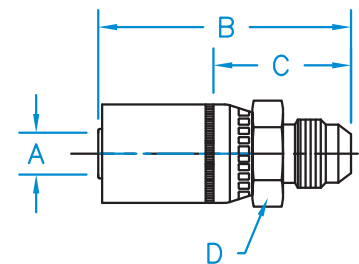
MP - Male Pipe NPTF Rigid

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



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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

PTFE Couplings

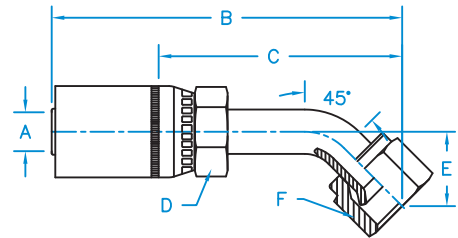
KURT
HYDRAULICS

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



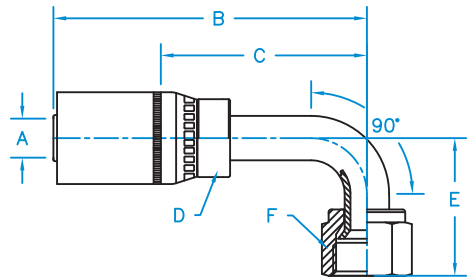
37° JIC Female 45° Bent Tube Swivel

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	3.21	1.96	3/4	0.43	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	3.47	1.97	3/4	0.43	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	3.82	2.32	7/8	0.59	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	3.81	2.31	1	0.63	1	7/8 - 14
FJX45-10-12-SST	5/8	3.58	2.08	1-1/4	0.72	1-1/4	1-1/16 - 12
FJX45-12-12-SST	3/4	3.94	2.34	1-1/4	0.83	1-1/4	1-1/16 - 12
FJX45-16-16-SST	1	3.91	3.17	1-1/2	1.38	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	2.98	1.72	5/8	0.83	9/16	7/16 - 20
FJX90-04-05-SST	1/4	3.07	1.81	5/8	0.83	9/16	1/2 - 20
FJX90-04-06-SST	1/4	3.12	1.87	5/8	0.91	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	3.38	1.88	3/4	0.91	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	3.27	1.77	1.000	1.23	1	7/8 - 14
FJX90-10-12-SST	5/8	3.67	2.17	1-1/8	1.92	1-1/4	1-1/16 - 12
FJX90-12-12-SST	3/4	3.89	2.30	1-1/8	1.83	1-1/4	1-1/16 - 12
FJX90-16-16-SST	1	4.50	2.77	1-1/2	2.80	1-1/2	1-5/16 - 12



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

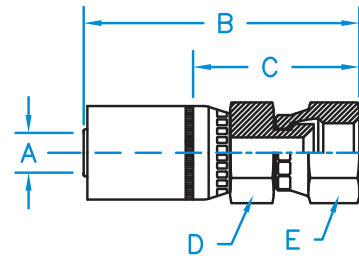
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

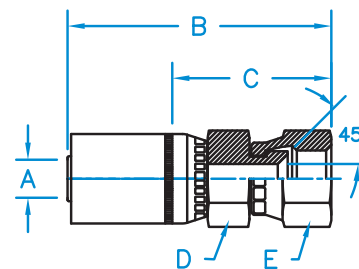
37° JIC Female Swivel

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



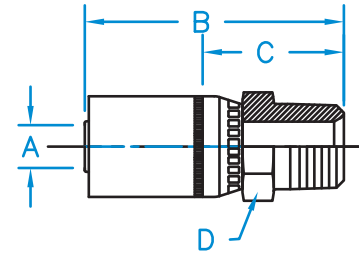
45° SAE Female Swivel

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



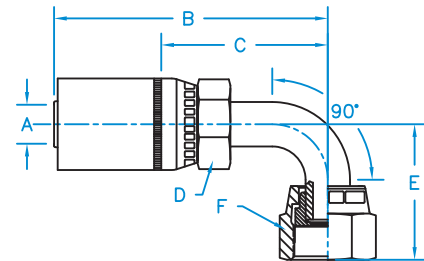
Male Pipe NPTF Rigid

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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

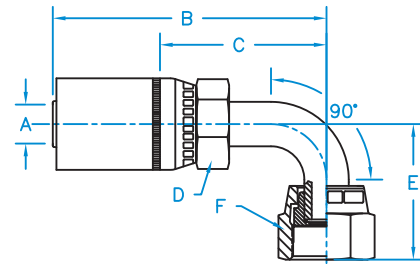
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

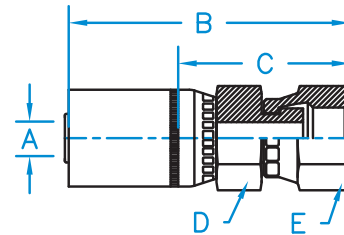
O-Face Seal Female 90° Bent Tube Swivel

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



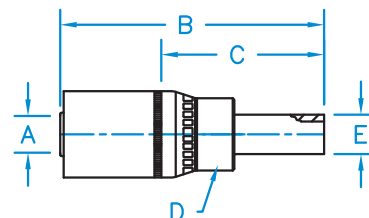
O-Face Seal Female Swivel

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

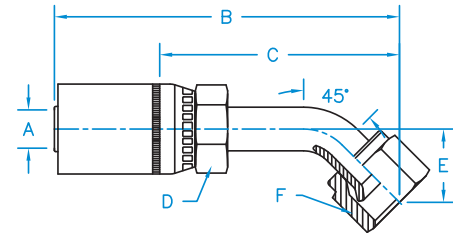


R7, PTFE, R5,
R4 Couplings



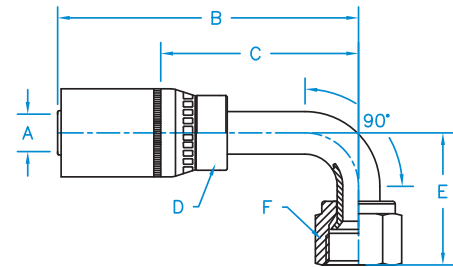
37° JIC Female 45° Bent Tube Swivel

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



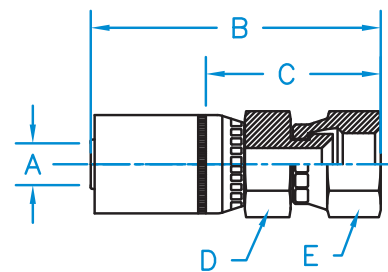
37° JIC Female 90° Bent Tube Swivel

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



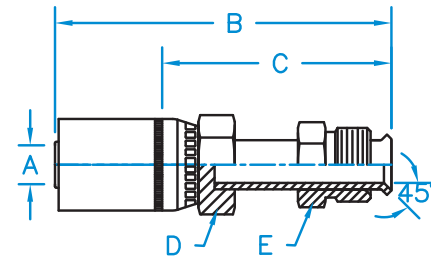
37° JIC Female Swivel

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



Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

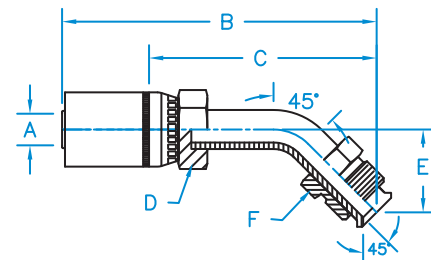
R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

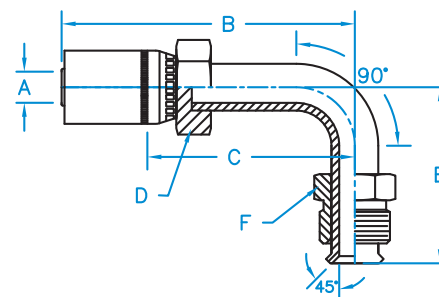
45° SAE Male Inverted Flare 45° Bent Tube

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



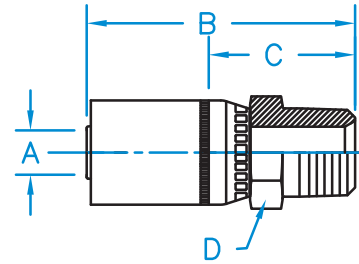
45° SAE Male Inverted Flare 90° Bent Tube

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



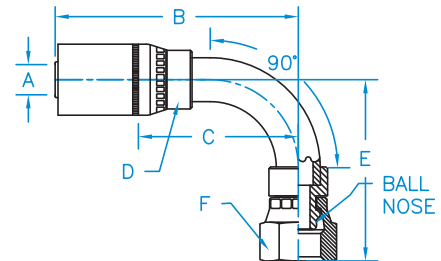
Male Pipe NPTF Rigid

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



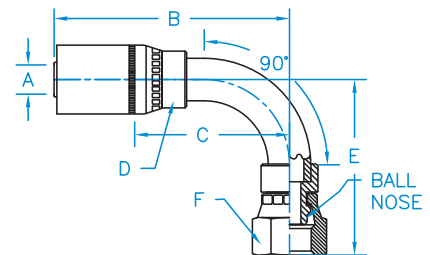
Din Heavy Universal Seat 90° Bent Tube Female Swivel

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



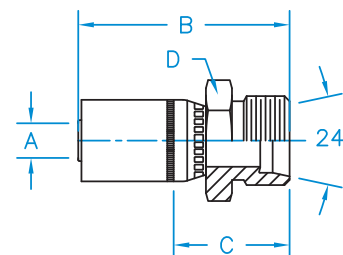
Din Light Universal Seat 90° Bent Tube Female Swivel

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



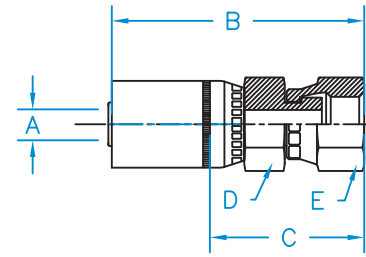
Din Light Universal Seat Male Rigid

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



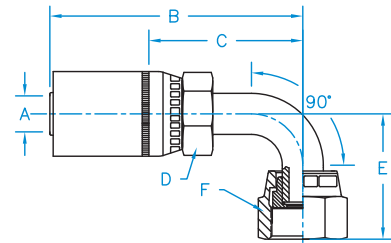
FFX - O-Ring Face Seal Female Swivel

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



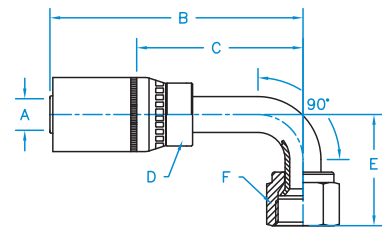
FFX90 - O-Ring Face Seal 90° Bent Tube Female Swivel

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



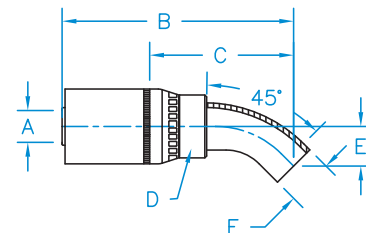
FJX90L - 37° JIC Female 90° Long Drop Swivel

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



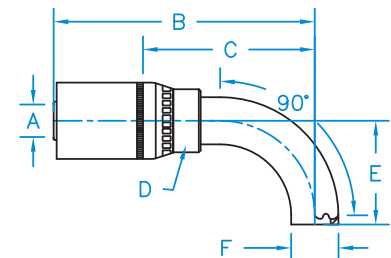
Metric O.D. Stand Pipe 45° Bent Tube

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



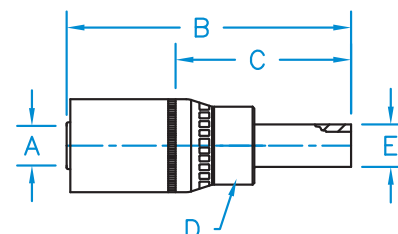
Metric O.D. Stand Pipe 90° Bent Tube

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

K2 Style Couplings

W Style Couplings

WHP Couplings

JJ Couplings

GW Couplings

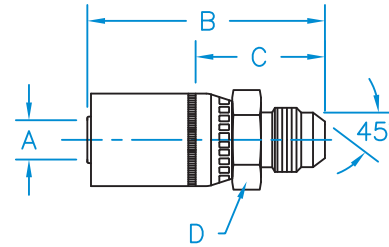
R7, PTFE, R5, R4 Couplings

Additional Products

Technical Data

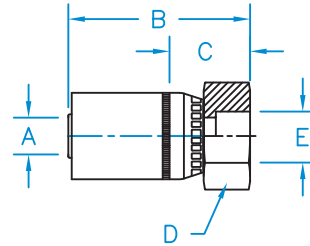
MS - 45° SAE Male Rigid

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



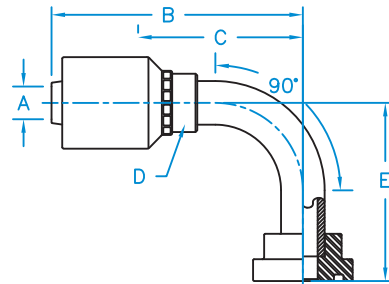
FW - Female Weld Fitting Rigid

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



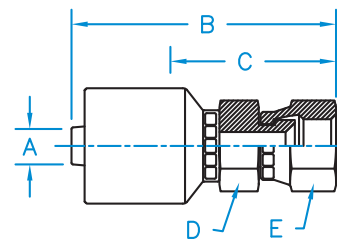
Code 61 Flange 90° Bent Tube Rigid

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



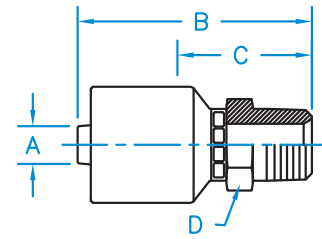
FJX - 37° JIC Female Swivel

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



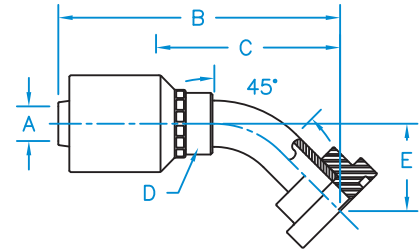
Male Pipe NPTF Rigid

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



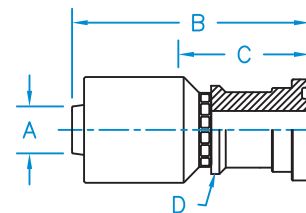
Code 61 Flange 45° Bent Tube Rigid

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

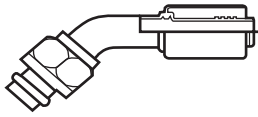
6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

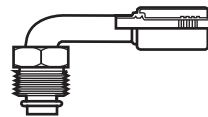
Technical
Data

45° Female O-Ring Swivel Bent Tube



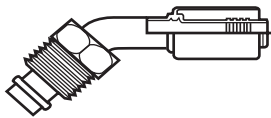
Part Number	Hose I.D. (in.)	Thread
BL06-06TF45T	5/16	5/8 – 18
BL08-08TF45T	13/32	3/4 – 18
BL10-10TF45T	1/2	7/8 – 18
BL12-12TF45T	5/8	1-1/16 – 16

90° Male O-Ring Swivel



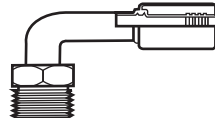
Part Number	Hose I.D. (in.)	Thread
BL-06-06TM90T	5/16	5/8 – 18
BL-08-08TM90T	13/32	3/4 – 18
BL-10-10TM90T	1/2	7/8 – 18
BL-12-12TM90T	5/8	1-1/16 – 16

45° Male O-Ring Swivel



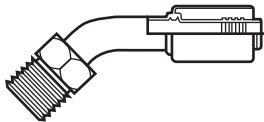
Part Number	Hose I.D. (in.)	Thread
BL-06-06TM45T	5/16	5/8 – 18
BL-08-08TM45T	13/32	3/4 – 18
BL-10-10TM45T	1/2	7/8 – 18
BL-12-12TM45T	5/8	1-1/16 – 16

90° Straight Male Insert O-Ring



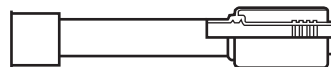
Part Number	Hose I.D. (in.)	Thread
BL-06-06MOR90	5/16	5/8 – 18
BL-08-08MOR90	13/32	3/4 – 18
BL-10-10MOR90	1/2	7/8 – 18
BL-12-12MOR90	5/8	1-1/16 – 16

45° Straight Male Insert O-Ring



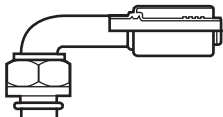
Part Number	Hose I.D. (in.)	Thread
BL-06-06MOR45	5/16	5/8 – 18
BL-08-08MOR45	13/32	3/4 – 18
BL-10-10MOR45	1/2	7/8 – 18
BL-12-12MOR45	5/8	1-1/16 – 16

Braze on For Beadlock System



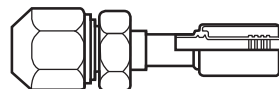
Part Number	Hose I.D. (in.)	Thread
BL-06-06BR	5/16	N/A
BL-08-08BR	13/32	N/A
BL-10-10BR	1/2	N/A
BL-12-12BR	5/8	N/A

90° Female O-Ring Swivel Bent Tube



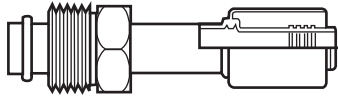
Part Number	Hose I.D. (in.)	Thread
BL06-06TF90T	5/16	5/8 – 18
BL08-08TF90T	13/32	3/4 – 18
BL10-10TF90T	1/2	7/8 – 18
BL12-12TF90T	5/8	1-1/16 – 16

Compression Repair Coupling



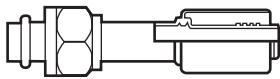
Part Number	Hose I.D. (in.)	Thread
BL-06-06MV	5/16	N/A
BL-08-08MV	13/32	N/A
BL-10-10MV	1/2	N/A
BL-12-12MV	5/8	N/A

Male O-Ring Swivel



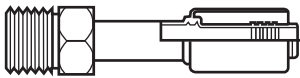
Part Number	Hose I.D. (in.)	Thread
BL-06-06TMS	5/16	5/8 – 18
BL-08-08TMS	13/32	3/4 – 18
BL-10-10TMS	1/2	7/8 – 18
BL-12-12TMS	5/8	1-1/16 – 16

Straight Female O-Ring Swivel



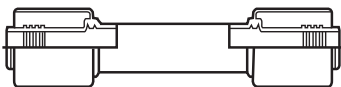
Part Number	Hose I.D. (in.)	Thread
BL06-06TFS	5/16	5/8 – 18
BL08-08TFS	13/32	3/4 – 18
BL10-10TFS	1/2	7/8 – 18
BL12-12TFS	5/8	1-1/16 – 16

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



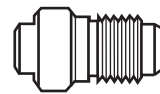
Part Number
ACP349

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

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

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 Tractor	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

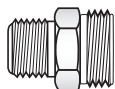
Recommended for: Use with SAE J1402 air brake hose in making hose assemblies.

Working pressure: Up to 225 psi.

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

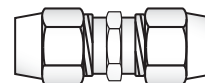
Temperature range: 50° F to 212° F

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



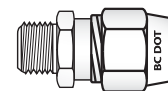
Part Number	Hose Size	Pipe Size
770038	3/8	3/4-20
770012	1/2	3/4-20

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

Type of swivel(s) used Hose Size Expressed in 16ths Type of ends 2=fixed 3=swivel Type of ends 2=fixed 3=swivel Overall length expressed in inches

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

CAT Flange D-Rings

1P3702-12	D-Rings
1P3703-16	D-Rings
1P3704-20	D-Rings
1P3705-24	D-Rings
1P3709-32	D-Rings

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



C62-16 KIT



CAT-12 H



CAT Flange D-Rings



Additional
Products

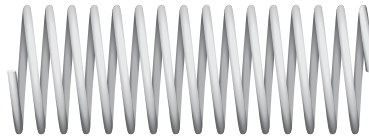
Nylon Sleeving

Part Number	Flat Measurement	Nominal Inside ID
NGB-0106	1-3/16	0.756
NGB-0121	1-21/32	1.054
NGB-0128	1-7/8	1.194
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



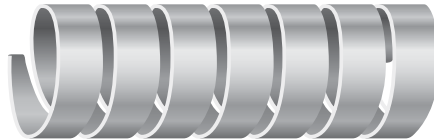
Springs for Jack Hose

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



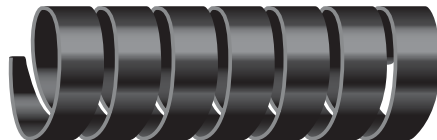
Steel Armor Guard

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-.72	(0.725 ID)
SG-.84	(0.84 ID)
SG-.97	(0.97 ID)
SG-1.06	(1.06 ID)
SG-1.66	(1.66 ID)
SG-2.09	(2.09 ID)



Warning Tags

Part Number
HJK-TAG





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

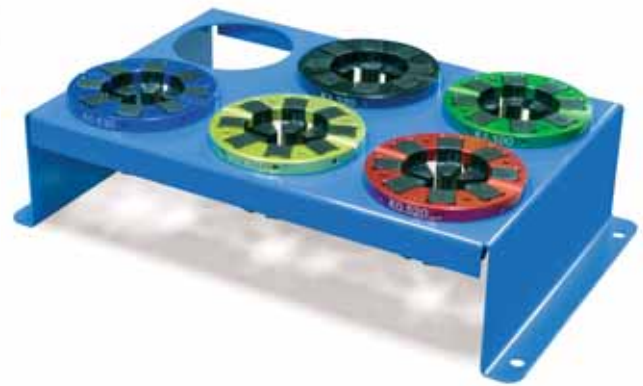


2000 Swage Machine

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 Kit

- 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
- Included dies holder
- Quick crimp cycle time
- Comes with 5 dies standard
 - KHC-0520
 - KHC-0670
 - KHC-0830
 - KHC-1100
 - KHC-1320
- Well accepted Dayco die configuration
- Interchangeable with Dayco dies
- Built for longevity

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data



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 Kit

- 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
- Included dies holder
- Quick crimp cycle time
- Well accepted Dayco die configuration
- Interchangeable with Dayco dies
- Built for longevity
- Comes with 7 dies
 - KHC-0520
 - KHC-0670
 - KHC-0830
 - KHC-1100
 - KHC-1320
 - KHC-1500
 - KHC-1920L

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

6W
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data



KH4-50 Crimper Kit

- 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
- Included dies holder
- Quick crimp cycle time
- Built for longevity
- Comes with 10 dies
 - KHC-0350-55
 - KHC-0520-55
 - KHC-0670-55
 - KHC-0830-70
 - KHC-1100-70
 - KHC-1220-2750
 - KHC-1320-76.2
 - KHC-1500-90
 - KHC-1730-90
 - KHC-1920-90



Scope

This information is for the procurer, designer, and end user of hose and hose assemblies for hydraulic fluid-power systems. It is intended as a supplement to existing industry specifications, standards and government regulations. These practices emphasize safety and proper practices to maximize the life of your hydraulic hose connectors and hose assemblies.

Hydraulics allow the transfer of energy through an incompressible fluid (liquid), this gives a very high power density. Hydraulic hose assembly is a conduit to transfer energy from port-to-port or point A to point B within a hydraulic circuit. Hydraulic hose assembly consists of a flexible hose with connectors (Couplings, Fittings and/or Stems & Ferrules) at each end.

These are generally acceptable practices on the selection, routing, fabrication, installation, replacement, maintenance, and storage of hose and hose assemblies. Always refer to and follow the supplier's instructions and warnings.

This document is subject to revision and users should obtain the latest version from www.kurthydraulics.com.

Safety and Environment

The key to safety is having an effective training and proper instructions in place. Industrial certifications are highly recommended for all individuals working with pressurized fluids. Never work on energized equipment and always use proper lock-out tag-out procedures on equipment when servicing. Know how to operate the emergency stop before retest. Have a first aid and CPR trained person(s) is a good idea on the job site. Know the local numbers for first responders and emergency services.

Use lifting devices for heavy or awkward objects.

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. Such means include: careful routing, adjacent components, warnings, guards, shields, and training programs.

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.

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 a hose for leaks.

Make sure to clean up and dispose of hydraulic fluids properly in accordance with local, state, and federal regulations. A copy of the Safety Data Sheet for the fluid should be made available in the vicinity of the equipment.

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 particularly true in compressible-fluid systems. When this risk exists, consider guards and restraints to protect against injury.

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. Most fluid-power media (hydraulic fluid), including fire-resistant hydraulic fluids, will burn under certain conditions. Fluids that escape from pressurized systems may form a mist or fine spray, which can flash or explode upon contact with an ignition source.

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.

Electrocution could occur if hose conducts electricity through a person.

Hoses should always be used in well-ventilated areas. Certain media will permeate through hoses that can displace breathable air in confined spaces. Consult the equipment manufacturer or Kurt Hydraulics for proper hose and coupling selection. The covers of hose assemblies that are to be used to convey air and other gaseous materials must be pin perforated.

CAUTION: Exercise care not to perforate beyond the cover. These perforations allow gas that has permeated through the inner tube of the hose to escape into the atmosphere. This prevents gases from accumulating and blistering the hose.

Mechanisms controlled by fluids in hoses can become hazardous when a hose fails. For example, when a hose bursts, objects supported by fluid pressure may fall, or vehicles 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.

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

During fabrication, use proper safety equipment, including eye protection, respiratory protection, and adequate ventilation. Use personnel protective devices: Face shields or safety goggles, ear plugs or covers, safety shoes and clothing that is suitable for the environment. Wear gloves when handling hot materials, or to protect hands against hot surfaces.

Components

Hydraulic hoses are constructed of three main components, tube, reinforcement, and cover. The inner most part of the hydraulic hose is the tube, wrapped up by reinforcement, which is usually surrounded with a cover.

Tube

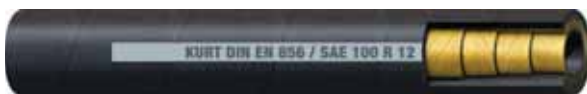
The tube is the inner most lining of a hydraulic hose and comes into contact with the fluid. The compatibility between the medium and tube is most critical.

The inner tube contains the fluid and also protects the outer elements of the hose from the possible aggression of the conveyed fluid. Additional caution must be exercised in hose selection for gaseous applications where permeation may occur. Permeation or effusion is seepage through the hose pores resulting in loss of fluid. This may occur when hose is used with fluids such as but not limited to; liquid and gas fuels, refrigerants, helium, fuel oil & natural gas. The material of the tube is chosen among a great number of synthetic rubbers. The chemical composition of the compounds should be selected to meet the requirements of the application.

Reinforcement

The tube itself cannot withstand the pressure of the conveyed fluid. The inner tube must be supported by the reinforcement to keep from stretching beyond its yielding point. The reinforcement material is the main component of the hose that resists internal or external pressures. The three basic types of reinforcement are Spiral, Braid and Helical.

Spiral Reinforcement



Spiral reinforcement is typically steel wire and has four or six overlapping layers of reinforcement. Spiral wire hose can handle more severe applications with longer service impulse cycle life at extremely high pressures.

Braid Reinforcement



Braid reinforcement can be steel wire or textile, and can have single or multiple layers. Braided hose can handle low to high pressure impulse applications

Helical Coil Monofilament Reinforcement



Helical coil monofilament reinforcement keeps the hose from collapsing in on itself when used in suction line applications. Helical hose can be rated to a full vacuum rating of 30 in Hg.

The pressure resistance of the hose must be higher than the working pressure. The safety factor is defined as the ratio between the burst pressure and the max working pressure; for the hydraulic applications the safety factor is set to 4:1 by SAE and ISO standards, some special static applications might have safety factors as low as 2:1. For low pressure applications (up to 100 bar for example), textile reinforcements may be used. So nylon, rayon, aramid or polyester fabrics are woven, braided or wrapped around the tube. When the pressure gets higher stronger materials are needed and steel wire spirals or braids are used.

Wire braided hoses bear generally one or two layers of reinforcement while spiral ones have commonly four or six spirals (layers). Between each layer of braids or spirals an interlayer or friction layer is installed to create a bonding effect and to prevent frictional wear between the wires.

Each cycle in a hydraulic system damages the reinforcement to some degree and over time all hoses fatigue. In general, spiral hose constructions are better suited to high impulse heavy duty applications, which involve flexing and large pressure spikes. However, there are specialized braided hoses available like KURT TUFF that can achieve significant impulse cycle life in a flexing application with a tight bend radius. Helical coil monofilament reinforcement hose is found primarily in suction line applications and low pressure return line applications.

Cover

Environment, machines and operators themselves can damage the reinforcement. The function of the cover is to protect everything it surrounds from these elements. There are several types of cover, each designed depending on specific requirements: economy, safety, abrasion resistance, chemical resistance, etc.; even

aesthetics are features linked to the choice of the cover (e.g. color). Rubber cover can have wrapped finish instead of the smooth finish.

Braided covers are also used that are fabric and often impregnated with rubber adhesive. This is the best solution when minimum weight and heat dissipation are required. This solution is usually used on low or medium pressure hoses due to its relative weakness (e.g. R5 hose type). Coverless type is usually only used for stainless steel braided hoses, mostly PTFE hoses (e.g. R14 hose type).

Hose Identification (lay line) – With the exception of coverless type hoses, the entire length of hose shall be legibly marked with one or more stripes parallel to the longitudinal axis. Marking shall include, but not be limited to, the SAE hose specification number, including type designation where applicable, the hose dash size number, the fractional (inch) nominal hose inside diameter, and the date of manufacture, all repeated with the first letter of each repeat not more than 760 mm (30 inches) from the first letter of that preceding.

Electrical non-conductive 100R7, 100R8 and 100R18 thermoplastic hoses shall have an orange-colored cover. Also, in addition to the information required previously, the word non-conductive or electrically nonconductive shall appear in each marking repeat.

To determine a hose replacement size, read the lay line printed on the side of the original hose. If it is painted over or worn off, the original hose must be cut and the inside diameter measured. The hydraulic industry has adopted a measuring system using Dash Numbers to indicate hose and fitting size. The number that precedes the hose or fitting description is the dash size in increments of 1/16 inch, -5 = 5/16 inch, -8 = 1/2 inch (8/16) and so forth. The dash size denotes the hose I.D. with the exceptions of the SAE 100R5, 100R14, and refrigerant hoses where dash size denotes hose I.D. equal to equivalent tube I.D. of the hose.

Hose Fitting

A hose end coupling is the connector attached at the end of the hose that connects with a port, adapter, another coupling, or attachment, such as a quick disconnect. Therefore, the coupling has two functional ends. These are the hose end, or “stem” which connects onto the hose; and the terminal end which connects the hose assembly to whatever it is that you are attaching the hose assembly to. Coupling selection refers to the choice of hose end coupling that attaches to the hose to form the hose assembly.

Field attachable fittings can be skive or no-skive, mandrel type and those that are stamped for DOT.

Choosing the proper stem and ferrule depends on the specific hose and terminal end to be used in the assembly. Check the manufacturer’s recommendations

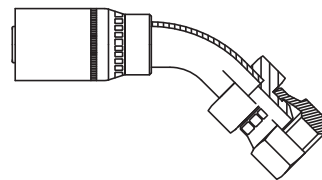
to ensure proper hose assembly components and crimp specifications.

NOTE: Care must be taken to determine proper compatibility between the hose and fitting. Hose from one manufacturer is not usually compatible with couplings from another. Do not intermix hose and fittings from two manufacturers without approval from both manufacturers.

It is imperative that the coupling selected is compatible and approved for use with the choice of hose.

There are two primary types of hose end couplings that are commonly used: permanent and field attachable (or reusable). There are different styles and method of attaching to the hose for each.

Permanent Fittings



Permanent fittings can be one-piece or two-piece. Permanent fittings require crimping or swaging equipment to assemble to a hose. They can require skiving or be no-skive both external and internal.

Field Attachable/Reusable



Field Attachable/Reusable can be two-piece or three-piece screw-on, one-piece clamped or “push-on” (no ferrule), and require a mandrel or without mandrel. Like permanent fittings they can require skiving or be non-skive.

The recommended tools for identifying the ends are thread pitch gauge capable of measuring inch and metric thread pitches and I.D./O.D. Caliper capable of measuring both inches and millimeters. Seat angle gauge capable of measuring different seating angles (i.e. 37° or 45° flare and 60° or 24° inverted flares).

It is important to know the three basic steps in identifying a coupling/end connection. Similarity of thread in measurement as well as appearance can result in a mismatch and possible serious consequences.

The three basic steps are measure the thread pitch, measure the thread diameter, and determine the seating angle if applicable.

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

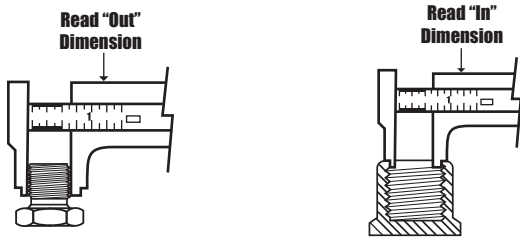
R7, PTFE, R5,
R4 Couplings

Additional
Products

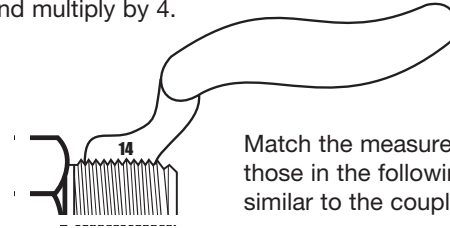
Technical
Data

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.)



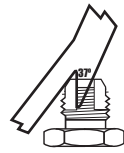
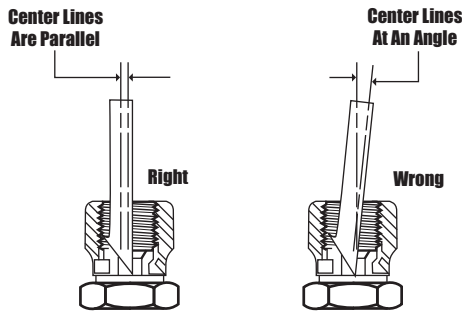
Using a thread gauge, determine the number of threads per inch. Next, compare the gauge and coupling threads against a lighted background to ensure accuracy. As an alternate method count the number of threads over a 1/4" distance on a machinist scale or ruler and multiply by 4.



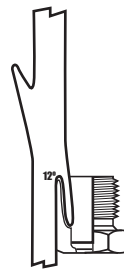
Match the measurements taken above against those in the following tables that appear to be similar to the coupling under review.

Measuring Seat Angles

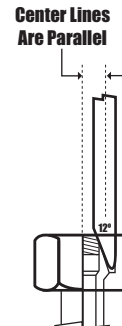
Using a seat gauge, determine the angle of the seat as shown. When the centerline of the seat gauge extends parallel with the projected longitudinal axis of the coupling, then the angles of the gauge and seat match.



DIN 37°



DIN 24°



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		
BSPF 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

NPTF/NPSM Pipe Thread (P)

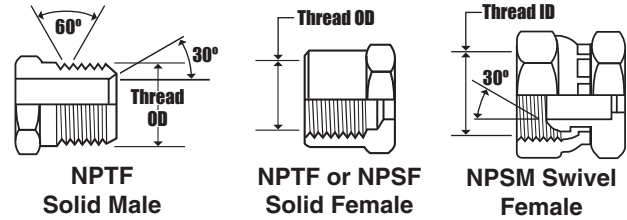
The NPTF male will mate with the NPTF, NPSF, or NPSM female.

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.

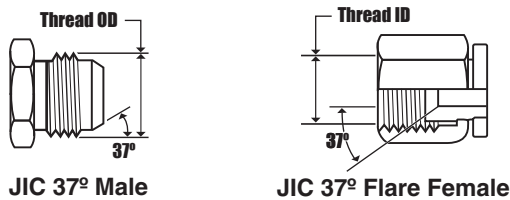


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	27	23/64	13/32
-4	1/4	18	15/32	35/64
-6	3/8	18	19/32	43/64
-8	1/2	14	3/4	27/32
-12	3/4	14	61/64	1-1/16
-16	1	11-1/2	1-13/64	1-5/16
-20	1-1/4	11-1/2	1-17/32	1-43/64
-24	1-1/2	11-1/2	1-25/32	1-29/32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



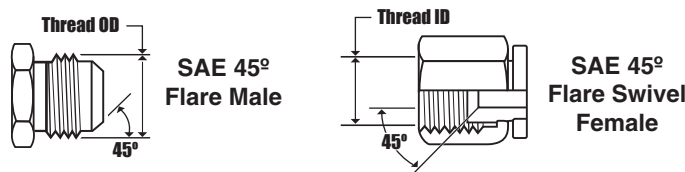
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	24	17/64	5/16
-3	3/16	24	21/64	3/8
-4	1/4	20	25/64	7/16
-5	5/16	20	29/64	1/2
-6	3/8	18	1/2	9/16
-8	1/2	16	11/16	3/4
-10	5/8	14	13/16	7/8
-12	3/4	12	31/32	1-1/16
-14	7/8	12	1-7/64	1-3/16
-16	1	12	1-15/64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

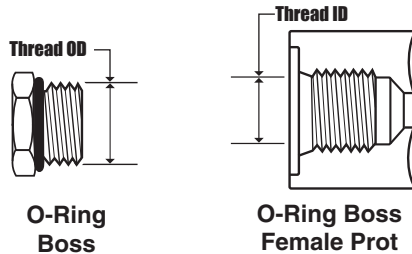
Special Power Steering Thread End

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.

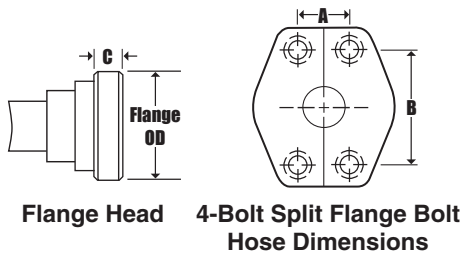


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread	Male Thread	O-Ring
			I.D. (In.)	O.D. (In.)	I.D. (In.)
-2	1/8	24	17/64	5/16	0.239
-3	3/16	24	21/64	3/8	0.301
-4	1/4	20	25/64	7/16	0.351
-5	5/16	20	29/64	1/2	0.414
-6	3/8	18	1/2	9/16	0.468
-8	1/2	16	11/16	3/4	0.644
-10	5/8	14	13/16	7/8	0.755
-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).

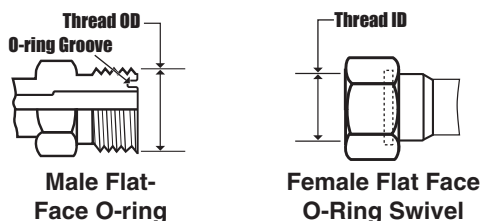


Dash Size	Nominal Flange Size (In.)	Code 61 (FL)				Code 62 (FLH)				Caterpillar Code 62 (FLC)			
		Flange O.D. (In.)	A (In.)	B (In.)	C (In.)	Flange O.D. (In.)	A (In.)	B (In.)	C (In.)	Flange O.D. (In.)	A (In.)	B (In.)	C (In.)
-8	1/2	1.188	0.688	1.500	0.265	1.250	0.718	1.594	0.305				
-10	5/8	1.345		0.265									
-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.

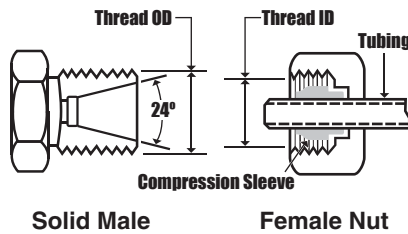


Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-4	1/4	18	1/2	9/16
-6	3/8	16	5/8	11/16
-8	1/2	16	3/4	13/16
-10	5/8	14	15/16	1
-12	3/4	12	1-1/8	1-3/16
-16	1	12	1-11/32	1-7/16
-20	1-1/4	12	1-19/32	1-11/16
-24	1-1/2	12	1-29/32	2

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.

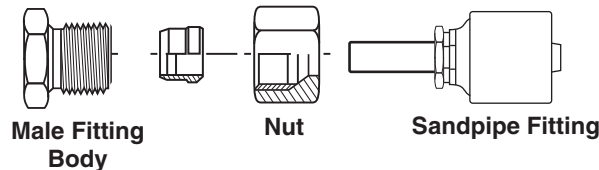
The male has straight threads and a 24° seat. For a sealing surface the female has straight threads and has a compression sleeve. The seal is made between the compression sleeve and the 24° seat on the male, and between the compression sleeve and tubing on the female.



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.

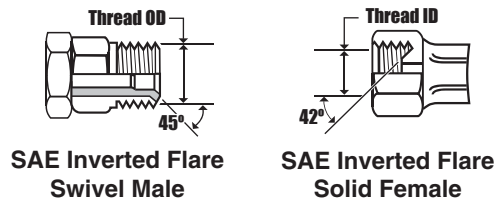


Dash Size	Tube Size (In.)	Tube Length (In.)
-4	0.25	0.88
-6	0.38	0.88
-8	0.50	1.00
-12	0.75	1.16
-16	1.00	1.12

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.



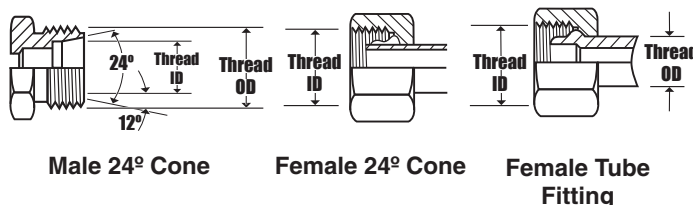
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Thread I.D. (In.)	Male Thread O.D. (In.)
-2	1/8	28	9/32	5/16
-3	3/16	24	21/64	3/8
-4	1/4	24	25/64	7/16
-5	5/16	20	29/64	1/2
-6	3/8	18	37/64	5/8
-7	7/16	18	5/8	11/16
-8	1/2	18	45/64	3/4
-10	5/8	18	13/16	7/8
-12	3/4	16	1	1-1/16

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

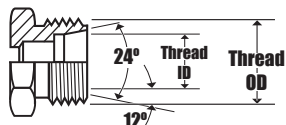
DIN 24° Cone (DINL & DINH or DL & DH)

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

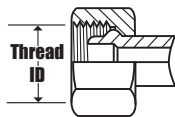
The male has a 24° seat, straight metric threads, and a recessed counterbore that matches the tube O.D. of the coupling used with it. The mating female is a 24° cone with a-ring, a metric tube fitting or a universal 24° and 60° cone.

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.)

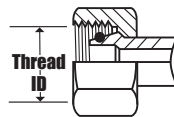
To measure the flare angle with a seat angle gauge, utilize the 12° gauge. (The seat angle gauge measures the angle from the connector centerline.)



**Male 24° Cone,
DIN 2353**



**Female Universal
24° and 60° Cone**



**Female 24° Cone
With O-Ring**

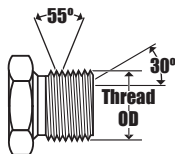
Metric Thread Size	Female Thread I.D. (mm)	Male Thread O.D. (mm)	Tube O.D. (mm)	
			Light Series	Heavy Series
M12 x 1.5	10.5	12.0	6	-
M14 x 1.5	12.5	14.0	8	-
M16 x 1.5	14.5	16.0	10	8
M18 x 1.5	16.5	18.0	12	10
M20 x 1.5	18.5	20.0	14	12
M22 x 1.5	20.5	22.0	15	14
M24 x 1.5	22.5	24.0	-	16
M26 x 1.5	24.5	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)

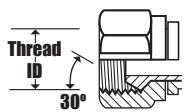
The BSP male will mate with a BSP female or a female port.

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.

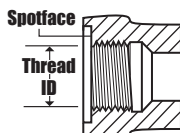
The BSP connector is similar to, but not interchangeable with, the NPSM connector. The thread pitch differs in most sizes, and the thread angle is 55° instead of the 60° angle found on NPSM threads.



BSPP Male



BSPOR Female



**BSPOR Female
Port**

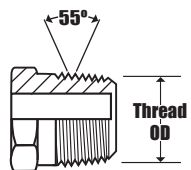
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Parallel Thread I.D. (In.)	Male Parallel Thread O.D. (In.)
-2	1/8	28	11/32	3/8
-4	1/4	19	15/32	17/32
-6	3/8	19	19/32	21/32
-8	1/2	14	3/4	13/16
-10	5/8	14	13/16	29/32
-12	3/4	14	31/32	1-1/32
-16	1	11	1-7/32	1-11/32
-20	1-1/4	11	1-17/32	1-21/32
-24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

British Standard Pipe Tapered (BSPT)

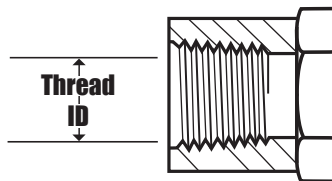
The BSPT male will mate with a BSPT female, or a BSP female.

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.



BSPT Male



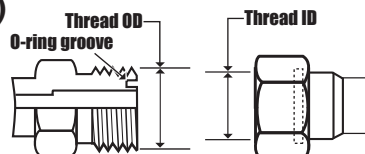
BSPT Female

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.



**Male British
Flat-Face**

**Female British
Flat-Face**

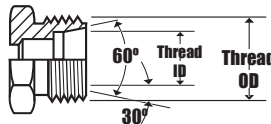
Dash Size	Nominal Size (In.)	No. Threads Per Inch	Female Parallel Thread I.D. (In.)	Male Parallel Thread O.D. (In.)
-6	3/8	19	19/32	21/32
-8	1/2	14	3/4	13/16
-12	3/4	14	31/32	1-1/32

DIN 60° Cone

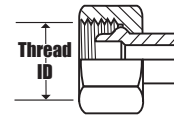
The DIN 60° cone male will only mate with the female universal 24° and 60° cone connector.

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

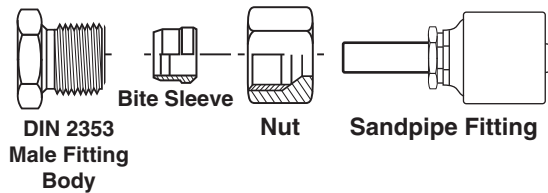


Female
Universal 24° and
60° Cone

Metric Thread Size	Female Thread I.D. (mm)	Male 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.

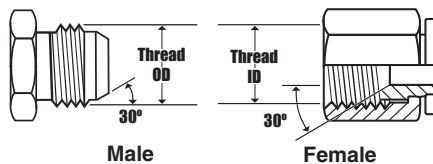


Metric Standpipe DIN Tube O.D. (mm)	Bite Sleeve DIN Tube O.D. (mm)	Metric Nut Thread	
		Light	Heavy
6	6	M12 x 1.5	-
8	8	M14 x 1.5	M16 x 1.5
10	10	M16 x 1.5	M18 x 1.5
12	12	M18 x 1.5	M20 x 1.5
15	15	M22 x 1.5	-
16	16	-	M24 x 1.5
18	18	M26 x 1.5	-
20	20	-	M30 x 2.0
22	22	M30 x 2.0	-
25	25	-	M36 x 2.0
28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

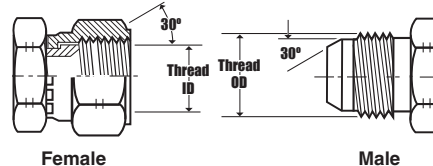


The threads on the Japanese 30° flare connector adhere to JIS B 0202, that are the same as the BSPP threads. The British and Japanese connectors have a 30° seat, but the British seat is inverted which makes them **not interchangeable**.

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.

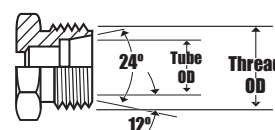


The Komatsu-style connector seals on the 30° flare.

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

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 are 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.

Application Considerations

The variety of fitting configurations is quite large and in most cases fittings are selected based on the matching port or adapter connection and the routing requirements. Connection examples include Joint Industrial Council (JIC) 37°, Society of Automotive Engineers (SAE) 45° flare, or British Standard Pipe Taper (BSPT).

It is important to keep in mind that the hose assembly is only one component of the system. In choosing the correct end connections for the couplings attached to the hose, formal standards and sound engineering judgment should be used. In the absence of formal standards, consider the following factors in choosing the proper end connections:

- Pressure
- Temperature
- Impulse frequency, amplitude and wave form
- Vibration
- Corrosion
- Dissimilar metals (galvanic corrosion)
- Maintenance procedures and frequency
- Installation reliability
- Connection's risk in the system
- Exposure to the elements
- Operator's and/or bystander's exposure to the connection
- Installation, operation and service activities and practices that affect safety

When designing and acquisitioning hose assemblies for specific applications be aware of the agencies and regulatory bodies pertinent to the application. Below are a few of the most common encountered in the U.S. There are far more worldwide.

SAE: The Society of Automotive Engineers establishes the American standard for most hydraulic hose. SAE guidelines provide general properties of size, tolerances and minimum performance characteristics of each major hose type.

MSHA: Mine Safety and Health Administration specifies flame resistant properties required of hose used in underground mining applications. It's also the recognized standard for flame resistance for many industries.

DOT/FMVSS: The Department of Transportation Federal Motor Vehicle Safety Standards describe the requirements for hydraulic, air and vacuum brake hose, hose assemblies and fittings for use on passenger vehicles, trucks, buses, trailers, and motorcycles.

USCG: The United States Coast Guard requirements are met through two SAE specifications for hose and fittings that are used on marine vessels. They are SAE J1475 and J1942. Also J1942/1 lists manufacturer's hose that is accepted (but not approved) by the USCG.

DOD and MIL: The United States Department of Defense has many specifications that identify dimensional and performance requirements for various hose types. Some specifications require a manufacturer to be listed as an approved source. Many specifications require a low temperature rating to - 65° F.

Other industry agencies that have specific requirements:

- ABS – American Bureau of Shipping
- ANSI – American National Standards Institute
- DIN – Deutsches Institut für Normung (Germany)
- IJS – Industrial Jack Specifications
- ISO – International Organization for Standardization
- Lloyds of London
- DNV – Det Norske Veritas (for North Sea Floating Vessels)

With the advent of new materials and new technologies there are many newly developed hoses that do not have an SAE reference number. In many cases these hoses surpass current SAE standards. For example, if a smaller bend radius is required with the same or higher pressure rating please contact a Kurt Hydraulics representative.

Size

Hose O.D. can be a critical factor when hose routing clamps are used or hoses are routed through bulkheads. Check individual hose specification tables for the O.D.

All SAE and ISO charts are metric. Some have the previous SAE designations included. Make note that the SAE dash (-8 example) size is still in use. Do not confuse with metric size numbers that do not use the dash.

Size of I.D. and volumetric flow rate from the power unit correlates to fluid velocity. Use of pressure tables or a nomograph can assist in preventing erosion of the inner tube and choking fluid flow.

Pressure

The maximum allowable working pressure (MAWP) of a hose assembly comprising SAE J517 hose and hose connectors per SAE J516, J518, J1453, etc., shall not exceed the lower of the respective SAE maximum working pressure values. When using SAE J517 hose for marine applications, see SAE J1475, J1942 and J1942-1.

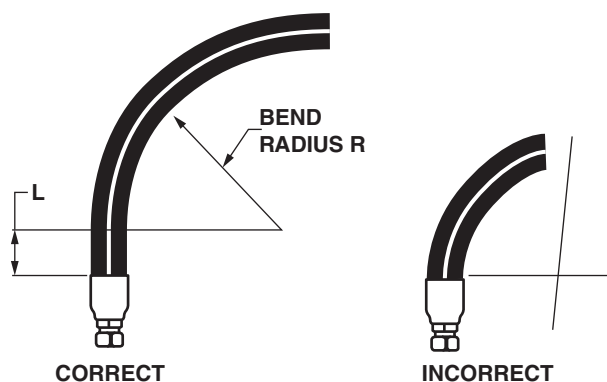
With the global economy emerging in North America there are a new groups of spiral hoses showing up. EN DIN 856 and ISO standards cover many of these hoses not covered under the SAE standards.

Select a hose assembly so the maximum pressure during service is less than the maximum allowable pressure. Exceeding this pressure can reduce the overall service life of the assembly.

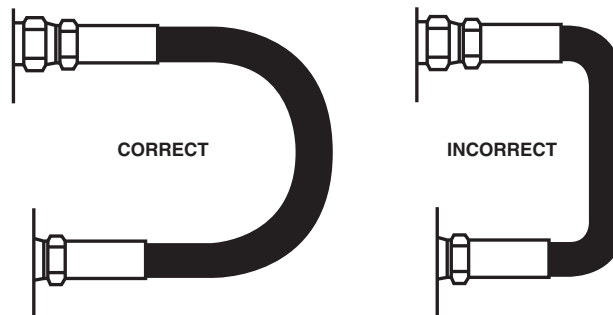
Compare a cumulative damage analysis with the variable amplitude pressure history for the system to determine if the fatigue life will meet the design life of the product when selecting an assembly based on pressure, impulse frequency, and number of cycles.

Minimum Bend Radius

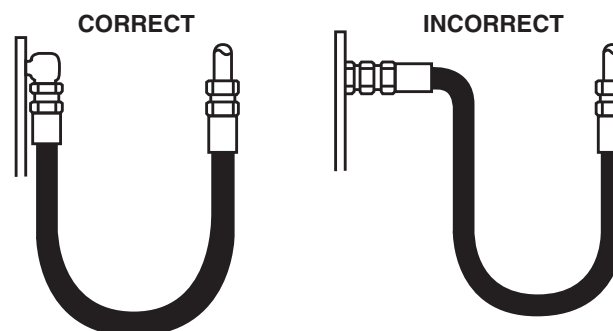
Every hose carries a minimum bend specification that if exceeded reduces the service life of the assembly. This bend is measured from the inside of the hose bend. The hydraulic system space, locations of ports, and routing plans should be drafted to figure out the smallest turns to be made.



The minimum bend radius of a hose is defined in relevant hose standards and hose manufacturer's product literature. Routing during assembly and use 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. A minimum straight length of 1.5 times the hose's outside diameter shall be allowed between the hose fitting and the point at which the bend starts.



In special cases, use elbows or adapters to relieve hose strain.



Fluid Compatibility

Our hydraulic hoses are generally suitable for mineral and synthetic oil-based hydraulic fluids (HL, HLP, HLPD, HVLP), for oil-water emulsions (HFAE, HFAS, HFB), and for water-glycol solutions (HFC), as well as for vegetable and mineral oil-based lubricants. In individual cases, there may be use restrictions due to manufacturer-specific oil additives.

Not suitable for hydraulic fluids based on chlorinated hydrocarbons or phosphate esters (HFD-R/S/T). Suitable for compressed air up to a maximum of 50 bar/ 80°C, with a restricted service lifetime. In principle, they are suitable for biodegradable hydraulic fluids (bio-oils, HETG, HEPG, HEES), but this may be restricted by manufacturer-specific oil additives.

Caution: The hose's inner surface (inner liner) must be appropriate for the medium used in the application (oil, water, air), as otherwise the hose can be damaged or destroyed by the working medium or its contents and eventually fail, which can result in (partial or serious) material damage and personal injury.

Note: Some swivel fittings have O-rings and these should also be considered when determining fluid compatibility.

Hose

Braided Hose
Couplings

K2 Style
Couplings

W Style
Couplings

WHP
Couplings

JJ
Couplings

GW
Couplings

R7, PTFE, R5,
R4 Couplings

Additional
Products

Technical
Data

Hose selection must assure compatibility of the tube, cover, fittings and O-rings with the fluid being used.

The cover protects the reinforcement and tube from environmental conditions and abuse such as:

- Weather
- Ozone
- Abrasion
- Temperature
- Chemicals

Refer to the hose manufacturer's chemical resistance charts to help identify cover material.

Conductivity

One area of compatibility that requires special attention concerns electrostatic discharge. Under certain applications the potential for static discharge must be considered. Most hoses are conductive.

Many contain metal or have metal fittings. Even non-conductive hoses can be conduits for electricity if they carry conductive fluids. Non-conductive hose, SAE J517 100R7, 100R8 and 100R18 hoses, with orange covers marked "non-conductive" are available for this service.

When a liquid contacts a tube that isn't a good conductor (example a white PTFE tube), the result is a phase separation and the electric charge starts to build. The rate at which static electricity builds up now becomes a function of the flow rate. When the dielectric strength of the PTFE tube is exceeded, the electric charge will puncture the tube wall and ground itself on the stainless steel braid of the hose.

Manufacturers can offset the potential for electrostatic discharge by using a conductive PTFE hose. Carbon is added to the PTFE tube wall during manufacture. The carbon layer directs the charge down the inner diameter of the hose to the metal end fittings. This prevents the charge from building up on the inner wall.

Note: There are many fluids that can generate static electricity. Finding the chart with the specific fluid to be conveyed is very important. In many cases the best solution is to contact the manufacturer of the fluid for information.

Non-conductive hose requirement:

Non-conductive hose (SAE 100R7, 100R8 and 100R18) has been designed with an orange non-perforated cover to prevent moisture from entering the hose and affecting the overall conductivity. Applications for the hose include areas where there is a need for electrical isolation of instrumentation,

equipment, or the operator. Hydraulic tools and mobile equipment are two of the major uses for the 100R7 hose.

Gaseous Applications

Additional caution must be exercised in hose selection for gaseous applications where permeation may occur. Permeation, or effusion, is seepage through the hose pores resulting in loss of fluid. This may occur when hose is used with fluids such as (but not limited to):

- Liquid and gas fuels
- Refrigerants
- Helium
- Fuel oil
- Natural gas

The covers of hose assemblies that are to be used to convey air and other gaseous materials must be pin perforated.

CAUTION: Exercise care not to perforate beyond the cover. These perforations allow gas that has permeated through the inner tube of the hose to escape into the atmosphere. This prevents gases from accumulating and blistering the hose.

Portable Tools

Extreme care is necessary when connecting hand-held or portable powered tools to a power source with a hose assembly.

Always use a strain reliever at both ends of the hose assembly to prevent excessive bending, kinking and stress at the coupling to hose interface.

- Never use the hose assembly as a means to carry, pull, lift or transport the tool or power unit.
- Exposed hose near the operator should be covered with a fluid deflection apparatus such as fabric sleeving, for protection against injection injuries should a hose rupture occur.
- Operators should be protected with the proper safety equipment such as face masks, leather gloves and safety clothing as dictated by the job, fluid and tools being used.
- If the connecting hose assembly could be subjected to external forces that may inflict damage, an appropriate guard should be used.

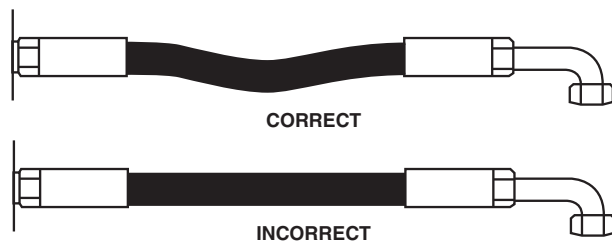
Assembly Fabrication

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.

Prior to assembly, examine components for:

- Style or type
- Cleanliness
- Loose covers
- Nicks, dents, scores
- Size
- Inside obstructions
- Visible defects
- Damage
- Length
- Blisters
- Burrs or sharp edges
- Corrosion

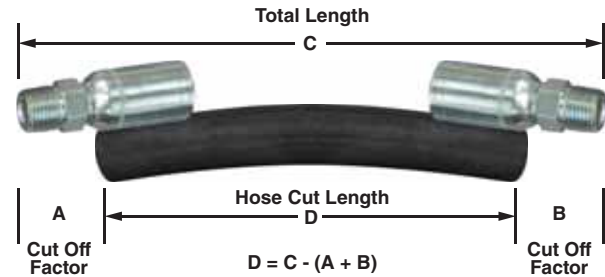
Once installed as a part of a hose assembly and under pressure, hose can elongate up to 2% or contract as much as 4%. Thus hose assembly length, determined by hose cutoff length, is important to compensate for hose flex during operation. Adding 5% extra to the required length is the standard thumb rule to leave slack and account for the max change in length taken up during pressurization.



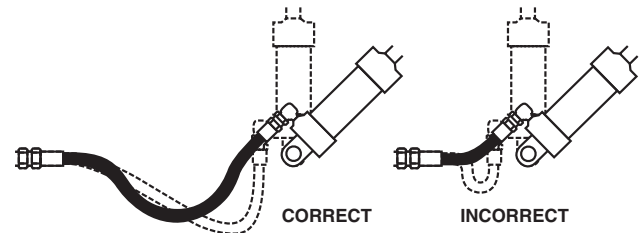
Unnecessarily long hose can increase pressure drop and affect system performance. When pressurized, hose that is too short may pull loose from its fittings, or stress the hose fitting connections, causing premature metallic or seal failures.

Kurt Hydraulics recommends that all KH60 crimper users familiarize themselves with all warning statements, SAE J1273 standards, and the Operator's Manual. Select the hose and coupling assembly. Reference the latest Kurt Hydraulics crimp specification. The latest version can be found online. Determine hose cut length by subtracting the cut-off factor for each coupling from the overall length of the assembly. For these cut-off factors, reference the Kurt Hydraulics Catalog or online.

$$\text{Hose Cut Length} = \text{Total Length} - (\text{Cut Off Factor A} + \text{Cutoff Factor B})$$



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



For double elbow assemblies, it is imperative that the method of description and measurement provide the desired displacement rather than its mirror image. To achieve this, either end may be selected as the reference point, provided angle displacement is determined appropriately (clockwise or counterclockwise) for the reference selected.

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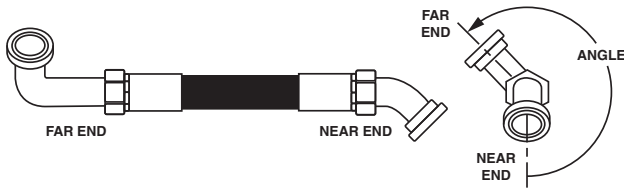
GW
Couplings

R7, PTFE, R5,
R4 Couplings

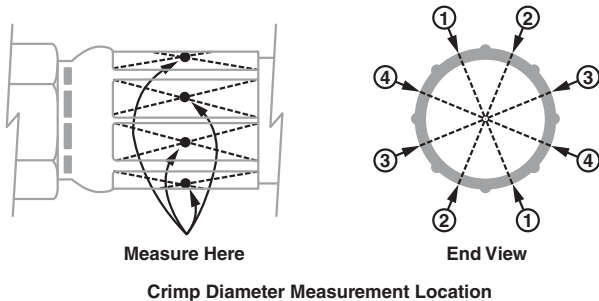
Additional
Products

Technical
Data

As shown below, with the centerline of the near end as a base reference, angular displacement is measured counterclockwise to the centerline of the far end.



Using dial calipers or a micrometer, measure the crimp diameter on the mid-point of the flat surface and of the crimped coupling where die faces have met the coupling. Take four (4) measurements around the coupling and average the measurements. Refer to the Kurt Hydraulics crimp specification to confirm crimp diameter is in tolerance.



Measure Here

Crimp Diameter Measurement Location

Reuse of hose and fittings damaged hoses or hose fittings shall not be used.

When fabricating hose assemblies, do not reuse field-attachable fittings that have blown or pulled off hose. Any part of hose fittings that were permanently crimped or swaged to hose. Hoses that have been in service after system checkout.

Hose assemblies may be contaminated during fabrication. Clean hoses with brush or other cleaning equipment to a “white glove clean” inner tube. Depending on the type of saw it might be beneficial to grind the flare of the hose reinforcement to ease insertion.

The fabrication of hose assemblies should be performed at an ambient temperature over 0 °C to avoid damaging the rubber components of the hose.

After assembly, hose assemblies shall be inspected for visible defects and interior obstructions, such as tube bulges, cracks, etc.

Hose assemblies shall be marked in accordance with any relevant standards.

Installation and Replacement

Use the following practices when installing hose assemblies in new systems or replacing hose assemblies in existing systems: The manufacturer should make available additional instructions on mounting, storage and operating conditions.

Pre-Installation Inspection

Before installing hose assemblies, examine:

- Hose length and routing for compliance with original design
- Assemblies for correct style, size, length, and visible nonconformities
- 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.

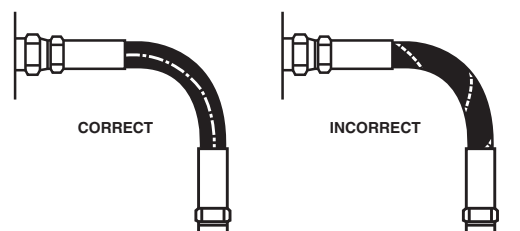
Handling During Installation

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. Before and during installation, hose assemblies should be at a temperature above 0°C.

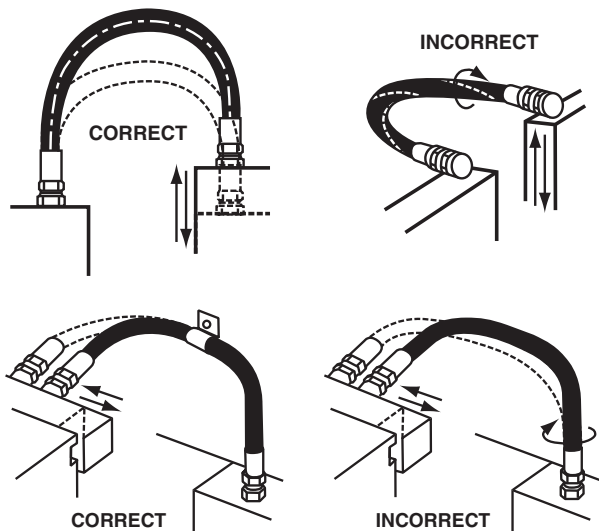
Replace seal rings every time assembling and inspect clamps or other accessories to insure they are not damaged or warped.

Twist Angle and Orientation

A twist as little as 5° can result in a 70% loss of service life, but a 7° twist will cause as much as a 90% loss of service life to a hose. Before start-up, doing a system piping inspection of the lay line is a visual aid in determining if there is hose twist. Pressure applied to a twisted hose may also loosen the connections. To avoid twisting, the hose lay line or marking can be used as a reference if the lay line or marking is parallel to the axis of the hose. Twisting can also be avoided through the use of two wrenches during the installation of swivel connectors.

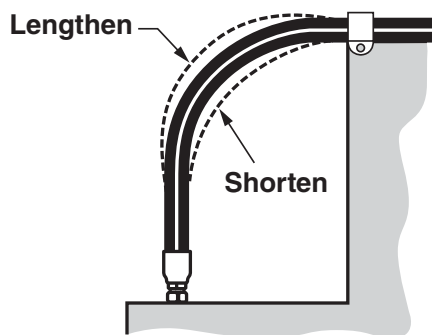


Swivel-type fittings or adaptors do not transfer torque to hose while being tightened. Use these as needed to prevent twisting during installation. If two components in the system are rotating in relation to each other, live swivels may be necessary. These connectors reduce the torque transmitted to the hose. Bend in only one plane to avoid twisting and prevent hose bending in more than one plane.



Securement and Protection

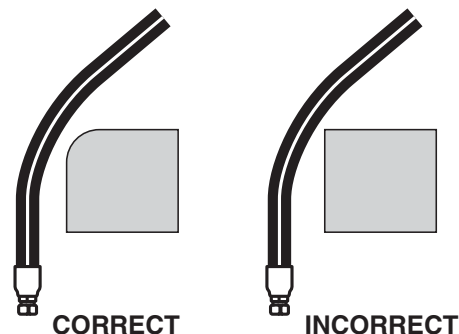
Install necessary restraints and protective devices. Determine that such devices do not create additional stress or wear points.



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

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. Care shall be taken to prevent the sling clamp from abrading the hose. Avoid overtightening of slings or clamps.

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.



Don't position hose next to heat sources. An increase of 18°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.

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.

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.

Route hose to avoid:

- Tensile loads
- Side loads
- Flattening
- Thread damage
- Kinking
- Damage to sealing surfaces
- Abrasion
- Twisting

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

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Products

Technical
Data

Assembly Torque

The connection end of a hose fitting 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, exterior coating and/or lubrication.

Follow appropriate torquing instructions to obtain a proper pressure seal without over-torquing. A properly calibrated torque wrench should be used to tighten each connection, except when the hose fitting manufacturer specifies tightening a specified number of hex flat turns beyond finger tight to obtain a seal. In swivel nut applications use a second wrench to restrain the stem from moving with the nut.

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.

To avoid injury during system checkouts:

- Do not touch any part of the system when checking for leaks.
- Stay out of potentially hazardous areas while testing hose systems.
- Relieve system pressure before tightening connections.

Maintenance and 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. Since there are such a variety of different applications for hydraulic systems it is difficult to estimate the life of a hose assembly without knowing how the system operates.

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.

Visual Inspection (Hose and Fittings)

The hose and fittings shall be visually inspected for:

- Leaks at the hose fittings or in the hose.
- Damaged, abraded, or corroded braid; or broken braid wires.
- Cracked, damaged, deformed or badly corroded fittings.
- Other signs of significant deterioration such as blisters.
- Compromised reinforcement where the wires are exposed and show signs such as unwrapped, broken or corroded.
- Damaged or missing hose clamps, guards, or shields.
- Dents, twists or kinks
- Abrasion or corrosion of the hose outer wire
- Damage or displacement of end fittings and/or deformity of end fittings.
- Fitting thread and seat condition
- Evidence of leakage from end fittings or elsewhere in the body of the hose.
- Condition and seating of gaskets, as applicable
- If applicable, verify test date and pressure are in conformity with statutory requirements for the application.

Visual Inspection (All Other Components)

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

- Leaking ports
- Damaged or missing hose clamps, guards, or shields
- Excessive dirt and debris around hose
- System fluid: level, type, contamination, condition, and air entrainment

If any of these are found, address them appropriately.

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

Troubleshooting can be done by referencing SAE J1273 or Hose Safety Institute, Handbook For the Design and Specification of Hose Assemblies.

Storage

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

- Shelf life of rubber hose in bulk form is forty quarters (ten years) from the date of manufacture according to both ISO 17165-2 and SAE J1273, if stored in accordance with ISO 2230.
- Shelf life of thermoplastic and polytetrafluoroethylene hose is considered to be unlimited.
- Hose assemblies that pass visual inspection and proof test shall not be stored for longer than 2 years.

Hose and hose assemblies shall be stored in accordance with the storage conditions defined in ISO 8331. 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 products in storage are:

- Temperature
- Ozone
- Oils, gasoline, kerosene or their vapors
- Corrosive liquids and fumes
- Rodents
- Humidity
- Ultraviolet light
- Solvents
- Insects
- Radioactive materials
- Direct sun or heat rays
- Acids, alkalis
- Sharp edges and abrasive surfaces
- Electric or strong magnetic fields
- Mold and fungi

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

- 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.
- If the hose is wire reinforced, and the hose is unusually stiff, or a cracking sound is heard during flexing, check for corrosion by cutting away a section of the cover from a sample. Corrosion would be another reason for rejection.
- If doubt still persists, contact hose assembler to conduct proof-pressure tests or any other tests needed to verify hose quality.

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Additional
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Technical
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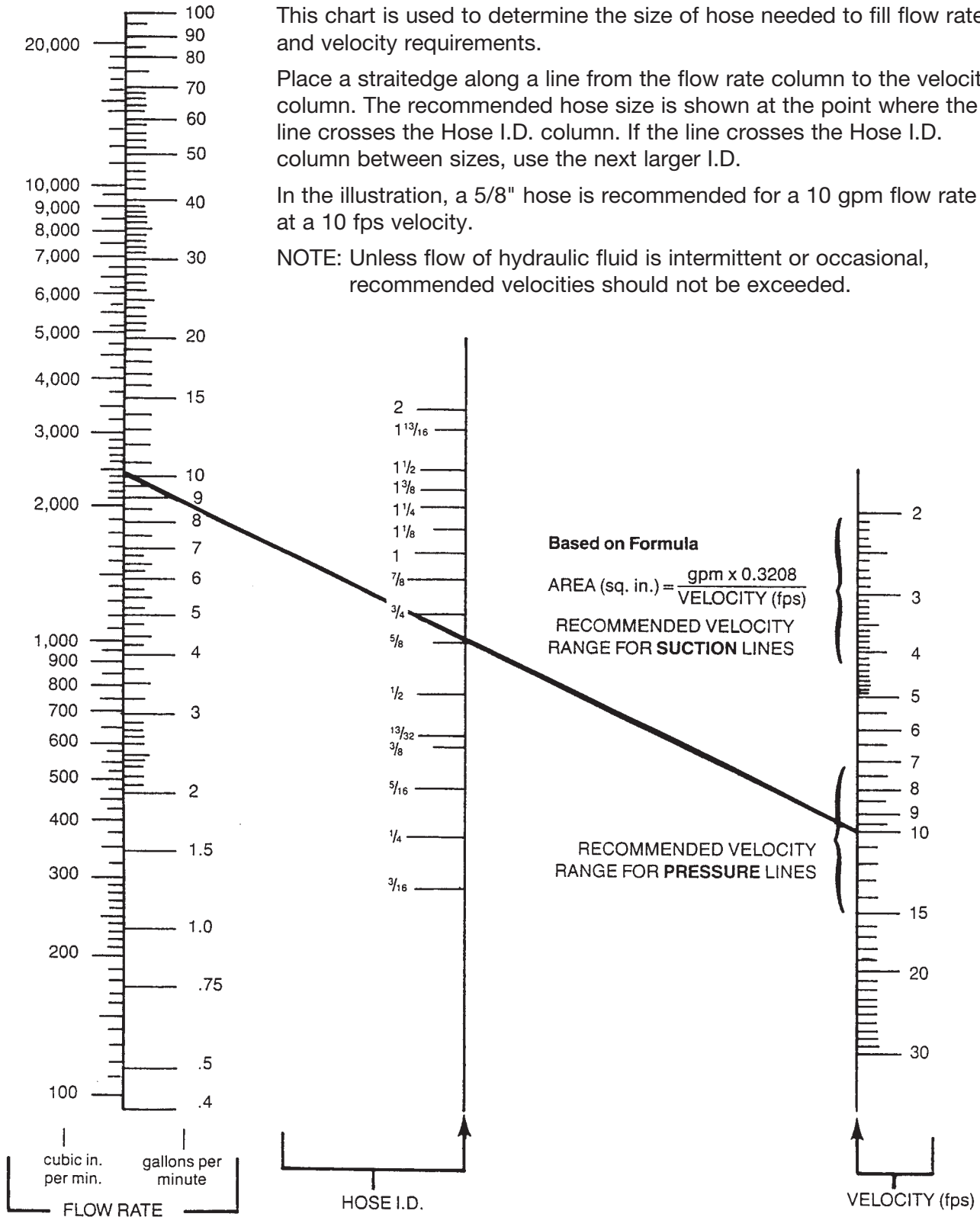
Selecting Hose I.D. - Flow and Velocity

This chart is used to determine the size of hose needed to fill flow rate and velocity requirements.

Place a straightedge along a line from the flow rate column to the velocity column. The recommended hose size is shown at the point where the line crosses the Hose I.D. column. If the line crosses the Hose I.D. column between sizes, use the next larger I.D.

In the illustration, a 5/8" hose is recommended for a 10 gpm flow rate at a 10 fps velocity.

NOTE: Unless flow of hydraulic fluid is intermittent or occasional, recommended velocities should not be exceeded.



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)	NPSM 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

K2 Style Couplings

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R7, PTFE, R5, R4 Couplings

Additional Products

Technical Data

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	6,000
-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 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.

Pressure Conversion Table

Mpa	bar	Relative psi	Actual psi
3.5	35	500	507.5
7	70	1,000	1,015
14	140	2,000	2,030
21	210	3,000	3,045
28	280	4,000	4,060
35	350	5,000	5,075
42	420	6,000	6,090
49	490	7,000	7,105
NOTE: 1 Mpa = 10 bar = 145 psi			

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.

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Products

Technical
Data

Part Number Index



12250	145	BL12-12TF45T	142	C6130-24-24-W	84	C6190-20-20-6W	121	C6267-24-24-6W	123	F-BSXP-04-02-W	92	F-BSXP9B-0404-K2	76
38250	145	BL12-12TF90T	142	BL12-12TF32-JJ	113	C6190-20-20-R4	140	C6267-24-24-JJ	115	F-BSXP-04-04	92	F-BSXP9B-0606-K2	76
770012	145	BL12-12TFS	143	C6130-32-32-6W	120	C6190-20-20-W	85	C6267-24-32-JJ	115	F-BSXP-04-04-K2	92	F-BSXP9B-0808-K2	76
770038	145	BLACK-PW04	31	C6130-32-32-JJ	113	C6190-20-24	39	C6267-32-32-6W	123	F-BSXP-04-04-W	98	F-BSXP9B-0808-K2	76
881238	145	BLACK-PW06	31	C6130-32-32-W	84	C6190-20-24-R4	140	C6267-32-32-JJ	115	F-BSXP-04-06	98	F-DH04-06-14-K2	66
883812	145	BLACK-PW206	31	C6145-08-08	39	C6190-20-24-W	85	C6290-12-12-W	87	F-BSXP-04-06-K2	98	F-DH04-06-14-W	66
883814	145	BLACK-PW208	31	C6145-08-08-K2	64	C6190-24-20-W	85	C6290-12-12-WHP	108	F-BSXP-04-06-W	98	F-DH04-06-16-K2	66
883838	145	BLUE-PW04	31	C6145-08-08-W	85	C6190-24-24-JJ	114	C6290-12-16-W	87	F-BSXP-06-04	98	F-DH04-08-16-W	66
1000 Swage Tool	150	BLUE-PW06	31	C6145-08-12	39	C6190-24-24-6W	121	C6290-12-16-WHP	108	F-BSXP-06-04-K2	98	F-DH04-10-18-K2	66
1P3702-12	146	BLUE-PW206	31	C6145-08-12-K2	64	C6190-24-24-R4	140	C6290-16-16-W	87	F-BSXP-06-04-W	98	F-DH04-10-18-W	66
1P3703-16	146	BOSS-0-02	146	C6145-08-12-W	85	C6190-24-24-W	85	C6290-16-16-WHP	108	F-BSXP-06-06	98	F-DH06-08-16-K2	66
1P3704-20	146	BOSS-0-03	146	C6145-12-12	39	C6190-24-32-JJ	114	C6290-16-20-W	87	F-BSXP-06-06-K2	98	F-DH06-08-16-W	66
1P3705-24	146	BOSS-0-04	146	C6145-12-12-R4	141	C6190-24-32-6W	121	C6290-16-20-WHP	108	F-BSXP-06-06-W	98	F-DH06-10-18-K2	66
1P3709-32	146	BOSS-0-05	146	C6145-12-12-W	85	C6190-24-32-R4	140	C6290-20-16-W	87	F-BSXP-06-08	98	F-DH06-10-18-W	66
2000 Swage Machine	150	BOSS-0-06	146	C6145-12-12-WHP	107	C6190-24-32-W	85	C6290-20-20-6W	122	F-BSXP-06-08-K2	98	F-DH06-12-20-K2	66
262366-24	145	BOSS-0-08	146	C6145-12-16	39	C6190-32-32-JJ	114	C6290-20-20-JJ	115	F-BSXP-06-08-W	98	F-DH06-12-20-W	66
262366-30	145	BOSS-0-10	146	C6145-12-16-R4	141	C6190-32-32-6W	121	C6290-20-20-W	87	F-BSXP-08-06	98	F-DH06-14-22-K2	66
262366-36	145	BOSS-0-14	146	C6145-12-16-W	85	C6190-32-32-R4	140	C6290-20-24-6W	122	F-BSXP-08-06-K2	98	F-DH06-14-22-W	66
262366-42	145	BOSS-0-14	146	C6145-12-20	39	C6190-32-32-W	85	C6290-20-24-JJ	115	F-BSXP-08-06-W	98	F-DH08-12-20-K2	66
262366-48	145	BOSS-0-16	146	C6145-12-20-W	85	C6190-32-32-K2	114	C6290-20-24-W	87	F-BSXP-08-08	98	F-DH08-12-20-W	66
262366-60	145	BOSS-0-20	146	C6145-16-16	39	C6190L-08-12-W	86	C6290-24-24-6W	122	F-BSXP-08-08-K2	98	F-DH08-14-22-K2	66
262366-18	145	BOSS-0-24	146	C6145-16-16-R4	141	C6190L-12-12-W	86	C6290-24-24-JJ	115	F-BSXP-08-08-W	98	F-DH08-14-22-W	66
282366-24	145	C61-08 KIT	146	C6145-16-16-W	85	C6190L-12-16-W	86	C6290-24-24-W	87	F-BSXP-08-10	98	F-DH08-16-24-K2	66
282366-30	145	C61-08-08	38	C6145-16-16-WHP	107	C6190L-16-16-W	86	C6290-24-32-JJ	115	F-BSXP-08-10-K2	98	F-DH08-16-24-W	66
282366-36	145	C61-08-08-K2	64	C6145-16-20	39	C6190L-16-20-W	86	C6290-32-32-6W	122	F-BSXP-08-10-W	98	F-DH10-20-30-W	89
282366-42	145	C61-08-08-W	86	C6145-16-20-R4	141	C62-08 KIT	146	C6290-32-32-JJ	115	F-BSXP-10-08	98	F-DH12-25-36-W	109
282366-48	145	C61-08-12	38	C6145-16-20-W	85	C62-12 KIT	146	C6290-32-32-W	87	F-BSXP-10-08-W	98	F-DH12-25-36-WHP	109
282366-60	145	C61-08-12-K2	64	C6145-16-24	39	C62-12-08-W	88	CAT-08-08-K2	63	F-BSXP-10-10	98	F-DH16-25-36-W	89
282366-72	145	C61-08-12-W	86	C6145-16-24-W	85	C62-12-12-W	88	CAT-08-08-W	84	F-BSXP-10-10-W	98	F-DH16-25-36-WHP	109
45H-12	18	C61-12 KIT	146	C6145-20-20	39	C62-12-12-WHP	108	CAT-12 H	146	F-BSXP-10-12	98	F-DH16-30-42-W	89
45H-16	18	C61-12-12	38	C6145-20-20-6W	120	C62-12-16-W	88	CAT-12-12-W	84	F-BSXP-10-12-W	98	F-DH16-30-42-WHP	109
45H-20	18	C61-12-12-R4	141	C6145-20-20-JJ	113	C62-16 KIT	146	CAT-12-12-WHP	107	F-BSXP-12-12	98	F-DH20-30-42-W	89
45H-24	18	C61-12-12-W	86	C6145-20-20-R4	141	C62-16-16-W	88	CAT-12-16-W	84	F-BSXP-12-12-W	98	F-DH20-38-52-6W	123
45H-32	18	C61-12-12-WHP	108	C6145-20-20-W	85	C62-16-16-WHP	108	CAT-12-16-WHP	107	F-BSXP-12-16	98	F-DH20-38-52-JJ	116
45K-10	19	C61-12-16	38	C6145-20-24	39	C62-16-20-W	88	CAT-16 H	146	F-BSXP-12-16-W	98	F-DH20-38-52-W	89
45K-12	19	C61-12-16-R4	141	C6145-20-24-R4	141	C62-20 KIT	146	CAT-16-16-W	84	F-BSXP-16-16	98	F-DH24-38-52-JJ	116
45K-16	19	C61-12-16-W	86	C6145-20-24-W	85	C62-20-20-6W	122	CAT-16-16-WHP	107	F-BSXP-16-16-W	98	F-DH24-38-52-W	89
45K-20	19	C61-12-20-W	86	C6145-24-24-6W	120	C62-20-20-JJ	115	CAT-16-20-W	84	F-BSXP-20-20	98	F-DH4504-06-14-W	88
45K-24	19	C61-16 KIT	146	C6145-24-24-JJ	113	C62-20-20-W	88	CAT-16-20-WHP	107	F-BSXP-20-20-6W	123	F-DH4504-06-14-K2	66
45K-32	19	C61-16-16	38	C6145-24-24-R4	141	C62-24-24-W	88	CAT-20 H	146	F-BSXP-20-20-W	98	F-DH4504-08-16-W	88
881238S	145	C61-16-16-R4	141	C6145-24-24-W	85	C62-24 KIT	146	CAT-20-20-6W	120	F-BSXP-24-24-JJ	116	F-DH4504-08-16-K2	66
883812S	145	C61-16-16-W	86	C6145-24-32-6W	122	C62-24-24-6W	122	CAT-20-20-JJ	113	F-BSXP-24-24-W	92	F-DH4504-10-18-W	88
883814S	145	C61-16-16-WHP	108	C6145-24-32-JJ	113	C62-24-24-JJ	115	CAT-20-20-W	88	F-BSXP-32-32-JJ	116	F-DH4504-10-18-K2	66
883838S	145	C61-16-20	38	C6145-24-32-R4	141	C62-24-24-W	88	CAT-20-24-6W	120	F-BSXP45-04-04	97	F-DH4506-08-16-W	88
A64	145	C61-16-20-R4	141	C6145-24-32-W	85	C62-24-32-6W	122	CAT-20-24-JJ	113	F-BSXP45-04-04-W	97	F-DH4506-08-16-K2	66
A66	145	C61-16-20-W	86	C6145-32-32-6W	120	C62-24-32-JJ	115	CAT-20-24-W	84	F-BSXP45-04-06	97	F-DH4506-10-18-W	88
A68	145	C61-16-24-R4	141	C6145-32-32-JJ	113	C62-32 KIT	146	CAT-24 H	146	F-BSXP45-04-06-W	97	F-DH4506-10-18-K2	66
A86	145	C61-16-24-W	86	C6145-32-32-R4	141	C62-32-32-6W	122	CAT-24-24-6W	120	F-BSXP45-04-06-K2	97	F-DH4506-12-20-W	88
ACP348	143	C61-2-0-08	146	C6145-32-32-W	85	C62-32-32-JJ	115	CAT-24-24-JJ	113	F-BSXP45-04-06-K2	97	F-DH4506-12-20-K2	66
ACP349	143	C61-2-0-12	146	C6145-32-40-R4	141	C62-32-32-W	88	CAT-24-24-W	84	F-BSXP45-06-06	97	F-DH4506-14-22-W	88
ACP350	143	C61-2-0-16	146	C6145-32-40-W	85	C6222-12-12-W	86	CAT-32 H	146	F-BSXP45-06-06-W	97	F-DH4506-14-22-WHP	108
ACP351	143	C61-2-0-20	146	C6160-08-12-K2	64	C6222-12-16-W	86	CAT-32-32-6W	120	F-BSXP45-06-08	97	F-DH4506-14-22-W	88
ACP352	143	C61-2-0-24	146	C6160-08-12-W	85	C6222-16-16-W	86	CAT-32-32-JJ	113	F-BSXP45-06-08-W	97	F-DH4506-14-22-W	88
ACPM12A	143	C61-2-0-32	146	C6160-12-12-W	85	C6222-16-20-W	86	CAT-32-32-W	84	F-BSXP45-06-08-K2	97	F-DH4506-14-22-W	88
AG-.84	148	C61-20 KIT	146	C6160-12-16-W	85	C6222-20-20-JJ	114	CAT22-12-12-WHP	106	F-BSXP45-06-08-K2	97	F-DH4506-14-22-W	88
AG-1.22	148	C61-20-20	38	C6160-16-16-W	85	C6222-20-20-W	86	CAT30-12-12-WHP	106	F-BSXP45-08-08	97	F-DH4506-14-22-W	88
BH-06	29	C61-20-20-6W	121	C6160-16-16-W	85	C6222-20-24-W	86	CAT45-12-12-W	83	F-BSXP45-08-08-W	97	F-DH4506-16-24-W	88
BH-08	29	C61-20-20-JJ	114	C6160-20-20-6W	120	C6222-24-24-6W	121	CAT45-12-12-WHP	107	F-BSXP45-08-08-K2	97	F-DH4506-16-24-W	88
BH-10	29	C61-20-20-R4	141	C6160-20-20-JJ	114	C6222-24-24-JJ	114	CAT45-12-16-W	83	F-BSXP45-10-10	97	F-DH4506-16-24-W	88
BH-12	29	C61-20-20-W	86	C6160-20-20-W	85	C6222-24-24-W	86	CAT45-16-16-W	83	F-BSXP45-10-10-W	97	F-DH4506-16-24-W	88
BL-06-06BR	142	C61-20-24	38	C6160-20-24-W	85	C6222-24-32-JJ	114	CAT45-16-16-WHP	107	F-BSXP45-12-12	97	F-DH4512-25-36-W	88
BL-06-06MOR	143	C61-20-24-R4	141	C6160-24-24-6W	120	C6222-32-32-JJ	114	CAT45-16-20-W	83	F-BSXP45-12-12-W	97	F-DH4512-25-36-WHP	108
BL-06-06MOR45	142	C61-20-24-W	86	C6160-24-24-JJ	114	C6222-32-32-W	86	CAT45-16-20-WHP	107	F-BSXP45-16-16	97	F-DH4516-25-36-W	88
BL-06-06MOR90	142	C61-24 KIT	146	C6160-24-24-W	85	C6230-12-16-W	86	CAT45-20-20-6W	119	F-BSXP45-16-16-W	97	F-DH4516-30-42-W	88
BL-06-06MV	142	C61-24-20-W	86	C6160-24-32-6W	120	C6230-12-12-W	86	CAT45-20-20-JJ	112	F-BSXP45-20-16-W	91	F-DH4516-30-42-W	88
BL-06-06RM	143	C61-24-24-6W	121	C6160-24-32-JJ	114	C6230-16-16-W	86	CAT45-20-20-W	83	F-BSXP45-24-24-W	91	F-DH4520-38-52-W	88
BL-06-06TM45T	142	C61-24-24-JJ	114	C6160-32-32-6W	120	C6230-16-20-W	86	CAT45-20-24-6W	119	F-BSXP90-03-04	37	F-DH4520-38-52-W	88
BL-06-06TM90T	142	C61-24-24-R4	141	C6160-32-32-JJ	114	C6230-20-20-6W	121	CAT45-20-24-JJ	112	F-BSXP90-04-04	37	F-DH4520-38-52-W	88
BL-06-06TMS	143	C61-24-24-W	86	C6160-32-32-W	85	C6230-20-20-JJ	115	CAT45-20-24-W	83	F-BSXP90-04-04-W	91	F-DH4520-38-52-W	88
BL-08-08BR	142	C61-24-32-6W	121	C6167-20-20-JJ	114	C6230-20-20-W	86	CAT45-24-24-6W	119	F-BSXP90-04-06	91	F-DH4524-38-52-W	88
BL-08-08MOR	143	C61-24-32-JJ	114	C6167-24-24-6W	123	C6230-20-24-W	86	CAT45-24-24-JJ	112	F-BSXP90-04-06-W	91	F-DH4524-38-52-W	88
BL-08-08MOR45	142	C61-24-32-R4	141	C6167-24-24-JJ	114	C6230-24-24-6W	121	CAT45-24-24-W	83	F-BSXP90-04-06-K2	97	F-DH4524-38-52-W	88
BL-08-08MOR90	142	C61-24-32-W	86	C6167-24-32-JJ	114	C6230-24-24-JJ	115	CAT45-32-32-6W	119	F-BSXP90-04-06-K2	97	F-DH4524-38-52-W	88
BL-08-08MV	142	C61-32 KIT	146	C6167-32-32-6W	123	C6230-24-24-W	86	CAT45-32-32-JJ	112	F-BSXP90-06-06	97	F-DH9004-06-14-K2	65
BL-08-08RM	143	C61-32-32-6W	121	C6167-32-32-JJ	114	C6230-24-32-JJ	115	CAT45-32-32-W	83	F-BSXP90-06-06-W	97	F-DH9004-06-14-W	89
BL-08-08TM45T	1												

F-DINHX-06-16	40	F-DL9008-1826-K2	67	FFX-06-04-R7	126	FFX45-12-12-W	99	FFX90L-12-12	44	FJX-06-12	45	FJX45-03-05-R7	127
F-DINHX-06-20	39	F-DL9010-18-26-W	90	FFX-06-04-W	126	FFX45-12-12-WHP	110	FFX90L-12-12-W	100	FJX-07-06-R5	136	FJX45-04-04	46
F-DINHX-06-22	40	F-DL9012-18-26-W	90	FFX-06-06	42	FFX45-12-16	43	FFX90L-12-12-WHP	110	FJX-07-06-SST	132	FJX45-04-04-K2	62
F-DINHX-08-20	40	F-DL9012-22-30-W	90	FFX-06-06-K2	75	FFX45-12-16-W	99	FFX90L-16-16	44	FJX-07-08-R5	136	FJX45-04-04-R7	127
F-DINHX-08-24	40	F-DL9012-28-36-W	90	FFX-06-06-R7	126	FFX45-16-16	43	FFX90L-16-16-W	100	FJX-07-08-SST	132	FJX45-04-04-SST	131
F-DINHX-10-30	40	F-DL9016-28-36-W	90	FFX-06-06-SST	134	FFX45-16-16-SST	133	FFX90L-16-16-WHP	110	FJX-08-06	45	FJX45-04-04-W	80
F-DINHX-12-36	40	F-DL9020-35-45-W	90	FFX-06-06-W	101	FFX45-16-16-W	99	FFX90L-20-20-W	100	FJX-08-06-K2	63	FJX45-04-05	46
F-DINHX-16-42	40	F-JISX-04-04	50	FFX-06-08	42	FFX45-16-16-WHP	110	FFX90M-04-04	44	FJX-08-06-R7	126	FJX45-04-05-K2	62
F-DINHX45-04-16	39	F-JISX-04-04-K2	69	FFX-06-08-K2	75	FFX45-16-20	43	FFX90M-04-04-K2	75	FJX-08-06-SST	132	FJX45-04-05-R7	127
F-DINHX45-04-18	39	F-JISX-04-04-W	93	FFX-06-08-R7	126	FFX45-16-20-W	99	FFX90M-04-04-W	100	FJX-08-06-W	82	FJX45-04-05-SST	131
F-DINHX45-06-20	39	F-JISX-06-06	50	FFX-06-08-SST	134	FFX45-20-20	43	FFX90M-06-06	44	FJX-08-08	45	FJX45-04-05-W	80
F-DINHX45-06-22	39	F-JISX-06-06-K2	69	FFX-06-08-W	101	FFX45-20-20-6W	124	FFX90M-06-06-K2	100	FJX-08-08-K2	63	FJX45-04-06	46
F-DINHX45-08-24	39	F-JISX-06-06-W	93	FFX-07-08-SST	134	FFX45-20-20-JJ	116	FFX90M-06-06-W	100	FJX-08-08-R5	136	FJX45-04-06-K2	62
F-DINHX45-10-30	39	F-JISX-06-08-K2	69	FFX-08-06	42	FFX45-20-20-W	99	FFX90M-06-08	44	FJX-08-08-R7	126	FJX45-04-06-R7	127
F-DINHX45-12-36	39	F-JISX-06-08-W	93	FFX-08-06-K2	75	FFX45-20-24-W	99	FFX90M-08-06	44	FJX-08-08-SST	132	FJX45-04-06-SST	131
F-DINHX45-16-42	39	F-JISX-08-08	50	FFX-08-06-W	101	FFX45-24-24-6W	124	FFX90M-08-08	44	FJX-08-08-W	82	FJX45-04-06-W	80
F-DINHX90-04-16	40	F-JISX-08-08-K2	69	FFX-08-08	42	FFX45-24-24-JJ	116	FFX90M-08-08-K2	75	FJX-08-10	45	FJX45-05-04-R5	136
F-DINHX90-04-18	40	F-JISX-08-08-W	93	FFX-08-08-K2	75	FFX45-24-24-W	99	FFX90M-08-08-W	100	FJX-08-10-K2	63	FJX45-05-04-R7	127
F-DINHX90-05-18-R5	138	F-JISX-10-10	50	FFX-08-08-R7	126	FFX90-03-04-SST	134	FFX90M-08-10-K2	75	FJX-08-10-R5	136	FJX45-05-04-SST	131
F-DINHX90-06-20	40	F-JISX-10-10-W	93	FFX-08-08-SST	134	FFX90-04-04	43	FFX90M-08-10-W	100	FJX-08-10-R7	126	FJX45-05-06-R5	136
F-DINHX90-06-22	40	F-JISX-10-12-W	93	FFX-08-10	41	FFX90-04-04-K2	74	FFX90M-10-10	44	FJX-08-10-SST	132	FJX45-05-06-R7	127
F-DINHX90-08-24	40	F-JISX-12-12	50	FFX-08-10-W	101	FFX90-04-04-SST	134	FFX90M-10-10-W	100	FJX-08-10-W	82	FJX45-05-06-SST	131
F-DINHX90-10-30	40	F-JISX-12-12-W	93	FFX-08-10-K2	75	FFX90-04-04-W	100	FFX90M-12-12	44	FJX-08-12	45	FJX45-06-04	46
F-DINHX90-12-36	40	F-JISX-12-12-WHP	109	FFX-08-10-SST	134	FFX90-04-06	43	FFX90M-12-12-W	100	FJX-08-12-K2	63	FJX45-06-04-K2	62
F-DINHX90-16-42	40	F-JISX-16-16	50	FFX-08-10-W	101	FFX90-04-06-K2	74	FFX90M-16-16	44	FJX-08-12-W	82	FJX45-06-04-R7	127
F-DINLX-04-12	41	F-JISX-16-16-W	93	FFX-08-12	42	FFX90-04-06-SST	134	FFX90M-16-16-W	100	FJX-08-16	45	FJX45-06-04-SST	131
F-DINLX-04-14	41	F-JISX-16-16-WHP	109	FFX-08-12-K2	75	FFX90-04-06-W	100	FFXT-04-04	44	FJX-10-06	45	FJX45-06-04-W	80
F-DINLX-04-16	41	F-JISX-20-20-W	93	FFX-08-12-SST	134	FFX90-04-08-K2	74	FFXT-04-06	44	FJX-10-06-W	82	FJX45-06-05	46
F-DINLX-06-16	41	F-KOMX-04-14	51	FFX-08-12-W	101	FFX90-04-08-W	100	FFXT-06-04	44	FJX-10-08	45	FJX45-06-05-K2	62
F-DINLX-06-18	41	F-KOMX-04-14-K2	69	FFX-10-08	42	FFX90-05-06-R5	139	FFXT-06-06	44	FJX-10-08-R5	136	FJX45-06-05-R7	127
F-DINLX-06-22	41	F-KOMX-04-14-W	94	FFX-10-08-W	101	FFX90-06-04	43	FFXT-06-08	44	FJX-10-08-SST	132	FJX45-06-05-W	80
F-DINLX-08-22	41	F-KOMX-06-14-K2	70	FFX-10-10	42	FFX90-06-04-K2	74	FFXT-08-08	44	FJX-10-08-W	82	FJX45-06-06	46
F-DINLX-10-26	41	F-KOMX-06-14-W	94	FFX-10-10-SST	134	FFX90-06-04-W	100	FFXT-08-12	44	FJX-10-10	45	FJX45-06-06-K2	62
F-DINLX-12-30	41	F-KOMX-06-18	51	FFX-10-10-W	101	FFX90-06-06	43	FFXT-10-10	44	FJX-10-10-R5	136	FJX45-06-06-R7	127
F-DINLX-16-36	41	F-KOMX-06-18-K2	70	FFX-10-12	42	FFX90-06-06-K2	74	FFXT-10-12	44	FJX-10-10-SST	132	FJX45-06-06-SST	131
F-DINLX45-04-14	41	F-KOMX-06-18-W	94	FFX-10-12-R5	139	FFX90-06-06-SST	134	FFXT-12-12	44	FJX-10-10-W	82	FJX45-06-06-W	80
F-DINLX45-04-16	41	F-KOMX-08-22	51	FFX-10-12-SST	134	FFX90-06-06-W	100	FFXT-16-16	44	FJX-10-12	45	FJX45-06-08	46
F-DINLX45-06-16	41	F-KOMX-08-22-K2	70	FFX-10-12-W	101	FFX90-06-08	43	FHU-32-32-6W	124	FJX-10-12-R5	136	FJX45-06-08-K2	62
F-DINLX45-06-18	41	F-KOMX-08-22-W	94	FFX-12-10	42	FFX90-06-08-K2	74	FJX-02-03	45	FJX-10-12-SST	132	FJX45-06-08-R7	127
F-DINLX45-08-22	41	F-KOMX-08-24	51	FFX-12-10-W	101	FFX90-06-08-SST	134	FJX-02-03-R7	126	FJX-10-12-W	82	FJX45-06-08-W	80
F-DINLX45-10-26	41	F-KOMX-08-24-K2	70	FFX-12-12	42	FFX90-06-08-W	100	FJX-02-04	45	FJX-10-12-W	82	FJX45-07-06-R5	136
F-DINLX45-12-30	41	F-KOMX-08-24-W	94	FFX-12-12-R7	126	FFX90-08-06	43	FJX-02-04-R7	126	FJX-12-08	45	FJX45-07-06-SST	131
F-DINLX45-16-36	41	F-KOMX-10-24	51	FFX-12-12-SST	134	FFX90-08-06-K2	74	FJX-03-04	45	FJX-12-08-W	82	FJX45-07-08-R5	136
F-DINLX90-04-12	41	F-KOMX-10-24-W	94	FFX-12-12-W	101	FFX90-08-06-W	100	FJX-03-04-R5	136	FJX-12-10	45	FJX45-07-08-SST	131
F-DINLX90-04-14	41	F-KOMX-12-30	51	FFX-12-12-WHP	110	FFX90-08-08	43	FJX-03-04-R7	126	FJX-12-10-R7	126	FJX45-07-08-W	80
F-DINLX90-04-16	41	F-KOMX-12-30-W	94	FFX-12-16	42	FFX90-08-08-K2	74	FJX-03-04-SST	132	FJX-12-10-W	82	FJX45-08-06	46
F-DINLX90-05-16-R5	138	F-KOMX-16-33	51	FFX-12-16-W	101	FFX90-08-08-SST	134	FJX-03-05	45	FJX-12-10-12	45	FJX45-08-06-K2	62
F-DINLX90-06-16	41	F-KOMX-16-33-W	94	FFX-16-12-W	101	FFX90-08-08-W	100	FJX-03-05-R5	136	FJX-12-12-PL	33	FJX45-08-06-R7	127
F-DINLX90-06-18	41	F-KOMX-20-36-W	94	FFX-16-16	42	FFX90-08-10	43	FJX-03-05-R7	126	FJX-12-12-R4	140	FJX45-08-06-W	80
F-DINLX90-08-22	41	F-KOMX45-04-14	51	FFX-16-16-R7	126	FFX90-08-10-K2	74	FJX-03-05-SST	132	FJX-12-12-R7	126	FJX45-08-08	46
F-DINLX90-10-26	41	F-KOMX45-04-14-W	102	FFX-16-16-SST	134	FFX90-08-10-SST	134	FJX-04-03	45	FJX-12-12-SST	132	FJX45-08-08-K2	62
F-DINLX90-12-30	41	F-KOMX45-0414-K2	72	FFX-16-16-W	101	FFX90-08-10-W	100	FJX-04-03-K2	63	FJX-12-12-W	82	FJX45-08-08-R7	127
F-DINLX90-12-30	41	F-KOMX45-06-14-W	102	FFX-16-16-WHP	110	FFX90-08-12	43	FJX-04-03-R7	126	FJX-12-12-WHP	106	FJX45-08-08-SST	131
F-DINLX90-16-36	41	F-KOMX45-06-18	51	FFX-16-20	42	FFX90-08-12-K2	74	FJX-04-03-W	82	FJX-12-14	46	FJX45-08-08-W	80
F-DINLX90-16-36	41	F-KOMX45-06-18-W	102	FFX-16-20-W	101	FFX90-08-12-W	100	FJX-04-04	45	FJX-12-14-R7	126	FJX45-08-10	46
F-DL04-06-12-K2	67	F-KOMX45-0614-K2	76	FFX-18-20-R5	139	FFX90-10-08	43	FJX-04-04-K2	63	FJX-12-14-SST	132	FJX45-08-10-K2	62
F-DL04-06-12-W	91	F-KOMX45-0618-K2	76	FFX-20-20	42	FFX90-10-08-W	100	FJX-04-04-R5	136	FJX-12-14-W	82	FJX45-08-10-SST	131
F-DL04-08-14-K2	67	F-KOMX45-08-22	51	FFX-20-20-6W	124	FFX90-10-10	43	FJX-04-04-R7	126	FJX-12-16	45	FJX45-08-10-W	80
F-DL04-08-14-W	91	F-KOMX45-08-22-W	102	FFX-20-20-JJ	117	FFX90-10-10-R5	139	FJX-04-04-SST	132	FJX-12-16-R4	140	FJX45-08-12-K2	62
F-DL04-10-16-K2	67	F-KOMX45-08-24-W	102	FFX-20-20-W	101	FFX90-10-10-SST	134	FJX-04-04-W	82	FJX-12-16-R7	126	FJX45-08-12-W	80
F-DL04-10-16-W	91	F-KOMX45-0822-K2	76	FFX-20-24	42	FFX90-10-10-W	100	FJX-04-05	45	FJX-12-16-SST	132	FJX45-10-10	46
F-DL06-10-16-K2	67	F-KOMX45-0824-K2	76	FFX-20-24-W	101	FFX90-10-12	43	FJX-04-05-K2	63	FJX-12-16-W	82	FJX45-10-10-R5	136
F-DL06-10-16-W	91	F-KOMX45-10-24	51	FFX-24-24-6W	124	FFX90-10-12-SST	134	FJX-04-05-R7	126	FJX-14-12-R5	136	FJX45-10-10-SST	131
F-DL06-12-18-K2	67	F-KOMX45-10-24-W	102	FFX-24-24-JJ	117	FFX90-10-12-W	100	FJX-04-05-SST	132	FJX-14-16-R5	136	FJX45-10-10-W	80
F-DL06-12-18-W	91	F-KOMX45-12-30	51	FFX-24-24-W	101	FFX90-12-10	43	FJX-04-05-W	82	FJX-16-12	45	FJX45-10-12	46
F-DL06-15-22-K2	67	F-KOMX45-12-30-W	102	FFX45-04-04	43	FFX90-12-10-W	100	FJX-04-06	45	FJX-16-12-R4	140	FJX45-10-12-R5	136
F-DL06-15-22-W	91	F-KOMX45-16-33	51	FFX45-04-04-K2	74	FFX90-12-12	43	FJX-04-06-K2	63	FJX-16-12-R7	126	FJX45-10-12-SST	131
F-DL08-15-22-K2	67	F-KOMX45-16-33-W	102	FFX45-04-04-SST	133	FFX90-12-12-SST	134	FJX-04-06-R7	126	FJX-16-12-SST	132	FJX45-10-12-W	80
F-DL08-15-22-W	91	F-KOMX45-04-14	51	FFX45-04-04-W	99	FFX90-12-12-WHP	110	FJX-04-06-SST	132	FJX-16-12-W	82	FJX45-12-10-W	80
F-DL08-18-26-K2	67	F-KOMX90-04-14-W	102	FFX45-04-06	43	FFX90-12-12-WHP	110	FJX-04-06-W	82	FJX-16-14	45	FJX45-12-12	46
F-DL08-18-26-W	91	F-KOMX90-0414-K2	76	FFX45-04-06-K2	74	FFX9							

Part Number Index



FJX90-04-04-SST	131	FJX90B-0810-W	102	FPX-04-02-K2	68	FW-04-04-K2	69	KPL-06-250-GRN	32	M-DH06-12-20-K2	65	MB-16-12	53
FJX90-04-04-W	81	FJX90B-10-10	47	FPX-04-02-W	62	FW-04-04-W	63	KPL-06-250-GRY	32	M-DH06-12-20-W	88	MB-16-12-W	94
FJX90-04-05	46	FJX90B-1010-W	102	FPX-04-04	48	FW-04-05	48	KPL-06-250-RED	32	M-DH06-14-22	40	MB-16-16	53
FJX90-04-05-K2	62	FJX90B-12-10	47	FPX-04-04-K2	68	FW-04-05-K2	69	KPL-06-250-YEL	32	M-DH06-14-22-K2	65	MB-16-16-R7	128
FJX90-04-05-R7	128	FJX90B-12-12	47	FPX-04-04-W	92	FW-04-05-W	93	KPL-08-250-BLK	32	M-DH06-14-22-W	88	MB-16-16-W	94
FJX90-04-05-SST	131	FJX90B-12-16	47	FPX-04-06-K2	68	FW-04-06	69	KPL-08-250-BLU	32	M-DH08-16-24	40	MB-16-16-WHP	109
FJX90-04-05-W	81	FJX90B-1210-W	102	FPX-04-06-W	92	FW-04-06-K2	69	KPL-08-250-GRN	32	M-DH08-16-24-K2	65	MB-16-20-W	94
FJX90-04-06	46	FJX90B-1212-W	102	FPX-06-04-K2	68	FW-04-06-W	93	KPL-08-250-GRY	32	M-DH08-16-24-W	88	MB-20-20-W	94
FJX90-04-06-K2	62	FJX90L-04-04	47	FPX-06-04-W	92	FW-05-06-R5	140	KPL-08-250-RED	32	M-DH10-20-30	32	MB-20-24-W	94
FJX90-04-06-R7	128	FJX90L-04-04-K2	62	FPX-06-06	48	FW-06-06	48	KPL-08-250-YEL	32	M-DH10-20-30-W	88	MB-24-24-W	94
FJX90-04-06-SST	131	FJX90L-04-04-R7	127	FPX-06-06-K2	68	FW-06-06-K2	69	KPL-10-250-BLK	32	M-DH12-25-36	40	MB-32-32-W	94
FJX90-04-06-W	81	FJX90L-04-04-W	80	FPX-06-06-W	92	FW-06-06-W	93	KPL-12-250-BLK	32	M-DH12-25-36-W	88	MBX-04-04	53
FJX90-05-04-R5	136	FJX90L-04-05	47	FPX-06-08	48	FW-06-08	48	KT-04	16	M-DH16-30-42	40	MBX-04-04-K2	71
FJX90-05-04-SST	131	FJX90L-04-06	47	FPX-06-08-K2	68	FW-06-08-K2	69	KT-06	16	M-DH16-30-42-W	88	MBX-04-04-W	96
FJX90-05-05-R5	136	FJX90L-04-06-K2	62	FPX-06-08-W	92	FW-06-08-W	93	KT-08	16	M-DH20-38-52-W	88	MBX-04-05	53
FJX90-05-06-R5	136	FJX90L-04-06-R7	127	FPX-08-06	48	FW-07-08-R5	140	KT-10	16	M-DL04-06-12	42	MBX-04-05-K2	71
FJX90-05-06-R7	128	FJX90L-04-06-W	80	FPX-08-08	48	FW-08-08	48	KT-12	16	M-DL04-06-12-K2	66	MBX-04-05-W	96
FJX90-05-06-SST	131	FJX90L-04-06-W	80	FPX-08-08-K2	68	FW-08-08-K2	69	KT-16	16	M-DL04-06-12-W	90	MBX-04-06	53
FJX90-06-04	46	FJX90L-06-04-K2	62	FPX-08-08-W	92	FW-08-08-W	93	KTFS-12	12	M-DL04-08-14	42	MBX-04-06-K2	71
FJX90-06-04-K2	62	FJX90L-06-04-R7	127	FPX-08-12	48	FW-08-10	60	KTFS-16	19	M-DL04-08-14-K2	66	MBX-04-06-W	96
FJX90-06-04-R7	128	FJX90L-06-04-W	80	FPX-08-12-K2	68	FW-08-10-K2	69	KTFS-20	20	M-DL04-08-14-W	90	MBX-06-04	53
FJX90-06-04-SST	131	FJX90L-06-06	47	FPX-08-12-W	92	FW-08-10-W	93	LF-04-04	52	M-DL04-10-16	42	MBX-06-04-K2	71
FJX90-06-04-W	81	FJX90L-06-06-K2	62	FPX-12-12	48	FW-10-10	60	LF-04-04-K2	78	M-DL04-10-16-K2	66	MBX-06-04-W	96
FJX90-06-05	46	FJX90L-06-06-R7	127	FPX-12-12-W	92	FW-10-10-W	93	LF-04-04-W	104	M-DL04-10-16-W	90	MBX-06-06	53
FJX90-06-05-K2	62	FJX90L-06-06-W	80	FPX-16-16	48	FW-10-12-W	93	LF-04-05	52	M-DL05-12-18-R5	138	MBX-06-06-K2	71
FJX90-06-05-R7	128	FJX90L-06-08	47	FPX-16-16-W	92	FW-12-12	60	LF-04-06	52	M-DL06-10-16	42	MBX-06-06-W	96
FJX90-06-05-W	81	FJX90L-06-08-K2	62	FPX-20-20	48	FW-12-12-W	93	LF-04-08	52	M-DL06-10-16-K2	66	MBX-06-08	53
FJX90-06-06	46	FJX90L-06-08-R7	127	FPX-20-20-W	92	FW-12-12-WHP	109	LF-06-05	52	M-DL06-10-16-W	90	MBX-06-08-K2	71
FJX90-06-06-K2	62	FJX90L-06-08-W	80	FSX-04-04-PL	33	FW-12-16-WHP	109	LF-06-06	52	M-DL06-12-18	42	MBX-06-08-W	96
FJX90-06-06-R7	128	FJX90L-08-08	47	FSX-04-06	49	FW-16-16	78	LF-06-06-K2	78	M-DL06-12-18-K2	66	MBX-06-10	53
FJX90-06-06-SST	131	FJX90L-08-08-K2	62	FSX-04-06-K2	69	FW-16-16-W	93	LF-06-06-W	104	M-DL06-12-18-W	90	MBX-08-08	53
FJX90-06-06-W	81	FJX90L-08-08-R7	127	FSX-04-06-W	93	FW-16-20	60	LF-06-08	52	M-DL06-15-22	42	MBX-08-08-K2	71
FJX90-06-08	46	FJX90L-08-08-W	80	FSX-06-06	49	FW-16-20-W	93	LF-06-10	52	M-DL06-15-22-K2	66	MBX-08-08-W	96
FJX90-06-08-K2	62	FJX90L-08-10	47	FSX-06-06-K2	69	FW-20-20	60	LF-08-08	52	M-DL06-15-22-W	90	MBX-08-10	53
FJX90-06-08-R7	128	FJX90L-08-10-K2	62	FSX-06-06-PL	33	FW-24-24-W	93	LF-08-08-K2	78	M-DL08-12-18-K2	66	MBX-08-10-K2	71
FJX90-06-08-W	81	FJX90L-08-10-R7	127	FSX-06-06-SST	132	GT-04-08	42	LF-08-08-W	104	M-DL08-12-18-W	90	MBX-08-10-W	96
FJX90-07-06-R5	136	FJX90L-08-10-W	80	FSX-06-06-W	93	GT-04-08-K2	77	LF-08-10	52	M-DL08-15-22	42	MBX-10-10-W	96
FJX90-07-06-SST	131	FJX90L-10-10	47	FSX-06-08-PL	33	GT-04-08-W	103	LF-08-12	52	M-DL08-15-22-K2	66	MBX-12-10	53
FJX90-07-08-R5	136	FJX90L-10-10-R5	139	FSX-08-08-PL	33	GT-06-08	42	LF-12-12	52	M-DL08-15-22-W	90	MBX-12-12	53
FJX90-07-08-SST	131	FJX90L-10-10-W	80	FSX-10-10-PL	33	GT-06-08-K2	77	LF-12-12-W	104	M-DL10-18-26	42	MBX-12-12-W	96
FJX90-08-06	46	FJX90L-10-12	47	FSX-12-12	49	GT-06-08-W	103	M-BSPP-04-04	52	M-DL10-18-26-W	90	MBX-16-16	53
FJX90-08-06-K2	62	FJX90L-12-12	47	FSX-12-12-PL	33	HJK-04	28	M-BSPP-04-04-K2	70	M-DL12-22-30	42	MBX-16-16-W	96
FJX90-08-06-W	81	FJX90L-12-12-R7	127	FSX-12-12-SST	132	HJK-06	28	M-BSPP-04-04-W	95	M-DL12-22-30-W	90	MBX90-04-04	54
FJX90-08-08	46	FJX90L-12-12-W	80	FSX-12-12-W	93	HJK-TAG	148	M-BSPP-04-06	52	M-DL16-28-36	42	MBX90-04-04-K2	71
FJX90-08-08-K2	62	FJX90L-14-16-R5	139	FSX45-04-04	49	HJK04-95	148	M-BSPP-04-06-K2	70	M-DL16-28-36-W	90	MBX90-04-04-W	96
FJX90-08-08-R7	128	FJX90L-16-16	47	FSX45-04-04-K2	77	HJK06-95	148	M-BSPP-04-06-W	95	M-DL16-28-36-W	90	MBX90-04-06	54
FJX90-08-08-SST	131	FJX90L-16-16-R7	127	FSX45-04-04-W	102	KAR-04-22	60	M-BSPP-06-06	52	MB-03-04	53	MBX90-04-06-K2	71
FJX90-08-08-W	81	FJX90M-16-16-W	80	FSX45-04-05	49	KAR-04-22-K2	77	M-BSPP-06-06-K2	70	MB-03-04-R7	128	MBX90-04-06-W	96
FJX90-08-10	46	FJX90M-04-04	47	FSX45-04-05-K2	77	KAR-06-22	60	M-BSPP-06-06-W	95	MB-04-04	53	MBX90-06-06	54
FJX90-08-10-K2	62	FJX90M-04-04-K2	62	FSX45-04-05-W	102	KAR-06-22-K2	77	M-BSPP-06-08	52	MB-04-04-K2	70	MBX90-06-06-K2	71
FJX90-08-10-R7	128	FJX90M-04-04-W	81	FSX45-06-05	49	KAR-06-22-W	103	M-BSPP-06-08-K2	70	MB-04-04-R7	128	MBX90-06-06-W	96
FJX90-08-10-SST	131	FJX90M-04-06-K2	62	FSX45-06-05-K2	77	KEH-04	30	M-BSPP-06-08-W	95	MB-04-04-W	94	MBX90-06-08	54
FJX90-08-10-W	81	FJX90M-06-06	47	FSX45-06-05-W	102	KEH-06	30	M-BSPP-08-06	52	MB-04-05	53	MBX90-06-08-K2	71
FJX90-08-12	46	FJX90M-06-06-K2	62	FSX45-06-06	49	KEH-08	30	M-BSPP-08-06-K2	70	MB-04-05-K2	70	MBX90-06-08-W	96
FJX90-08-12-K2	62	FJX90M-06-06-W	81	FSX45-06-06-K2	77	KEH-10	30	M-BSPP-08-06-W	95	MB-04-05-R7	128	MBX90-06-10	54
FJX90-08-12-W	81	FJX90M-08-08	47	FSX45-06-06-W	102	KEH-12	30	M-BSPP-08-08	52	MB-04-05-W	94	MBX90-06-10-K2	71
FJX90-10-10	46	FJX90M-08-08-K2	62	FSX45-08-08	49	KEH-16	30	M-BSPP-08-08-K2	70	MB-04-06	53	MBX90-06-10-W	96
FJX90-10-10-R5	136	FJX90M-08-08-W	81	FSX45-08-08-K2	77	KH-404398	32	M-BSPP-08-08-W	95	MB-04-06-K2	70	MBX90-08-08	54
FJX90-10-10-SST	131	FJX90M-08-10	47	FSX45-08-08-W	102	KH-406398	32	M-BSPP-08-10-K2	70	MB-04-06-R7	128	MBX90-08-08-K2	71
FJX90-10-10-W	81	FJX90M-10-10-K2	62	FSX45-08-10	49	KH-408398	32	M-BSPP-08-10-W	95	MB-04-06-W	94	MBX90-08-08-W	96
FJX90-10-12	46	FJX90M-10-10	47	FSX45-08-10-K2	77	KH-410398	32	M-BSPP-10-10	52	MB-04-08	53	MBX90-08-10	54
FJX90-10-12-R5	136	FJX90M-10-12-W	81	FSX45-08-10-W	102	KH-412398	32	M-BSPP-10-10-K2	70	MB-04-08-K2	70	MBX90-08-10-K2	71
FJX90-10-12-SST	131	FJX90M-12-12	47	FSX45-10-12	47	KH-504398	32	M-BSPP-10-10-W	95	MB-04-08-R7	128	MBX90-08-10-W	96
FJX90-10-12-W	81	FJX90M-12-12-W	81	FSX45-10-12-W	102	KH-506398	32	M-BSPP-10-12	52	MB-04-08-W	94	MBX90-10-10	54
FJX90-12-10	46	FJXT-04-04	48	FSX45-12-12	49	KH-508398	32	M-BSPP-12-12	52	MB-06-06	53	MBX90-10-10-W	96
FJX90-12-10-R7	128	FJXT-04-05	48	FSX45-12-12-K2	77	KH-60 Crimper	151	M-BSPP-12-12-K2	70	MB-06-06-K2	70	MBX90-12-12	54
FJX90-12-10-W	81	FJXT-06-05	48	FSX90-04-04	49	KH-60-P Portable Crimper	152	M-BSPP-12-12-W	95	MB-06-06-R7	128	MBX90-12-12-W	96
FJX90-12-12	46	FJXT-06-06	48	FSX90-04-04-K2	77	KH-604398	32	M-BSPP-16-16	52	MB-06-06-W	94	MENDER 12	50
FJX90-12-12-R7	128	FJXT-06-08	48	FSX90-04-04-W	103	KH-606398	32	M-BSPP-16-16-K2	70	MB-06-08	53	MENDER 16	50
FJX90-12-12-SST	131	FJXT-08-08	48	FSX90-04-05	49	KH-608398	32	M-BSPP-16-16-W	95	MB-06-08-K2	70	MENDER 4	50
FJX90-12-12-W	81	FJXT-08-10	48	FSX90-									

MF-12-12	56	MIX90-06-04-K2	73	MMS-04-06	55	MP-06-06-W	95	MPX-06-04-K2	73	MT-12-12-W	98	R18-05	24
MF-12-12-W	96	MIX90-06-04-W	73	MMS-04-08	55	MP-06-08	95	MPX-06-04-W	98	MT-12-16	98	R18-06	24
MF-12-16	96	MIX90-06-05	57	MMS-04-10	55	MP-06-08-K2	71	MPX-06-06	58	MT-12-16-W	98	R18-08	24
MF-12-16-W	96	MIX90-06-05-K2	73	MMS-05-10-R5	139	MP-06-08-R7	129	MPX-06-06-K2	73	MT-16-16	59	R18-04	14
MF-16-12	96	MIX90-06-05-W	97	MMS-05-12-R5	139	MP-06-08-SST	133	MPX-06-06-W	98	MT-16-16-W	98	R18-06	14
MF-16-12-W	96	MIX90-06-06	57	MMS-06-10	55	MP-06-08-W	95	MPX-06-08	58	MW-04-04	60	R18-08	14
MF-16-16	96	MIX90-06-06-K2	73	MMS-06-12	55	MP-07-06-R5	138	MPX-06-08-K2	73	MW-04-04-K2	75	R15-10	14
MF-16-16-W	96	MIX90-06-06-W	97	MMS-06-14	55	MP-07-06-SST	133	MPX-06-08-W	98	MW-04-04-SST	134	R15-12	14
MHU-32-32-6W	124	MIX90-06-07	57	MMS-08-15	55	MP-07-08-R5	138	MPX-08-06	58	MW-04-04-W	104	R15-16	14
MIX-03-04-R5	137	MIX90-06-07-K2	73	MMS-08-16	55	MP-07-08-SST	133	MPX-08-06-K2	73	MW-04-05	60	R15-20	14
MIX-04-03	56	MIX90-06-07-W	97	MMS-08-18	55	MP-08-04	58	MPX-08-06-W	98	MW-04-05-K2	75	R15-24	14
MIX-04-04	56	MIX90-06-08	57	MMS-10-18	55	MP-08-04-PL	33	MPX-08-08	58	MW-04-05-SST	134	R25-04	14
MIX-04-04-K2	72	MIX90-06-08-K2	73	MMS-10-20	55	MP-08-06	58	MPX-08-08-K2	73	MW-04-05-W	104	R25-06	14
MIX-04-04-R5	137	MIX90-06-08-W	97	MMS-12-20	55	MP-08-06-K2	71	MPX-08-08-PL	33	MW-04-06	60	R25-08	14
MIX-04-04-W	97	MIX90-07-08-R5	137	MMS-12-22	55	MP-08-06-PL	33	MPX-08-08-W	98	MW-04-06-K2	75	R25-10	14
MIX-04-05	56	MIX90-08-08	57	MMS-12-25	55	MP-08-06-R7	129	MPX-08-12	98	MW-04-06-SST	134	R25-12	14
MIX-04-05-K2	72	MIX90-08-08-K2	73	MMS-16-25	55	MP-08-06-SST	133	MPX-08-12-K2	73	MW-04-06-W	104	R25-16	14
MIX-04-05-R5	137	MIX90-08-08-R5	137	MMS-16-28	55	MP-08-06-W	95	MPX-08-12-W	98	MW-06-06	60	R25-20	14
MIX-04-05-W	97	MIX90-08-08-W	97	MMS-16-30	55	MP-08-08	58	MPX-10-08	58	MW-06-06-K2	75	R25-24	14
MIX-04-06	56	MIX90-08-10	57	MMS-16-30	55	MP-08-08-K2	71	MPX-10-08-W	98	MW-06-06-SST	134	R25-32	14
MIX-04-06-K2	72	MIX90-08-10-K2	73	MMS-16-30	55	MP-08-08-PL	33	MPX-10-12	98	MW-06-06-W	104	R4-12	28
MIX-04-06-R5	137	MIX90-08-10-W	97	MMS-16-30	55	MP-08-08-R5	138	MPX-10-12-W	98	MW-06-08	60	R4-16	28
MIX-04-06-W	97	MJ-03-04-R7	129	MMS-16-30	55	MP-08-08-R7	129	MPX-12-08	58	MW-06-08-K2	75	R4-20	28
MIX-05-05-R5	137	MJ-04-04	57	MMS-16-30	55	MP-08-08-SST	133	MPX-12-08-W	98	MW-06-08-SST	134	R4-24	28
MIX-05-06-R5	137	MJ-04-04-K2	63	MMS-16-30	55	MP-08-08-W	95	MPX-12-12	58	MW-06-08-W	104	R4-32	28
MIX-06-04	56	MJ-04-04-R7	129	MMS-16-30	55	MP-08-12	58	MPX-12-12-W	98	MW-08-08	60	R5-04	27
MIX-06-04-K2	72	MJ-04-04-W	83	MMS-16-30	55	MP-08-12-K2	71	MPX-16-16	58	MW-08-08-K2	75	R5-05	27
MIX-06-04-W	97	MJ-04-05	57	MMS-16-30	55	MP-08-12-W	95	MPX-16-16-W	98	MW-08-08-SST	134	R5-06	27
MIX-06-05	56	MJ-04-05-K2	63	MMS-16-30	55	MP-10-06-W	54	MPX90-04-02-K2	73	MW-08-08-W	104	R5-08	27
MIX-06-05-K2	72	MJ-04-05-R7	129	MMS-16-30	55	MP-10-08	58	MPX90-04-04	59	MW-08-10	60	R5-10	27
MIX-06-05-W	97	MJ-04-05-W	83	MMS-16-30	55	MP-10-08-R5	138	MPX90-04-04-K2	73	MW-08-10-K2	75	R5-12	27
MIX-06-06	56	MJ-04-06	57	MMS-16-30	55	MP-10-08-SST	133	MPX90-04-04-W	98	MW-08-10-SST	134	R5-16	27
MIX-06-06-K2	72	MJ-04-06-K2	63	MMS-16-30	55	MP-10-08-W	95	MPX90-04-06	59	MW-08-10-W	104	R5-20	27
MIX-06-06-W	97	MJ-04-06-R7	129	MMS-16-30	55	MP-10-12	58	MPX90-04-06-K2	73	MW-12-12	60	R5-24	27
MIX-06-07	56	MJ-04-06-W	83	MMS-16-30	55	MP-10-12-R5	138	MPX90-04-06-W	98	MW-12-12-SST	134	R5-32	27
MIX-06-07-K2	72	MJ-05-05-R7	129	MMS-16-30	55	MP-10-12-SST	133	MPX90-06-04	59	MW-12-12-W	104	R7-02	22
MIX-06-07-W	97	MJ-05-06-R7	129	MMS-16-30	55	MP-10-12-W	95	MPX90-06-04-K2	73	MW-16-16	60	R7-02 NC	22
MIX-06-08	56	MJ-06-04	57	MMS-16-30	55	MP-12-08	58	MPX90-06-04-W	98	MW-16-16-SST	134	R7-03	22
MIX-06-08-K2	72	MJ-06-04-R7	129	MMS-16-30	55	MP-12-08-PL	33	MPX90-06-06	59	MW-16-16-W	104	R7-03 NC	22
MIX-06-08-W	97	MJ-06-05	57	MMS-16-30	55	MP-12-08-SST	133	MPX90-06-06-K2	73	NGB-0106	148	R7-03 TW	23
MIX-07-08-R5	137	MJ-06-05-K2	63	MMS-16-30	55	MP-12-08-W	95	MPX90-06-06-W	98	NGB-0121	148	R7-04	23
MIX-08-08	56	MJ-06-05-W	83	MMS-16-30	55	MP-12-12	58	MPX90-06-08	59	NGB-0128	148	R7-04 NC	22
MIX-08-08-K2	72	MJ-06-06	57	MMS-16-30	55	MP-12-12-PL	33	MPX90-06-08-K2	73	NGB-0201	148	R7-04 TW	23
MIX-08-08-R5	137	MJ-06-06-K2	63	MMS-16-30	55	MP-12-12-R4	141	MPX90-06-08-W	98	NGB-0218	148	R7-04 TW NC	23
MIX-08-08-W	97	MJ-06-06-R7	129	MMS-16-30	55	MP-12-12-R7	129	MPX90-08-06	59	NGB-0226	148	R7-05	22
MIX-08-10	56	MJ-06-06-W	83	MMS-16-30	55	MP-12-12-SST	133	MPX90-08-08	59	NGB-0310	148	R7-05 NC	22
MIX-08-10-K2	72	MJ-06-08	57	MMS-16-30	55	MP-12-12-W	95	MPX90-08-08-K2	73	NGB-0402	148	R7-05 TW	23
MIX-08-10-W	97	MJ-06-08-K2	63	MMS-16-30	55	MP-12-12-WHP	109	MPX90-08-08-W	98	NGB-0418	148	R7-05 TW NC	23
MIX45-03-04-R5	137	MJ-06-08-W	83	MMS-16-30	55	MP-12-16	58	MPX90-12-12	59	NGB-0526	148	R7-06	22
MIX45-04-03	56	MJ-06-08-R7	129	MMS-16-30	55	MP-12-16-R4	141	MPX90-12-12-W	98	ORFS-0-04	146	R7-06 NC	22
MIX45-04-04	56	MJ-06-10	57	MMS-16-30	55	MP-12-16-R7	129	MPX90-16-16	59	ORFS-0-06	146	R7-06 TW	23
MIX45-04-04-K2	72	MJ-06-10-K2	63	MMS-16-30	55	MP-12-16-SST	133	MPX90-16-16-W	98	ORFS-0-08	146	R7-06 TW NC	23
MIX45-04-04-R5	137	MJ-06-10-R7	129	MMS-16-30	55	MP-12-16-W	95	MS-04-04	59	ORFS-0-10	146	R7-08	22
MIX45-04-04-W	97	MJ-06-10-W	83	MMS-16-30	55	MP-14-12-R5	138	MS-04-04-K2	78	ORFS-0-12	146	R7-08 NC	22
MIX45-04-05	56	MJ-08-06	57	MMS-16-30	55	MP-14-16-R5	138	MS-04-04-W	104	ORFS-0-16	146	R7-08 TW	23
MIX45-04-05-K2	72	MJ-08-06-K2	63	MMS-16-30	55	MP-16-12	58	MS-04-06	59	ORFS-0-20	146	R7-08 TW NC	23
MIX45-04-05-R5	137	MJ-08-06-R7	129	MMS-16-30	55	MP-16-12-R4	141	MS-04-06-K2	78	ORFS-0-24	146	R7-12	22
MIX45-04-05-W	97	MJ-08-06-W	83	MMS-16-30	55	MP-16-12-R7	129	MS-04-06-W	104	PHW-38	148	R7-12 NC	22
MIX45-04-06	56	MJ-08-08	57	MMS-16-30	55	MP-16-12-SST	133	MS-05-05-R5	140	PHW-5	148	R7-16	22
MIX45-04-06-K2	72	MJ-08-08-K2	63	MMS-16-30	55	MP-16-12-W	95	MS-05-06-R5	140	PHW-63	148	R7-16 NC	22
MIX45-04-06-R5	137	MJ-08-08-R7	129	MMS-16-30	55	MP-16-16	58	MS-06-06	59	PHW-1.06	148	R8-03	24
MIX45-04-06-W	97	MJ-08-08-W	83	MMS-16-30	55	MP-16-16-API	58	MS-06-06-K2	78	PHW-1.34	148	R8-03 NC	25
MIX45-05-05-R5	137	MJ-08-10	57	MMS-16-30	55	MP-16-16-R4	141	MS-06-06-W	104	PHW-1.73	148	R8-04	24
MIX45-05-06-R5	137	MJ-08-10-K2	63	MMS-16-30	55	MP-16-16-R7	129	MS-06-08	59	PHW-2.17	148	R8-04 NC	25
MIX45-06-05	56	MJ-08-10-R7	129	MMS-16-30	55	MP-16-16-SST	133	MS-06-08-K2	78	PHW-2.6	148	R8-04 TW	25
MIX45-06-05-K2	72	MJ-08-10-W	83	MMS-16-30	55	MP-16-16-W	95	MS-06-08-W	104	PHW-3.0	148	R8-06	24
MIX45-06-05-W	97	MJ-08-12	57	MMS-16-30	55	MP-16-16-W-API	58	MS-08-08	59	PHW-3.9	148	R8-06 NC	25
MIX45-06-06	56	MJ-08-12-K2	63	MMS-16-30	55	MP-16-16-WHP	109	MS-08-08-K2	78	R115-04	27	R8-06 TW	25
MIX45-06-06-K2	72	MJ-08-12-R7	129	MMS-16-30	55	MP-16-16-WHP-API	109	MS-08-08-W	104	R115-05	27	R8-08	24
MIX45-06-06-W	97	MJ-08-12-W	83	MMS-16-30	55	MP-16-20-R4	141	MS-12-12	99	R115-06	27	R8-08 NC	25
MIX45-06-07	56	MJ-10-08	57	MMS-16-30	55	MP-16-20-W	95	MS-12-12-W	104	R115-06 T	27	R8-08 TW	25
MIX45-06-07-K2	72	MJ-10-10	57	MMS-16-30	55	MP-18-20-R5	58	MT-04-04	59	R115-08	27	SG-84	148
MIX45-06-07-W	97	MJ-10-10-W	83	MMS-16-30	55	MP-20-20	71	MT-04-04-K2	74	R115-10	27	SG-97	148
MIX45-06-08	56	MJ-10-12	57	MMS-16-30	55	MP-20-20-PL	33	MT-04-04-W	98	R115-12	27	SG-1.06	148
MIX45-06-08-K2	72	MJ-10-12-W	83	MMS-16-30	55	MP-20-20-R4	141	MT-04-05	59	R115-12 T	27	SG-1.66	148
MIX45-06-08-W	97	MJ-12-10	57	MMS-16-30	55	MP-20-20-R7	129	MT-04-05-K2	74	R115-16 T	27	SHELL-10	60
MIX45-07-08-R5</													



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