



PRODUCT
 CATALOG

O-Ring Face Seal Fittings
 Tube Fittings & Adapters
 Flange Adapters
 Flareless Bite Type Fittings
 DIN Fittings
 International Fittings
 NWD



In 1953, Brennan Industries, Inc. was founded in Ohio to answer the need of hydraulic systems customers who required reliable tube fitting and adapter products in a timely fashion.

In the early years, only about 300 different connectors were being manufactured. Today, with over 20, 000 line items in inventory, Brennan offers the most complete line of hydraulic tube fittings, adapters and related products available anywhere in the world.

Whether you need steel, stainless steel or brass standards or specials, we have the fittings you need on the shelf and in sizes ranging from 1/16" to 2" and higher.

In addition to our 6 well stocked, full service domestic USA distribution centers, Brennan is now a recognized quality global manufacturer of hydraulic fittings and adapters with international distribution centers opening in the near future.

Our global manufacturing and inspection processes assure that our customers, no matter where they may be located, will receive quality Brennan fittings consistent in fit, form, function, quality and performance.

As an ISO 9001: 2000 certified company, all our products meet or exceed J.I.C./S.A.E. specifications and Brennan is the product identification and traceability innovator within the industry.

Brennan's international reputation for excellence has contributed to our rapid growth. Despite this growth we remain a family owned business making sure our customers still receive personal attention by our experienced sales and customer service representatives.

If you prefer doing business electronically, in addition to Brennan's e-commerce solutions, you can check us out on the web: www.brennaninc.com.

We look forward to hearing from you.

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Suggested OEM Torque and Pressure Ratings

SAE J514 and J1453 Steel Fittings

Dash Size	Type	Wet Torque [ft-lb]	Variance	Flats Method for JIC Only	SAE Working Pressure 4:1
4	MAORB Jam Nut	23	+2-2	N/A	4,500
4	MORB Straight Thread Port Connections	15	+2-2	N/A	5,000
4	O-Ring Face Seal Treads	13	+2-2	N/A	6,000
4	JIC 37° Flare and Swivel Nuts	13	+2-2	11/2-1 3/4	5,000/4,500
6	MAORB Jam Nut	32	+2-2	N/A	4,000
6	MORB Straight Thread Port Connections	24	+2-2	N/A	5,000
6	O-Ring Face Seal Treads	23	+2-2	N/A	6,000
6	JIC 37° Flare and Swivel Nuts	23	+2-2	1-11/2	5,000/4,000
8	MAORB Jam Nut	55	+3-3	N/A	4,000
8	MORB Straight Thread Port Connections	40	+3-3	N/A	4,500
8	O-Ring Face Seal Treads	40	+3-3	N/A	6,000
8	JIC 37° Flare and Swivel Nuts	40	+3-3	11/2-1 3/4	4,500/4,000
10	MAORB Jam	75	+5-3	N/A	3,000
10	MORB Straight Thread Port Connections	60	+5-3	N/A	3,500
10	O-Ring Face Seal Treads	60	+5-3	N/A	6,000
10	JIC 37° Flare and Swivel Nuts	60	+5-3	1-11/2	3,500/3000
12	MAORB Jam Nut	115	+5-3	N/A	3,000
12	MORB Straight Thread Port Connections	100	+5-3	N/A	3,500
12	O-Ring Face Seal Treads	85	+5-3	N/A	6,000
12	JIC 37° Flare and Swivel Nuts	85	+5-3	1-11/2	3,500/3,000
16	MAORB Jam Nut	115	+8-0	N/A	2,500
16	MORB Straight Thread Port Connections	115	+8-0	N/A	3,000
16	O-Ring Face Seal Treads	115	+8-0	N/A	6,000
16	JIC 37° Flare and Swivel Nuts	115	+8-0	3/4-1	3,000/2,500
20	MAORB Jam Nut	115	+20-0	N/A	2,000
20	MORB Straight Thread Port Connections	115	+20-0	N/A	2,500
20	O-Ring Face Seal Treads	115	+20-0	N/A	4,000
20	JIC 37° Flare and Swivel Nuts	115	+20-0	3/4-1	2,500/2,000
24	MAORB Jam Nut	115	+50-0	N/A	1,500
24	MORB Straight Thread Port Connections	115	+50-0	N/A	2,000
24	O-Ring Face Seal Treads	115	+50-0	N/A	4,000
24	JIC 37° Flare and Swivel Nuts	115	+50-0	3/4-1	2,000/1,500
32	MAORB Jam Nut	115	+85-0	N/A	1,125
32	MORB Straight Thread Port Connections	115	+85-0	N/A	1,500
32	O-Ring Face Seal Treads	115	+85-0	N/A	-
32	JIC 37° Flare and Swivel Nuts	115	+85-0	3/4-1	1,500/1,125

Technical Specification

Suggested OEM Torque and Pressure Ratings continued

A-002

BSP Steel Fittings

Dash Size	Type	Wet Torque [Nm]	Working Pressure BAR	Wet Torque [lb-ft]	Working Pressure PSI
2	BSPP 60° Inner Tapper Connection	12-14	350	9-11	5,000
2	BSPP MAORB Jam Nut Port Connection	20	250	15	3,600
4	BSPP 60° Inner Tapper Connection	14-16	350	10-12	5,000
4	BSPP MAORB Jam Nut Port Connection	35	250	26	3,600
6	BSPP 60° Inner Tapper Connection	25-28	200	19-20	2,900
6	BSPP MAORB Jam Nut Port Connection	70	250	52	3,600
8	BSPP 60° Inner Tapper Connection	45-60	200	33-44	2,900
8	BSPP MAORB Jam Nut Port Connection	100	250	74	3,600
10	BSPP 60° Inner Tapper Connection	55-70	200	41-52	2,900
10	BSPP MAORB Jam Nut Port Connection	100	250	74	3,600
12	BSPP 60° Inner Tapper Connection	90-110	200	66-81	2,900
12	BSPP MAORB Jam Nut Port Connection	190	250	140	3,600
16	BSPP 60° Inner Tapper Connection	120-140	115	89-103	1,700
16	BSPP MAORB Jam Nut Port Connection	300	250	220	3,600
20	BSPP 60° Inner Tapper Connection	170-190	100	125-140	1,500
20	BSPP MAORB Jam Nut Port Connection	330	200	243	3,000
24	BSPP 60° Inner Tapper Connection	200 - 245	100	148-181	1,500
24	BSPP MAORB Jam Nut Port Connection	400	140	295	2,000

Metric (L) Light

Dash Size	Type	Wet Torque (Nm)	Working Pressure BAR	Wet Torque [lb-ft]	Working Pressure PSI
12x1.5	Inner Tapper Connection	13-15	250	10-11	3,600
14x1.5	Inner Tapper Connection	15-18	250	11-13	3,600
16x1.5	Inner Tapper Connection	25-28	250	19-20	3,600
18x1.5	Inner Tapper Connection	27-30	250	19-22	3,600
22x1.5	Inner Tapper Connection	50-60	250	36-44	3,600
26x1.5	Inner Tapper Connection	60-75	160	44-55	2,300
30x2	Inner Tapper Connection	85-105	160	62-77	2,300
36x2 24°	Inner Tapper Connection	120-140	100	89-103	1,400
45x2 24°	Inner Tapper Connection	170-190	100	125-140	1,400
52x2 24°	Inner Tapper Connection	190-230	100	140-170	1,400

Metric (S) Heavy

Dash Size	Type	Wet Torque [Nm]	Working Pressure BAR	Wet Torque [lb-ft]	Working Pressure PSI
14x1.5 24°	Inner Tapper Connection	14-16	630	10-12	9,000
16x1.5 24°	Inner Tapper Connection	25-28	630	19-20	9,000
18x1.5 24°	Inner Tapper Connection	27-30	630	19-22	9,000
20x1.5 24°	Inner Tapper Connection	43-54	630	32-40	9,000
22x1.5 24°	Inner Tapper Connection	50-62	630	36-46	9,000
24x1.5 24°	Inner Tapper Connection	60-75	400	44-55	5,800
30x2 24°	Inner Tapper Connection	90-110	400	66-81	5,800
36x2 24°	Inner Tapper Connection	125-145	400	91-107	5,800
42x2 24°	Inner Tapper Connection	170-190	250	125-140	3,600
52x2 24°	Inner Tapper Connection	200 - 245	250	148-181	3,600

Suggested OEM Torque and Pressure Ratings continued

ISO 6149

Dash Size	Type	Wet Torque [ft-lb]	Variance	Flats Method for JIC Only	SAE Working Pressure 4:1
10x1	ISO 6149 Jam Nut Port Connection	20	415	15	6,000
12x1.5	ISO 6149 Jam Nut Port Connection	35	415	26	6,000
14x1.5	ISO 6149 Jam Nut Port Connection	45	415	33	6,000
16x1.5	ISO 6149 Jam Nut Port Connection	55	415	41	6,000
18x1.5	ISO 6149 Jam Nut Port Connection	68	415	50	6,000
20x1.5	ISO 6149 Jam Nut Port Connection	80	415	60	6,000
22x1.5	ISO 6149 Jam Nut Port Connection	98	415	72	6,000
26x1.5	ISO 6149 Jam Nut Port Connection	170	415	125	6,000
27x2	ISO 6149 Jam Nut Port Connection	180	415	133	6,000
33x2	ISO 6149 Jam Nut Port Connection	310	350	228	5,000

Dash Size	Brass Fittings	Wet Torque [lb-ft]	Flats Method For JIC Only	Working Pressure PSI
6	JIC 37° Flare	13	3/4-1-1/4	1,200
8	JIC 37° Flare	23	3/4-1-1/4	1,200
12	JIC 37° Flare	60	3/4-1	1,200

SAE J514 Working Pressure Ratings Capable of 4 to 1 Minimum Burst

Note: In the case of a fitting that is a jump size, it is recommend that the lower pressure of the two ends must be recognized as the working pressure rating for that fitting. This is also the case if the fitting has one or more different style ends. For example, straight threads to pipe threads. In this case it is also recommended that the lower pressure rating of the two different style ends must be recognized as the working pressure rating for that fitting.

Nom SAE Dash Size	Nom Tube O.D. M.M.	Nom Tube O.D. Inch	Straight Thread Size	Nom Pipe Size	Rigid SAE St. Thread Unions & Bulkhead MPa	Rigid SAE St. Thread Unions & Bulkhead PSI	Adjustable SAE Std. Thread & Swivel Female MPa	Adjustable SAE Std. Thread & Swivel Female PSI	Fittings with Pipe Thread MPa	Fittings with Pipe Thread PSI	NPSM Std. Pipe Thread Maximum Operating Pressure MPa	NPSM Std. Pipe Thread Maximum Operating Pressure PSI
2	3.18	0.125	5/16-24	1/8	34.5	5,000	34.5	5,000	34.5	5,000	34.5	5,000
3	4.76	0.188	3/8-24	1/8	34.5	5,000	34.5	5,000	34.5	5,000	34.5	5,000
4	6.35	0.250	7/16-20	1/8	34.5	5,000	31.0	4,500	34.5	5,000	34.5	5,000
5	7.94	0.313	1/2-20	1/8	34.5	5,000	27.5	4,000	34.5	5,000	—	—
6	9.52	0.375	9/16-18	1/4	34.5	5,000	27.5	4,000	27.5	4,000	27.5	4,000
8	12.70	0.500	3/4-16	3/8	31.0	4,500	27.5	4,000	21.0	3,000	24.1	3,500
10	15.88	0.625	7/8-14	1/2	24.0	3,500	21.0	3,000	21.0	3,000	—	—
12	19.05	0.750	1 1/16-12	3/4	24.0	3,500	21.0	3,000	17.0	2,500	15.5	2,250
14	22.22	0.875	1 3/16-12	3/4	21.0	3,000	17.0	2,500	17.0	2,500	—	—
16	25.40	1.000	1 5/16-12	1	21.0	3,000	17.0	2,500	14.0	2,000	13.8	2,000
20	31.75	1.250	1 5/8-12	1 1/4	17.0	2,500	14.0	2,000	8.0	1,150	11.2	1,625
24	38.10	1.500	1 7/8-12	1 1/2	14.0	2,000	10.5	1,500	7.0	1,000	8.6	1,250
32	50.30	2.000	2 1/2-12	2	10.5	1,500	8.0	1,125	7.0	1,000	7.8	1,125

MPa (Mega Pascals) - 1 MPa = 145 PSI

Technical Specification

SAE J1453 Working, Proof & Minimum Pressures for Face Seal Fittings

A-004

Note: In the case of a fitting that is a jump size, it is recommend that the lower pressure of the two ends must be recognized as the working pressure rating for that fitting. This is also the case if the fitting has one or more different style ends. For example, Face Seal to pipe threads. In this case it is also recommended that the lower pressure rating of the two different style ends must be recognized as the working pressure rating for that fitting.

Nom SAE Dash Size	Straight Fittings Working MPa	Straight Fittings Working PSI	Straight Fittings Proof MPa	Straight Fittings Proof PSI	Straight Fittings Min. Burst MPa	Straight Fittings Min. Burst PSI	Adjustable Fittings Working MPa	Adjustable Fittings Working PSI	Adjustable Fittings Proof MPa	Adjustable Fittings Proof PSI	Adjustable Fittings Min. Burst MPa	Adjustable Fittings Min. Burst PSI
4	41.3	6,000	82.5	12,000	165	24,000	41.3	6,000	82.5	12,000	165.0	24,000
6	41.3	6,000	82.5	12,000	165	24,000	41.3	6,000	82.5	12,000	165.0	24,000
8	41.3	6,000	82.5	12,000	165	24,000	41.3	6,000	82.5	12,000	165.0	24,000
10	41.3	6,000	82.5	12,000	165	24,000	41.3	6,000	82.5	12,000	165.0	24,000
12	41.3	6,000	82.5	12,000	165	24,000	41.3	6,000	82.5	12,000	165.0	24,000
16	41.3	6,000	82.5	12,000	165	24,000	34.5	5,000	69.9	10,000	138.0	20,000
20	27.5	4,000	55.0	8,000	110	16,000	27.5	4,000	55.0	8,000	110.0	16,000
24	27.5	4,000	55.0	8,000	110	16,000	20.7	3,000	41.3	6,000	82.5	12,000

MPa (Mega Paskels) - 1 MPa = 145 PSI

SAE J518 Maximum Working Pressure Ratings for Code 61 Flange Fittings

Nominal Flange Size Inch	Maximum Recommended Working Pressure MPa	Maximum Recommended Working Pressure PSI
1/2	34.5	5,000
3/4	34.5	5,000
1	34.5	5,000
1 1/4	27.6	4,000
1 1/2	20.7	3,000
2	20.7	3,000

MPa (Mega Paskels) - 1 MPa = 145 PSI

SAE J518 Maximum Working Pressure Ratings for Code 62 Flange Fittings

Nominal Flange Size Inch	Maximum Recommended Working Pressure MPa	Maximum Recommended Working Pressure PSI
1/2	41.4	6,000
3/4	41.4	6,000
1	41.4	6,000
1 1/4	41.4	6,000
1 1/2	41.4	6,000
2	41.4	6,000

MPa (Mega Paskels) - 1 MPa = 145 PSI

Parts Nomenclature

Brennan Industries, Inc.'s hydraulic tube fitting and adapter part numbers are constructed from symbols that identify the series, size, material and type of product. When ordering part numbers, begin by listing the series followed by the size and the material suffix. Sizes are measured in sixteenths of an inch (example: 4/16 or 4). The standard product is produced in steel and requires no material suffix. If ordering stainless steel products, add the suffix SS, and if you are ordering brass products, add the suffix B. Add the suffix D for Aluminum products. Standard steel shapes such as 90°, 45°, tees and crosses are produced as a forging as well as fitting components brazed together. If you require forged one-piece construction parts, order the part number with the F6 suffix. All stainless steel and brass, Aluminum shapes are forged one-piece construction and therefore do not require the FG suffix. Metric Bite Type Fittings are called out by tube size (in millimeters) i.e. 20mm Tube (S20), while Metric Port Fittings are called out by Thread O.D. and Thread Pitch (in millimeters) i.e. 30x2.0 or 30x1.5. BSPP fittings, while different from U.S. threads are still measured fractionally and are therefore called out by sixteenths of an inch.

2501-08-08-SS

This is a 2501 Series with a 1/2" male JIC tube and a 1/2" male pipe thread. The part number also indicates that the product is made of stainless steel.

2501-12-08-FG

This is a 2501 Series with a 3/4" male JIC tube and a 1/2" male pipe thread. The part number also indicates that the product was produced as a forged one-piece construction, steel adapter.

2501-04-04-B

This is a 2501 Series with a 1/4" male JIC tube and a 1/4" male pipe thread. The part number also indicates that the product is made of brass.

2501-08-0G-D

This is a 2501 Series with a 1/2" male JIC tube and a 3/8" male pipe thread. The part number also indicates that the product is made of Aluminum.

Glossary of Descriptions

A0RB: Adjustable 0-ring Boss (NWO)

B: Brass

BHLN: Bulk Head Lock Nut

BSPP: British Standard Pipe Parallel (G Thread)

BSPPS: British Standard Pipe Parallel Swivel

BSPT: British Standard Pipe Taper (R Thread)

BT: Bite Type

BT: Bored Through Connector in

Double Ferrule Series

BTS: Bite Type Swivel

BULN: Back-up Lock Nut (NWO)

BW: Butt Weld

C: (before number) Bite Type

C: (after number) Cap

COR: Captive O-Ring (Style DIN 3852, Form E)

C HEX: Width Across the Wrench

D: Aluminum

DK0: 24° Sealing Cone (Female Swivel) with O-Ring

E: Extra Light (Metric Fittings)

F: (before number) Flare-0

FBSPP: Female British Standard Pipe Parallel

FBSPPT: Female British Standard Pipe Tapered

FBSPPS: Female British Standard

Pipe Parallel Swivel

FFS: Female Face Seal

FFSS: Female Face Seal Swivel

FG: Forged Flats of the Hex

FIF: Female Inverted Flare

FJ: Female J.I.C.

FJIS: Female J.I.S.

FJS: Female J.I.C. Swivel

FK: Female Komatsu

FMS: Female Metric Swivel

FO: Flare-0

FORB: Female 0-ring Boss

FP: Female Pipe

FPS: Female Pipe Swivel

FS: Face Seal

FSAES: Female SAE Swivel, 45° Seat

H: Hollow Hex O-ring Plug

HB: Hose Barb

HP: Hollow Hex Pipe Plug

I.D.: Inside Dimension

JIC: Joint Industrial Council, 37° Flare

JIS: Japanese Industrial Standard, 30° Flare

L Light (7005-04-L06-12)

L: Long (6400-L-20-20-0)

LGTH: Length

LH: Large Hex

LL: Extra Long Drop

LLL: Extra Extra Long

LLLL Extra Extra Extra Long

MAORB: Male Adjustable 0-ring Boss (NWO)

MBT: Metric Bite Type

MBSPP: Male British Standard Pipe Parallel

MBSPPADJ: Male British Standard Pipe

Parallel Adjustable

MBSPPAORB: Male British Standard Pipe

Parallel Adjustable 0-ring Boss

MBSPT: Male British Standard Pipe Tapered

MFS: Male Face Seal

MIFS: Male Inverted Flare Swivel

MJ: Male J.I.C.

MJIS: Male J.I.S.

MKOM: Male Komatsu

M.M.: Millimeters

MM: Male Metric

MMADJ: Male Metric Adjustable

MMAORB: Male Metric Adjustable O-ring

Boss use with ISO 6149

MMORR: Male Metric 0-Ring and

Retaining Ring

MORB: Male 0-ring Boss

MP: Male Pipe

MS: Metric Swivel

N: Used as prefix for Instrumentation fittings series (N2404-04-04-SS)

N: Extended Length (5404-N-02x0.750)

N: Locknut for NWO Assembly (0306-N-03)

NBR: Assembled with Nut and Bite Ring

NPSM: American (formerly National) Pipe

Straight Mechanical

NPTF: American (formerly National) Pipe

Taper Fuel

NWO: Nut Washer 0-ring (MAORB)

0-0-Ring

O.D.: Outside Dimension

ORB: 0-Ring Boss

PC DOT: SAE DOT Push to Connect Fittings for Vehicle Applications

PCNY: Push to Connect Nylon Fittings

PCNB: Push to Connect Nickel-Plated

Brass Fittings

PL: Push Lock

PLATE MAX: Recommended Maximum Plate

Thickness After Assembling the Bulkhead

with the 306 Locknut, 318 Nut & 319

Sleeve

P: Plug

S: Heavy (7005-04-S06-14)

S: Steel

SAE: Society of Automotive Engineering

SHP: Square Head Plug

SS: Stainless Steel

TS: Tube Spud

V: Versa Flare

Y FLATS: Width Across the Wrench Flats



O-Ring Face Seal Fittings

O-Ring Face Seal Fittings

Brennan Industries, Inc.'s steel and stainless steel o-ring face seal fittings meet all design and performance requirements for o-ring face seal fittings in Standard J1453 published by the Society of Automotive Engineers (SAE).

B-001

(520112) B-003  FS0304-C Cap Assembly Insert	(520118) B-003  FS0306 Bulkhead Lock Nut	(520110) B-004  FS0318 Nut	(520115) B-004  FS0319 Sleeve	(520104) B-005  FS0403 Bore-MFS Straight	B-005  FS0403-TS MFS Tube Spud
B-006  FS0406 Bore-MFS Bulkhead Straight	(520101) B-006  FS2403 MFS-MFS Straight	B-007  FS2404 MFS-MP Straight	B-007  FS2405 FS-FP Straight	(520123) B-008  FS2406 FFS-MFS Tube End Reducar	(520109) B-008  FS2408 MFS Plug
(520201) B-009  FS2500 MFS-MFS 90°	B-009  FS2501 MFS-MP 90°	B-010  FS2503 MFS-MP-45°	B-010  FS2601 MFS-MFS-MP Tee	(520401) B-011  FS2603 MFS-MFS-MFS Tee	B-011  FS2605 MFS-MP-MFS Tee
(520501) B-011  FS2650 MFS-MFS-MFS-MFS Cross	(520601) B-012  FS2700 MFS-MFS Bulkhead Union	(520701) B-012  FS2701 MFS-MFS Bulkhead 90°	(520801) B-013  FS2702 MFS-MFS Bulkhead 45°	B-013  FS2703 MFS-MFS-Bulkhead Tee	(520201) B-014  FS2704 MFS-MFS-MFS Bulkhead Run Tee
B-014  FS2764 MFS Bulkhead-MORB Straight	(J515 TYPE CH) B-014  FS4000 Buna O-ring	B-015  FS4001 Viton O-ring	B-015  FS6001 Silver Braze Ring	(520120) B-016  FS6400-0 MFS-MORB Straight	(520122) B-017  FS6400-L-0 MFS-MORB Straight Long
B-017  FS6402 MFS-FJS Straight	B-017  FS6403 MFS-MJ Straight	B-018  FS6410 FORB-MFS Straight	(520221) B-018  FS6500 MFS-FFSS 90°	B-018  FS6502 MFS-FFSS 45°	B-019  FS6503 FP-FFSS 90°

O-Ring Face Seal Fittings

B-002

 FS6504 FFSS-MJ Straight	 FS6505 MP-FFSS Straight	 FS6540 FFSS-MORB Straight	 FS6564 MFS-FFSS-FORB Straight	 FS6565 FFSS-FFSS Seralight	 FS6600 MFS-MFS-FFSS Branch Tee
 FS6602 MFS-FFSS-MFS Run Tee	 FS6801-NW0 MFS-MAORB 90°	 FS6801-L-NW0 MFS-MAORB 90° Long	 FS6801-LL-NW0 MFS-MAORB 90° X-Long	 FS6802-NW0 MFS-MAORB 45°	 FS6803 MFS-MFS-MAORB Tee
 FS6803-L-NW0 MFS-MFS-MAORB Tee	 FS6804 MFS-MAORB-MFS Tee	 FS6809-NW0 FFSS-MAORB 90°	 FS6845-NW0 MFS-MAORB-FP Tee	 FS6850-NW0 MFS-MFS-MAORB -MFS Cross	 FS6859-NW0 MFS-MAORB-MFS -MFS Cross
 FS7002 MFS-MBSPP Straight	 FS7005 MFS-MM Straight	 FS7202-NW0 MFS-MBSPP 90° Elbow	 FS7205-NW0 MFS-MMAORB 90° Elbow	 FS7210 MFS-MFS-MMAORB Tee	 FS7215 MFS-MMAORB-MFS Tee
 FS7300-NW0 MFS-MMAORB 45° Elbow	 FS7640-0 MFS-MMORB ISO6149-2 Straight	 FS7701 MFS-Metric Parallel Elastomer Seal			

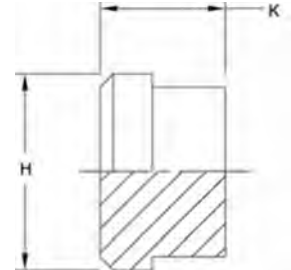
B-003

Cap Assembly Insert FS0304-C Series

Used with FS0318

SAE# 520112

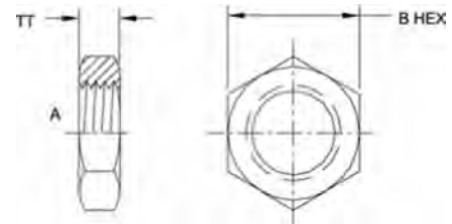
PART NO.SIZE	TUBE D.D.	H O.D.	K LGTH
FS0304-C-04	1/4	0.502	0.34
FS0304-C-06	3/8	0.620	0.37
FS0304-C-08	1/2	0.745	0.47
FS0304-C-10	5/8	0.923	0.47
FS0304-C-12	3/4	1.097	0.53
FS0304-C-16	1	1.347	0.59
FS0304-C-20	1 -1/4	1.597	0.59
FS0304-C-24	1-1/2	1.910	0.59



Bulkhead Lock Nut FS0306 Series

SAE# 520118

PART NO.SIZE	TUBE O.O.	A THREAD	B HEX	TT WIDTH
FS0306-04	1/4	9/16-18	0.812	0.27
FS0306-06	3/8	11/16-16	1.000	0.31
FS0306-08	1/2	13/16-16	1.125	0.35
FS0306-10	5/8	1-14	1.312	0.41
FS0306-12	3/4	1-3/16-12	1.500	0.41
FS0306-16	1	1-7/16-12	1.750	0.41
FS0306-20	1-1/4	1 11/16-12	2.000	0.41
FS0306-24	1-1/2	2-12	2.375	0.41

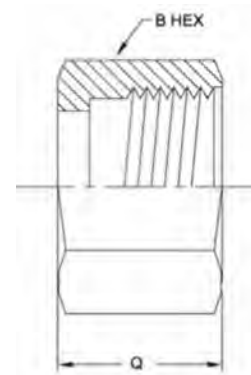


Technical Specification

Nut FS0318 Series

SAE# 520110

PART NO.SIZE	TUBE O.D.	A THREAD	8 HEX	Q WIDTH
FS0318-04	1/4	9/16-18	0.687	0.580
FS0318-06	3/8	11/16-16	0.812	0.670
FS0318-08	1/2	13/16-16	0.938	0.827
FS0318-10	5/8	1-14	1.125	0.925
FS0318-12	3/4	1-3/16-12	1.375	1.024
FS0318-16	1	1-7/16-12	1.625	1.095
FS0318-20	1-1/4	1-11/16-12	1.875	1.095
FS0318-24	1-1/2	2-12	2.250	1.095

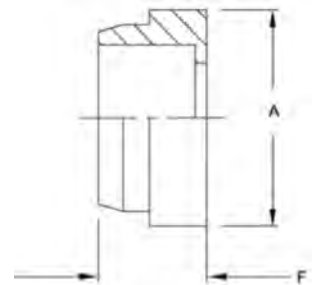


B-004

Sleeve FS0319 Series

SAE# 520115

PART NO.SIZE	TUBE O.D.	A O.D.	F LGTH
FS0319-04	1/4	0.502	0.374
FS0319-06	3/8	0.620	0.374
FS0319-08	1/2	0.745	0.374
FS0319-10	5/8	0.923	0.413
FS0319-12	3/4	1.097	0.551
FS0319-16	1	1.347	0.610
FS0319-20	1-1/4	1.597	0.610
FS0319-24	1-1/2	1.910	0.610

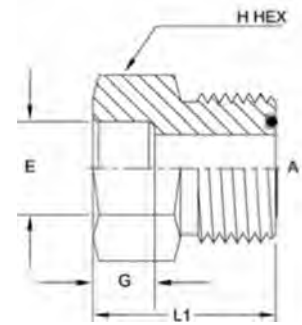


Note: Braze style

B-005

Bore-MFS Straight FS0403 Series

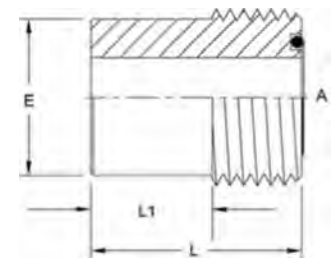
SAE# 520104



PART NO.SIZE	E* BORE	A THREAD	A DRILL	G* DEPTH	LI LGTH	H HEX
FS0403-04-04	0.256	9/16-18	0.172	0.330	0.86	0.625
FS0403-04-06	0.256	11/16-16	0.264	0.330	0.90	0.750
FS0403-06-04	0.381	9/16-18	0.172	0.330	0.86	0.750
FS0403-06-06	0.381	11/16-16	0.264	0.330	0.90	0.750
FS0403-06-08	0.381	13/16-16	0.378	0.330	0.97	0.875
FS0403-08-06	0.506	11/16-16	0.264	0.330	0.90	0.875
FS0403-08-08	0.506	13/16-16	0.378	0.330	0.97	0.875
FS0403-08-10	0.506	1-14	0.484	0.330	1.07	1.062
FS0403-08-12	0.506	1-3/16-12	0.609	0.330	1.16	1.250
FS0403-10-08	0.631	13/16-16	0.378	0.330	0.97	1.062
FS0403-10-10	0.631	1-14	0.484	0.330	1.07	1.062
FS0403-10-12	0.631	1-3/16-12	0.609	0.330	1.16	1.250
FS0403-12-08	0.757	13/16-16	0.378	0.490	1.13	1.250
FS0403-12-10	0.757	1-14	0.484	0.490	1.23	1.250
FS0403-12-12	0.757	1-3/16-12	0.609	0.490	1.32	1.250
FS0403-12-16	0.757	1-7/16-12	0.811	0.490	1.46	1.500
FS0403-16-12	1.007	1-3/16-12	0.609	0.550	1.38	1.500
FS0403-16-16	1.007	1-7/16-12	0.811	0.550	1.52	1.500
FS0403-16-20	1.007	1-11/16-12	1.024	0.550	1.52	1.750
FS0403-20-20	1.258	1-11/16-12	1.024	0.550	1.52	1.750
FS0403-20-24	1.258	2-12	1.260	0.550	1.52	2.125
FS0403-24-20	1.508	1-11/16-12	1.024	0.550	1.52	2.125
FS0403-24-24	1.508	2-12	1.260	0.550	1.52	2.125

*E,G dimensions are for silver brazing.(SAEII453)

MFS Tube Spud FS0403-TS Series



PART NO.SIZE	E* DIA	A THREAD	E DRILL	A DRILL	11 LGTH	L LGTH
FS0403-TS-04-04	0.468	9/16-18	0.172	0.172	0.454	0.735
FS0403-TS-08-08	0.719	13/16-16	0.378	0.378	0.292	0.694
FS0403-TS-10-10	0.891	1-14	0.484	0.484	0.570	1.070
FS0403-TS-12-12	1.069	1-3/16-12	0.609	0.609	0.408	0.945
FS0403-TS-16-16	1.319	1-7/16-12	0.811	0.811	0.473	1.029

*E dimensions are for silver brazing.(SAE J1453)

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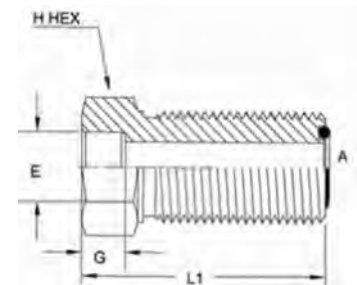
O-Ring Face Seal Fittings

Bore-MFS Bulkhead Straight FS0406 Series

PART NO.SIZE	E* BORE	A THREAD	A DRILL	G DEPTH	LI LGTH	H HEX
FS0406-08-08	0.506	13/16-16	0.378	0.330	1.91	0.875
FS0406-10-08	0.631	13/16-16	0.378	0.330	1.91	1.062

*E,G dimensions are for silver brazing.(SAE J1453)

*Locknut style available. Use part number FS0406-LN-(size)

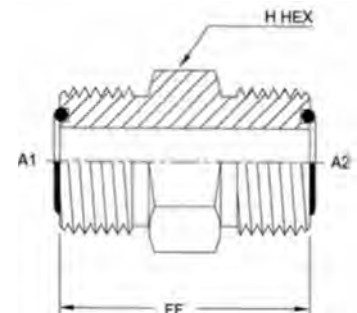


B-006

MFS-MFS Straight FS2403 Series

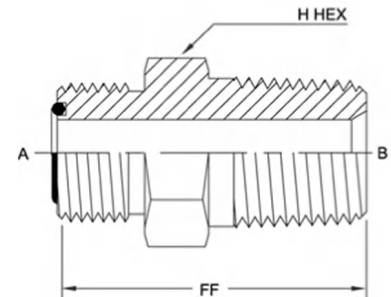
SAE # 520101

PART NO.SIZE	A1 TUBE O.D.	A2 TUBE O.D.	A1 THREAD	A2 THREAD	A1 DRILL	A2 DRILL	FF LGTH	H HEX
FS2403-04-04	1/4	1/4	9/16-18	9/16-18	0.172	0.172	1.08	0.625
FS2403-06-04	3/8	1/4	11/16-16	9/16-18	0.264	0.172	1.17	0.750
FS2403-06-06	3/8	3/8	11/16-16	11/16-16	0.264	0.264	1.22	0.750
FS2403-08-06	1/2	3/8	13/16-16	11/16-16	0.378	0.264	1.33	0.875
FS2403-08-08	1/2	1/2	13/16-16	13/16-16	0.378	0.378	1.39	0.875
FS2403-10-08	5/8	1/2	1-14	13/16-16	0.484	0.378	1.57	1.062
FS2403-10-10	5/8	5/8	1-14	1-14	0.484	0.484	1.68	1.062
FS2403-12-08	3/4	1/2	1-3/16-12	13/16-16	0.609	0.378	1.69	1.250
FS2403-12-10	3/4	5/8	1-3/16-12	1-14	0.609	0.484	1.80	1.250
FS2403-12-12	3/4	3/4	1-3/16-12	1-3/16-12	0.609	0.609	1.86	1.250
FS2403-16-12	1	3/4	1-7/16-12	1-3/16-12	0.811	0.609	1.92	1.500
FS2403-16-16	1	1	1-7/16-12	1-7/16-12	0.811	0.811	1.94	1.500
FS2403-20-16	1-1/4	1	1-11/16-12	1-7/16-12	1.024	0.811	2.02	1.750
FS2403-20-20	1-1/4	1-1/4	1-11/16-12	1-11/16-12	1.024	1.024	2.02	1.750
FS2403-24-20	1-1/2	1-1/4	2-12	1-11/16-12	1.260	1.024	2.09	2.125
FS2403-24-24	1-1/2	1-1/2	2-12	2-12	1.260	1.260	2.09	2.125



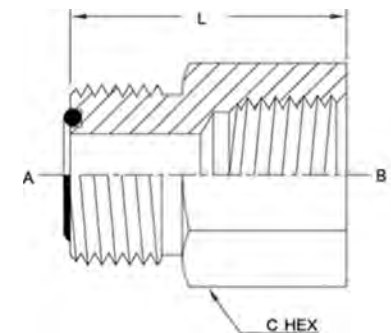
B-007

MFS-MP Straight FS2404 Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	FF LGTH	H HEX
FS2404-04-02	1/4	9/16-18	1/8-27	0.172	0.188	1.08	0.625
FS2404-04-04	1/4	9/16-18	1/4-18	0.172	0.281	1.26	0.625
FS2404-04-06	1/4	9/16-18	3/8-18	0.172	0.406	1.26	0.750
FS2404-04-08	1/4	9/16-18	1/2-14	0.172	0.531	1.50	0.938
FS2404-06-02	3/8	11/16-16	1/8-27	0.264	0.188	1.16	0.750
FS2404-06-04	3/8	11/16-16	1/4-18	0.264	0.281	1.34	0.750
FS2404-06-06	3/8	11/16-16	3/8-18	0.264	0.406	1.34	0.750
FS2404-06-08	3/8	11/16-16	1/2-14	0.264	0.531	1.55	0.938
FS2404-08-04	1/2	13/16-16	1/4-18	0.378	0.281	1.45	0.875
FS2404-08-06	1/2	13/16-16	3/8-18	0.378	0.406	1.45	0.875
FS2404-08-08	1/2	13/16-16	1/2-14	0.378	0.531	1.64	0.938
FS2404-08-12	1/2	13/16-16	3/4-14	0.378	0.719	1.69	1.250
FS2404-08-16	1/2	13/16-16	1-11-1/2	0.378	0.938	1.80	1.375
FS2404-10-08	5/8	1-14	1/2-14	0.484	0.531	1.82	1.062
FS2404-10-12	5/8	1-14	3/4-14	0.484	0.719	1.82	1.250
FS2404-10-16	5/8	1-14	1-11-1/2	0.484	0.938	1.95	1.375
FS2404-12-08	3/4	1-3/16-12	1/2-14	0.609	0.531	1.94	1.250
FS2404-12-12	3/4	1-3/16-12	3/4-14	0.609	0.719	1.94	1.250
FS2404-12-16	3/4	1-3/16-12	1-11-1/2	0.609	0.938	2.06	1.312
FS2404-16-12	1	1-7/16-12	3/4-14	0.811	0.719	2.00	1.500
FS2404-16-16	1	1-7/16-12	1-11-1/2	0.811	0.938	2.19	1.500
FS2404-16-20	1	1-7/16-12	1-1/4-11-1/2	0.811	1.250	2.30	1.688
FS2404-16-24	1	1-7/16-12	1-1/2-11-1/2	0.811	1.500	2.40	2.000
FS2404-20-16	1-1/4	1-11/16-12	1-11-1/2	1.024	0.938	2.27	1.750
FS2404-20-20	1-1/4	1-11/16-12	1-1/4-11-1/2	1.024	1.250	2.30	1.750
FS2404-24-24	1-1/2	2-12	1-1/2-11-1/2	1.260	1.500	2.40	2.125

FS-FP Straight FS2405 Series

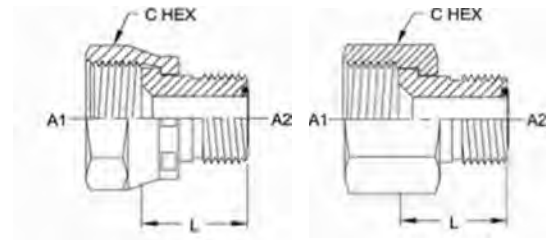


PART NO.SIZE	TUBE O.D.	A THREAD	B NPTF	A DRILL	L LGTH	C HEX
FS2405-04-04	1/4	9/16-18	1/4-18	0.172	1.23	0.750
FS2405-06-04	3/8	11/16-16	1/4-18	0.264	1.29	0.750

O-Ring Face Seal Fittings

FFS-MFS Tube End Reducar FS2406 Series

SAE# 520123



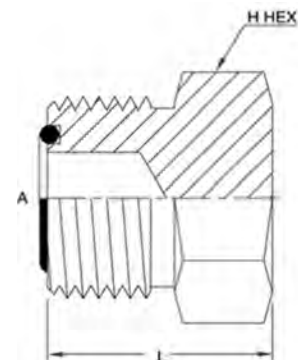
B-008

PART NO. SIZE	A1 TUBE O.D.	A2 TUBE O.D.	A1 THREAD	A2 THREAD	A2 DRILL LGTH	L	C HEX
FS2406-06-04	3/8	1/4	11/16-16	9/16-18	0.172	0.770	0.812
FS2406-08-04*	1/2	1/4	13/16-16	9/16-18	0.172	0.860	0.938
FS2406-08-06	1/2	3/8	13/16-16	11/16-16	0.264	0.880	0.938
FS2406-10-04*	5/8	1/4	1-14	9/16-18	0.172	0.900	1.125
FS2406-10-06*	5/8	3/8	1-14	11/16-16	0.264	0.950	1.125
FS2406-10-08*	5/8	1/2	1-14	13/16-16	0.378	1.010	1.125
FS2406-12-04*	3/4	1/4	1-3/16-12	9/16-18	0.172	0.980	1.375
FS2406-12-06*	3/4	3/8	1-3/16-12	11/16-16	0.264	1.030	1.375
FS2406-12-08*	3/4	1/2	1-3/16-12	13/16-16	0.378	1.090	1.375
FS2406-12-10	3/4	5/8	1-3/16-12	1-14	0.484	1.160	1.375
FS2406-12-16	3/4	1	1-3/16-12	1-7/16-12	0.609	1.240	1.375
FS2406-16-08*	1	1/2	1-7/16-12	13/16-16	0.378	1.150	1.625
FS2406-16-10*	1	5/8	1-7/16-12	1-14	0.484	1.260	1.625
FS2406-16-12	1	3/4	1-7/16-12	1-3/16-12	0.609	1.300	1.625
FS2406-16-20	1	1-1/4	1-7/16-12	1-11/16-12	0.811	1.320	1.625
FS2406-20-12*	1-1/4	3/4	1-11/16-12	1-3/16-12	0.609	1.320	1.875
FS2406-20-16	1-1/4	1	1-11/16-12	1-7/16-12	0.811	1.514	1.875
FS2406-20-24	1-1/4	1-1/2	1-11/16-12	2-12	1.260	1.514	1.875
FS2406-24-16*	1-1/2	1	2-12	1-7/16-12	0.811	1.340	2.250
FS2406-24-20*	1-1/2	1-1/4	2-12	1-11/16-12	1.024	1.340	2.250

*Note: Two-Piece Assembly

MFS Plug FS2408 Series

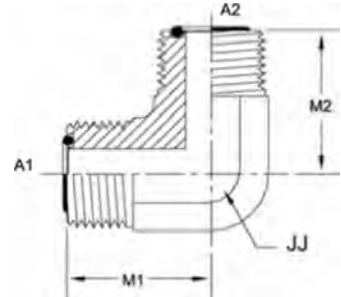
SAE# 520109



PART NO. SIZE	A THREAD	L LGTH	H HEX
FS2408-04	9/16-18	0.660	0.625
FS2408-06	11/16-16	0.750	0.750
FS2408-08	13/16-16	0.850	0.875
FS2408-10	1-14	1.020	1.062
FS2408-12	1-3/16-12	1.080	1.250
FS2408-16	1-7/16-12	1.090	1.500
FS2408-20	1-11/16-12	1.090	1.750
FS2408-24	2-12	1.090	2.125

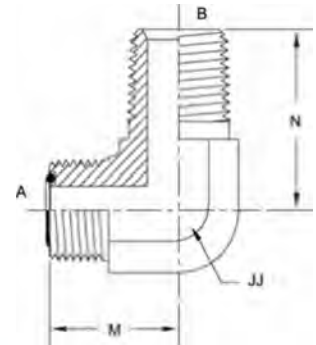
MFS-MFS 90° FS2500 Series

SAE# 520201



PART NO.SIZE	A1 TUBE O.D.	A2TUBE O.D.	A1 THREAD	A2 THREAD	A1 DRILL	A2 DRILL	M1 LGTH	M2 LGTH	JJ FLATS
FS2500-04-04-FG	1/4	1/4	9/16-18	9/16-18	0.172	0.172	0.85	0.85	0.562
FS2500-06-06-FG	3/8	3/8	11/16-16	11/16-16	0.264	0.264	0.98	0.98	0.750
FS2500-08-08-FG	1/2	1/2	13/16-16	13/16-16	0.378	0.378	1.10	1.10	0.750
FS2500-10-10-FG	5/8	5/8	1-14	1-14	0.484	0.484	1.31	1.31	1.062
FS2500-12-08-FG	3/4	1/2	1-3/16-12	13/16-16	0.609	0.378	1.47	1.32	1.188
FS2500-12-12-FG	3/4	3/4	1-3/16-12	1-3/16-12	0.609	0.609	1.47	1.47	1.188
FS2500-16-12-FG	1	3/4	1-7/16-12	1-3/16-12	0.811	0.609	1.64	1.62	1.438
FS2500-16-16-FG	1	1	1-7/16-12	1-7/16-12	0.811	0.811	1.64	1.64	1.438
FS2500-20-16-FG	1-1/4	1	1-11/16-12	1-7/16-12	1.024	0.811	1.76	1.76	1.625
FS2500-20-20-FG	1-1/4	1-1/4	1-11/16-12	1-11/16-12	1.024	1.024	1.76	1.76	1.625
FS2500-24-20-FG	1-1/2	1-1/4	2-12	1-11/16-12	1.260	1.024	1.92	1.92	1.875
FS2500-24-24-FG	1-1/2	1-1/2	2-12	2-12	1.260	1.260	1.92	1.92	1.875

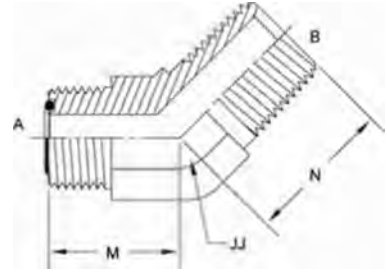
MFS-MP 90° FS2501 Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	JJ FLATS
FS2501-04-02-FG	1/4	9/16-18	1/8-27	0.172	0.188	0.85	0.90	0.562
FS2501-04-04-FG	1/4	9/16-18	1/4-18	0.172	0.281	0.85	1.09	0.562
FS2501-04-06-FG	1/4	9/16-18	3/8-18	0.172	0.406	0.92	1.22	0.750
FS2501-06-02-FG	3/8	11/16-16	1/8-27	0.264	0.188	0.98	1.03	0.750
FS2501-06-04-FG	3/8	11/16-16	1/4-18	0.264	0.281	0.98	1.22	0.750
FS2501-06-06-FG	3/8	11/16-16	3/8-18	0.264	0.406	0.98	1.22	0.750
FS2501-06-08-FG	3/8	11/16-16	1/2-14	0.264	0.531	1.10	1.47	0.875
FS2501-08-04-FG	1/2	13/16-16	1/4-18	0.378	0.281	1.10	1.22	0.750
FS2501-08-06-FG	1/2	13/16-16	3/8-18	0.378	0.406	1.10	1.22	0.750
FS2501-08-08-FG	1/2	13/16-16	1/2-14	0.378	0.531	1.10	1.47	0.875
FS2501-08-12-FG	1/2	13/16-16	3/4-14	0.378	0.719	1.21	1.59	1.062
FS2501-10-06-FG	5/8	1-14	3/8-18	0.484	0.406	1.31	1.40	1.062
FS2501-10-08-FG	5/8	1-14	1/2-14	0.484	0.531	1.31	1.59	1.062
FS2501-10-12-FG	5/8	1-14	3/4-14	0.484	0.719	1.31	1.59	1.062
FS2501-12-08-FG	3/4	1-3/16-12	1/2-14	0.609	0.531	1.47	1.59	1.188
FS2501-12-12-FG	3/4	1-3/16-12	3/4-14	0.609	0.719	1.47	1.59	1.188
FS2501-12-16-FG	3/4	1-3/16-12	1-11-1/2	0.609	0.938	1.62	1.97	1.312
FS2501-16-12-FG	1	1-7/16-12	3/4-14	0.811	0.719	1.64	1.78	1.438
FS2501-16-16-FG	1	1-7/16-12	1-11-1/2	0.811	0.938	1.64	1.97	1.438
FS2501-16-20-FG	1	1-7/16-12	1-1/4-11-1/2	0.811	1.250	1.76	2.38	1.625
FS2501-20-16-FG	1-1/4	1-11/16-12	1-11-1/2	1.024	0.938	1.76	2.35	1.625
FS2501-20-20-FG	1-1/4	1-11/16-12	1-1/4-11-1/2	1.024	1.250	1.76	2.38	1.625
FS2501-24-24-FG	1-1/2	2-12	1-1/2-11-1/2	1.260	1.500	1.92	2.64	1.875

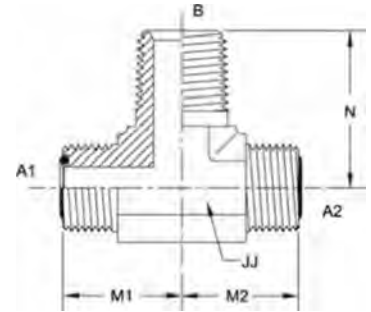
O-Ring Face Seal Fittings

MFS-MP-45⁰ FS2503 Series



B-010

PART NO.SIZE	TUBE O.O.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	JJ FLATS
FS2503-04-02-FG	1/4	9/16-18	1/8-27	0.172	0.188	0.63	0.67	0.562
FS2503-04-04-FG	1/4	9/16-18	1/4-18	0.172	0.281	0.63	0.86	0.562
FS2503-06-04-FG	3/8	11/16-16	1/4-18	0.264	0.281	0.74	0.95	0.750
FS2503-06-06-FG	3/8	11/16-16	3/8-18	0.264	0.406	0.74	0.95	0.750
FS2503-06-08-FG	3/8	11/16-16	1/2-14	0.264	0.531	0.79	1.17	0.875
FS2503-08-06-FG	1/2	13/16-16	3/8-18	0.378	0.406	0.80	0.95	0.750
FS2503-08-08-FG	1/2	13/16-16	1/2-14	0.378	0.531	0.82	1.17	0.875
FS2503-08-12-FG	1/2	13/16-16	3/4-14	0.378	0.719	0.82	1.20	1.062
FS2503-10-08-FG	5/8	1-14	1/2-14	0.484	0.531	0.92	1.20	1.062
FS2503-12-08-FG	3/4	1-3/16-12	1/2-14	0.609	0.531	1.02	1.20	1.188
FS2503-12-12-FG	3/4	1-3/16-12	3/4-14	0.609	0.719	1.02	1.20	1.188
FS2503-16-16-FG	1	1-7/16-12	1-11-1/2	0.811	0.938	1.18	1.48	1.438
FS2503-20-20-FG	1-1/4	1-11/16-12	1-1/4-11-1/2	1.024	1.250	1.26	1.67	1.625



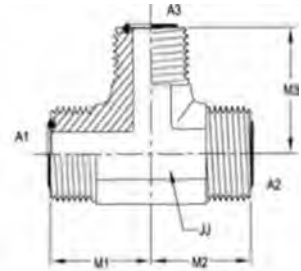
MFS-MFS-MP Tee FS2601 Series

PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	B THREAD	A1 DRILL	A2 DRILL	B DRILL	MI LGTH	M2 LGTH	N LGTH	JJ FLATS
FS2601-04-04-04-FG	1/4	9/16-18	9/16-18	1/4-18	0.172	0.172	0.281	0.85	0.85	1.09	0.562
FS2601-06-06-04-FG	3/8	11/16-16	11/16-16	1/4-18	0.264	0.264	0.281	0.98	0.98	1.22	0.750
FS2601-06-06-06-FG	3/8	11/16-16	11/16-16	3/8-18	0.264	0.264	0.406	0.98	0.98	1.22	0.750
FS2601-08-08-08-FG	1/2	13/16-16	13/16-16	1/2-14	0.378	0.378	0.531	1.10	1.10	1.47	0.875
FS2601-10-10-08-FG	5/8	1-14	1-14	1/2-14	0.484	0.484	0.531	1.31	1.31	1.59	1.062
FS2601-12-12-12-FG	3/4	1-3/16-12	1-3/16-12	3/4-14	0.609	0.609	0.719	1.47	1.47	1.59	1.188
FS2601-16-16-16-FG	1	1-7/16-12	1-7/16-12	1-11-1/2	0.811	0.811	0.938	1.64	1.64	1.97	1.438
FS2601-20-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1-1/4-11-1/2	1.024	1.024	1.250	1.76	1.76	2.38	1.625

MFS-MFS-MFS Tee

FS2603 Series

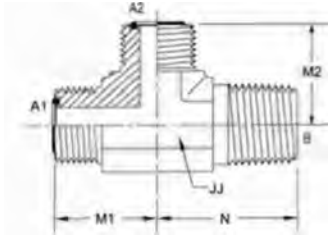
SAE# 520401



PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	A3 THREAD	A1 DRILL	A2 DRILL	A3 DRILL	M1 LGTH	M2 LGTH	M3 LGTH	JJ FLATS
FS2603-04-04-04-FG	1/4	9/16-18	9/16-18	9/16-18	0.172	0.172	0.172	0.85	0.85	0.85	0.562
FS2603-06-06-06-FG	3/8	11/16-16	11/16-16	11/16-16	0.264	0.264	0.264	0.98	0.98	0.98	0.750
FS2603-06-06-08-FG	3/8 1/2	11/16-16	11/16-16	13/16-16	0.264	0.264	0.378	1.04	1.04	1.10	0.750
FS2603-06-08-08-FG	3/8 1/2	11/16-16	13/16-16	13/16-16	0.264	0.378	0.378	1.04	1.10	1.10	0.750
FS2603-08-08-08-FG	1/2	13/16-16	13/16-16	13/16-16	0.378	0.378	0.378	1.10	1.10	1.10	0.750
FS2603-08-08-10-FG	1/2 5/8	13/16-16	13/16-16	1-14	0.378	0.378	0.484	1.21	1.21	1.31	1.062
FS2603-10-10-10-FG	5/8	1-14	1-14	1-14	0.484	0.484	0.484	1.31	1.31	1.31	1.062
FS2603-12-12-12-FG	3/4	1-3/16-12	1-3/16-12	1-3/16-12	0.609	0.609	0.609	1.47	1.47	1.47	1.188
FS2603-16-16-16-FG	1	1-7/16-12	1-7/16-12	1-7/16-12	0.811	0.811	0.811	1.64	1.64	1.64	1.438
FS2603-20-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1-11/16-12	1.024	1.024	1.024	1.76	1.76	1.76	1.625
FS2603-24-24-24-FG	1-1/2	2-12	2-12	2-12	1.260	1.260	1.260	1.92	1.92	1.92	1.875
FS2603-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	1.772	1.772	1.772	2.52	2.52	2.52	2.562

MFS-MP-MFS Tee

FS2605 Series

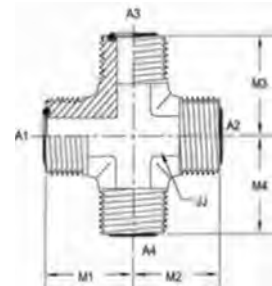


PART NO.SIZE	TUBE O.D.	A1 THREAD	B THREAD	A2 THREAD	A1 DRILL	B DRILL	A2 DRILL	M1 LGTH	N LGTH	M2 LGTH	JJ FLATS
FS2605-04-04-04-FG	1/4	9/16-18	1/4-18	9/16-18	0.172	0.281	0.172	0.85	1.09	0.85	0.562
FS2605-06-06-06-FG	3/8	11/16-16	3/8-18	11/16-16	0.264	0.406	0.264	0.98	1.22	0.98	0.750
FS2605-08-08-08-FG	1/2	13/16-16	1/2-14	13/16-16	0.378	0.531	0.378	1.10	1.47	1.10	0.875
FS2605-12-12-12-FG	3/4	1-3/16-12	3/4-14	1-3/16-12	0.609	0.719	0.609	1.47	1.59	1.47	1.188
FS2605-16-16-16-FG	1	1-7/16-12	1-11/16-12	1-7/16-12	0.811	0.938	0.811	1.64	1.97	1.64	1.438

MFS-MFS-MFS-MFS Cross

FS2650 Series

SAE# 520501

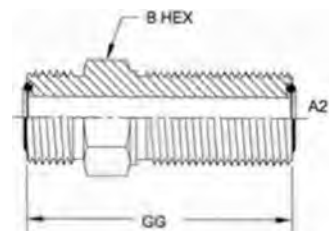


PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	A3 THREAD	A4 THREAD	A1 DRILL	A2 DRILL	A3 DRILL	A4 DRILL	M1 LGTH	M2 LGTH	M3 LGTH	M4 LGTH	JJ FLATS
FS2650-04-04-04-04-FG	1/4	9/16-18	9/16-18	9/16-18	9/16-18	0.172	0.172	0.172	0.172	0.85	0.85	0.85	0.85	0.562
FS2650-06-06-06-06-FG	3/8	11/16-16	11/16-16	11/16-16	11/16-16	0.264	0.264	0.264	0.264	0.98	0.98	0.98	0.98	0.750
FS2650-08-08-08-08-FG	1/2	13/16-16	13/16-16	13/16-16	13/16-16	0.378	0.378	0.378	0.378	1.10	1.10	1.10	1.10	0.750
FS2650-10-10-10-10-FG	5/8	1-14	1-14	1-14	1-14	0.484	0.484	0.484	0.484	1.31	1.31	1.31	1.31	1.062
FS2650-12-12-12-12-FG	3/4	1-3/16-12	1-3/16-12	1-3/16-12	1-3/16-12	0.609	0.609	0.609	0.609	1.47	1.47	1.47	1.47	1.188
FS2650-16-16-16-16-FG	1	1-7/16-12	1-7/16-12	1-7/16-12	1-7/16-12	0.811	0.811	0.811	0.811	1.64	1.64	1.64	1.64	1.438
FS2650-20-20-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1-11/16-12	1-11/16-12	1.024	1.024	1.024	1.024	1.76	1.76	1.76	1.76	1.625
FS2650-24-24-24-24-FG	1-1/2	2-12	2-12	2-12	2-12	1.260	1.260	1.260	1.260	1.92	1.92	1.92	1.92	1.875

O-Ring Face Seal Fittings

MFS-MFS Bulkhead Union FS2700 Series

SAE# 520601



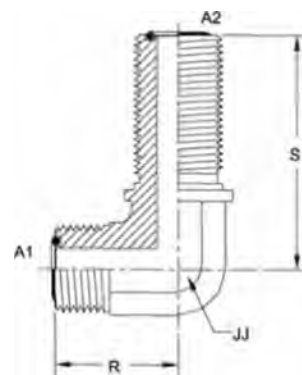
B-012

PART NO.SIZE	TUBE O.O.	A1 THREAD	A2 THREAD	A1 DRILL	A2 DRILL	GD LGTH	B HEX
FS2700-04-04	1/4	9/16-18	9/16-18	0.172	0.172	1.90	0.812
FS2700-06-06	3/8	11/16-16	11/16-16	0.264	0.264	2.09	1.000
FS2700-06-08	3/8 1/2	11/16-16	13/16-16	0.264	0.378	2.24	1.125
FS2700-08-08	1/2	13/16-16	13/16-16	0.378	0.378	2.30	1.125
FS2700-10-10	5/8	1-14	1-14	0.484	0.484	2.62	1.312
FS2700-12-06	3/4	1-3/16-12	11/16-16	0.609	0.264	2.42	1.500
FS2700-12-12	3/4	1-3/16-12	1-3/16-12	0.609	0.609	2.72	1.500
FS2700-16-16	1	1-7/16-12	1-7/16-12	0.811	0.811	2.76	1.750
FS2700-20-20	1-1/4	1-11/16-12	1-11/16-12	1.024	1.024	2.76	2.000
FS2700-24-24	1-1/2	2-12	2-12	1.260	1.260	2.76	2.375

*Locknut style available. Use part number FS2700-LN-(size)

MFS-MFS Bulkhead 90° FS2701 Series

SAE# 520701



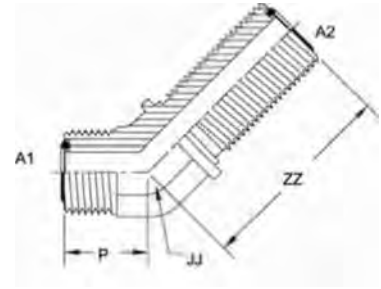
PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	A1 DRILL	A2 DRILL	R LGTH	S LGTH	JJ FLATS
FS2701-04-04-FG	1/4	9/16-18	9/16-18	0.172	0.172	0.89	1.85	0.562
FS2701-06-06-FG	3/8	11/16-16	11/16-16	0.264	0.264	1.02	2.05	0.750
FS2701-06-08-FG	3/8 1/2	11/16-16	13/16-16	0.264	0.378	1.08	2.18	0.750
FS2701-08-08-FG	1/2	13/16-16	13/16-16	0.378	0.378	1.14	2.18	0.750
FS2701-08-10-FG	1/2 5/8	13/16-16	1-14	0.378	0.484	1.26	2.48	1.062
FS2701-10-10-FG	5/8	1-14	1-14	0.484	0.484	1.36	2.48	1.062
FS2701-12-12-FG	3/4	1-3/16-12	1-3/16-12	0.609	0.609	1.52	2.65	1.188
FS2701-16-16-FG	1	1-7/16-12	1-7/16-12	0.811	0.811	1.67	2.80	1.438
FS2701-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1.024	1.024	1.79	2.97	1.625
FS2701-24-24-FG	1-1/2	2-12	2-12	1.260	1.260	1.95	3.13	1.875

*Locknut style available. Use part number FS2701-LN-(size)

B-013

MFS-MFS Bulkhead 45° FS2702 Series

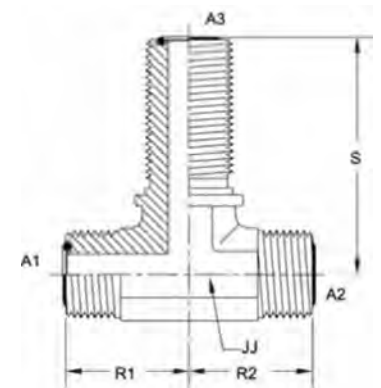
SAE# 520801



PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	A1 DRILL	A2 DRILL	P LGTH	ZZ LGTH	JJ FLATS
FS2702-04-04-FG	1/4	9/16-18	9/16-18	0.172	0.172	0.63	1.73	0.562
FS2702-06-06-FG	3/8	11/16-16	11/16-16	0.264	0.264	0.74	1.91	0.750
FS2702-06-08-FG	3/8 1/2	11/16-16	13/16-16	0.264	0.378	0.74	2.01	0.750
FS2702-08-08-FG	1/2	13/16-16	13/16-16	0.378	0.378	0.80	2.01	0.750
FS2702-10-08-FG	5/8 1/2	13/16-16	1-14	0.378	0.484	0.92	2.13	1.062
FS2702-10-10-FG	5/8	1-14	1-14	0.484	0.484	0.92	2.23	1.062
FS2702-12-12-FG	3/4	1-3/16-12	1-3/16-12	0.609	0.609	1.02	2.39	1.188
FS2702-16-16-FG	1	1-7/16-12	1-7/16-12	0.811	0.811	1.18	2.57	1.438
FS2702-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1.024	1.024	1.26	2.64	1.625
FS2702-24-24-FG	1-1/2	2-12	2-12	1.260	1.260	1.45	2.64	1.875

*Locknut style available. Use part number FS2702-LN-(size)

MFS-MFS-MFS Bulkhead Tee FS2703 Series



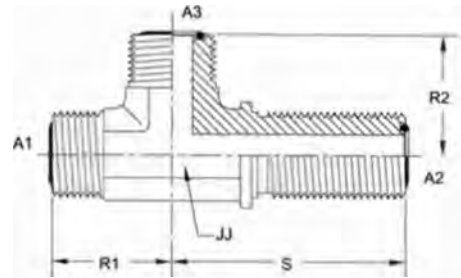
PART NO.SIZE	TUBE O.D.	A1 THREAO	A2 THREAD	A3 THREAO	A1 DRILL	A2 DRILL	A3 DRILL	R1 LGTH	R2 LGTH	S LGTH	JJ FLATS
FS2703-04-04-04-FG	1/4	9/16-18	9/16-18	9/16-18	0.172	0.172	0.172	0.89	0.89	1.85	0.562
FS2703-06-06-06-FG	3/8	11/16-16	11/16-16	11/16-16	0.264	0.264	0.264	1.02	1.02	2.05	0.750
FS2703-08-08-08-FG	1/2	13/16-16	13/16-16	13/16-16	0.378	0.378	0.378	1.14	1.14	2.18	0.750
FS2703-12-12-12-FG	5/8	1-3/16-12	1-3/16-12	1-3/16-12	0.609	0.609	0.609	1.52	1.52	2.65	1.188
FS2703-16-16-16-FG	1	1-7/16-12	1-7/16-12	1-7/16-12	0.811	0.811	0.811	1.67	1.67	2.80	1.438

*Locknut style available. Use part number FS2703-LN-(size)

O-Ring Face Seal Fittings

MFS-MFS-MFS Bulkhead Run Tee FS2704 Series

SAE# 520201

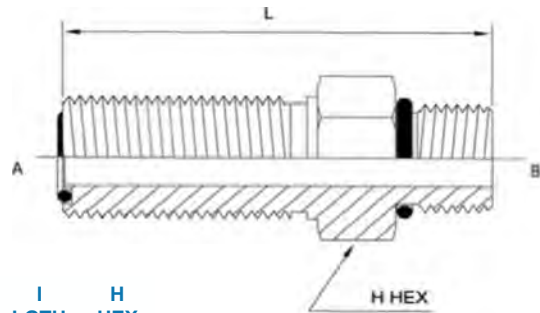


B-014

PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	A3 THREAD	A1 DRILL	A2 DRILL	A3 ORILL	R1 LGTH	S LGTH	R2 LGTH	JJ FLATS
FS2704-04-04-04-FG	1/4	9/16-18	9/16-18	9/16-18	0.172	0.172	0.172	0.89	1.85	0.89	0.562
FS2704-06-06-06-FG	3/8	11/16-16	11/16-16	11/16-16	0.264	0.264	0.264	1.02	2.05	1.02	0.750
FS2704-08-08-08-FG	1/2	13/16-16	13/16-16	13/16-16	0.378	0.378	0.378	1.14	2.18	1.14	0.750
FS2704-10-10-10-FG	5/8	1-14	1-14	1-14	0.484	0.484	0.484	1.36	2.48	1.36	1.062
FS2704-12-12-12-FG	3/4	1-3/16-12	1-3/16-12	1-3/16-12	0.609	0.609	0.609	1.52	2.65	1.52	1.188
FS2704-16-16-16-FG	1	1-7/16-12	1-7/16-12	1-7/16-12	0.811	0.811	0.811	1.67	2.80	1.67	1.438
FS2704-20-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1-11/16-12	1.024	1.024	1.024	1.79	2.97	1.79	1.625
FS2704-24-24-24-FG	1-1/2	2-12	2-12	2-12	1.260	1.260	1.260	1.95	3.13	1.95	1.875

*Locknut style available. Use part number FS2704-LN-(size)

MFS Bulkhead- MORB Straight FS2764 Series



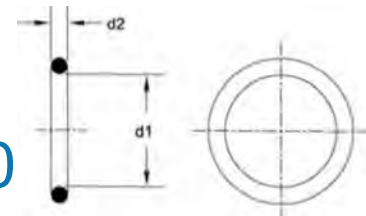
PART NO.SIZE	TUBE O.D.	A THREAD	B MORB	A DRILL	B DRILL	I LGTH	H HEX
FS2764-04-04	1/4	9/16-18	7/16-20	0.172	0.172	2.08	0.812
FS2764-04-06	3/8	9/16-18	9/16-18	0.172	0.264	2.12	0.812
FS2764-06-06	3/8	11/16-16	9/16-18	0.264	0.264	2.25	1.000
FS2764-08-08	1/2	13/16-16	3/4-16	0.378	0.378	2.46	1.125
FS2764-10-10	5/8	1-14	7/8-14	0.484	0.484	2.74	1.312
FS2764-12-12	3/4	1-3/16-12	1-1/16-12	0.609	0.609	2.89	1.500
FS2764-16-16	1	1-7/16-12	1-5/16-12	0.811	0.811	2.90	1.750
FS2764-20-20	1-1/4	1-11/16-12	1-5/8-12	1.024	1.024	2.90	2.000
FS2764-24-24	1-1/2	2-12	1-7/8-12	1.260	1.260	2.90	2.375

*Locknut style available. Use part number FS2764-LN-(size)

PART NO.SIZE	TUBE D.D.	d2 WIDTH	d1 1.0.
FS4000-04	1/4	0.70	0.301
FS4000-06	3/8	0.70	0.364
FS4000-08	1/2	0.70	0.489
FS4000-10	5/8	0.70	0.614
FS4000-12	3/4	0.70	0.739
FS4000-16	1	0.70	0.926
FS4000-20	1-1/4	0.70	1.176
FS4000-24	1-1/2	0.70	1.489
FS4000-32	2	0.70	

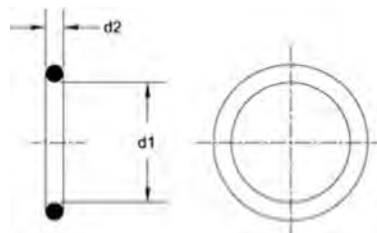
Buna O-ring FS4000 Series

SAE# J 5 1 5 TYPE CH



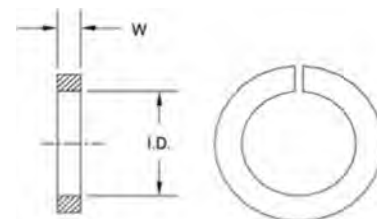
B-015

Viton O-ring FS4001 Series



PART NO.SIZE	TUBE O.O.	d2 WIDTH	d1 I.O.
FS4001-04	1/4	0.70	0.301
FS4001-06	3/8	0.70	0.364
FS4001-08	1/2	0.70	0.489
FS4001-10	5/8	0.70	0.614
FS4001-12	3/4	0.70	0.739
FS4001-16	1	0.70	0.926
FS4001-20	1-1/4	0.70	1.176
FS4001-24	1-1/2	0.70	1.489

Silver Braze Ring FS6001 Series

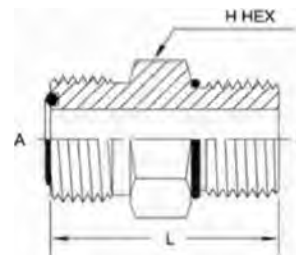


PART NO.SIZE	TUBE O.O.	W WIDTH	I.O.
FS6001 -04	1/4	0.047	0.260
FS6001-06	3/8	0.071	0.389
FS6001-08	1/2	0.071	0.515
FS6001-10	5/8	0.071	0.642
FS6001-12	3/4	0.079	0.764
FS6001-16	1	0.079	1.020
FS6001-20	1-1/4	0.079	1.264

O-Ring Face Seal Fittings

MFS-MORB Straight FS6400-0 Series

SAE# 520120



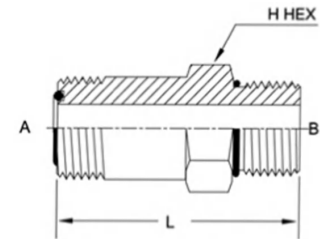
B-016

PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	L LGTH	H HEX
FS6400-04-03-0	1/4	9/16-18	3/8-24	0.172	0.118	1.074	0.625
FS6400-04-04-0	1/4	9/16-18	7/16-20	0.172	0.172	1.133	0.625
FS6400-04-05-0	1/4	9/16-18	1/2-20	0.172	0.236	1.163	0.750
FS6400-04-06-0	1/4	9/16-18	9/16-18	0.172	0.264	1.202	0.750
FS6400-04-08-0	1/4	9/16-18	3/4-16	0.172	0.378	1.321	0.875
FS6400-04-10-0	1/4	9/16-18	7/8-14	0.172	0.484	1.480	1.062
FS6400-04-12-0	1/4	9/16-18	1-1/16-12	0.172	0.609	1.638	1.250
FS6400-06-03-0	3/8	11/16-16	3/8-24	0.264	0.118	1.284	0.750
FS6400-06-04-0	3/8	11/16-16	7/16-20	0.264	0.172	1.343	0.750
FS6400-06-05-0	3/8	11/16-16	1/2-20	0.264	0.236	1.213	0.750
FS6400-06-06-0	3/8	11/16-16	9/16-18	0.264	0.264	1.252	0.750
FS6400-06-08-0	3/8	11/16-16	3/4-16	0.264	0.378	1.381	0.875
FS6400-06-10-0	3/8	11/16-16	7/8-14	0.264	0.484	1.530	1.062
FS6400-06-12-0	3/8	11/16-16	1-1/16-12	0.264	0.609	1.688	1.250
FS6400-06-16-0	3/8	11/16-16	1-5/16-12	0.264	0.811	1.728	1.500
FS6400-08-04-0	1/2	13/16-16	7/16-20	0.378	0.172	1.433	0.875
FS6400-08-06-0	1/2	13/16-16	9/16-18	0.378	0.264	1.472	0.875
FS6400-08-08-0	1/2	13/16-16	3/4-16	0.378	0.378	1.441	0.875
FS6400-08-10-0	1/2	13/16-16	7/8-14	0.378	0.484	1.590	1.062
FS6400-08-12-0	1/2	13/16-16	1-1/16-12	0.378	0.609	1.748	1.250
FS6400-08-16-0	1/2	13/16-16	1-5/16-12	0.378	0.811	1.788	1.500
FS6400-10-06-0	5/8	1-14	9/16-18	0.484	0.264	1.642	1.062
FS6400-10-08-0	5/8	1-14	3/4-16	0.484	0.378	1.781	1.062
FS6400-10-10-0	5/8	1-14	7/8-14	0.484	0.484	1.700	1.062
FS6400-10-12-0	5/8	1-14	1-1/16-12	0.484	0.609	1.858	1.250
FS6400-10-14-0	5/8	1-14	1-3/16-12	0.484	0.709	1.890	1.375
FS6400-12-06-0	3/4	1-3/16-12	9/16-18	0.609	0.264	1.772	1.250
FS6400-12-08-0	3/4	1-3/16-12	3/4-16	0.609	0.378	1.911	1.250
FS6400-12-10-0	3/4	1-3/16-12	7/8-14	0.609	0.484	1.990	1.250
FS6400-12-12-0	3/4	1-3/16-12	1-1/16-12	0.609	0.609	1.918	1.250
FS6400-12-16-0	3/4	1-3/16-12	1-5/16-12	0.609	0.811	1.958	1.500
FS6400-12-20-0	3/4	1-3/16-12	1-5/8-12	0.609	1.024	2.038	1.875
FS6400-16-08-0	1	1-7/16-12	3/4-16	0.811	0.378	1.961	1.500
FS6400-16-10-0	1	1-7/16-12	7/8-14	0.811	0.484	2.040	1.500
FS6400-16-12-0	1	1-7/16-12	1-1/16-12	0.811	0.609	2.138	1.500
FS6400-16-14-0	1	1-7/16-12	1-3/16-12	0.811	0.709	1.948	1.500
FS6400-16-16-0	1	1-7/16-12	1-5/16-12	0.811	0.811	1.978	1.500
FS6400-16-20-0	1	1-7/16-12	1-5/8-12	0.811	1.024	2.058	1.875
FS6400-20-16-0	1-1/4	1-11/16-12	1-5/16-12	1.024	0.811	2.278	1.750
FS6400-20-20-0	1-1/4	1-11/16-12	1-5/8-12	1.024	1.024	2.058	1.875
FS6400-20-24-0	1-1/4	1-11/16-12	1-7/8-12	1.024	1.260	2.128	2.125
FS6400-24-20-0	1-1/2	2-12	1-5/8-12	1.260	1.024	2.348	2.125
FS6400-24-24-0	1-1/2	2-12	1-7/8-12	1.260	1.260	2.128	2.125
FS6400-24-32-0	1-1/2	2-12	2-1/2-12	1.260	1.578	2.136	2.750
FS6400-32-32-0	2	2-1/2-12	2-1/2-12	1.772	1.578	2.313	2.750

MFS-MORB Straight Long FS6400-L-0 Series

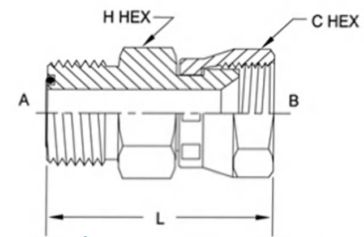
SAE# 520122

B-017



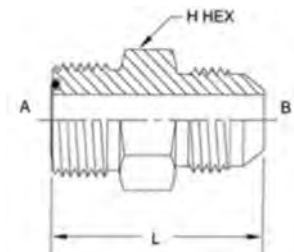
PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	I LGTH	H HEX
FS6400-L-04-04-0	1/4	9/16-18	7/16-20	0.172	0.172	2.073	0.625
FS6400-L-06-06-0	3/8	11/16-16	9/16-18	0.264	0.264	2.272	0.750
FS6400-L-06-08-0	3/8	11/16-16	3/4-16	0.264	0.378	2.611	0.875
FS6400-L-08-08-0	1/2	13/16-16	3/4-16	0.378	0.378	2.671	0.875
FS6400-L-08-12-0	1/2	13/16-16	1-1/16-12	0.378	0.609	3.588	1.250
FS6400-L-10-10-0	5/8	1-14	7/8-14	0.484	0.484	3.130	1.062
FS6400-L-12-10-0	3/4	1-3/16-12	7/8-14	0.609	0.484	3.660	1.250
FS6400-L-12-12-0	3/4	1-3/16-12	1-1/16-12	0.609	0.609	3.758	1.250
FS6400-L-16-12-0	1	1-7/16-12	1-1/16-12	0.811	0.609	4.138	1.500
FS6400-L-16-16-0	1	1-7/16-12	1-5/16-12	0.811	0.811	4.138	1.500
FS6400-L-20-20-0	1-1/4	1-11/16-12	1-5/8-12	1.024	1.024	4.758	1.875
FS6400-L-24-24-0	1-1/2	2-12	1-7/8-12	1.260	1.260	5.258	2.125

MFS-FJS Straight FS6402 Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	L LGTH	C HEX	H HEX
FS6402-04-04-0	1/4	9/16-18	7/16-20	0.172	0.172	1.40	0.562	0.625
FS6402-06-06-0	3/8	11/16-16	9/16-18	0.264	0.297	1.58	0.688	0.750
FS6402-08-08-0	1/2	13/16-16	3/4-16	0.378	0.391	1.79	0.875	0.875
FS6402-10-10-0	5/8	1-14	7/8-14	0.484	0.484	2.08	1.000	1.062
FS6402-12-10-0	3/4	1-3/16-12	7/8-14	0.609	0.484	2.20	1.250	1.062
FS6402-12-12-0	3/4	1-3/16-12	1-1/16-12	0.609	0.609	2.30	1.250	1.250
FS6402-16-16-0	1	1-7/16-12	1-5/16-12	0.811	0.844	2.45	1.500	1.500
FS6402-20-20-0	1-1/4	1-11/16-12	1-5/8-12	1.024	1.078	2.60	2.000	1.750

MFS-MJ Straight FS6403 Series

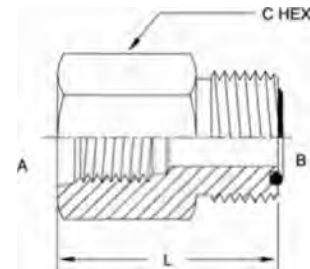


PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	L LGTH	H HEX
FS6403-04-04	1/4	9/16-18	7/16-20	0.172	0.172	1.25	0.625
FS6403-06-06	3/8	11/16-16	9/16-18	0.264	0.297	1.34	0.750
FS6403-08-08	1/2	13/16-16	3/4-16	0.378	0.391	1.55	0.875
FS6403-10-10	5/8	1-14	7/8-14	0.484	0.484	1.83	1.062
FS6403-12-12	3/4	1-3/16-12	1-1/16-12	0.609	0.609	2.05	1.250
FS6403-16-16	1	1-7/16-12	1-5/16-12	0.811	0.844	2.16	1.500
FS6403-20-20	1-1/4	1-11/16-12	1-5/8-12	1.024	1.078	2.29	1.750
FS6403-24-24	1-1/2	2-12	1-7/8-12	1.260	1.312	2.48	2.125

O-Ring Face Seal Fittings

FORB-MFS Straight FS6410 Series

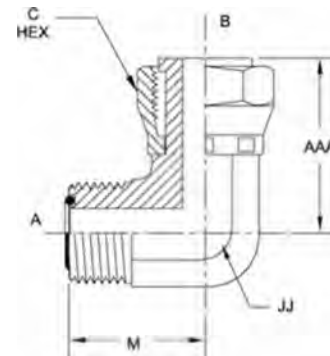
PART NO.SIZE	TUBE O.O.	A FORB	B THREAD	B DRILL	I LOTH	C HEX
FS6410-04-04-0	1/4	7/16-20	9/16-18	0.172	1.09	0.688
FS6410-08-08-0	1/2	3/4-16	13/16-16	0.378	1.36	1.062
FS6410-16-12-0	1	1-5/16-12	1-3/16-12	0.609	1.79	1.625
FS6410-16-16-0	1	1-5/16-12	1-7/16-12	0.811	1.80	1.625
FS6410-20-20-0	1-1/4	1-5/8-12	1-11/16-12	1.024	1.86	2.125
FS6410-24-24-0	1-1/2	1-7/8-12	2-12	1.260	1.87	2.500



B-018

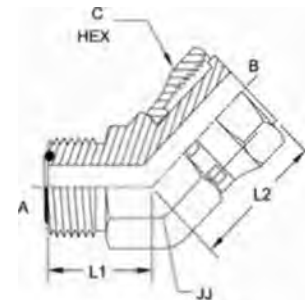
MFS-FFSS 90° FS6500 Series

SAE# 520221



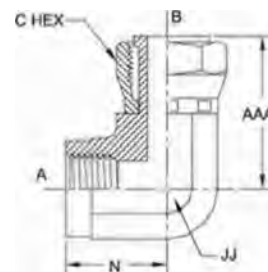
PART NO.SIZE	TUBE O.O.	A THREAD	B THREAD	A DRILL	B DRILL	M LOTH	AAA LOTH	C HEX	JJ FLATS
FS6500-04-04-FG	1/4	9/16-18	9/16-18	0.172	0.165	0.85	1.04	0.687	0.562
FS6500-04-06-FG	1/4	9/16-18	11/16-16	0.172	0.264	0.92	1.15	0.812	0.750
FS6500-06-06-FG	3/8	11/16-16	11/16-16	0.264	0.264	0.98	1.15	0.812	0.750
FS6500-08-06-FG	1/2	13/16-16	11/16-16	0.378	0.264	1.10	1.33	0.812	0.750
FS6500-08-08-FG	1/2	13/16-16	13/16-16	0.378	0.358	1.10	1.49	0.938	0.750
FS6500-10-10-FG	5/8	1-14	1-14	0.484	0.453	1.31	1.62	1.125	1.062
FS6500-12-12-FG	3/4	1-3/16-12	1-3/16-12	0.609	0.547	1.47	1.82	1.375	1.188
FS6500-16-16-FG	1	1-7/16-12	1-7/16-12	0.811	0.783	1.64	2.10	1.625	1.438
FS6500-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1.024	1.024	1.76	2.29	1.875	1.625
FS6500-24-24-FG	1-1/2	2-12	2-12	1.260	1.260	1.92	2.41	2.250	1.875

MFS-FFSS 45° FS6502 Series



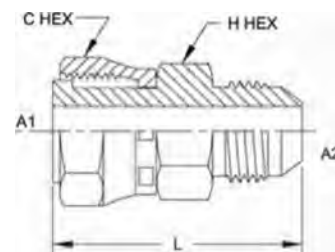
PART NO.SIZE	TUBE O.O.	A THREAD	B THREAD	A DRILL	B DRILL	11 LGTH	12 LGTH	C HEX	JJ FLATS
FS6502-04-04-FG	1/4	9/16-18	9/16-18	0.172	0.165	0.63	0.99	0.687	0.562
FS6502-06-06-FG	3/8	11/16-16	11/16-16	0.264	0.264	0.74	1.12	0.812	0.750
FS6502-08-08-FG	1/2	13/16-16	13/16-16	0.378	0.358	0.80	1.49	0.938	0.750
FS6502-10-10-FG	5/8	1-14	1-14	0.484	0.453	0.92	1.53	1.125	1.062
FS6502-12-12-FG	3/4	1-3/16-12	1-3/16-12	0.609	0.547	1.02	1.73	1.375	1.188
FS6502-16-16-FG	1	1-7/16-12	1-7/16-12	0.811	0.783	1.18	1.87	1.625	1.438
FS6502-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1.024	1.024	1.26	1.98	1.875	1.625

FP-FFSS 90° FS6503 Series



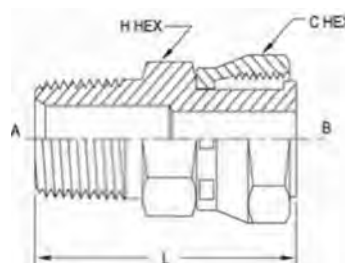
PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	B DRILL	N LGTH	AAA LGTH	C HEX	JJ FLATS
FS6503-04-04-FG	1/4	1/4-18	9/16-18	0.165	0.88	1.06	0.687	0.750
FS6503-06-06-FG	3/8	3/8-18	11/16-16	0.264	1.02	1.33	0.812	0.875

FFSS-MJ Straight FS6504 Series



PART NO.SIZE	A1 TUBE O.D.	A2 TUBE O.D.	A1 THREAD	A2 THREAD	A1 DRILL	A2 DRILL	I LGTH	C HEX	H HEX
FS6504-04-04	1/4	1/4	9/16-18	7/16-20	0.165	0.172	1.580	0.687	0.625
FS6504-06-04	3/8	1/4	11/16-16	7/16-20	0.264	0.172	1.660	0.812	0.750
FS6504-06-06	3/8	3/8	11/16-16	9/16-18	0.264	0.297	1.666	0.812	0.750
FS6504-08-04	1/2	1/4	13/16-16	7/16-20	0.358	0.172	1.940	0.938	0.875
FS6504-08-08	1/2	1/2	13/16-16	3/4-16	0.358	0.391	2.047	0.938	0.875
FS6504-08-12	1/2	3/4	13/16-16	1-1/16-12	0.358	0.609	2.254	0.938	1.125
FS6504-10-04	5/8	1/4	1-14	7/16-20	0.453	0.172	2.040	1.125	1.062
FS6504-10-10	5/8	5/8	1-14	7/8-14	0.453	0.484	2.248	1.125	1.062
FS6504-10-12	5/8	3/4	1-14	1-1/16-12	0.453	0.609	2.354	1.125	1.125
FS6504-12-04	3/4	1/4	1-3/16-12	7/16-20	0.547	0.172	2.170	1.375	1.250
FS6504-12-12	3/4	3/4	1-3/16-12	1-1/16-12	0.547	0.609	2.484	1.375	1.250
FS6504-16-04	1	1/4	1-7/16-12	7/16-20	0.783	0.172	2.480	1.625	1.500
FS6504-16-16	1	1	1-7/16-12	1-5/16-12	0.783	0.844	2.841	1.625	1.500
FS6504-20-20	1-1/4	1-1/4	1-11/16-12	1-5/8-12	1.024	1.078	2.888	1.875	1.875

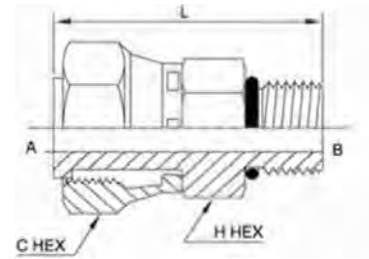
MP-FFSS Straight FS6505 Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A HOLE	B HOLE	L LGTH	C HEX	H HEX
FS6505-04-06	3/8	1/4-18	11/16-16	0.281	0.264	1.670	0.812	0.750
FS6505-08-08	1/2	1/2-14	13/16-16	0.531	0.358	2.140	0.938	0.875
FS6505-12-12	3/4	3/4-14	1-3/16-12	0.719	0.547	2.370	1.375	1.250

O-Ring Face Seal Fittings

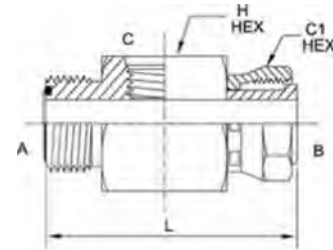
FFSS-MORB Straight FS6540 Series



B-020

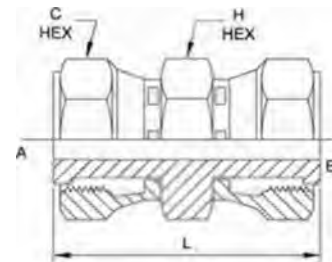
PART NO. SIZE	TUBE O.D.	A THREAD	B MORB	A DRILL	B DRILL	L LGTH	C HEX	H HEX
FS6540-04-04-0	1/4	9/16-18	7/16-20	0.165	0.172	1.463	0.687	0.625
FS6540-06-06-0	3/8	11/16-16	9/16-18	0.264	0.264	1.582	0.812	0.750
FS6540-08-06-0	1/2	13/16-16	9/16-18	0.358	0.264	1.862	0.938	0.875
FS6540-08-08-0	1/2	13/16-16	3/4-16	0.358	0.378	1.941	0.938	0.875
FS6540-10-10-0	5/8	1-14	7/8-14	0.453	0.484	2.120	1.125	1.062
FS6540-10-12-0	5/8	1-14	1-1/16-12	0.453	0.609	2.218	1.125	1.250
FS6540-12-12-0	3/4	1-3/16-12	1-1/16-12	0.547	0.609	2.348	1.375	1.250
FS6540-16-16-0	1	1-7/16-12	1-5/16-12	0.783	0.811	2.658	1.625	1.500
FS6540-20-20-0	1-1/4	1-11/16-12	1-5/8-12	1.024	1.024	2.658	1.875	1.875
FS6540-24-24-0	1-1/2	2-12	1-7/8-12	1.260	1.260	2.658	2.250	2.125

MFS-FFSS-FORB Straight FS6564 Series



PART NO. SIZE	TUBE O.D.	A THREAD	B THREAD	C SAEORB	A DRILL	B DRILL	L LGTH	C1 HEX	H HEX
FS6564-04-04-04	1/4	9/16-18	9/16-18	7/16-20	0.172	0.165	1.83	0.687	1.062
FS6564-06-06-04	3/8	11/16-16	11/16-16	7/16-20	0.264	0.264	1.95	0.812	1.062
FS6564-08-08-04	1/2	13/16-16	13/16-16	7/16-20	0.378	0.358	2.18	0.938	1.062
FS6564-10-10-04	5/8	1-14	1-14	7/16-20	0.484	0.453	2.40	1.125	1.125
FS6564-12-12-04	3/4	1-3/16-12	1-3/16-12	7/16-20	0.609	0.547	2.59	1.375	1.250
FS6564-16-16-04	1	1-7/16-12	1-7/16-12	7/16-20	0.811	0.783	2.85	1.625	1.500
FS6564-20-20-04	1-1/4	1-11/16-12	1-11/16-12	7/16-20	1.024	1.024	3.07	1.875	1.750
FS6564-24-24-04	1-1/2	2-12	2-12	7/16-20	1.260	1.260	3.22	2.250	2.125

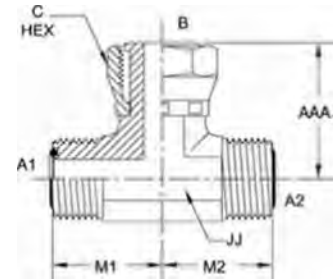
FFSS-FFSS Straight FS6565 Series



PART NO. SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	L LGTH	C HEX	H HEX
FS6565-04-04	1/4	9/16-18	9/16-18	0.165	0.165	1.59	0.687	0.625
FS6565-06-06	3/8	11/16-16	11/16-16	0.264	0.264	1.77	0.812	0.750
FS6565-08-08	1/2	13/16-16	13/16-16	0.358	0.358	2.12	0.938	0.875
FS6565-10-10	5/8	1-14	1-14	0.453	0.453	2.42	1.125	1.062
FS6565-12-12	3/4	1-3/16-12	1-3/16-12	0.547	0.547	2.74	1.375	1.250
FS6565-16-16	1	1-7/16-12	1-7/16-12	0.783	0.783	2.95	1.625	1.500

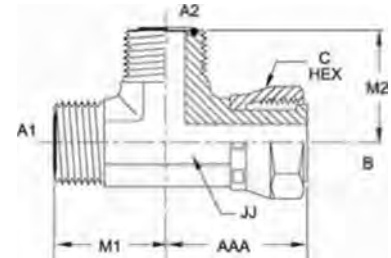
MFS-MFS-FFSS Branch Tee FS6600 Series

SAE # 520433



PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	B THREAD	A1 DRILL	A2 DRILL	B DRILL	M1 LDTH	M2 LDTH	AAA LBTH	C HEX	JJ FLATS
FS6600-04-04-04-FG	1/4	9/16-18	9/16-18	9/16-18	0.172	0.172	0.165	0.85	0.85	1.04	0.687	0.562
FS6600-04-04-06-FG	1/4	9/16-18	9/16-18	11/16-16	0.172	0.172	0.264	0.92	0.92	1.15	0.812	0.750
FS6600-06-06-06-FG	3/8	11/16-16	11/16-16	11/16-16	0.264	0.264	0.264	0.98	0.98	1.15	0.812	0.750
FS6600-08-08-08-FG	1/2	13/16-16	13/16-16	13/16-16	0.378	0.378	0.358	1.10	1.10	1.49	0.938	0.750
FS6600-10-10-10-FG	5/8	1-14	1-14	1-14	0.484	0.484	0.453	1.31	1.31	1.62	1.125	1.062
FS6600-12-12-12-FG	3/4	1-3/16-12	1-3/16-12	1-3/16-12	0.609	0.609	0.547	1.47	1.47	1.82	1.375	1.188
FS6600-16-16-16-FG	1	1-7/16-12	1-7/16-12	1-7/16-12	0.811	0.811	0.783	1.64	1.64	2.10	1.625	1.438
FS6600-20-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1-11/16-12	1.024	1.024	1.024	1.76	1.76	2.29	1.875	1.625
FS6600-24-24-24-FG	1-1/2	2-12	2-12	2-12	1.260	1.260	1.260	1.92	1.92	2.41	2.250	1.875

MFS-FFSS-MFS Run Tee FS6602 Series

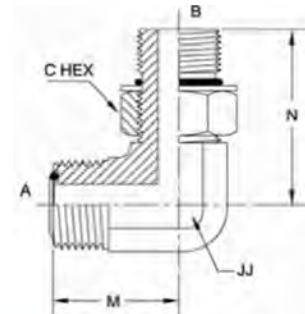


PART NO.SIZE	TUBE O.D.	A1 THREAD	B THREAD	A2 THREAD	A1 DRILL	B DRILL	A2 DRILL	M1 LDTH	AAA LGTH	M2 LGTH	C HEX	JJ FLATS
FS6602-04-04-04-FG	1/4	9/16-18	9/16-18	9/16-18	0.172	0.165	0.172	0.85	1.04	0.85	0.687	0.562
FS6602-06-06-04-FG	3/8	11/16-16	11/16-16	9/16-18	0.264	0.264	0.172	0.98	1.15	0.92	0.812	0.750
FS6602-06-06-06-FG	3/8	11/16-16	11/16-16	11/16-16	0.264	0.264	0.264	0.98	1.15	0.98	0.812	0.750
FS6602-06-08-06-FG	1/2	11/16-16	13/16-16	11/16-16	0.264	0.358	0.264	1.04	1.49	1.04	0.938	0.750
FS6602-06-08-08-FG	1/2	11/16-16	13/16-16	13/16-16	0.264	0.358	0.378	1.04	1.49	1.10	0.938	0.750
FS6602-08-08-06-FG	1/2	13/16-16	13/16-16	11/16-16	0.378	0.358	0.264	1.10	1.49	1.04	0.938	0.750
FS6602-08-08-08-FG	1/2	13/16-16	13/16-16	13/16-16	0.378	0.358	0.378	1.10	1.49	1.10	0.938	0.750
FS6602-10-10-10-FG	5/8	1-14	1-14	1-14	0.484	0.453	0.484	1.31	1.62	1.31	1.125	1.062
FS6602-12-12-12-FG	3/4	1-3/16-12	1-3/16-12	1-3/16-12	0.609	0.547	0.609	1.47	1.82	1.47	1.375	1.188
FS6602-16-16-16-FG	1	1-7/16-12	1-7/16-12	1-7/16-12	0.811	0.783	0.811	1.64	2.10	1.64	1.625	1.438
FS6602-20-20-20-FG	1-1/4	1-11/16-12	1-11/16-12	1-11/16-12	1.024	1.024	1.024	1.76	2.29	1.76	1.875	1.625
FS6602-24-24-24-FG	1-1/2	2-12	2-12	2-12	1.260	1.260	1.260	1.92	2.41	1.92	2.250	1.875

O-Ring Face Seal Fittings

MFS-MAORB 90° FS6801-NWO Series

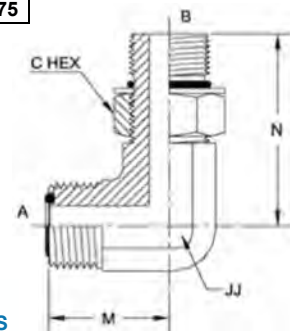
SAE # 520220



B-022

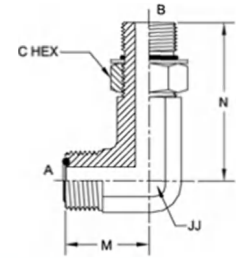
PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	C HEX	JJ FLATS
FS6801 -04-04-NWO-FG	1/4	9/16-18	7/16-20	0.172	0.172	0.85	1.29	0.625	0.562
FS6801 -04-05-NWO-FG	1/4	9/16-18	1/2-20	0.172	0.236	0.85	1.29	0.687	0.562
FS6801 -04-06-NWO-FG	1/4	9/16-18	9/16-18	0.172	0.264	0.92	1.45	0.750	0.750
FS6801 -04-08-NWO-FG	1/4	9/16-18	3/4-16	0.172	0.378	0.97	1.60	0.938	0.750
FS6801 -06-04-NWO-FG	3/8	11/16-16	7/16-20	0.264	0.172	0.98	1.37	0.625	0.750
FS6801 -06-05-NWO-FG	3/8	11/16-16	1/2-20	0.264	0.236	0.98	1.37	0.687	0.750
FS6801 -06-06-NWO-FG	3/8	11/16-16	9/16-18	0.264	0.264	0.98	1.45	0.750	0.750
FS6801 -06-08-NWO-FG	3/8	11/16-16	3/4-16	0.264	0.378	0.98	1.60	0.938	0.750
FS6801 -06-10-N WO-FG	3/8	11/16-16	7/8-14	0.264	0.484	1.15	1.97	1.062	1.062
FS6801 -06-12-NWO-FG	3/8	11/16-16	1-1/16-12	0.264	0.609	1.25	2.17	1.375	1.188
FS6801 -08-04-NWO-FG	1/2	13/16-16	7/16-20	0.378	0.172	1.10	1.36	0.625	0.750
FS6801 -08-06-NWO-FG	1/2	13/16-16	9/16-18	0.378	0.295	1.10	1.45	0.750	0.750
FS6801 -08-08-NWO-FG	1/2	13/16-16	3/4-16	0.378	0.378	1.10	1.60	0.938	0.750
FS6801 -08-10-N WO-FG	1/2	13/16-16	7/8-14	0.378	0.484	1.21	1.97	1.062	1.062
FS6801 -08-12-NWO-FG	1/2	13/16-16	1-1/16-12	0.378	0.609	1.32	2.17	1.375	1.188
FS6801 -10-08-N WO-FG	5/8	1-14	3/4-16	0.484	0.390	1.31	1.80	0.938	1.062
FS6801 -10-10-N WO-FG	5/8	1-14	7/8-14	0.484	0.484	1.31	1.97	1.062	1.062
FS6801 -10-12-NWO-FG	5/8	1-14	1-1/16-12	0.484	0.609	1.41	2.17	1.375	1.188
FS6801 -12-08-N WO-FG	3/4	1-3/16-12	3/4-16	0.609	0.390	1.47	1.84	0.938	1.188
FS6801 -12-10-N WO-FG	3/4	1-3/16-12	7/8-14	0.609	0.484	1.47	2.01	1.062	1.188
FS6801 -12-12-NWO-FG	3/4	1-3/16-12	1-1/16-12	0.609	0.609	1.47	2.17	1.375	1.188
FS6801 -12-16-N WO-FG	3/4	1-3/16-12	1-5/16-12	0.609	0.811	1.62	2.35	1.625	1.438
FS6801 -12-20-N WO-FG	3/4	1-3/16-12	1-5/8-12	0.609	1.024	1.74	2.45	1.875	1.625
FS6801 -16-12-NWO-FG	1	1-7/16-12	1-1/16-12	0.811	0.609	1.64	2.32	1.375	1.438
FS6801 -16-16-N WO-FG	1	1-7/16-12	1-5/16-12	0.811	0.811	1.64	2.35	1.625	1.438
FS6801 -16-20-N WO-FG	1	1-7/16-12	1-5/8-12	0.811	1.024	1.76	2.45	1.875	1.625
FS6801 -16-24-N WO-FG	1	1-7/16-12	1-7/8-12	0.811	1.260	1.92	2.59	2.125	1.875
FS6801 -20-12-NWO-FG	1-1/4	1-11/16-12	1-1/16-12	1.024	0.609	1.76	2.42	1.375	1.625
FS6801 -20-16-N WO-FG	1-1/4	1-11/16-12	1-5/16-12	1.024	0.843	1.76	2.45	1.625	1.625
FS6801 -20-20-NWO-FG	1-1/4	1-11/16-12	1-5/8-12	1.024	1.024	1.76	2.45	1.875	1.625
FS6801 -20-24-NWO-FG	1-1/4	1-11/16-12	1-7/8-12	1.024	1.260	1.92	2.59	2.125	1.875
FS6801 -24-20-NWO-FG	1-1/2	2-12	1-5/8-12	1.260	1.079	1.92	2.59	1.875	1.875
FS6801 -24-24-N WO-FG	1-1/2	2-12	1-7/8-12	1.260	1.260	1.92	2.59	2.125	1.875

MFS-MAORB 90° Long FS6801-L-NWO Series



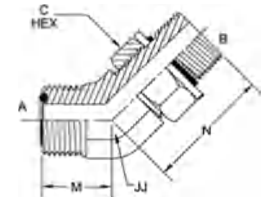
PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	C HEX	JJ FLATS
FS6801-L-04-04-NWO-FG	1/4	9/16-18	7/16-20	0.172	0.172	0.85	2.23	0.625	0.562
FS6801-L-06-06-N WO-FG	3/8	11/16-16	9/16-18	0.264	0.264	0.98	2.61	0.750	0.750
FS6801-L-08-08-NWO-FG	1/2	13/16-16	3/4-16	0.378	0.378	1.10	2.95	0.938	0.750
FS6801 -L-10-10-N WO-FG	5/8	1-14	7/8-14	0.484	0.484	1.31	3.51	1.062	1.062
FS6801-L-12-12-NWO-FG	3/4	1-3/16-12	1-1/16-12	0.609	0.609	1.47	3.97	1.375	1.188
FS6801 -L-16-16-N WO-FG	1	1-7/16-12	1-5/16-12	0.811	0.811	1.64	4.51	1.625	1.438

MFS-MAORB 90°X-Long FS6801-LL-NWO Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	C HEX	JJ FLATS
FS6801-LL-08-08-NWO-FG	1/2	13/16-16	3/4-16	0.378	0.390	1.10	3.50	0.938	0.750
FS6801-LL-12-12-NWO-FG	3/4	1-3/16-12	1-1/16-12	0.609	0.609	1.47		1.375	1.188
FS6801-LL-16-16-NWO-FG	1	1-7/16-12	1-5/16-12	0.811	0.843	1.64	5.00	1.625	1.438

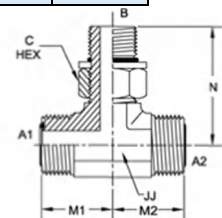
MFS-MAORB 45° FS6802-NWO Series



SAE# 520320

PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	C HEX	JJ FLATS
FS6802-04-04-NWO-FG	1/4	9/16-18	7/16-20	0.172	0.172	0.63	1.18	0.625	0.562
FS6802-04-06-NWO-FG	1/4	9/16-18	9/16-18	0.172	0.264	0.68	1.30	0.750	0.750
FS6802-04-08-NWO-FG	1/4	9/16-18	3/4-16	0.172	0.378	0.67	1.43	0.938	0.750
FS6802-06-04-NWO-FG	3/8	11/16-16	7/16-20	0.264	0.172	0.74	1.22	0.625	0.750
FS6802-06-06-NWO-FG	3/8	11/16-16	9/16-18	0.264	0.264	0.74	1.30	0.750	0.750
FS6802-06-08-NWO-FG	3/8	11/16-16	3/4-16	0.264	0.378	0.74	1.43	0.938	0.750
FS6802-06-10-NWO-FG	3/8	11/16-16	7/8-14	0.264	0.484	0.76	1.76	1.062	1.062
FS6802-08-06-NWO-FG	1/2	13/16-16	9/16-18	0.378	0.295	0.80	1.30	0.750	0.750
FS6802-08-08-NWO-FG	1/2	13/16-16	3/4-16	0.378	0.378	0.80	1.43	0.938	0.750
FS6802-08-10-NWO-FG	1/2	13/16-16	7/8-14	0.378	0.484	0.82	1.76	1.062	1.062
FS6802-08-12-N WO-FG	1/2	13/16-16	1-1/16-12	0.378	0.609	0.87	1.97	1.375	1.188
FS6802-10-08-NWO-FG	5/8	1-14	3/4-16	0.484	0.390	0.92	1.59	0.938	1.062
FS6802-10-10-NWO-FG	5/8	1-14	7/8-14	0.484	0.484	0.92	1.76	1.062	1.062
FS6802-10-12-N WO-FG	5/8	1-14	1-1/16-12	0.484	0.609	0.96	1.97	1.375	1.188
FS6802-12-08-NWO-FG	3/4	1-3/16-12	3/4-16	0.609	0.390	1.02	1.64	0.938	1.188
FS6802-12-10-N WO-FG	3/4	1-3/16-12	7/8-14	0.609	0.484	1.02	1.81	1.062	1.188
FS6802-12-12-N WO-FG	3/4	1-3/16-12	1-1/16-12	0.609	0.609	1.02	1.97	1.375	1.188
FS6802-12-16-NWO-FG	3/4	1-3/16-12	1-5/16-12	0.609	0.811	1.16	2.06	1.625	1.438
FS6802-16-12-N WO-FG	1	1-7/16-12	1-1/16-12	0.811	0.609	1.18	2.03	1.375	1.438
FS6802-16-16-NWO-FG	1	1-7/16-12	1-5/16-12	0.811	0.811	1.18	2.06	1.625	1.438
FS6802-16-20-N WO-FG	1	1-7/16-12	1-5/8-12	0.811	1.024	1.26	2.11	1.875	1.625
FS6802-20-16-NWO-FG	1-1/4	1-11/16-12	1-5/16-12	1.024	0.843	1.26	2.11	1.625	1.625
FS6802-20-20-N WO-FG	1-1/4	1-11/16-12	1-5/8-12	1.024	1.024	1.26	2.11	1.875	1.625
FS6802-24-24-N WO-FG	1-1/2	2-12	1-7/8-12	1.260	1.260	1.45	2.11	2.125	1.875

MFS-MFS-MAORB Tee FS6803-NWO Series

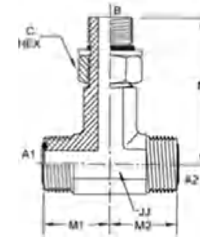


SAE# 520429

PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	B THREAD	A1 DRILL	A2 DRILL	B DRILL	M1 LGTH	M2 LGTH	N LGTH	C HEX	JJ FLATS
FS6803-04-04-04-NWO-FG	1/4	9/16-18	9/16-18	7/16-20	0.172	0.172	0.172	0.85	0.85	1.29	0.625	0.562
FS6803-06-06-04-NWO-FG	3/8	11/16-16	11/16-16	7/16-20	0.264	0.264	0.172	0.98	0.98	1.37	0.750	0.750
FS6803-06-06-06-NWO-FG	3/8	11/16-16	11/16-16	9/16-18	0.264	0.264	0.264	0.98	0.98	1.45	0.750	0.750
FS6803-06-06-08-N WO-FG	3/8	11/16-16	11/16-16	3/4-16	0.264	0.264	0.378	1.04	1.04	1.60	0.750	0.750
FS6803-08-08-08-N WO-FG	1/2	13/16-16	13/16-16	3/4-16	0.378	0.378	0.378	1.10	1.10	1.60	0.938	0.750
FS6803-10-10-10-N WO-FG	5/8	1-14	1-14	7/8-14	0.484	0.484	0.484	1.31	1.31	1.97	1.062	1.062
FS6803-12-12-12-NWO-FG	3/4	1-3/16-12	1-3/16-12	1-1/16-12	0.609	0.609	0.609	1.47	1.47	2.17	1.375	1.188
FS6803-16-16-16-NWO-FG	1	1-7/16-12	1-7/16-12	1-5/16-12	0.811	0.811	0.811	1.64	1.64	2.35	1.625	1.438
FS6803-20-20-20-N WO-FG	1-1/4	1-11/16-12	1-11/16-12	1-5/8-12	1.024	1.024	1.024	1.76	1.76	2.45	1.875	1.625
FS6803-24-24-24-N WO-FG	1-1/2	2-12	2-12	1-7/8-12	1.260	1.260	1.260	1.92	1.92	2.59	2.125	1.875

O-Ring Face Seal Fittings

MFS-MFS-MAORB Tee FS6803-L-NWO Series

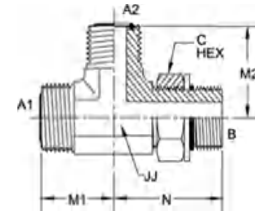


B-024

PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	B THREAD	A1 DRILL	A2 DRILL	B DRILL	MI LGTH	MZ LGTH	N LGTH	C HEX	JJ FLATS
FS6803-L-12-12-12-NWO-FG	3/4	1-3/16-12	1-3/16-12	1-1/16-12	0.609	0.609	0.609	1.470	1.470	2.670	1.375	1.188

MFS-MFS-MAORB Tee FS6804-NWO Series

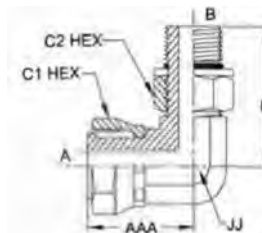
SAE# 520428



PART NO.SIZE	TUBE O.D.	A1 THREAD	B THREAD	A2 THREAD	A1 DRILL	B DRILL	A2 DRILL	MI LGTH	N LGTH	MZ LGTH	C HEX	JJ FLATS
FS6804-04-04-04-NWO-FG	1/4	9/16-18	7/16-20	9/16-18	0.172	0.172	0.172	0.85	1.29	0.85	0.625	0.562
FS6804-04-06-04-NWO-FG	1/4	9/16-18	9/16-18	9/16-18	0.172	0.264	0.172	0.92	1.45	0.92	0.750	0.750
FS6804-06-04-06-NWO-FG	3/8	11/16-16	7/16-20	11/16-16	0.264	0.172	0.264	0.98	1.37	0.98	0.625	0.750
FS6804-06-06-06-NWO-FG	3/8	11/16-16	9/16-18	11/16-16	0.264	0.264	0.264	0.98	1.45	0.98	0.750	0.750
FS6804-06-08-06-NWO-FG	3/8	11/16-16	3/4-16	11/16-16	0.264	0.378	0.264	1.04	1.60	1.04	0.938	0.750
FS6804-08-06-08-NWO-FG	1/2	13/16-16	9/16-18	13/16-16	0.378	0.295	0.378	1.10	1.45	1.10	0.750	0.750
FS6804-08-08-04-NWO-FG	1/2	13/16-16	3/4-16	9/16-18	0.378	0.378	0.172	1.10	1.60	0.97	0.938	0.750
FS6804-08-08-08-NWO-FG	1/2	13/16-16	3/4-16	13/16-16	0.378	0.378	0.378	1.10	1.60	1.10	0.938	0.750
FS6804-08-10-08-NWO-FG	1/2	13/16-16	7/8-14	13/16-16	0.378	0.484	0.378	1.21	1.97	1.21	1.062	1.062
FS6804-08-12-04-NWO-FG	1/2	13/16-16	1-1/16-12	9/16-18	0.378	0.609	0.172	1.32	2.17	1.19	1.375	1.188
FS6804-08-12-08-NWO-FG	1/2	13/16-16	1-1/16-12	13/16-16	0.378	0.609	0.378	1.32	2.17	1.32	1.375	1.188
FS6804-10-10-10-NWO-FG	5/8	1-14	7/8-14	11/16-16	0.484	0.484	0.264	1.31	1.97	1.15	1.062	1.062
FS6804-10-10-10-NWO-FG	5/8	1-14	7/8-14	1-14	0.484	0.484	0.484	1.31	1.97	1.31	1.062	1.062
FS6804-10-12-10-NWO-FG	5/8	1-14	1-1/16-12	1-14	0.484	0.609	0.484	1.41	2.17	1.41	1.375	1.188
FS6804-12-08-08-NWO-FG	3/4	1-3/16-12	3/4-16	13/16-16	0.609	0.378	0.378	1.47	1.84	1.32	0.938	1.188
FS6804-12-12-08-NWO-FG	3/4	1-3/16-12	1-1/16-12	13/16-16	0.609	0.609	0.378	1.47	2.17	1.32	1.375	1.188
FS6804-12-12-12-NWO-FG	3/4	1-3/16-12	1-1/16-12	1-3/16-12	0.609	0.609	0.609	1.47	2.17	1.47	1.375	1.188
FS6804-12-12-16-NWO-FG	3/4	1-3/16-12	1-1/16-12	1-7/16-12	0.609	0.609	0.811	1.62	2.32	1.64	1.375	1.438
FS6804-12-16-12-NWO-FG	3/4	1-3/16-12	1-5/16-12	1-3/16-12	0.609	0.811	0.609	1.62	2.35	1.62	1.625	1.438
FS6804-16-12-12-NWO-FG	1	1-7/16-12	1-1/16-12	1-3/16-12	0.811	0.609	0.609	1.64	2.32	1.62	1.375	1.438
FS6804-16-16-16-NWO-FG	1	1-7/16-12	1-5/16-12	1-7/16-12	0.811	0.811	0.811	1.64	2.35	1.64	1.625	1.438
FS6804-16-20-16-NWO-FG	1	1-7/16-12	1-5/8-12	1-7/16-12	0.811	1.024	0.811	1.76	2.45	1.76	1.875	1.625
FS6804-16-24-16-NWO-FG	1	1-7/16-12	1-7/8-12	1-7/16-12	0.811	1.260	0.811	1.92	2.59	1.92	2.125	1.875
FS6804-20-20-20-NWO-FG	1-1/4	1-11/16-12	1-5/8-12	1-11/16-12	1.024	1.024	1.024	1.76	2.45	1.76	1.875	1.625
FS6804-24-24-24-NWO-FG	1-1/2	2-12	1-7/8-12	2-12	1.260	1.260	1.260	1.92	2.59	1.92	2.125	1.875

FFSS-MAORB 90° FS6809-NWO Series

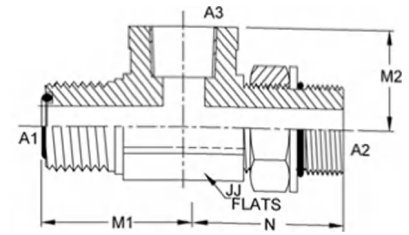
SAE# 520281



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A HOLE	B HOLE	AAA LGTH	N LGTH	C1 HEX	C2 HEX	JJ FLATS
FS6809-04-04-NWO-FG	1/4	9/16-18	7/16-20	0.165	0.172	1.04	1.29	0.687	0.625	0.562
FS6809-06-06-NWO-FG	3/8	11/16-16	9/16-18	0.264	0.264	1.15	1.45	0.812	0.750	0.750
FS6809-08-08-NWO-FG	1/2	13/16-16	3/4-16	0.358	0.378	1.49	1.60	0.938	0.938	0.750
FS6809-10-10-NWO-FG	5/8	1-14	7/8-14	0.453	0.484	1.62	1.97	1.125	1.062	1.062
FS6809-12-12-N WO-FG	3/4	1-3/16-12	1-1/16-12	0.547	0.609	1.82	2.17	1.375	1.375	1.188
FS6809-16-16-NWO-FG	1	1-7/16-12	1-5/16-12	0.783	0.811	2.10	2.35	1.625	1.625	1.438
FS6809-20-20-NWO-FG	1-1/4	1-11/16-12	1-5/8-12	1.024	1.024	2.29	2.45	1.875	1.875	1.625
FS6809-24-24-N WO-FG	1-1/2	2-12	1-7/8-12	1.260	1.260	2.41	2.59	2.250	2.125	1.875

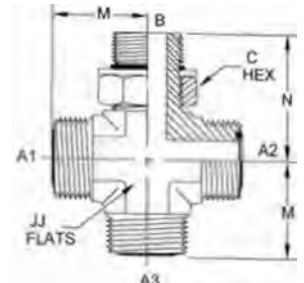
B-025

MFS-MAORB-FP Tee FS6845-NWO Series



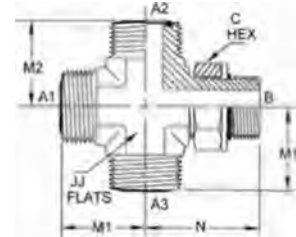
PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	A3 NPTF	A1 DRILL	A2 DRILL	MI LGTH	N LGTH	M2 LGTH	C HEX	JJ FLATS
FS6845-06-06-04-NWO-FG	3/8	11/16-16	9/16-18	1/4-18	0.264	0.264	0.98	1.45	0.83	0.750	0.750

M FS-M FS-M AORB-M FS FS6850-NWO Series



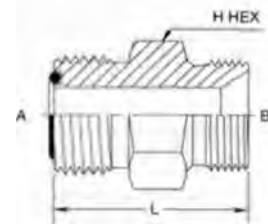
PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	B THREAD	A3 THREAD	A1 DRILL	A2 DRILL	B DRILL	A3 DRILL	M LGTH	N LGTH	C HEX	JJ FLATS
FS6845-06-06-04-06-NWO-FG	3/8	11/16-16	11/16-16	7/16-20	11/16-16	0.264	0.264	0.172	0.264	0.98	1.37	0.625	0.750

MFS-MAORB-MFS-MFS Cross FS6859-NWO Series



PART NO.SIZE	TUBE O.D.	A1 THREAD	B THREAD	A2 THREAD	A3 THREAD	A1 DRILL	B DRILL	A2 DRILL	A3 DRILL	MI LGTH	M2 LGTH	N LGTH	C HEX	JJ FLATS
FS6859-06-06-04-06-NWQ-FG	3/8	11/16-16	9/16-18	9/16-18	11/16-16	0.264	0.264	0.172	0.264	0.98	0.92	1.45	0.750	0.750

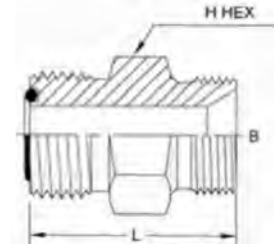
MFS-MBSPP Straight FS7002 Series



PART NO.SIZE	TUBE O.D.	A THREAD	B BSPP	A DRILL	B DRILL	L LGTH	H HEX
FS7002-04-04	1/4	9/16-18	1/4-19	4.37	4.40	30.0	19.0
FS7002-06-06	3/8	11/16-16	3/8-19	6.71	7.50	33.0	22.0
FS7002-06-08	3/8	11/16-16	1/2-14	6.71	11.10	37.5	27.0
FS7002-08-04	1/2	13/16-16	1/4-19	9.60	4.70	36.4	22.0
FS7002-08-08	1/2	13/16-16	1/2-14	9.60	11.10	39.0	27.0
FS7002-08-12	1/2	13/16-16	3/4-14	9.60	16.70	45.0	32.0
FS7002-10-12	5/8	1-14	3/4-14	12.29	16.70	47.7	32.0
FS7002-12-08	3/4	1-3/16-12	1/2-14	15.47	11.10	48.5	32.0
FS7002-12-12	3/4	1-3/16-12	3/4-14	15.47	16.70	50.0	32.0
FS7002-16-12	1	1-7/16-12	3/4-14	20.60	16.70	50.3	38.0
FS7002-16-20	1	1-7/16-12	1-1/4-11	20.60	28.60	53.8	50.0
FS7002-20-16	1-1/4	1-11/16-12	1-11	26.00	22.20	53.8	47.0
FS7002-20-20	1-1/4	1-11/16-12	1-1/4-11	26.00	28.60	53.8	50.0
FS7002-24-24	1-1/2	2-12	1-1/2-11	32.00	33.30	58.0	55.0

O-Ring Face Seal Fittings

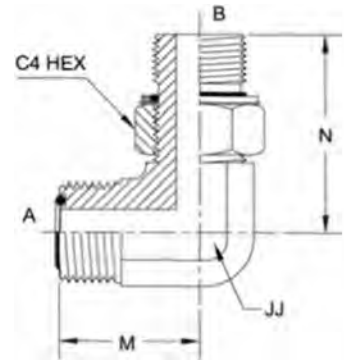
MFS-MM Straight FS7005 Series



B-026

PART NO.SIZE	TUBE O.D.	A THREAD	B MM	A DRILL	B DRILL	L LGTH	H HEX
FS7005-04-10	1/4	9/16-18	M10X1.0	4.37	4.40	31.5	17.0
FS7005-08-18	1/2	13/16-16	M18X1.5	9.60	11.0	35.6	22.0
FS7005-16-33	1	1-7/16-12	M33X2	20.6	23.0	49.5	38.0

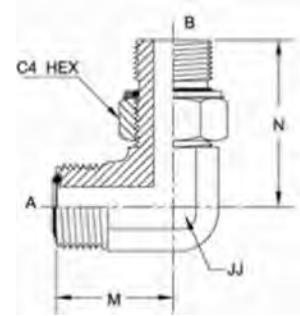
MFS-MBSPP 90° Elbow FS7202-NWO Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	C4 HEX	JJ HEX
FS7202-04-02-NWO-FG	1/4	9/16-18	1/8-28	4.4	4.4	21.5	30.0	14	14
FS7202-04-04-NWO-FG	1/4	9/16-18	1/4-19	4.4	7.5	23.5	36.0	19	19
FS7202-04-06-NWO-FG	1/4	9/16-18	3/8-19	4.4	9.9	24.7	38.0	22	19
FS7202-06-04-NWO-FG	3/8	11/16-16	1/4-19	6.7	7.5	25.0	36.0	19	19
FS7202-06-06-NWO-FG	3/8	11/16-16	3/8-19	6.7	9.9	26.5	38.0	22	19
FS7202-08-04-NWO-FG	1/2	13/16-16	1/4-19	9.6	7.5	28.0	36.0	19	19
FS7202-08-06-N WO-FG	1/2	13/16-16	3/8-19	9.6	9.9	28.0	38.0	22	19
FS7202-08-08-NWO-FG	1/2	13/16-16	1/2-14	9.6	12.3	30.8	48.5	27	27
FS7202-08-12-N WO-FG	1/2	13/16-16	3/4-14	9.6	15.5	33.5	51.5	36	30
FS7202-10-06-N WO-FG	5/8	1-14	3/8-19	12.3	9.9	33.3	41.9	22	24
FS7202-10-08-N WO-FG	5/8	1-14	1/2-14	12.3	12.3	33.3	48.5	27	27
FS7202-10-12-N WO-FG	5/8	1-14	3/4-14	12.3	15.5	35.8	51.5	36	30
FS7202-10-16-N WO-FG	5/8	1-14	1-11	12.3	21.5	39.7	58.5	41	36
FS7202-12-08-N WO-FG	3/4	1-3/16-12	1/2-14	15.5	12.3	37.3	48.5	27	27
FS7202-12-12-N WO-FG	3/4	1-3/16-12	3/4-14	15.5	15.5	37.3	51.5	36	30
FS7202-12-16-N WO-FG	3/4	1-3/16-12	1-11	15.5	21.5	41.2	58.5	41	36
FS7202-16-12-N WO-FG	1	1-7/16-12	3/4-14	20.6	15.5	41.7	55.2	36	36
FS7202-16-16-NWO-FG	1	1-7/16-12	1-11	20.6	21.5	41.7	58.5	41	36
FS7202-16-20-NWO-FG	1	1-7/16-12	1-1/4-11	20.6	27.5	44.7	62.2	50	41
FS7202-20-16-N WO-FG	1-1/4	1-11/16-12	1-11	26.0	21.5	44.7	58.5	41	41
FS7202-20-20-NWO-FG	1-1/4	1-11/16-12	1-1/4-11	26.0	27.5	44.7	62.2	50	41
FS7202-20-24-N WO-FG	1-1/4	1-11/16-12	1-1/2-11	26.0	33	48.8	65.8	55	50
FS7202-24-24-N WO-FG	1-1/2	2-12	1-1/2-11	32.0	33	48.8	65.8	55	50

MFS-MMAORB 90° Elbow

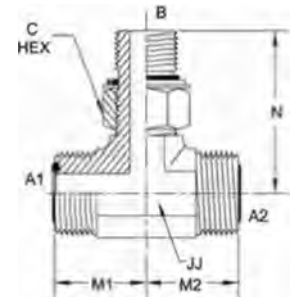
FS7205-NWO Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	C4 HEX	JJ FLATS
FS7205-04-12-N WO-FG	1/4	9/16-18	M12 x 1.5	4.5	4.0	21.5	33.0	17	14
FS7205-04-14-NWO-FG	1/4	9/16-18	M14 x 1.5	4.5	6.0	23.5	35.5	19	17
FS7205-06-10-NWO-FG	3/8	11/16-16	M10 x 1	6.5	3.0	25.0	32.0	14	17
FS7205-06-12-NWO-FG	3/8	11/16-16	M12 x 1.5	6.5	4.0	25.0	35.5	17	17
FS7205-06-14-NWO-FG	3/8	11/16-16	M14 x 1.5	6.5	6.0	25.0	35.5	19	17
FS7205-06-16-NWO-FG	3/8	11/16-16	M16 x 1.5	6.5	7.0	25.0	37.5	22	17
FS7205-06-18-N WO-FG	3/8	11/16-16	M18x 1.5	6.5	9.0	25.0	41.0	24	19
FS7205-08-14-NWO-FG	1/2	13/16-16	M14 x 1.5	9.5	6.0	28.0	36.0	19	19
FS7205-08-16-NWO-FG	1/2	13/16-16	M16 x 1.5	9.5	7.0	28.0	38.0	22	19
FS7205-08-18-NWO-FG	1/2	13/16-16	M18 x 1.5	9.5	9.0	28.0	41.0	24	19
FS7205-10-18-N WO-FG	5/8	1-14	M18 x 1.5	12.5	9.0	33.3	47.5	24	24
FS7205-10-22-N WO-FG	5/8	1-14	M22 x 1.5	12.5	12.0	33.3	49.0	27	24
FS7205-10-27-N WO-FG	5/8	1-14	M27X2.0	12.5	15.0	35.8	55.5	32	27
FS7205-12-22-NWO-FG	3/4	1-3/16-12	M22 x 1.5	15.5	12.0	37.3	49.0	27	27
FS7205-12-27-N WO-FG	3/4	1-3/16-12	M27X2.0	15.5	15.0	37.3	55.5	32	27
FS7205-16-33-N WO-FG	1	1-7/16-12	M33X2.0	20.5	20.0	41.7	59.5	41	36
FS7205-20-33-N WO-FG	1-1/4	1-11/16-12	M33X2.0	26.0	20.0	44.7	62.0	41	41
FS7205-20-42-N WO-FG	1-1/4	1-11/16-12	M42X2.0	26.0	26.0	44.7	63.0	50	41
FS7205-24-48-N WO-FG	1-1/2	2-12	M 48X2.0	32.0	32.0	48.8	71.5	55	50

MFS-MFS-MMAORB Tee

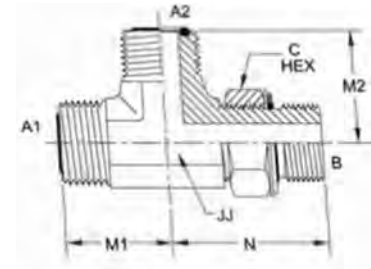
FS7210 Series



PART NO.SIZE	TUBE O.D.	A1 THREAD	A2 THREAD	B THREAD	A1 DRILL	A2 DRILL	B DRILL	M1 LGTH	M2 LGTH	N LGTH	C HEX	JJ FLATS
FS7210-04-04-12-NWO-FG	1/4	9/16-18	9/16-18	M12 x 1.5	4.5	4.5	4.0	21.5	21.5	33.0	17	14
FS7210-04-04-14-NWO-FG	1/4	9/16-18	9/16-18	M14 x 1.5	4.5	4.5	6.0	23.5	23.5	35.5	19	17
FS7210-06-06-14-NWO-FG	3/8	11/16-16	11/16-16	M14 x 1.5	6.5	6.5	6.0	25.0	25.0	35.5	19	17
FS7210-06-06-16-NWO-FG	3/8	11/16-16	11/16-16	M16 x 1.5	6.5	6.5	7.0	25.0	25.0	37.5	22	17
FS7210-08-08-14-NWO-FG	1/2	13/16-16	13/16-16	M14x 1.5	9.5	9.5	6.0	28.0	28.0	36.0	19	19
FS7210-08-08-18-N WO-FG	1/2	13/16-16	13/16-16	M18 x 1.5	9.5	9.5	9.0	28.0	28.0	41.0	24	19
FS7210-08-08-22-NWO-FG	1/2	13/16-16	13/16-16	M22 x 1.5	9.5	9.5	12.0	31.0	31.0	49.0	27	24
FS7210-10-10-22-N WO-FG	5/8	1-14	1-14	M22 x 1.5	12.5	12.5	12.0	33.5	33.5	49.0	27	24
FS7210-12-12-27-NWO-FG	3/4	1-3/16-12	1-3/16-12	M27X2.0	15.5	15.5	15.0	37.5	37.5	55.5	32	27
FS7210-16-16-33-NWO-FG	1	1-7/16-12	1-7/16-12	M33X2.0	20.5	20.5	20.0	41.5	41.5	59.5	41	36
FS7210-20-20-42-NWO-FG	1-1/4	1-11/16-12	1-11/16-12	M42X2.0	26.0	26.0	26.0	44.5	44.5	63.0	50	41
FS7210-24-24-48-NWO-FG	1-1/2	2-12	2-12	M48X2.0	32.0	32.0	32.0	49.0	49.0	71.5	55	50

O-Ring Face Seal Fittings

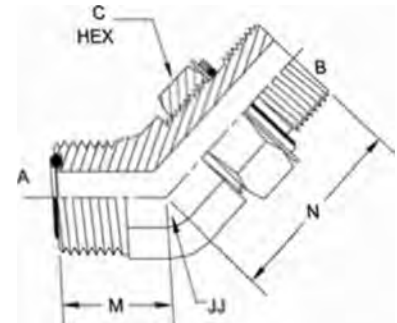
MFS-MMAORB-MFS Tee FS7215 Series



B-028

PART NO.SIZE	TUBE O.O.	A1 THREAD	B THREAD	A2 THREAD	A1 DRILL	B DRILL	A2 DRILL	MI LBTH	N LGTH	M2 LGTH	C HEX	JJ FLATS
FS7215-04-12-04-NWO-FG	1/4	9/16-18	M12 x 1.5	9/16-18	4.5	4.0	4.5	21.5	33.0	21.5	17	14
FS7215-04-14-04-NWO-FG	1/4	9/16-18	M14 x 1.5	9/16-18	4.5	6.0	4.5	23.5	35.5	23.5	19	17
FS7215-06-14-06-NWO-FG	3/8	11/16-16	M14 x 1.5	11/16-16	6.5	6.0	6.5	25.0	35.5	25.0	19	17
FS7215-06-16-06-NWO-FG	3/8	11/16-16	M16 x 1.5	11/16-16	6.5	7.0	6.5	25.0	37.5	25.0	22	17
FS7215-08-14-08-NWO-FG	1/2	13/16-16	M14 x 1.5	13/16-16	9.5	6.0	9.5	28.0	36.0	28.0	19	19
FS7215-08-18-08-NWO-FG	1/2	13/16-16	M18 x 1.5	13/16-16	9.5	9.0	9.5	28.0	41.0	28.0	24	19
FS7215-08-22-08-NWO-FG	1/2	13/16-16	M22 x 1.5	13/16-16	9.5	12.0	9.5	31.0	49.0	31.0	27	24
FS7215-10-18-10-NWO-FG	5/8	1-14	M18 x 1.5	1-14	12.5	9.0	12.5	33.5	47.5	33.5	24	24
FS7215-10-22-10-NWO-FG	5/8	1-14	M22 x 1.5	1-14	12.5	12.0	12.5	33.5	49.0	33.5	27	24
FS7215-12-27-12-NWO-FG	3/4	1-3/16-12	M27X2.0	1-3/16-12	15.5	15.0	15.5	37.5	55.5	37.5	32	27
FS7215-16-33-16-NWO-FG	1	1-7/16-12	M33X2.0	1-7/16-12	20.5	20.0	20.5	41.5	59.5	41.5	41	36
FS7215-20-42-20-NWO-FG	1-1/4	1-11/16-12	M42X2.0	1-11/16-12	26.0	26.0	26.0	44.5	63.0	44.5	50	41
FS7215-24-48-24-NWO-FG	1-1/2	2-12	M48X2.0	2-12	32.0	32.0	32.0	49.0	71.5	49.0	55	50

MFS-MMAORB 45° Elbow FS7300-NWO Series



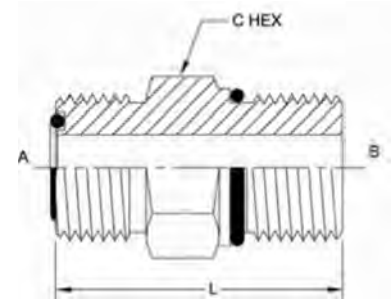
PART NO.SIZE	TUBE O.O.	A THREAD	B THREAD	A DRILL	B DRILL	M LGTH	N LGTH	C HEX	JJ FLATS
FS7300-04-12-NWO-FG	1/4	9/16-18	M12 x 1.5	4.5	4.0	16.0	30.0	17	14
FS7300-04-14-NWO-FG	1/4	9/16-18	M14 x 1.5	4.5	6.0	17.5	31.5	19	17
FS7300-06-16-NWO-FG	3/8	11/16-16	M16 x 1.5	6.5	7.0	19.0	33.5	22	17
FS7300-08-14-NWO-FG	1/2	13/16-16	M14 x 1.5	9.5	6.0	20.5	32.0	19	19
FS7300-08-18-NWO-FG	1/2	13/16-16	M18 x 1.5	9.5	9.0	20.5	37.0	24	19
FS7300-10-22-NWO-FG	5/8	1-14	M22 x 1.5	12.5	12.0	23.5	44.0	27	24
FS7300-12-27-NWO-FG	3/4	1-3/16-12	M27X2.0	15.5	15.0	26.0	50.5	32	27
FS7300-16-33-NWO-FG	1	1-7/16-12	M33X2.0	20.5	20.0	30.0	52.5	41	36
FS7300-20-42-NWO-FG	1-1/4	1-11/16-12	M42X2.0	26.0	26.0	32.0	54.0	50	41
FS7300-24-48-NWO-FG	1-1/2	2-12	M48X2.0	32.0	32.0	37.0	56.5	55	50

MFS-MMORB

IS06149-2

Straight

FS7640-O Series

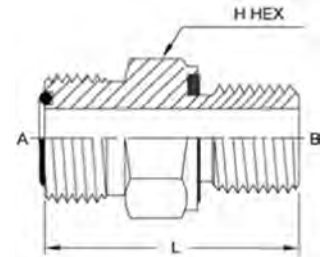


PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	I LGTH	C HEX
FS7640-04-10-0	6	9/16-18	MI 0X1	4.5	3.0	27.0	17.0
FS7640-04-12-0	6	9/16-18	M12X1.5	4.5	4.0	28.5	17.0
FS7640-04-14-0	6	9/16-18	M14X1.5	4.5	6.0	29.5	19.0
FS7640-06-12-0	10	11/16-16	M12X1.5	6.5	4.0	32.0	19.0
FS7640-06-14-0	10	11/16-16	M14X1.5	6.5	6.0	32.0	19.0
FS7640-06-16-0	10	11/16-16	M16X1.5	6.5	7.0	33.5	22.0
FS7640-06-18-0	10	11/16-16	M18X1.5	6.5	9.0	36.0	24.0
FS7640-06-22-0	10	11/16-16	M22X1.5	6.5	12.0	37.5	27.0
FS7640-08-14-0	12	13/16-16	MI 4X1.5	9.5	6.0	35.0	22.0
FS7640-08-16-0	12	13/16-16	M16X1.5	9.5	7.0	36.5	22.0
FS7640-08-18-0	12	13/16-16	M18X1.5	9.5	9.0	38.0	24.0
FS7640-08-22-0	12	13/16-16	M22X1.5	9.5	12.0	39.5	27.0
FS7640-08-26-0	12	13/16-16	M26X1.5	9.5	12.0	42.3	32.0
FS7640-08-27-0	12	13/16-16	M27X2.0	9.5	15.0	44.5	32.0
FS7640-08-33-0	12	13/16-16	M33X2.0	9.5	20.0	47.5	41.0
FS7640-10-18-0	16	1-14	M18X1.5	12.5	9.0	41.0	27.0
FS7640-10-22-0	16	1-14	M22X1.5	12.5	12.0	42.0	27.0
FS7640-10-27-0	16	1-14	M27X2.0	12.5	15.0	47.0	32.0
FS7640-10-33-0	16	1-14	M33X2.0	12.5	20.0	50.0	41.0
FS7640-12-22-0	20	1-3/16-12	M22X1.5	15.5	12.0	45.0	32.0
FS7640-12-27-0	20	1-3/16-12	M27X2.0	15.5	15.0	48.5	32.0
FS7640-12-33-0	20	1-3/16-12	M33X2.0	15.5	20.0	51.5	41.0
FS7640-16-33-0	25	1-7/16-12	M33X2.0	20.5	20.0	52.0	41.0
FS7640-20-38-0	30	1-11/16-12	M38X2.0	26.0	22.0	54.5	50.0
FS7640-20-42-0	30	1-11/16-12	M42X2.0	26.0	26.0	54.5	50.0

MFS-Metric Parallel

Elastomer Seal

FS7701 Series



PART NO.SIZE	TUBE O.D.	A THREAD	B THREAD	A DRILL	B DRILL	I LGTH	H HEX
FS7001-04-10	1/4	9/16-18	MI 0X1	4.37	4.0	27.0	17.0
FS7001-04-12	1/4	9/16-18	M12X1.5	4.37	6.0	29.7	19.0
FS7001-04-14	1/4	9/16-18	M14X1.5	4.37	7.0	30.0	19.0
FS7001-06-18	3/8	11/16-16	M18X1.5	6.71	11.0	34.0	27.0
FS7001-10-18	5/8	1-14	M18X1.5	12.29	11.0	38.6	27.0
FS7001-10-22	5/8	1-14	M22X1.5	12.29	14.0	41.1	27.0
FS7001-16-33	1	1-7/16-12	M33X2	20.60	20.0	49.8	41.0



Tube Fittings & Adapters

Tube Fittings & Adapters

Brennan Industries, Inc.'s steel and stainless steel 37° flare tube fittings meet all design and performance requirements for 37° flare tube fittings in Standard J514 published by the Society of Automotive Engineers (SAE). This design was originally founded as a JIC (Joint Industrial) design and was later adopted by the SAE to assure dimensional interchangeability between various manufacturers worldwide.

Brennan also offers a wide variety of pipe fittings and adapters including straight thread adapters, male and female pipe fittings, male to female pipe adapters and straight thread to pipe adapters.

C-001

 0302 Short Nut	 0304 Standard Nut	 0304-C JIC Cap Nut	 0306 BHLN	 0306-N BULN	 0316 JIC Tube Nut
 0318 JIC Tube Sleeve	 0403 Bore-MJ Straight	 0403-TS MJ Tube Spud	 0404 Bore-MP Straight	 0405 Bore-FP Straight	 0406 Bore-MJ Bulkhead Straight
 0500 Bore-MJ 90°	 0501 Bore-MP 90°	 0600 Bore-Bore-MJ Tee	 0601 Bore-Bore-MP Tee	 0602 Bore-Bore-FP Tee	 0702 Bore-MJ-MJ Tee
 0800 Bore-FPS Straight	 0801 Bore-FPS 90°	 0900 Bore-FJS Straight	 0954 Brass Elbow	 0954-L Brass Elbow	 1404 MP-FPS Straight
 1405 FP-FPS Straight	 1501 MP-FPS 90°	 1501-L MP-FPS 90° Long	 1502 FP-FPS 90°	 1503 MP-FPS 45°	 1504 FP-FPS 45°

Tube Fittings & Adapters

C-002

 1601 MP-FPS-FPS Tee	 1602 FP-FPS-FPS Tee	 1603 FPS-FPS-FPS Tee	 1604 MPS-FPS-FPS-FPS Cross	 2111 Brass PL-FJS Straight	 2112 Brass PL-FSAES Straight
 2113 Brass PL-MP Straight	 2114 Brass PL-FIF Straight	 2115 Brass PL-MIFS Straight	 2116 Brass PL-SAE Straight	 2117 Brass PL-Stem Straight	 2118 Brass PL-PL Straight
 2119 Brass PL-FP Straight	 2120 Brass PL-MP 90° Elbow	 2403 MJ-MJ Straight	 2403-LH MJ-MJ Straight Large Hex	 2404 MJ-MP Straight	 2404-L MJ-MP Straight Long
 2404-LL MJ-MP Straight X-Long	 2405 MJ-FP Straight	 2406 FJ-MP Straight Reducer	 2408 MJ Plug	 2500 MJ-MJ 90°	 2501 MJ-MP 90°
 2501-L MJ-MP 90° Long	 2501-LL MJ-MP 90° X-Long	 2501-LLL MJ-MP 90° XX-Long	 2502 MJ-FP 90°	 2503 MJ-MP 45°	 2504 MJ-MJ 45°
 2505 MJ-FP 45°	 2601 MJ-MJ-MP Tee	 2602 MJ-MJ-FP Tee	 2603 MJ-MJ-MJ Tee	 2605 MJ-MP-MJ Tee	 2606 MJ-FP-MJ Tee

C-003

 2607 MJ-MP-MP Tee	 2608 MJ-FP-MP Tee	 2609 MJ-FP-FP Tee	 2610 MP-MP-MJ Tee	 2611 MJ-MP-FP Tee	 2612 FP-FP-MJ Tee
 2613 MP-FP-MJ Tee	 2650 MJ-MJ-MJ-MJ Cross	 2651 MJ-MP-MJ-MJ Cross	 2652 MJ-MJ-MJ-FP Cross	 2653 MJ-MJ-MP-MP Cross	 2654 MJ-MP-MJ-MP Cross
 2700 MJ-MJ Bulkhead Straight	 2701 MJ-MJ Bulkhead 90°	 2702 MJ-MJ Bulkhead 45°	 2703 MJ-MJ-MJ Bulkhead Branch Tee	 2704 MJ-MJ-MJ Bulkhead Run Tee	 2705 FP-MJ Bulkhead Straight
 2706 MP-MJ Bulkhead Straight	 3051 MP-FP Low Profile 90°	 3474-NW0 MAORB-ORB Straight	 3474-LLL-NW0 MAORB-ORB XX-Long Straight	 4000 Buna O-ring	 4001 Viton O-ring
 4005 Flange O-ring	 4404 HB-MP Straight	 4501 HB-MP 90° Straight	 4503 HB-MP 45°	 4504 HB-HB-HB Tee	 4505 HB-MP-HB Tee
 4506 HB-HB-MP Tee	 4601-NW0 HB-MAORB 90°	 4603-NW0 HB-MAORB 45°	 4604-0 HB-MORB Straight	 5000 FP-FP Straight	 5304 MP-BW Weld-on Fitting 304SS

Tube Fittings & Adapters

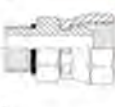
C-004

 5316 MP-BW Weld-on Fitting 316SS	(140137)  5404 MP-MP Hex Nipple	(140137)  5404-N MP-MP Straight Nipple Long	(140139)  5405 MP-FP Straight Expander	(140140)  5406 MP-FP Reducer Bushing	 5406-C Pipe Cap
(130109)  5406-HP Hollow Hex Pipe Plug	(130109E)  5406-P External Hex Pipe Plug	(130109A)  5406-SHP Square Head Pipe Plug	(140237)  5500 MP-MP 90°	(140237)  5501 MP-MP 45°	(140239)  5502 MP-FP 90° Street Elbow
(140339)  5503 MP-FP 45° Street Elbow	(140238)  5504 FP-FP 90° Street Elbow	(140338)  5505 FP-FP 45°	140437 (As coded per SAE J846)  5600 MP-MP-MP Tee	140427 (As coded per SAE J846)  5601 MP-MP-FP Tee	(140424)  5602 MP-FP-FP Street Tee
140426 (As coded per SAE J846)  5603 MP-FP-MP Tee	(140425)  5604 FP-FP-MP Branch Tee	(140438)  5605 FP-FP-FP Tee	140537 (As coded per SAE J846)  5650 MP-MP-MP-MP Cross	140538 (As coded per SAE J846)  5652 FP-FP-FP-FP Cross	 5653 MP-MP-FP-FP Cross
 5655 MP-FP-FP-FP Cross	 5700 MP-MPS 90°	 5701 MJ-MPS 90°	 5702 FP-MPS 90°	 6000 Back-Up Washer	 6316 FJS-Weld Straight
(070120/MS#51525)  6400-0 MJ-MORB Straight	(070122/MS#51526)  6400-L-0 MJ-MORB Straight Long	 6400-LL-0 MJ-MORB Straight Extra Long	 6401-0 MORB-MP Straight	 6402-0 MORB-FJS Straight	 6404 FORB-MP Straight

C-005

 6405-0 MORB-FP Straight	(090109A)  6408-0 MORB External Hex Plug	(090109B)  6408-H-0 MORB Hollow Hex Plug	 6410-0 MORB-FORB Straight Reducer	 6420-0 FORB-FP Straight	 6425 FORB-FORB Straight
 6464-0 MORB-MORB Straight	 6464-L-0 MORB-MORB Straight	(070221)  6500 MJ-FJS 90°	 6500-L MJ-FJS 90°	 6501 MP-FJS 90°	(070321/MS#51522)  6502 MJ-FJS 45°
 6503 FP-FJS 90°	 6504 MJ-FJS Straight	 6505 MP-FJS Straight	 6506 FP-FJS Straight	 6564 JIC-FJS-FORB Tee	 6565 FJS-FJS Straight
 6574 MJ-FJS-FP Tee	(070433/MS#51524)  6600 MJ-MJ-FJS Tee	(070432/MS#51523)  6602 MJ-FJS-MJ Tee	 6603 FJS-FJS-MJ Tee	 6604 FJS-FJS-MP Tee	 6605 FJS-FJS-FP Tee
 6606 FJS-FJS-FJS Tee	 6701 MJ-FJS Swept 90°	 6701-L MJ-FJS Swept 90°	 6702 MJ-FJS Swept 45°	(070220/MS#51527)  6801-NW0 MJ-MAORB 90°	(071520)  6801-L-NW0 MJ-MAORB 90°
(071620)  6801-LL-NW0 MJ-MAORB 90°	(071720)  6801-LLL-NW0 MJ-MAORB 90°	(070320/MS#51528)  6802-NW0 MJ-MAORB 45°	(070429/MS#51529)  6803-NW0 MJ-MJ-MAORB Branch Tee	(070428/MS#51530)  6804-NW0 MJ-MAORB-MJ Run Tee	 6804-L-NW0 MJ-MAORB-MJ Run Tee

Tube Fittings & Adapters

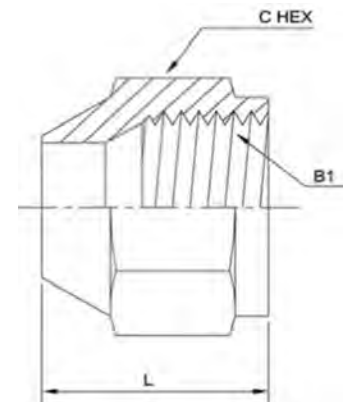
 6805-NW0 MAORB-FP 90°	 6805-L-NW0 MAORB-FP 90° Long	 6806-NW0 MAORB-FP 90°	 6807-NW0 MAORB-MAORB 90°	 6807-LL-NW0 MAORB-MAORB 90° X-Long	 6808-NW0 MAORB-MAORB 45°
 6809-NW0 MAORB-FJS 90°	 6810-NW0 MAORB-FJS 45°	 6815-NW0 MAORB-FORB 90°	 6818-NW0 MAORB-FORB 45° Large Nut	 6820-NW0 FORB-MAORB-MJ Tee	 6832-NW0 FORB-FORB-MAORB Tee
 6835-NW0 MAORB-FORB-FORB Tee	 6840-NW0 MAORB-MAORB-MJ Tee	 6850-NW0 MJ-MJ-MAORB-MJ Cross	 6900-0 MORB-FPS Straight	 6901-NW0 MAORB-FPS 90°	 6902-NW0 MAORB-FPS 45°
 6911-NW0 MAORB-FPS-FPS Tee					

C-006

Short Nut 0302 Series

C-007

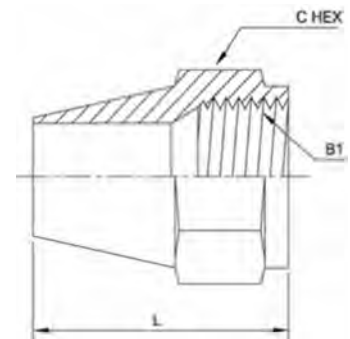
PART NO.SIZE	TUBE O.D.	B1 THREAD	I LGTH	C HEX
0302-04	1/4	7/16-20	0.593	0.562
0302-05	5/16	1/2-20	0.593	0.625
0302-06	3/8	9/16-18	0.656	0.687
0302-08	1/2	3/4-16	0.812	0.875
0302-10	5/8	7/8-14	0.937	1.000
0302-12	3/4	1-1/16-12	1.140	1.250
0302-14	7/8	1-3/16-12	1.203	1.375
0302-16	1	1-5/16-12	1.281	1.500
0302-20	1-1/4	1-5/8-12	1.437	2.000
0302-24	1-1/2	1-7/8-12	1.562	2.250
0302-32	2	2-1/2-12	2.000	2.875



Standard Nut 0304 Series

SAE# 070111

PART NO.SIZE	TUBE O.D.	B1 THREAD	L LGTH	C HEX
0304-04	1/4	7/16-20	1.00	0.562
0304-05	5/16	1/2-20	1.06	0.625
0304-06	3/8	9/16-18	1.09	0.687
0304-08	1/2	3/4-16	1.28	0.875
0304-10	5/8	7/8-14	1.48	1.000
0304-12	3/4	1-1/16-12	1.66	1.250
0304-14	7/8	1-3/16-12	1.81	1.375
0304-16	1	1-5/16-12	1.94	1.500
0304-20	1-1/4	1-5/8-12	2.19	2.000
0304-24	1-1/2	1-7/8-12	2.31	2.250
0304-32	2	2-1/2-12	2.75	2.875

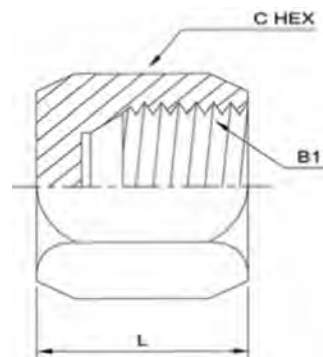


Tube Fittings & Adapters

JIC Cap Nut 0304-C Series

SAE# 070112

PART NO.SIZE	TUBE O.D.	B1 THREAD	L LGTH	C HEX
0304-C-02	1/8	5/16-24	0.500	0.375
0304-C-03	3/16	3/8-24	0.562	0.438
0304-C-04	1/4	7/16-20	0.594	0.562
0304-C-05	5/16	1/2-20	0.609	0.625
0304-C-06	3/8	9/16-18	0.625	0.687
0304-C-08	1/2	3/4-16	0.750	0.875
0304-C-10	5/8	7/8-14	0.844	1.000
0304-C-12	3/4	1-1/16-12	0.906	1.250
0304-C-14	7/8	1-3/16-12	0.969	1.375
0304-C-16	1	1-5/16-12	1.016	1.500
0304-C-20	1-1/4	1-5/8-12	1.062	2.000
0304-C-24	1-1/2	1-7/8-12	1.188	2.250
0304-C-32	2	2-1/2-12	1.438	2.875

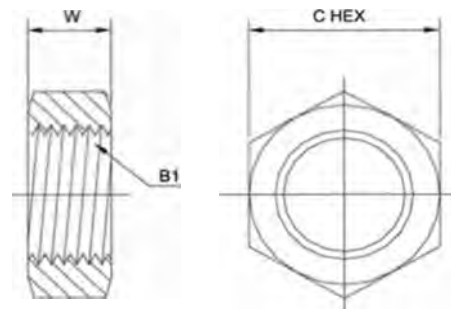


C-008

BHLN 0306 Series

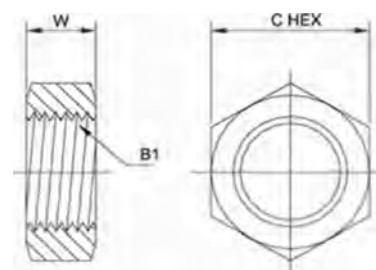
SAE# 070118 / MS# 51860

PART NO.SIZE	TUBE O.D.	B1 THREAD	W WIDTH	C HEX
0306-02	1/8	5/16-24	0.22	0.562
0306-03	3/16	3/8-24	0.22	0.625
0306-04	1/4	7/16-20	0.28	0.687
0306-05	5/16	1/2-20	0.28	0.750
0306-06	3/8	9/16-18	0.27	0.812
0306-08	1/2	3/4-16	0.31	1.000
0306-10	5/8	7/8-14	0.36	1.125
0306-12	3/4	1-1/16-12	0.41	1.375
0306-14	7/8	1-3/16-12	0.41	1.500
0306-16	1	1-5/16-12	0.41	1.625
0306-20	1-1/4	1-5/8-12	0.41	1.875
0306-24	1-1/2	1-7/8-12	0.41	2.125
0306-32	2	2-1/2-12	0.41	2.750



BULN 0306-N Series

SAE# 070117

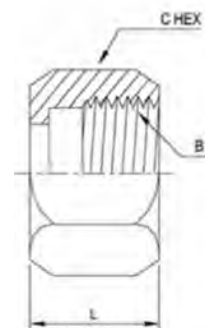


C-009

PART NO.SIZE	TUBE O.D.	B1 THREAD	W WIDTH	C HEX
0306-N-03	3/16	3/8-24	0.22	0.500
0306-N-04	1/4	7/16-20	0.28	0.562
0306-N-05	5/16	1/2-20	0.28	0.625
0306-N-06	3/8	9/16-18	0.27	0.687
0306-N-08	1/2	3/4-16	0.31	0.875
0306-N-10	5/8	7/8-14	0.36	1.000
0306-N-12	3/4	1-1/16-12	0.41	1.250
0306-N-14	7/8	1-3/16-12	0.41	1.375
0306-N-16	1	1-5/16-12	0.41	1.500

JIC Tube Nut 0318 Series

SAE# 070110

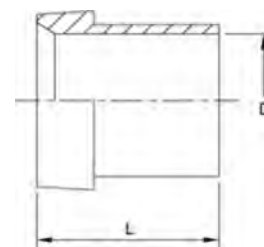


PART NO.SIZE	TUBE O.D.	B1 THREAD	L LGTH	C HEX
0318-02	1/8	5/16-24	0.550	0.375
0318-03	3/16	3/8-24	0.610	0.438
0318-04	1/4	7/16-20	0.620	0.562
0318-05	5/16	1/2-20	0.680	0.625
0318-06	3/8	9/16-18	0.730	0.688
0318-08	1/2	3/4-16	0.850	0.875
0318-10	5/8	7/8-14	0.980	1.000
0318-12	3/4	1-1/16-12	1.030	1.250
0318-14	7/8	1-3/16-12	1.090	1.375
0318-16	1	1-5/16-12	1.130	1.500
0318-20	1-1/4	1-5/8-12	1.230	2.000
0318-24	1-1/2	1-7/8-12	1.420	2.250
0318-32	2	2-1/2-12	1.750	2.875
0318-40	2-1/2	3-12	1.638	3.375

Tube Fittings & Adapters

JIC Tube Sleeve 0319 Series

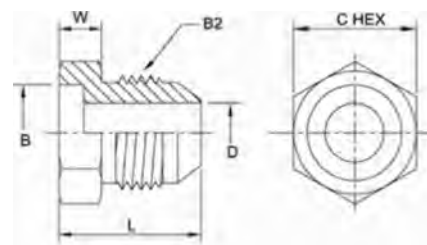
SAE# 070115



C-010

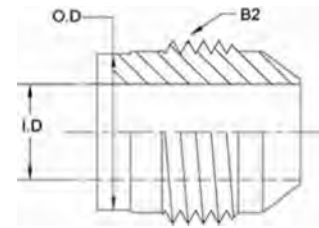
PART NO.SIZE	TUBE O.D.	L LGTH	D I.D.
0319-02	1/8	0.34	0.130
0319-03	3/16	0.34	0.193
0319-04	1/4	0.41	0.255
0319-05	5/16	0.44	0.318
0319-06	3/8	0.50	0.380
0319-08	1/2	0.56	0.505
0319-10	5/8	0.66	0.631
0319-12	3/4	0.68	0.756
0319-14	7/8	0.76	0.881
0319-16	1	0.78	1.006
0319-20	1-1/4	0.91	1.260
0319-24	1-1/2	1.12	1.510
0319-32	2	1.19	2.014

Bore-MJ Straight 0403 Series



PART NO.SIZE	TUBE O.B.	B2 THREAD	B BURE	D DRILL	L LGTH	W WIDTH	C HEX
0403-04-04	1/4	7/16-20	0.256	0.172	0.796	0.220	0.500
0403-05-04	5/16	7/16-20	0.319	0.172	0.796	0.220	0.500
0403-05-05	5/16	1/2-20	0.319	0.234	0.796	0.220	0.562
0403-06-06	3/8	9/16-18	0.381	0.297	0.843	0.250	0.625
0403-06-08	3/8	3/4-16	0.381	0.391	0.937	0.250	0.812
0403-08-06	1/2	9/16-18	0.506	0.297	0.837	0.250	0.812
0403-08-08	1/2	3/4-16	0.506	0.391	0.937	0.250	0.812
0403-08-10	1/2	7/8-14	0.506	0.484	1.093	0.310	0.937
0403-10-08	5/8	3/4-16	0.631	0.391	0.937	0.250	0.937
0403-10-10	5/8	7/8-14	0.631	0.484	1.093	0.310	0.937
0403-10-12	5/8	1-1/16-12	0.631	0.609	1.281	0.380	1.250
0403-12-04	3/4	7/16-20	0.757	0.172	0.937	0.380	1.250
0403-12-08	3/4	3/4-16	0.757	0.391	0.937	0.380	1.250
0403-12-10	3/4	7/8-14	0.757	0.484	1.093	0.380	1.250
0403-12-12	3/4	1-1/16-12	0.757	0.609	1.281	0.380	1.250
0403-14-14	7/8	1-3/16-12	0.882	0.719	1.312	0.380	1.375
0403-16-12	1	1-1/16-12	1.007	0.609	1.281	0.380	1.375
0403-16-16	1	1-5/16-12	1.007	0.844	1.328	0.380	1.375
0403-16-20	1	1-5/8-12	1.007	1.078	1.453	0.460	1.688
0403-20-16	1-1/4	1-5/16-12	1.258	0.844	1.328	0.460	1.688
0403-20-20	1-1/4	1-5/8-12	1.258	1.078	1.453	0.460	1.688
0403-20-24	1-1/4	1-7/8-12	1.258	1.312	1.656	0.530	2.000
0403-24-20	1-1/2	1-5/8-12	1.508	1.078	1.453	0.530	2.000
0403-24-24	1-1/2	1-7/8-12	1.508	1.312	1.656	0.530	2.000
0403-32-32	2	2-1/2-12	2.008	1.781	2.046	0.680	2.625

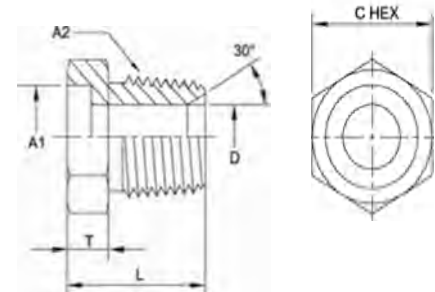
MJ Tube Spud 0403-TS Series



C-011

PART NO.SIZE	TUBE O.D.	B2 THREAD	O.D.	I.D.
0403-TS-04-04	1/4	7/16-20	0.361	0.172
0403-TS-06-06	3/8	9/16-18	0.471	0.297
0403-TS-08-08	1/2	3/4-16	0.628	0.391
0403-TS-10-10	5/8	7/8-14	0.752	0.484
0403-TS-12-12	3/4	1-1/16-12	0.862	0.609
0403-TS-16-16	1	1-5/16-12	1.159	0.844
0403-TS-20-20	1-1/4	1-5/8-12	1.504	1.078
0403-TS-24-24	1-1/2	1-7/8-12	1.628	1.312

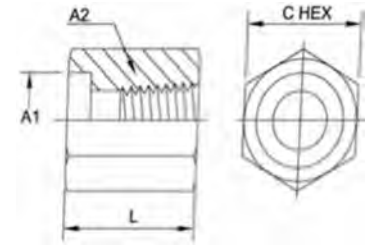
Bore-MP Straight 0404 Series



PART NO.SIZE	TUBE O.D.	A1 BORE	A2 NPTF	Ø DRILL	L LCTH	T WIDTH	C HEX
0404-04-02	1/4	0.256	1/8-27	0.188	0.562	0.19	0.500
0404-04-04	1/4	0.256	1/4-18	0.281	0.843	0.27	0.625
0404-06-04	3/8	0.381	1/4-18	0.281	0.812	0.25	0.625
0404-06-06	3/8	0.381	3/8-18	0.406	0.875	0.31	0.750
0404-08-06	1/2	0.506	3/8-18	0.406	0.843	0.28	0.812
0404-08-08	1/2	0.506	1/2-14	0.531	1.100	0.36	0.875
0404-10-06	5/8	0.631	3/8-18	0.406	0.843	0.28	0.812
0404-10-08	5/8	0.631	1/2-14	0.531	1.078	0.33	0.937
0404-12-08	3/4	0.757	1/2-14	0.531	1.080	0.36	0.937
0404-12-12	3/4	0.757	3/4-14	0.719	1.093	0.34	1.125
0404-16-12	1	1.007	3/4-16	0.719	1.260	0.50	1.250
0404-16-16	1	1.007	1-11 1/2	0.938	1.312	0.38	1.375
0404-20-16	1-1/4	1.258	1-11 1/2	0.938	1.376	0.44	1.688
0404-20-20	1-1/4	1.258	1-1/4-11 1/2	1.250	1.406	0.44	1.688
0404-24-16	1-1/2	1.508	1-11 1/2	0.938	1.375	0.50	1.750
0404-24-20	1-1/2	1.508	1-1/4-11 1/2	1.250	1.500	0.50	2.000
0404-24-24	1-1/2	1.508	1-1/2-11 1/2	1.500	1.500	0.50	2.000
0404-32-32	2	2.008	2-11 1/2	1.938	1.781	0.75	2.625

Tube Fittings & Adapters

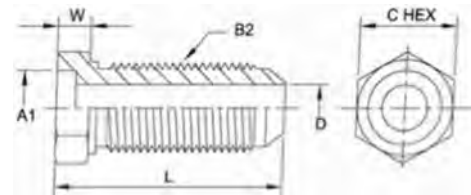
Bore-FP Straight 0405 Series



C-012

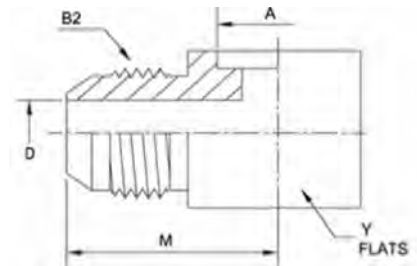
PART NO.SIZE	TUBE O.D.	A1 BORE	A2 NPTT	L LGTH	C HEX
0405-04-02	1/4	0.256	1/8-27	0.640	0.562
0405-06-04	3/8	0.381	1/4-18	0.843	0.750
0405-06-06	3/8	0.381	3/8-18	0.906	0.875
0405-08-06	1/2	0.506	3/8-18	0.906	0.875
0405-12-12	3/4	0.757	3/4-14	1.203	1.375
0405-16-16	1	1.007	1-11-1/2	1.437	1.625
0405-20-20	1-1/4	1.258	1-1/4-11-1/2	1.531	2.000

Bore-MJ Bulkhead Straight 0406 Series



PART NO.SIZE	TUBE O.D.	A1 BORE	B2 THREAD	O DRILL	L LGTH	W WIDTH	C HEX
0406-08-08	1/2	0.506	3/4-16	0.391	1.845	0.375	1.000
0406-12-12	3/4	0.757	1-1/16-12	0.609	2.300	0.500	1.375
0406-16-16	1	1.007	1-5/16-12	0.844	2.300	0.500	1.625

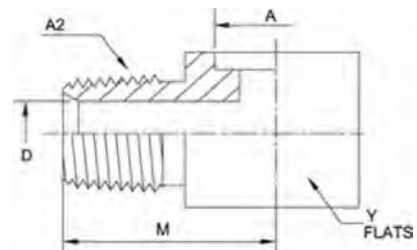
Bore-MJ 90° 0500 Series



C-013

PART NO.SIZE	TUBE O.O.	A BORE	B2 JIC	O BORE	M LGTH	Y FLATS
0500-04-04	1/4	0.256	7/16-20	0.172	0.890	0.500
0500-05-05	5/16	0.319	1/2-20	0.234	0.953	0.562
0500-06-04	3/8	0.381	7/16-20	0.172	1.062	0.625
0500-06-06	3/8	0.381	9/16-18	0.297	1.062	0.625
0500-08-08	1/2	0.506	3/4-16	0.391	1.250	0.812
0500-10-08	5/8	0.631	3/4-16	0.391	1.310	0.937
0500-10-10	5/8	0.631	7/8-14	0.484	1.453	0.937
0500-12-08	3/4	0.757	3/4-16	0.391	1.453	0.937
0500-12-12	3/4	0.757	1-1/16-12	0.609	1.656	1.125
0500-14-14	7/8	0.882	1-3/16-12	0.719	1.734	1.250
0500-16-12	1	1.007	1-1/16-12	0.609	1.762	1.375
0500-16-16	1	1.007	1-5/16-12	0.844	1.812	1.375
0500-20-16	1-1/4	1.258	1-5/16-12	0.844	2.062	1.750
0500-20-20	1-1/4	1.258	1-5/8-12	1.078	2.062	1.750
0500-24-16	1-1/2	1.508	1-5/16-12	0.844	2.328	2.000
0500-24-20	1-1/2	1.508	1-5/8-12	1.078	2.328	2.000
0500-24-24	1-1/2	1.508	1-7/8-12	1.312	2.328	2.000
0500-32-32	2	2.008	2-1/2-12	1.781	3.062	2.625

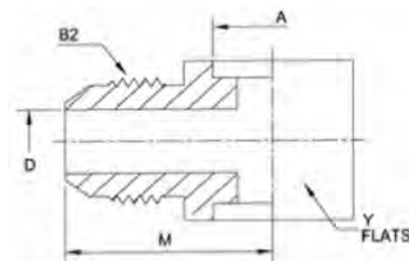
Bore-MP 90° 0501 Series



PART NO.SIZE	TUBE O.O.	A BORE	A2 NPTF	O DRILL	M LGTH	Y FLATS
0501-06-04	3/8	0.381	1/4-18	0.281	1.055	0.625
0501-08-06	1/2	0.506	3/8-18	0.406	1.250	0.812
0501-16-16	1	1.007	1-11-1/2	0.938	1.812	1.375

Tube Fittings & Adapters

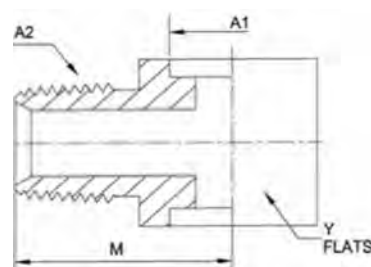
Bore-Bore-MJ Tee 0600 Series



C-014

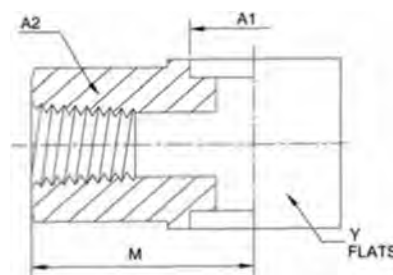
PART NO.SIZE	TUBE O.D.	A BORE	B2 JK	Ø DRILL	M LGTH	Y FLATS
0600-04-04-04	1/4	0.256	7/16-20	0.172	0.890	0.500
0600-05-05-05	5/16	0.319	1/2-20	0.234	0.953	0.562
0600-06-06-06	3/8	0.381	9/16-18	0.297	1.062	0.625
0600-08-08-08	1/2	0.506	3/4-16	0.391	1.250	0.812
0600-10-10-10	5/8	0.631	7/8-14	0.484	1.453	0.937
0600-12-12-12	3/4	0.757	1-1/16-12	0.609	1.656	1.125
0600-14-14-14	7/8	0.882	1-3/16-12	0.719	1.734	1.250
0600-16-16-16	1	1.007	1-5/16-12	0.844	1.812	1.375
0600-20-20-20	1-1/4	1.258	1-5/8-12	1.078	2.062	1.750
0600-24-24-24	1-1/2	1.508	1-7/8-12	1.312	2.328	2.000

Bore-Bore-MP Tee 0601 Series



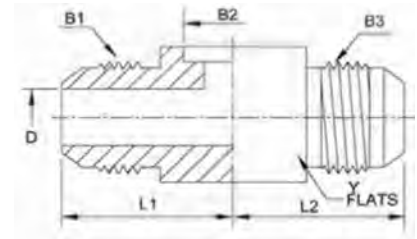
PART NO.SIZE	TUBE O.D.	A1 BORE	A2 NPTF	M LGTH	Y FLATS
0601-16-16-16	1	1.007	1-11-1/2	1.97	1.375

Bore-Bore-FP Tee 0602 Series



PART NO.SIZE	TUBE O.D.	A1 BORE	A2 NPTF	M LGTH	Y FLATS
0602-06-06-04	3/8	0.381	1/4-18	0.90	0.750
0602-16-16-16	1	1.007	1-11-1/2	1.65	1.625

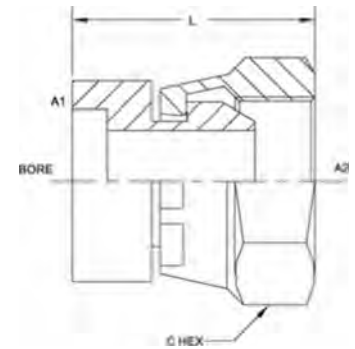
Bore-MJ-MJ Tee 0702 Series



C-015

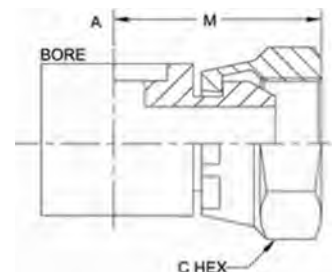
PART NO.SIZE	TUBE O.O.	B1 JIC	B3 JIC	B2 BORE	D DRILL	L1 LGTH	L2 LGTH	Y FLATS
0702-05-05-05	5/16	1/2-20	1/2-20	0.319	0.234	0.970	0.970	0.562
0702-06-06-06	3/8	9/16-18	9/16-18	0.381	0.297	1.090	1.090	0.625
0702-08-08-08	1/2	3/4-16	3/4-16	0.506	0.391	1.250	1.250	0.812
0702-10-10-10	5/8	7/8-14	7/8-14	0.631	0.484	1.450	1.450	0.937
0702-12-12-12	3/4	1-1/16-12	1-1/16-12	0.757	0.609	1.660	1.660	1.125
0702-14-12-12	7/8	1-3/16-12	1-1/16-12	0.757	0.609	1.734	1.660	1.250
0702-16-16-16	1	1-5/16-12	1-5/16-12	1.007	0.844	1.810	1.810	1.375

Bore-FPS Straight 0800 Series



PART NO.SIZE	TUBE O.O.	A1 BORE	A2 NPSM	I LGTH	C HEX
0800-08-06	1/2	0.506	3/8-18	1.023	0.875
0800-10-08	5/8	0.631	1/2-14		1.000
0800-12-08	3/4	0.757	1/2-14		1.000
0800-12-12	3/4	0.757	3/4-14		1.250

Bore-FPS 90 0801 Series

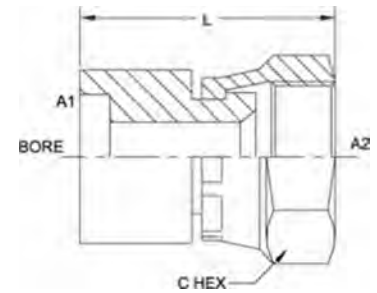


PART NO.SIZE	TUBE O.O.	A BORE	A1 NPSM	M LGTH	C HEX
0801-06-04	3/8	0.381	1/4-18	0.880	0.688
0801-08-08	1/2	0.506	1/2-14		1.000

Tube Fittings & Adapters

Bore-FJS Straight 0900 Series

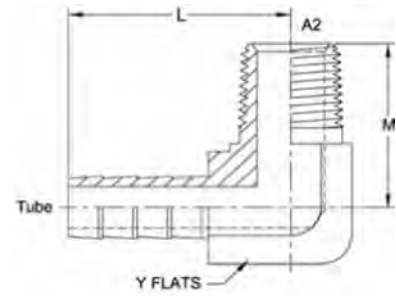
PART NO.SIZE	TUBE O.D.	A1 BORE	A2 THREAD	L LOTH	C HEX
0900-04-04	1/4	0.256	7/16-20	0.900	0.562
0900-08-08	1/2	0.506	3/4-16		0.812
0900-12-12	3/4	0.757	1-1/16-12	1.625	1.250
0900-16-16	1	1.007	1-5/16-12		1.375
0900-20-20	1-1/4	1.258	1-5/8-12	1.950	2.000



C-016

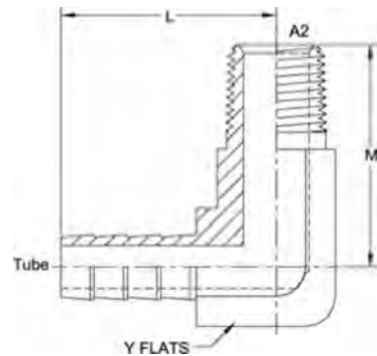
Brass Elbow 0954 Series

PART NO.SIZE	TUBE O.D.	A2 NPTF	L LGTH	M LOTH	Y FLATS
0954	5/16	1/4-18	1.03	0.91	0.562



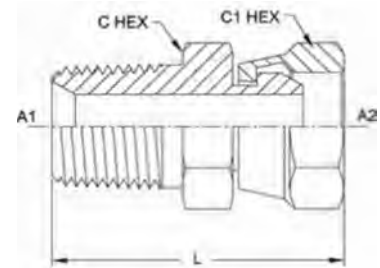
Brass Elbow 0954-L Series

PART NO.SIZE	TUBE O.D.	A2 NPTF	I LGTH	M LGTH	Y FLATS
0954-L	5/16	1/4-18	1.15	1.33	0.550



MP-FPS Straight 1404 Series

SAE# 140130



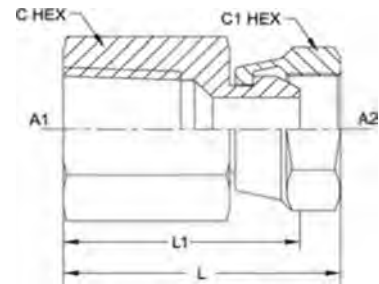
C-017

PART NO.SIZE	A1 NPTF	A2 NPSM	A1 DRILL	A2 DRILL	LI HEX	L LGTH	C HEX	C1 HEX
1404-02-02	1/8-27	1/8-27	0.188	0.150	0.94	1.08	0.562	0.562
1404-02-04	1/8-27	1/4-18	0.188	0.220	1.05	1.24	0.688	0.688
1404-04-02	1/4-18	1/8-27	0.281	0.150	1.18	1.32	0.688	0.562
1404-04-04	1/4-18	1/4-18	0.281	0.220	1.23	1.42	0.688	0.688
1404-04-06	1/4-18	3/8-18	0.281	0.340	1.31	1.52	0.812	0.875
1404-04-08	1/4-18	1/2-14	0.281	0.460	1.42	1.70	1.000	1.000
1404-06-04	3/8-18	1/4-18	0.406	0.220	1.30	1.49	0.750	0.688
1404-06-06	3/8-18	3/8-18	0.406	0.340	1.30	1.52	0.875	0.875
1404-06-08	3/8-18	1/2-14	0.406	0.460	1.42	1.70	1.000	1.000
1404-08-04	1/2-14	1/4-18	0.531	0.220	1.52	1.71	0.875	0.688
1404-08-06	1/2-14	3/8-18	0.531	0.340	1.56	1.77	0.875	0.875
1404-08-08	1/2-14	1/2-14	0.531	0.460	1.61	1.89	1.000	1.000
1404-08-12	1/2-14	3/4-14	0.531	0.635	1.74	2.09	1.250	1.250
1404-12-06	3/4-14	3/8-18	0.719	0.340	1.56	1.77	1.125	0.875
1404-12-08	3/4-14	1/2-14	0.719	0.460	1.65	1.93	1.125	1.000
1404-12-12	3/4-14	3/4-14	0.719	0.635	1.75	2.10	1.250	1.250
1404-12-16	3/4-14	1-11 1/2	0.719	0.831	1.81	2.16	1.500	1.500
1404-12-20	3/4-14	1 1/4-1 1/2	0.719	1.087	1.86	2.28	1.875	1.875
1404-16-06	1-11 1/2	3/8-18	0.938	0.340	1.81	2.02	1.375	0.875
1404-16-08	1-11 1/2	1/2-14	0.938	0.460	1.88	2.16	1.375	1.000
1404-16-12	1-11 1/2	3/4-14	0.938	0.635	1.94	2.29	1.500	1.250
1404-16-16	1-11 1/2	1-11 1/2	0.938	0.831	2.00	2.35	1.500	1.500
1404-16-20	1-11 1/2	1 1/4-11 1/2	0.938	1.087	2.05	2.47	1.875	1.875
1404-16-24	1-11-1/2	1-1/2-11-1/2	0.938	1.317	2.21	2.63	2.125	2.125
1404-20-16	1 1/4-11 1/2	1-11 1/2	1.250	0.831	2.05	2.40	1.875	1.500
1404-20-20	1 1/4-11 1/2	1 1/4-11 1/2	1.250	1.087	2.10	2.52	1.875	1.875
1404-20-24	1 1/4-11 1/2	1 1/2-11 1/2	1.250	1.317	2.09	2.51	2.125	2.125
1404-24-20	1 1/2-11 1/2	1 1/4-11 1/2	1.500	1.087	2.12	2.54	2.125	1.875
1404-24-24	1 1/2-11 1/2	1 1/2-11 1/2	1.500	1.317	2.27	2.69	2.125	2.125
1404-32-32	2-11 1/2	2-11 1/2	1.938	1.802	2.37	2.79	2.625	2.625
1404-40-40								

Tube Fittings & Adapters

FP-FPS Straight 1405 Series

SAE# 140131

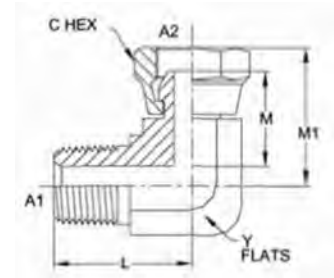


C-018

PART NO.SIZE	A1 NPTF	A2 NPSM	A2 DRILL	LI LETH	L LETH	C HEX	C1 HEX
1405-02-02	1/8-27	1/8-27	0.150	0.88	1.02	0.562	0.562
1405-02-04	1/8-27	1/4-18	0.220	1.10	1.29	0.688	0.688
1405-04-02	1/4-18	1/8-27	0.150	1.19	1.33	0.688	0.562
1405-04-04	1/4-18	1/4-18	0.220	1.23	1.42	0.688	0.688
1405-04-06	1/4-18	3/8-18	0.340	1.27	1.48	0.688	0.875
1405-04-08	1/4-18	1/2-14	0.460	1.32	1.60	1.000	1.000
1405-06-04	3/8-18	1/4-18	0.220	1.29	1.48	0.875	0.688
1405-06-06	3/8-18	3/8-18	0.340	1.31	1.52	0.875	0.875
1405-06-08	3/8-18	1/2-14	0.460	1.50	1.78	1.000	1.000
1405-08-04	1/2-14	1/4-18	0.220	1.56	1.75	1.000	0.688
1405-08-06	1/2-14	3/8-18	0.340	1.45	1.66	0.875	0.875
1405-08-08	1/2-14	1/2-14	0.460	1.56	1.84	1.000	1.000
1405-08-12	1/2-14	3/4-14	0.635	1.62	1.97	1.250	1.250
1405-12-08	3/4-14	1/2-14	0.460	1.63	1.91	1.250	1.000
1405-12-12	3/4-14	3/4-14	0.635	1.62	1.97	1.250	1.250
1405-12-16	3/4-14	1-11-1/2	0.831	1.83	2.18	1.500	1.500
1405-16-12	1-11-1/2	3/4-14	0.635	1.90	2.25	1.500	1.250
1405-16-16	1-11-1/2	1-11-1/2	0.831	2.00	2.35	1.500	1.500
1405-20-20	1-1/4-11-1/2	1-1/4-11-1/2	1.087	1.98	2.40	1.875	1.875
1405-24-24	1-1/2-11-1/2	1-1/2-11-1/2	1.317	2.10	2.52	2.125	2.125
1405-32-32	2-11-1/2	2-11-1/2	1.802	2.13	2.55	2.625	2.625

MP-FPS 90° 1501 Series

SAE# 140230

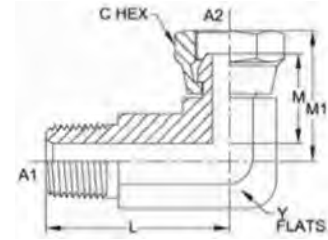


C-019

PART NO.SIZE	A1 NPTF	A2 NPSM	A1 DRILL	A2 DRILL	L LDTH	M LGTH	MI LGTH	C HEX	Y FLATS
1501-02-02-FG	1/8-27	1/8-27	0.188	0.15	0.72	0.70	0.84	0.562	0.438
1501-02-04-FG	1/8-27	1/4-18	0.188	0.22	0.90	0.88	1.07	0.688	0.562
1501-04-02-FG	1/4-18	1/8-27	0.281	0.15	1.09	0.77	0.91	0.562	0.562
1501-04-04-FG	1/4-18	1/4-18	0.281	0.22	1.09	0.88	1.07	0.688	0.562
1501-04-06-FG	1/4-18	3/8-18	0.281	0.34	1.22	0.99	1.20	0.875	0.750
1 501 -04-08-hG	1/4-18	1/2-14	0.281	0.46	1.28	1.11	1.39	1.000	0.875
1501-06-04-FG	3/8-18	1/4-18	0.406	0.22	1.22	0.99	1.18	0.688	0.750
1501-06-06-FG	3/8-18	3/8-18	0.406	0.34	1.22	0.99	1.20	0.875	0.750
1501-06-08-FG	3/8-18	1/2-14	0.406	0.46	1.28	1.11	1.39	1.000	0.875
1501-06-12-FG	3/8-18	3/4-14	0.406	0.64	1.40	1.30	1.65	1.250	1.062
1501-08-04-FG	1/2-14	1/4-18	0.531	0.22	1.47	1.02	1.21	0.688	0.875
1501*08*06*FG	1/2-14	3/8-18	0.531	0.34	1.47	1.04	1.25	0.875	0.875
1501-08-08-FG	1/2-14	1/2-14	0.531	0.46	1.47	1.11	1.39	1.000	0.875
1501-08-12-FG	1/2-14	3/4-14	0.531	0.64	1.59	1.30	1.65	1.250	1.062
1501-12-04-FG	3/4-14	1/4-18	0.719	0.22	1.59	1.24	1.43	0.688	1.062
1501-12-06-FG	3/4-14	3/8-18	0.719	0.34	1.59	1.24	1.45	0.875	1.062
1501-12-08-FG	3/4-14	1/2-14	0.719	0.46	1.59	1.24	1.52	1.000	1.062
1501-12-12-FG	3/4-14	3/4-14	0.719	0.64	1.59	1.30	1.65	1.250	1.062
1501-12-16-FG	3/4-14	1-11 1/2	0.719	0.83	1.78	1.54	1.89	1.500	1.312
1501-12-20-FG	3/4-14	1 1/4-11 1/2	0.719	1.09	2.16	1.73	2.15	1.875	1.625
1501-16-08-FG	1-11 1/2	1/2-14	0.938	0.46	1.97	1.43	1.71	1.000	1.312
1501-16-12-FG	1-11 1/2	3/4-14	0.938	0.64	1.97	1.43	1.78	1.250	1.312
1501-16-16-FG	1-11 1/2	1-11 1/2	0.938	0.83	1.97	1.54	1.89	1.500	1.312
1501-16-20-FG	1-11 1/2	1 1/4-11 1/2	0.938	1.09	2.35	1.73	2.15	1.875	1.625
1501-20-12-FG	1 1/4-11 1/2	3/4-14	1.250	0.64	2.38	1.56	1.91	1.250	1.625
1501-20-16-FG	1 1/4-11 1/2	MI 1/2	1.250	0.83	2.38	1.70	2.05	1.500	1.625
1501-20-20-FG	1 1/4-11 1/2	1 1/4-11 1/2	1.250	1.09	2.38	1.73	2.15	1.875	1.625
1501-20-24-FG	1 1/4-11 1/2	1 1/2-11 1/2	1.250	1.32	2.61	1.89	2.31	2.125	1.875
1501-24-20-FG	1 1/2-11 1/2	1 1/4-11 1/2	1.500	1.09	2.64	1.77	2.19	1.875	1.875
1501-24-24-FG	1 1/2-11 1/2	1 1/2-11 1/2	1.500	1.32	2.64	1.89	2.31	2.125	1.875
1501-32-32-FG	2-11 1/2	2-11 1/2	1.938	1.80	3.00	2.27	2.69	2.625	2.500

Tube Fittings & Adapters

MP-FPS 90° Long 1501-L Series

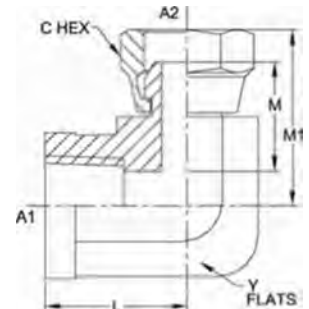


PART NO. SIZE	A1 NPTF	A2 NPSM	A1 DRILL	A2 DRILL	L LGTH	M LOTH	MI LGTH	C HEX	Y FLATS
1501-L-02-02-FG	1/8-27	1/8-27	0.188	0.150	1.64	0.70	0.84	0.562	0.438
1501-L-04-04-FG	1/4-18	1/4-18	0.281	0.220	2.25	0.88	1.07	0.688	0.562
1501-L-06-06-FG	3/8-18	3/8-18	0.406	0.340	2.76	0.99	1.20	0.875	0.750
1501-L-08-06-FG	1/2-14	3/8-18	0.531	0.340	3.19	1.04	1.25	0.875	0.875
1501-L-08-08-FG	1/2-14	1/2-14	0.531	0.460	3.19	1.11	1.39	1.000	0.875
1501-L-12-12-FG	3/4-14	3/4-14	0.719	0.635	3.66	1.30	1.65	1.250	1.062
1501-L-16-16-FG	1-11-1/2	1-11-1/2	0.938	0.831	4.33	1.54	1.89	1.500	1.312

C-020

FP-FPS 90° 1502 Series

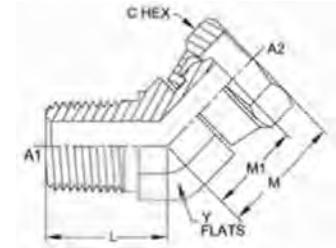
SAE# 140231



PART NO. SIZE	A1 NPTF	A2 NPSM	A2 DRILL	L LGTH	M LGTH	MI LGTH	C HEX	Y FLATS
1502-02-02-FG	1/8-27	1/8-27	0.150	0.66	0.80	0.94	0.562	0.562
1502-02-04-FG	1/8-27	1/4-18	0.220	0.66	0.91	1.10	0.688	0.562
1502-04-02-FG	1/4-18	1/8-27	0.150	0.88	0.88	1.02	0.562	0.750
1502-04-04-FG	1/4-18	1/4-18	0.220	0.88	0.99	1.18	0.688	0.750
1502-04-06-FG	1/4-18	3/8-18	0.340	0.88	1.01	1.22	0.875	0.750
1502-06-04-FG	3/8-18	1/4-18	0.220	1.02	1.04	1.23	0.688	0.875
1502-06-06-FG	3/8-18	3/8-18	0.340	1.02	1.06	1.27	0.875	0.875
1502-06-08-FG	3/8-18	1/2-14	0.460	1.02	1.13	1.41	1.000	0.875
1502-08-04-FG	3/4-16	1/4-18	0.220	1.23	1.15	1.34	0.688	1.062
1502-08-06-FG	1/2-14	3/8-18	0.340	1.23	1.17	1.38	0.875	1.062
1502-08-08-FG	1/2-14	1/2-14	0.460	1.23	1.24	1.52	1.000	1.062
1502-08-12-FG	1/2-14	3/4-14	0.635	1.23	1.24	1.59	1.250	1.062
1502-12-08-FG	3/4-14	1/2-14	0.460	1.36	1.47	1.75	1.000	1.312
1502-12-12-FG	3/4-14	3/4-14	0.635	1.36	1.47	1.82	1.250	1.312
1502-12-16-FG	3/4-14	1-11 1/2	0.831	1.36	1.58	1.93	1.500	1.312
1502-16-12-FG	1-11 1/2	3/4-14	0.635	1.62	1.62	1.97	1.250	1.625
1502-16-16-FG	1-11 1/2	1-11 1/2	0.831	1.62	1.73	2.08	1.500	1.625
1502-20-16-FG	1 1/4-11 1/2	1-11 1/2	0.831	1.70	1.80	2.15	1.500	1.875
1502-20-20-FG	1 1/4-11 1/2	1 1/4-11 1/2	1.087	1.70	1.83	2.25	1.875	1.875
1502-24-24-FG	1 1/2-11 1/2	1 1/2-11 1/2	1.317	2.08	2.41	2.83	2.125	2.562
1502-32-32-FG	2-11 1/2	2-11 1/2	1.802	2.39	2.57	2.99	2.625	2.812

MP-FPS 45° 1503 Series

SAE# 140330

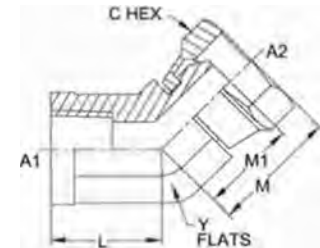


C-021

PART NO.SIZE	A1 NPTF	A2 NPSM	A1 DRILL	A2 DRILL	L LOTH	MI L6TH	M LBTH	C HEX	Y FIATS
1503-02-02-FG	1/8-27	1/8-27	0.188	0.150	0.52	0.62	0.76	0.562	0.438
1503-02-04-FG	1/8-27	1/4-18	0.188	0.220	0.67	0.73	0.92	0.688	0.562
1503-04-02-FG	1/4-18	1/8-27	0.281	0.150	0.86	0.62	0.76	0.562	0.562
1503-04-04-FG	1/4-18	1/4-18	0.281	0.220	0.86	0.73	0.92	0.688	0.562
1503-04-06-FG	1/4-18	3/8-18	0.281	0.340	0.95	0.81	1.02	0.875	0.750
1503-04-08-FG	1/4-18	1/2-14	0.281	0.460	0.98	0.88	1.16	1.000	0.875
1503-06-04-FG	3/8-18	1/4-18	0.406	0.220	0.95	0.79	0.98	0.688	0.750
1503-06-06-FG	3/8-18	3/8-18	0.406	0.340	0.95	0.81	1.02	0.875	0.750
1503-06-08-FG	3/8-18	1/2-14	0.406	0.460	0.98	0.88	1.16	1.000	0.875
1503-08-04-FG	1/2-14	1/4-18	0.531	0.220	1.17	0.79	0.98	0.688	0.875
1503-08-06-FG	1/2-14	3/8-18	0.531	0.340	1.17	0.81	1.02	0.875	0.875
1503-08-08-FG	1/2-14	1/2-14	0.531	0.460	1.17	0.88	1.16	1.000	0.875
1503-08-12-FG	1/2-14	3/4-14	0.531	0.635	1.20	1.02	1.37	1.250	1.062
1503-12-06-FG	3/4-14	3/8-18	0.719	0.340	1.20	0.98	1.19	0.875	1.062
1503-12-08-FG	3/4-14	1/2-14	0.719	0.460	1.20	1.02	1.30	1.000	1.062
1503-12-12-FG	3/4-14	3/4-14	0.719	0.635	1.20	1.02	1.37	1.250	1.062
1503-12-16-FG	3/4-14	1-11 1/2	0.719	0.831	1.29	1.15	1.50	1.500	1.312
1503-16-12-FG	1-11 1/2	3/4-14	0.938	0.635	1.48	1.04	1.39	1.250	1.312
1503-16-16-FG	1-11 1/2	1-11 1/2	0.938	0.831	1.48	1.15	1.50	1.500	1.312
1503-16-20-FG	1-11 1/2	1-1/4-11 1/2	0.938	1.087	1.64	1.23	1.65	1.875	1.625
1503-20-16-FG	1-1/4-11 1/2	1-11 1/2	1.250	0.831	1.67	1.20	1.55	1.500	1.625
1503-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.087	1.67	1.23	1.65	1.875	1.625
1503-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.317	1.77	1.35	1.77	2.125	1.875
1503-32-32-FG	2-11 1/2	2-11 1/2	1.938	1.802	2.11	1.46	1.88	2.625	2.500

FP-FPS 45° 1504 Series

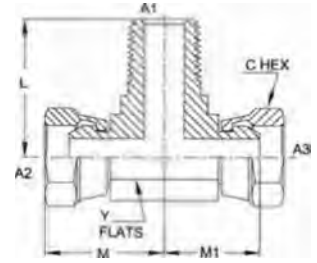
SAE# 140331



PART NO.SIZE	A1 NPTF	A2 NPSM	A2 DRILL	L LOTH	MI LBTH	M LGTH	C HEX	Y FLATS
1504-02-02-FG	1/8-27	1/8-27	0.150	0.50	0.62	0.76	0.562	0.562
1504-02-04-FG	1/8-27	1/4-18	0.220	0.50	0.76	0.95	0.688	0.750
1504-04-04-FG	1/4-18	1/4-18	0.220	0.69	0.76	0.95	0.688	0.750
1504-04-06-FG	1/4-18	3/8-18	0.340	0.69	0.77	0.98	0.875	0.875
1504-06-04-FG	3/8-18	1/4-18	0.220	0.75	0.77	0.96	0.688	0.875
1504-06-06-FG	3/8-18	3/8-18	0.340	0.75	0.77	0.98	0.875	0.875
1504-06-08-FG	3/8-18	1/2-14	0.460	0.75	0.83	1.11	1.000	1.062
1504-08-06-FG	1/2-14	3/8-18	0.340	0.94	0.83	1.04	0.875	1.062
1504-08-08-FG	1/2-14	1/2-14	0.460	0.94	0.83	1.11	1.000	1.062
1504-12-08-FG	3/4-14	1/2-14	0.460	1.00	0.96	1.24	1.000	1.312
1504-12-12-FG	3/4-14	3/4-14	0.635	1.00	0.96	1.31	1.250	1.312
1504-16-12-FG	1-11 1/2	3/4-14	0.635	1.19	1.07	1.42	1.250	1.625
1504-16-16-FG	1-11 1/2	1-11 1/2	0.831	1.19	1.18	1.53	1.500	1.625
1504-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1.087	1.44	1.23	1.65	1.875	1.875
1504-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1.317	1.46	1.46	1.88	2.125	2.562

Tube Fittings & Adapters

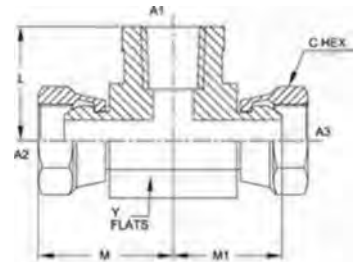
MP-FPS-FPS Tee 1601 Series



PART NO.SIZE	A1 NPTF	A2 NPSM	A3 NPSM	A1 DRILL	A2 DRILL	A3 DRILL	L LGTH	MI L6TH	M LGTH	C HEX	Y FLATS
1601-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.188	0.150	0.150	0.72	0.70	0.84	0.562	0.438
1601-02-04-04-FG	1/8-27	1/4-18	1/4-18	0.188	0.220	0.220	0.90	0.88	1.07	0.562	0.562
1601-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.281	0.220	0.220	1.09	0.88	1.07	0.688	0.562
1601-04-06-06-FG	1/4-18	3/8-18	3/8-18	0.281	0.340	0.340	1.22	0.99	1.20	0.688	0.750
1601-06-04-04-FG	3/8-18	1/4-18	1/4-18	0.406	0.220	0.220	1.22	0.99	1.18	0.875	0.750
1601-06-06-06-FG	3/8-18	3/8-18	3/8-18	0.406	0.340	0.340	1.22	0.99	1.20	0.875	0.750
1601-08-04-04-FG	1/2-14	1/4-18	1/4-18	0.531	0.220	0.220	1.47	1.02	1.21	1.000	0.875
1601-08-06-06-FG	1/2-14	3/8-18	3/8-18	0.531	0.340	0.340	1.47	1.04	1.25	1.000	0.875
1601-08-08-08-FG	1/2-14	1/2-14	1/2-14	0.531	0.460	0.460	1.47	1.11	1.39	1.000	0.875
1601-12-08-08-FG	3/4-14	1/2-14	1/2-14	0.719	0.460	0.460	1.59	1.24	1.52	1.250	1.062
1601-12-12-12-FG	3/4-14	3/4-14	3/4-14	0.719	0.635	0.635	1.59	1.30	1.65	1.250	1.062
1601-12-16-16-FG	3/4-14	1-11 1/2	1-11 1/2	0.719	0.831	0.831	1.78	1.54	1.89	1.250	1.312
1601-16-12-12-FG	1-11 1/2	3/4-14	3/4-14	0.938	0.635	0.635	1.97	1.43	1.78	1.500	1.312
1601-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	0.938	0.831	0.831	1.97	1.54	1.89	1.500	1.312
1601-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.087	1.087	2.38	1.73	2.15	1.875	1.625
1601-24-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.317	1.317	2.64	1.89	2.31	2.125	1.875

C-022

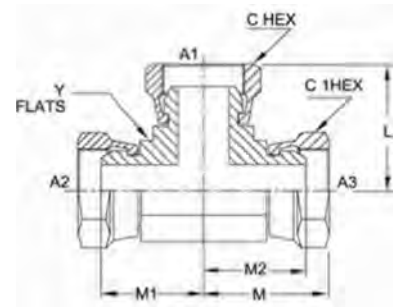
FP-FPS-FPS Tee 1602 Series



PART NO.SIZE	A1 NPTF	A2 NPSM	A3 NPSM	A2 DRILL	A3 DRILL	L LGTH	MI LGTH	M LGTH	C HEX	Y FLATS
1602-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.150	0.150	0.66	0.80	0.94	0.562	0.562
1602-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.220	0.220	0.88	0.99	1.18	0.688	0.750
1602-06-04-04-FG	3/8-18	1/4-18	1/4-18	0.220	0.220	1.02	1.04	1.23	0.875	0.875
1602-06-06-06-FG	3/8-18	3/8-18	3/8-18	0.340	0.340	1.02	1.06	1.27	0.875	0.875
1602-08-06-06-FG	1/2-14	3/8-18	3/8-18	0.340	0.340	1.23	1.17	1.38	1.000	1.062
1602-08-08-08-FG	1/2-14	1/2-14	1/2-14	0.460	0.460	1.23	1.24	1.52	1.000	1.062
1602-08-12-12-FG	1/2-14	3/4-14	3/4-14	0.635	0.635	1.23	1.24	1.59	1.000	1.062
1602-12-08-08-FG	3/4-14	1/2-14	1/2-14	0.460	0.460	1.36	1.47	1.75	1.250	1.312
1602-12-12-12-FG	3/4-14	3/4-14	3/4-14	0.635	0.635	1.36	1.47	1.82	1.250	1.312
1602-16-12-12-FG	1-11 1/2	3/4-14	3/4-14	0.635	0.635	1.62	1.62	1.97	1.500	1.625
1602-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	0.831	0.831	1.62	1.73	2.08	1.500	1.625
1602-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.087	1.087	1.70	1.83	2.25	1.875	1.875

FPS-FPS-FPS Tee

1603 Series

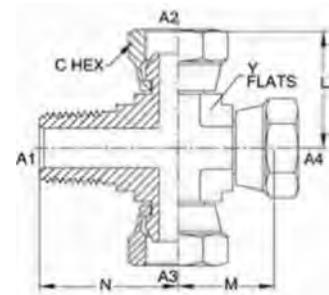


C-023

PART NO.SIZE	A1.A2 NPSM	A3 NPSM	A1.A2 DRILL	A3 DRILL	L LGTH	M1 LGTH	M2 LGTH	M LGTH	C HEX	CI HEX	Y FLATS
1603-02-02-02-FG	1/8-27	1/8-27	0.150	0.150	084	0.70	0.70	0.84	0.562	0.562	0.438
1603-04-04-04-FG	1/4-18	1/4-18	0.220	0.220	1.07	0.88	0.88	1.07	0.688	0.688	0.562
1603-04-04-06-FG	1/4-18	3/8-18	0.220	0.340	1.16	0.99	0.97	1.20	0.688	0.875	0.750
1603-06-06-06-FG	3/8-18	3/8-18	0.340	0.340	1.20	0.99	0.99	1.20	0.875	0.875	0.750
1603-06-06-08-FG	3/8-18	1/2-14	0.340	0.460	1.25	1.04	1.11	1.39	0.875	1.000	0.750
1603-08-08-08-FG	1/2-14	1/2-14	0.460	0.460	1.39	1.11	1.11	1.39	1.000	1.000	0.750
1603-12-12-12-FG	3/4-14	3/4-14	0.635	0.635	1.65	1.30	1.30	1.65	1.250	1.250	1.062
1603-16-16-16-FG	1-11 1/2	1-11 1/2	0.831	0.831	1.89	1.54	1.54	1.89	1.500	1.500	1.312
1603-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1.087	1.087	2.15	1.73	1.73	2.15	1.875	1.875	1.625

MPS-FPS-FPS-FPS Cross

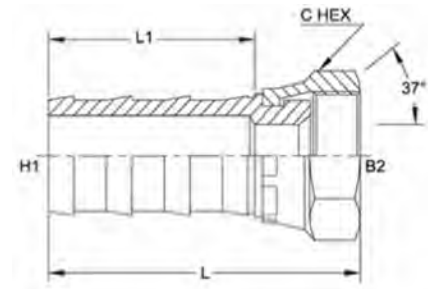
1604 Series



PART NO.SIZE	A1 NPTF	A2 NPSM	A3 NPSM	A4 NPSM	A1 DRILL	A2 DRILL	A3 DRILL	A4 DRILL	N LGTH	L LGTH	M LGTH	C HEX	Y FLATS
1604-04-04-04-04-FG	1/4-18	1/4-18	1/4-18	1/4-18	0.281	0.220	0.220	0.220	1.09	1.07	0.88	0.688	0.562

Tube Fittings & Adapters

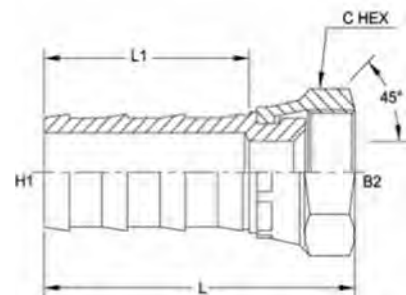
PL-FJS Straight 2111 Brass Series



C-024

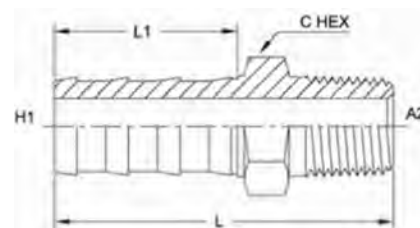
PART NO.SIZE	HI HOSE I.D.	B2 SAE37	L LOTH	LI LGTH	C HEX
2111-04-04-B	1/4	7/16-20	1.488	0.700	0.562
2111-04-05-B	1/4	1/2-20	1.560	0.700	0.625
2111-04-06-B	1/4	9/16-18	1.588	0.830	0.687
2111-05-05-B	5/16	1/2-20	1.580	0.830	0.625
2111-06-06-B	3/8	9/16-18	1.700	0.830	0.687
2111-06-08-B	3/8	3/4-16	1.780	0.930	0.875
2111-08-08-B	1/2	3/4-16	2.060	1.000	0.875
2111-08-10-B	1/2	7/8-14	1.840	0.930	1.000
2111-10-08-B	5/8	3/4-16	2.540	1.500	0.875
2111-10-10-B	5/8	7/8-14	2.700	1.500	0.875
2111-12-12-B	3/4	1-1/16-12	2.400	1.400	1.250

PL-FSAES Straight 2112 Brass Series



PART NO.SIZE	HI HOSE I.D.	B2 SAE45	LI LOTH	L LGTH	C HEX
2112-04-06-B	1/4	5/8-18	0.873	1.620	0.750
2112-05-06-B	5/16	5/8-18	0.876	1.606	0.750
2112-06-06-B	3/8	5/8-18	0.975	1.710	0.750
2112-08-06-B	1/2	5/8-18	1.000	1.930	0.750
2112-08-08-B	1/2	3/4-16			
2112-12-12-B	3/4	1-1/16-14	1.400	2.380	1.250

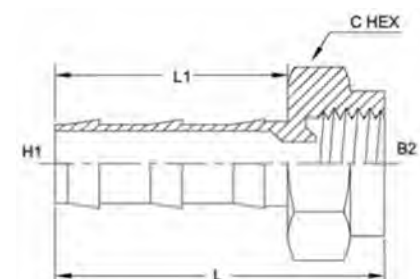
PL-MP Straight 2113 Brass Series



C-025

PART NO.SIZE	HI HOSE ID.	A2 NPTF	LI LGTH	L LGTH	C HEX
2113-04-02-B	1/4	1/8-27	0.700	1.290	0.438
2113-04-04-B	1/4	1/4-18	0.700	1.430	0.562
2113-04-06-B	1/4	3/8-18	0.700	1.430	0.687
2113-05-02-B	5/16	1/8-27	0.819	1.416	0.438
2113-05-04-B	5/16	1/4-18	0.871	1.660	0.562
2113-06-02-B	3/8	1/8-27	0.830	1.450	0.500
2113-06-04-B	3/8	1/4-18	0.830	1.550	0.562
2113-06-06-B	3/8	3/8-18	0.830	1.620	0.687
2113-06-08-B	3/8	1/2-14	0.830	1.670	0.875
2113-08-04-B	1/2	1/4-18	0.930	1.770	0.687
2113-08-06-B	1/2	3/8-18	1.000	1.810	0.687
2113-08-08-B	1/2	1/2-14	1.000	1.860	0.875
2113-08-12-B	1/2	3/4-14	0.930	1.970	1.062
2113-10-06-B	5/8	3/8-18	1.560	2.370	0.750
2113-10-08-B	5/8	1/2-14	1.500	2.550	0.875
2113-10-12-B	5/8	3/4-14	1.500	2.500	1.062
2113-12-08-B	3/4	1/2-14	1.500	2.450	0.875
2113-12-12-B	3/4	3/4-14	1.400	2.450	1.062

PL-FIF Straight 2114 Brass Series

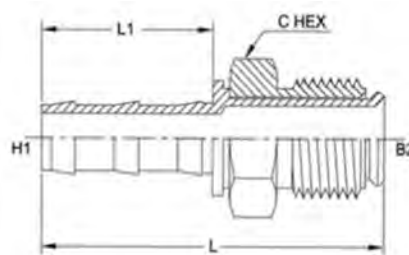


PART NO.SIZE	HI HOSE I.D.	B2 NPTF	LI LGTH	L LGTH	C HEX
2114-04-03-B	1/4	3/8-24	0.760	1.170	0.438
2114-04-04-B	1/4	7/16-20	0.700	1.110	0.500
2114-04-05-B	1/4	1/2-20	0.700	1.570	0.562
2114-06-05-B	3/8	1/2-20	0.830	1.275	0.562
2114-06-06-B	3/8	5/8-18	0.830	1.330	0.750
2114-08-08-B	1/2	3/4-18			

Tube Fittings & Adapters

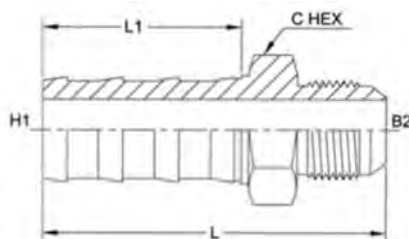
PL-MIFS Straight 2115 Brass Series

PART NO.SIZE	HI HOSE I.D.	B2 MALE SWIVEL	LI LOTH	L LOTH	C HEX
2115-04-03-B	1/4	3/8-24	0.700	1.392	0.375
2115-04-04-B	1/4	7/16-24	0.700	1.425	0.437
2115-04-05-B	1/4	1/2-20	0.700	1.520	0.500
2115-05-05-B	5/16	1/2-20	0.830	1.610	0.500
2115-06-05-B	3/8	1/2-20	0.830	1.650	0.500
2115-06-06-B	3/8	5/8-18	0.830	1.670	0.625
2115-06-08-B	3/8	3/4-16	0.830	1.800	0.750
2115-08-06-B	1/2	5/8-18	0.971	1.769	0.625
2115-08-08-B	1/2	3/4-16	1.000	1.960	0.750
2115-10-10-B	5/8	5/8-18	1.500	2.500	0.875

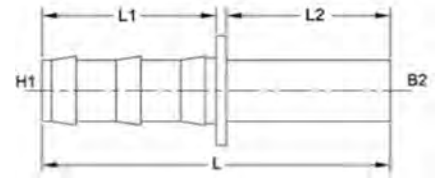


PL-SAE Straight 2116 Brass Series

PART NO.SIZE	HI HOSE I.D.	B2 SAE45	LI L6TH	L LOTH	C HEX
2116-04-04-B	1/4	7/16-20	0.742	1.435	0.438
2116-04-05-B	1/4	1/2-20	0.749	0.534	0.500
2116-06-05-B	3/8	1/2-20	0.866	1.646	0.500
2116-06-06-B	3/8	5/8-18	0.830	1.700	0.625
2116-08-06-B	1/2	5/8-18			
2116-08-08-B	1/2	3/4-16	1.000	2.050	0.750
2116-10-10-B	5/8	7/8-14			



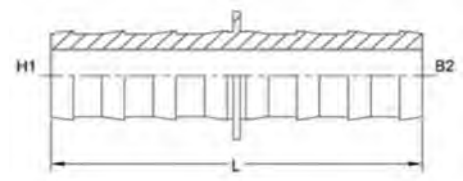
PL-Stem Straight 2117 Brass Series



C-027

PART NO.SIZE	HI HOSE I.D.	B2 STEM	LI LGTH	L2 LGTH	I LGTH
2117-04-03-B	1/4	3/16	0.700	0.750	1.570
2117-04-04-B	1/4	1/4	0.700	0.800	1.615
2117-06-06-B	3/8	3/8	0.830	0.880	1.800
2117-08-08-B	1/2	1/2	1.020	0.986	2.110

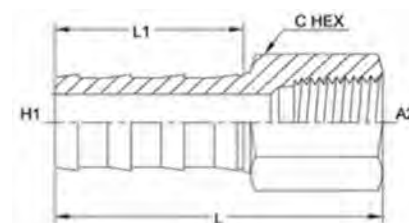
PL-PL Straight 2118 Brass Series



PART NO.SIZE	HI TUBE I.O.	B2 TUBE I.O.	L LGTH
2118-04-04-B	1/4	1/4	1.550
2118-05-05-B	5/16	5/16	1.800
2118-06-06-B	3/8	3/8	1.900
2118-08-08-B	1/2	1/2	2.000
2118-10-10-B	5/8	5/8	3.000
2118-12-12-B	3/4	3/4	3.000

Tube Fittings & Adapters

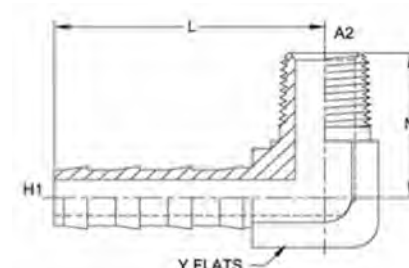
PL-FP Straight 2119 Brass Series



C-028

PART NO.SIZE	HI HOSE I.D.	A2 NPTF	LI L6TH	L L6TH	C HEX
2119-04-02-B	1/4	1/8-27	0.700	1.340	0.500
2119-04-04-B	1/4	1/4-18	0.700	1.410	0.625
2119-04-06-B	1/4	3/8-18			
2119-06-04-B	3/8	1/4-18	0.940	1.630	0.625
2119-06-06-B	3/8	3/8-18	0.830	1.530	0.812
2119-06-08-B	3/8	1/2-14			
2119-08-06-B	1/2	3/8-18	1.020	1.730	0.812
2119-08-08-B	1/2	1/2-14	0.925	1.750	0.938

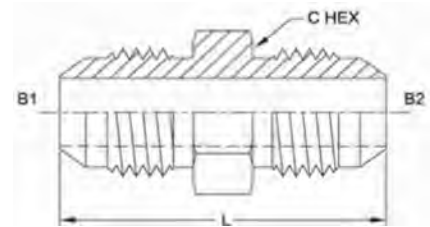
PL-MP 90° Elbow 2120 Brass Series



PART NO.SIZE	HI HOSE I.D.	A2 NPTF	L LGTH	N LGTH	Y FLATS
2120-04-02-B	1/4	1/8-27	0.990	0.750	0.500
2120-04-04-B	1/4	1/4-18	1.010	0.900	0.562
2120-06-02-B	3/8	1/8-27	1.120	0.750	0.500
2120-06-04-B	3/8	1/4-18	1.140	0.908	0.562
2120-06-06-B	3/8	3/8-18	1.205	0.905	0.688
2120-06-08-B	3/8	1/2-14	1.310	1.185	0.875
2120-08-06-B	1/2	3/8-18	1.387	0.900	0.688
2120-08-08-B	1/2	1/2-14	1.490	1.180	0.875
2120-10-08-B	5/8	1/2-14	1.987	1.193	0.875
2120-12-12-B	3/4	3/4-14	2.070	1.270	1.062

MJ-MJ Straight 2403 Series

S A E # 070101 / MS# 51501



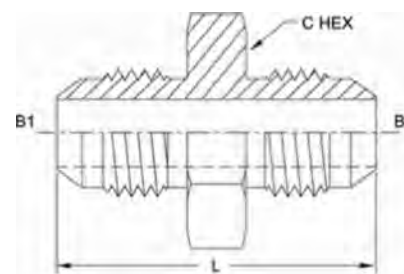
C-029

PART ND.SIZE	B1 TUBE O.D.	B2TUBE O.D.	B1 SAE 37	B2 SAE37	C HEX	B1 DRILL	B2 DRILL	I LOTH
2403-02-02	1/8	1/8	5/16-24	5/16-24	0.438	0.062	0.062	1.17
2403-03-02	3/16	3/16	3/8-24	5/16-24	0.438	0.125	0.062	1.20
2403-03-03	3/16	3/16	3/8-24	3/8-24	0.438	0.125	0.125	1.23
2403-04-02	1/4	1/8	7/16-20	5/16-24	0.500	0.172	0.062	1.27
2403-04-03	1/4	3/16	7/16-20	3/8-24	0.500	0.172	0.125	1.30
2403-04-04	1/4	1/4	7/16-20	7/16-20	0.500	0.172	0.172	1.37
2403-05-04	5/16	1/4	1/2-20	7/16-20	0.562	0.234	0.172	1.37
2403-05-05	5/16	5/16	1/2-20	1/2-20	0.562	0.234	0.234	1.37
2403-06-04	3/8	1/4	9/16-18	7/16-20	0.625	0.297	0.172	1.40
2403-06-05	3/8	5/16	9/16-18	1/2-20	0.625	0.297	0.234	1.40
2403-06-06	3/8	3/8	9/16-18	9/16-18	0.625	0.297	0.297	1.41
2403-08-04	1/2	1/4	3/4-16	7/16-20	0.812	0.391	0.172	1.51
2403-08-05	1/2	5/16	3/4-16	1/2-20	0.812	0.391	0.234	1.51
2403-08-06	1/2	3/8	3/4-16	9/16-18	0.812	0.391	0.297	1.52
2403-08-08	1/2	1/2	3/4-16	3/4-16	0.812	0.391	0.391	1.62
2403-10-04	5/8	1/4	7/8-14	7/16-20	0.937	0.484	0.172	1.67
2403-10-05	5/8	5/16	7/8-14	1/2-20	0.937	0.484	0.234	1.67
2403-10-06	5/8	3/8	7/8-14	9/16-18	0.937	0.484	0.297	1.68
2403-10-08	5/8	1/2	7/8-14	3/4-16	0.937	0.484	0.391	1.78
2403-10-10	5/8	5/8	7/8-14	7/8-14	0.937	0.484	0.484	1.88
2403-12-04	3/4	1/4	1-1/16-12	7/16-20	1.125	0.609	0.172	1.85
2403-12-05	3/4	5/16	1-1/16-12	1/2-20	1.125	0.609	0.234	1.85
2403-12-06	3/4	3/8	1-1/16-12	9/16-18	1.125	0.609	0.297	1.85
2403-12-08	3/4	1/2	1-1/16-12	3/4-16	1.125	0.609	0.391	1.95
2403-12-10	3/4	5/8	1-1/16-12	7/8-14	1.125	0.609	0.484	2.05
2403-12-12	3/4	3/4	1-1/16-12	1-1/16-12	1.125	0.609	0.609	2.16
2403-14-12	7/8	3/4	1-3/16-12	1-1/16-12	1.250	0.719	0.609	2.18
2403-14-14	7/8	7/8	1-3/16-12	1-3/16-12	1.250	0.719	0.719	2.21
2403-16-04	1	1/4	1-5/16-12	7/16-20	1.375	0.844	0.172	1.89
2403-16-06	1	3/8	1-5/16-12	9/16-18	1.375	0.844	0.297	1.89
2403-16-08	1	1/2	1-5/16-12	3/4-18	1.375	0.844	0.391	2.00
2403-16-10	1	5/8	1-5/16-12	7/8-14	1.375	0.844	0.484	2.10
2403-16-12	1	3/4	1-5/16-12	1-1/16-12	1.375	0.844	0.609	2.20
2403-16-14	1	7/8	1-5/16-12	1-3/16-12	1.375	0.844	0.719	2.23
2403-16-16	1	1	1-5/16-12	1-5/16-12	1.375	0.844	0.844	2.25
2403-20-12	1-1/4	3/4	1-5/8-12	1-1/16-12	1.688	1.078	0.609	2.34
2403-20-16	1-1/4	1	1-5/8-12	1-5/16-12	1.688	1.078	0.844	2.38
2403-20-20	1-1/4	1-1/4	1-5/8-12	1-5/8-12	1.688	1.078	1.078	2.43
2403-24-08	1-1/2	1/2	1-7/8-12	3/4-16	2.000	1.312	0.391	2.32
2403-24-10	1-1/2	7/8	1-7/8-12	7/8-14	2.000	1.312	0.484	2.42
2403-24-12	1-1/2	3/4	1-7/8-12	1-1/16-12	2.000	1.312	0.609	2.53
2403-24-16	1-1/2	1	1-7/8-12	1-5/16-12	2.000	1.312	0.844	2.58
2403-24-20	1-1/2	1-1/4	1-7/8-12	1-5/8-12	2.000	1.312	1.078	2.62
2403-24-24	1-1/2	1-1/2	1-7/8-12	1-7/8-12	2.000	1.312	1.312	2.75
2403-32-12	2	3/4	2-1/2-12	1-1/16-12	2.625	1.781	0.609	2.93
2403-32-16	2	1	2-1/2-12	1-5/16-12	2.625	1.781	0.844	2.98
2403-32-20	2	1-1/4	2-1/2-12	1-5/16-12	2.625	1.781	1.078	3.02
2403-32-24	2	1-1/2	2-1/2-12	1-7/8-1/2	2.625	1.781	1.312	3.15
2403-32-32	2	2	2-1/2-12	2-1/2-12	2.625	1.781	1.781	3.40
2403-40-40	2-1/2	2-1/2	3-12	3-12	3.250	2.318	2.318	2.95
2403-48-48	3	3	3-1/2-12	3-1/2-12	3.750	2.818	2.818	3.40

Tube Fittings & Adapters

MJ-MJ Straight Large Hex 2403-LH Series

SAE# 070119 / MS# 51519

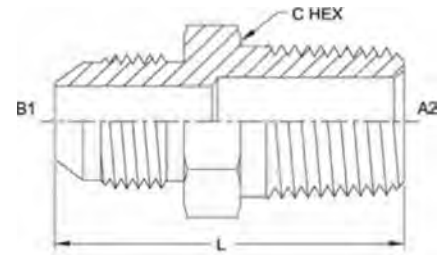


C-030

PART NO.SIZE	B1 TUBE O.D.	B2 TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	L LGTH	C HEX
2403-LH-02-02	1/8	1/8	5/16-24	5/16-24	0.062	0.062	1.17	0.562
2403-LH-03-02	3/16	1/8	3/8-24	5/16-24	0.125	0.062	1.20	0.625
2403-LH-03-03	3/16	3/16	3/8-24	3/8-24	0.125	0.125	1.23	0.625
2403-LH-04-02	1/4	1/8	7/16-20	5/16-24	0.172	0.062	1.27	0.688
2403-LH-04-03	1/4	3/16	7/16-20	3/8-24	0.172	0.125	1.30	0.688
2403-LH-04-04	1/4	1/4	7/16-20	7/16-20	0.172	0.172	1.37	0.688
2403-LH-05-04	5/16	1/4	1/2-20	7/16-20	0.234	0.172	1.37	0.750
2403-LH-05-05	5/16	5/16	1/2-20	1/2-20	0.234	0.234	1.37	0.750
2403-LH-06-04	3/8	1/4	9/16-18	7/16-20	0.297	0.172	1.40	0.812
2403-LH-06-05	3/8	5/16	9/16-18	1/2-20	0.297	0.234	1.40	0.812
2403-LH-06-06	3/8	3/8	9/16-18	9/16-18	0.297	0.297	1.41	0.812
2403-LH-08-04	1/2	1/4	3/4-16	7/16-20	0.391	0.172	1.51	1.000
2403-LH-08-05	1/2	5/16	3/4-16	1/2-20	0.391	0.234	1.51	1.000
2403-LH-08-06	1/2	3/8	3/4-16	9/16-18	0.391	0.297	1.52	1.000
2403-LH-08-08	1/2	1/2	3/4-16	3/4-16	0.391	0.391	1.62	1.000
2403-LH-10-04	5/8	1/4	7/8-14	7/16-20	0.484	0.172	1.67	1.125
2403-LH-10-06	5/8	3/8	7/8-14	9/16-18	0.484	0.297	1.68	1.125
2403-LH-10-08	5/8	1/2	7/8-14	3/4-16	0.484	0.391	1.78	1.125
2403-LH-10-10	5/8	5/8	7/8-14	7/8-14	0.484	0.484	1.88	1.125
2403-LH-12-04	3/4	1/4	1-1/16-12	7/16-20	0.609	0.172	1.85	1.375
2403-LH-12-05	3/4	5/16	1-1/16-12	1/2-20	0.609	0.234	1.85	1.375
2403-LH-12-06	3/4	3/8	1-1/16-12	9/16-18	0.609	0.297	1.85	1.375
2403-LH-12-08	3/4	1/2	1-1/16-12	3/4-16	0.609	0.391	1.95	1.375
2403-LH-12-10	3/4	5/8	1-1/16-12	7/8-14	0.609	0.484	2.05	1.375
2403-LH-12-12	3/4	3/4	1-1/16-12	1-1/16-12	0.609	0.609	2.16	1.375
2403-LH-14-14	7/8	7/8	1-3/16-12	1-3/16-12	0.719	0.719	2.21	1.500
2403-LH-16-04	1	1/4	1-5/16-12	7/16-20	0.844	0.172	1.89	1.625
2403-LH-16-08	1	1/2	1-5/16-12	3/4-16	0.844	0.391	2.00	1.625
2403-LH-16-10	1	5/8	1-5/16-12	7/8-14	0.844	0.484	2.10	1.625
2403-LH-16-12	1	3/4	1-5/16-12	1-1/16-12	0.844	0.609	2.20	1.625
2403-LH-16-16	1	1	1-5/16-12	1-5/16-12	0.844	0.844	2.25	1.625
2403-LH-20-04	1-1/4	1/4	1-5/8-12	7/16-20	1.078	0.172	2.02	1.875
2403-LH-20-10	1-1/4	5/8	1-5/8-12	7/8-14	1.078	0.484	2.23	1.875
2403-LH-20-12	1-1/4	3/4	1-5/8-12	1-1/16-12	1.078	0.609	2.34	1.875
2403-LH-20-16	1-1/4	1	1-5/8-12	1-5/16-12	1.078	0.844	2.38	1.875
2403-LH-20-20	1-1/4	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.43	1.875
2403-LH-24-16	1-1/2	1	1-7/8-12	1-5/16-12	1.312	0.844	2.58	2.125
2403-LH-24-20	1-1/2	1-1/4	1-7/8-12	1-5/8-12	1.312	1.078	2.62	2.125
2403-LH-24-24	1-1/2	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.75	2.125
2403-LH-32-32	2	2	2-1/2-12	2-1/2-12	1.781	1.781	3.40	2.750

MJ-MP Straight 2404 Series

SAE# 070102 / MS# 51500



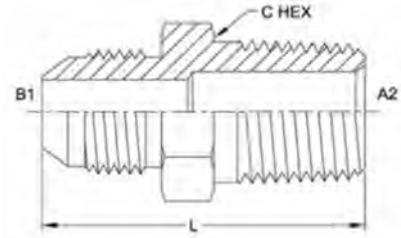
C-031

PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	B1 DRILL	A2 DRILL	I LGTH	C HEX
2404-02-01	1/8	5/16-24	1/16-27				
2404-02-02	1/8	5/16-24	1/8-27	0.062	0.188	1.11	0.438
2404-02-04	1/8	5/16-24	1/4-18	0.062	0.281	1.32	0.625
2404-03-02	3/16	3/8-24	1/8-27	0.125	0.188	1.14	0.438
2404-03-04	3/16	3/8-24	1/4-18	0.125	0.281	1.35	0.625
2404-04-01	1/4	7/16-20	1/16-27	0.172	0.117	1.22	0.500
2404-04-02	1/4	7/16-20	1/8-27	0.172	0.188	1.22	0.500
2404-04-04	1/4	7/16-20	1/4-18	0.172	0.281	1.42	0.625
2404-04-06	1/4	7/16-20	3/8-18	0.172	0.406	1.42	0.812
2404-04-08	1/4	7/16-20	1/2-14	0.172	0.531	1.68	0.875
2404-04-12	1/4	7/16-20	3/4-14	0.172	0.719	1.75	1.125
2404-05-02	5/16	1/2-20	1/8-27	0.234	0.188	1.22	0.562
2404-05-04	5/16	1/2-20	1/4-18	0.234	0.281	1.42	0.625
2404-05-06	5/16	1/2-20	3/8-18	0.234	0.406	1.42	0.812
2404-05-08	5/16	1/2-20	1/2-14	0.234	0.531	1.68	0.875
2404-06-02	3/8	9/16-18	1/8-27	0.297	0.188	1.24	0.625
2404-06-04	3/8	9/16-18	1/4-18	0.297	0.281	1.43	0.625
2404-06-06	3/8	9/16-18	3/8-18	0.297	0.406	1.43	0.812
2404-06-08	3/8	9/16-18	1/2-14	0.297	0.531	1.69	0.875
2404-06-12	3/8	9/16-18	3/4-14	0.297	0.719	1.75	1.125
2404-06-16	3/8	9/16-18	1-11-1/2	0.297	0.938	1.94	1.375
2404-08-02	1/2	3/4-16	1/8-27	0.391	0.188	1.34	0.812
2404-08-04	1/2	3/4-16	1/4-18	0.391	0.281	1.53	0.812
2404-08-06	1/2	3/4-16	3/8-18	0.391	0.406	1.53	0.812
2404-08-08	1/2	3/4-16	1/2-14	0.391	0.531	1.79	0.937
2404-08-12	1/2	3/4-16	3/4-14	0.391	0.719	1.85	1.125
2404-08-16	1/2	3/4-16	1-11-1/2	0.391	0.938	2.05	1.375
2404-10-04	5/8	7/8-14	1/4-18	0.484	0.281	1.70	0.937
2404-10-06	5/8	7/8-14	3/8-18	0.484	0.406	1.70	0.937
2404-10-08	5/8	7/8-14	1/2-14	0.484	0.531	1.89	0.937
2404-10-12	5/8	7/8-14	3/4-14	0.484	0.719	1.95	1.125
2404-10-16	5/8	7/8-14	1-11-1/2	0.484	0.938	2.15	1.375
2404-10-20	5/8	7/8-14	1-1/4-11-1/2	0.484	1.250	2.25	1.688

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Tube Fittings & Adapters

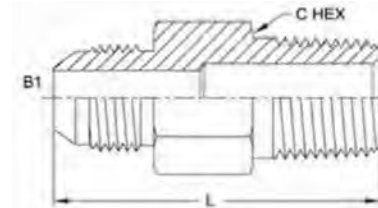
2404 SONGS continued



C-032

PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	L LGTH	C HEX
2404-12-04	3/4	1-1/16-12	1/4-18	0.609	0.281	1.87	1.125
2404-12-06	3/4	1-1/16-12	3/8-18	0.609	0.406	1.87	1.125
2404-12-08	3/4	1-1/16-12	1/2-14	0.609	0.531	2.06	1.125
2404-12-12	3/4	1-1/16-12	3/4-14	0.609	0.719	2.06	1.125
2404-12-16	3/4	1-1/16-12	1-11-1/2	0.609	0.938	2.25	1.375
2404-12-20	3/4	1-1/16-12	1-1/4-11-1/2	0.609	1.250	2.36	1.688
2404-12-24	3/4	1-1/16-12	1-1/2-11-1/2	0.609	1.500	2.46	2.000
2404-14-08	7/8	1-3/16-12	1/2-14	0.719	0.531	2.09	1.250
2404-14-12	7/8	1-3/16-12	3/4-14	0.719	0.719	2.09	1.250
2404-14-16	7/8	1-3/16-12	1-11-1/2	0.719	0.938	2.28	1.375
2404-16-06	1	1-5/16-12	3/8-18	0.844	0.406	1.92	1.375
2404-16-08	1	1-5/16-12	1/2-14	0.844	0.531	2.11	1.375
2404-16-12	1	1-5/16-12	3/4-14	0.844	0.719	2.11	1.375
2404-16-16	1	1-5/16-12	1-11-1/2	0.844	0.938	2.30	1.375
2404-16-20	1	1-5/16-12	1-1/4-11-1/2	0.844	1.250	2.40	1.688
2404-16-24	1	1-5/16-12	1-1/2-11-1/2	0.844	1.500	2.51	2.000
2404-16-32	1	1-5/16-12	2-11-1/2	0.844	1.938	2.69	2.625
2404-20-12	1-1/4	1-5/8-12	3/4-14	1.078	0.719	2.23	1.688
2404-20-16	1-1/4	1-5/8-12	1-11-1/2	1.078	0.938	2.42	1.688
2404-20-20	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.45	1.688
2404-20-24	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	1.500	2.55	2.000
2404-20-32	1-1/4	1-5/8-12	2-11-1/2	1.078	1.938	2.73	2.625
2404-20-40	1-1/4	1-5/8-12	2-1/2 - 8	1.078	2.318	3.20	3.250
2404-24-16	1-1/2	1-7/8-12	1-11-1/2	1.312	0.938	2.62	2.000
2404-24-20	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.250	2.65	2.000
2404-24-24	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.68	2.000
2404-24-32	1-1/2	1 7/8-12	2-11 1/2	1.312	1.938	2.86	2.625
2404-32-16	2	2-1/2-12	1-11 1/2	1.781	0.938	3.02	2.625
2404-32-20	2	2-1/2-12	1 1/4-11 1/2	1.781	1.250	3.05	2.625
2404-32-24	2	2-1/2-12	1 1/2-11 1/2	1.781	1.500	3.08	2.625
2404-32-32	2	2-1/2-12	2-11 1/2	1.781	1.938	3.11	2.625
2404-32-40	2	2-1/2-12	2-1/2 - 8	1.781	2.318	3.48	3.250
2404-32-48	2	2-1/2-13	3-8	1.781	2.818	3.74	3.750
2404-40-32	2-1/2	3-12	2-11-1/2	2.318	1.938	2.90	3.250
2404-40-40	2-1/2	3-12	2-1/2 - 8	2.318	2.318	3.37	3.250
2404-48-48	3	3-1/2-12	3-8	2.818	2.818	3.50	3.750

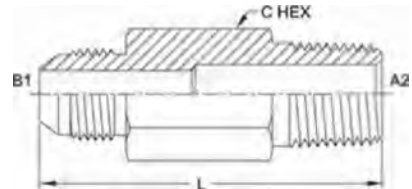
MJ-MP Straight Long 2404-L Series



C-033

PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	L LGTH	C HEX
2404-L-04-02	1/4	7/16-20	1/8-27	0.172	0.188	1.81	0.500
2404-L-04-04	1/4	7/16-20	1/4-18	0.172	0.281	2.25	0.625
2404-L-05-02	5/16	1/2-20	1/8-27	0.234	0.188	1.94	0.562
2404-L-05-04	5/16	1/2-20	1/4-18	0.234	0.281	2.25	0.625
2404-L-06-02	3/8	9/16-18	1/8-27	0.297	0.188	2.20	0.625
2404-L-06-04	3/8	9/16-18	1/4-18	0.297	0.281	2.25	0.625
2404-L-06-06	3/8	9/16-18	3/8-18	0.297	0.406	2.50	0.812
2404-L-06-08	3/8	9/16-18	1/2-14	0.297	0.531	2.95	0.875
2404-L-08-04	1/2	3/4-16	1/4-18	0.391	0.281	2.75	0.812
2404-L-08-06	1/2	3/4-16	3/8-18	0.391	0.406	2.75	0.812
2404-L-08-08	1/2	3/4-16	1/2-14	0.391	0.531	3.04	0.875
2404-L-10-06	5/8	7/8-14	3/8-18	0.484	0.406	2.94	0.937
2404-L-10-08	5/8	7/8-14	1/2-14	0.484	0.531	3.13	0.937
2404-L-12-12	3/4	1-1/16-12	3/4-14	0.609	0.719	3.50	1.125
2404-L-16-12	1	1-5/16-12	3/4-14	0.844	0.719	3.81	1.375
2404-L-16-16	1	1-5/16-12	1-11 1/2	0.844	0.938	4.00	1.375
2404-L-20-20	1-1/4	1-5/8-12	1-1/4-11 1/2	1.078	1.250	4.50	1.688
2404-L-24-24	1-1/2	1-7/8-12	1-1/2-11 1/2	1.312	1.500	4.88	2.000
2404-L-32-32	2	2-1/2-12	2-11 1/2	1.781	1.938	5.62	2.625

MJ-MP Straight X-Long 2404-LL Series

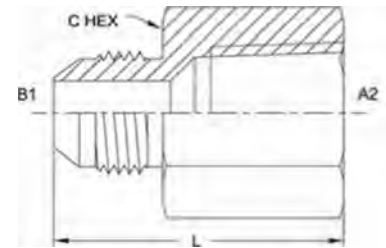


PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	L LGTH	C HEX
2404-LL-04-02	1/4	7/16-20	1/8-27	0.172	0.188	2.56	0.500
2404-LL-04-04	1/4	7/16-20	1/4-18	0.172	0.281	3.25	0.625
2404-LL-05-02	5/16	1/2-20	1/8-27	0.234	0.188	2.81	0.562
2404-LL-06-04	3/8	9/16-18	1/4-18	0.297	0.281	3.25	0.625
2404-LL-06-06	3/8	9/16-18	3/8-18	0.297	0.406	3.92	0.812
2404-LL-08-06	1/2	3/4-16	3/8-18	0.391	0.406	4.00	0.812
2404-LL-08-08	1/2	3/4-16	1/2-14	0.391	0.531	4.20	0.875
2404-LL-10-08	5/8	7/8-14	1/2-14	0.484	0.531	4.38	0.937
2404-LL-12-12	3/4	1-1/16-12	3/4-14	0.609	0.719	5.00	1.125
2404-LL-16-12	1	1-5/16-12	3/4-14	0.844	0.719	5.56	1.375
2404-LL-16-16	1	1-5/16-12	1-11 1/2	0.844	0.938	5.75	1.375

Tube Fittings & Adapters

MJ-FP Straight 2405 Series

SAE# 070103 / MS# 51503

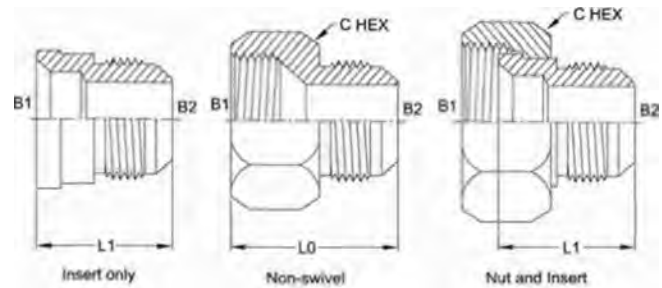


C-034

PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	L LGTH	C HEX
2405-02-02	1/8	5/16-24	1/8-27	0.062	1.12	0.562
2405-03-02	3/16	3/8-24	1/8-27	0.125	1.13	0.562
2405-03-04	3/16	3/8-24	1/4-18	0.125	1.32	0.750
2405-04-02	1/4	7/16-20	1/8-27	0.172	1.19	0.562
2405-04-04	1/4	7/16-20	1/4-18	0.172	1.39	0.750
2405-04-06	1/4	7/16-20	3/8-18	0.172	1.45	0.875
2405-04-08	1/4	7/16-20	1/2-14	0.172	1.68	1.125
2405-05-02	5/16	1/2-20	1/8-27	0.234	1.17	0.562
2405-05-04	5/16	1/2-20	1/4-18	0.234	1.39	0.750
2405-05-06	5/16	1/2-20	3/8-18	0.234	1.06	0.875
2405-06-02	3/8	9/16-18	1/8-27	0.297	1.19	0.625
2405-06-04	3/8	9/16-18	1/4-18	0.297	1.40	0.750
2405-06-06	3/8	9/16-18	3/8-18	0.297	1.46	0.875
2405-06-08	3/8	9/16-18	1/2-14	0.297	1.69	1.125
2405-06-12	3/8	9/16-18	3/4-14	0.297	1.75	1.375
2405-08-04	1/2	3/4-16	1/4-18	0.391	1.55	0.875
2405-08-06	1/2	3/4-16	3/8-18	0.391	1.56	0.875
2405-08-08	1/2	3/4-16	1/2-14	0.391	1.79	1.125
2405-08-12	1/2	3/4-16	3/4-14	0.391	1.85	1.375
2405-08-16	1/2	3/4-16	1-11 1/2	0.391	2.10	1.625
2405-10-04	5/8	7/8-14	1/4-18	0.484	1.66	0.937
2405-10-06	5/8	7/8-14	3/8-18	0.484	1.67	0.937
2405-10-08	5/8	7/8-14	1/2-14	0.484	1.89	1.125
2405-10-12	5/8	7/8-14	3/4-14	0.484	1.95	1.375
2405-10-16	5/8	7/8-14	1-11 1/2	0.484	2.20	1.625
2405-12-08	3/4	1-1/16-12	1/2-14	0.609	2.05	1.375
2405-12-12	3/4	1-1/16-12	3/4-14	0.609	2.06	1.375
2405-12-16	3/4	1-1/16-12	1-11 1/2	0.609	2.30	1.625
2405-14-08	7/8	1-3/16-12	1/2-14	0.719	2.05	1.375
2405-14-12	7/8	1-3/16-12	3/4-14	0.719	2.06	1.375
2405-16-12	1	1-5/16-12	3/4-14	0.844	2.12	1.375
2405-16-16	1	1-5/16-12	1-11 1/2	0.844	2.35	1.625
2405-16-20	1	1-5/8-12	1-1/4-11 1/2	0.844	2.44	2.000
2405-20-16	1-1/4	1-5/8-12	1-11 1/2	1.078	2.47	2.000
2405-20-20	1-1/4	1-5/8-12	1-1/4-11 1/2	1.078	2.49	2.000
2405-20-24	1-1/4	1-5/8-12	1-1/2-11 1/2	1.078	2.49	2.375
2405-24-16	1-1/2	1-7/8-12	1-11 1/2	1.312	2.60	2.375
2405-24-20	1-1/2	1-7/8-12	1-1/4-11 1/2	1.312	2.62	2.375
2405-24-24	1-1/2	1-7/8-12	1-1/2-11 1/2	1.312	2.62	2.375
2405-24-32	1-1/2	1-7/8-12	2-11-1/2	1.312	2.72	2.875
2405-32-24	2	2-1/2-12	1-1/2-11 1/2	1.781	2.95	2.875
2405-32-32	2	2-1/2-12	2-11 1/2	1.781	2.97	2.875

FJ-MJ Straight Reducer 2406 Series

C-035

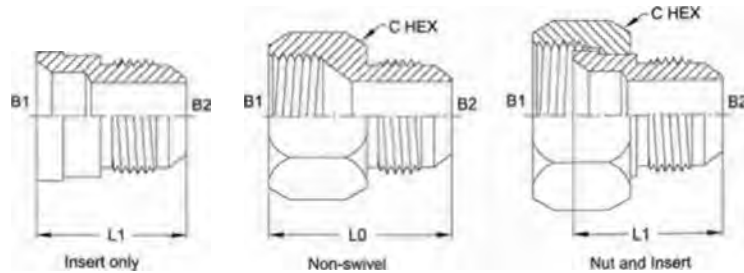


PART NO. Insert only	PART NO. Non-swivel	PART NO. Nut and Insert	B1 TUBE O.D	B2 TUBE O.D	B1 SAE37	B2 SAE37	LI LOTH	LU LGTH	C HEX
-	2406-03-04	-	3/16	1/4	3/8-24	7/16-20	-	1.11	0.500
2406-04-02-IN	2406-04-02	2406-04-02-2PC	1/4	1/8	7/16-20	5/16-24	0.75	1.04	0.563
-	2406-04-03	-	1/4	3/16	7/16-20	3/8-24	-	1.07	0.563
-	2406-04-04	-	1/4	1/4	7/16-20	7/16-20	-	1.14	0.563
-	2406-04-05	-	1/4	5/16	7/16-20	1/2-20	-	1.14	0.563
-	2406-04-06	-	1/4	3/8	7/16-20	9/16-18	-	1.15	0.625
-	2406-04-08	-	1/4	1/2	7/16-20	3/4-16	-	1.25	0.625
-	2406-05-04	-	5/16	1/4	1/2-20	7/16-20	-	1.16	0.625
-	2406-05-06	-	5/16	3/8	1/2-20	9/16-18	-	1.17	0.625
-	2406-05-08	-	5/16	1/2	1/2-20	3/4-16	-	1.27	0.812
2406-06-02-IN	2406-06-02	2406-06-02-2 PC	3/8	1/8	9/16-18	5/16-24	0.87	1.07	0.688
2406-06-03-IN	2406-06-03	2406-06-03-2PC	3/8	3/16	9/16-18	3/8-24	0.90	1.10	0.688
2406-06-04-IN	2406-06-04	2406-06-04-2 PC	3/8	1/4	9/16-18	7/16-20	0.97	1.17	0.688
-	2406-06-05	-	3/8	5/16	9/16-18	1/2-20	-	1.18	0.688
-	2406-06-06	-	3/8	3/8	9/16-18	9/16-18	-	1.18	0.688
-	2406-06-08	-	3/8	1/2	9/16-18	3/4-16	-	1.28	0.812
-	2406-06-10	-	3/8	5/8	9/16-18	7/8-14	-	1.38	0.937
2406-08-04-IN	2406-08-04	2406-08-04-2PC	1/2	1/4	3/4-16	7/16-20	1.00	1.30	0.875
2406-08-05-IN	2406-08-05	2406-08-05-2PC	1/2	5/16	3/4-16	1/2-20	1.00	1.30	0.875
2406-08-06-IN	2406-08-06	2406-08-06-2PC	1/2	3/8	3/4-16	9/16-18	1.00	1.31	0.875
-	2406-08-08	-	1/2	1/2	3/4-16	3/4-16	-	1.41	0.875
-	2406-08-10	-	1/2	5/8	3/4-16	7/8-14	-	1.51	0.937
-	2406-08-12	-	1/2	3/4	3/4-16	1-1/16-12	-	1.61	1.125
2406-10-04-IN	2406-10-04	2406-10-04-2PC	5/8	1/4	7/8-14	7/16-20	1.03	1.39	1.000
-	2406-10-05	-	5/8	5/8	7/8-14	1/2-20	1.03	1.39	1.000
2406-10-06-IN	2406-10-06	2406-10-06-2PC	5/8	3/8	7/8-14	9/16-18	1.03	1.40	1.000
-	2406-10-08	-	5/8	1/2	7/8-14	3/4-16	-	1.50	1.000
-	2406-10-12	-	5/8	3/4	7/8-14	1-1/16-12	-	1.71	1.125
-	2406-10-16	-	5/8	1	7/8-14	1-5/16-12	-	1.76	1.375
2406-12-04-IN	2406-12-04	2406-12-04-2PC	3/4	1/4	1-1/16-12	7/16-20	1.09	1.46	1.250
2406-12-06-IN	2406-12-06	2406-12-06-2PC	3/4	3/8	1-1/16-12	9/16-18	1.09	1.46	1.250
2406-12-08-IN	2406-12-08	2406-12-08-2PC	3/4	1/2	1-1/16-12	3/4-16	1.19	1.56	1.250
-	2406-12-10	-	3/4	5/8	1-1/16-12	7/8-14	-	1.66	1.250
-	2406-12-12	-	3/4	3/4	1-1/16-12	1-1/16-12	-	1.77	1.250
-	2406-12-16	-	3/4	1	1-1/16-12	1-5/16-12	-	1.82	1.375
2406-14-04-IN	2406-14-04	2406-14-04-2PC	7/8	1/4	1-3/16-12	7/16-20	1.12	1.52	1.375

Continued on next page

Tube Fittings & Adapters

2406 Series continued



C-036

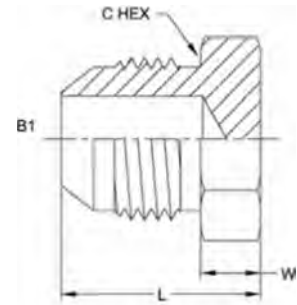
PART NO. Insert only	PART NO. Non-swivel	PART NO. Nut and Insert	B1 TUBE 0.0	B2 TUBE 0.0	B1 SAE37	82 SAE37	LI LOTH	LO LOTH	C HEX
2406-14-06-IN	2406-14-06	2406-14-06-2PC	7/8	3/8	1-3/16-12	9/16-18	1.13	1.53	1.375
2406-14-08-IN	2406-14-08	2406-14-08-2PC	7/8	1/2	1-3/16-12	3/4-16	1.23	1.63	1.375
2406-14-10-IN	2406-14-10	2406-14-10-2PC	7/8	5/8	1-3/16-12	7/8-14	1.33	1.73	1.375
-	2406-14-12	-	7/8	3/4	1-3/16-12	1-1/16-12	-	1.83	1.375
-	2406-14-16	-	7/8	1	1-3/16-12	1-5/16-12	-	1.88	1.375
2406-16-04-IN	2406-16-04	2406-16-04-2 PC	1	1/4	1-5/16-12	7/16-20	1.22	1.57	1.500
2406-16-06-IN	2406-16-06	2406-16-06-2PC	1	3/8	1-5/16-12	9/16-18	1.22	1.57	1.500
2406-16-08-IN	2406-16-08	2406-16-08-2PC	1	1/2	1-5/16-12	3/4-16	1.27	1.67	1.500
2406-16-10-IN	2406-16-10	2406-16-10-2PC	1	5/8	1-5/16-12	7/8-14	1.38	1.77	1.500
2406-16-12-IN	2406-16-12	2406-16-12-2PC	1	3/4	1-5/16-12	1-1/16-12	1.47	1.88	1.500
-	2406-16-14	-	1	7/8	1-5/16-12	1-3/16-12	-	1.91	1.500
-	2406-16-20	-	1	1-1/4	1-5/16-12	1-5/8-12	-	1.97	1.688
-	2406-16-24	-	1	1-1/2	1-5/16-12	1-7/8-12	-	2.10	2.000
2406-20-06-1N	2406-20-06	2406-20-06-2PC	1-1/4	3/8	1-5/8-12	9/16-18	1.22	1.67	2.000
2406-20-08-1N	2406-20-08	2406-20-08-2PC	1-1/4	1/2	1-5/8-12	3/4-16	1.32	1.72	2.000
2406-20-10-1N	2406-20-10	2406-20-10-2PC	1-1/4	5/8	1-5/8-12	7/8-14	1.42	1.82	2.000
2406-20-12-1N	2406-20-12	2406-20-12-2PC	1-1/4	3/4	1-5/8-12	1-1/16-12	1.53	1.93	2.000
2406-20-14-1N	2406-20-14	2406-20-14-2PC	1-1/4	7/8	1-5/8-12	1-3/16-12	1.57	1.95	2.000
2406-20-16-1N	2406-20-16	2406-20-16-2PC	1-1/4	1	1-5/8-12	1-5/16-12	1.59	1.97	2.000
-	2406-20-24	-	1-1/4	1-1/2	1-5/8-12	1-7/8-12	-	2.15	2.000
2406-24-08-1N	2406-24-08	2406-24-08-2PC	1-1/2	1/2	1-7/8-12	3/4-16	1.56	1.85	2.250
2406-24-10-1N	2406-24-10	2406-24-10-2PC	1-1/2	5/8	1-7/8-12	7/8-14	1.56	1.95	2.250
2406-24-12-1N	2406-24-12	2406-24-12-2PC	1-1/2	3/4	1-7/8-12	1-1/16-12	1.63	2.05	2.250
2406-24-14-1N	2406-24-14	2406-24-14-2PC	1-1/2	7/8	1-7/8-12	1-3/16-12	1.63	2.08	2.250
2406-24-16-1N	2406-24-16	2406-24-16-2PC	1-1/2	1	1-7/8-12	1-5/16-12	1.63	2.10	2.250
2406-24-20-1N	2406-24-20	2406-24-20-2PC	1-1/2	1-1/4	1-7/8-12	1-5/8-12	1.69	2.15	2.250
-	2406-24-32	-	1-1/2	2	1-7/8-12	2-1/2-12	-	2.52	2.625
2406-32-08-1N	2406-32-08	2406-32-08-2PC	2	1/2	2-1/2-12	3/4-16	1.48	2.10	2.875
2406-32-12-1N	2406-32-12	2406-32-12-2PC	2	3/4	2-1/2-12	1-1/16-12	1.69	2.30	2.875
2406-32-16-1N	2406-32-16	2406-32-16-2PC	2	1	2-1/2-12	1-5/16-12	1.74	2.35	2.875
2406-32-20-1N	2406-32-20	2406-32-20-2PC	2	1-1/4	2-1/2-12	1-5/8-12	1.78	2.40	2.875
2406-32-24-1N	2406-32-24	2406-32-24-2PC	2	1-1/2	2-1/2-12	1-7/8-12	1.91	2.52	2.875

MJ Plug 2408 Series

SAE# 070109 / MS# 51518

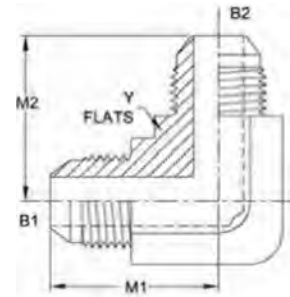
C-037

PART NO.SIZE	TUBE O.D.	B1 SAE 37	L LEITH	W WIDTH	C HEX
2408-02	1/8	5/16-24	0.70	0.22	0.438
2408-03	3/16	3/8-24	0.73	0.22	0.438
2408-04	1/4	7/16-20	0.80	0.22	0.500
2408-05	5/16	1/2-20	0.80	0.22	0.562
2408-06	3/8	9/16-18	0.84	0.25	0.625
2408-08	1/2	3/4-16	0.94	0.25	0.812
2408-10	5/8	7/8-14	1.10	0.31	0.937
2408-12	3/4	1-1/16-12	1.28	0.38	1.125
2408-14	7/8	1-3/16-12	1.31	0.38	1.250
2408-16	1	1-5/16-12	1.33	0.38	1.375
2408-20	1-1/4	1-5/8-12	1.45	0.46	1.688
2408-24	1-1/2	1-7/8-12	1.65	0.53	2.000
2408-32	2	2-1/2-12	2.05	0.68	2.625



MJ-MJ 90° 2500 Series

SAE# 070201 / MS# 51505

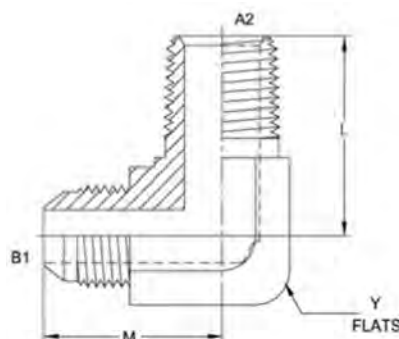


PART NO.SIZE	B1TUBE O.D.	B2 TUBE O.D.	B1 SAE 37	B2 SAE 37	B1 DRILL	B2 DRILL	M1 L6TH	M2 LDTH	Y FLATS
2500-02-02-FG	1/8	1/8	5/16-24	5/16-24	0.062	0.062	0.77	0.77	0.438
2500-03-03-FG	3/16	3/16	3/8-24	3/8-24	0.125	0.125	0.83	0.83	0.438
2500-04-04-FG	1/4	1/4	7/16-20	7/16-20	0.172	0.172	0.89	0.89	0.438
2500-05-04-FG	5/16	1/4	1/2-20	7/16-20	0.234	0.172	0.95	0.95	0.562
2500-05-05-FG	5/16	5/16	1/2-20	1/2-20	0.234	0.234	0.95	0.95	0.562
2500-06-04-FG	3/8	1/4	9/16-18	7/16-20	0.297	0.172	1.06	1.05	0.562
2500-06-05-FG	3/8	5/16	9/16-18	1/2-20	0.297	0.234	1.06	1.05	0.562
2500-06-06-FG	3/8	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.06	0.562
2500-08-04-FG	1/2	1/4	3/4-16	7/16-20	0.391	0.172	1.25	1.12	0.750
2500-08-06-FG	1/2	3/8	3/4-16	9/16-18	0.391	0.297	1.25	1.14	0.750
2500-08-08-FG	1/2	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.25	0.750
2500-10-08-FG	5/8	1/2	7/8-14	3/4-16	0.484	0.391	1.45	1.33	0.875
2500-10-10-FG	5/8	5/8	7/8-14	7/8-14	0.484	0.484	1.45	1.45	0.875
2500-12-08-FG	3/4	1/2	1-1/16-12	3/4-16	0.609	0.391	1.66	1.42	1.062
2500-12-10-FG	3/4	5/8	1-1/16-12	7/8-14	0.609	0.484	1.66	1.54	1.062
2500-12-12-FG	3/4	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	1.66	1.062
2500-14-14-FG	7/8	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.80	1.80	1.312
2500-16-12-FG	1	3/4	1-5/16-12	1-1/16-12	0.844	0.609	1.81	1.76	1.312
2500-16-16-FG	1	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	1.81	1.312
2500-20-20-FG	1-1/4	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	2.06	1.625
2500-24-24-FG	1-1/2	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.33	2.33	1.875
2500-32-32-FG	2	2	2-1/2-12	2-1/2-12	1.781	1.781	3.06	3.06	2.500

Tube Fittings & Adapters

MJ-MP 90° 2501 Series

SAE# 070202 / MS# 51504

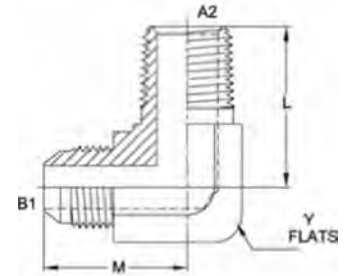


C-038

PART NO. SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LOTH	L LCTH	Y FLATS
2501-02-02-FG	1/8	5/16-24	1/8-27	0.062	0.188	0.77	0.72	0.438
2501-02-04-FG	1/8	5/16-24	1/4-18	0.062	0.281	0.93	1.09	0.562
2501-03-02-FG	3/16	3/8-24	1/8-27	0.125	0.188	0.83	0.72	0.438
2501-03-04-FG	3/16	3/8-24	1/4-18	0.125	0.281	0.96	1.09	0.562
2501-04-01-FG	1/4	7/16-20	1/16-27	0.172	0.117	0.89	0.78	0.438
2501-04-02-FG	1/4	7/16-20	1/8-27	0.172	0.188	0.89	0.78	0.438
2501-04-04-FG	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.09	0.562
2501-04-06-FG	1/4	7/16-20	3/8-18	0.172	0.406	1.12	1.22	0.750
2501-04-08-FG	1/4	7/16-20	1/2-14	0.172	0.531	1.21	1.47	0.875
2501-04-12-FG	1/4	7/16-20	3/4-14	0.172	0.719	1.30	1.59	1.062
2501-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.188	0.95	0.78	0.562
2501-05-04-FG	5/16	1/2-20	1/4-18	0.234	0.281	1.05	1.09	0.562
2501-05-06-FG	5/16	1/2-20	3/8-18	0.234	0.406	1.12	1.22	0.750
2501-05-08-FG	5/16	1/2-20	1/2-14	0.234	0.531	1.21	1.47	0.875
2501-06-01-FG	3/8	9/16-18	1/16-27	0.297	0.117	1.06	0.90	0.562
2501-06-02-FG	3/8	9/16-18	1/8-27	0.297	0.188	1.06	0.90	0.562
2501-06-04-FG	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.09	0.562
2501-06-06-FG	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.22	0.750
2501-06-08-FG	3/8	9/16-18	1/2-14	0.297	0.531	1.22	1.47	0.875
2501-06-12-FG	3/8	9/16-18	3/4-14	0.297	0.719	1.31	1.59	1.062
2501-08-02-FG	1/2	3/4-16	1/8-27	0.391	0.188	1.25	1.03	0.750
2501-08-04-FG	1/2	3/4-16	1/4-18	0.391	0.281	1.25	1.22	0.750
2501-08-06-FG	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.22	0.750
2501-08-08-FG	1/2	3/4-16	1/2-14	0.391	0.531	1.33	1.47	0.875
2501-08-12-FG	1/2	3/4-16	3/4-14	0.391	0.719	1.42	1.59	1.062
2501-08-16-FG	1/2	3/4-16	1-11-1/2	0.391	0.938	1.52	1.97	1.312
2501-10-04-FG	5/8	7/8-14	1/4-18	0.484	0.281	1.45	1.34	0.875
2501-10-06-FG	5/8	7/8-14	3/8-18	0.484	0.406	1.45	1.28	0.875
2501-10-08-FG	5/8	7/8-14	1/2-14	0.484	0.531	1.45	1.47	0.875
2501-10-12-FG	5/8	7/8-14	3/4-14	0.484	0.719	1.54	1.59	1.062
2501-10-16-FG	5/8	7/8-14	1-11-1/2	0.484	0.938	1.64	1.97	1.312
2501-12-06-FG	3/4	1-1/16-12	3/8-18	0.609	0.406	1.66	1.40	1.062
2501-12-08-FG	3/4	1-1/16-12	1/2-14	0.609	0.531	1.66	1.59	1.062
2501-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	0.719	1.66	1.59	1.062
2501-12-16-FG	3/4	1-1/16-12	1-11-1/2	0.609	0.938	1.76	1.97	1.312

Continued on next page

2501 Series continued

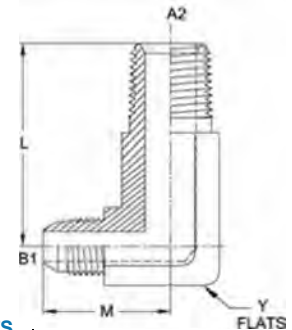


C-039

PART NO. SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	L LGTH	Y FLATS
2501-12-20-FG	3/4	1-1/16-12	1-1/4-11-1/2	0.609	1.250	1.97	2.38	1.625
2501-14-08-FG	7/8	1-3/16-12	1/2-14	0.719	0.531	1.80	1.69	1.312
2501-14-12-FG	7/8	1-3/16-12	3/4-14	0.719	0.719	1.80	1.69	1.312
2501-14-16-FG	7/8	1-3/16-12	1-11-1/2	0.719	0.938	1.80	1.97	1.312
2501-16-08-FG	1	1-5/16-12	1/2-14	0.844	0.531	1.81	1.78	1.312
2501-16-12-FG	1	1-5/16-12	3/4-14	0.844	0.719	1.81	1.78	1.312
2501-16-16-FG	1	1-5/16-12	1-11-1/2	0.844	0.938	1.81	1.97	1.312
2501-16-20-FG	1	1-5/16-12	1-1/4-11-1/2	0.844	1.250	2.01	2.38	1.625
2501-16-24-FG	1	1-5/16-12	1-1/2-11-1/2	0.844	1.500	2.16	2.64	1.875
2501-20-12-FG	1-1/4	1-5/8-12	3/4-14	1.078	0.719	2.06	2.16	1.625
2501-20-16-FG	1-1/4	1-5/8-12	1-11-1/2	1.078	0.938	2.06	2.35	1.625
2501-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.06	2.38	1.625
2501-20-24-FG	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	1.500	2.20	2.64	1.875
2501-24-16-FG	1-1/2	1-7/8-12	1-11-1/2	1.312	0.938	2.33	2.58	1.875
2501-24-20-FG	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.250	2.33	2.61	1.875
2501-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.33	2.64	1.875
2501-24-32-FG	1-1/2	1-7/8-12	2-11-1/2	1.312	1.938	2.81	3.00	2.500
2501-32-24-FG	2	2-1/2-12	1-1/2-11-1/2	1.781	1.500	3.06	2.97	2.500
2501-32-32-FG	2	2-1/2-12	2-11-1/2	1.781	1.938	3.06	3.00	2.500
2501-40-40-FG	2-1/2	3 - 12	2-1/2-8	2.318	2.318	3.25	3.95	3.234

MJ-MP 90° Long 2501-L Series

SAE# 071502

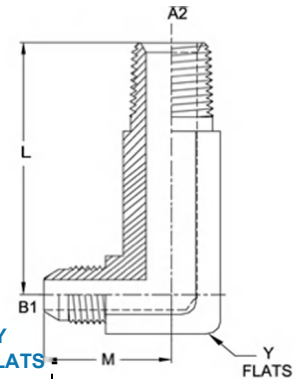


PART NO. SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	L LGTH	Y FLATS
2501-L-03-02-FG	3/16	3/8-24	1/8-27	0.125	0.188	0.83	1.04	0.438
2501-L-04-02-FG	1/4	7/16-20	1/8-27	0.172	0.188	0.89	1.17	0.438
2501-L-04-04-FG	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.58	0.562
2501-L-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.188	0.95	1.17	0.562
2501-L-05-04-FG	5/16	1/2-20	1/4-18	0.234	0.281	0.95	1.58	0.562
2501-L-06-02-FG	3/8	9/16-18	1/8-27	0.297	0.188	1.06	1.39	0.562
2501-L-06-04-FG	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.58	0.562
2501-L-06-06-FG	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.82	0.750
2501-L-06-08-FG	3/8	9/16-18	1/2-14	0.297	0.531	1.22	2.17	0.875
2501-L-08-04-FG	1/2	3/4-16	1/4-18	0.391	0.281	1.25	1.82	0.750
2501-L-08-06-FG	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.82	0.750
2501-L-08-08-FG	1/2	3/4-16	1/2-14	0.391	0.531	1.33	2.17	0.875
2501-L-08-12-FG	1/2	3/4-16	3/4-14	0.391	0.719	1.42	2.44	1.062
2501-L-10-08-FG	5/8	7/8-14	1/2-14	0.484	0.531	1.45	2.17	0.875
2501-L-10-12-FG	5/8	7/8-14	3/4-14	0.484	0.719	1.54	2.44	1.062
2501-L-12-08-FG	3/4	1-1/16-12	1/2-14	0.609	0.531	1.66	2.44	1.062
2501-L-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	0.719	1.66	2.44	1.062
2501-L-12-16-FG	3/4	1-1/16-12	1-11-1/2	0.609	0.938	1.76	3.01	1.312
2501-L-14-12-FG	7/8	1-3/16-12	3/4-14	0.719	0.719	1.80	2.59	1.312
2501-L-16-12-FG	1	1-5/16-12	3/4-14	0.844	0.719	1.81	2.82	1.312
2501-L-16-16-FG	1	1-5/16-12	1-11-1/2	0.844	0.938	1.81	3.01	1.312
2501-L-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.06	3.69	1.625
2501-L-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.33	4.10	1.875

Tube Fittings & Adapters

MJ-MP 90° X-Long 2501 -LL Series

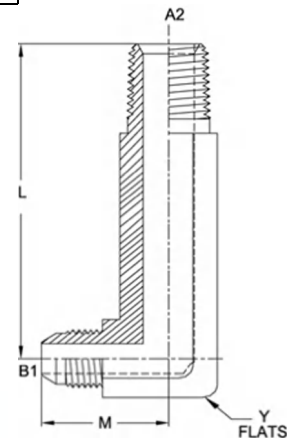
SAE# 071602



C-040

PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	L LGTH	Y FLATS
2501-LL-04-02-FG	1/4	7/16-20	1/8-27	0.172	0.188	0.89	1.56	0.438
2501-LL-04-04-FG	1/4	7/16-20	1/4-18	0.172	0.281	1.05	2.07	0.562
2501-LL-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.188	0.95	1.56	0.562
2501-LL-05-04-FG	5/16	1/2-20	1/4-18	0.234	0.281	1.05	2.07	0.562
2501-LL-06-04-FG	3/8	9/16-18	1/4-18	0.297	0.281	1.06	2.07	0.562
2501-LL-06-06-FG	3/8	9/16-18	3/8-18	0.297	0.406	1.14	2.42	0.750
2501-LL-06-08-FG	3/8	9/16-18	1/2-14	0.297	0.531	1.22	2.87	0.875
2501-LL-08-04-FG	1/2	3/4-16	1/4-18	0.391	0.281	1.25	2.42	0.750
2501-LL-08-06-FG	1/2	3/4-16	3/8-18	0.391	0.406	1.25	2.42	0.750
2501-LL-08-08-FG	1/2	3/4-16	1/2-14	0.391	0.531	1.33	2.87	0.875
2501-LL-10-08-FG	5/8	7/8-14	1/2-14	0.484	0.531	1.45	2.87	0.875
2501-LL-10-12-FG	5/8	7/8-14	3/4-14	0.484	0.719	1.42	3.28	1.062
2501-LL-12-08-FG	3/4	1-1/16-12	1/2-14	0.609	0.531	1.66	3.28	1.062
2501-LL-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	0.719	1.66	3.28	1.062
2501-LL-14-12-FG	7/8	1-3/16-12	3/4-14	0.719	0.719	1.80	3.50	1.312
2501-LL-16-12-FG	1	1-5/16-12	3/4-14	0.844	0.719	1.81	3.86	1.312
2501-LL-16-16-FG	1	1-5/16-12	1-11-1/2	0.844	0.938	1.81	4.05	1.312
2501-LL-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.06	5.00	1.625
2501-LL-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.33	5.55	1.875

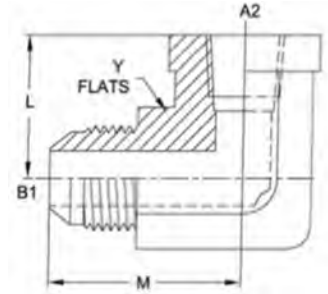
MJ-MP 90° XX-Long 2501-LLL Series



PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	L LGTH	Y FLATS
2501-LLL-04-02-FG	1/4	7/16-20	1/8-27	0.172	0.188	0.89	2.31	0.438
2501-LLL-04-04-FG	1/4	7/16-20	1/4-18	0.172	0.281	1.05	3.06	0.562
2501-LLL-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.188	0.95	2.31	0.562
2501-LLL-06-04-FG	3/8	9/16-18	1/4-18	0.297	0.281	1.06	3.06	0.562
2501-LLL-06-06-FG	3/8	9/16-18	3/8-18	0.297	0.406	1.14	3.75	0.750
2501-LLL-08-06-FG	1/2	3/4-16	3/8-18	0.391	0.406	1.25	3.75	0.750
2501-LLL-08-08-FG	1/2	3/4-16	1/2-14	0.391	0.531	1.33	4.50	0.875
2501-LLL-10-08-FG	5/8	7/8-14	1/2-14	0.484	0.531	1.45	4.50	0.875
2501-LLL-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	0.719	1.66	5.03	1.062
2501-LLL-16-16-FG	1	1-5/16-12	1-11-1/2	0.844	0.938	1.81	6.34	1.312
2501-LLL-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.06	7.34	1.625

MJ-FP 90° 2502 Series

SAE# 070203 / MS# 51506



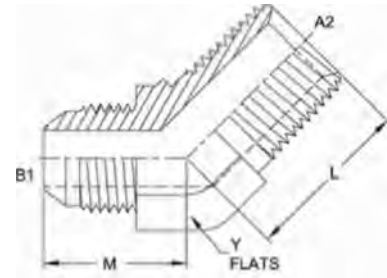
C-041

PART NO.SIZE	TUBE on.	B1 SAE 37	A2 NPTF	B1 DRILL	M LGTH	L LGTH	Y FLATS
2502-02-02-FG	1/8	5/16-24	1/8-27	0.062	1.00	0.66	0.562
2502-03-02-FG	3/16	3/8-24	1/8-27	0.125	1.03	0.66	0.562
2502-04-02-FG	1/4	7/16-20	1/8-27	0.172	1.08	0.66	0.562
2502-04-04-FG	1/4	7/16-20	1/4-18	0.172	1.22	0.88	0.750
2502-04-06-FG	1/4	7/16-20	3/8-18	0.172	1.29	1.02	0.875
2502-04-08-FG	1/4	7/16-20	1/2-14	0.172	1.40	1.23	1.062
2502-05-02-FG	5/16	1/2-20	1/8-27	0.234	1.08	0.66	0.562
2502-05-04-FG	5/16	1/2-20	1/4-18	0.234	1.22	0.88	0.750
2502-05-06-FG	5/16	1/2-20	3/8-18	0.234	1.29	1.02	0.875
2502-06-02-FG	3/8	9/16-18	1/8-27	0.297	1.23	0.67	0.750
2502-06-04-FG	3/8	9/16-18	1/4-18	0.297	1.23	0.88	0.750
2502-06-06-FG	3/8	9/16-18	3/8-18	0.297	1.31	1.02	0.875
2502-06-08-FG	3/8	9/16-18	1/2-14	0.297	1.41	1.23	1.062
2502-08-04-FG	1/2	3/4-16	1/4-18	0.391	1.42	1.01	0.875
2502-08-06-FG	1/2	3/4-16	3/8-18	0.391	1.42	1.02	0.875
2502-08-08-FG	1/2	3/4-16	1/2-14	0.391	1.52	1.23	1.062
2502-08-12-FG	1/2	3/4-16	3/4-14	0.391	1.65	1.36	1.312
2502-10-06-FG	5/8	7/8-14	3/8-18	0.484	1.64	1.01	1.062
2502-10-08-FG	5/8	7/8-14	1/2-14	0.484	1.64	1.23	1.062
2502-10-12-FG	5/8	7/8-14	3/4-14	0.484	1.77	1.36	1.312
2502-12-08-FG	3/4	1-1/16-12	1/2-14	0.609	1.89	1.35	1.312
2502-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	1.89	1.36	1.312
2502-12-16-FG	3/4	1-1/16-12	1-11-1/2	0.609	2.12	1.62	1.625
2502-14-12-FG	7/8	1-3/16-12	3/4-14	0.719	1.86	1.42	1.312
2502-16-12-FG	1	1-5/16-12	3/4-14	0.844	2.17	1.62	1.625
2502-16-16-FG	1	1-5/16-12	1-11-1/2	0.844	2.17	1.62	1.625
2502-16-20-FG	1	1-5/16-12	1-1/4-11-1/2	0.844	2.28	1.70	1.875
2502-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	2.33	1.70	1.875
2502-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	2.89	2.08	2.562
2502-32-32-FG	2	2-1/2-12	2-11-1/2	1.781	3.30	2.39	2.812

Tube Fittings & Adapters

MJ-MP 45° 2503 Series

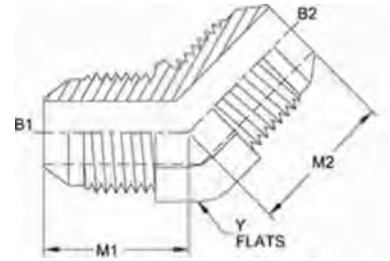
SAE# 070302 / MS# 51508



C-042

PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	B1 DRILL	A2 ORILL	M LGTH	I LGTH	Y FLATS
2503-02-02-FG	1/8	5/16-24	1/8-27	0.062	0.188	0.69	0.52	0.438
2503-03-02-FG	3/16	3/8-24	1/8-27	0.125	0.188	0.69	0.52	0.438
2503-04-02-FG	1/4	7/16-20	1/8-27	0.172	0.188	0.72	0.64	0.438
2503-04-04-FG	1/4	7/16-20	1/4-18	0.172	0.281	0.82	0.86	0.562
2503-04-06-FG	1/4	7/16-20	3/8-18	0.172	0.406	0.85	0.95	0.750
2503-04-08-FG	1/4	7/16-20	1/2-14	0.172	0.531	0.87	1.17	0.875
2503-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.188	0.77	0.64	0.562
2503-05-04-FG	5/16	1/2-20	1/4-18	0.234	0.281	0.82	0.86	0.562
2503-05-06-FG	5/16	1/2-20	3/8-18	0.234	0.406	0.85	0.95	0.750
2503-06-02-FG	3/8	9/16-18	1/8-27	0.297	0.188	0.83	0.67	0.562
2503-06-04-FG	3/8	9/16-18	1/4-18	0.297	0.281	0.83	0.86	0.562
2503-06-06-FG	3/8	9/16-18	3/8-18	0.297	0.406	0.87	0.95	0.750
2503-06-08-FG	3/8	9/16-18	1/2-14	0.297	0.531	0.88	1.17	0.875
2503-06-12-FG	3/8	9/16-18	3/4-14	0.297	0.719	0.93	1.20	1.062
2503-08-04-FG	1/2	3/4-16	1/4-18	0.391	0.281	0.98	0.95	0.750
2503-08-06-FG	1/2	3/4-16	3/8-18	0.391	0.406	0.98	0.95	0.750
2503-08-08-FG	1/2	3/4-16	1/2-14	0.391	0.531	0.99	1.17	0.875
2503-08-12-FG	1/2	3/4-16	3/4-14	0.391	0.719	1.04	1.20	1.062
2503-10-04-FG	5/8	7/8-14	1/4-18	0.484	0.281	1.11	0.98	0.875
2503-10-06-FG	5/8	7/8-14	3/8-18	0.484	0.406	1.11	0.98	0.875
2503-10-08-FG	5/8	7/8-14	1/2-14	0.484	0.531	1.11	1.17	0.875
2503-10-12-FG	5/8	7/8-14	3/4-14	0.484	0.719	1.16	1.20	1.062
2503-12-08-FG	3/4	1-1/16-12	1/2-14	0.609	0.531	1.28	1.20	1.062
2503-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	0.719	1.28	1.20	1.062
2503-12-16-FG	3/4	1-1/16-12	1-11-1/2	0.609	0.938	1.42	1.48	1.312
2503-14-12-FG	7/8	1-3/16-12	3/4-14	0.719	0.719	1.45	1.30	1.312
2503-16-08-FG	1	1-5/16-12	1/2-14	0.844	0.531	1.47	1.29	1.312
2503-16-12-FG	1	1-5/16-12	3/4-14	0.844	0.719	1.47	1.29	1.312
2503-16-16-FG	1	1-5/16-12	1-11-1/2	0.844	0.938	1.47	1.48	1.312
2503-16-20-FG	1	1-5/16-12	1-1/4-11-1/2	0.844	1.250	1.54	1.67	1.625
2503-20-16-FG	1-1/4	1-5/8-12	1-11-1/2	1.078	0.938	1.59	1.64	1.625
2503-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	1.59	1.67	1.625
2503-20-24-FG	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	1.500	1.65	1.77	1.875
2503-24-20-FG	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.250	1.78	1.74	1.875
2503-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	1.78	1.77	1.875
2503-32-32-FG	2	2-1/2-12	2-11-1/2	1.781	1.938	2.22	2.11	2.500
2503-40-40-FG	2-1/2	8 8	2 1/2-8	2.318	2.318	2.49	2.20	3.234

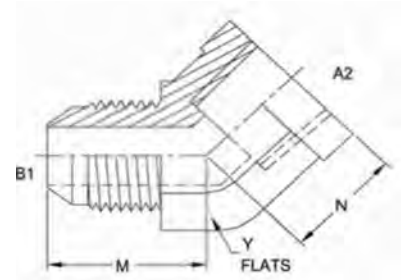
MJ-MJ 45° 2504 Series



C-043

PART NO.SIZE	B1 TUBE O.D.	B2 TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M1 LOTH	M2 LGTH	Y FLATS
2504-03-03-FG	3/16	3/16	3/8-24	3/8-24	0.125	0.125	0.69	0.69	0.438
2504-04-04-FG	1/4	1/4	7/16-20	7/16-20	0.172	0.172	0.72	0.72	0.438
2504-06-04-FG	3/8	3/8	9/16-18	7/16-20	0.297	0.172	0.83	0.82	0.562
2504-06-06-FG	3/8	3/8	9/16-18	9/16-18	0.297	0.297	0.83	0.83	0.562
2504-08-08-FG	1/2	1/2	3/4-16	3/4-16	0.391	0.391	0.98	0.98	0.750
2504-10-10-FG	5/8	5/8	7/8-14	7/8-14	0.484	0.484	1.11	1.11	0.875
2504-12-12-FG	3/4	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.28	1.28	1.062
2504-16-16-FG	1	1	1-5/16-12	1-5/16-12	0.844	0.844	1.47	1.47	1.312

MJ-FP 45° 2505 Series

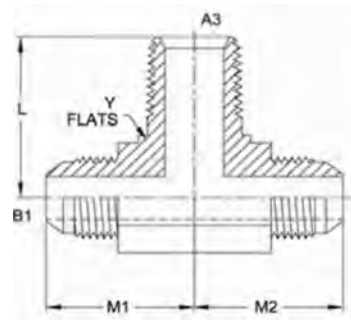


PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	M LGTH	N LGTH	Y FLATS
2505-04-04-FG	1/4	7/16-20	1/4-18	0.172	0.85	0.62	0.750
2505-06-04-FG	3/8	9/16-18	1/4-18	0.297	0.87	0.62	0.750
2505-06-06-FG	3/8	9/16-18	3/8-18	0.297	0.88	0.72	0.875
2505-08-06-FG	1/2	3/4-16	3/8-18	0.391	0.99	0.72	0.875
2505-08-08-FG	1/2	3/4-16	1/2-14	0.391	1.04	0.91	1.062
2505-10-08-FG	5/8	7/8-14	1/2-14	0.484	1.16	0.91	1.062
2505-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	1.42	0.97	1.312
2505-16-16-FG	1	1-5/16-12	1-11-1/2	0.844	1.54	1.12	1.625

Tube Fittings & Adapters

MJ-MJ-MP Tee 2601 Series

SAE# 070425 / MS# 51512



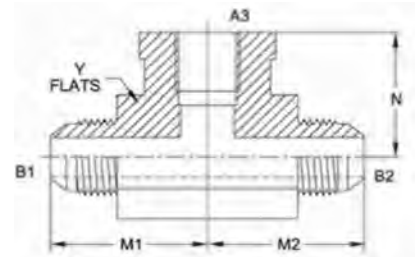
C-044

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	A3 NPTE	B1 DRILL	B2 DRILL	A3 DRILL	M1 LGTH	M2 LGTH	L LGTH	Y FLATS
2601-02-02-02-FG	1/8	5/16-24	5/16-24	1/8-27	0.062	0.062	0.188	0.77	0.77	0.72	0.438
2601-03-03-02-FG	3/16	3/8-24	3/8-24	1/8-27	0.125	0.125	0.188	0.83	0.83	0.72	0.438
2601-04-04-02-FG	1/4	7/16-20	7/16-20	1/8-27	0.172	0.172	0.188	0.89	0.89	0.78	0.438
2601-04-04-04-FG	1/4	7/16-20	7/16-20	1/4-18	0.172	0.172	0.281	1.05	1.05	1.09	0.562
2601-04-04-06-FG	1/4	7/16-20	7/16-20	3/8-18	0.172	0.172	0.406	1.12	1.12	1.22	0.750
2601-05-05-02-FG	5/16	1/2-20	1/2-20	1/8-27	0.234	0.234	0.188	0.95	0.95	0.78	0.562
2601-05-05-04-FG	5/16	1/2-20	1/2-20	1/4-18	0.234	0.234	0.281	1.05	1.05	1.09	0.562
2601-06-06-02-FG	3/8	9/16-18	9/16-18	1/8-27	0.297	0.297	0.188	1.06	1.06	0.90	0.562
2601-06-06-04-FG	3/8	9/16-18	9/16-18	1/4-18	0.297	0.297	0.281	1.06	1.06	1.09	0.562
2601-06-06-06-FG	3/8	9/16-18	9/16-18	3/8-18	0.297	0.297	0.406	1.14	1.14	1.22	0.750
2601-06-06-08-FG	3/8	9/16-18	9/16-18	1/2-14	0.297	0.297	0.531	1.22	1.22	1.47	0.875
2601-08-04-08-FG	1/2	3/4-16	7/16-20	1/2-14	0.391	0.172	0.531	1.33	1.21	1.47	0.875
2601-08-08-04-FG	1/2	3/4-16	3/4-16	1/4-18	0.391	0.391	0.281	1.25	1.25	1.22	0.750
2601-08-08-06-FG	1/2	3/4-16	3/4-16	3/8-18	0.391	0.391	0.406	1.25	1.25	1.22	0.750
2601-08-08-08-FG	1/2	3/4-16	3/4-16	1/2-14	0.391	0.391	0.531	1.33	1.33	1.47	0.875
2601-08-08-12-FG	1/2	3/4-16	3/4-16	3/4-14	0.391	0.391	0.719	1.42	1.42	1.59	1.062
2601-10-10-06-FG	5/8	7/8-14	7/8-14	3/8-18	0.484	0.484	0.406	1.45	1.45	1.28	0.875
2601-10-10-08-FG	5/8	7/8-14	7/8-14	1/2-14	0.484	0.484	0.531	1.45	1.45	1.47	0.875
2601-10-10-12-FG	5/8	7/8-14	7/8-14	3/4-14	0.484	0.484	0.719	1.54	1.54	1.59	1.062
2601-12-12-08-FG	3/4	1-1/16-12	1-1/16-12	1/2-14	0.609	0.609	0.531	1.66	1.66	1.59	1.062
2601-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	3/4-14	0.609	0.609	0.719	1.66	1.66	1.59	1.062
2601-12-12-16-FG	3/4	1-1/16-12	1-1/16-12	1-11-1/2	0.609	0.609	0.938	1.76	1.76	1.97	1.312
2601-12-16-20-FG	3/4	1-1/16-12	1-5/16-12	1-1/4-11-1/2	0.609	0.844	1.250	1.97	2.01	2.38	1.625
2601-14-14-12-FG	7/8	1-3/16-12	1-3/16-12	3/4-14	0.719	0.719	0.719	1.80	1.80	1.69	1.312
2601-16-16-12-FG	1	1-5/16-12	1-5/16-12	3/4-14	0.844	0.844	0.719	1.81	1.81	1.78	1.312
2601-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-11-1/2	0.844	0.844	0.938	1.81	1.81	1.97	1.312
2601-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-1/4-11-1/2	1.078	1.078	1.250	2.06	2.06	2.38	1.625
2601-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-1/2-11-1/2	1.312	1.312	1.500	2.33	2.33	2.64	1.875
2601-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-11-1/2	1.781	1.781	1.938	3.06	3.06	3.00	2.500

MJ-MJ-FP Tee

2602 Series

SAE# 070427 / MS# 51513



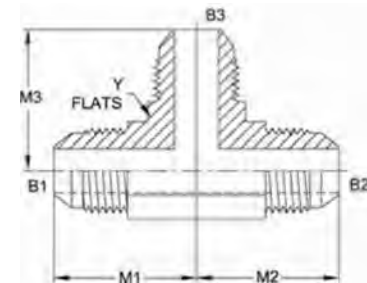
C-045

PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	A3 NPTF	B1 DRILL	B2 DRILL	M 1 LGTH	M2 LGTH	N LGTH	Y FLATS
2602-03-03-02-FG	3/16	3/8-24	3/8-24	1/8-27	0.125	0.125	1.03	1.03	0.66	0.562
2602-04-04-02-FG	1/4	7/16-20	7/16-20	1/8-27	0.172	0.172	1.08	1.08	0.66	0.562
2602-04-04-04-FG	1/4	7/16-20	7/16-20	1/4-18	0.172	0.172	1.22	1.22	0.88	0.750
2602-05-05-02-FG	5/16	1/2-20	1/2-20	1/8-27	0.234	0.234	1.08	1.08	0.66	0.562
2602-06-06-04-FG	3/8	9/16-18	9/16-18	1/4-18	0.297	0.297	1.23	1.23	0.88	0.750
2602-06-06-06-FG	3/8	9/16-18	9/16-18	3/8-18	0.297	0.297	1.31	1.31	1.02	0.875
2602-08-08-04-FG	1/2	3/4-16	3/4-16	1/4-18	0.391	0.391	1.42	1.42	1.02	0.875
2602-08-08-06-FG	1/2	3/4-16	3/4-16	3/8-18	0.391	0.391	1.42	1.42	1.02	0.875
2602-08-08-08-FG	1/2	3/4-16	3/4-16	1/2-14	0.391	0.391	1.52	1.52	1.23	1.062
2602-10-10-04-FG	5/8	7/8-14	7/8-14	1/4-18	0.484	0.484	1.64	1.64	1.04	1.062
2602-10-10-08-FG	5/8	7/8-14	7/8-14	1/2-14	0.484	0.484	1.64	1.64	1.23	1.062
2602-10-10-12-FG	5/8	7/8-14	7/8-14	3/4-14	0.484	0.484	1.77	1.77	1.36	1.312
2602-12-12-08-FG	3/4	1-1/16-12	1-1/16-12	1/2-14	0.609	0.609	1.89	1.89	1.36	1.312
2602-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	3/4-14	0.609	0.609	1.89	1.89	1.36	1.312
2602-12-12-16-FG	3/4	1-1/16-12	1-1/16-12	1-11-1/2	0.609	0.609	2.12	2.12	1.62	1.625
2602-14-14-12-FG	7/8	1-3/16-12	1-3/16-12	3/4-14	0.719	0.719	1.86	1.86	1.42	1.312
2602-16-16-12-FG	1	1-5/16-12	1-5/16-12	3/4-14	0.844	0.844	2.17	2.17	1.43	1.625
2602-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-11-1/2	0.844	0.844	2.17	2.17	1.62	1.625
2602-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-1/4-11-1/2	1.078	1.078	2.33	2.33	1.70	1.875
2602-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-1/2-11-1/2	1.312	1.312	2.89	2.89	2.08	2.562
2602-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-11-1/2	1.781	1.781	3.30	3.30	2.39	2.812

Tube Fittings & Adapters

MJ-MJ-MJ Tee 2603 Series

SAE# 070401 / MS# 51510



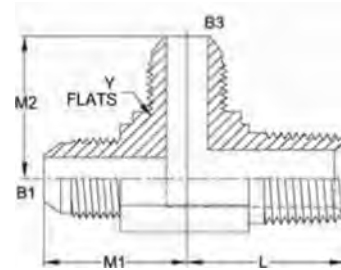
C-046

PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	B3 SAE 37	B1 DRILL	B2 DRILL	B3 DRILL	M1 LOTH	M2 LGTH	M3 LGTH	Y FLATS
2603-02-02-02-FG	1/8	5/16-24	5/16-24	5/16-24	0.062	0.062	0.062	0.77	0.77	0.77	0.438
2603-03-03-03-FG	3/16	3/8-24	3/8-24	3/8-24	0.125	0.125	0.125	0.83	0.83	0.83	0.438
2603-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.89	0.89	0.438
2603-04-04-06-FG	1/4	7/16-20	7/16-20	9/16-18	0.172	0.172	0.297	1.05	1.05	1.06	0.562
2603-05-05-04-FG	5/16	1/2-20	1/2-20	7/16-20	0.234	0.234	0.172	0.95	0.95	0.95	0.562
2603-05-05-05-FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.95	0.95	0.562
2603-06-06-04-FG	3/8	9/16-18	9/16-18	7/16-20	0.297	0.297	0.172	1.06	1.06	1.05	0.562
2603-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	1.06	1.06	0.562
2603-06-06-08-FG	3/8	9/16-18	9/16-18	3/4-16	0.297	0.297	0.391	1.14	1.14	1.25	0.750
2603-06-06-10-FG	3/8	9/16-18	9/16-18	7/8-14	0.297	0.297	0.484	1.22	1.22	1.45	0.875
2603-08-06-06-FG	1/2	3/4-16	9/16-18	9/16-18	0.391	0.297	0.297	1.25	1.14	1.14	0.750
2603-08-08-06-FG	1/2	3/4-16	3/4-16	9/16-18	0.391	0.391	0.297	1.25	1.25	1.14	0.750
2603-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.25	1.25	0.750
2603-08-08-10-FG	1/2	3/4-16	3/4-16	7/8-14	0.391	0.391	0.484	1.33	1.33	1.45	0.875
2603-08-08-12-FG	1/2	3/4-16	3/4-16	1-1/16-12	0.391	0.391	0.609	1.42	1.42	1.66	1.062
2603-10-08-08-FG	5/8	7/8-14	3/4-16	3/4-16	0.484	0.391	0.391	1.45	1.33	1.33	0.875
2603-10-10-06-FG	5/8	7/8-14	7/8-14	9/16-18	0.484	0.484	0.297	1.45	1.45	1.22	0.875
2603-10-10-08-FG	5/8	7/8-14	7/8-14	3/4-16	0.484	0.484	0.391	1.45	1.45	1.33	0.875
2603-10-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.45	1.45	0.875
2603-10-10-12-FG	5/8	7/8-14	7/8-14	1-1/16-12	0.484	0.484	0.609	1.54	1.54	1.66	1.062
2603-12-10-10-FG	3/4	1-1/16-12	7/8-14	7/8-14	0.609	0.484	0.484	1.66	1.54	1.54	1.062
2603-12-12-06-FG	3/4	1-1/16-12	1-1/16-12	9/16-18	0.609	0.609	0.297	1.66	1.66	1.31	1.062
2603-12-12-08-FG	3/4	1-1/16-12	1-1/16-12	3/4-16	0.609	0.609	0.391	1.66	1.66	1.42	1.062
2603-12-12-10-FG	3/4	1-1/16-12	1-1/16-12	7/8-14	0.609	0.609	0.484	1.66	1.66	1.54	1.062
2603-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.66	1.66	1.062
2603-12-12-16-FG	3/4	1-1/16-12	1-1/16-12	1-5/16-12	0.609	0.609	0.844	1.76	1.76	1.81	1.312
2603-12-12-20-FG	3/4	1-1/16-12	1-1/16-12	1-5/8-12	0.609	0.609	1.078	1.97	1.97	2.06	1.625
2603-14-14-14-FG	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.80	1.80	1.312
2603-16-12-12-FG	1	1-5/16-12	1-1/16-12	1-1/16-12	0.844	0.609	0.609	1.81	1.76	1.76	1.312
2603-16-12-16-FG	1	1-5/16-12	1-1/16-12	1-5/16-12	0.844	0.609	0.844	1.81	1.76	1.81	1.312
2603-16-16-12-FG	1	1-5/16-12	1-5/16-12	1-1/16-12	0.844	0.844	0.609	1.81	1.81	1.76	1.312
2603-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.81	1.81	1.312
2603-20-20-12-FG	1-1/4	1-5/8-12	1-5/8-12	1-1/16-12	1.078	1.078	0.609	2.06	2.06	1.97	1.625
2603-20-20-16-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/16-12	1.078	1.078	0.844	2.06	2.06	2.01	1.625
2603-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	2.06	2.06	1.625
2603-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	2.33	2.33	1.875
2603-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	3.06	3.06	2.500

MJ-MP-MJ Tee

2605 Series

SAE# 070424 / MS# 51511



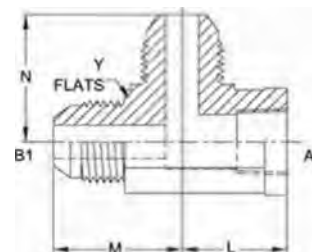
C-047

PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B3 SAE37	B1 DRILL	A2 DRILL	B3 DRILL	MI LGTH	L LGTH	M2 LGTH	Y FLATS
2605-03-02-03-FG	3/16	3/8-24	1/8-27	3/8-24	0.125	0.188	0.125	0.83	0.72	0.83	0.438
2605-04-02-04-FG	1/4	7/16-20	1/8-27	7/16-20	0.172	0.188	0.172	0.89	0.78	0.89	0.438
2605-04-04-04-FG	1/4	7/16-20	1/4-18	7/16-20	0.172	0.281	0.172	1.05	1.09	1.05	0.562
2605-05-02-05-FG	5/16	1/2-20	1/8-27	1/2-20	0.234	0.188	0.234	0.95	0.78	0.95	0.562
2605-05-04-05-FG	5/16	1/2-20	1/4-18	1/2-20	0.234	0.281	0.234	1.05	1.09	1.05	0.562
2605-06-02-06-FG	3/8	9/16-18	1/8-27	9/16-18	0.297	0.188	0.297	1.06	0.90	1.06	0.562
2605-06-04-04-FG	3/8	9/16-18	1/4-18	7/16-20	0.297	0.281	0.172	1.06	1.09	1.05	0.562
2605-06-04-06-FG	3/8	9/16-18	1/4-18	9/16-18	0.297	0.281	0.297	1.06	1.09	1.06	0.562
2605-06-06-06-FG	3/8	9/16-18	3/8-18	9/16-18	0.297	0.406	0.297	1.14	1.22	1.14	0.750
2605-06-08-06-FG	3/8	9/16-18	1/2-14	9/16-18	0.297	0.531	0.297	1.22	1.47	1.22	0.875
2605-08-04-08-FG	1/2	3/4-16	1/4-18	3/4-16	0.391	0.281	0.391	1.25	1.22	1.25	0.750
2605-08-06-06-FG	1/2	3/4-16	3/8-18	9/16-18	0.391	0.406	0.391	1.25	1.22	1.14	0.750
2605-08-06-08-FG	1/2	3/4-16	3/8-18	3/4-16	0.391	0.406	0.391	1.25	1.22	1.25	0.750
2605-08-08-06-FG	1/2	3/4-16	1/2-14	9/16-18	0.391	0.531	0.297	1.25	1.47	1.22	0.875
2605-08-08-08-FG	1/2	3/4-16	1/2-14	3/4-16	0.391	0.531	0.391	1.33	1.47	1.33	0.875
2605-08-12-08-FG	1/2	3/4-16	3/4-14	3/4-16	0.391	0.719	0.391	1.42	1.59	1.42	1.062
2605-10-08-10-FG	5/8	7/8-14	1/2-14	7/8-14	0.484	0.531	0.484	1.45	1.47	1.45	0.875
2605-10-12-10-FG	5/8	7/8-14	3/4-14	7/8-14	0.484	0.719	0.484	1.54	1.59	1.54	1.062
2605-12-08-12-FG	3/4	1-1/16-12	1/2-14	1-1/16-12	0.609	0.531	0.609	1.66	1.59	1.66	1.062
2605-12-12-08-FG	3/4	1-1/16-12	3/4-14	3/4-16	0.609	0.719	0.391	1.66	1.59	1.42	1.062
2605-12-12-12-FG	3/4	1-1/16-12	3/4-14	1-1/16-12	0.609	0.719	0.609	1.66	1.59	1.66	1.062
2605-14-12-14-FG	7/8	1-3/16-12	3/4-14	1-3/16-12	0.719	0.719	0.719	1.80	1.69	1.80	1.312
2605-16-12-16-FG	1	1-5/16-12	3/4-14	1-5/16-12	0.844	0.719	0.844	1.81	1.78	1.81	1.312
2605-16-16-16-FG	1	1-5/16-12	1-11-1/2	1-5/16-12	0.844	0.938	0.844	1.81	1.97	1.81	1.312
2605-20-16-20-FG	1-1/4	1-5/8-12	1-11-1/2	1-5/8-12	1.078	0.938	1.078	2.06	2.35	2.06	1.625
2605-20-20-16-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1-5/16-12	1.078	1.250	0.844	2.06	2.38	2.01	1.625
2605-20-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1-5/8-12	1.078	1.250	1.078	2.06	2.38	2.06	1.625
2605-24-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1-7/8-12	1.312	1.500	1.312	2.33	2.64	2.33	1.875
2605-32-32-32-FG	2	2-1/2-12	2-11-1/2	2-1/2-12	1.781	1.938	1.781	3.06	3.00	3.06	2.500

Tube Fittings & Adapters

MJ-FP-MJ Tee 2606 Series

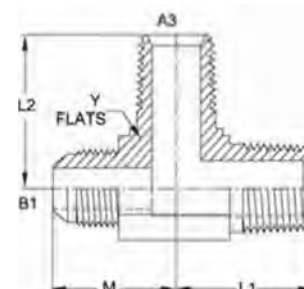
SAE# 070426 / MS# 51514



C-048

PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	B3 SAE 37	B1 DRILL	B3 DRILL	M LBTH	L LGTH	N LGTH	Y FLATS
2606-03-02-03-FG	3/16	3/8-24	1/8-27	3/8-24	0.125	0.125	1.03	0.66	1.03	0.562
2606-04-02-04-FG	1/4	7/16-20	1/8-27	7/16-20	0.172	0.172	1.08	0.66	1.08	0.562
2606-04-04-04-FG	1/4	7/16-20	1/4-18	7/16-20	0.172	0.172	1.22	0.88	1.22	0.750
2606-05-02-05-FG	5/16	1/2-20	1/8-27	1/2-20	0.234	0.234	1.08	0.66	1.08	0.562
2606-05-04-05-FG	5/16	1/2-20	1/4-18	1/2-20	0.234	0.234	1.22	0.88	1.22	0.750
2606-06-04-06-FG	3/8	9/16-18	1/4-18	9/16-18	0.297	0.297	1.23	0.88	1.23	0.750
2606-06-06-04-FG	3/8	9/16-18	3/8-18	7/16-20	0.297	0.172	1.31	1.02	1.29	0.875
2606-06-06-06-FG	3/8	9/16-18	3/8-18	9/16-18	0.297	0.297	1.31	1.02	1.31	0.875
2606-08-06-08-FG	1/2	3/4-16	3/8-18	3/4-16	0.391	0.391	1.42	1.02	1.42	0.875
2606-08-08-08-FG	1/2	3/4-16	1/2-14	3/4-16	0.391	0.391	1.52	1.23	1.52	1.062
2606-10-08-10-FG	5/8	7/8-14	1/2-14	7/8-14	0.484	0.484	1.64	1.23	1.64	1.062
2606-12-12-12-FG	3/4	1-1/16-12	3/4-14	1-1/16-12	0.609	0.609	1.89	1.36	1.89	1.312
2606-14-12-14-FG	7/8	1-3/16-12	3/4-14	1-3/16-12	0.719	0.719	1.86	1.42	1.86	1.312
2606-16-16-16-FG	1	1-5/16-12	1-11-1/2	1-5/16-12	0.844	0.844	2.17	1.62	2.17	1.625
2606-20-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1-5/8-12	1.078	1.078	2.33	1.70	2.33	1.875
2606-24-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1-7/8-12	1.312	1.312	2.89	2.08	2.89	2.562
2606-32-32-32-FG	2	2-1/2-12	2-11-1/2	2-1/2-12	1.781	1.781	3.30	2.39	3.30	2.812

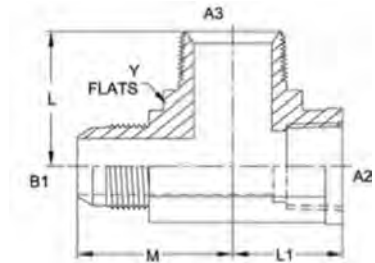
MJ-MP-MP Tee 2607 Series



PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	A3 NPTF	B1 DRILL	A2 DRILL	A3 DRILL	M LGTH	L1 LGTH	L2 LGTH	Y FLATS
2607-04-02-02-FG	1/4	7/16-20	1/8-27	1/8-27	0.172	0.188	0.188	0.89	0.72	0.72	0.438
2607-06-04-04-FG	3/8	9/16-18	1/4-18	1/4-18	0.297	0.281	0.281	1.06	1.09	1.09	0.562
2607-06-06-06-FG	3/8	9/16-18	3/8-18	3/8-18	0.297	0.406	0.406	1.14	1.22	1.22	0.750
2607-08-06-06-FG	1/2	3/4-16	3/8-18	3/8-18	0.391	0.406	0.406	1.25	1.22	1.22	0.750
2607-08-08-08-FG	1/2	3/4-16	1/2-14	1/2-14	0.391	0.531	0.531	1.33	1.47	1.47	0.875
2607-10-08-06-FG	5/8	7/8-14	1/2-14	3/8-18	0.484	0.531	0.406	1.45	1.47	1.28	0.875
2607-10-08-08-FG	5/8	7/8-14	1/2-14	1/2-14	0.484	0.531	0.531	1.45	1.47	1.47	0.875
2607-12-12-12-FG	3/4	1 1/16-12	3/4-14	3/4-14	0.609	0.719	0.719	1.66	1.59	1.59	1.062
2607-16-16-16-FG	1	1 5/16-12	1-11 1/2	1-11 1/2	0.844	0.938	0.938	1.81	1.97	1.97	1.312
2607-20-20-20-FG	1-1/4	1 5/8-12	1 1/4-11 1/2	1 1/4-11 1/2	1.078	1.250	1.250	2.06	2.38	2.38	1.625

MJ-FP-MP Tee

2608 Series

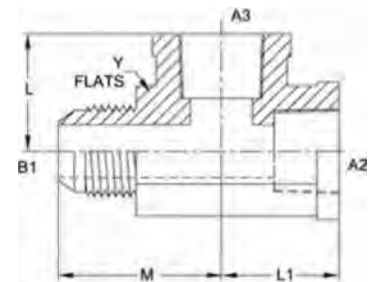


C-049

PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	A3 NPTF	B1 BRILL	A3 DRILL	M LGTH	LI LGTH	I LGTH	Y FLATS
2608-04-02-02-FG	1/4	7/16-20	1/8-27	1/8-27	0.172	0.188	1.08	0.66	0.78	0.562
2608-06-04-04-FG	3/8	9/16-18	1/4-18	1/4-18	0.297	0.281	1.23	0.88	1.09	0.750
2608-08-02-06-FG	1/2	3/4-16	1/8-27	3/8-18	0.391	0.406	1.25	0.81	1.22	0.750
2608-08-06-06-FG	1/2	3/4-16	3/8-18	3/8-18	0.391	0.406	1.42	1.02	1.22	0.875
2608-10-08-08-FG	5/8	7/8-14	1/2-14	1/2-14	0.484	0.531	1.64	1.23	1.47	1.062
2608-12-12-12-FG	3/4	1-1/16-12	3/4-14	3/4-14	0.609	0.719	1.89	1.36	1.59	1.312
2608-16-16-16-FG	1	1-5/16-12	1-11-1/2	1-11-1/2	0.844	0.938	2.17	1.62	1.70	1.625

MJ-FP-FP Tee

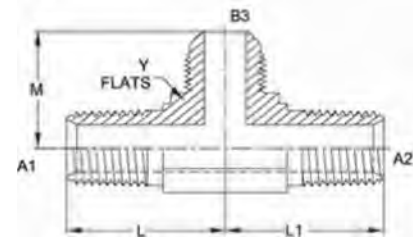
2609 Series



PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	A3 NPTF	B1 DRILL	M LGTH	LI LGTH	L LGTH	Y FIATS
2609-04-02-02-FG	1/4	7/16-20	1/8-27	1/8-27	0.172	1.08	0.66	0.66	0.562
2609-04-04-04-FG	1/4	7/16-20	1/4-18	1/4-18	0.172	1.22	0.88	0.88	0.750
2609-05-04-04-FG	5/16	1/2-20	1/4-18	1/4-18	0.234	1.22	0.88	0.88	0.750
2609-06-04-04-FG	3/8	9/16-18	1/4-18	1/4-18	0.297	1.23	0.88	0.88	0.750
2609-08-06-06-FG	1/2	3/4-16	3/8-18	3/8-18	0.391	1.42	1.02	1.02	0.875
2609-08-08-08-FG	1/2	3/4-16	1/2-14	1/2-14	0.391	1.52	1.23	1.23	1.062
2609-10-08-08-FG	5/8	7/8-14	1/2-14	1/2-14	0.484	1.64	1.23	1.23	1.062
2609-12-12-12-FG	3/4	1-1/16-12	3/4-14	3/4-14	0.609	1.89	1.36	1.36	1.312
2609-16-16-16-FG	1	1-5/16-12	1-11-1/2	1-11-1/2	0.844	2.17	1.62	1.62	1.625
2609-20-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1-1/4-11-1/2	1.078	2.33	1.70	1.70	1.875
2609-24-24-24-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1-1/2-11-1/2	1.312	2.89	2.08	2.08	2.562

Tube Fittings & Adapters

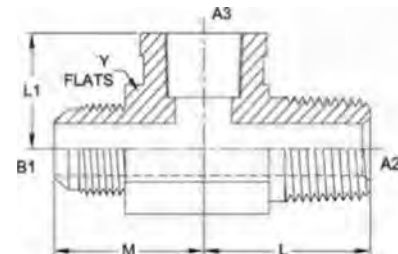
MP-MP-MJ Tee 2610 Series



PART NO.SIZE	TUBE O.D.	A1 NPTF	A2 NPTF	B3 SAE37	A1 DRILL	A2 DRILL	B3 DRILL	L LGTH	LI LGTH	M LGTH	Y FLATS
2610-04-04-04-FG	1/4	1/4-18	1/4-18	7/16-20	0.281	0.281	0.172	1.09	1.09	1.05	0.562
2610-04-04-06-FG	3/8	1/4-18	1/4-18	9/16-18	0.281	0.281	0.297	1.09	1.09	1.06	0.562
2610-06-06-06-FG	3/8	3/8-18	3/8-18	9/16-18	0.406	0.406	0.297	1.22	1.22	1.14	0.750
2610-06-06-08-FG	1/2	3/8-18	3/8-18	3/4-16	0.406	0.406	0.391	1.22	1.22	1.25	0.750
2610-08-08-08-FG	1/2	1/2-14	1/2-14	3/4-16	0.531	0.531	0.391	1.47	1.47	1.33	0.875
261008-08-10-FG	5/8	1/2-14	1/2-14	7/8-14	0.531	0.531	0.484	1.47	1.47	1.45	0.875
2610-12-12-12-FG	3/4	3/4-14	3/4-14	1-1/16-12	0.719	0.719	0.609	1.59	1.59	1.66	1.062
2610-12-12-16-FG	1	3/4-14	3/4-14	1-5/16-12	0.719	0.719	0.844	1.78	1.78	1.81	1.312
2610-16-16-16-FG	1	1-11-1/2	1-11-1/2	1-5/16-12	0.938	0.938	0.844	1.97	1.97	1.81	1.312

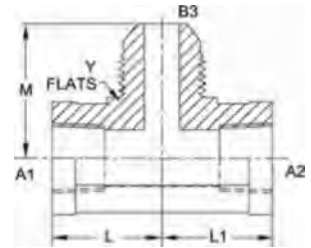
C-050

MJ-MP-FP Tee 2611 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	A3 NPTF	B1 DRILL	A2 DRILL	M LGTH	L LGTH	LI LGTH	Y FLATS
2611-04-02-02-FG	1/4	7/16-20	1/8-27	1/8-27	0.172	0.188	1.08	0.78	0.66	0.562
2611-04-04-02-FG	1/4	7/16-20	1/4-18	1/8-27	0.172	0.281	1.22	1.09	0.69	0.750
2611-04-04-04-FG	1/4	7/16-20	1/4-18	1/4-18	0.172	0.281	1.22	1.09	0.88	0.750
2611-04-08-06-FG	1/4	7/16-20	1/2-14	3/8-18	0.172	0.531	1.40	1.47	1.04	1.062
2611-06-04-04-FG	3/8	9/16-18	1/4-18	1/4-18	0.297	0.281	1.23	1.09	0.88	0.750
2611-06-06-06-FG	3/8	9/16-18	3/8-18	3/8-18	0.297	0.406	1.31	1.22	1.02	0.875
2611-08-06-06-FG	1/2	3/4-16	3/8-18	3/8-18	0.391	0.406	1.42	1.22	1.02	0.875
2611-08-08-08-FG	1/2	3/4-16	1/2-14	1/2-14	0.391	0.531	1.52	1.47	1.23	1.062
2611-10-08-08-FG	5/8	7/8-14	1/2-14	1/2-14	0.484	0.531	1.64	1.47	1.23	1.062
2611-12-12-12-FG	3/4	1-1/16-12	3/4-14	3/4-14	0.609	0.719	1.89	1.59	1.36	1.312
2611-16-16-16-FG	1	1-5/16-12	1-11-1/2	1-11-1/2	0.844	0.938	2.17	1.70	1.63	1.625
2611-20-20-20-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1-1/4-11-1/2	1.078	1.250	2.33	2.38	1.70	1.875

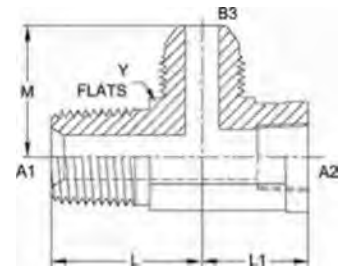
FP-FP-MJ Tee 2612 Series



C-051

PART NO.SIZE	TUBE O.O.	A1 NPTF	A2 NPTF	B3 SAE37	B3 DRILL	L LOTH	11 LOTH	M LGTH	Y FLATS
2612-02-02-04-FG	1/4	1/8-27	1/8-27	7/16-20	0.172	0.66	0.66	1.08	0.562
2612-04-04-06-FG	3/8	1/4-18	1/4-18	9/16-18	0.297	0.88	0.88	1.23	0.750
2612-06-06-08-FG	1/2	3/8-18	3/8-18	3/4-16	0.391	1.02	1.02	1.42	0.875
2612-08-08-08-FG	1/2	1/2-14	1/2-14	3/4-16	0.391	1.23	1.23	1.52	1.062
2612-08-08-10-FG	5/8	1/2-14	1/2-14	7/8-14	0.484	1.23	1.23	1.64	1.062
2612-12-12-12-FG	3/4	3/4-14	3/4-14	1-1/16-12	0.609	1.36	1.36	1.89	1.312
2612-16-16-16-FG	1	1-11-1/2	1-11-1/2	1-5/16-12	0.844	1.62	1.62	2.17	1.625

MP-FP-MJ Tee 2613 Series

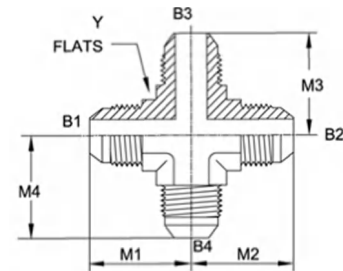


PART NO.SIZE	TUBE O.O.	A1 NPTF	A2 NPTF	B3 SAE37	A1 DRILL	B3 DRILL	I LGTH	LI LGTH	M LGTH	Y FLATS
2613-02-02-04-FG	1/4	1/8-27	1/8-27	7/16-20	0.188	0.172	0.78	0.66	1.08	0.562
2613-04-04-06-FG	3/8	1/4-18	1/4-18	9/16-18	0.281	0.297	1.09	0.88	1.23	0.750
2613-06-06-06-FG	3/8	3/8-18	3/8-18	9/16-18	0.406	0.297	1.22	1.02	1.31	0.875
2613-06-06-08-FG	1/2	3/8-18	3/8-18	3/4-16	0.406	0.391	1.22	1.02	1.42	0.875
2613-08-08-10-FG	5/8	1/2-14	1/2-14	7/8-14	0.531	0.484	1.47	1.23	1.64	1.062
2613-12-12-12-FG	3/4	3/4-14	3/4-14	1-1/16-12	0.719	0.609	1.59	1.36	1.89	1.312
2613-16-16-16-FG	1	1-11-1/2	1-11-1/2	1-5/16-12	0.938	0.844	1.70	1.62	2.17	1.625

Tube Fittings & Adapters

MJ-MJ-MJ-MJ Cross 2650 Series

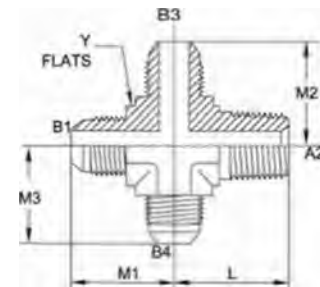
SAE# 070501 / MS# 51517



PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	B3 SAE 37	B4 SAE 37	B1 DRILL	B2 DRILL	B3 DRILL	B4 DRILL	M1 LGTH	M2 LGTH	M3 LGTH	M4 LGTH	Y FIATS
2650-02-02-02-02-FG	1/8	5/16-24	5/16-24	5/16-24	5/16-24	0.062	0.062	0.062	0.062	0.77	0.77	0.77	0.77	0.438
2650-04-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.172	0.89	0.89	0.89	0.89	0.438
2650-05-05-05-05-FG	5/16	1/2-20	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.234	0.95	0.95	0.95	0.95	0.562
2650-06-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	0.297	1.06	1.06	1.06	1.06	0.562
2650-06-08-06-08-FG	3/8	9/16-18	3/4-16	9/16-18	3/4-16	0.297	0.391	0.297	0.391	1.14	1.25	1.14	1.25	0.75
2650-08-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	0.391	1.25	1.25	1.25	1.25	0.75
2650-10-10-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	0.484	1.45	1.45	1.45	1.45	0.875
2650-12-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	0.609	1.66	1.66	1.66	1.66	1.062
2650-14-14-14-14-FG	7/8	1-3/16-12	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	0.719	1.80	1.80	1.80	1.80	1.312
2650-16-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	0.844	1.81	1.81	1.81	1.81	1.312
2650-20-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	1.078	2.06	2.06	2.06	2.06	1.625
2650-24-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	1.312	2.33	2.33	2.33	2.33	1.875
2650-32-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	1.781	3.06	3.06	3.06	3.06	2.5

C-052

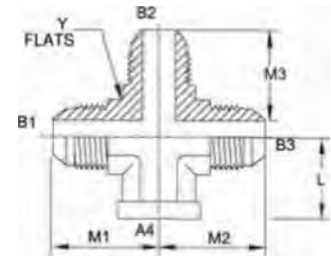
MJ-MP-MJ-MJ Cross 2651 Series



PART NO.SIZE	TUBE O.D.	B1 SAE 37	A2 NPTF	B3 SAE 37	B4 SAE 37	B1 DRILL	A2 DRILL	B3 DRILL	B4 DRILL	M1 LGTH	L LGTH	M2 LGTH	M3 LGTH	Y FIATS
2651-04-04-04-04-FG	1/4	7/16-20	1/4-18	7/16-20	7/16-20	0.172	0.281	0.172	0.172	1.05	1.09	1.05	1.05	0.562
2651-06-06-04-06-FG	3/8	9/16-18	3/8-18	7/16-20	9/16-18	0.297	0.406	0.172	0.297	1.14	1.22	1.12	1.14	0.750
2651-06-04-06-06-FG	3/8	9/16-18	1/4-18	9/16-18	9/16-18	0.297	0.281	0.297	0.297	1.06	1.09	1.06	1.06	0.562
2651-06-06-06-06-FG	3/8	9/16-18	3/8-18	9/16-18	9/16-18	0.297	0.406	0.297	0.297	1.14	1.22	1.14	1.14	0.750
2651-08-08-08-08-FG	1/2	3/4-16	1/2-14	3/4-16	3/4-16	0.391	0.531	0.391	0.391	1.33	1.47	1.33	1.33	0.875
2651-12-12-12-12-FG	3/4	1-1/16-12	3/4-14	1-1/16-12	1-1/16-12	0.609	0.719	0.609	0.609	1.66	1.59	1.66	1.66	1.062
2651-16-16-16-16-FG	1	1-5/16-12	1-11-1/2	1-5/16-12	1-5/16-12	0.844	0.938	0.844	0.844	1.81	1.97	1.81	1.81	1.312

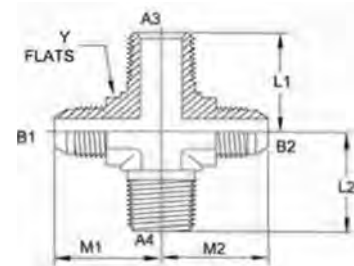
C-053

MJ-MJ-MJ-FP Cross 2652 Series



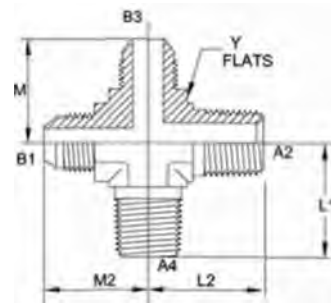
PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	A4 NPTF	B1 DRILL	B2 DRILL	B3 DRILL	M1 LGTH	M2 LGTH	M3 LGTH	L LGTH	Y FLATS
2652-10-10-10-08-FG	5/8	7/8-14	7/8-14	7/8-14	1/2-14	0.484	0.484	0.484	1.64	1.64	1.64	1.23	1.062

MJ-MJ-MP-MP Cross 2653 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	A3 NPTF	A4 NPTF	B1 DRILL	B2 DRILL	A3 DRILL	A4 DRILL	M1 LGTH	M2 LGTH	L1 LGTH	L2 LGTH	Y FLATS
2653-04-04-02-02-FG	1/4	7/16-20	7/16-20	1/8-27	1/8-27	0.172	0.172	0.188	0.188	0.89	0.89	0.78	0.78	0.438
2653-06-06-04-04-FG	3/8	9/16-18	9/16-18	1/4-18	1/4-18	0.297	0.297	0.281	0.281	1.06	1.06	1.09	1.09	0.562
2653-16-16-16-16-FG	1	1 5/16-12	1 5/16-12	1-11 1/2	1-11 1/2	0.844	0.844	0.938	0.938	1.81	1.81	1.97	1.97	1.312

MJ-MP-MJ-MP Cross 2654 Series

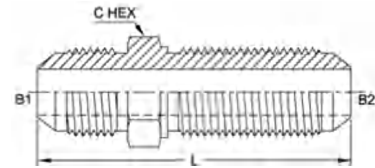


PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B3 SAE37	A4 NPTF	B1 DRILL	A2 DRILL	A4 DRILL	B3 DRILL	M1 LGTH	L1 LGTH	M1 LGTH	L2 LGTH	Y FLATS
2654-08-06-08-06-FG	1/2	3/4-16	3/8-18	3/4-16	3/8-18	0.391	0.406	0.391	0.406	1.25	1.22	1.25	1.22	0.750

Tube Fittings & Adapters

MJ-MJ Bulkhead Straight 2700 Series

SAE# 070601 / MS# 51520

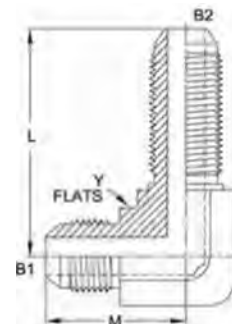


PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	B1 DRILL	B2 DRILL	L LGTH	C HEX
2700-02-02	1/8	5/16-24	5/16-24	0.062	0.062	1.87	0.562
2700-03-03	3/16	3/8-24	3/8-24	0.125	0.125	1.90	0.625
2700-04-04	1/4	7/16-20	7/16-20	0.172	0.172	2.07	0.688
2700-04-05	1/4	7/16-20	1/2-20	0.172	0.234	2.07	0.750
2700-04-06	1/4	7/16-20	9/16-18	0.297	0.812	2.17	0.172
2700-05-05	5/16	1/2-20	1/2-20	0.234	0.234	2.07	0.750
2700-06-04	3/8	9/16-18	7/16-20	0.297	0.172	2.10	0.812
2700-06-06	3/8	9/16-18	9/16-18	0.297	0.297	2.18	0.812
2700-08-08	1/2	3/4-16	3/4-16	0.391	0.391	2.44	1.000
2700-10-10	5/8	7/8-14	7/8-14	0.484	0.484	2.74	1.125
2700-12-12	3/4	1-1/16-12	1-1/16-12	0.609	0.609	3.09	1.375
2700-14-14	7/8	1-3/16-12	1-3/16-12	0.719	0.719	3.12	1.500
2700-16-12	1	1-5/16-12	1-1/16-12	0.844	0.609	3.14	1.625
2700-16-16	1	1-5/16-12	1-5/16-12	0.844	0.844	3.14	1.625
2700-20-20	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	3.31	1.875
2700-24-24	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	3.52	2.125
2700-32-32	2	2-1/2-12	2-1/2-12	1.781	1.781	4.20	2.750

C-054

MJ-MJ Bulkhead 90° 2701 Series

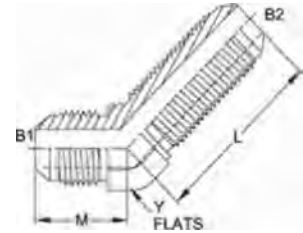
SAE# 070701 / MS# 51507



PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	B1 DRILL	B2 DRILL	M LGTH	L LGTH	Y FLATS
2701-02-02-FG	1/8	5/16-24	5/16-24	0.062	0.062	0.88	1.50	0.438
2701-03-03-FG	3/16	3/8-24	3/8-24	0.125	0.125	0.94	1.50	0.438
2701-04-04-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.97	1.59	0.438
2701-05-05-FG	5/16	1/2-20	1/2-20	0.234	0.234	1.06	1.72	0.562
2701-06-06-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.09	1.81	0.562
2701-08-08-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.36	2.11	0.750
2701-10-10-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.56	2.39	0.875
2701-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.78	2.67	1.062
2701-12-16-FG	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.89	2.80	1.312
2701-14-14-FG	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.92	2.80	1.312
2701-16-12-FG	1	1-5/16-12	1-1/16-12	0.844	0.609	1.94	2.75	1.312
2701-16-16-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.94	2.80	1.312
2701-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.17	3.12	1.625
2701-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.34	3.42	1.875

MJ-MJ Bulkhead 45° 2702 Series

SAE# 070801 / MS# 51509

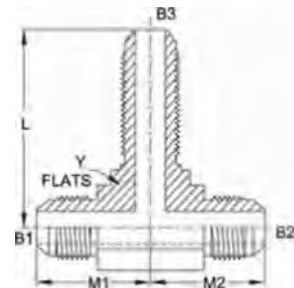


C-055

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	L LGTH	Y FLATS
2702-03-03-FG	3/16	3/8-24	3/8-24	0.125	0.125	0.69	1.42	0.438
2702-04-04-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.72	1.53	0.438
2702-05-05-FG	5/16	1/2-20	1/2-20	0.234	0.234	0.77	1.66	0.562
2702-06-06-FG	3/8	9/16-18	9/16-18	0.297	0.297	0.83	1.67	0.562
2702-08-08-FG	1/2	3/4-16	3/4-16	0.391	0.391	0.98	1.94	0.750
2702-10-10-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.11	2.17	0.875
2702-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.28	2.44	1.062
2702-14-14-FG	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.45	2.50	1.312
2702-16-16-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.47	2.56	1.312
2702-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.59	2.65	1.625
2702-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.78	2.67	1.875
2702-32-32-FG	2	2-1/2-12	2-1/2-12	1.781	1.781	2.22	2.91	2.500

MJ-MJ-MJ Bulkhead Branch Tee 2703 Series

SAE# 070959 / MS# 51515

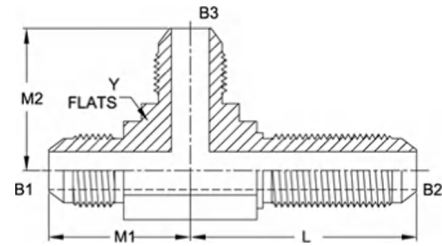


PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	M1 LGTH	M2 LGTH	I LGTH	Y FLATS
2703-03-03-03-FG	3/16	3/8-24	3/8-24	3/8-24	0.125	0.125	0.125	0.94	0.94	1.50	0.438
2703-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.97	0.97	1.59	0.438
2703-04-04-06-FG	1/4	7/16-20	7/16-20	9/16-18	0.172	0.172	0.297	1.08	1.08	1.81	0.562
2703-05-05-05-FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	1.06	1.06	1.72	0.562
2703-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.09	1.09	1.81	0.562
2703-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.36	1.36	2.11	0.750
2703-10-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.56	1.56	2.39	0.875
2703-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.78	1.78	2.67	1.062
2703-12-12-16-FG	3/4	1-1/16-12	1-1/16-12	1-5/16-12	0.609	0.609	0.844	1.89	1.89	2.80	1.312
2703-14-14-14-FG	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.92	1.92	2.80	1.312
2703-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.94	1.94	2.80	1.312
2703-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.17	2.17	3.12	1.625
2703-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.34	2.34	3.42	1.875

Tube Fittings & Adapters

MJ-MJ-MJ Bulkhead Run Tee 2704 Series

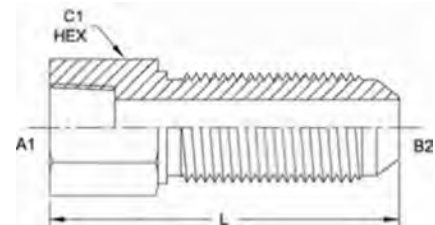
SAE# 070958 / MS# 51516



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	M1 LGTH	L LGTH	M2 LGTH	Y FLATS
2704-03-03-03- FG	3/16	3/8-24	3/8-24	3/8-24	0.125	0.125	0.125	0.94	1.50	0.94	0.438
2704-04-04-04- FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.97	1.59	0.97	0.438
2704-05-05-05- FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	1.06	1.72	1.06	0.562
2704-06-06-06- FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.09	1.81	1.09	0.562
2704-08-08-08- FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.36	2.11	1.36	0.750
2704-10-10-10- FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.56	2.39	1.56	0.875
2704-12-12-12- FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.78	2.67	1.78	1.062
2704-16-16-16- FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.94	2.80	1.94	1.312
2704-20-20-20- FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.17	3.12	2.17	1.625
2704-24-24-24- FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.34	3.42	2.34	1.875

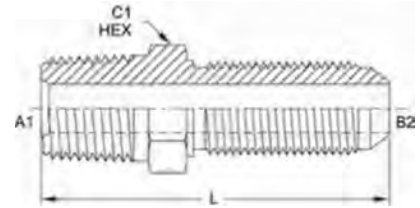
C-056

FP-MJ Bulkhead Straight 2705 Series



PART NO.SIZE	TUBE O.D.	A1 NPTF	B2 SAE37	B2 DRILL	L LGTH	C1 HEX
2705-02-04	1/4	1/8-27	7/16-20	0.172	1.89	0.688
2705-02-05	5/16	1/8-27	1/2-20	0.234	1.89	0.750
2705-04-04	1/4	1/4-18	7/16-20	0.172	2.09	0.750
2705-04-06	3/8	1/4-18	9/16-18	0.297	2.17	0.812
2705-06-06	3/8	3/8-18	9/16-18	0.297	2.23	0.875
2705-06-08	1/2	3/8-18	3/4-16	0.391	2.39	1.000
2705-08-06	3/8	1/2-14	9/16-18	0.297	2.46	1.125
2705-08-08	1/2	1/2-14	3/4-16	0.391	2.62	1.125
2705-08-10	5/8	1/2-14	7/8-14	0.484	2.76	1.125
2705-12-12	3/4	3/4-14	1-1/16-12	0.609	2.99	1.375
2705-12-14	7/8	3/4-14	1-3/16-12	0.719	2.99	1.500
2705-16-16	1	1-11-1/2	1-5/16-12	0.844	3.24	1.625
2705-20-20	1-1/4	1-1/4-11-1/2	1-5/8-12	1.078	3.38	2.000
2705-24-24	1-1/2	1-1/2-11-1/2	1-7/8-12	1.312	3.40	2.375

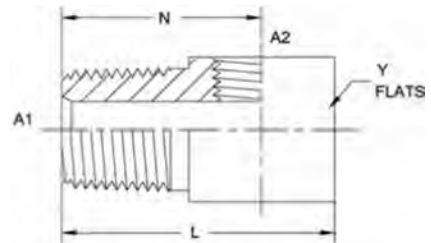
MP-MJ Bulkhead Straight 2706 Series



C-057

PART NO.SIZE	TUBE O.D.	A1 NPTF	B2 SAE37	A1 DRILL	B2 DRILL	L L6TH	C1 HEX
2706-02-04	1/4	1/8-27	7/16-20	0.188	0.172	1.90	0.688
2706-04-02	1/8	1/4-18	5/16-24	0.281	0.062	1.97	0.562
2706-04-04	1/4	1/4-18	7/16-20	0.281	0.172	2.11	0.688
2706-04-06	3/8	1/4-18	9/16-18	0.281	0.297	2.19	0.812
2706-06-06	3/8	3/8-18	9/16-18	0.406	0.297	2.19	0.812
2706-06-08	1/2	3/8-18	3/4-16	0.406	0.391	2.35	1.000
2706-08-06	3/8	1/2-14	9/16-18	0.531	0.297	2.44	0.875
2706-08-08	1/2	1/2-14	3/4-16	0.531	0.391	2.60	1.000
2706-08-10	5/8	1/2-14	7/8-14	0.531	0.484	2.74	1.125
2706-08-12	3/4	1/2-14	1-1/16-12	0.531	0.609	2.91	1.375
2706-12-12	3/4	3/4-14	1-1/16-12	0.719	0.609	2.98	1.375
2706-12-16	1	3/4-14	1-5/16-12	0.719	0.844	2.98	1.625
2706-16-16	1	1-11-1/2	1-5/16-12	0.938	0.844	3.17	1.625
2706-20-20	1-1/4	1-1/4-11-1/2	1-5/8-12	1.250	1.078	3.33	1.875
2706-24-24	1-1/2	1-1/2-11-1/2	1-7/8-12	1.500	1.312	3.44	2.125
2706-32-32	2	2-11-1/2	2-1/2-12	1.938	1.781	3.90	2.750

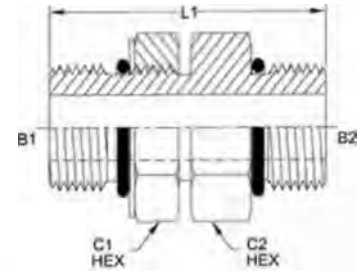
MP-FP Low Profile 90° 3051 Series



PART NO.SIZE	PIPE O.D.	A1 NPTF	A2 NPTF	L LGTH	N LGTH	Y FLATS
3051-02-02	1/8	1/8-27	1/8-27	1.020	0.75	0.500
3051-04-04	1/4	1/4-18	1/4-18	2.007	1.57	0.875
3051-06-06	3/8	3/8-18	3/8-18	2.007	1.57	0.875
3051-08-08	1/2	1/2-14	1/2-14	2.562	2.00	1.125
3051-12-12	3/4	1 1/16-12	3/4-14	2.937	2.25	1.375
3051-16-16	1	1-11-1/2	1-11-1/2	2.585	1.77	1.625

Tube Fittings & Adapters

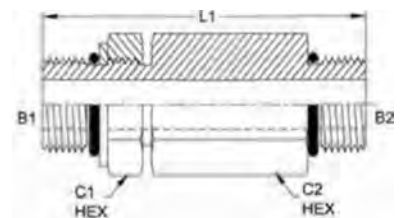
MAORB-ORB Straight 3474-NWO Series



PART P/N	B1 TUBE O.D.	B2 TUBE O.D.	B1 AORB	B2 ORB	B1 DRILL	B2 DRILL	L1 LGTH	C1 HEX	C2 HEX
3474-04-04-NWO	1/4	1/4	7/16-20	7/16-20	0.172	0.172	1.47	0.562	0.562
3474-05-05-NWO	5/16	5/16	1/2-20	1/2-20	0.234	0.234	1.56	0.625	0.625
3474-06-04-NWO	3/8	3/8	9/16-18	7/16-20	0.297	0.172	1.38	0.688	0.688
3474-06-06-NWO	3/8	3/8	9/16-18	9/16-18	0.297	0.297	1.56	0.688	0.688
3474-08-06-NWO	1/2	1/2	3/4-16	9/16-18	0.391	0.297	1.72	0.875	0.875
3474-08-08-NWO	1/2	1/2	3/4-16	3/4-16	0.391	0.391	1.76	0.875	0.875
3474-08-12-NWO	3/4	3/4	3/4-16	1-1/16-12	0.391	0.609	1.97	0.875	1.250
3474-10-08-NWO	5/8	5/8	7/8-14	3/4-16	0.484	0.391	1.75	1.000	1.000
3474-10-10-NWO	5/8	5/8	7/8-14	7/8-14	0.484	0.484	2.04	1.000	1.000
3474-12-08-NWO	3/4	3/4	1-1/16-12	3/4-16	0.609	0.391	2.10	1.250	1.125
3474-12-10-NWO	3/4	3/4	1-1/16-12	7/8-14	0.609	0.484	2.13	1.250	1.250
3474-12-12-NWO	3/4	3/4	1-1/16-12	1-1/16-12	0.609	0.609	2.33	1.250	1.250
3474-16-12-NWO	1	3/4	1-5/16-12	1-1/16-12	0.844	0.609	2.36	1.500	1.375
3474-16-16-NWO	1	1	1-5/16-12	1-5/16-12	0.844	0.844	2.36	1.500	1.500
3474-20-20-NWO	1-1/4	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.31	1.875	1.875
3474-24-16-NWO	1-1/2	1	1-7/8-12	1-5/16-12	1.312	0.844	2.42	2.125	2.000
3474-24-24-NWO	1-1/2	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.42	2.125	2.125
3474-32-32-NWO	2	2	2-1/2-12	2-1/2-12	1.781	1.781	2.59	2.750	2.750

C-058

MAORB-ORB XX-Long Straight 3474-LLL-NWO Series



PART NO. SIZE	TUBE O.D.	B1 AORB	B2 ORB	B1 DRILL	B2 DRILL	L1 LGTH	C1 HEX	C2 HEX
3474-LLL-04-04-NWO [V4]	7/16-20	7/16-20		0.172	0.172	3.00	0.562	0.562

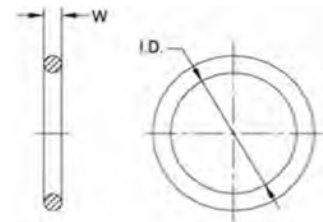
C-059

PART NO.SIZE TUBE O.D. W WIDTH I.D

4000-02	1/8	0.064	0.239
4000-03	3/16	0.064	0.301
4000-04	1/4	0.072	0.351
4000-05	5/16	0.072	0.414
4000-06	3/8	0.078	0.468
4000-08	1/2	0.087	0.644
4000-10	5/8	0.097	0.755
4000-12	3/4	0.116	0.924
4000-14	7/8	0.116	1.048
4000-16	1	0.116	1.171
4000-20	1-1/4	0.118	1.475
4000-24	1-1/2	0.118	1.720
4000-32	2	0.118	2.337

Buna O-ring 4000 Series

SAE# J 51 5 Type I CH
MS# 28778

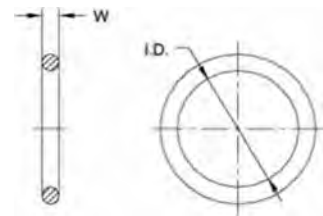


PART NO.SIZE TUBE O.D. W WIDTH I.D

4001-02	1/8	0.064	0.239
4001-03	3/16	0.064	0.301
4001-04	1/4	0.072	0.351
4001-06	3/8	0.078	0.468
4001-08	1/2	0.087	0.644
4001-10	5/8	0.097	0.755
4001-12	3/4	0.116	0.924
4001-14	7/8	0.116	1.048
4001-16	1	0.116	1.171
4001-20	1-1/4	0.118	1.475
4001-24	1-1/2	0.118	1.720
4001-32	2	0.118	2.337

Viton O-ring 4001 Series

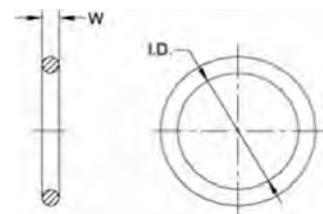
SAE# J 51 5 Type III HK



PART NO.SIZE TUBE O.D. W WIDTH I.D

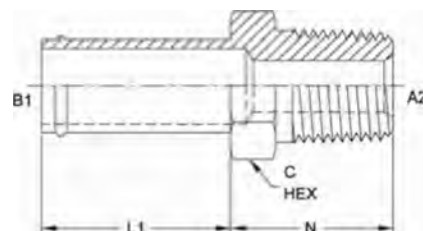
4005-08	1/2	0.14	0.734
4005-10	5/8	0.14	
4005-12	3/4	0.14	0.984
4005-16	1	0.14	1.296
4005-20	1-1/4	0.14	1.484
4005-24	1-1/2	0.14	1.859
4005-32	2	0.14	2.234
4005-40	2-1/2	0.14	2.734

Flange O-ring 4005 Series



Tube Fittings & Adapters

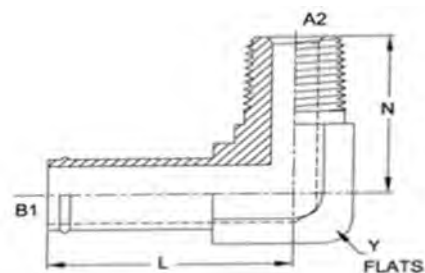
HB-MP Straight 4404 Series



PART NO. SIZE	B1 TUBE O.D.	A2 NPTF	B1 DRILL	A2 DRILL	11 LGTH	N LGTH	C HEX
4404-04-02	1/4	1/8-27	0.189	0.188	1.50	0.58	0.438
4404-04-04	1/4	1/4-18	0.189	0.281	1.50	0.85	0.562
4404-04-06	1/4	3/8-18	0.189	0.406	1.50	0.85	0.750
4404-05-02	5/16	1/8-27	0.252	0.188	1.50	0.58	0.438
4404-05-04	5/16	1/4-18	0.252	0.281	1.50	0.85	0.562
4404-05-06	5/16	3/8-18	0.252	0.406	1.50	0.85	0.750
4404-06-02	3/8	1/8-27	0.295	0.188	1.50	0.63	0.625
4404-06-04	3/8	1/4-18	0.295	0.281	1.50	0.85	0.625
4404-06-06	3/8	3/8-18	0.295	0.406	1.50	0.85	0.750
4404-08-04	1/2	1/4-18	0.406	0.281	1.50	0.85	0.625
4404-08-06	1/2	3/8-18	0.406	0.406	1.50	0.85	0.750
4404-08-08	1/2	1/2-14	0.406	0.531	1.50	1.10	0.937
4404-08-12	1/2	3/4-14	0.406	0.719	1.50	1.17	1.125
4404-10-04	5/8	1/4-18	0.500	0.281	1.50	0.85	0.750
4404-10-06	5/8	3/8-18	0.500	0.406	1.50	0.85	0.750
4404-10-08	5/8	1/2-14	0.500	0.531	1.50	1.10	0.937
4404-10-12	5/8	3/4-14	0.500	0.719	1.50	1.16	1.125
4404-10-16	1	1-11-1/2	0.500	0.938	1.50	1.36	1.375
4404-12-06	3/4	3/8-18	0.626	0.406	1.50	0.85	0.937
4404-12-08	3/4	1/2-14	0.626	0.531	1.50	1.10	0.937
4404-12-12	3/4	3/4-14	0.626	0.719	1.50	1.17	1.125
4404-12-16	3/4	1-11-1/2	0.626	0.938	1.50	1.36	1.375
4404-16-08	1	1/2-14	0.843	0.531	1.50	1.13	1.250
4404-16-12	1	3/4-14	0.843	0.719	1.50	1.17	1.250
4404-16-16	1	1-11-1/2	0.843	0.938	1.50	1.36	1.375
4404-16-24	1	1-1/2-11-1/2	0.843	1.500	1.50	1.57	2.000
4404-20-12	1-1/4	3/4-14	1.094	0.719	1.50	1.17	1.375
4404-20-16	1-1/4	1-11-1/2	1.094	0.938	1.50	1.36	1.375
4404-20-20	1-1/4	1-1/4-11-1/2	1.094	1.250	1.50	1.47	1.750
4404-20-24	1-1/4	1-1/2-11-1/2	1.094	1.500	1.50	1.57	2.000
4404-24-20	1-1/2	1-1/4-11-1/2	1.343	1.250	1.50	1.47	1.750
4404-24-24	1-1/2	1-1/2-11-1/2	1.343	1.500	1.50	1.57	2.000
4404-32-32	2	2-11-1/2	1.843	1.938	1.50	1.75	2.500

C-060

HB-MP 90° Straight 4501 Series

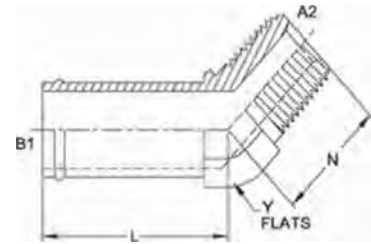


C-061

PART NO.SIZE	TUBE B1 O.D.	A2 NPTF	81 DRILL	A2 DRILL	L LGTH	N LGTH	Y FLATS
4501-04-02-FG	1/4	1/8-27	0.189	0.188	1.750	0.781	0.500
4501-04-04-FG	1/4	1/4-18	0.189	0.281	1.810	1.060	0.625
4501-05-02-FG	5/16	1/8-27	0.252	0.188	1.750	0.781	0.500
4501-06-02-FG	3/8	1/8-27	0.295	0.188	1.750	0.781	0.500
4501-06-04-FG	3/8	1/4-18	0.295	0.281	1.812	1.093	0.625
4501-06-06-FG	3/8	3/8-18	0.295	0.406	1.890	1.220	0.812
4501-06-08-FG	3/8	1/2-14	0.295	0.531	1.970	1.460	0.937
4501-08-04-FG	1/2	1/4-18	0.406	0.281	1.810	1.100	0.625
4501-08-06-FG	1/2	3/8-18	0.406	0.406	1.906	1.218	0.812
4501-08-08-FG	1/2	1/2-14	0.406	0.531	1.980	1.470	0.937
4501-08-12-FG	1/2	3/4-14	0.406	0.719	1.968	2.062	1.125
4501-10-06-FG	5/8	3/8-18	0.500	0.406	1.968	1.278	0.937
4501-10-08-FG	5/8	1/2-14	0.500	0.531	1.968	1.468	0.937
4501-10-12-FG	5/8	3/4-14	0.500	0.719	2.060	1.600	1.125
4501-12-06-FG	3/4	3/8-18	0.626	0.406	1.900	1.220	0.812
4501-12-08-FG	3/4	1/2-14	0.626	0.531	1.970	1.470	0.937
4501-12-12-FG	3/4	3/4-14	0.626	0.719	2.062	1.593	1.125
4501-12-16-FG	3/4	1-11-1/2	0.626	0.938	2.190	1.980	1.375
4501-16-08-FG	1	1/2-14	0.843	0.531	2.053	1.561	1.125
4501-16-12-FG	1	3/4-14	0.843	0.719	2.080	1.600	1.125
4501-16-16-FG	1	1-11-1/2	0.843	0.938	2.187	1.968	1.375
4501-16-20-FG	1	1-1/4-11-1/2	0.843	1.250	2.380	2.380	1.750
4501-16-24-FG	1	1-1/2-11-1/2	0.843	1.500	2.520	2.640	2.000
4501-20-16-FG	1-1/4	1-11-1/2	1.094	0.938	2.200	1.980	1.375
4501-20-20-FG	1-1/4	1-1/4-11-1/2	1.094	1.250	2.375	2.375	1.750
4501-20-24-FG	1-1/4	1-1/2-11-1/2	1.094	1.500	2.500	2.640	2.000
4501-24-16-FG	1-1/2	1-11-1/2	1.343	0.938	2.380	2.160	1.750
4501-24-20-FG	1-1/2	1-1/4-11-1/2	1.343	1.250	2.380	2.380	1.750
4501-24-24-FG	1-1/2	1-1/2-11-1/2	1.343	1.500	2.500	2.640	2.000
4501-32-32-FG	2	2-11-1/2	1.843	1.938	2.812	3.000	2.625

Tube Fittings & Adapters

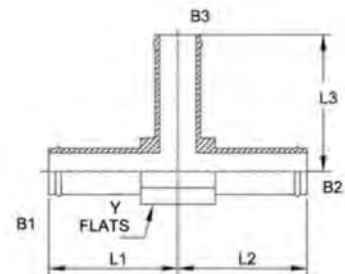
HB-MP 45° 4503 Series



PART NO.SIZE	B1 TUBE O.D.	A2 NPTF	B1 DRILL	A2 DRILL	I LOTH	N LOTH	Y FLATS
4503-04-02-FG	1/4	1/8-27	0.189	0.188	1.562	0.640	0.500
4503-04-04-FG	1/4	1/4-18	0.189	0.281	1.810	0.830	0.625
4503-05-02-FG	5/16	1/8-27	0.252	0.188	1.650	0.640	0.500
4503-06-04-FG	3/8	1/4-18	0.295	0.281	1.625	0.859	0.625
4503-06-06-FG	3/8	3/8-18	0.295	0.406	1.710	0.950	0.812
4503-08-04-FG	1/2	1/4-18	0.406	0.281	1.710	0.830	0.625
4503-08-06-FG	1/2	3/8-18	0.406	0.406	1.687	0.953	0.812
4503-08-08-FG	1/2	1/2-14	0.406	0.531	1.740	1.180	0.937
4503-10-06-FG	5/8	3/8-18	0.500	0.406	1.718	0.981	0.937
4503-10-08-FG	5/8	1/2-14	0.500	0.531	1.718	1.171	0.937
4503-10-12-FG	5/8	3/4-14	0.500	0.719	1.830	1.220	1.125
4503-12-08-FG	3/4	1/2-14	0.626	0.531	1.760	1.170	0.937
4503-12-12-FG	3/4	3/4-14	0.626	0.719	1.718	1.203	1.125
4503-12-16-FG	3/4	1-11 1/2	0.626	0.938	2.100	1.540	1.375
4503-16-12-FG	1	3/4-14	0.843	0.719	1.750	1.203	1.125
4503-16-16-FG	1	1-11 1/2	0.843	0.938	1.750	1.484	1.375
4503-16-20-FG	1	1 1/4-11 1/2	0.843	1.250	2.070	1.620	1.750
4503-20-16-FG	1-1/4	1-11 1/2	1.094	0.938	1.740	1.570	1.375
4503-20-20-FG	1-1/4	1 1/4-11 1/2	1.094	1.250	1.812	1.671	1.750
4503-24-20-FG	1-1/2	1 1/4-11 1/2	1.343	1.250	1.930	1.620	1.750
4503-24-24-FG	1-1/2	1 1/2-11 1/2	1.343	1.500	1.875	1.765	2.000
4503-32-32-FG	2	2-11 1/2	1.843	1.938	2.000	2.109	2.500

C-062

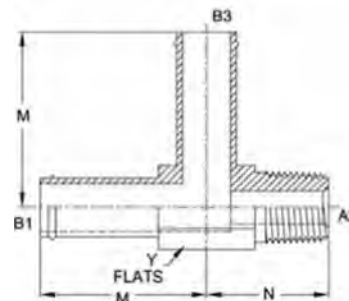
HB-HB-HB Tee 4504 Series



PART NO.SIZE	B1 TUBE O.D.	B2 TUBE O.D.	B3 TUBE O.D.	B1 DRILL	B2 DRILL	B3 DRILL	L1 LGTH	L2 LGTH	L3 LGTH	Y FLATS
4504-04-04-04-FG	1/4	1/4	1/4	0.189	0.189	0.189	1.75	1.75	1.75	0.500
4504-06-06-06-FG	3/8	3/8	3/8	0.295	0.295	0.295	1.75	1.75	1.75	0.500
4504-08-08-08-FG	1/2	1/2	1/2	0.406	0.406	0.406	1.75	1.75	1.75	0.812

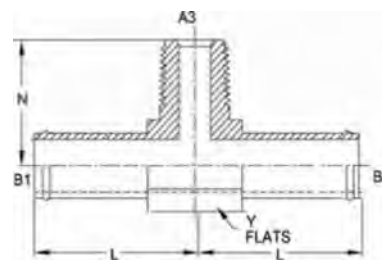
C-063

HB-MP-HB Tee 4505 Series



PART NO. SIZE	B1 TUBE O.D.	A2 NPTF	B3 TUBE O.D.	B1 DRILL	A2 DRILL	B3 DRILL	M LGTH	N LGTH	Y FLATS
4505-24-24-24-FG	1 -1/2	1 -1/2-11 1/2	1 -1/2	1.343	1.500	1.343	2.5	2.62	2.000

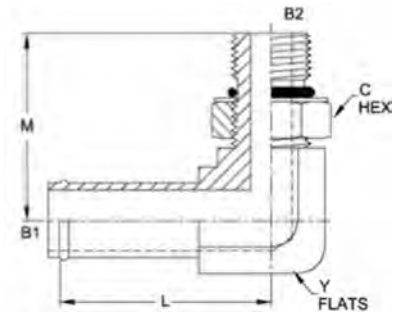
HB-HB-MP Tee 4506 Series



PART NO. SIZE	B1 TUBE O.D.	B2 TUBE O.D.	A3 NPTF	B1 DRILL	B2 DRILL	A3 DRILL	I LGTH	N LGTH	Y FLATS
4506-08-08-06-FG	1/2	1/2	3/8-18	0.406	0.406	0.406	1.920	1.220	0.812

Tube Fittings & Adapters

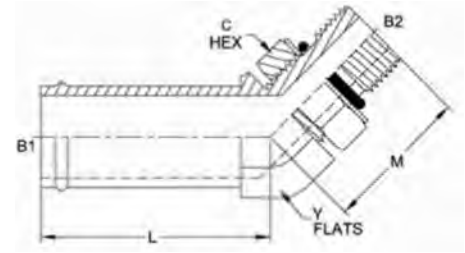
HB-MAORB 90° 4601-NWO Series



C-064

PART NO. SIZE	TUBE B1 O.D.	B2 AORB	B1 DRILL	B2 DRILL	L LBTH	M LBTH	C HEX	Y FLATS
4601-04-04-N WO-FG	1/4	7/16-20	0.189	0.172	1.750	1.031	0.563	0.500
4601-04-06-N WO-FG	1/4	9/16-18	0.189	0.297	1.810	1.270	0.688	0.625
4601-04-08-N WO-FG	1/4	3/4-16	0.189	0.391	1.980	1.449	0.875	0.750
4601-05-04-N WO-FG	5/16	7/16-20	0.252	0.172	1.770	1.010	0.563	0.500
4601-05-06-N WO-FG	5/16	9/16-18	0.252	0.297	1.810	1.240	0.688	0.562
4601-06-04-N WO-FG	3/8	7/16-20	0.295	0.172	1.810	1.190	0.563	0.438
4601-06-06-NWO-FG	3/8	9/16-18	0.295	0.297	1.812	1.250	0.688	0.625
4601-06-08-N WO-FG	3/8	3/4-16	0.295	0.391	1.890	1.470	0.875	0.812
4601-08-06-N WO-FG	1/2	9/16-18	0.406	0.297	1.906	1.812	0.688	0.812
4601-08-08-N WO-FG	1/2	3/4-16	0.406	0.391	1.906	1.453	0.875	0.812
4601-10-08-N WO-FG	5/8	3/4-16	0.500	0.391	1.900	1.450	0.875	0.812
4601-10-10-N WO-FG	5/8	7/8-14	0.500	0.484	1.968	1.703	1.000	0.937
4601-10-12-N WO-FG	5/8	1 1/16-12	0.500	0.609	2.070	1.930	1.250	1.125
4601-12-08-N WO-FG	3/4	3/4-16	0.626	0.391	1.890	1.450	0.875	0.812
4601-12-10-N WO-FG	3/4	7/8-14	0.626	0.484	1.930	1.680	1.000	0.937
4601-12-12-N WO-FG	3/4	1 1/16-12	0.626	0.609	2.062	1.937	1.250	1.125
4601-12-16-N WO-FG	3/4	1 5/16-12	0.626	0.844	2.190	2.040	1.500	1.375
4601-14-14-N WO-FG	7/8	1 3/16-12	0.719	0.719	2.125	2.000	1.375	1.250
4601-14-16-N WO-FG	7/8	1-5/16-12	0.719	0.844	2.300	2.039	1.500	1.312
4601-16-08-N WO-FG	1	3/4-16	0.843	0.391	2.050	1.600	0.875	1.125
4601-16-10-N WO-FG	1	7/8-14	0.843	0.484	2.375	2.000	1.000	1.312
4601-16-12-N WO-FG	1	1 1/16-12	0.843	0.609	2.020	1.950	1.250	1.125
4601-16-14-N WO-FG	1	1 3/16-12	0.843	0.719	2.110	2.000	1.375	1.250
4601-16-16-N WO-FG	1	1 5/16-12	0.843	0.844	2.187	2.046	1.500	1.375
4601-16-20-N WO-FG	1	1 5/8-12	0.843	1.078	2.340	2.250	1.875	1.750
4601-16-24-N WO-FG	1	1 7/8-12	0.843	1.312	2.470	2.400	2.125	2.000
4601-20-12-N WO-FG	1-1/4	1 1/16-12	1.094	0.609	2.400	2.000	1.250	1.625
4601-20-16-N WO-FG	1-1/4	1 5/16-12	1.094	0.844	2.200	2.040	1.500	1.375
4601-20-20-N WO-FG	1-1/4	1 5/8-12	1.094	1.078	2.375	2.250	1.875	1.750
4601-20-24-NWO-FG	1-1/4	1 7/8-12	1.094	1.312	2.500	2.400	2.125	2.000
4601-24-16-NWO-FG	1-1/2	1 5/16-12	1.343	0.844	2.320	2.170	1.500	1.625
4601-24-20-N WO-FG	1-1/2	1 5/8-12	1.343	1.078	2.370	2.240	1.875	1.750
4601-24-24-N WO-FG	1-1/2	1 7/8-12	1.343	1.312	2.500	2.390	2.125	2.000
4601-32-20-N WO-FG	2	1-5/8-12	1.843	1.078	2.726	2.467	1.875	2.125
4601-32-24-N WO-FG	2	1-7/8-12	1.843	1.312	2.726	2.467	2.125	2.125
4601-32-32-N WO-FG	2	2 1/2-12	1.843	1.781	2.812	2.890	2.750	2.625

HB-MAORB 45° 4603-NWO Series

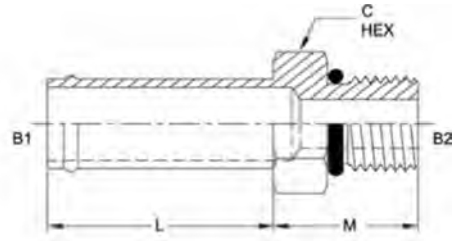


C-065

PART NO. SIZE	B1 TUBE O.D.	B2 AORB	B1 BRILL	B2 BRILL	I LCTH	M LGTH	C HEX	Y FLATS
4603-04-04-NWO-FG	1/4	7/16-20	0.189	0.172	1.562	1.046	0.563	0.500
4603-06-04-NWO-FG	3/8	7/16-20	0.295	0.172	1.593	1.046	0.563	0.500
4603-06-06-NWO-FG	3/8	9/16-18	0.295	0.297	1.593	1.140	0.688	0.625
4603-08-08-NWO-FG	1/2	3/4-16	0.406	0.391	1.625	1.296	0.875	0.812
4603-08-10-NWO-FG	1/2	7/8-14	0.406	0.484	1.870	1.520	1.000	0.937
4603-10-08-NWO-FG	5/8	3/4-16	0.500	0.391	1.700	1.320	0.875	0.812
4603-10-10-NWO-FG	5/8	7/8-14	0.500	0.484	1.609	1.515	1.000	0.937
4603-10-12-NWO-FG	5/8	1-1/16-12	0.500	0.609	1.880	1.740	1.250	1.125
4603-12-08-NWO-FG	3/4	3/4-16	0.626	0.391	1.643	1.300	0.875	0.812
4603-12-10-NWO-FG	3/4	7/8-14	0.626	0.484	1.650	1.590	1.000	0.937
4603-12-12-NWO-FG	3/4	1-1/16-12	0.626	0.609	1.703	1.734	1.250	1.125
4603-12-16-NWO-FG	3/4	1-5/16-12	0.626	0.844	1.859	1.859	1.500	1.375
4603-16-12-NWO-FG	1	1-1/16-12	0.843	0.609	1.780	1.720	1.250	1.125
4603-16-14-NWO-FG	1	1-3/16-12	0.843	0.719	1.850	1.830	1.375	1.250
4603-16-16-NWO-FG	1	1-5/16-12	0.843	0.844	1.859	1.859	1.500	1.375
4603-20-12-NWO-FG	1-1/4	1-1/16-12	1.094	0.609	1.870	1.878	1.250	1.375
4603-20-16-NWO-FG	1-1/4	1-5/16-12	1.094	0.844	1.870	1.900	1.500	1.375
4603-20-20-NWO-FG	1-1/4	1-5/8-12	1.094	1.078	1.921	1.906	1.875	1.750
4603-24-16-NWO-FG	1-1/2	1-5/16-12	1.343	0.844	1.968	1.857	1.500	1.625
4603-24-20-NWO-FG	1-1/2	1-5/8-12	1.343	1.078	1.990	1.857	1.875	1.750
4603-24-24-NWO-FG	1-1/2	1-7/8-12	1.343	1.312	1.968	1.906	2.125	2.000
4603-32-32-NWO-FG	2	2-1/2-12	1.843	1.781	2.180	1.859	2.750	2.625

Tube Fittings & Adapters

HB-MORB Straight 4604-0 Series

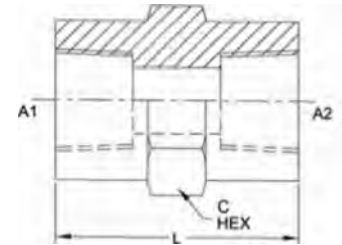


PART NO. SIZE	TUBE B1 O.D.	B2 ORB	B1 DRILL	B2 DRILL	L LOTH	M LGTH	C HEX
4604-04-04-0	1/4	7/16-20	0.189	0.172	1.500	0.600	0.562
4604-04-06-0	1/4	9/16-18	0.189	0.297	1.500	0.730	0.687
4604-04-08-0	1/4	3/4-16	0.189	0.391	1.500	0.800	0.876
4604-05-04-0	5/16	7/16-20	0.252	0.172	1.500	0.600	0.562
4604-05-05-0	5/16	1/2-20	0.252	0.234	1.500	0.670	0.625
4604-06-04-0	3/8	7/16-20	0.295	0.172	1.500	0.670	0.562
4604-06-06-0	3/8	9/16-18	0.295	0.297	1.500	0.730	0.687
4604-06-08-0	3/8	3/4-16	0.295	0.391	1.500	0.800	0.875
4604-08-06-0	1/2	9/16-18	0.406	0.297	1.500	0.730	0.687
4604-08-08-0	1/2	3/4-16	0.406	0.391	1.500	0.800	0.875
4604-10-08-0	5/8	3/4-16	0.500	0.391	1.500	0.800	0.875
4604-10-10-0	5/8	7/8-14	0.500	0.484	1.500	0.940	1.000
4604-10-12-0	5/8	1-1/16-12	0.500	0.609	1.500	1.090	1.250
4604-12-08-0	3/4	3/4-16	0.626	0.391	1.500	0.800	0.875
4604-12-10-0	3/4	7/8-14	0.626	0.484	1.500	0.940	1.000
4604-12-12-0	3/4	1-1/16-12	0.626	0.609	1.500	1.090	1.250
4604-12-16-0	3/4	1-5/16-12	0.626	0.844	1.500	1.130	1.500
4604-16-10-0	1	7/8-14	0.843	0.484	1.500	0.940	1.250
4604-16-12-0	1	1-1/16-12	0.843	0.609	1.500	1.090	1.250
4604-16-16-0	1	1-5/16-12	0.843	0.844	1.500	1.130	1.500
4604-16-20-0	1	1-5/8-12	0.843	1.078	1.500	1.200	1.875
4604-20-10-0	1-1/4	7/8-14	1.094	0.484	1.500	1.075	1.500
4604-20-12-0	1-1/4	1-1/16-12	1.094	0.609	1.500	1.100	1.375
4604-20-16-0	1-1/4	1-5/16-12	1.094	0.844	1.500	1.130	1.500
4604-20-20-0	1-1/4	1-5/8-12	1.094	1.078	1.500	1.200	1.875
4604-20-24-0	1-1/4	1-7/8-12	1.094	1.312	1.500	1.270	2.125
4604-20-32-0	1-1/4	2-1/2-12	1.094	1.781	1.500	1.440	2.750
4604-24-16-0	1-1/2	1-5/16-12	1.343	0.844	1.500	1.130	1.688
4604-24-20-0	1-1/2	1-5/8-12	1.343	1.078	1.500	1.200	1.875
4604-24-24-0	1-1/2	1-7/8-12	1.343	1.312	1.500	1.270	2.125
4604-32-32-0	2	2-1/2-12	1.843	1.781	1.500	1.440	2.750

C-066

FP-FP Straight 5000 Series

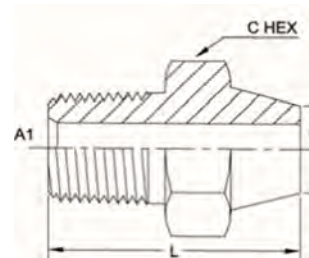
SAE# 140138



C-067

PART NO. SIZE	A1 NPTF	A2 NPTF	L LGTH	C HEX		
5000-02-02	1/8-27	1/8-27	0.750	0.625		
5000-04-02	1/4-18	1/8-27	1.130	0.750		
5000-04-04	1/4-18	1/4-18	1.130	0.750		
5000-06-04	3/8-18	1/4-18	1.130	0.875		
5000-06-06	3/8-18	3/8-18	1.130	0.875		
5000-08-02	1/2-14	1/8-27	1.500	1.125		
5000-08-04	1/2-14	1/4-18	1.500	1.125		
5000-08-06	1/2-14	3/8-18	1.500	1.125		
5000-08-08	1/2-14	1/2-14	1.500	1.125		
5000-12-04	3/4-14	1/4-18	1.530	1.375		
5000-12-06	3/4-14	3/8-18	1.530	1.375		
5000-12-08	3/4-14	1/2-14	1.530	1.375		
5000-12-12	3/4-14	3/4-14	1.530	1.375		
5000-16-06	1-11-1/2	3/8-18	1.890	1.625		
5000-16-08	1-11-1/2	1/2-14	1.890	1.625		
5000-16-12	1-11-1/2	3/4-14	1.890	1.625		
5000-16-16	1-11-1/2	1-11-1/2	1.890	1.625		
5000-20-12	1-1/4-11-1/2	3/4-14	1.930	2.000		
5000-20-16	1-1/4-11-1/2	1-11-1/2	1.930	2.000		
5000-20-20	1-1/4-11-1/2	1-1/4-11-1/2	1.930	2.000		
5000-24-16	1-1/2-11-1/2	1-11-1/2	1.930	2.375		
5000-24-20	1-1/2-11-1/2	1-1/4-11-1/2	1.930	2.375		
5000-24-24	1-1/2-11-1/2	1-1/2-11-1/2	1.930	2.375		
5000-32-24	2-11-1/2	1-1/2-11-1/2	1.960	2.875		
5000-32-32	2-11-1/2	2-11-1/2	1.960	2.875		

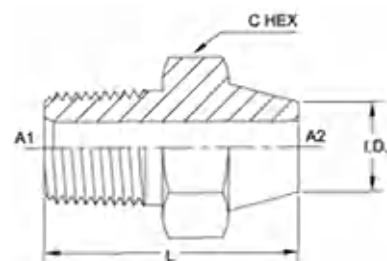
MP-BW Weld-on Fitting 304SS 5304 Series



PART NO. SIZE	PIPE O.D.	A1 NPTF	A2 WELD-ON	I.D.	I LOTH	C HEX
5304-04	1/4	1/4-18	1/4	0.250	1.197	0.562
5304-06	3/8	3/8-18	3/8	0.375	1.250	0.687
5304-08	1/2	1/2-14	1/2	0.500	1.438	0.875
5304-12	3/4	3/4-14	3/4	0.750	1.500	1.062
5304-16	1	1-11 1/2	1	1.000	1.700	1.312
5304-20	1-1/4	1-1/4-11 1/2	1-1/4	1.250	1.940	1.750
5304-24	1-1/2	1-1/2-11 1/2	1-1/2	1.500	2.138	2.000

Tube Fittings & Adapters

MP-BW Weld-on Fitting 316SS 5316 Series

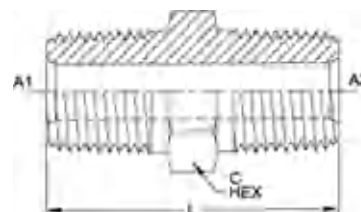


PART NO. SIZE	PIPE O.D.	A1 NPTF	A2 WELDON	I.O.	I IGTH	C HEX
531604	1/4	1/4-18	1/4	0.250	1.197	0.562
531606	3/8	3/8-18	3/8	0.375	1.250	0.687
531608	1/2	1/2-14	1/2	0.500	1.438	0.875
5316-12	3/4	3/4-14	3/4	0.750	1.500	1.062
5316-16	1	1-11-1/2	1	1.000	1.700	1.312
5316-20	1-1/4	1-1/4-11-1/2	1-1/4	1.250	1.940	1.750
5316-24	1-1/2	1-1/2-11-1/2	1-1/2	1.500	2.138	2.000
5316-32	2	2-11-1/2	2	2.000	2.140	2.500

C-068

MP-MP Hex Nipple 5404 Series

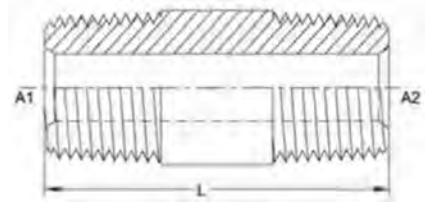
SAE# 140137



PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	A2 DRILL	L IGTH	C HEX
5404-02-02	1/8-27	1/8-27	0.188	0.188	1.060	0.438
5404-04-02	1/4-18	1/8-27	0.281	0.188	1.260	0.562
5404-04-04	1/4-18	1/4-18	0.281	0.281	1.450	0.625
5404-06-02	3/8-18	1/8-27	0.406	0.188	1.260	0.750
5404-06-04	3/8-18	1/4-18	0.406	0.281	1.450	0.750
5404-06-06	3/8-18	3/8-18	0.406	0.406	1.450	0.750
5404-08-02	1/2-14	1/8-27	0.531	0.188	1.700	0.875
5404-08-04	1/2-14	1/4-18	0.531	0.281	1.700	0.875
5404-08-06	1/2-14	3/8-18	0.531	0.406	1.700	0.875
5404-08-08	1/2-14	1/2-14	0.531	0.531	1.890	0.875
5404-12-04	3/4-14	1/4-18	0.719	0.281	1.770	1.125
5404-12-06	3/4-14	3/8-18	0.719	0.406	1.770	1.125
5404-12-08	3/4-14	1/2-14	0.719	0.531	1.960	1.125
5404-12-12	3/4-14	3/4-14	0.719	0.719	1.960	1.125
5404-16-04	1-11-1/2	1/4-18	0.938	0.281	1.960	1.375
5404-16-06	1-11-1/2	3/8-18	0.938	0.406	1.960	1.375
5404-16-08	1-11-1/2	1/2-14	0.938	0.531	2.150	1.375
5404-16-12	1-11-1/2	3/4-14	0.938	0.719	2.150	1.375
5404-16-16	1-11-1/2	1-11-1/2	0.938	0.938	2.340	1.375
5404-20-08	1-1/4-11-1/2	1/2-14	1.250	0.531	2.260	1.750
5404-20-12	1-1/4-11-1/2	3/4-14	1.250	0.719	2.260	1.750
5404-20-16	1-1/4-11-1/2	1-11-1/2	1.250	0.938	2.450	1.750
5404-20-20	1-1/4-11-1/2	1-1/4-11-1/2	1.250	1.250	2.480	1.750
5404-24-12	1-1/2-11-1/2	3/4-14	1.500	0.719	2.360	2.000
5404-24-16	1-1/2-11-1/2	1-11-1/2	1.500	0.938	2.550	2.000
5404-24-20	1-1/2-11-1/2	1-1/4-11-1/2	1.500	1.250	2.580	2.000
5404-24-24	1-1/2-11-1/2	1-1/2-11-1/2	1.500	1.500	2.610	2.000
5404-32-12	2-11-1/2	3/4-14	1.938	0.719	2.540	2.500
5404-32-16	2-11-1/2	1-11-1/2	1.938	0.938	2.730	2.500
5404-32-20	2-11-1/2	1-1/4-11-1/2	1.938	1.250	2.760	2.500
5404-32-24	2-11-1/2	1-1/2-11-1/2	1.938	1.500	2.790	2.500
5404-32-32	2-11-1/2	2-11-1/2	1.938	1.938	2.820	2.500
5404-40-40	2 1/2-8	2 1/2-8	2.318	2.318	3.950	3.000

MP-MP Straight Nipple Long 5404-N Series

SAE# 140137



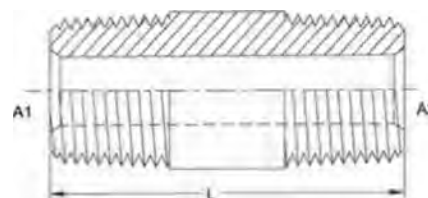
C-069

PART NO. SIZE	PIPE O.D.	A1 NPTF	A2 NPTF	A1 DRILL	A2 DRILL	L LGTH
5404-N-02X 0.750	1/8	1/8-27	1/8-27	0.188	0.188	0.750
5404-N-02X 1.000	1/8	1/8-27	1/8-27	0.188	0.188	1.000
5404-N-02X 1.500	1/8	1/8-27	1/8-27	0.188	0.188	1.500
5404-N-02X2.000	1/8	1/8-27	1/8-27	0.188	0.188	2.000
5404-N-02X 2.500	1/8	1/8-27	1/8-27	0.188	0.188	2.500
5404-N-02X 3.000	1/8	1/8-27	1/8-27	0.188	0.188	3.000
5404-N-02X 3.500	1/8	1/8-27	1/8-27	0.188	0.188	3.500
5404-N-02X4.000	1/8	1/8-27	1/8-27	0.188	0.188	4.000
5404-N-02X4.500	1/8	1/8-27	1/8-27	0.188	0.188	4.500
5404-N-02X 5.000	1/8	1/8-27	1/8-27	0.188	0.188	5.000
5404-N-02X 6.000	1/8	1/8-27	1/8-27	0.188	0.188	6.000
5404-N-04X0.875	1/4	1/4-18	1/4-18	0.281	0.281	0.875
5404-N-04X 1.500	1/4	1/4-18	1/4-18	0.281	0.281	1.500
5404-N-04X 2.000	1/4	1/4-18	1/4-18	0.281	0.281	2.000
5404-N-04X 2.500	1/4	1/4-18	1/4-18	0.281	0.281	2.500
5404-N-04X 3.000	1/4	1/4-18	1/4-18	0.281	0.281	3.000
5404-N-04X 3.500	1/4	1/4-18	1/4-18	0.281	0.281	3.500
5404-N-04X4.000	1/4	1/4-18	1/4-18	0.281	0.281	4.000
5404-N-04X4.500	1/4	1/4-18	1/4-18	0.281	0.281	4.500
5404-N-04X 5.000	1/4	1/4-18	1/4-18	0.281	0.281	5.000
5404-N-04X 5.500	1/4	1/4-18	1/4-18	0.281	0.281	5.500
5404-N-04X 6.000	1/4	1/4-18	1/4-18	0.281	0.281	6.000
5404-N-06X 1.000	3/8	3/8-18	3/8-18	0.406	0.406	1.000
5404-N-06X 1.500	3/8	3/8-18	3/8-18	0.406	0.406	1.500
5404-N-06X 2.000	3/8	3/8-18	3/8-18	0.406	0.406	2.000
5404-N-06X 2.500	3/8	3/8-18	3/8-18	0.406	0.406	2.500
5404-N-06X3.500	3/8	3/8-18	3/8-18	0.406	0.406	3.500
5404-N-06X4.000	3/8	3/8-18	3/8-18	0.406	0.406	4.000
5404-N-06X 5.000	3/8	3/8-18	3/8-18	0.406	0.406	5.000
5404-N-06X 5.500	3/8	3/8-18	3/8-18	0.406	0.406	5.500
5404-N-06X 6.000	3/8	3/8-18	3/8-18	0.406	0.406	6.000
5404-N-06X7.000	3/8	3/8-18	3/8-18	0.406	0.406	7.000
5404-N-08X1.125	1/2	1/2-14	1/2-14	0.531	0.531	1.125
5404-N-08X 1.250	1/2	1/2-14	1/2-14	0.531	0.531	1.250
5404-N-08X 1.375	1/2	1/2-14	1/2-14	0.531	0.531	1.375
5404-N-08X 1.500	1/2	1/2-14	1/2-14	0.531	0.531	1.500
5404-N-08X 1.750	1/2	1/2-14	1/2-14	0.531	0.531	1.750
5404-N-08x 2.000	1/2	1/2-14	1/2-14	0.531	0.531	2.000
5404-N-08X 2.250	1/2	1/2-14	1/2-14	0.531	0.531	2.250
5404-N-08X 2.500	1/2	1/2-14	1/2-14	0.531	0.531	2.500
5404-N-08X 3.000	1/2	1/2-14	1/2-14	0.531	0.531	3.000
5404-N-08X 3.500	1/2	1/2-14	1/2-14	0.531	0.531	3.500
5404-N-08X4.000	1/2	1/2-14	1/2-14	0.531	0.531	4.000
5404-N-08X4.500	1/2	1/2-14	1/2-14	0.531	0.531	4.500

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Tube Fittings & Adapters

5404-N Series continued



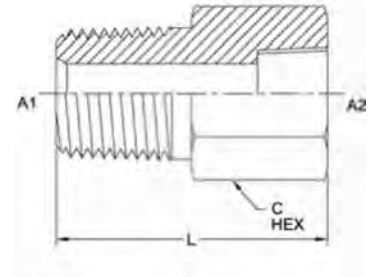
C-070

PART ND. SIZE	PIPE O.D.	A1 NPTF	A2 NPTF	A1 DRILL	A2 DRILL	L LGTH
5404-N-08X5.000	1/2	1/2-14	1/2-14	0.531	0.531	5.000
5404-N-08x6.000	1/2	1/2-14	1/2-14	0.531	0.531	6.000
5404-N-12X1.375	3/4	3/4-14	3/4-14	0.719	0.719	1.375
5404-N-12X1.500	3/4	3/4-14	3/4-14	0.719	0.719	1.500
5404-N-12X1.625	3/4	3/4-14	3/4-14	0.719	0.719	1.625
5404-N-12X2.000	3/4	3/4-14	3/4-14	0.719	0.719	2.000
5404-N-12X2.500	3/4	3/4-14	3/4-14	0.719	0.719	2.500
5404-N-12X3.000	3/4	3/4-14	3/4-14	0.719	0.719	3.000
5404-N-12x3.500	3/4	3/4-14	3/4-14	0.719	0.719	3.500
5404-N-12x4.000	3/4	3/4-14	3/4-14	0.719	0.719	4.000
5404-N-12X4.500	3/4	3/4-14	3/4-14	0.719	0.719	4.500
5404-N-12x5.000	3/4	3/4-14	3/4-14	0.719	0.719	5.000
5404-N-12X5.500	3/4	3/4-14	3/4-14	0.719	0.719	5.500
5404-N-12X6.000	3/4	3/4-14	3/4-14	0.719	0.719	6.000
5404-N-12X6.500	3/4	3/4-14	3/4-14	0.719	0.719	6.500
5404-N-12x8.000	3/4	3/4-14	3/4-14	0.719	0.719	8.000
5404-N-16X1.500	1	1-11 1/2	1-11 1/2	0.938	0.938	1.500
5404-N-16x2.000	1	1-11 1/2	1-11 1/2	0.938	0.938	2.000
5404-N-16x2.500	1	1-11 1/2	1-11 1/2	0.938	0.938	2.500
5404-N-16X3.000	1	1-11 1/2	1-11 1/2	0.938	0.938	3.000
5404-N-16X3.250	1	1-11 1/2	1-11 1/2	0.938	0.938	3.250
5404-N-16x3.500	1	1-11 1/2	1-11 1/2	0.938	0.938	3.500
5404-N-16X3.750	1	1-11 1/2	1-11 1/2	0.938	0.938	3.750
5404-N-16X4.000	1	1-11 1/2	1-11 1/2	0.938	0.938	4.000
5404-N-16x4.500	1	1-11 1/2	1-11 1/2	0.938	0.938	4.500
5404-N-16X5.000	1	1-11 1/2	1-11 1/2	0.938	0.938	5.000
5404-N-16X5.500	1	1-11 1/2	1-11 1/2	0.938	0.938	5.500
5404-N-16X6.000	1	1-11 1/2	1-11 1/2	0.938	0.938	6.000
5404-N-20X 1.500	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	1.500
5404-N-20X 1.625	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	1.625
5404-N-20X2.000	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	2.000
5404-N-20X2.500	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	2.500
5404-N-20X3.000	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	3.000
5404-N-20X3.500	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	3.500
5404-N-20x4.000	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	4.000
5404-N-20x6.000	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	6.000
5404-N-20X8.000	1-1/4	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	8.000
5404-N-24X 1.000	1-1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	1.000
5404-N-24X 1.750	1-1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	1.750
5404-N-24x2.500	1-1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	2.500
5404-N-24X4.000	1-1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	4.000
5404-N-24X6.000	1-1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	6.000

MP-FP Straight Expander 5405 Series

SAE# 140139

C-071

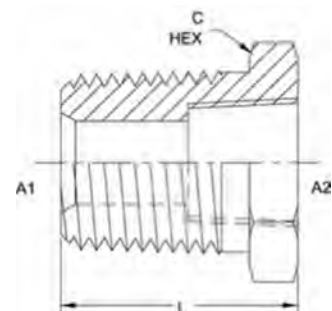


PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	L LGTH	C HEX
5405-01-02	1/16-27	1/8-27	0.117	1.04	0.625
5405-02-02	1/8-27	1/8-27	0.188	1.04	0.625
5405-02-04	1/8-27	1/4-18	0.188	1.21	0.750
5405-02-06	1/8-27	3/8-18	0.188	1.25	0.875
5405-02-08	1/8-27	1/2-14	0.188	1.49	1.125
5405-04-02	1/4-18	1/8-27	0.281	1.21	0.625
5405-04-04	1/4-18	1/4-18	0.281	1.39	0.750
5405-04-06	1/4-18	3/8-18	0.281	1.44	0.875
5405-04-08	1/4-18	1/2-14	0.281	1.68	1.125
5405-04-12	1/4-18	3/4-14	0.281	1.74	1.375
5405-06-02	3/8-18	1/8-27	0.333	1.21	0.750
5405-06-04	3/8-18	1/4-18	0.406	1.41	0.750
5405-06-06	3/8-18	3/8-18	0.406	1.44	0.875
5405-06-08	3/8-18	1/2-14	0.406	1.68	1.125
5405-06-12	3/8-18	3/4-14	0.406	1.74	1.375
5405-08-04	1/2-14	1/4-18	0.431	1.60	0.875
5405-08-06	1/2-14	3/8-18	0.531	1.66	0.875
5405-08-08	1/2-14	1/2-14	0.531	1.87	1.125
5405-08-12	1/2-14	3/4-14	0.531	1.93	1.375
5405-08-16	1/2-14	1-11-1/2	0.531	2.18	1.625
5405-12-04	3/4-14	1/4-18	0.431	1.60	1.125
5405-12-06	3/4-14	3/8-18	0.571	1.66	1.125
5405-12-08	3/4-14	1/2-14	0.697	1.89	1.125
5405-12-12	3/4-14	3/4-14	0.719	1.93	1.375
5405-12-16	3/4-14	1-11-1/2	0.719	2.18	1.625
5405-12-20	3/4-14	1-1/4-11-1/2	0.719	2.27	2.000
5405-16-08	1-11-1/2	1/2-14	0.697	2.08	1.375
5405-16-12	1-11-1/2	3/4-14	0.907	2.14	1.375
5405-16-16	1-11-1/2	1-11-1/2	0.938	2.37	1.625
5405-16-20	1-11-1/2	1-1/4-11-1/2	0.938	2.46	2.000
5405-16-24	1-11-1/2	1-1/2-11-1/2	0.938	2.47	2.375
5405-20-16	1-1/4-11-1/2	1-11-1/2	1.142	2.42	1.750
5405-20-20	1-1/4-11-1/2	1-1/4-11-1/2	1.250	2.49	2.000
5405-20-24	1-1/4-11-1/2	1-1/2-11-1/2	1.250	2.50	2.375
5405-20-32	1-1/4-11-1/2	2-11-1/2	1.250	2.60	2.875
5405-24-20	1-1/2-11-1/2	1-1/4-11-1/2	1.486	2.54	2.000
5405-24-24	1-1/2-11-1/2	1-1/2-11-1/2	1.500	2.53	2.375
5405-24-32	1-1/2-11-1/2	2-11-1/2	1.500	2.63	2.875
5405-32-32	2-11-1/2	2-11-1/2	1.938	2.66	2.875

Tube Fittings & Adapters

MP-FP Reducer Bushing 5406 Series

SAE# 140140

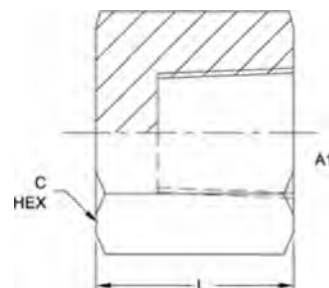


C-072

PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	L LGTH	C HEX
5406-04-02	1/4-18	1/8-27	0.281	0.85	0.625
5406-06-02	3/8-18	1/8-27	0.333	0.85	0.750
5406-06-04	3/8-18	1/4-18	0.406	0.85	0.750
5406-08-02	1/2-14	1/8-27	0.333	1.10	0.875
5406-08-04	1/2-14	1/4-18	0.431	1.10	0.875
5406-08-06	1/2-14	3/8-18	0.531	1.10	0.875
5406-12-02	3/4-14	1/8-27	0.333	1.17	1.125
5406-12-04	3/4-14	1/4-18	0.431	1.17	1.125
5406-12-06	3/4-14	3/8-18	0.571	1.17	1.125
5406-12-08	3/4-14	1/2-14	0.697	1.17	1.125
5406-16-02	1-11-1/2	1/8-27	0.333	1.36	1.375
5406-16-04	1-11-1/2	1/4-18	0.431	1.36	1.375
5406-16-06	1-11-1/2	3/8-18	0.571	1.36	1.375
5406-16-08	1-11-1/2	1/2-14	0.697	1.36	1.375
5406-16-12	1-11-1/2	3/4-14	0.907	1.36	1.375
5406-20-04	1-1/4-11-1/2	1/4-18	0.431	1.47	1.750
5406-20-06	1-1/4-11-1/2	3/8-18	0.571	1.47	1.750
5406-20-08	1-1/4-11-1/2	1/2-14	0.697	1.47	1.750
5406-20-12	1-1/4-11-1/2	3/4-14	0.907	1.47	1.750
5406-20-16	1-1/4-11-1/2	1-11-1/2	1.142	1.47	1.750
5406-24-02	1-1/2-11-1/2	1/8-27	0.333	1.57	2.000
5406-24-04	1-1/2-11-1/2	1/4-18	0.431	1.57	2.000
5406-24-06	1-1/2-11-1/2	3/8-18	0.571	1.57	2.000
5406-24-08	1-1/2-11-1/2	1/2-14	0.697	1.57	2.000
5406-24-12	1-1/2-11-1/2	3/4-14	0.907	1.57	2.000
5406-24-16	1-1/2-11-1/2	1-11-1/2	1.142	1.57	2.000
5406-24-20	1-1/2-11-1/2	1-1/4-11-1/2	1.486	1.57	2.000
5406-32-04	2-11-1/2	1/4-18	0.431	1.75	2.500
5406-32-06	2-11-1/2	3/8-18	0.571	1.75	2.500
5406-32-08	2-11-1/2	1/2-14	0.697	1.75	2.500
5406-32-12	2-11-1/2	3/4-14	0.907	1.75	2.500
5406-32-16	2-11-1/2	1-11-1/2	1.142	1.75	2.500
5406-32-20	2-11-1/2	1-1/4-11-1/2	1.486	1.75	2.500
5406-32-24	2-11-1/2	1-1/2-11-1/2	1.720	1.75	2.500
5406-40-32	2-1/2 - 8	2-11-1/2	2.204	2.37	3.000
5406-48-06	3-8	3/8-18	0.571	2.43	3.750

C-073

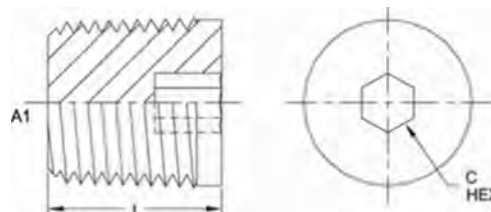
Pipe Cap 5406-C Series



PART NO. SIZE	A1 NPTF	I LGTH	C HEX
5406-C-02	1/8-27	0.55	0.562
5406-C-04	1/4-18	0.81	0.750
5406-C-06	3/8-18	0.81	0.812
5406-C-08	1/2-14	1.00	1.000
5406-C-12	3/4-14	1.13	1.188
5406-C-16	1-11 1/2	1.15	1.500
5406-C-20	1-1/4-11 1/2	1.25	2.000
5406-C-24	1-1/2-11 1/2	1.54	2.375
5406-C-32	2-11 1/2	1.64	2.875

Hollow Hex Pipe Plug 5406-HP Series

SAE# 130109



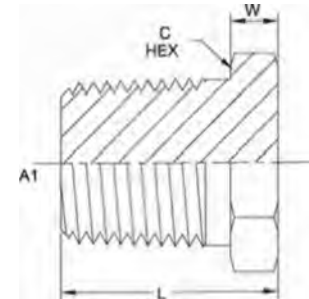
PART NO. SIZE	A1 NPTF	L LGTH	C HEX
5406-HP-01	1/16-27	0.30	0.156
5406-HP-02	1/8-27	0.30	0.188
5406-HP-04	1/4-18	0.46	0.250
5406-HP-06	3/8-18	0.46	0.312
5406-HP-08	1/2-14	0.61	0.375
5406-HP-12	3/4-14	0.62	0.562
5406-HP-16	1-11 1/2	0.77	0.625
5406-HP-20	1-1/4-11 1/2	0.83	0.750
5406-HP-24	1-1/2-11 1/2	0.83	1.000
5406-HP-32	2-11 1/2	0.83	1.000

Tube Fittings & Adapters

External Hex Pipe Plug 5406-P Series

SAE# 130109E

PART NO. SIZE	A1 NPTF	I LGTH	W WIDTH	C HEX
5406-P-01	1/16-27	0.562	0.19	0.438
5406-P-02	1/8-27	0.562	0.19	0.438
5406-P-04	1/4-18	0.750	0.19	0.562
5406-P-06	3/8-18	0.781	0.22	0.688
5406-P-08	1/2-14	1.120	0.22	0.875
5406-P-12	3/4-14	1.170	0.42	1.125
5406-P-16	1-11 1/2	1.360	0.42	1.375
5406-P-20	1-1/4-11 1/2	1.468	0.50	1.750
5406-P-24	1-1/2-11 1/2	1.570	0.57	2.000
5406-P-32	2-11 1/2	1.750	0.72	2.500

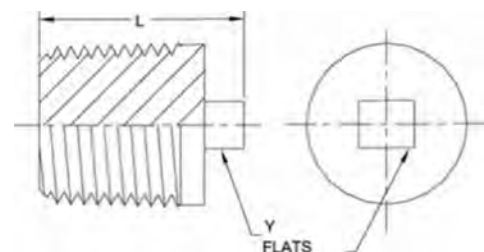


C-074

Square Head Pipe Plug 5406-SHP Series

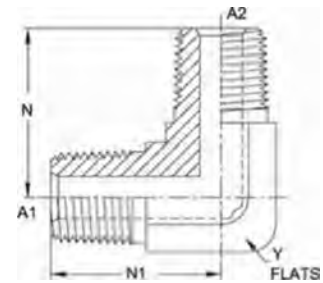
SAE# 130109A

PART NO. SIZE	A1 NPTF	L LETH	Y FLATS
5406-SHP-02	1/8-27	0.630	0.281
5406-SHP-04	1/4-18	0.760	0.375
5406-SHP-06	3/8-18	0.845	0.437
5406-SHP-08	1/2-14	1.000	0.563
5406-SHP-12	3/4-14	1.080	0.625
5406-SHP-16	1-11 1/2	1.270	0.812
5406-SHP-20	1-1/4-11 1/2	1.400	0.937
5406-SHP-24	1-1/2-11 1/2	1.470	1.125



MP-MP 90° 5500 Series

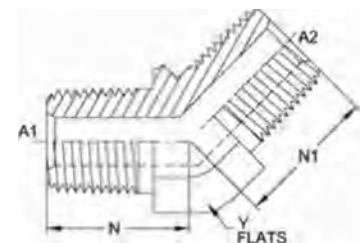
SAE# 140237



C-075

PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	A2 DRILL	N1 LGTH	N LGTH	Y FLATS
5500-02-02-FG	1/8-27	1/8-27	0.188	0.188	0.78	0.78	0.438
5500-04-02-FG	1/4-18	1/8-27	0.281	0.188	1.09	0.90	0.562
5500-04-04-FG	1/4-18	1/4-18	0.281	0.281	1.09	1.09	0.562
5500-06-02-FG	3/8-18	1/8-27	0.406	0.188	1.22	1.03	0.750
5500-06-04-FG	3/8-18	1/4-18	0.406	0.281	1.22	1.22	0.750
5500-06-06-FG	3/8-18	3/8-18	0.406	0.406	1.22	1.22	0.750
5500-08-04-FG	1/2-14	1/4-18	0.531	0.281	1.47	1.28	0.875
5500-08-06-FG	1/2-14	3/8-18	0.531	0.406	1.47	1.28	0.875
5500-08-08-FG	1/2-14	1/2-14	0.531	0.531	1.47	1.47	0.875
5500-12-06-FG	3/4-14	3/8-18	0.719	0.406	1.59	1.40	1.062
5500-12-08-FG	3/4-14	1/2-14	0.719	0.531	1.59	1.59	1.062
5500-12-12-FG	3/4-14	3/4-14	0.719	0.719	1.59	1.59	1.062
5500-16-08-FG	1-11 1/2	1/2-14	0.938	0.531	1.97	1.78	1.312
5500-16-12-FG	1-11 1/2	3/4-14	0.938	0.719	1.97	1.78	1.312
5500-16-16-FG	1-11 1/2	1-11 1/2	0.938	0.938	1.97	1.97	1.312
5500-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	2.38	2.38	1.625
5500-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	2.64	2.64	1.875
5500-32-32-FG	2-11 1/2	2-11 1/2	1.938	1.938	3.00	3.00	2.500

MP-MP 45° 5501 Series

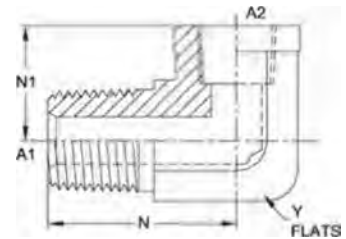


PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	A2 DRILL	N LGTH	N1 LGTH	Y FLATS
5501-01-02-FG	1/16-27	1/8-27	0.117	0.188	0.64	0.64	0.438
5501-02-02-FG	1/8-27	1/8-27	0.188	0.188	0.64	0.64	0.438
5501-04-04-FG	1/4-18	1/4-18	0.281	0.281	0.86	0.86	0.562
5501-06-06-FG	3/8-18	3/8-18	0.406	0.406	0.95	0.95	0.750
5501-08-08-FG	1/2-14	1/2-14	0.531	0.531	1.17	1.17	0.875
5501-12-12-FG	3/4-14	3/4-14	0.719	0.719	1.20	1.20	1.062
5501-16-16-FG	1-11 1/2	1-11 1/2	0.938	0.938	1.48	1.48	1.312
5501-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	1.67	1.67	1.625
5501-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	1.77	1.77	1.875

Tube Fittings & Adapters

MP-FP 90° Street Elbow 5502 Series

SAE# 140239

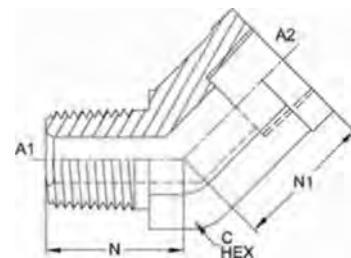


PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	N LGTH	N1 LGTH	Y FLATS
5502-01 -02-FG	1/16-27	1/8-27	0.117	0.78	0.66	0.562
5502-02-02-FG	1/8-27	1/8-27	0.188	0.78	0.66	0.562
5502-02-04-FG	1/8-27	1/4-18	0.188	1.09	0.88	0.750
5502-02-06-FG	1/8-27	3/8-18	0.188	1.22	1.02	0.875
5502-04-02-FG	1/4-18	1/8-27	0.281	1.09	0.66	0.562
5502-04-04-FG	1/4-18	1/4-18	0.281	1.09	0.88	0.750
5502-04-06-FG	1/4-18	3/8-18	0.281	1.22	1.02	0.875
5502-06-04-FG	3/8-18	1/4-18	0.406	1.22	0.88	0.750
5502-06-06-FG	3/8-18	3/8-18	0.406	1.22	1.02	0.875
5502-06-08-FG	3/8-18	1/2-14	0.406	1.47	1.23	1.062
5502-08-04-FG	1/2-14	1/4-18	0.531	1.47	1.01	0.875
5502-08-06-FG	1/2-14	3/8-18	0.531	1.47	1.02	0.875
5502-08-08-FG	1/2-14	1/2-14	0.531	1.47	1.23	1.062
5502-08-12-FG	1/2-14	3/4-14	0.531	1.59	1.36	1.312
5502-12-06-FG	3/4-14	3/8-18	0.719	1.59	1.01	1.062
5502-12-08-FG	3/4-14	1/2-14	0.719	1.59	1.23	1.062
5502-12-12-FG	3/4-14	3/4-14	0.719	1.59	1.36	1.312
5502-12-16-FG	3/4-14	1-11-1/2	0.719	1.70	1.62	1.625
5502-16-12-FG	1-11-1/2	3/4-14	0.938	1.70	1.36	1.312
5502-16-16-FG	1-11-1/2	1-11-1/2	0.938	1.70	1.62	1.625
5502-16-20-FG	1-11-1/2	1-1/4-11-1/2	0.938	2.38	1.70	1.875
5502-20-16-FG	1-1/4-11-1/2	1-11-1/2	1.250	2.38	1.62	1.625
5502-20-20-FG	1-1/4-11-1/2	1-1/4-11-1/2	1.250	2.38	1.70	1.875
5502-20-24-FG	1-1/4-11-1/2	1-1/2-11-1/2	1.250	2.64	2.08	2.562
5502-24-24-FG	1-1/2-11-1/2	1-1/2-11-1/2	1.500	2.64	2.08	2.562
5502-32-32-FG	2-11-1/2	2-11-1/2	1.938	3.00	2.39	2.812

C-076

MP-FP 45° Street Elbow 5503 Series

SAE# 140339

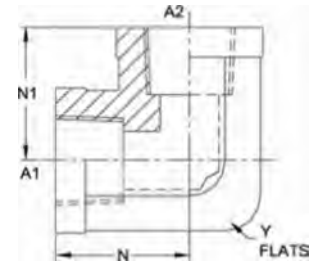


PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	N LGTH	N1 LGTH	Y FLATS
5503-02-02-FG	1/8-27	1/8-27	0.188	0.72	0.47	0.562
5503-02-04-FG	1/8-27	1/4-18	0.188	0.86	0.62	0.750
5503-04-04-FG	1/4-18	1/4-18	0.281	1.05	0.62	0.750
5503-06-06-FG	3/8-18	3/8-18	0.406	1.06	0.72	0.875
5503-08-08-FG	1/2-14	1/2-14	0.531	1.34	0.91	1.062
5503-12-12-FG	3/4-14	3/4-14	0.719	1.38	0.97	1.312
5503-16-16-FG	1-11 1/2	1-11 1/2	0.938	1.72	1.12	1.625
5503-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.80	1.63	1.875
5503-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1.500	2.06	1.69	2.562

FP-FP 90° Street Elbow 5504 Series

SAE# 140238

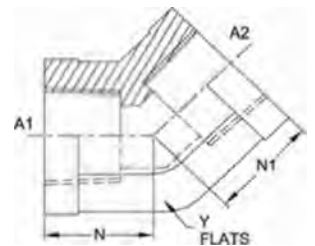
C-077



PART NO. SIZE	A1 NPTF	A2 NPTF	N LGTH	N1 LGTH	Y FLATS
5504-02-02-FG	1/8-27	1/8-27	0.66	0.66	0.562
5504-04-02-FG	1/4-18	1/8-27	0.88	0.88	0.750
5504-04-04-FG	1/4-18	1/4-18	0.88	0.88	0.750
5504-06-04-FG	3/8-18	1/4-18	1.02	1.02	0.875
5504-06-06-FG	3/8-18	3/8-18	1.02	1.02	0.875
5504-08-04-FG	1/2-14	1/4-18	1.23	1.23	1.062
5504-08-06-FG	1/2-14	3/8-18	1.23	1.23	1.062
5504-08-08-FG	1/2-14	1/2-14	1.23	1.23	1.062
5504-12-06-FG	3/4-14	3/8-18	1.36	1.36	1.312
5504-12-08-FG	3/4-14	1/2-14	1.36	1.36	1.312
5504-12-12-FG	3/4-14	3/4-14	1.36	1.36	1.312
5504-16-08-FG	1-11-1/2	1/2-14	1.62	1.62	1.625
5504-16-12-FG	1-11-1/2	3/4-14	1.62	1.62	1.625
5504-16-16-FG	1-11-1/2	1-11-1/2	1.62	1.62	1.625
5504-20-12-FG	1-1/4-11-1/2	3/4-14	1.70	1.70	1.875
5504-20-16-FG	1-1/4-11-1/2	1-11-1/2	1.70	1.70	1.875
5504-20-20-FG	1-1/4-11-1/2	1-1/4-11-1/2	1.70	1.70	1.875
5504-24-20-FG	1-1/2-11-1/2	1-1/4-11-1/2	2.08	2.08	2.562
5504-24-24-FG	1-1/2-11-1/2	1-1/2-11-1/2	2.08	2.08	2.562
5504-32-32-FG	2-11-1/2	2-11-1/2	2.39	2.39	2.812

FP-FP 45° 5505 Series

SAE# 140338



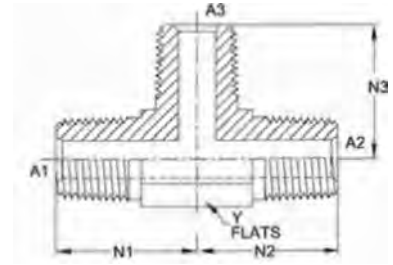
PART NO. SIZE	A1 NPTF	A2 NPTF	N LGTH	N1 LGTH	Y FLATS
5505-02-02-FG	1/8-27	1/8-27	0.50	0.50	0.562
5505-04-04-FG	1/4-18	1/4-18	0.69	0.69	0.750
5505-06-06-FG	3/8-18	3/8-18	0.75	0.75	0.875
5505-08-08-FG	1/2-14	1/2-14	0.94	0.94	1.062
5505-12-12-FG	3/4-14	3/4-14	1.00	1.00	1.312
5505-16-16-FG	1-11 1/2	1-11 1/2	1.19	1.19	1.625
5505-20-20-FG	1 1/4-11 1/2	1 1/4-11 1/2	1.44	1.44	1.875

Tube Fittings & Adapters

MP-MP-MP Tee 5600 Series

SAE# 140437

(As coded per SAE J846)



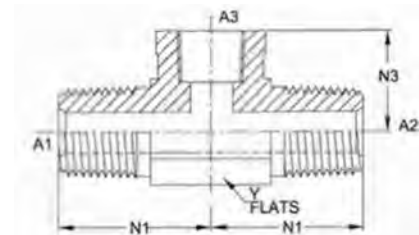
C-078

5600-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.188	0.188	0.188	0.78	0.78	0.78	0.438
5600-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.281	0.281	0.281	1.09	1.09	1.09	0.562
5600-06-06-06-FG	3/8-18	3/8-18	3/8-18	0.406	0.406	0.406	1.22	1.22	1.22	0.750
5600-08-08-08-FG	1/2-14	1/2-14	1/2-14	0.531	0.531	0.531	1.47	1.47	1.47	0.875
5600-12-12-12-FG	3/4-14	3/4-14	3/4-14	0.719	0.719	0.719	1.59	1.59	1.59	1.062
5600-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	0.938	0.938	0.938	1.97	1.97	1.97	1.312
5600-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	1.250	2.38	2.38	2.38	1.625
5600-32-32-32-FG	2-11 1/2	2-11 1/2	2-11 1/2	1.938	1.938	1.938	3.00	3.00	3.00	2.500

MP-MP-FP Tee 5601 Series

SAE# 140427

(As coded per SAE J846)

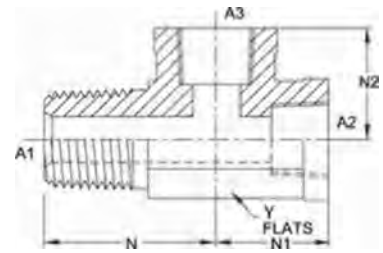


PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A1 DRILL	A2 DRILL	N1 LGTH	N2 LGTH	N3 LGTH	Y FLATS
5601-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.188	0.188	0.78	0.78	0.66	0.562
5601-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.281	0.281	1.09	1.09	0.88	0.750
5601-06-06-06-FG	3/8-18	3/8-18	3/8-18	0.406	0.406	1.22	1.22	1.02	0.875
5601-08-08-08-FG	1/2-14	1/2-14	1/2-14	0.531	0.531	1.47	1.47	1.23	1.062
5601-12-12-12-FG	3/4-14	3/4-14	3/4-14	0.719	0.719	1.59	1.59	1.36	1.312
5601-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	0.938	0.938	1.70	1.70	1.62	1.625
5601-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.250	2.38	2.38	1.70	1.875
5601-24-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	1.500	2.64	2.64	2.08	2.562

MP-FP-FP Street Tee

5602 Series

SAE# 140424



C-079

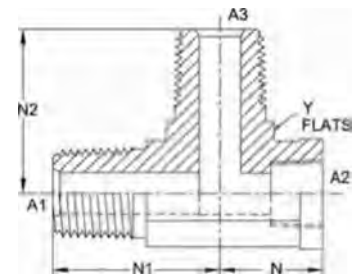
PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A1 DRILL	N LOTH	N1 LGTH	N2 LOTH	Y FLATS
5602-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.188	0.78	0.66	0.66	0.562
5602-02-04-04-FG	1/8-27	1/4-18	1/4-18	0.188	0.90	0.88	0.88	0.750
5602-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.281	1.09	0.88	0.88	0.750
5602-06-06-06-FG	3/8-18	3/8-18	3/8-18	0.406	1.22	1.02	1.02	0.875
5602-08-08-08-FG	1/2-14	1/2-14	1/2-14	0.531	1.47	1.23	1.23	1.062
5602-12-12-12-FG	3/4-14	3/4-14	3/4-14	0.719	1.59	1.36	1.36	1.312
5602-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	0.938	1.70	1.62	1.62	1.625
5602-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.250	2.38	1.70	1.70	1.875
5602-24-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	2.64	2.08	2.08	2.562
5602-32-32-32-FG	2-11 1/2	2-11 1/2	2-11 1/2	1.938	3.00	2.39	2.39	2.812

MP-FP-MP Tee

5603 Series

SAE# 140426

(As coded per SAE J846)

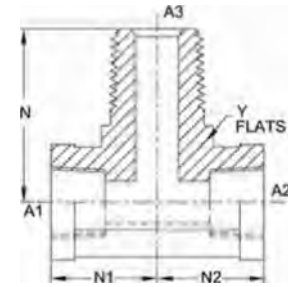


PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A1 ORILL	A3 DRILL	N1 LGTH	N LGTH	N2 LGTH	Y FLATS
5603-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.188	0.188	0.78	0.66	0.78	0.562
5603-02-04-02-FG	1/8-27	1/4-18	1/8-27	0.188	0.188	0.90	0.88	0.90	0.750
5603-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.281	0.281	1.09	0.88	1.09	0.750
5603-06-06-06-FG	3/8-18	3/8-18	3/8-18	0.406	0.406	1.22	1.02	1.22	0.875
5603-08-08-08-FG	1/2-14	1/2-14	1/2-14	0.531	0.531	1.47	1.23	1.47	1.062
5603-12-12-08-FG	3/4-14	3/4-14	1/2-14	0.719	0.531	1.59	1.36	1.59	1.312
5603-12-12-12-FG	3/4-14	3/4-14	3/4-14	0.719	0.719	1.59	1.36	1.59	1.312
5603-16-16-16-FG	1-11-1/2	1-11-1/2	1-11-1/2	0.938	0.938	1.70	1.62	1.70	1.625
5603-20-20-20-FG	1-1/4-11-1/2	1-1/4-11-1/2	1-1/4-11-1/2	1.250	1.250	2.38	1.70	2.38	1.875
5603-24-24-24-FG	1-1/2-11-1/2	1-1/2-11-1/2	1-1/2-11-1/2	1.500	1.500	2.64	2.08	2.64	2.562

Tube Fittings & Adapters

FP-FP-MP Branch Tee 5604 Series

SAE# 140425

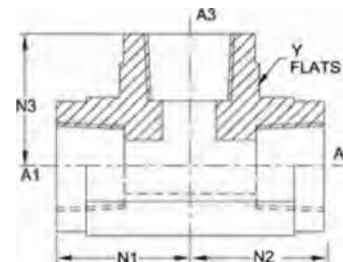


C-080

PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A3 DRILL	N1 LO TH	N2 LO TH	N LO TH	Y FLATS
5604-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.188	0.66	0.66	0.78	0.562
5604-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.281	0.88	0.88	1.09	0.750
5604-06-06-06-FG	3/8-18	3/8-18	3/8-18	0.406	1.02	1.02	1.22	0.875
5604-08-08-08-FG	1/2-14	1/2-14	1/2-14	0.531	1.23	1.23	1.47	1.062
5604-12-12-08-FG	3/4-14	3/4-14	1/2-14	0.531	1.36	1.36	1.59	1.312
5604-12-12-12-FG	3/4-14	3/4-14	3/4-14	0.719	1.36	1.36	1.59	1.312
5604-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	0.938	1.62	1.62	1.70	1.625
5604-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.250	1.70	1.70	2.38	1.875
5604-24-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1-1/2-11 1/2	1.500	2.08	2.08	2.64	2.562

FP-FP-FP Tee 5605 Series

SAE# 140438

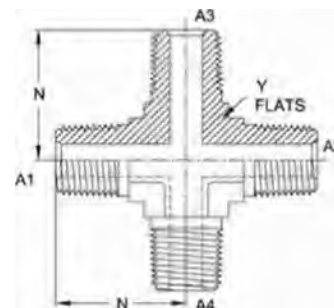


PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	N1 LGTH	N2 LO TH	N3 LGTH	Y FLATS
5605-02-02-02-FG	1/8-27	1/8-27	1/8-27	0.66	0.66	0.66	0.562
5605-04-04-02-FG	1/4-18	1/4-18	1/4-18	0.88	0.88	0.88	0.750
5605-04-04-04-FG	1/4-18	1/4-18	1/4-18	0.88	0.88	0.88	0.750
5605-04-04-06-FG	1/4-18	1/4-18	1/4-18	1.02	1.02	1.02	0.875
5605-06-06-06-FG	3/8-18	3/8-18	3/8-18	1.02	1.02	1.02	0.875
5605-06-06-08-FG	3/8-18	3/8-18	3/8-18	1.23	1.23	1.23	1.062
5605-08-08-08-FG	1/2-14	1/2-14	1/2-14	1.23	1.23	1.23	1.062
5605-12-12-12-FG	3/4-14	3/4-14	3/4-14	1.36	1.36	1.36	1.312
5605-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	1.62	1.62	1.62	1.625
5605-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.70	1.70	1.70	1.875
5605-24-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1-1/2-11 1/2	2.08	2.08	2.08	2.562
5605-32-32-32-FG	2-11 1/2	2-11 1/2	2-11 1/2	2.39	2.39	2.39	2.812

MP-MP-MP-MP Cross

5650 Series

SAE# 140537
(As coded per SAE J846)



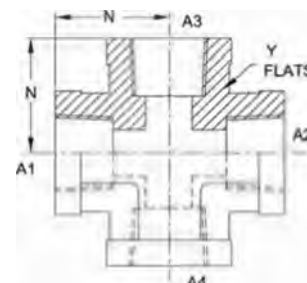
C-081

PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A4 NPTF	A1 DRILL	A2 DRILL	A3 DRILL	A4 DRILL	N LGTH	Y FLATS
5650-04-04-04-04-FG	1/4-18	1/4-18	1/4-18	1/4-18	0.281	0.281	0.281	0.281	1.09	0.562
5650-16-16-16-16-FG	1-11/12	1-11/12	1-11/12	1-11/12	0.938	0.938	0.938	0.938	1.97	1.312

FP-FP-FP-FP Cross

5652 Series

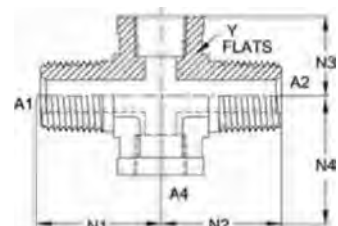
SAE# 140538
(As coded per SAE J846)



PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A4 NPTF	N LGTH	Y FLATS
5652-02-02-02-02-FG	1/8-27	1/8-27	1/8-27	1/8-27	0.66	0.562
5652-04-04-04-04-FG	1/4-18	1/4-18	1/4-18	1/4-18	0.88	0.750
5652-06-06-06-06-FG	3/8-18	3/8-18	3/8-18	3/8-18	1.02	0.875
5652-08-08-08-08-FG	1/2-14	1/2-14	1/2-14	1/2-14	1.23	1.062
5652-12-12-12-12-FG	3/4-14	3/4-14	3/4-14	3/4-14	1.36	1.312
5652-16-16-16-16-FG	1-11 1/2	1-11 1/2	1-11 1/2	1-11 1/2	1.62	1.625
5652-20-20-20-20-FG	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1-1/4-11 1/2	1.70	1.875
5652-24-24-24-24-FG	1-1/2-11 1/2	1-1/2-11 1/2	1-1/2-11 1/2	1-1/2-11 1/2	2.08	2.562
5652-32-32-32-32-FG	2-11 1/2	2-11 1/2	2-11 1/2	2-11 1/2	2.39	2.812

Tube Fittings & Adapters

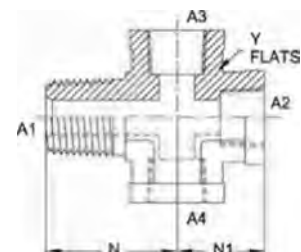
MP-MP-FP-FP Cross 5653 Series



PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A4 NPTF	A1 DRILL	A2 DRILL	N1 LGTH	N2 LGTH	N3 LGTH	N4 LGTH	Y FLATS
5653-04-04-04-04-FG	1/4-18	1/4-18	1/4-18	1/4-18	0.281	0.281	1.09	1.09	0.88	0.88	0.750
5653-06-06-06-06-FG	3/8-18	3/8-18	3/8-18	3/8-18	0.406	0.406	1.22	1.22	1.02	1.02	0.875

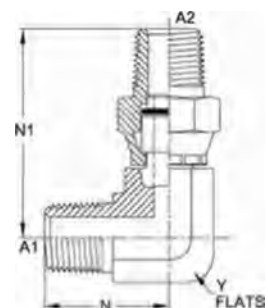
C-082

MP-FP-FP-FP Cross 5655 Series



PART NO. SIZE	A1 NPTF	A2 NPTF	A3 NPTF	A4 NPTF	A1 DRILL	N LGTH	N1 LGTH	Y FLATS
5655-04-04-04-04-FG	1/4-18	1/4-18	1/4-18	1/4-18	0.281	1.09	0.88	0.750
5655-06-06-06-06-FG	3/8-18	3/8-18	3/8-18	3/8-18	0.406	1.22	1.02	0.875
5655-08-08-08-08-FG	1/2-14	1/2-14	1/2-14	1/2-14	0.531	1.47	1.23	1.062
5655-12-12-12-12-FG	3/4-14	3/4-14	3/4-14	3/4-14	0.719	1.59	1.36	1.312
5655-16-16-16-16-FG	1-11-1/2	1-11-1/2	1-11-1/2	1-11-1/2	0.938	1.70	1.62	1.625
5655-20-16-08-08-FG	1-1/4-11-1/2	1-11-1/2	1/2-14	1/2-14	1.25	2.38	1.62	1.625

MP-MPS 90° 5700 Series

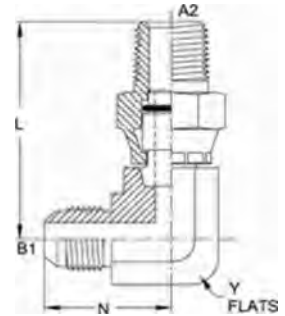


PART NO. SIZE	A1 NPTF	A2 NPTF	A1 DRILL	N LGTH	N1 LGTH	Y FLATS
5700-04-04-FG	1/4-18	1/4-18	0.281	1.07	1.16	0.625
5700-06-06-FG	3/8-18	3/8-18	0.406	1.22	1.64	0.750
5700-08-08-FG	1/2-14	1/2-14	0.531	1.49	2.00	0.875
5700-12-12-FG	3/4-14	3/4-14	0.719	1.52	2.14	1.125

MJ-MPS 90° 5701 Series

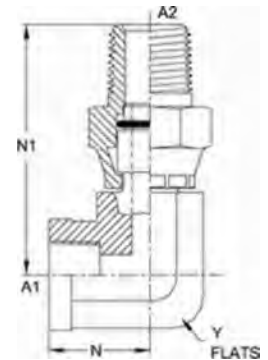
C-083

PART NO. SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	N LGTH	L LGTH	Y FLATS
5701-06-04-FG	3/8	9/16-18	1/4-18	0.297	1.08	1.59	0.687
5701-06-06-FG	3/8	9/16-18	3/8-18	0.297	1.14	1.66	0.687
5701-08-06-FG	1/2	3/4-16	3/8-18	0.391	1.26	1.66	0.812
5701-08-08-FG	1/2	3/4-16	1/2-14	0.391	1.25	1.80	0.812
5701-10-08-FG	5/8	7/8-14	1/2-14	0.484	1.47	2.00	1.000
5701-12-12-FG	3/4	1-1/16-12	3/4-14	0.609	1.67	2.14	1.125



FP-MPS 90° 5702 Series

PART NO. SIZE	A1 NPTF	A2 NPTF	N LGTH	N1 LGTH	Y FLATS
5702-04-04-FG	1/4-18	1/4-18	0.89	1.59	0.750
5702-06-06-FG	3/8-18	3/8-18	1.03	1.70	0.875
5702-08-08-FG	1/2-14	1/2-14	1.24	2.01	1.125
5702-12-12-FG	3/4-14	3/4-14	1.37	2.25	1.375



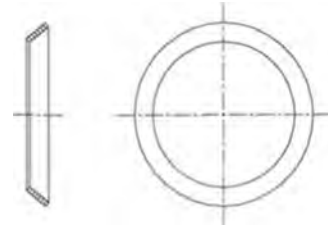
Tube Fittings & Adapters

PART
NO.SIZE

TUBE
O.D.

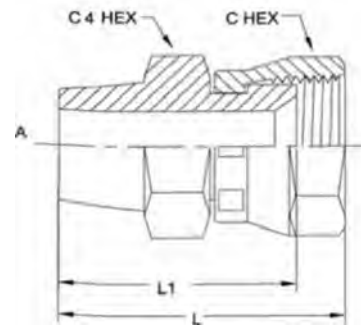
6000-02	1/8
6000-03	3/16
6000-04	1/4
6000-05	5/16
6000-06	3/8
6000-08	1/2
6000-10	5/8
6000-12	3/4
6000-14	7/8
6000-16	1
6000-20	1-1/4
6000-24	1-1/2
6000-32	2

Back-Up Washer 6000 Series



C-084

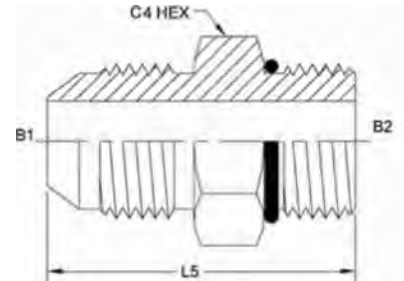
FJS-Weld Straight 6316 Series



PART NO.SIZE	TUBE O.D.	A Weld	B FJS	B DRILL	LI LOTH	L LGTH	C HEX	C4 HEX
6316-04	1/4	0.250	7/16-20	0.172	1.01	1.364	0.562	0.562
6316-06	3/8	0.375	9/16-18	0.297	1.01	1.470	0.688	0.688
6316-08	1/2	0.500	3/4-16	0.391	1.17	1.609	0.875	0.875
6316-10	5/8	0.625	7/8-14	0.484			1.000	1.000
6316-12	3/4	0.750	1-1/16-12	0.609	1.26	1.837	1.250	1.062
6316-16	1	1.000	1-5/16-12	0.844	1.40	2.003	1.500	1.312
6316-20	1-1/4	1.250	1-5/8-12	1.078	1.63	2.275	2.000	1.750
6316-24	1-1/2	1.500	1-7/8-12	1.078			2.250	2.000

MJ-MORB Straight 6400-0 Series

SAE# 070120 / MS# 51525



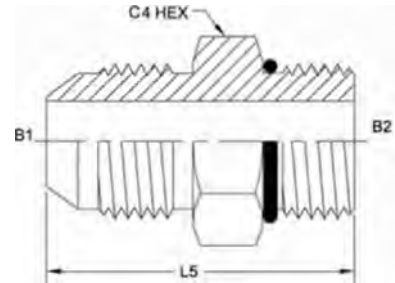
C-085

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	L5 LGTH	C4 HEX
6400-02-02-0	1/8	5/16-24	5/16-24	0.062	0.062	1.06	0.438
6400-02-06-0	1/8	5/16-24	9/16-18	0.062	0.297	1.19	0.688
6400-03-02-0	3/16	3/8-24	5/16-24	0.125	0.062	1.10	0.500
6400-03-03-0	3/16	3/8-24	3/8-24	0.125	0.125	1.10	0.500
6400-03-04-0	1/4	3/8-24	7/16-20	0.125	0.172	1.16	0.562
6400-04-02-0	1/4	7/16-20	5/16-24	0.172	0.062	1.17	0.500
6400-04-03-0	1/4	7/16-20	3/8-24	0.172	0.125	1.17	0.562
6400-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	1.23	0.562
6400-04-05-0	1/4	7/16-20	1/2-20	0.172	0.234	1.23	0.625
6400-04-06-0	1/4	7/16-20	9/16-18	0.172	0.297	1.29	0.688
6400-04-08-0	1/4	7/16-20	3/4-16	0.172	0.391	1.37	0.875
6400-04-10-0	1/4	7/16-20	7/8-14	0.172	0.484	1.49	1.000
6400-04-12-0	1/4	7/16-20	1-1/16-12	0.172	0.609	1.66	1.250
6400-05-04-0	5/16	1/2-20	7/16-20	0.234	0.172	1.23	0.562
6400-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	1.23	0.625
6400-05-06-0	5/16	1/2-20	9/16-18	0.234	0.297	1.29	0.688
6400-05-08-0	5/16	1/2-20	3/4-16	0.234	0.391	1.37	0.875
6400-05-10-0	5/16	1/2-20	7/8-14	0.234	0.484	1.49	1.000
6400-06-03-0	3/8	9/16-18	3/8-24	0.297	0.125	1.30	0.687
6400-06-04-0	3/8	9/16-18	7/16-20	0.297	0.172	1.27	0.687
6400-06-05-0	3/8	9/16-18	1/2-20	0.297	0.234	1.27	0.687
6400-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	1.30	0.688
6400-06-08-0	3/8	9/16-18	3/4-16	0.297	0.391	1.38	0.875
6400-06-10-0	3/8	9/16-18	7/8-14	0.297	0.484	1.50	1.000
6400-06-12-0	3/8	9/16-18	1-1/16-12	0.297	0.609	1.66	1.250
6400-06-16-0	3/8	9/16-18	1-5/16-12	0.297	0.844	1.68	1.500
6400-08-04-0	1/2	3/4-16	7/16-20	0.391	0.172	1.49	0.875
6400-08-05-0	1/2	3/4-16	1/2-20	0.391	0.234	1.49	0.875
6400-08-06-0	1/2	3/4-16	9/16-18	0.391	0.297	1.44	0.812
6400-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.48	0.875
6400-08-10-0	1/2	3/4-16	7/8-14	0.391	0.484	1.60	1.000
6400-08-12-0	1/2	3/4-16	1-1/16-12	0.391	0.609	1.76	1.250
6400-08-14-0	1/2	3/4-16	1-3/16-12	0.391	0.719	1.76	1.375
6400-08-16-0	1/2	3/4-16	1-5/16-12	0.391	0.844	1.79	1.500
6400-08-20-0	1/2	3/4-16	1-5/8-12	0.391	1.078	1.87	1.875
6400-10-04-0	5/8	7/8-14	7/16-20	0.484	0.172	1.65	1.000
6400-10-06-0	5/8	7/8-14	9/16-18	0.484	0.297	1.71	1.000
6400-10-08-0	5/8	7/8-14	3/4-16	0.484	0.391	1.64	1.000

Continued on next page

Tube Fittings & Adapters

6400-0 Series continued

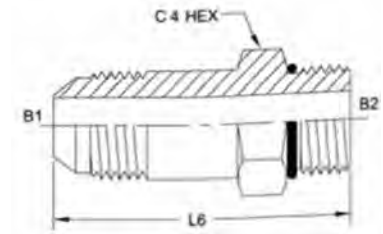


C-086

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	82 DRILL	LS LGTH	C4 HEX
6400-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.70	1.000
6400-10-12-0	5/8	7/8-14	1-1/16-12	0.484	0.609	1.86	1.250
6400-10-14-0	5/8	7/8-14	1-3/16-12	0.484	0.719	1.86	1.375
6400-10-16-0	5/8	7/8-14	1-5/16-12	0.484	0.844	1.89	1.500
6400-10-20-0	5/8	7/8-14	1-5/8-12	0.484	1.078	1.97	1.875
6400-12-06-0	3/4	1-1/16-12	9/16-18	0.609	0.297	1.86	1.125
6400-12-08-0	3/4	1-1/16-12	3/4-16	0.609	0.391	1.94	1.125
6400-12-10-0	3/4	1-1/16-12	7/8-14	0.609	0.484	1.88	1.125
6400-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.97	1.250
6400-12-14-0	3/4	1-1/16-12	1-3/16-12	0.609	0.719	1.96	1.375
6400-12-16-0	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.99	1.500
6400-12-20-0	3/4	1-1/16-12	1-5/8-12	0.609	1.078	2.08	1.875
6400-12-24-0	7/8	1-1/16-12	1-7/8-12	0.609	1.312	2.15	2.125
6400-14-08-0	7/8	1-3/16-12	3/4-16	0.719	0.391	1.96	1.250
6400-14-10-0	7/8	1-3/16-12	7/8-14	0.719	0.484	2.02	1.250
6400-14-12-0	7/8	1-3/16-12	1-1/16-12	0.719	0.609	1.99	1.250
6400-14-14-0	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.99	1.375
6400-14-16-0	7/8	1-3/16-12	1-5/16-12	0.719	0.844	2.02	1.500
6400-16-06-0	1	1-5/16-12	9/16-18	0.844	0.297	1.93	1.375
6400-16-08-0	1	1-5/16-12	3/4-16	0.844	0.391	2.01	1.375
6400-16-10-0	1	1-5/16-12	7/8-14	0.844	0.484	2.07	1.375
6400-16-12-0	1	1-5/16-12	1-1/16-12	0.844	0.609	2.04	1.375
6400-16-14-0	1	1-5/16-12	1-3/16-12	0.844	0.719	2.04	1.375
6400-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	2.04	1.500
6400-16-20-0	1	1-5/16-12	1-5/8-12	0.844	1.078	2.12	1.875
6400-16-24-0	1	1-5/16-12	1-7/8-12	0.844	1.312	2.20	2.125
6400-20-12-0	1-1/4	1-5/8-12	1-1/16-12	1.078	0.609	2.30	1.688
6400-20-16-0	1-1/4	1-5/8-12	1-5/16-12	1.078	0.844	2.33	1.688
6400-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.17	1.875
6400-20-24-0	1-1/4	1-5/8-12	1-7/8-12	1.078	1.312	2.24	2.125
6400-20-32-0	1-1/4	1-5/8-12	2-1/2-12	1.078	1.781	2.40	2.400
6400-20-40-0	1-1/4	1-5/8-12	3-12	1.078	2.318		
6400-24-16-0	1-1/2	1-7/8-12	1-5/16-12	1.312	0.844	2.53	2.750
6400-24-20-0	1-1/2	1-7/8-12	1-5/8-12	1.312	1.078	2.53	2.125
6400-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.37	2.125
6400-24-32-0	1-1/2	1-7/8-12	2-1/2-12	1.312	1.781	2.53	2.750
6400-32-20-0	2	2-1/2-12	1-5/8-12	1.781	1.078	2.94	2.750
6400-32-24-0	2	2-1/2-12	1-7/8-12	1.781	1.312	2.94	2.625
6400-32-32-0	2	2-1/2-12	2-1/2-12	1.781	1.781	2.78	2.750
6400-32-40-0	2	2-1/2-12	3-12	1.781	2.318		

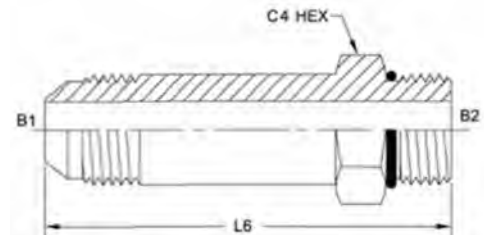
MJ-MORB Straight Long 6400-L-O Series

SAE# 070122 / MS# 51526



C-087

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	LG LETX	C4 HEX
6400-L-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	2.08	0.562
6400-L-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	2.14	0.625
6400-L-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	2.31	0.688
6400-L-06-08-0	3/8	9/16-18	3/4-16	0.297	0.391	2.60	0.875
6400-L-08-06-0	1/2	3/4-16	9/16-18	0.391	0.297	2.66	0.875
6400-L-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	2.70	0.875
6400-L-08-10-0	1/2	3/4-16	7/8-14	0.391	0.484	2.94	1.000
6400-L-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	3.04	1.000
6400-L-10-16-0	5/8	7/8-14	1-5/16-12	0.484	0.844	3.83	1.500
6400-L-12-08-0	3/4	1-1/16-12	3/4-16	0.609	0.391	3.46	1.125
6400-L-12-10-0	3/4	1-1/16-12	7/8-14	0.609	0.484	3.52	1.125
6400-L-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	3.61	1.250
6400-L-12-16-0	3/4	1-1/16-12	1-5/16-12	0.609	0.844	3.93	1.500
6400-L-14-14-0	7/8	1-3/16-12	1-3/16-12	0.719	0.719	3.80	1.375
6400-L-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	3.98	1.500
6400-L-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	4.69	1.875
6400-L-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	5.17	2.125

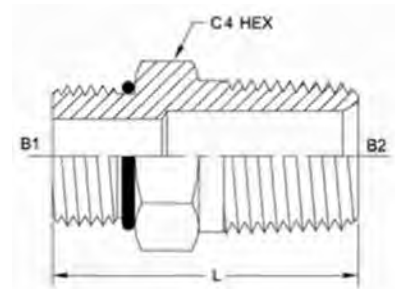


MJ-MORB Straight Extra Long 6400-LL-O Series

PART ND.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	L6 LGTH	C4 HEX
6400-LL-06-08-0	3/8	9/16-18	3/4-16	0.297	0.391		0.875
6400-LL-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	5.27	1.500

Tube Fittings & Adapters

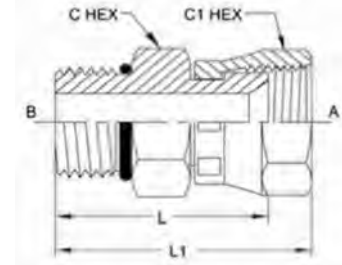
MORB-MP Straight 6401-0 Series



C-088

PART NO.SIZE	TUBE O.D.	B SAE ORB	B2 NPTF	B DRILL	B2 DRILL	L LGTH	C4 HEX
6401-02-02-0	1/4	5/16-24	1/8-27	0.062	0.188	1.01	0.438
6401-03-02-0	1/4	3/8-24	1/8-27	0.125	0.188	1.01	0.500
6401-04-02-0	1/4	7/16-20	1/8-27	0.172	0.188	1.07	0.562
6401-04-04-0	1/4	7/16-20	1/4-18	0.172	0.281	1.25	0.562
6401-05-02-0	5/16	1/2-20	1/8-27	0.234	0.188	1.07	0.625
6401-05-04-0	5/16	1/2-20	1/4-18	0.234	0.281	1.25	0.625
6401-06-02-0	3/8	9/16-18	1/8-27	0.297	0.188	1.13	0.688
6401-06-04-0	3/8	9/16-18	1/4-18	0.297	0.281	1.31	0.688
6401-06-06-0	3/8	9/16-18	3/8-18	0.297	0.406	1.31	0.750
6401-06-08-0	3/8	9/16-18	1/2-14	0.297	0.531	1.61	0.875
6401-08-04-0	1/2	3/4-16	1/4-18	0.391	0.281	1.39	0.875
6401-08-06-0	1/2	3/4-16	3/8-18	0.391	0.406	1.39	0.875
6401-08-08-0	1/2	3/4-16	1/2-14	0.391	0.531	1.58	0.875
6401-08-12-0	1/2	3/4-16	3/4-14	0.391	0.719	1.77	1.125
6401-10-04-0	5/8	7/8-14	1/4-18	0.484	0.281	1.51	1.000
6401-10-06-0	5/8	7/8-14	3/8-18	0.484	0.406	1.51	1.000
6401-10-08-0	5/8	7/8-14	1/2-14	0.484	0.531	1.70	1.000
6401-10-12-0	5/8	7/8-14	3/4-14	0.484	0.719	1.70	1.125
6401-12-06-0	3/4	1-1/16-12	3/8-18	0.609	0.406	1.67	1.250
6401-12-08-0	3/4	1-1/16-12	1/2-14	0.609	0.531	1.86	1.250
6401-12-12-0	3/4	1-1/16-12	3/4-14	0.609	0.719	1.86	1.250
6401-12-16-0	3/4	1-1/16-12	1-11-1/2	0.609	0.938	2.05	1.375
6401-14-12-0	7/8	1-3/16-12	3/4-14	0.719	0.719	1.86	1.375
6401-14-16-0	7/8	1-3/16-12	1-11-1/2	0.719	0.938	2.05	1.375
6401-16-12-0	1	1-5/16-12	3/4-14	0.844	0.719	1.89	1.500
6401-16-16-0	1	1-5/16-12	1-11-1/2	0.844	0.938	2.08	1.500
6401-16-20-0	1	1-5/16-12	1-1/4-11-1/2	0.844	1.250	2.29	1.688
6401-20-12-0	1-1/4	1-5/8-12	3/4-14	1.078	0.719	1.97	1.875
6401-20-16-0	1-1/4	1-5/8-12	1-11-1/2	1.078	0.938	2.16	1.875
6401-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.19	1.875
6401-20-24-0	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	1.500	2.40	2.000
6401-24-16-0	1-1/2	1-7/8-12	1-11-1/2	1.312	0.938	2.23	2.125
6401-24-20-0	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.250	2.26	2.125
6401-24-24-0	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.29	2.125
6401-32-32-0	2	2-1/2-12	2-11-1/2	1.781	1.938	2.48	2.750

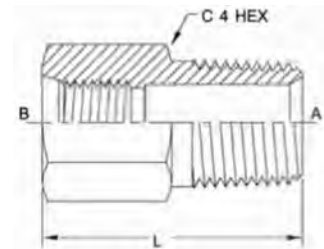
MORB-FJS Straight 6402-0 Series



C-089

PART NO.SIZE	TUBE O.O.	B SAEORB	A SAE37	B DRILL	A DRILL	L LOTH	11 LGTH	CI HEX	C HEX
6402-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	1.02	1.31	0.562	0.562
6402-04-06-0	1/4	7/16-20	9/16-18	0.172	0.297	1.09	1.42	0.688	0.562
6402-06-04-0	3/8	9/16-18	7/16-20	0.297	0.172	1.08	1.37	0.562	0.688
6402-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	1.15	1.48	0.688	0.688
6402-06-08-0	3/8	9/16-18	3/4-16	0.297	0.391	1.20	1.58	0.875	0.812
6402-08-06-0	1/2	3/4-16	9/16-18	0.391	0.297	1.23	1.56	0.688	0.875
6402-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.28	1.65	0.875	0.875
6402-08-10-0	1/2	3/4-16	7/8-14	0.391	0.484	1.31	1.76	1.000	0.875
6402-10-08-0	5/8	7/8-14	3/4-16	0.484	0.391	1.40	1.78	0.875	1.000
6402-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.43	1.88	1.000	1.000
6402-12-10-0	3/4	1-1/16-12	7/8-14	0.609	0.484	1.60	2.05	1.000	1.250
6402-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.63	2.15	1.250	1.250
6402-16-16-0	1	1-5/16-12	1-5/16-12	0.846	0.844	1.72	2.27	1.500	1.500
6402-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.85	2.40	2.000	1.875
6402-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.99	2.67	2.250	2.125
6402-32-32-0	2	2-1/2-12	2-1/2-12	1.781	1.781	2.18	3.07	2.875	2.750

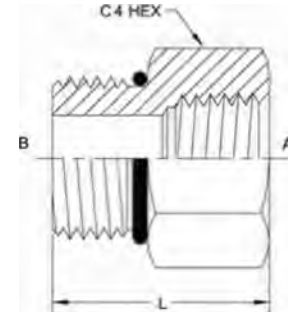
FORB-MP Straight 6404 Series



PART NO.SIZE	TUBE O.O.	B SAEORB	A NPTF	A DRILL	I LGTH	C4 HEX
6404-03-06	3/16	3/8-24	3/8-18	0.406	0.85	0.750
6404-04-02	1/4	7/16-20	1/8-27	0.188	1.12	0.688
6404-04-04	1/4	7/16-20	1/4-18	0.281	1.30	0.688
6404-04-06	1/4	7/16-20	3/8-18	0.406	1.30	0.750
6404-05-02	5/16	1/2-20	1/8-27	0.188	1.17	0.750
6404-05-04	5/16	1/2-20	1/4-18	0.281	1.35	0.750
6404-05-06	5/16	1/2-20	3/8-18	0.406	1.35	0.750
6404-06-04	3/8	9/16-18	1/4-18	0.281	1.35	0.812
6404-06-06	3/8	9/16-18	3/8-18	0.406	1.35	0.812
6404-06-08	3/8	9/16-18	1/2-14	0.531	1.54	0.875
6404-08-04	1/2	3/4-16	1/4-18	0.281	1.46	1.062
6404-08-06	1/2	3/4-16	3/8-18	0.406	1.46	1.062
6404-08-08	1/2	3/4-16	1/2-14	0.531	1.65	1.062
6404-08-12	1/2	3/4-16	3/4-14	0.719	1.65	1.125
6404-10-06	5/8	7/8-14	3/8-18	0.406	1.55	1.125
6404-10-08	5/8	7/8-14	1/2-14	0.531	1.74	1.125
6404-10-12	5/8	7/8-14	3/4-14	0.719	1.74	1.125
6404-12-08	3/4	1-1/16-12	1/2-14	0.531	1.91	1.375
6404-12-12	3/4	1-1/16-12	3/4-14	0.719	1.91	1.375
6404-14-12	7/8	1-3/16-12	3/4-14	0.719	1.91	1.625
6404-16-12	1	1-5/16-12	3/4-14	0.719	1.91	1.625
6404-16-16	1	1-5/16-12	1-11-1/2	0.938	2.10	1.625
6404-16-20	1	1-5/16-12	1-1/4-11-1/2	1.250	2.13	1.688
6404-16-24	1	1-5/16-12	1-1/2-11-1/2	1.500	1.57	2.000
6404-20-16	1-1/4	1-5/8-12	1-11-1/2	0.938	2.16	2.125
6404-20-20	1-1/4	1-5/8-12	1-1/4-11-1/2	1.250	2.19	2.125
6404-24-24	1-1/2	1-7/8-12	1-1/2-11-1/2	1.500	2.23	2.500
6404-32-32	2	2-1/2-12	2-11-1/2	1.938	2.26	2.875

Tube Fittings & Adapters

MORB-FP Straight 6405-0 Series



C-090

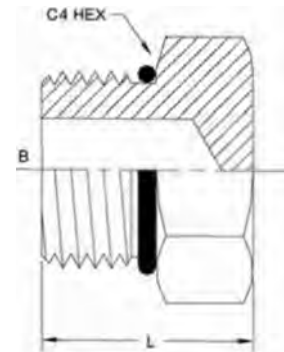
PART NO.SIZE	TUBE O.O.	B SAEORB	A NPTf	B DRILL	L LOTH	C4 HEX
6405-02-02-0	1/8	5/16-24	1/8-27	0.062	0.93	0.562
6405-02-04-0	1/8	5/16-24	1/4-18	0.062	1.24	0.750
6405-03-04-0	3/16	3/8-24	1/4-18	0.125	1.24	0.750
6405-04-02-0	1/4	7/16-20	1/8-27	0.172	0.99	0.562
6405-04-04-0	1/4	7/16-20	1/4-18	0.172	1.31	0.750
6405-04-06-0	1/4	7/16-20	3/8-18	0.172	1.37	0.875
6405-05-02-0	5/16	1/2-20	1/8-27	0.234	0.99	0.625
6405-05-04-0	5/16	1/2-20	1/4-18	0.234	1.20	0.750
6405-05-06-0	5/16	1/2-20	3/8-18	0.234	1.37	0.875
6405-06-02-0	3/8	9/16-18	1/8-27	0.297	1.02	0.688
6405-06-04-0	3/8	9/16-18	1/4-18	0.297	1.23	0.750
6405-06-06-0	3/8	9/16-18	3/8-18	0.297	1.40	0.875
6405-06-08-0	3/8	9/16-18	1/2-14	0.297	1.63	1.125
6405-08-02-0	1/2	3/4-16	1/8-27	0.391	1.07	0.875
6405-08-04-0	1/2	3/4-16	1/4-18	0.391	1.28	0.875
6405-08-06-0	1/2	3/4-16	3/8-18	0.391	1.33	0.875
6405-08-08-0	1/2	3/4-16	1/2-14	0.391	1.71	1.125
6405-08-12-0	1/2	3/4-16	3/4-14	0.391	1.78	1.375
6405-10-04-0	5/8	7/8-14	1/4-18	0.484	1.34	1.000
6405-10-06-0	5/8	7/8-14	3/8-18	0.484	1.40	1.000
6405-10-08-0	5/8	7/8-14	1/2-14	0.484	1.63	1.125
6405-10-12-0	5/8	7/8-14	3/4-14	0.484	1.84	1.375
6405-12-04-0	3/4	1-1/16-12	1/4-18	0.609	1.43	1.250
6405-12-06-0	3/4	1-1/16-12	3/8-18	0.609	1.49	1.250
6405-12-08-0	3/4	1-1/16-12	1/2-14	0.609	1.72	1.250
6405-12-12-0	3/4	1-1/16-12	3/4-14	0.609	1.78	1.375
6405-12-16-0	3/4	1-1/16-12	1-11-1/2	0.609	2.18	1.625
6405-14-08-0	7/8	1-3/16-12	1/2-14	0.719	1.72	1.375
6405-14-12-0	7/8	1-3/16-12	3/4-14	0.719	1.78	1.375
6405-14-16-0	7/8	1-3/16-12	1-11-1/2	0.719	2.18	1.625
6405-16-04-0	1	1-5/16-12	1/4-18	0.844	1.43	1.500
6405-16-06-0	1	1-5/16-12	3/8-18	0.844	1.49	1.500
6405-16-08-0	1	1-5/16-12	1/2-14	0.844	1.72	1.500
6405-16-12-0	1	1-5/16-12	3/4-14	0.844	1.78	1.500
6405-16-16-0	1	1-5/16-12	1-11-1/2	0.844	2.03	1.625
6405-16-20-0	1	1-5/16-12	1-1/4-11-1/2	0.844	2.30	2.000
6405-16-24-0	1	1-5/16-12	1-1/2-11-1/2	0.844	2.30	2.375
6405-20-08-0	1-1/4	1-5/8-12	1/2-14	1.078	1.72	1.875
6405-20-12-0	1-1/4	1-5/8-12	3/4-14	1.078	1.78	1.875
6405-20-16-0	1-1/4	1-5/8-12	1-11-1/2	1.078	2.03	1.875
6405-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	2.30	2.000
6405-20-24-0	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	2.30	2.375
6405-20-32-0	1-1/4	1-5/8-12	2-11-1/2	1.078	2.40	2.875
6405-24-04-0	1-1/2	1-7/8-12	1/4-18	1.312	1.43	2.125
6405-24-12-0	1-1/2	1-7/8-12	3/4-14	1.312	1.78	2.125
6405-24-16-0	1-1/2	1-7/8-12	1-11-1/2	1.312	2.03	2.125
6405-24-20-0	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	2.12	2.125
6405-24-24-0	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	2.30	2.375
6405-32-16-0	2	2-1/2-12	1-11-1/2	1.781	2.03	2.750
6405-32-20-0	2	2-1/2-12	1-1/4-11-1/2	1.781	2.12	2.750
6405-32-24-0	2	2-1/2-12	1-1/2-11-1/2	1.781	2.12	2.750
6405-32-32-0	2	2-1/2-12	2-11-1/2	1.781	2.22	2.875

MORB External Hex Plug 6408-0 Series

SAE# 090109A

C-091

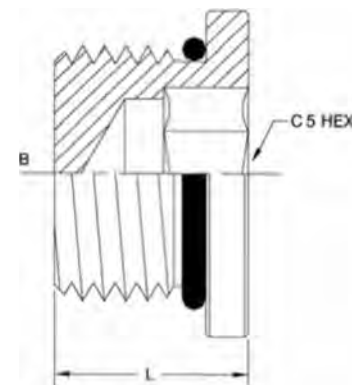
PART NO.SIZE	TUBE O.D.	B SAE ORB	L LGTH	C4 HEX
6408-02-0	1/8	5/16-24	0.60	0.438
6408-03-0	3/16	3/8-24	0.60	0.500
6408-04-0	1/4	7/16-20	0.67	0.562
6408-05-0	5/16	1/2-20	0.67	0.625
6408-06-0	3/8	9/16-18	0.73	0.687
6408-08-0	1/2	3/4-16	0.80	0.875
6408-10-0	5/8	7/8-14	0.93	1.000
6408-12-0	3/4	1-1/16-12	1.09	1.250
6408-14-0	7/8	1-3/16-12	1.09	1.375
6408-16-0	1	1-5/16-12	1.12	1.500
6408-20-0	1-1/4	1-5/8-12	1.20	1.875
6408-24-0	1-1/2	1-7/8-12	1.27	2.125
6408-32-0	2	2-1/2-12	1.43	2.750



MORB Hollow Hex Plug 6408-H-O Series

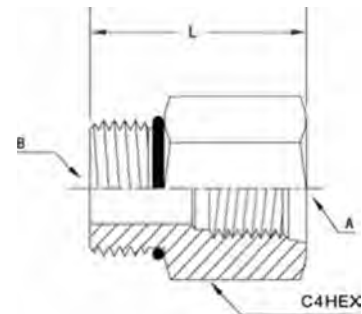
SAE# 090109B

PART NO.SIZE	TUBE O.D.	B SAE ORB	L LGTH	C5 HEX
6408-H02-0	1/8	5/16-24	0.40	0.125
6408-H03-0	3/16	3/8-24	0.40	0.125
6408-H04-0	1/4	7/16-20	0.47	0.188
6408-H05-0	5/16	1/2-20	0.47	0.188
6408-H06-0	3/8	9/16-18	0.50	0.250
6408-H08-0	1/2	3/4-16	0.58	0.312
6408-H10-0	5/8	7/8-14	0.65	0.375
6408-H12-0	3/4	1-1/16-12	0.77	0.562
6408-H14-0	7/8	1-3/16-12	0.77	0.562
6408-H16-0	1	1-5/16-12	0.77	0.625
6408-H20-0	1-1/4	1-5/8-12	0.77	0.750
6408-H24-0	1-1/2	1-7/8-12	0.77	0.750
6408-H32-0	2	2-1/2-12	0.77	0.750



Tube Fittings & Adapters

MORB-FORB Straight Reducer 6410-0 Series



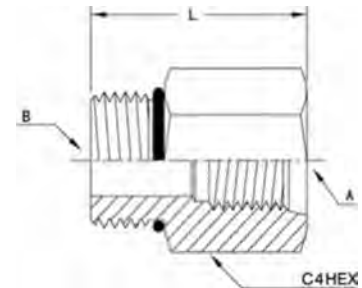
C-092

PART NO. SIZE	B SAEORB	A SAEORB	B DRILL	L LGTH	C4 HEX
6410-02-04-0	5/16-24	7/16-20	0.062	1.13	0.688
6410-03-04-0	3/8-24	7/16-20	0.125	1.13	0.688
6410-04-02-0	7/16-20	5/16-24	0.172	1.08	0.562
6410-04-04-0	7/16-20	7/16-20	0.172	1.08	0.688
6410-04-05-0	7/16-20	1/2-20	0.172	1.24	0.750
6410-04-06-0	7/16-20	9/16-18	0.172	1.24	0.812
6410-04-08-0	7/16-20	3/4-16	0.172	1.35	1.062
6410-05-04-0	1/2-20	7/16-20	0.234	1.08	0.688
6410-05-06-0	1/2-20	9/16-18	0.234	1.24	0.812
6410-06-04-0	9/16-18	7/16-20	0.297	1.12	0.688
6410-06-06-0	9/16-18	9/16-18	0.297	1.16	0.812
6410-06-08-0	9/16-18	3/4-16	0.297	1.38	1.062
6410-06-10-0	9/16-18	7/8-14	0.297	1.48	1.125
6410-08-03-0	3/4-16	3/8-24	0.391	0.85	0.875
6410-08-04-0	3/4-16	7/16-20	0.391	1.16	0.875
6410-08-05-0	3/4-16	1/2-20	0.391	1.21	0.875
6410-08-06-0	3/4-16	9/16-18	0.391	1.21	0.875
6410-08-08-0	3/4-16	3/4-16	0.391	1.47	1.062
6410-08-10-0	3/4-16	7/8-14	0.391	1.56	1.125
6410-08-12-0	3/4-16	1-1/16-12	0.391	1.73	1.375
6410-10-04-0	7/8-14	7/16-20	0.484	0.91	1.000
6410-10-05-0	7/8-14	1/2-20	0.484	1.27	1.000
6410-10-06-0	7/8-14	9/16-18	0.484	1.27	1.000
6410-10-08-0	7/8-14	3/4-16	0.484	1.38	1.062
6410-10-12-0	7/8-14	1-1/16-12	0.484	1.79	1.375
6410-10-16-0	7/8-14	1-5/16-12	0.484	1.79	1.625
6410-12-04-0	1-1/16-12	7/16-20	0.609	1.00	1.250
6410-12-06-0	1-1/16-12	9/16-18	0.609	1.00	1.250
6410-12-08-0	1-1/16-12	3/4-16	0.609	1.48	1.250
6410-12-10-0	1-1/16-12	7/8-14	0.609	1.57	1.250
6410-12-12-0	1-1/16-12	1-1/16-12	0.609	1.73	1.375
6410-12-14-0	1-1/16-12	1-3/16-12	0.609	1.88	1.625
6410-12-16-0	1-1/16-12	1-5/16-12	0.609	1.88	1.625

Continued on next page

6410-0 Series continued

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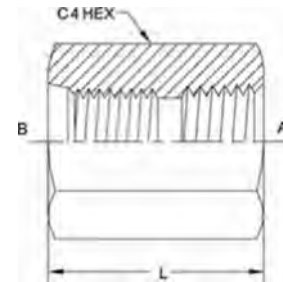


PART NO.SIZE	B SAEORB	A SAE ORB	B DRILL	L LOTH	C4 HEX
6410-12-20-0	1-1/16-12	1-5/8-12	0.609	1.94	2.125
6410-14-08-0	1-3/16-12	3/4-16	0.719	1.48	1.375
6410-14-10-0	1-3/16-12	7/8-14	0.719	1.57	1.375
6410-14-12-0	1-3/16-12	1-1/16-12	0.719	1.73	1.375
6410-14-16-0	1-3/16-12	1-5/16-12	0.719	1.88	1.625
6410-16-04-0	1-5/16-12	7/16-20	0.844	1.00	1.500
6410-16-06-0	1-5/16-12	9/16-18	0.844	1.00	1.500
6410-16-08-0	1-5/16-12	3/4-16	0.844	1.00	1.500
6410-16-10-0	1-5/16-12	7/8-14	0.844	1.57	1.500
6410-16-12-0	1-5/16-12	1-1/16-12	0.844	1.73	1.500
6410-16-14-0	1-5/16-12	1-3/16-12	0.844	1.73	1.625
6410-16-16-0	1-5/16-12	1-5/16-12	0.844	1.73	1.625
6410-16-20-0	1-5/16-12	1-5/8-12	0.844	1.97	2.125
6410-16-24-0	1-5/16-12	1-7/8-12	0.844	1.98	2.500
6410-20-06-0	1-5/8-12	9/16-18	1.078	1.00	1.875
6410-20-08-0	1-5/8-12	3/4-16	1.078	1.00	1.875
6410-20-10-0	1-5/8-12	7/8-14	1.078	1.00	1.875
6410-20-12-0	1-5/8-12	1-1/16-12	1.078	1.00	1.875
6410-20-16-0	1-5/8-12	1-5/16-12	1.078	1.73	1.875
6410-20-24-0	1-5/8-12	1-7/8-12	1.078	1.98	2.500
6410-24-06-0	1-7/8-12	9/16-18	1.312	1.00	2.125
6410-24-12-0	1-7/8-12	1-1/16-12	1.312	1.00	2.125
6410-24-16-0	1-7/8-12	1-5/16-12	1.312	1.73	2.125
6410-24-20-0	1-7/8-12	1-5/8-12	1.312	1.79	2.125
6410-24-24-0	1-7/8-12	1-7/8-12	1.312	1.98	2.500
6410-32-12-0	2-1/2-12	1-1/16-12	1.781	1.00	2.750
6410-32-16-0	2-1/2-12	1-5/16-12	1.781	1.00	2.750
6410-32-20-0	2-1/2-12	1-5/8-12	1.781	1.00	2.750
6410-32-24-0	2-1/2-12	1-7/8-12	1.781	1.80	2.750

Tube Fittings & Adapters

FORB-FP Straight 6420-0 Series

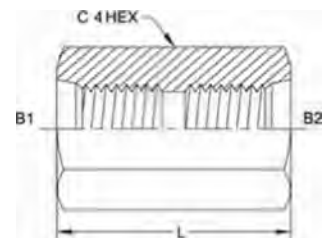
PART NO.SIZE	TUBE O.D.SAE	B O.D.SAE	A NPTF	I LGTH	C4 HEX
6420-06-06	3/8	9/16-18	3/8-18	1.32	0.875
6420-08-04	1/2	3/4-16	1/4-18	1.39	1.062
6420-08-08	1/2	3/4-16	1/2-14	1.62	1.125
6420-10-08	7/8	7/8-14	1/2-14	1.72	1.125



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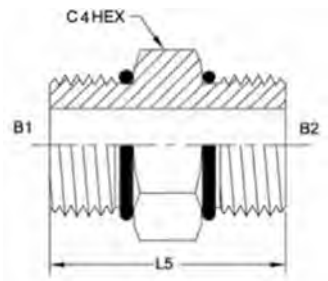
FORB-FORB Straight 6425 Series

PART NO.SIZE	TUBE O.D. SAE	B1 O.D. SAE	B2 O.D. SAE	I LGTH	C4 HEX
6425-08-08	1/2	3/4-16	3/4-16	1.42	1.062
6425-10-10	5/8	7/8-14	7/8-14	1.60	1.125
6425-12-12	3/4	1-1/16-12	1-1/16-12	1.84	1.375
6425-16-16	1	1-5/16-12	1-5/16-12	1.84	1.625

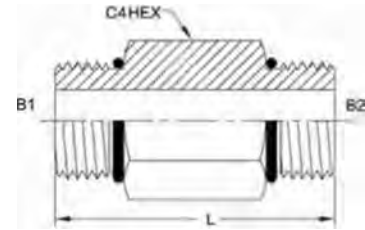


MORB-MORB Straight 6464-0 Series

PART NO.SIZE	TUBE O.D.	B1 SAE ORB	B2 SAE ORB	B1 DRILL	B2 DRILL	L5 LGTH	C4 HEX
6464-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	1.03	0.562
6464-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.25	0.875
6464-10-08-0	5/8	7/8-14	3/4-16	0.484	0.391	1.37	1.000
6464-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.43	1.000
6464-16-12-0	1	1-5/16-12	1-1/16-12	0.844	0.609	1.72	1.500
6464-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	1.72	1.500
6464-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.80	1.875
6464-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.87	2.125



MORB-MORB Straight 6464-L-O Series

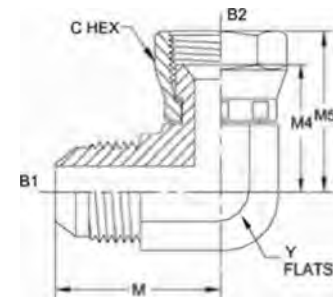


C-095

PART NO.SIZE	TUBE O.D.	B1 SAEORB	B2 SAEORB	B1 DRILL	B2 DRILL	L LGTH	C4 HEX
6464-L-06-06-O	3/8	9/16-18	9/16-18	0.297	0.297	1.49	0.688
6464-L-08-08-O	1/2	3/4-16	3/4-16	0.391	0.391	1.76	0.875
6464-L-10-08-O	5/8	7/8-14	3/4-16	0.484	0.391	1.82	1.000
6464-L-10-10-O	5/8	7/8-14	7/8-14	0.484	0.484	1.80	1.000
6464-L-16-12-O	1	1-5/16-12	1-1/16-12	0.844	0.609	2.19	1.500

MJ-FJS 90° 6500 Series

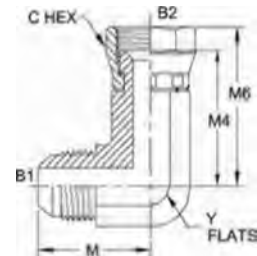
SAE# 070221



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	M4 LGTH	M5 LGTH	C HEX	Y FLATS
6500-02-02-FG	1/8	5/16-24	5/16-24	0.062	0.062	0.77	0.66	0.97	0.438	0.438
6500-03-03-FG	3/16	3/8-24	3/8-24	0.125	0.125	0.83	0.67	1.00	0.500	0.438
6500-04-04-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.89	0.65	1.00	0.563	0.438
6500-04-06-FG	1/4	7/16-20	9/16-18	0.172	0.297	1.05	0.87	1.25	0.688	0.562
6500-05-05-FG	5/16	1/2-20	1/2-20	0.234	0.234	0.95	0.67	1.06	0.625	0.562
6500-05-06-FG	5/16	1/2-20	9/16-18	0.234	0.297	0.95	0.87	1.25	0.688	0.562
6500-06-04-FG	3/8	9/16-18	7/16-20	0.297	0.172	1.06	0.80	1.15	0.563	0.562
6500-06-06-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.06	0.87	1.25	0.688	0.562
6500-06-08-FG	3/8	9/16-18	3/4-16	0.297	0.391	1.25	0.95	1.38	0.875	0.750
6500-08-06-FG	1/2	3/4-16	9/16-18	0.391	0.297	1.25	0.91	1.29	0.688	0.750
6500-08-08-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.25	0.95	1.38	0.875	0.750
6500-08-10-FG	1/2	3/4-16	7/8-14	0.391	0.484	1.45	1.12	1.62	1.000	0.875
6500-08-12-FG	1/2	3/4-16	1-1/16-12	0.391	0.609	1.66	1.18	1.75	1.250	1.062
6500-10-08-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.45	1.09	1.52	0.875	0.875
6500-10-10-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.45	1.12	1.62	1.000	0.875
6500-10-12-FG	5/8	7/8-14	1-1/16-12	0.484	0.609	1.66	1.18	1.75	1.250	1.062
6500-12-08-FG	3/4	1-1/16-12	3/4-16	0.609	0.391	1.66	1.12	1.55	0.875	1.062
6500-12-10-FG	3/4	1-1/16-12	7/8-14	0.609	0.484	1.66	1.16	1.66	1.000	1.062
6500-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	1.18	1.75	1.250	1.062
6500-12-16-FG	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.81	1.40	2.00	1.500	1.312
6500-14-14-FG	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.80	1.20	1.78	1.375	1.312
6500-16-12-FG	1	1-5/16-12	1-1/16-12	0.844	0.609	1.81	1.34	1.91	1.250	1.312
6500-16-16-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	1.40	2.00	1.500	1.312
6500-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	1.67	2.31	2.000	1.625
6500-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.33	1.87	2.59	2.250	1.875
6500-32-32-FG	2	2-1/2-12	2-1/2-12	1.781	1.781	3.06	2.43	3.38	2.875	2.500

Tube Fittings & Adapters

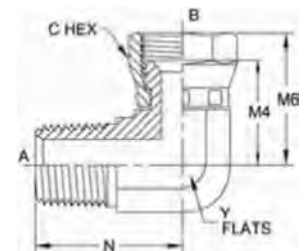
MJ-FJS 90° 6500-L Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	M4 L6TH	M6 LGTH	C HEX	Y FLATS
6500-L-04-04-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.81	2.16	0.562	0.438
6500-L-06-06-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.06	2.16	2.54	0.688	0.562
6500-L-08-08-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.25	2.38	2.81	0.875	0.750
6500-L-10-10-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.45	2.57	3.07	1.000	0.875
6500-L-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	3.73	4.30	1.250	1.062
6500-L-16-16-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	4.40	5.00	1.500	1.312

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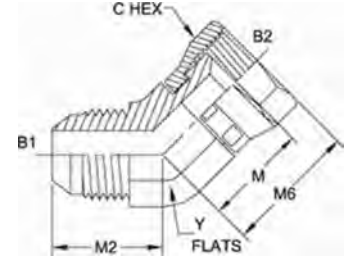
MP-FJS 90° 6501 Series



PART NO.SIZE	TUBE O.D.	A NPTF	B SAE37	A DRILL	B DRILL	M4 LGTH	MB LGTH	N LGTH	C HEX	Y FLATS
6501-02-04-FG	1/4	1/8-27	7/16-20	0.188	0.172	0.65	1.00	0.72	0.562	0.438
6501-02-05-FG	5/16	1/8-27	1/2-20	0.188	0.234	0.67	1.06	0.78	0.625	0.562
6501-04-04-FG	1/4	1/4-18	7/16-20	0.281	0.172	0.80	1.15	1.09	0.562	0.562
6501-04-05-FG	5/16	1/4-18	1/2-20	0.281	0.234	0.67	1.06	1.09	0.625	0.562
6501-04-06-FG	3/8	1/4-18	9/16-18	0.281	0.297	0.87	1.25	1.09	0.688	0.562
6501-06-04-FG	1/4	3/8-18	7/16-20	0.406	0.172	0.83	1.18	1.22	0.562	0.750
6501-06-06-FG	3/8	3/8-18	9/16-18	0.406	0.297	0.91	1.29	1.22	0.688	0.750
6501-06-08-FG	1/2	3/8-18	3/4-16	0.406	0.391	0.95	1.38	1.22	0.875	0.750
6501-08-06-FG	3/8	1/2-14	9/16-18	0.531	0.297	1.04	1.42	1.47	0.688	0.875
6501-08-08-FG	1/2	1/2-14	3/4-16	0.531	0.391	1.09	1.52	1.47	0.875	0.875
6501-08-10-FG	5/8	1/2-14	7/8-14	0.531	0.484	1.12	1.62	1.47	1.000	0.875
6501-12-12-FG	3/4	3/4-14	1-1/16-12	0.719	0.609	1.18	1.75	1.59	1.250	1.062
6501-12-14-FG	7/8	3/4-14	1-3/16-12	0.719	0.719	1.20	1.78	1.69	1.375	1.312
6501-16-16-FG	1	1-11-1/2	1-5/16-12	0.938	0.844	1.40	2.00	1.97	1.500	1.312
6501-20-20-FG	1-1/4	1-1/4-11-1/2	1-5/8-12	1.25	1.078	1.67	2.31	2.38	2.000	1.625
6501-24-24-FG	1-1/2	1-1/2-11-1/2	1-7/8-12	1.5	1.312	1.87	2.59	2.64	2.250	1.875
6501-32-32-FG	2	2-11-1/2	2-1/2-12	1.938	1.781	2.43	3.38	3	2.875	2.500

MJ-FJS 45° 6502 Series

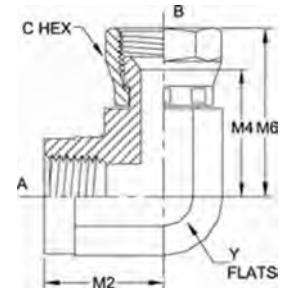
SAE# 070321 / MS# 51522



C-097

PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	B1 DRILL	B2 DRILL	M2 LGTH	M LGTH	M6 LGTH	C HEX	Y FLATS
6502-02-02-FG	1/8	5/16-24	5/16-24	0.062	0.062	0.69	0.63	0.94	0.438	0.438
6502-04-04-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.72	0.59	0.94	0.563	0.438
6502-05-05-FG	5/16	1/2-20	1/2-20	0.234	0.234	0.77	0.62	1.00	0.625	0.562
6502-06-06-FG	3/8	9/16-18	9/16-18	0.297	0.297	0.83	0.82	1.12	0.688	0.562
6502-08-08-FG	1/2	3/4-16	3/4-16	0.391	0.391	0.98	0.85	1.28	0.875	0.750
6502-10-08-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.11	0.91	1.34	0.875	0.875
6502-10-10-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.11	0.94	1.44	1.000	0.875
6502-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.28	0.93	1.50	1.250	1.062
6502-14-14-FG	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.45	1.04	1.62	1.375	1.312
6502-16-16-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.47	1.15	1.75	1.500	1.312
6502-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.59	1.39	2.03	2.000	1.625
6502-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.78	1.53	2.25	2.250	1.875
6502-32-32-FG	2	2-1/2-12	2-1/2-12	1.781	1.781	2.22	1.96	2.91	2.875	2.500

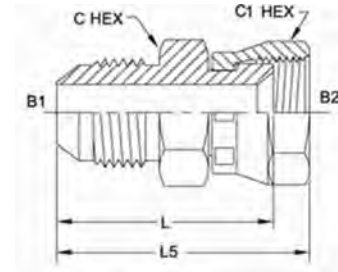
FP-FJS 90° 6503 Series



PART NO.SIZE	TUBE O.D.	A NPTF	B SAE 37	B DRILL	M2 LGTH	M4 LGTH	M6 LGTH	C HEX	Y FLATS
6503-04-04-FG	1/4	1/4-18	7/16-20	0.172	0.88	0.83	1.18	0.563	0.750
6503-04-05-FG	5/16	1/4-18	1/2-20	0.234	0.88	0.87	1.25	0.625	0.750
6503-04-06-FG	3/8	1/4-18	9/16-18	0.297	0.88	0.91	1.29	0.688	0.750
6503-06-06-FG	3/8	3/8-18	9/16-18	0.297	1.02	1.04	1.42	0.688	0.875
6503-06-08-FG	1/2	3/8-18	3/4-16	0.391	1.02	1.09	1.52	0.875	0.875
6503-08-08-FG	1/2	1/2-14	3/4-16	0.391	1.23	1.12	1.55	0.875	1.062
6503-08-10-FG	5/8	1/2-14	7/8-14	0.484	1.23	1.16	1.66	1.000	1.062
6503-12-12-FG	3/4	3/4-14	1-1/16-12	0.609	1.36	1.34	1.91	1.250	1.312

Tube Fittings & Adapters

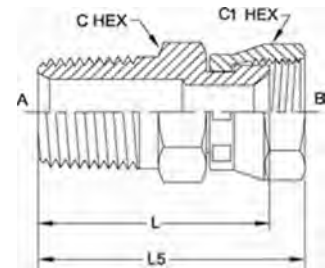
MJ-FJS Straight 6504 Series



C-098

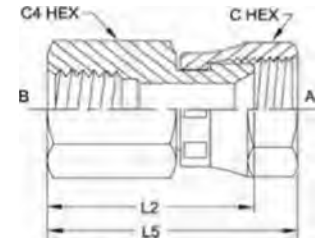
PART NO. SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	B1 DRILL	B2 DRILL	L LGTH	L5 LGTH	C1 HEX	C HEX
6504-04-04	1/4	7/16-20	7/16-20	0.172	0.172	1.16	1.51	0.563	0.500
6504-05-05	5/16	1/2-20	1/2-20	0.234	0.234	1.19	1.57	0.625	0.562
6504-06-06	3/8	9/16-18	9/16-18	0.297	0.297	1.27	1.65	0.688	0.625
6504-06-08	1/2	9/16-18	3/4-16	0.297	0.391	1.32	1.97	0.875	0.812
6504-08-08	1/2	3/4-16	3/4-16	0.391	0.391	1.42	1.85	0.875	0.812
6504-08-10	5/8	3/4-16	7/8-14	0.391	0.484	1.45	1.95	1.000	0.938
6504-10-10	5/8	7/8-14	7/8-14	0.484	0.484	1.61	2.11	1.000	0.938
6504-12-12	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.82	2.39	1.250	1.125
6504-16-16	1	1-5/16-12	1-5/16-12	0.844	0.844	1.93	2.53	1.500	1.375
6504-20-16	1-1/4	1-5/8-12	1-5/16-12	1.078	0.844	2.04	2.64	1.500	1.688
6504-20-20	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.10	2.82	2.000	1.688
6504-24-24	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.37	3.32	2.250	2.000

MP-FJS Straight 6505 Series



PART NO. SIZE	TUBE O.D.	A NPTF	B SAE 37	A DRILL	B DRILL	L LGTH	L5 LGTH	C1 HEX	C HEX
6505-02-04	1/4	1/8-27	7/16-20	0.188	0.172	0.99	1.34	0.563	0.500
6505-02-05	5/16	1/8-27	1/2-20	0.188	0.234	1.03	1.41	0.625	0.562
6505-04-04	1/4	1/4-18	7/16-20	0.281	0.172	1.20	1.55	0.563	0.562
6505-04-05	5/16	1/4-18	1/2-20	0.281	0.234	1.26	1.64	0.625	0.562
6505-04-06	3/8	1/4-18	9/16-18	0.281	0.297	1.30	1.68	0.688	0.562
6505-06-04	3/8	3/8-18	7/16-20	0.406	0.172	1.23	1.58	0.563	0.750
6505-06-06	3/8	3/8-18	9/16-18	0.406	0.297	1.26	1.64	0.688	0.750
6505-06-08	1/2	3/8-18	3/4-16	0.406	0.391	1.31	1.74	0.875	0.875
6505-06-10	5/8	3/8-18	7/8-14	0.406	0.484	1.41	1.91	1.000	0.875
6505-08-06	3/8	1/2-14	9/16-18	0.531	0.297	1.51	1.89	0.688	0.875
6505-08-08	1/2	1/2-14	3/4-16	0.531	0.391	1.56	1.99	0.875	0.875
6505-08-10	5/8	1/2-14	7/8-14	0.531	0.484	1.60	2.10	1.000	1.000
6505-08-12	3/4	1/2-14	1-1/16-12	0.531	0.609	1.58	2.15	1.250	1.000
6505-12-08	1/2	3/4-14	3/4-16	0.719	0.391	1.67	2.10	0.875	1.125
6505-12-10	5/8	3/4-14	7/8-14	0.719	0.484	1.70	2.20	1.000	1.125
6505-12-12	3/4	3/4-14	1-1/16-12	0.719	0.609	1.72	2.29	1.250	1.125
6505-12-14	7/8	3/4-14	1-3/16-12	0.719	0.719	1.74	2.32	1.375	1.250
6505-12-16	1	3/4-14	1-5/16-12	0.719	0.844	1.77	2.37	1.500	1.375
6505-16-16	1	1-11-1/2	1-5/16-12	0.938	0.844	1.97	2.57	1.500	1.375
6505-20-20	1-1/4	1-1/4-11-1/2	1-5/8-12	1.25	1.078	2.21	2.85	2.000	1.688
6505-24-24	1-1/2	1-1/2-11-1/2	1-7/8-12	1.5	1.312	2.27	2.99	2.250	2.000
6505-32-32	2	2-11-1/2	2-1/2-12	1.938	1.781	2.50	3.45	2.875	2.625

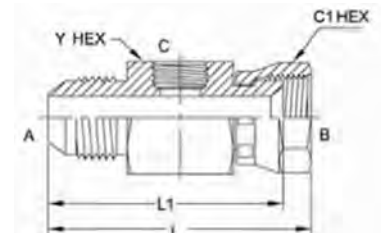
FP-FJS Straight 6506 Series



C-099

PART NO. SIZE	TUBE O.D.	B NPTF	A SAE37	A DRILL	L2 LDTH	LS LGTH	C HEX	C4 HEX
6506-02-04	1/4	1/8-27	7/16-20	0.172	0.98	1.33	0.563	0.562
6506-04-02	1/8	1/4-18	5/16-24	0.062	1.20	1.51	0.438	0.750
6506-04-04	1/4	1/4-18	7/16-20	0.172	1.17	1.52	0.563	0.750
6506-04-05	5/16	1/4-18	1/2-20	0.234	1.21	1.59	0.625	0.750
6506-04-06	3/8	1/4-18	9/16-18	0.297	1.26	1.64	0.688	0.750
6506-06-04	1/4	3/8-18	7/16-20	0.172	1.24	1.59	0.563	0.875
6506-06-06	3/8	3/8-18	9/16-18	0.297	1.32	1.70	0.688	0.875
6506-06-08	1/2	3/8-18	3/4-16	0.391	1.37	1.80	0.875	0.875
6506-06-10	5/8	3/8-18	7/8-14	0.484	1.40	1.90	1.000	0.938
6506-08-06	3/8	1/2-14	9/16-18	0.297	1.54	1.92	0.688	1.125
6506-08-08	1/2	1/2-14	3/4-16	0.391	1.59	2.02	0.875	1.125
6506-08-10	5/8	1/2-14	7/8-14	0.484	1.62	2.12	1.000	1.125
6506-08-12	3/4	1/2-14	1-1/16-12	0.609	1.66	2.23	1.250	1.125
6506-12-10	5/8	3/4-14	7/8-14	0.484	1.68	2.18	1.000	1.375
6506-12-12	3/4	3/4-14	1-1/16-12	0.609	1.72	2.29	1.250	1.375
6506-12-14	7/8	3/4-14	1-3/16-12	0.719	1.75	2.33	1.375	1.375
6506-12-16	1	3/4-14	1-5/16-12	0.844	1.78	2.38	1.500	1.375
6506-16-16	1	1-11-1/2	1-5/16-12	0.844	2.03	2.63	1.500	1.625
6506-20-20	1-1/4	1-1/4-11-1/2	1-5/8-12	1.078	2.20	2.84	2.000	2.000
6506-24-24	1-1/2	1-1/2-11-1/2	1-7/8-12	1.312	2.27	2.99	2.250	2.375
6506-32-32	2	2-11-1/2	2-1/2-12	1.781	2.37	3.32	2.875	2.875

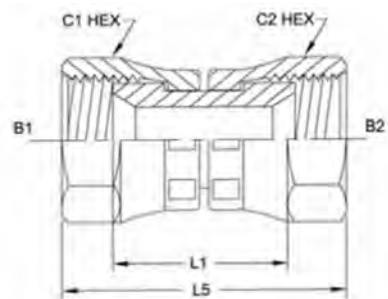
JIC-FJS-FORB Tee 6564 Series



PART NO. SIZE	TUBE O.D.	A JIC	B FJS	C FORB	A DRILL	B DRILL	LI LGTH	L LGTH	CI HEX	Y HEX
6564-04-04-04	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	1.48	1.83	0.563	1.062
6564-06-06-04	3/8	9/16-18	9/16-18	7/16-20	0.297	0.297	1.57	1.95	0.688	1.062
6564-08-08-04	1/2	3/4-16	3/4-16	7/16-20	0.391	0.391	1.75	2.18	0.875	1.062
6564-10-10-04	5/8	7/8-14	7/8-14	7/16-20	0.484	0.484	1.90	2.40	1.000	1.125
6564-12-12-04	3/4	1-1/16-12	1-1/16-12	7/16-20	0.609	0.609	2.02	2.59	1.250	1.250
6564-16-16-04	1	1-5/16-12	1-5/16-12	7/16-20	0.844	0.844	2.25	2.85	1.500	1.500
6564-20-20-04	1-1/4	1-5/8-12	1-5/8-12	7/16-20	1.078	1.078	2.43	3.07	2.000	1.750
6564-24-24-04	1-1/2	1-7/8-12	1-7/8-12	7/16-20	1.312	1.312	2.50	3.22	2.250	2.125

Tube Fittings & Adapters

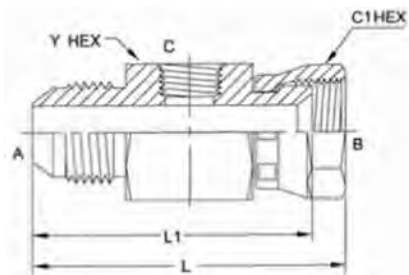
FJS-FJS Straight 6565 Series



C-100

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	L1 LGTH	L5 LGTH	C1 HEX	C2 HEX
6565-04-04	1/4	7/16-20	7/16-20	0.172	0.172	0.69	1.39	0.563	0.563
6565-06-06	3/8	9/16-18	9/16-18	0.297	0.297	0.84	1.60	0.688	0.688
6565-08-08	1/2	3/4-16	3/4-16	0.391	0.391	0.94	1.80	0.875	0.875
6565-10-10	5/8	7/8-14	7/8-14	0.484	0.484	1.00	2.00	1.000	1.000
6565-12-08	3/4	1-1/16-12	3/4-16	0.609	0.391	1.00	1.93	1.250	0.875
6565-12-12	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.07	2.21	1.250	1.250
6565-16-16	1	1-5/16-12	1-5/16-12	0.844	0.844	1.19	2.39	1.500	1.500
6565-20-20	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.28	2.56	2.000	2.000
6565-24-24	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.42	2.86	2.250	2.250

MJ-FJS-FP Tee 6574 Series

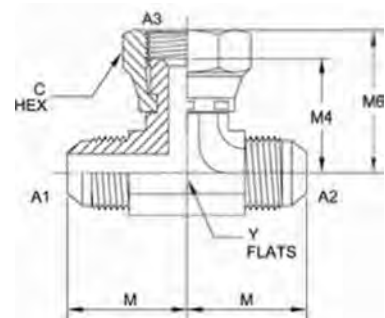


PART NO.SIZE	TUBE O.D.	A SAE37	B SAE37	C NPTF	A DRILL	B DRILL	11 LGTH	L LGTH	C1 HEX	Y HEX
6574-04-04-04	1/4	7/16-20	7/16-20	1/4-18	0.172	0.172	1.70	2.05	0.563	1.250
6574-06-06-04	3/8	9/16-18	9/16-18	1/4-18	0.297	0.297	1.78	2.16	0.688	1.250
6574-08-08-04	1/2	3/4-16	3/4-16	1/4-18	0.391	0.391	1.93	2.36	0.875	1.250
6574-10-10-04	5/8	7/8-14	7/8-14	1/4-18	0.484	0.484	2.07	2.57	1.000	1.250
6574-12-12-04	3/4	1-1/16-12	1-1/16-12	1/4-18	0.609	0.609	2.20	2.77	1.250	1.250
6574-16-16-04	1	1-5/16-12	1-5/16-12	1/4-18	0.844	0.844	2.31	2.91	1.500	1.500
6574-20-20-04	1-1/4	1-5/8-12	1-5/8-12	1/4-18	1.078	1.078	2.39	3.03	2.000	1.750
6574-24-24-04	1-1/2	1-7/8-12	1-7/8-12	1/4-18	1.312	1.312	2.62	3.34	2.250	2.125

MJ-MJ-FJS Tee

6600 Series

SAE# 070433 / MS# 51524



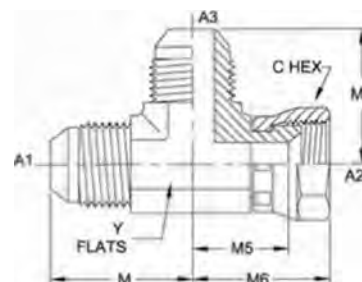
C-101

PART NO.SIZE	TUBE O.D.	fil SAE37	A2 SAE37	A3 SAE37	A1 DRILL	A2 DRILL	A3 DRILL	M LGTH	M4 LGTH	M6 LGTH	C HEX	Y FLATS
6600-02-02-02-FG	1/8	5/16-24	5/16-24	5/16-24	0.062	0.062	0.062	0.77	0.66	0.97	0.438	0.438
6600-03-03-03-FG	3/16	3/8-24	3/8-24	3/8-24	0.125	0.125	0.125	0.83	0.67	1.00	0.500	0.438
6600-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.65	1.00	0.563	0.438
6600-05-05-05-FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.68	1.06	0.625	0.562
6600-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	0.87	1.25	0.688	0.562
6600-06-06-08-FG	3/8	9/16-18	9/16-18	3/4-16	0.297	0.297	0.391	1.14	0.95	1.38	0.875	0.750
6600-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	0.95	1.38	0.875	0.750
6600-10-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.12	1.62	1.000	0.875
6600-12-12-10-FG	3/4	1-1/16-12	1-1/16-12	7/8-14	0.609	0.609	0.484	1.66	1.16	1.66	1.000	1.062
6600-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.18	1.75	1.250	1.062
6600-14-14-14-FG	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.20	1.78	1.375	1.312
6600-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.40	2.00	1.500	1.312
6600-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	1.67	2.31	2.000	1.625
6600-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	1.87	2.59	2.250	1.875
6600-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	2.43	3.38	2.875	2.500

Tube Fittings & Adapters

MJ-FJS-MJ Tee 6602 Series

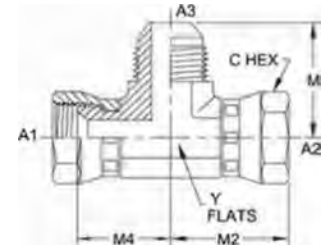
SAE# 070432 / MS# 51523



C-102

PART NO/SIZE	A1TUBE O.D.	A2TUBE O.D.	A1 SAE 37	A2 SAE 37	A3 SAE 37	A1 DRILL	A2 DRILL	A3 DRILL	M LETH	M5 LGTH	M6 LGTH	M2 LGTH	C HEX	Y HEX
6602-03-03-03-FG	3/16	3/16	3/8-24	3/8-24	3/8-24	0.125	0.125	0.125	0.83	0.67	1.00	0.83	0.500	0.438
6602-04-04-04-FG	1/4	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.65	1.00	0.89	0.563	0.438
6602-04-06-06-FG	1/4	3/8	7/16-20	9/16-18	9/16-18	0.172	0.297	0.297	1.05	0.87	1.25	1.06	0.688	0.562
6602-04-10-10-FG	1/4	5/8	7/16-20	7/8-14	7/8-14	0.172	0.484	0.484	1.21	1.12	1.62	1.45	1.000	0.875
6602-04-12-12-FG	1/4	3/4	7/16-20	1-1/16-12	1-1/16-12	0.172	0.609	0.609	1.30	1.18	1.75	1.66	1.250	1.062
6602-05-05-04-FG	5/16	1/4	1/2-20	1/2-20	7/16-20	0.234	0.234	0.172	0.95	0.68	1.06	0.95	0.625	0.562
6602-05-05-05-FG	5/16	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.68	1.06	0.95	0.625	0.562
6602-06-06-06-FG	3/8	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	0.87	1.25	1.06	0.688	0.562
6602-06-06-04-FG	3/8	1/4	9/16-18	9/16-18	7/16-20	0.297	0.297	0.172	1.06	0.87	1.25	1.05	0.688	0.562
6602-06-08-06-FG	3/8	1/2	9/16-18	3/4-16	9/16-18	0.297	0.391	0.297	1.14	0.95	1.38	1.14	0.875	0.750
6602-06-08-08-FG	3/8	1/2	9/16-18	3/4-16	3/4-16	0.297	0.391	0.391	1.14	0.95	1.38	1.25	0.875	0.750
6602-08-08-04-FG	1/2	1/4	3/4-16	3/4-16	7/16-20	0.391	0.391	0.172	1.25	0.95	1.38	1.25	0.875	0.750
6602-08-08-05-FG	1/2	5/16	3/4-16	3/4-16	1/2-20	0.391	0.391	0.234	1.25	0.95	1.38	1.12	0.875	0.750
6602-08-08-06-FG	1/2	3/8	3/4-16	3/4-16	9/16-18	0.391	0.391	0.297	1.25	0.95	1.38	1.14	0.875	0.750
6602-08-08-08-FG	1/2	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	0.95	1.38	1.25	0.875	0.750
6602-08-08-12-FG	1/2	3/4	3/4-16	3/4-16	1-1/16-12	0.391	0.391	0.609	1.42	1.12	1.55	1.42	0.875	1.062
6602-08-12-12-FG	1/2	3/4	3/4-16	1-1/16-12	1-1/16-12	0.391	0.609	0.609	1.42	1.18	1.75	1.66	1.250	1.062
6602-08-20-20-FG	1/2	1-1/4	3/4-16	1-5/8-12	1-5/8-12	0.391	1.078	1.078	1.72	1.67	2.31	2.06	2.000	1.625
6602-10-10-10-FG	5/8	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.12	1.62	1.45	1.000	0.875
6602-10-10-12-FG	5/8	3/4	7/8-14	7/8-14	1-1/16-12	0.484	0.484	0.609	1.33	1.16	1.66	1.33	1.000	1.062
6602-12-12-04-FG	3/4	1/4	1-1/16-12	1-1/16-12	7/16-20	0.609	0.609	0.172	1.66	1.18	1.75	1.66	1.250	1.062
6602-12-12-12-FG	3/4	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.18	1.75	1.66	1.250	1.062
6602-14-14-14-FG	7/8	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.20	1.78	1.80	1.375	1.312
6602-16-16-10-FG	1	5/8	1-5/16-12	1-5/16-12	7/8-14	0.844	0.844	0.484	1.81	1.40	2.00	1.81	1.500	1.312
6602-16-16-12-FG	1	3/4	1-5/16-12	1-5/16-12	1-1/16-12	0.844	0.844	0.609	1.81	1.40	2.00	1.81	1.500	1.312
6602-16-16-16-FG	1	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.40	2.00	1.81	1.500	1.312
6602-16-20-20-FG	1	1-1/4	1-5/16-12	1-5/8-12	1-5/8-12	0.844	1.078	1.078	2.01	1.67	2.31	2.06	2.000	1.625
6602-20-20-20-FG	1-1/4	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	1.67	2.31	2.06	2.000	1.625
6602-24-24-24-FG	1-1/2	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	1.87	2.59	2.33	2.250	1.875
6602-32-32-32-FG	2	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	2.43	3.38	3.06	2.875	2.500

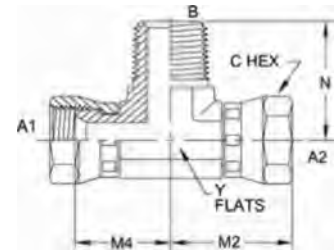
FJS-FJS-MJ Tee 6603 Series



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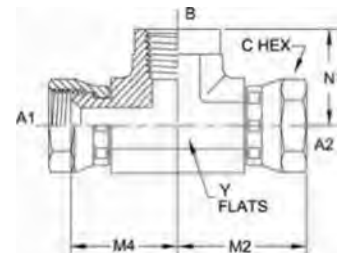
PART NO.SIZE	TUBE O.D.	A1 SAE37	A2 SAE37	A3 SAE37	A1 DRILL	A2 DRILL	A3 DRILL	M4 LGTH	M2 LGTH	M LGTH	C HEX	Y FLATS
6603-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.65	1.00	0.89	0.563	0.438
6603-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	0.87	1.25	1.06	0.688	0.562
6603-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	0.95	1.38	1.25	0.875	0.750
6603-10-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.12	1.62	1.45	1.000	0.875
6603-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.18	1.75	1.66	1.250	1.062
6603-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.40	2.00	1.81	1.500	1.312

FJS-FJS-MP Tee 6604 Series



PART NO.SIZE	TUBE O.D.	A1 SAE37	A2 SAE37	B NPTF	A1 DRILL	A2 DRILL	B DRILL	M4 LGTH	M2 LGTH	N LGTH	C HEX	Y FLATS
6604-06-06-06-FG	3/8	9/16-18	9/16-18	3/8-18	0.297	0.297	0.406	0.90	1.28	1.22	0.688	0.750
6604-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	3/4-14	0.609	0.609	0.719	1.18	1.75	1.59	1.250	1.062
6604-04-04-04-FG	1/4	7/16-20	7/16-20	1/4-18	0.172	0.172	0.281	0.79	1.14	1.09	0.562	0.562
6604-08-08-08-FG	1/2	3/4-16	3/4-16	1/2-14	0.391	0.391	0.531	1.08	1.51	1.47	0.875	0.875
6604-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-11/12	0.844	0.844	0.938	1.40	2.00	1.97	1.500	1.312

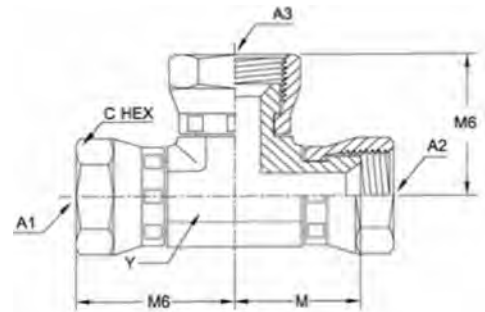
FJS-FJS-FP Tee 6605 Series



PART NO.SIZE	TUBE O.D.	A1 SAE37	A2 SAE37	B NPTF	A1 DRILL	A2 DRILL	M4 LGTH	M2 LGTH	N LGTH	C HEX	Y FLATS
6605-04-04-04-FG	1/4	7/16-20	7/16-20	1/4-18	0.172	0.172	0.83	1.18	0.88	0.563	0.750

Tube Fittings & Adapters

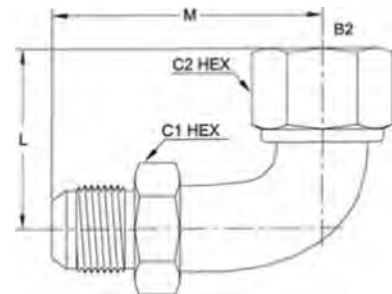
FJS-FJS-FJS Tee 6606 Series



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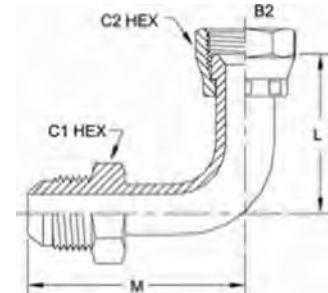
PART NO.SIZE	TUBE O.D.	AT SAE37	A2 SAE37	A3 SAE37	A1 DRILL	A2 DRILL	A3 DRILL	M LGTH	M6 LGTH	C HEX	Y FLATS
6606-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.65	1.00	0.563	0.438
6606-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	0.87	1.25	0.688	0.562
6606-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	0.95	1.38	0.875	0.750
6606-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.12	1.62	1.000	0.875
6606-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.18	1.75	1.250	1.062
6606-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.40	2.00	1.500	1.312

MJ-FJS Swept 90° 6701 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	M LGTH	L LGTH	C1 HEX	C2 HEX
6701-04-04	1/4	7/16-20	7/16-20	1.25	1.09	0.500	0.563
6701-06-06	3/8	9/16-18	9/16-18	1.35	1.22	0.625	0.688
6701-08-08	1/2	3/4-16	3/4-16	1.77	1.52	0.812	0.875
6701-10-10	5/8	7/8-14	7/8-14	1.94	1.80	0.937	1.000
6701-12-12	3/4	1 1/16-12	1 1/16-12	2.50	2.40	1.125	1.250
6701-16-16	1	1 5/16-12	1 5/16-12	3.10	3.15	1.375	1.500
6701-20-20	1 1/4	1-5/8-12	1-5/8-12	2.75	3.15	1.688	2.000

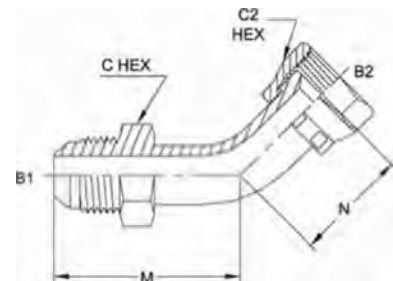
MJ-FJS Swept 90° 6701-L Series



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PART NO./SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	I LGTH	M LGTH	C1 HEX	C2 HEX
6701-L-04-04	1/4	7/16-20	7/16-20	2.73	1.58	0.500	0.563
6701-L-06-06	3/8	9/16-18	9/16-18	2.42	1.50	0.625	0.688
6701-L-08-08	1/2	3/4-16	3/4-16	2.90	1.825	0.812	0.875
6701-L-10-10	5/8	7/8-14	7/8-14	3.07	2.16	0.937	1.000
6701-L-12-12	3/4	1 1/16-12	1 1/16-12	4.22	2.80	1.125	1.250
6701-L-16-16	1	1 5/16-12	1 5/16-12	4.87	3.125	1.375	1.500
6701-L-20-20	1-1/4	1-5/8-12	1-5/8-12	5.00	3.50	1.688	2.000

MJ-FJS Swept 45° 6702 Series

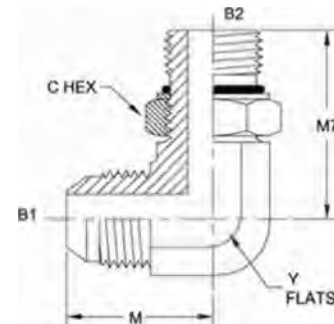


PART NO./SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	M LGTH	N LGTH	C HEX	C2 HEX
6702-04-04	1/4	7/16-20	7/16-20	1.102	0.984	0.500	0.563
6702-06-06	3/8	9/16-18	9/16-18	1.378	1.063	0.625	0.688
6702-08-08	1/2	3/4-16	3/4-16	1.575	1.181	0.812	0.875
6702-10-10	5/8	7/8-14	7/8-14	1.614	1.417	0.937	1.000
6702-12-12	3/4	1-1/16-12	1-1/16-12	2.205	1.732	1.125	1.250
6702-16-16	1	1-5/16-12	1-5/16-12	2.480	2.087	1.375	1.500
6702-20-20	1-1/4	1-5/8-12	1-5/8-12	2.953	2.283	1.688	2.000

Tube Fittings & Adapters

MJ-MAORB 90° 6801-NWO Series

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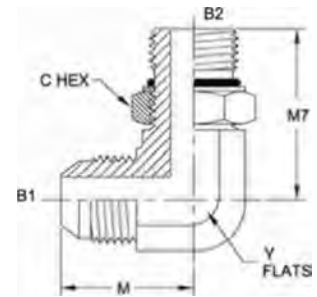


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PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	M LGTH	M7 LGTH	C HEX	Y FLATS
6801-02-02-NWO-F6	1/8	5/16-24	5/16-24	0.062	0.062	0.77	0.94	0.438	0.438
6801-02-04-NWO-FG	1/8	5/16-24	7/16-20	0.062	0.172	0.78	1.03	0.563	0.438
6801-03-03-NWO-FG	3/16	3/8-24	3/8-24	0.125	0.125	0.83	0.94	0.500	0.438
6801-03-04-NWO-FG	3/16	3/8-24	7/16-20	0.125	0.172	0.81	1.03	0.563	0.438
6801-04-02-N WO-FG	1/4	7/16-20	5/16-24	0.172	0.062	0.89	0.92	0.438	0.438
6801-04-03-NWO-FG	1/4	7/16-20	3/8-24	0.172	0.125	0.89	0.92	0.500	0.438
6801-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.03	0.563	0.438
6801-04-05-NWO-FG	1/4	7/16-20	1/2-20	0.172	0.234	0.95	1.13	0.625	0.562
6801-04-06-NWO-FG	1/4	7/16-20	9/16-18	0.172	0.297	1.05	1.25	0.688	0.562
6801-04-08-NWO-FG	1/4	7/16-20	3/4-16	0.172	0.391	1.12	1.45	0.875	0.750
6801-05-04-NWO-FG	5/16	1/2-20	7/16-20	0.234	0.172	0.95	1.13	0.563	0.562
6801-05-05-N WO-FG	5/16	1/2-20	1/2-20	0.234	0.234	0.95	1.13	0.625	0.562
6801-05-06-NWO-FG	5/16	1/2-20	9/16-18	0.234	0.297	1.05	1.25	0.688	0.562
6801-05-08-NWO-FG	5/16	1/2-20	3/4-16	0.234	0.391	1.12	1.45	0.875	0.750
6801-05-10-NWO-FG	5/16	1/2-20	7/8-14	0.234	0.484	1.21	1.70	1.000	0.875
6801-06-02-NWO-FG	3/8	9/16-18	5/16-24	0.297	0.062	1.06	1.08	0.438	0.562
6801-06-04-NWO-FG	3/8	9/16-18	7/16-20	0.297	0.172	1.06	1.19	0.563	0.562
6801-06-05-NWO-FG	3/8	9/16-18	1/2-20	0.297	0.234	1.06	1.19	0.625	0.562
6801-06-06-N WO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.25	0.688	0.562
6801-06-08-N WO-FG	3/8	9/16-18	3/4-16	0.297	0.391	1.14	1.45	0.875	0.750
6801-06-10-NWO-FG	3/8	9/16-18	7/8-14	0.297	0.484	1.22	1.70	1.000	0.875
6801-06-12-NWO-FG	3/8	9/16-18	1-1/16-12	0.297	0.609	1.31	1.94	1.250	1.062
6801-08-04-NWO-FG	1/2	3/4-16	7/16-20	0.391	0.172	1.25	1.26	0.563	0.750
6801-08-05-NWO-FG	1/2	3/4-16	1/2-20	0.391	0.234	1.25	1.26	0.625	0.750
6801-08-06-NWO-FG	1/2	3/4-16	9/16-18	0.391	0.297	1.25	1.32	0.688	0.750
6801-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.45	0.875	0.750
6801-08-10-N WO-FG	1/2	3/4-16	7/8-14	0.391	0.484	1.33	1.70	1.000	0.875
6801-08-12-NWO-FG	1/2	3/4-16	1-1/16-12	0.391	0.609	1.42	1.94	1.250	1.062
6801-08-16-N WO-FG	1/2	3/4-16	1-5/16-12	0.391	0.844	1.52	2.05	1.500	1.312
6801-10-06-NWO-FG	5/8	7/8-14	9/16-18	0.484	0.297	1.45	1.41	0.688	0.875
6801-10-08-NWO-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.45	1.54	0.875	0.875
6801-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.45	1.70	1.000	0.875
6801-10-12-NWO-FG	5/8	7/8-14	1-1/16-12	0.484	0.609	1.54	1.94	1.250	1.062

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6801 "NWO S6N6S continued



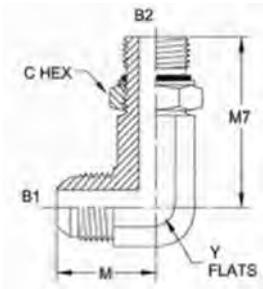
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PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL LGTH	M	M7 LGTH	C HEX	Y FLATS
6801-10-14-NWO-FG	5/8	7/8-14	1-3/16-12	0.484	0.719	1.65	2.00	1.375	1.312
6801 -10-16-NWO-FG	5/8	7/8-14	1-5/16-12	0.484	0.844	1.64	2.05	1.500	1.312
6801 -10-20-NWO-FG	5/8	7/8-14	1-5/8-12	0.484	1.078	1.84	2.25	1.875	1.625
6801-12-06-NWO-FG	3/4	1-1/16-12	9/16-18	0.609	0.297	1.66	1.49	0.688	1.062
6801-12-08-NWO-FG	3/4	1-1/16-12	3/4-16	0.609	0.391	1.66	1.62	0.875	1.062
6801-12-10-NWO-FG	3/4	1-1/16-12	7/8-14	0.609	0.484	1.66	1.78	1.000	1.062
6801-12-12-N WO-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	1.94	1.250	1.062
6801-12-14-NWO-FG	3/4	1-1/16-12	1-3/16-12	0.609	0.719	1.77	2.00	1.375	1.312
6801-12-16-NWO-FG	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.76	2.05	1.500	1.312
6801-12-20-N WO-FG	3/4	1-1/16-12	1-5/8-12	0.609	1.078	1.97	2.25	1.875	1.625
6801 -14-12-NWO-FG	7/8	1-3/16-12	1-1/16-12	0.719	0.609	1.80	2.00	1.250	1.312
6801-14-14-NWO-FG	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.80	2.00	1.375	1.312
6801-14-16-NWO-FG	7/8	1-3/16-12	1-5/16-12	0.719	0.844	1.79	2.05	1.500	1.312
6801-16-08-N WO-FG	1	1-5/16-12	3/4-16	0.844	0.391	1.81	1.73	0.875	1.312
6801-16-10-N WO-FG	1	1-5/16-12	7/8-14	0.844	0.484	1.81	1.89	1.000	1.312
6801-16-12-N WO-FG	1	1-5/16-12	1-1/16-12	0.844	0.609	1.81	2.05	1.250	1.312
6801-16-14-NWO-FG	1	1-5/16-12	1-3/16-12	0.844	0.719	1.81	2.05	1.375	1.312
6801-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	2.05	1.500	1.312
6801-16-20-N WO-FG	1	1-5/16-12	1-5/8-12	0.844	1.078	2.01	2.25	1.875	1.625
6801-16-24-N WO-FG	1	1-5/16-12	1-7/8-12	0.844	1.312	2.16	2.39	2.125	1.875
6801-20-12-NWO-FG	1-1/4	1-5/8-12	1-1/16-12	1.078	0.609	2.06	2.25	1.250	1.625
6801-20-14-NWO-FG	1-1/4	1-5/8-12	1-3/16-12	1.078	0.719	2.06	2.25	1.375	1.625
6801-20-16-NWO-FG	1-1/4	1-5/8-12	1-5/16-12	1.078	0.844	2.06	2.25	1.500	1.625
6801 -20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	2.25	1.875	1.625
6801-20-24-NWO-FG	1-1/4	1-5/8-12	1-7/8-12	1.078	1.312	2.20	2.39	2.125	1.875
6801-24-16-NWO-FG	1-1/2	1-7/8-12	1-5/16-12	1.312	0.844	2.33	2.39	1.500	1.875
6801 -24-20-NWO-FG	1-1/2	1-7/8-12	1-5/8-12	1.312	1.078	2.33	2.39	1.875	1.875
6801 -24-24-NWO-FG	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.33	2.39	2.125	1.875
6801 -24-32-NWO-FG	2	1-7/8-12	2-1/2-12	1.312	1.781	2.81	2.89	2.750	2.500
6801-32-24-N WO-FG	2	2-1/2-12	1-7/8-12	1.781	1.312	3.06	2.89	2.125	2.500
6801-32-32-N WO-FG	2	2-1/2-12	2-1/2-12	1.781	1.781	3.06	2.89	2.750	2.500

Tube Fittings & Adapters

MJ-MAORB 90° 6801-L-NWO Series

SAE# 071520

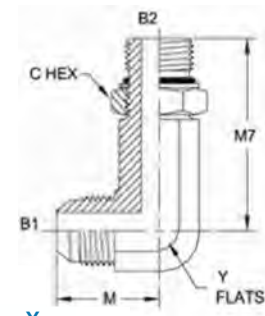


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PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	M LGTH	M7 LGTH	C HEX	Y FLATS
6801-L-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.54	0.563	0.438
6801-L-04-06-NWO-FG	1/4	7/16-20	9/16-18	0.172	0.297	1.05	1.66	0.688	0.562
6801-L-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.66	0.688	0.562
6801-L-06-08-NWO-FG	3/8	9/16-18	3/4-16	0.297	0.391	1.14	1.97	0.875	0.750
6801-L-08-06-NWO-FG	1/2	3/4-16	9/16-18	0.391	0.297	1.25	1.84	0.688	0.750
6801-L-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.97	0.875	0.750
6801-L-08-10-NWO-FG	1/2	3/4-16	7/8-14	0.391	0.484	1.33	2.26	1.000	0.875
6801-L-10-08-NWO-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.45	2.10	0.875	0.875
6801-L-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.45	2.26	1.000	0.875
6801-L-10-12-NWO-FG	5/8	7/8-14	1-1/16-12	0.484	0.609	1.54	2.62	1.250	1.062
6801-L-12-10-NWO-FG	3/4	1-1/16-12	7/8-14	0.609	0.484	1.66	2.46	1.000	1.062
6801-L-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	2.62	1.250	1.062
6801-L-16-12-NWO-FG	1	1-5/16-12	1-1/16-12	0.844	0.609	1.81	3.06	1.250	1.312
6801-L-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	3.06	1.500	1.312
6801-L-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	3.48	1.875	1.625

MJ-MAORB 90° 6801-LL-NWO Series

SAE# 071620



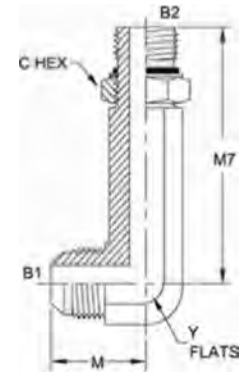
PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAEORB	B1 DRILL	B2 DRILL	M LGTH	M7 LGTH	C HEX	Y FLATS
6801-LL-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.73	0.563	0.438
6801-LL-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.06	2.08	0.688	0.562
6801-LL-06-08-NWO-FG	3/8	9/16-18	3/4-16	0.297	0.391	1.14	2.48	0.875	0.750
6801-LL-08-06-NWO-FG	1/2	3/4-16	9/16-18	0.391	0.297	1.25	2.35	0.688	0.750
6801-LL-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.25	2.48	0.875	0.750
6801-LL-08-10-NWO-FG	1/2	3/4-16	7/8-14	0.391	0.484	1.33	2.89	1.000	0.875
6801-LL-10-08-NWO-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.45	2.73	0.875	0.875
6801-LL-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.45	2.89	1.000	0.875
6801-LL-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	3.34	1.250	1.062
6801-LL-12-16-NWO-FG	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.76	3.72	1.500	1.312
6801-LL-14-14-NWO-FG	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.80	3.56	1.375	1.312
6801-LL-16-12-NWO-FG	1	1-5/16-12	1-1/16-12	0.844	0.609	1.81	3.72	1.250	1.312
6801-LL-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	3.72	1.500	1.312
6801-LL-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	4.41	1.875	1.625

MJ-MAORB 90° 6801-LLL-NWO Series

SAE# 071720

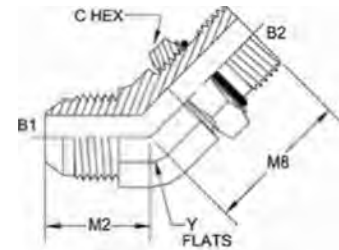
C-109

PART NO./SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	M7 LGTH	C HEX	Y FLATS
6801-LLL-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.89	2.44	0.563	0.438
6801-LLL-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.06	2.91	0.688	0.562
6801-LLL-06-08-NWO-FG	3/8	9/16-18	3/4-16	0.297	0.391	1.14	3.53	0.875	0.750
6801-LLL-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.25	3.53	0.875	0.750
6801-LLL-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	5.39	1.500	1.312



MJ-MAORB 45° 6802-NWO Series

SAE# 070320 / MS# 51528

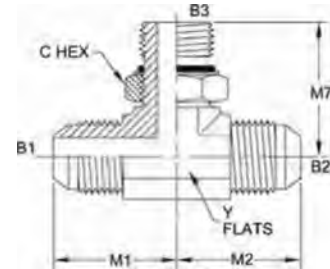


PART NO./SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	M2 LGTH	M8 LGTH	C HEX	Y FLATS
6802-02-02-NWO-FG	1/8	5/16-24	5/16-24	0.062	0.062	0.69	0.88	0.438	0.438
6802-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	0.72	1.05	0.563	0.438
6802-04-05-NWO-FG	1/4	7/16-20	1/2-20	0.172	0.234	0.77	1.05	0.625	0.562
6802-04-06-NWO-FG	1/4	7/16-20	9/16-18	0.172	0.297	0.82	1.14	0.688	0.562
6802-04-08-NWO-FG	1/4	7/16-20	3/4-16	0.172	0.391	0.85	1.30	0.875	0.750
6802-05-04-NWO-FG	5/16	1/2-20	7/16-20	0.234	0.172	0.77	1.05	0.563	0.562
6802-05-05-NWO-FG	5/16	1/2-20	1/2-20	0.234	0.234	0.77	1.05	0.625	0.562
6802-05-06-NWO-FG	5/16	1/2-20	9/16-18	0.234	0.297	0.82	1.14	0.688	0.562
6802-06-04-NWO-FG	3/8	9/16-18	7/16-20	0.297	0.172	0.83	1.08	0.563	0.562
6802-06-05-NWO-FG	3/8	9/16-18	1/2-20	0.297	0.234	0.83	1.14	0.625	0.562
6802-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	0.83	1.14	0.688	0.562
6802-06-08-NWO-FG	3/8	9/16-18	3/4-16	0.297	0.391	0.87	1.30	0.875	0.750
6802-06-10-NWO-FG	3/8	9/16-18	7/8-14	0.297	0.484	0.88	1.52	1.000	0.875
6802-06-12-NWO-FG	3/8	9/16-18	1-1/16-12	0.297	0.609	0.93	1.73	1.250	1.062
6802-08-04-NWO-FG	1/2	3/4-16	7/16-20	0.391	0.172	0.98	1.11	0.563	0.750
6802-08-06-NWO-FG	1/2	3/4-16	9/16-18	0.391	0.297	0.98	1.17	0.688	0.750
6802-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	0.98	1.30	0.875	0.750
6802-08-10-NWO-FG	1/2	3/4-16	7/8-14	0.391	0.484	0.99	1.52	1.000	0.875
6802-08-12-NWO-FG	1/2	3/4-16	1-1/16-12	0.391	0.609	1.04	1.73	1.250	1.062
6802-10-08-NWO-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.11	1.36	0.875	0.875
6802-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.11	1.52	1.000	0.875
6802-10-12-NWO-FG	5/8	7/8-14	1-1/16-12	0.484	0.609	1.16	1.73	1.250	1.062
6802-12-08-NWO-FG	3/4	1-1/16-12	3/4-16	0.609	0.391	1.28	1.41	0.875	1.062
6802-12-10-NWO-FG	3/4	1-1/16-12	7/8-14	0.609	0.484	1.28	1.57	1.000	1.062
6802-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.28	1.73	1.250	1.062
6802-12-14-NWO-FG	3/4	1-1/16-12	1-3/16-12	0.609	0.719	1.42	1.86	1.375	1.312
6802-12-16-NWO-FG	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.42	1.86	1.500	1.312
6802-14-14-NWO-FG	5/8	1-3/16-12	1-3/16-12	0.719	0.719	1.45	1.86	1.375	1.312
6802-16-12-NWO-FG	1	1-5/16-12	1-1/16-12	0.844	0.609	1.47	1.86	1.250	1.312
6802-16-14-NWO-FG	1	1-5/16-12	1-3/16-12	0.844	0.719	1.47	1.86	1.375	1.312
6802-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.47	1.86	1.500	1.312
6802-16-20-NWO-FG	1	1-5/16-12	1-5/8-12	0.844	1.078	1.54	1.91	1.875	1.625
6802-20-16-NWO-FG	1-1/4	1-5/8-12	1-5/16-12	1.078	0.844	1.59	1.91	1.500	1.625
6802-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.59	1.91	1.875	1.625
6802-20-24-NWO-FG	1-1/4	1-5/8-12	1-7/8-12	1.078	1.312	1.85	1.91	2.125	1.875
6802-24-20-NWO-FG	1-1/2	1-7/8-12	1-5/8-12	1.312	1.078	1.78	1.91	1.875	1.875
6802-24-24-NWO-FG	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.78	1.91	2.125	1.875
6802-32-32-NWO-FG	2	2-1/2-12	2-1/2-12	1.781	1.781	2.22	1.86	2.750	2.500

Tube Fittings & Adapters

MJ-MJ-MAORB Branch Tee 6803-NWO Series

SAE# 070429 / MS# 51529



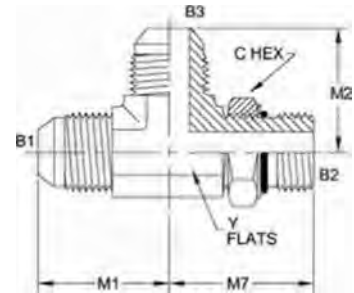
C-110

PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE 37	B3 SAE ORB	B1 DRILL	B2 DRILL	B3 DRILL	M1 LBTH	M2 LETH	M7 LETH	C HEX	Y FLATS
6803-02-02-02-NWO-FG	1/8	5/16-24	5/16-24	5/16-24	0.062	0.062	0.062	0.77	0.77	0.94	0.438	0.438
6803-04-04-04-NWO-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.89	1.03	0.563	0.438
6803-04-04-06-NWO-FG	1/4	7/16-20	7/16-20	9/16-18	0.172	0.172	0.297	1.05	1.05	1.25	0.688	0.562
6803-05-05-05-NWO-FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.95	1.13	0.625	0.562
6803-06-06-04-NWO-FG	3/8	9/16-18	9/16-18	7/16-20	0.297	0.297	0.172	1.06	1.06	1.19	0.563	0.562
6803-06-06-05-NWCJ-FG	3/8	9/16-18	9/16-18	1/2-20	0.297	0.297	0.234	1.06	1.06	1.25	0.625	0.562
6803-06-06-06-NWO-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	1.06	1.25	0.688	0.562
6803-06-06-08-NWO-FG	3/8	9/16-18	9/16-18	3/4-16	0.297	0.297	0.391	1.14	1.14	1.45	0.875	0.750
6803-06-06-12-NWO-FG	3/8	9/16-18	9/16-18	1-1/16-12	0.297	0.297	0.609	1.31	1.31	1.94	1.250	1.062
6803-08-08-06-NWO-FG	1/2	3/4-16	3/4-16	9/16-18	0.391	0.391	0.297	1.25	1.25	1.32	0.688	0.750
6803-08-08-08-NWO-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.25	1.45	0.875	0.750
6803-08-08-10-NWO-FG	1/2	3/4-16	3/4-16	7/8-14	0.391	0.391	0.484	1.33	1.33	1.70	1.000	0.875
6803-08-08-12-NWO-FG	1/2	3/4-16	3/4-16	1-1/16-12	0.391	0.391	0.609	1.42	1.42	1.94	1.250	1.062
6803-10-10-08-NWO-FG	5/8	7/8-14	7/8-14	3/4-16	0.484	0.484	0.391	1.45	1.45	1.54	0.875	0.875
6803-10-10-10-NWO-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.45	1.70	1.000	0.875
6803-10-10-12-NWO-FG	5/8	7/8-14	7/8-14	1-1/16-12	0.484	0.484	0.609	1.54	1.54	1.94	1.250	1.062
6803-10-10-16-NWO-FG	5/8	7/8-14	7/8-14	1-5/16-12	0.484	0.484	0.844	1.64	1.64	2.05	1.500	1.312
6803-12-12-08-NWO-FG	3/4	1-1/16-12	1-1/16-12	3/4-16	0.609	0.609	0.391	1.66	1.66	1.62	0.875	1.062
6803-12-12-10-NWO-FG	3/4	1-1/16-12	1-1/16-12	7/8-14	0.609	0.609	0.484	1.66	1.66	1.78	1.000	1.062
6803-12-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.66	1.94	1.250	1.062
6803-12-12-16-NWO-FG	3/4	1-1/16-12	1-1/16-12	1-5/16-12	0.609	0.609	0.844	1.76	1.76	2.05	1.500	1.312
6803-14-14-14-NWO-FG	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.80	2.00	1.375	1.312
6803-16-12-16-NWO-FG	1	1-5/16-12	1-1/16-12	1-5/16-12	0.844	0.609	0.844	1.81	1.76	2.05	1.500	1.312
6803-16-16-12-NWO-FG	1	1-5/16-12	1-5/16-12	1-1/16-12	0.844	0.844	0.609	1.81	1.81	2.05	1.250	1.312
6803-16-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.81	2.05	1.500	1.312
6803-20-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	2.06	2.25	1.875	1.625
6803-24-24-24-NWO-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	2.33	2.39	2.125	1.875
6803-32-32-32-NWO-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	3.06	2.89	2.750	2.500

MJ-MAORB-MJ Run Tee

6804-NWO Series

SAE# 070428 / MS# 51530

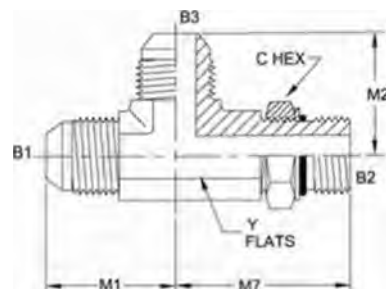


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PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE ORB	B3 SAE 37	B1 DRILL	B2 DRILL	B3 DRILL	M1 LGTH	M7 LGTH	M2 LGTH	C HEX	Y FLATS
6804-02-02-02-NWO-FG	1/8	5/16-24	5/16-24	5/16-24	0.062	0.062	0.062	0.77	0.94	0.77	0.438	0.438
6804-02-04-02-NWO-FG	1/8	5/16-24	7/16-20	5/16-24	0.062	0.172	0.062	0.89	1.03	0.89	0.563	0.438
6804-04-04-04-NWO-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	1.03	0.89	0.563	0.438
6804-04-06-04-NWO-FG	1/4	7/16-20	9/16-18	7/16-20	0.172	0.297	0.172	1.05	1.25	1.05	0.688	0.562
6804-05-04-05-NWO-FG	5/16	1/2-20	7/16-20	1/2-20	0.234	0.172	0.234	0.95	1.13	0.95	0.563	0.562
6804-05-05-05-NWO-FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	1.13	0.95	0.625	0.562
6804-06-04-06-NWO-FG	3/8	9/16-18	7/16-20	9/16-18	0.297	0.172	0.297	1.06	1.19	1.06	0.563	0.562
6804-06-06-04-NWO-FG	3/8	9/16-18	9/16-18	7/16-20	0.297	0.297	0.172	1.06	1.25	1.06	0.688	0.562
6804-06-06-06-NWO-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	1.25	1.06	0.688	0.562
6804-06-08-06-NWO-FG	3/8	9/16-18	3/4-16	9/16-18	0.297	0.391	0.297	1.14	1.45	1.14	0.875	0.750
6804-06-08-08-NWO-FG	3/8	9/16-18	3/4-16	3/4-16	0.297	0.391	0.391	1.14	1.45	1.25	0.875	0.750
6804-08-06-04-NWO-FG	1/2	3/4-16	9/16-18	7/16-20	0.391	0.297	0.172	1.25	1.32	1.25	0.688	0.750
6804-08-06-08-NWO-FG	1/2	3/4-16	9/16-18	3/4-16	0.391	0.297	0.391	1.25	1.32	1.25	0.688	0.750
6804-08-08-04-NWO-FG	1/2	3/4-16	3/4-16	7/16-20	0.391	0.391	0.172	1.25	1.45	1.12	0.875	0.750
6804-08-08-08-NWO-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.45	1.25	0.875	0.750
6804-08-10-08-NWO-FG	1/2	3/4-16	7/8-14	3/4-16	0.391	0.484	0.391	1.33	1.70	1.33	1.000	0.875
6804-08-12-04-NWO-FG	1/2	3/4-16	1-1/16-12	7/16-20	0.391	0.609	0.172	1.42	1.94	1.30	1.250	1.062
6804-08-12-08-NWO-FG	1/2	3/4-16	1-1/16-12	3/4-16	0.391	0.609	0.391	1.42	1.94	1.42	1.250	1.062
6804-10-08-10-NWO-FG	5/8	7/8-14	3/4-16	7/8-14	0.484	0.391	0.484	1.45	1.54	1.45	0.875	0.875
6804-10-10-10-NWO-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.70	1.45	1.000	0.875
6804-10-12-06-NWO-FG	5/8	7/8-14	1-1/16-12	9/16-18	0.484	0.609	0.297	1.54	1.94	1.54	1.250	1.062
6804-10-12-10-NWO-FG	5/8	7/8-14	1-1/16-12	7/8-14	0.484	0.609	0.484	1.54	1.94	1.54	1.250	1.062
6804-10-16-08-NWO-FG	5/8	7/8-14	1-5/16-12	3/4-16	0.484	0.844	0.391	1.64	2.05	1.64	1.500	1.312
6804-12-08-12-N WO-FG	3/4	1-1/16-12	3/4-16	1-1/16-12	0.609	0.391	0.609	1.66	1.62	1.66	0.875	1.062
6804-12-10-12-NWO-FG	3/4	1-1/16-12	7/8-14	1-1/16-12	0.609	0.484	0.609	1.66	1.78	1.66	1.000	1.062
6804-12-12-06-NWO-FG	3/4	1-1/16-12	1-1/16-12	9/16-18	0.609	0.609	0.297	1.66	1.94	1.66	1.250	1.062
6804-12-12-08-NWO-FG	3/4	1-1/16-12	1-1/16-12	3/4-16	0.609	0.609	0.391	1.66	1.94	1.42	1.250	1.062
6804-12-12-10-N WO-FG	3/4	1-1/16-12	1-1/16-12	7/8-14	0.609	0.609	0.484	1.66	1.94	1.66	1.250	1.062
6804-12-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.94	1.66	1.250	1.062
6804-12-12-16-N WO-FG	3/4	1-1/16-12	1-1/16-12	1-5/16-12	0.609	0.609	0.844	1.76	2.05	1.76	1.250	1.312
6804-12-16-12-NWO-FG	3/4	1-1/16-12	1-5/16-12	1-1/16-12	0.609	0.844	0.609	1.76	2.05	1.76	1.500	1.312
6804-14-14-14-N WO-FG	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	2.00	1.80	1.375	1.312
6804-16-12-16-N WO-FG	1	1-5/16-12	1-1/16-12	1-5/16-12	0.844	0.609	0.844	1.81	2.05	1.81	1.250	1.312
6804-16-16-12-N WO-FG	1	1-5/16-12	1-5/16-12	1-1/16-12	0.844	0.844	0.609	1.81	2.05	1.81	1.500	1.312
6804-16-16-16-N WO-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	2.05	1.81	1.500	1.312
6804-20-20-20N WO-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	2.25	2.06	1.875	1.625
6804-24-24-24-N WO-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	2.39	2.33	2.125	1.875
6804-32-32-32-N WO-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	2.89	3.06	2.750	2.500

Tube Fittings & Adapters

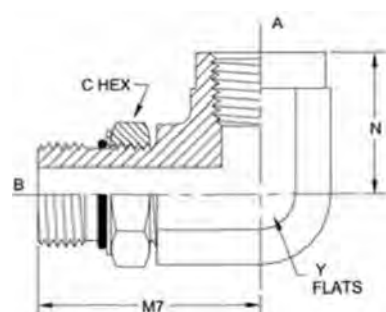
MJ-MAORB-MJ Run Tee 6804-L-NWO Series



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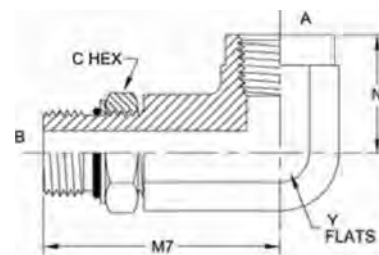
PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE ORB	B3 SAE 37	B1 ORILL	B2 BRILL	B3 ORILL	M1 LGTH	M7 LGTH	M2 LGTH	C HEX	Y FLATS
6804-L-08-08-08-NWO-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	2.59	1.25	0.875	0.750
6804-L-10-08-08-NWO-FG	5/8	7/8-14	3/4-16	3/4-16	0.484	0.391	0.391	1.45	2.59	1.33	0.875	0.875

MAORB-FP 90° 6805-NWO Series



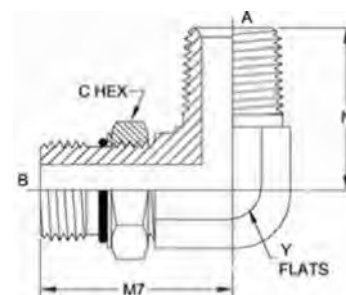
PART NO. SIZE	TUBE O.D.	B THRAO	A NPTF	B DRILL	M7 LGTH	N LGTH	C HEX	Y FLATS
6805-04-02-NWO-FG	1/4	7/16-20	1/8-27	0.172	1.19	0.66	0.563	0.562
6805-04-04-NWO-FG	1/4	7/16-20	1/4-18	0.172	1.26	0.88	0.563	0.750
6805-05-02-NWO-FG	5/16	1/2-20	1/8-27	0.234	1.13	0.66	0.625	0.562
6805-06-04-NWO-FG	3/8	9/16-18	1/4-18	0.297	1.32	0.88	0.688	0.750
6805-06-06-NWO-FG	3/8	9/16-18	3/8-18	0.297	1.41	1.02	0.688	0.875
6805-08-06-NWO-FG	1/2	3/4-16	3/8-18	0.391	1.54	1.02	0.875	0.875
6805-08-08-NWO-FG	1/2	3/4-16	1/2-14	0.391	1.62	1.23	0.875	1.062
6805-10-06-NWO-FG	5/8	7/8-14	3/8-18	0.484	1.70	1.02	1.000	0.875
6805-10-08-NWO-FG	5/8	7/8-14	1/2-14	0.484	1.78	1.23	1.000	1.062
6805-12-08-NWO-FG	3/4	1-1/16-12	1/2-14	0.609	1.94	1.23	1.250	1.062
6805-12-12-NWO-FG	3/4	1-1/16-12	3/4-14	0.609	2.05	1.36	1.250	1.312
6805-12-16-NWO-FG	3/4	1-1/16-12	1-11-1/2	0.609	2.25	1.62	1.250	1.625
6805-14-12-NWO-FG	7/8	1-3/16-12	3/4-14	0.719	2.00	1.36	1.375	1.312
6805-16-12-NWO-FG	1	1-5/16-12	3/4-14	0.844	2.05	1.36	1.500	1.312
6805-16-16-NWO-FG	1	1-5/16-12	1-11-1/2	0.844	2.25	1.62	1.500	1.625
6805-20-20-NWO-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	2.39	1.70	1.875	1.875
6805-24-20-NWO-FG	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	2.39	1.70	2.125	1.875
6805-24-24-NWO-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	2.89	2.08	2.125	2.562
6805-32-32-NWO-FG	2	2-1/2-12	2-11-1/2	1.781	3.02	2.39	2.750	2.812

MAORB-FP 90° Long 6805-L-NWO Series



PART NO. SIZE	TUBE O.D.	B SAE ORB	A NPTF	B DRILL	M7 LOTH	N LOTH	C HEX	Y FLATS
6805-L-08-06-NWO-FG	1/2	3/4-16	3/8-18	0.391	2.93	1.02	0.875	0.875
6805-L-10-08-NWO-FG	5/8	7/8-14	1/2-14	0.484	3.53	1.23	1.000	1.062
6805-L-12-12-N WO-FG	3/4	1-1/16-12	3/4-14	0.609	4.05	1.36	1.250	1.312
6805-L-16-16-N WO-FG	1	1-5/16-12	1-11-1/2	0.844	4.62	1.62	1.500	1.625

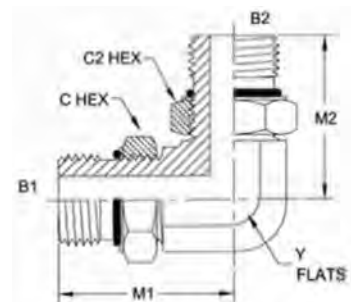
MAORB-MP 90° 6806-NWO Series



PART NO. SIZE	TUBE O.D.	B SAE ORB	A NPTF	B DRILL	A DRILL	M7 LGTH	N LGTH	C HEX	Y FLATS
6806-04-02-N WO-FG	1/4	7/16-20	1/8-27	0.172	0.188	1.03	0.72	0.563	0.438
6806-04-04-N WO-FG	1/4	7/16-20	1/4-18	0.172	0.281	1.19	1.09	0.563	0.562
6806-05-02-NWO-FG	5/16	1/2-20	1/8-27	0.234	0.188	1.13	0.78	0.625	0.562
6806-06-04-N WO-FG	3/8	9/16-18	1/4-18	0.297	0.281	1.25	1.09	0.688	0.562
6806-06-06-NWO-FG	3/8	9/16-18	3/8-18	0.297	0.406	1.32	1.22	0.688	0.750
6806-08-06-N WO-FG	1/2	3/4-16	3/8-18	0.391	0.406	1.45	1.22	0.875	0.750
6806-08-08-NWO-FG	1/2	3/4-16	1/2-14	0.391	0.531	1.54	1.47	0.875	0.875
6806-10-08-N WO-FG	5/8	7/8-14	1/2-14	0.484	0.531	1.70	1.47	1.000	0.875
6806-12-12-NWO-FG	3/4	1-1/16-12	3/4-14	0.609	0.719	1.94	1.59	1.250	1.062
6806-12-16-N WO-FG	3/4	1-1/16-12	1-11-1/2	0.609	0.938	2.05	1.97	1.250	1.312
6806-14-12-NWO-FG	7/8	1-3/16-12	3/4-14	0.719	0.719	2.00	1.69	1.375	1.312
6806-16-12-NWO-FG	1	1-5/16-12	3/4-14	0.844	0.719	2.05	1.78	1.500	1.312
6806-16-16-NWO-FG	1	1-5/16-12	1-11-1/2	0.844	0.938	2.05	1.97	1.500	1.312
6806-20-20-N WO-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.25	2.38	1.875	1.625
6806-20-24-N WO-FG	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	1.500	2.39	2.64	1.875	1.875
6806-24-24-N WO-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.39	2.64	2.125	1.875
6806-32-32-NWO-FG	2	2-1/2-12	2-11-1/2	1.781	1.938	2.89	3.00	2.750	2.500

Tube Fittings & Adapters

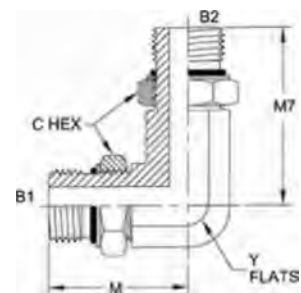
MAORB-MAORB 90° 6807-NWO Series



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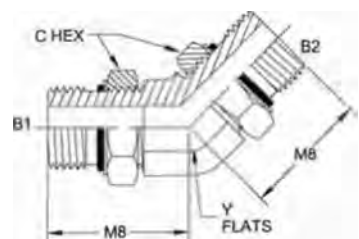
PART NO. SIZE	TUBE O.D.	B1 SAE ORB	B2 SAE ORB	B1 DRILL	B2 DRILL	M1 LGTH	M2 LGTH	C HEX	C2 HEX	Y FLATS
6807-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	1.03	1.03	0.563	0.563	0.438
6807-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.25	1.25	0.688	0.688	0.562
6807-08-06-NWO-FG	1/2	3/4-16	9/16-18	0.391	0.297	1.45	1.32	0.875	0.688	0.750
6807-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.45	1.45	0.875	0.875	0.750
6807-10-08-NWO-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.70	1.54	1.000	0.875	0.875
6807-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.70	1.70	1.000	1.000	0.875
6807-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.94	1.94	1.250	1.250	1.062
6807-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	2.05	2.05	1.500	1.500	1.312
6807-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.25	2.25	1.875	1.875	1.625
6807-24-24-NWO-FG	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.39	2.39	2.125	2.125	1.875

MAORB-MAORB 90° X-Long 6807-LL-NWO Series



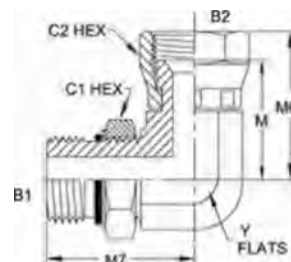
PART NO. SIZE	TUBE O.D.	B1 SAE ORB	B2 SAE ORB	B1 DRILL	B2 DRILL	M LGTH	M7 LGTH	C HEX	Y FLATS
6807-LL-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.25	2.08	0.688	0.562

MAORB-MAORB 45° 6808-NWO Series



PART NO. SIZE	TUBE O.D.	B1 SAE ORB	B2 SAE ORB	B1 DRILL	B2 DRILL	M1 LGTH	M2 LGTH	C HEX	Y FLATS
6808-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	1.05	1.05	0.563	0.438
6808-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.30	1.30	0.875	0.750
6808-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	1.86	1.86	1.500	1.312

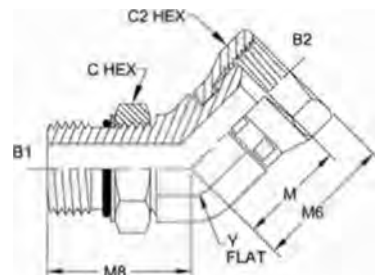
MAORB-FJS 90° 6809-NWO Series



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PART NO. SIZE	TUBE O.O.	B1 SAEORB	B2 JIC37	B1 DRILL	B2 DRILL	M7 LOTH	M LGTH	M6 LGTH	01 HEX	02 HEX	Y FLATS
6809-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	1.03	0.68	1.00	0.563	0.563	0.438
6809-04-06-NWO-FG	3/8	7/16-20	9/16-18	0.172	0.297	1.19	0.81	1.25	0.563	0.688	0.562
6809-06-04-NWO-FG	3/8	9/16-18	7/16-20	0.297	0.172	1.25	0.90	1.09	0.688	0.563	0.562
6809-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.25	0.87	1.25	0.688	0.688	0.562
6809-06-08-NWO-FG	3/8	9/16-18	3/4-16	0.297	0.391	1.32	0.95	1.38	0.688	0.875	0.750
6809-08-06-NWO-FG	1/2	3/4-16	9/16-18	0.391	0.297	1.45	1.07	1.24	0.875	0.688	0.750
6809-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.45	0.80	1.38	0.875	0.875	0.750
6809-08-12-NWO-FG	1/2	3/4-16	1-1/16-12	0.391	0.609	1.62	1.05	1.75	0.875	1.250	1.062
6809-10-08-NWO-FG	5/8	7/8-14	3/4-16	0.484	0.391	1.70	1.05	1.48	1.000	0.875	0.875
6809-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.484	0.484	1.70	1.20	1.62	1.000	1.000	0.875
6809-12-10-NWO-FG	3/4	1-1/16-12	7/8-14	0.609	0.484	1.94	1.44	1.62	1.250	1.000	1.062
6809-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.94	1.37	1.75	1.250	1.250	1.062
6809-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.844	0.844	2.05	1.45	2.00	1.500	1.500	1.312
6809-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.25	1.61	2.31	1.875	2.000	1.625

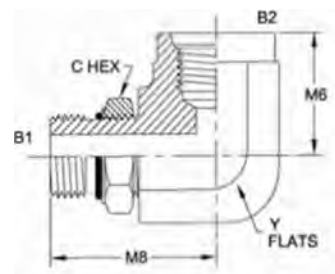
MAORB-FJS 45° 6810-NWO Series



PART NO. SIZE	TUBE O.O.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	MB LGTH	M LGTH	M6 LGTH	C HEX	C2 HEX	Y FUTS
6810-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	0.172	1.05	0.59	0.94	0.563	0.563	0.438
6810-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	0.297	1.14	0.74	1.12	0.688	0.688	0.562
6810-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	0.391	1.30	0.85	1.28	0.875	0.875	0.750
6810-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.73	0.93	1.50	1.250	1.250	1.062

Tube Fittings & Adapters

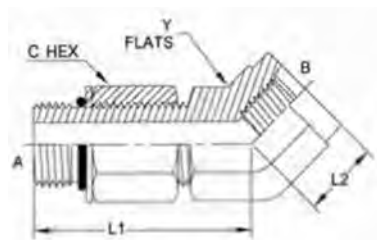
MAORB-FORB 90° 6815-NWO Series



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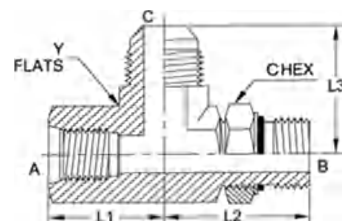
PART NO.SIZE	TUBE O.D.	B1 SAEORB	B2 SAE ORB	B1 DRILL	MB LGTH	MB LGTH	C HEX	Y FLATS
6815-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.172	1.23	0.63	0.563	0.750
6815-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.297	1.38	0.75	0.688	0.875
6815-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.391	1.59	0.88	0.875	1.062
6815-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.484	1.81	1.02	1.000	1.062
6815-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.609	2.00	1.21	1.250	1.312
6815-16-16-N WO-FG	1	1-5/16-12	1-5/16-12	0.844	2.25	1.33	1.500	1.625

MAORB-FORB 45 Large Nut 6818 Series



PART NO.SIZE	TUBE O.D.	A AORB	B SAEORB	A DRILL	LI LGTH	L2 LGTH	C HEX	Y FLATS
6818-04-04-N WO-FG	1/4	7/16-20	7/16-20	0.172	1.86	0.64	0.563	0.750

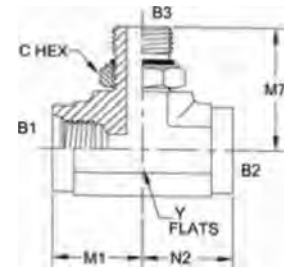
FORB-MAORB-MJ Tee 6820 Series



PART NO.SIZE	TUBE O.D.	A SAEORB	B SAEORB	C JIC37	B DRILL	C DRILL	LI LGTH	L2 LGTH	13 LGTH	C HEX	Y FLATS
6820-06-06-06-N WO-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.75	1.38	1.22	0.688	0.875
6820-06-12-12-NWO-FG	3/4	9/16-18	1-1/16-12	1-1/16-12	0.609	0.609	1.21	1.94	1.66	1.250	1.062

FORB-FORB-MAORB Tee

6832-NWO Series

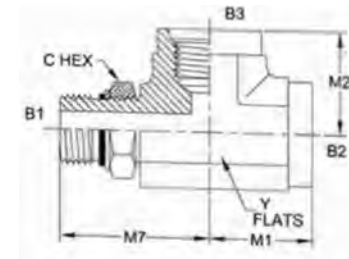


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PART NO.SIZE	TUBE 0.0.	B1 SAEORB	B2 SAEORB	B3 SAEORB	B3 DRILL	MI LOTH	N2 LOTH	M7 LOTH	C HEX	Y FLATS
6832-04-04-04-NWO-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	0.63	0.63	1.23	0.563	0.750
6832-06-06-06-NWO-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	0.75	0.75	1.38	0.688	0.875
6832-08-05-08-NWO-FG	1/2	3/4-16	1/2-20	3/4-16	0.391	0.88	0.88	1.59	0.875	1.062
6832-08-08-08-NWO-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	0.88	0.88	1.59	0.875	1.062
6832-10-10-10-NWO-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	1.02	1.02	1.81	1.000	1.062
6832-12-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	1.21	1.21	2.00	1.250	1.312
6832-16-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	1.33	1.33	2.25	1.500	1.625

MAORB-FORB-FORB Tee

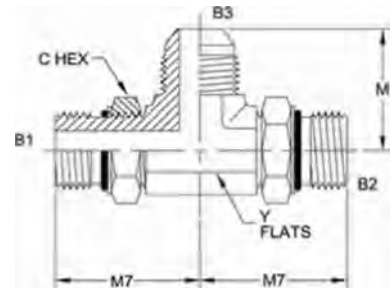
6835 Series



PART NO.SIZE	TUBE 0.0.	B1 SAEORB	B2 SAEORB	B3 SAE ORB	B1 DRILL	M7 LGTH	MI LOTH	M2 LOTH	C HEX	Y FLATS
6835-04-04-04-NWO-FG	1/4	7/16-20	7/16-20	7/16-20	0.172	1.23	0.63	0.63	0.563	0.750
6835-06-06-06-NWO-FG	3/8	9/16-18	9/16-18	9/16-18	0.297	1.38	0.75	0.75	0.688	0.875
6835-08-08-08-NWO-FG	1/2	3/4-16	3/4-16	3/4-16	0.391	1.59	0.88	0.88	0.875	1.062
6835-10-10-10-NWO-FG	5/8	7/8-14	7/8-14	7/8-14	0.484	1.81	1.02	1.02	1.000	1.062
6835-12-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	2.00	1.21	1.21	1.250	1.312
6835-16-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	2.25	1.33	1.33	1.500	1.625

Tube Fittings & Adapters

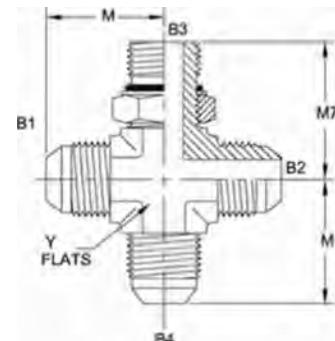
MAORB-MAORB-MJ Tee 6840-NWO Series



C-118

PART NO.SIZE	TUBE O.D.	B1 SAEORB	B2 SAEORB	B3 JIC37	B1 DRILL	B2 DRILL	B3 DRILL	M7 LGTH	M LGTH	C HEX	Y FLATS
6840-20-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.25	2.06	1.875	1.625

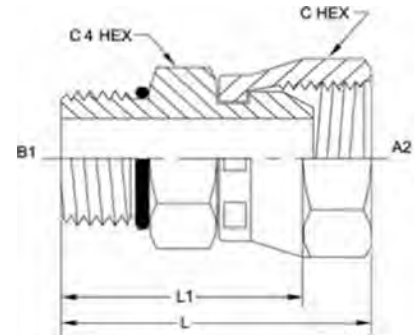
MJ-MJ-MAORB-MJ Cross 6850-NWO Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAEORB	B4 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	B4 DRILL	M7 LGTH	M LGTH	C HEX	Y FLATS
6850-06-06-04-06-NWO-FG	3/8	9/16-18	9/16-18	7/16-20	9/16-18	0.297	0.297	0.172	0.297	1.19	1.06	0.562	0.562
6850-06-06-06-06-NWO-FG	3/8	9/16-18	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	0.297	1.25	1.06	0.688	0.562

MORB-FPS Straight 6900-0 Series

SAE# 140157



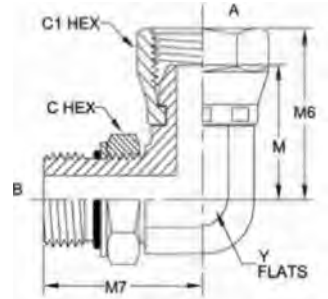
C-119

PART NO.SIZE	TUBE O.D.	B1 SAE ORB	A2 NPSM	81 DRILL	A2 DRILL	LI LGTH	L LGTH	C HEX	C4 HEX
6900-04-02-0	1/4	7/16-20	1/8-27	0.172	0.150	1.00	1.14	0.562	0.562
6900-04-04-0	1/4	7/16-20	1/4-18	0.172	0.220	1.11	1.30	0.688	0.562
6900-04-06-0	1/4	7/16-20	3/8-18	0.172	0.340	1.15	1.36	0.875	0.688
6900-04-08-0	1/4	7/16-20	1/2-14	0.172	0.460	1.21	1.49	1.000	0.812
6900-05-04-0	5/16	1/2-20	1/4-18	0.234	0.220	1.09	1.28	0.688	0.625
6900-05-08-0	5/16	1/2-20	1/2-14	0.234	0.460	1.30	1.58	1.000	0.812
6900-06-04-0	3/8	9/16-18	1/4-18	0.297	0.220	1.07	1.26	0.688	0.688
6900-06-06-0	3/8	9/16-18	3/8-18	0.297	0.340	1.25	1.46	0.875	0.688
6900-06-08-0	3/8	9/16-18	1/2-14	0.297	0.460	1.29	1.57	1.000	0.812
6900-08-04-0	1/2	3/4-16	1/4-18	0.391	0.220	1.17	1.36	0.688	0.875
6900-08-06-0	1/2	3/4-16	3/8-18	0.391	0.340	1.19	1.40	0.875	0.875
6900-08-08-0	1/2	3/4-16	1/2-14	0.391	0.460	1.27	1.55	1.000	0.875
6900-08-12-0	1/2	3/4-16	3/4-14	0.391	0.635	1.41	1.76	1.250	1.000
6900-10-06-0	5/8	7/8-14	3/8-18	0.484	0.340	1.26	1.47	0.875	1.000
6900-10-08-0	5/8	7/8-14	1/2-14	0.484	0.460	1.33	1.61	1.000	1.000
6900-10-12-0	5/8	7/8-14	3/4-14	0.484	0.635	1.37	1.72	1.250	1.000
6900-12-06-0	3/4	1-1/16-12	3/8-18	0.609	0.340	1.41	1.62	0.875	1.250
6900-12-08-0	3/4	1-1/16-12	1/2-14	0.609	0.460	1.45	1.73	1.000	1.250
6900-12-12-0	3/4	1-1/16-12	3/4-14	0.609	0.635	1.60	1.95	1.250	1.250
6900-12-16-0	3/4	1-1/16-12	1-11-1/2	0.609	0.831	1.70	2.05	1.500	1.250
6900-14-12-0	7/8	1-3/16-12	3/4-14	0.719	0.635	1.61	1.96	1.250	1.375
6900-14-16-0	7/8	1-3/16-12	1-11-1/2	0.719	0.831	1.60	1.95	1.500	1.500
6900-16-08-0	1	1-5/16-12	1/2-14	0.844	0.460	1.62	1.90	1.000	1.500
6900-16-12-0	1	1-5/16-12	3/4-14	0.844	0.635	1.73	2.08	1.250	1.500
6900-16-16-0	1	1-5/16-12	1-11-1/2	0.844	0.831	1.71	2.06	1.500	1.500
6900-16-20-0	1	1-5/16-12	1-1/4-11-1/2	0.844	1.087	1.90	2.32	1.875	1.875
6900-20-12-0	1-1/4	1-5/8-12	3/4-14	1.078	0.635	1.66	2.01	1.250	1.875
6900-20-16-0	1-1/4	1-5/8-12	1-11-1/2	1.078	0.831	1.79	2.14	1.500	1.875
6900-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.087	1.79	2.21	1.875	1.875
6900-24-20-0	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.087	1.75	2.17	1.875	2.125
6900-24-24-0	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.317	1.95	2.37	2.125	2.125
6900-32-32-0	2	2-1/2-12	2-11-1/2	1.781	1.802	2.00	2.42	2.625	2.750

Tube Fittings & Adapters

MAORB-FPS 90° 6901-NWO Series

SAE# 140257

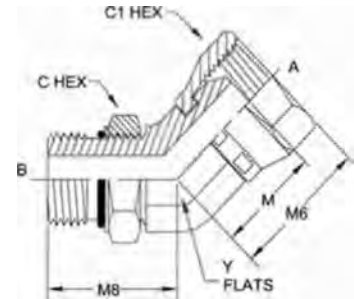


C-120

PART NO. SIZE	TUBE O.D.	B SAEORB	A NPSM	B DRILL	A DRILL	M7 LGTH	M LGTH	MG LGTH	C HEX	CI HEX	Y FLATS
6901 -04-02-NWO-FG	1/4	7/16-20	1/8-27	0.172	0.150	1.03	0.70	0.84	0.563	0.562	0.438
6901 -04-04-NWO-FG	1/4	7/16-20	1/4-18	0.172	0.220	1.19	0.88	1.07	0.563	0.688	0.562
6901 -04-06-NWO-FG	1/4	7/16-20	3/8-18	0.172	0.340	1.26	0.99	1.20	0.563	0.875	0.750
6901 -04-08-NWO-FG	1/4	7/16-20	1/2-14	0.172	0.460	1.26	1.11	1.39	0.563	1.000	0.750
6901 -05-04-NWO-FG	5/16	1/2-20	1/4-18	0.234	0.220	1.13	0.88	1.07	0.625	0.688	0.562
6901 -06-04-NWO-FG	3/8	9/16-18	1/4-18	0.297	0.220	1.25	0.88	1.07	0.688	0.688	0.562
6901 -06-06-NWO-FG	3/8	9/16-18	3/8-18	0.297	0.340	1.32	0.99	1.20	0.688	0.875	0.750
6901 -06-08-NWO-FG	3/8	9/16-18	1/2-14	0.297	0.460	1.32	1.11	1.39	0.688	1.000	0.750
6901 -08-04-NWO-FG	1/2	3/4-16	1/4-18	0.391	0.220	1.45	0.97	1.16	0.875	0.688	0.750
6901 -08-06-NWO-FG	1/2	3/4-16	3/8-18	0.391	0.340	1.45	0.99	1.20	0.875	0.875	0.750
6901 -08-08-NWO-FG	1/2	3/4-16	1/2-14	0.391	0.460	1.45	1.11	1.39	0.875	1.000	0.750
6901 -08-12-NWO-FG	1/2	3/4-16	3/4-14	0.391	0.635	1.62	1.30	1.65	0.875	1.250	1.062
6901 -10-04-NWO-FG	5/8	7/8-14	1/4-18	0.484	0.220	1.70	1.02	1.21	1.000	0.688	0.875
6901 -10-06-NWO-FG	5/8	7/8-14	3/8-18	0.484	0.340	1.70	1.04	1.25	1.000	0.875	0.875
6901 -10-08-NWO-FG	5/8	7/8-14	1/2-14	0.484	0.460	1.70	1.11	1.39	1.000	1.000	0.875
6901 -10-12-NWO-FG	5/8	7/8-14	3/4-14	0.484	0.635	1.78	1.30	1.65	1.000	1.250	1.062
6901 -12-06-NWO-FG	3/4	1-1/16-12	3/8-18	0.609	0.340	1.94	1.26	1.47	1.250	0.875	1.062
6901 -12-08-NWO-FG	3/4	1-1/16-12	1/2-14	0.609	0.460	1.94	1.30	1.58	1.250	1.000	1.062
6901 -12-12-NWO-FG	3/4	1-1/16-12	3/4-14	0.609	0.635	1.94	1.30	1.65	1.250	1.250	1.062
6901 -12-16-NWO-FG	3/4	1-1/16-12	1-11-1/2	0.609	0.831	2.05	1.54	1.89	1.250	1.500	1.312
6901 -14-12-NWO-FG	7/8	1-3/16-12	3/4-14	0.719	0.635	2.00	1.43	1.78	1.375	1.250	1.312
6901 -14-16-NWO-FG	7/8	1-3/16-12	1-11-1/2	0.719	0.831	2.05	1.54	1.89	1.375	1.500	1.312
6901 -16-12-NWO-FG	1	1-5/16-12	3/4-14	0.844	0.635	2.05	1.43	1.78	1.500	1.250	1.312
6901 -16-16-NWO-FG	1	1-5/16-12	1-11-1/2	0.844	0.831	2.05	1.54	1.89	1.500	1.500	1.312
6901 -16-20-NWO-FG	1	1-5/16-12	1-1/4-11-1/2	0.844	1.087	2.25	1.73	2.15	1.500	1.875	1.625
6901 -20-12-NWO-FG	1-1/4	1-5/8-12	3/4-14	1.078	0.635	2.25	1.56	1.91	1.875	1.250	1.625
6901 -20-16-NWO-FG	1-1/4	1-5/8-12	1-11-1/2	1.078	0.831	2.25	1.70	2.05	1.875	1.500	1.625
6901 -20-20-NWO-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.087	2.25	1.73	2.15	1.875	1.875	1.625
6901 -24-20-NWO-FG	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.087	2.39	1.77	2.19	2.125	1.875	1.875
6901 -24-24-NWO-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.317	2.39	1.89	2.31	2.125	2.125	1.875
6901 -32-32-NWO-FG	2	2-1/2-12	2-11-1/2	1.781	1.802	2.89	2.27	2.69	2.750	2.625	2.500

MAORB-FPS 45° 6902-NWO Series

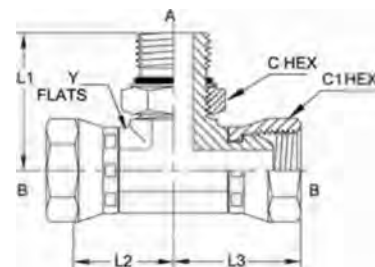
SAE# 140357



C-121

PART NO. SIZE	TUBE O.O.	B SAE ORB	A NPSM	B DRILL	A DRILL	M8 LGTH	M LGTH	M6 LGTH	C HEX	CI HEX	Y FLATS
6902-04-04-NWO-FG	1/4	7/16-20	1/4-18	0.172	0.22	1.08	0.73	0.92	0.563	0.688	0.562
6902-04-06-NWO-FG	1/4	7/16-20	3/8-18	0.172	0.34	1.11	0.81	1.02	0.563	0.875	0.750
6902-06-04-NWO-FG	3/8	9/16-18	1/4-18	0.297	0.22	1.14	0.73	0.92	0.688	0.688	0.562
6902-06-06-NWO-FG	3/8	9/16-18	3/8-18	0.297	0.34	1.17	0.81	1.02	0.688	0.875	0.750
6902-06-08-NWO-FG	3/8	9/16-18	1/2-14	0.297	0.46	1.23	0.88	1.16	0.688	1.000	0.875
6902-08-04-NWO-FG	1/2	3/4-16	1/4-18	0.391	0.22	1.30	0.79	0.98	0.875	0.688	0.750
6902-08-06-NWO-FG	1/2	3/4-16	3/8-18	0.391	0.34	1.30	0.81	1.02	0.875	0.875	0.750
6902-08-08-NWO-FG	1/2	3/4-16	1/2-14	0.391	0.46	1.36	0.88	1.16	0.875	1.000	0.875
6902-08-12-NWO-FG	1/2	3/4-16	3/4-14	0.391	0.635	1.41	1.02	1.37	0.875	1.250	1.062
6902-10-06-NWO-FG	5/8	7/8-14	3/8-18	0.484	0.34	1.52	0.81	1.02	1.000	0.875	0.875
6902-10-08-NWO-FG	5/8	7/8-14	1/2-14	0.484	0.46	1.52	0.88	1.16	1.000	1.000	0.875
6902-10-12-NWO-FG	5/8	7/8-14	3/4-14	0.484	0.635	1.57	1.02	1.37	1.000	1.250	1.062
6902-12-06-NWO-FG	3/4	1-1/16-12	3/8-18	0.609	0.34	1.73	0.98	1.19	1.250	0.875	1.062
6902-12-08-NWO-FG	3/4	1-1/16-12	1/2-14	0.609	0.46	1.73	1.02	1.30	1.250	1.000	1.062
6902-12-12-NWO-FG	3/4	1-1/16-12	3/4-14	0.609	0.635	1.73	1.02	1.37	1.250	1.250	1.062
6902-12-16-NWO-FG	3/4	1-1/16-12	1-11-1/2	0.609	0.831	1.86	1.15	1.50	1.250	1.500	1.312
6902-16-12-NWO-FG	1	1-5/16-12	3/4-14	0.844	0.635	1.86	1.04	1.39	1.500	1.250	1.312
6902-16-16-NWO-FG	1	1-5/16-12	1-11-1/2	0.844	0.831	1.86	1.15	1.50	1.500	1.500	1.312
6902-16-20-NWO-FG	1	1-5/16-12	1-1/4-11-1/2	0.844	1.087	1.91	1.23	1.66	1.500	1.875	1.625
6902-20-16-NWO-FG	1-1/4	1-5/8-12	1-11-1/2	1.078	0.831	1.91	1.20	1.55	1.875	1.500	1.625
6902-20-20-NWO-FG	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.087	1.91	1.23	1.66	1.875	1.875	1.625
6902-24-24-NWO-FG	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.317	1.91	1.35	1.77	2.125	2.125	1.875

MAORB-FPS-FPS Tee 6911-NWO Series



PART NO. SIZE	TUBE O.O.	A SAE ORB	B NPSM	B NPSM	A DRILL	B ORILL	B DRILL	LI LGTH	L2 LGTH	L3 LGTH	C HEX	CI HEX	Y FLATS
6911-08-08-08-NOW-FG	1/2	3/4-16	1/2-14	1/2-14	0.391	0.44	0.44	1.45	1.11	1.39	0.875	1.000	0.875
6911-10-12-12-NOW-FG	5/8	7/8-14	3/4-14	3/4-14	0.484	0.61	0.61	1.78	1.30	1.65	1.000	1.250	1.062



Hydraulic Flanges/Accessories

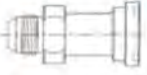
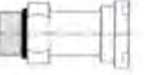
Hydraulic Flanges/Accessories

Available in both forged and one-piece swept configurations, Brennan Industries now manufactures a full line of flange adapters for use with Brennan's expanded split and 4-bolt flange product line.

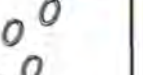
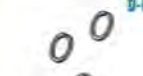
Made to endure extremely high working pressures and tensile strength, Brennan flange adapters are designed to perform in a variety of clearance applications.

Brennan flange adapters are available in connection sizes ranging from 1/2" to 4"

D-001

 1700 MJ-Flange Straight Code 61	 1703 MJ-Flange 45° Code 61	 1704 MJ-Flange 90° Code 61	 1710 MORB-Flange Straight Code 61	 1800 MJ-Flange Straight Code 62	 1803 MJ-Flange 45° Code 62
 1804 MJ-Flange 90° Code 62	 1810 MORB-Flange Straight Code 62	 1703FG MJ-Flange 45° Code 61	 1704FG MJ-Flange 90° Code 61	 1803FG MJ-Flange 45° Code 62	 1804FG MJ-Flange 90° Code 62
 FS1700 MFS-Flange Straight Code 61	 FS1703FG MFS-Flange 45° Code 61	 FS1704FG MFS-Flange 90° Code 61	 FS1800 MFS-Flange Straight Code 62	 FS1803FG MFS-Flange 45° Code 62	 FS1804FG MFS-Flange 90° Code 62
 1900-61 Hex Head Mounting Kit Code 61	 1900-62 Hex Head Mounting Kit Code 62	 1900-M Hex Head Mounting Kit Metric	 1901-61 Split Flange Kit Code 61	 1902-62 Split Flange Kit Code 62	 1903/1904-61 Captive Flange Code 61
 1903/1904-62 Captive Flange Code 62	 1914-61 Connector Plate Code 61	 1914-62 Connector Plate Code 62	 1927/1928-61 NPTF Port Block Code 61	 1927/1928-62 NPTF Port Block Code 62	 1929/1930-61 SAE Port Block Code 61

Hydraulic Flanges & Accessories

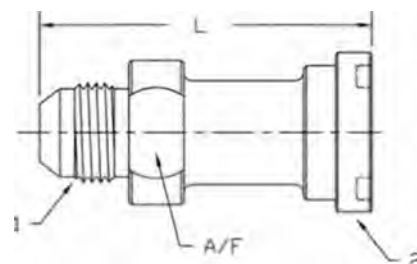
 1829/1830-62 SAE Port Block Code 62	 1833/1834 Flat Socket Block-Pipe 500 psi Code 61	 1835/1836-61 Flat Socket Block-Pipe Code 61	 1835/1836-62 Flat Socket Block-Pipe Code 62	 1837/1838-61 Flat Socket Block-Tube Code 61	 1837/1838-62 Flat Socket Block-Tube Code 62
 1940-61 Flange Spacer with Side Gage Ports Code 61	 1940-62 Flange Spacer with Side Gage Ports Code 62	 1942/1943-61 Plug Block Code 61	 1942/1943-62 Plug Block Code 62	 1951-61 Split Flange Code 61	 1951-M Flange Halves Code 61
 1952-62 Split Flange Code 62	 1952-M Flange Halves Code 62	 1959-P Pipe Saddle Weld Block Connector Code 61	 1961 Grade 8 Flange Bolts Code 61	 1962 Grade 8 Flange Bolts Code 62	 1971 Lock Washers Code 61
 1972 Lock Washers Code 62	 1965-61 SAE Port Block Elbow Code 61	 1965-62 SAE Port Block Elbow Code 62	 1967-61 NPTF Port Block Elbow Code 61	 1967-62 NPTF Port Block Elbow Code 62	 1979-61 Flang Shipping Plate/Ø-PSI Code 61
 1979-62 Flang Shipping Plate/Ø-PSI Code 62	 1990-61 Socket Head Mounting Kit Code 61	 1990-62 Socket Head Mounting Kit Code 62	 1990-M Socket Head Mounting Kit Metric Code 61	 3300/3301-61 Tube Braze Flange Head Connector Code 61	 3300/3301-62 Tube Braze Flange Head Connector Code 62
 Flange Head Detail Code 61	 Flange Head Detail Code 62	For Codes 61&62 Maximum Working Pressure Ratings			

D-002

Additional Available Products

1724&1824, Codes 61 & 62 **Flange Plugs**
 1910, Codes 61 & 62 **Tube Weld Socket Flange Connector**
 1911, Codes 61 & 62 **Pipe Weld Socket Flange Connector**
 1912-0, Code 61 **SAE Flange Connector**
 1912-P, Code 61 **NPTF Flange Connector**
 1915, 1917 & 1919, Codes 61 & 62 **Butt Weld Connector-Variou Pipe Schedules**

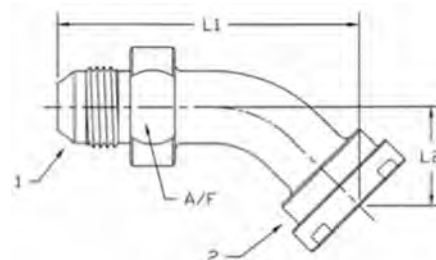
MJ-Flange Straight Code 61 1700 Series



D-003

PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L (in.)	A/F (in.)
1700-08-08	1/2	3/4-16UNF	1/2	2.60	7/8
1700-08-12	1/2	3/4-16UNF	3/4	2.75	1-1/8
1700-12-12	3/4	1-1/16-12UN	3/4	2.75	1-1/8
1700-12-16	3/4	1-1/16-12UN	1	2.80	1-1/8
1700-12-20	3/4	1-1/16-12UN	1-1/4	2.80	1-3/8
1700-16-12	1	1-5/16-12UN	3/4	2.75	1-3/8
1700-16-16	1	1-5/16-12UN	1	2.80	1-3/8
1700-16-20	1	1-5/16-12UN	1-1/4	2.80	1-3/8
1700-16-24	1	1-5/16-12UN	1-1/2	2.80	1-11/16
1700-20-16	1-1/4	1-5/8-12UN	1	2.80	1-11/16
1700-20-20	1-1/4	1-5/8-12UN	1-1/4	2.80	1-11/16
1700-20-24	1-1/4	1-5/8-12UN	1-1/2	2.80	1-11/16
1700-20-32	1-1/4	1-5/8-12UN	2	3.50	1-11/16
1700-24-20	1-1/2	1-7/8-12UN	1-1/4	3.40	2
1700-24-24	1-1/2	1-7/8-12UN	1-1/2	3.50	2
1700-24-32	1-1/2	1-7/8-12UN	2	3.73	2
1700-32-24	2	2-1/2-12UN	1-1/2	4.20	2-5/8
1700-32-32	2	2-1/2-12UN	2	3.98	2-5/8

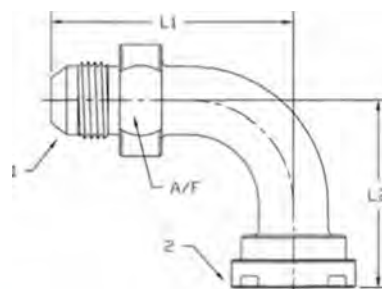
MJ-Flange 45 Code 61 1703 Series



PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L1 (in.)	L2 (in.)	A/F (in.)
1703-08-08	1/2	3/4-16UNF	1/2	2.72	0.91	7/8
1703-08-12	1/2	3/4-16UNF	3/4	2.72	0.94	7/8
1703-12-12	3/4	1-1/16-12UN	3/4	3.15	1.02	1-1/8
1703-12-16	3/4	1-1/16-12UN	1	3.15	1.02	1-1/8
1703-12-20	3/4	1-1/16-12UN	1-1/4	3.15	1.02	1-1/8
1703-16-12	1	1-5/16-12UN	3/4	3.66	1.18	1-3/8
1703-16-16	1	1-5/16-12UN	1	3.66	1.18	1-3/8
1703-16-20	1	1-5/16-12UN	1-1/4	3.66	1.18	1-3/8
1703-16-24	1	1-5/16-12UN	1-1/2	3.74	1.26	1-3/8
1703-20-12	1-1/4	1-5/8-12UN	3/4	3.78	1.18	1-11/16
1703-20-16	1-1/4	1-5/8-12UN	1	3.86	1.22	1-11/16
1703-20-20	1-1/4	1-5/8-12UN	1-1/4	4.21	1.38	1-11/16
1703-20-24	1-1/4	1-5/8-12UN	1-1/2	4.25	1.42	1-11/16
1703-24-20	1-1/2	1-7/8-12UN	1-1/4	4.70	1.46	2
1703-24-24	1-1/2	1-7/8-12UN	1-1/2	4.96	1.69	2
1703-24-32	1-1/2	1-7/8-12UN	2	5.12	1.81	2
1703-32-32	2	2-1/2-12UN	2	6.22	2.17	2-3/4

Hydraulic Flanges & Accessories

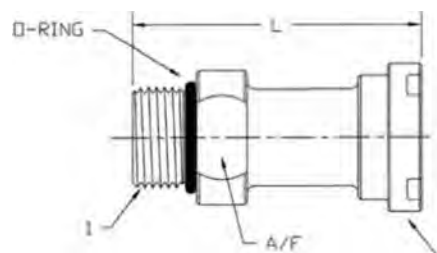
MJ-Flange 90° Code 61 1704 Series



PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L1 (in.)	L2 (in.)	A/F (in.)
1704-08-08	1/2	3/4-16UNF	1/2	2.32	1.81	7/8
1704-08-12	1/2	3/4-16UNF	3/4	2.32	1.85	7/8
1704-12-12	3/4	1-1/16-12UN	3/4	2.83	2.13	1-1/8
1704-12-16	3/4	1-1/16-12UN	1	2.83	2.13	1-1/8
1704-12-20	3/4	1-1/16-12UN	1-1/4	2.83	2.13	1-1/8
1704-16-12	1	1-5/16-12UN	3/4	2.95	2.13	1-3/8
1704-16-16	1	1-5/16-12UN	1	3.39	2.60	1-3/8
1704-16-20	1	1-5/16-12UN	1-1/4	3.39	2.60	1-3/8
1704-16-24	1	1-5/16-12UN	1-1/2	3.39	2.66	1-3/8
1704-20-16	1-1/4	1-5/8-12UN	1	3.54	2.60	1-11/16
1704-20-20	1-1/4	1-5/8-12UN	1-1/4	3.98	3.03	1-11/16
1704-20-24	1-1/4	1-5/8-12UN	1-1/2	3.98	3.11	1-11/16
1704-24-20	1-1/2	1-7/8-12UN	1-1/4	4.21	3.03	2
1704-24-24	1-1/2	1-7/8-12UN	1-1/2	4.57	3.66	2
1704-24-32	1-1/2	1-7/8-12UN	2	4.57	3.86	2
1704-32-24	2	2-1/2-12UN	1-1/2	5.04	3.66	2-3/4
1704-32-32	2	2-1/2-12UN	2	5.79	4.84	2-3/4
1704-32-40	2	2-1/2-12UN	2-1/2	5.91	4.92	2-3/4

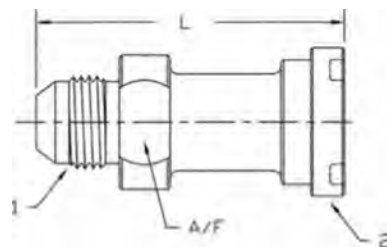
D-004

MORB-Flange Straight Code 61 1710 Series



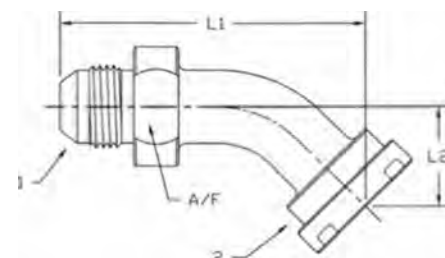
PART NO.SIZE	TUBE U.D.	1 THREAD	2 FLANGE	L (in.)	A/F (in.)
1710-08-08	1/2	3/4-16UNF	1/2		7/8
1710-12-12	3/4	1-1/16-12UN	3/4		1-1/4
1710-16-16	1	1-5/16-12UN	1		1-1/2
1710-20-20	1-1/4	1-5/8-12UN	1-1/4		1-7/8
1710-24-24	1-1/2	1-7/8-12UN	1-1/2		2-1/8
1710-32-32	2	2-1/2-12UN	2		2-3/4

MJ-Flange Straight Code 62 1800 Series



PART NO.SIZE	TUBE 1 O.D.	1 THREAD	2 FLANGE	1 (in.)	A/F (in.)
1800-08-08	1/2	3/4-16UNF	1/2	2.61	7/8
1800-12-12	3/4	1-1/16-12UN	3/4	2.75	1-1/8
1800-12-16	3/4	1-1/16-12UN	1	2.80	1-1/8
1800-16-12	1	1-5/16-12UN	3/4	2.75	1-3/8
1800-16-16	1	1-5/16-12UN	1	2.80	1-3/8
1800-16-20	1	1-5/16-12UN	1-1/4	3.05	1-3/8
1800-16-24	1	1-5/16-12UN	1-1/2	3.05	1-3/8
1800-20-16	1-1/4	1-5/8-12UN	1	3.50	1-11/16
1800-20-20	1-1/4	1-5/8-12UN	1-1/4	3.05	1-11/16
1800-20-24	1-1/4	1-5/8-12UN	1-1/2	3.50	1-11/16
1800-24-20	1-1/2	1-7/8-12UN	1-1/4	3.30	2
1800-24-24	1-1/2	1-7/8-12UN	1-1/2	3.50	2-5/8
1800-32-32	2	2-1/2-12UN	2	4.23	2-3/4

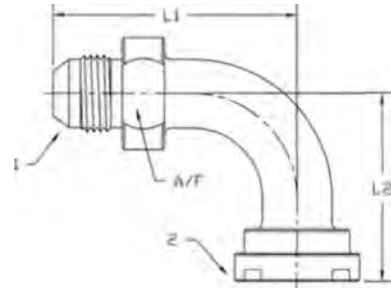
MJ-Flange 45° Code 62 1803 Series



PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L1 (in.)	L2 (in.)	A/F (in.)
1803-08-08	1/2	3/4-16UNF	1/2	2.76	0.94	7/8
1803-12-12	3/4	1-1/16-12UN	3/4	3.31	1.14	1-1/8
1803-12-16	3/4	1-1/16-12UN	1	3.35	1.22	1-1/8
1803-16-12	1	1-5/16-12UN	3/4	3.46	1.18	1-3/8
1803-16-16	1	1-5/16-12UN	1	3.86	1.38	1-3/8
1803-16-20	1	1-5/16-12UN	1-1/4	3.98	1.50	1-3/8
1803-16-24	1	1-5/16-12UN	1-1/2	4.13	1.61	1-3/8
1803-20-16	1-1/4	1-5/8-12UN	1	4.13	1.42	1-11/16
1803-20-20	1-1/4	1-5/8-12UN	1-1/4	4.53	1.65	1-11/16
1803-20-24	1-1/4	1-5/8-12UN	1-1/2	4.65	1.81	1-11/16
1803-24-24	1-1/2	1-7/8-12UN	1-1/2	5.16	1.93	2
1803-32-32	2	2-1/2-12UN	2	6.54	2.48	2-3/4

Hydraulic Flanges & Accessories

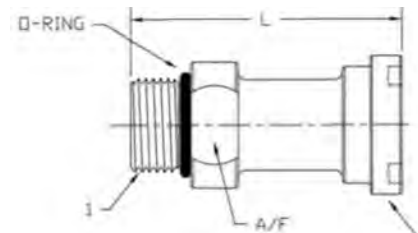
M J-Flange 90° Code 62 1804 Series



PART NO./SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L1 (in.)	L2 (in.)	A/F (in.)
1804-08-08	1/2	3/4-16UNF	1/2	2.32	1.85	7/8
1804-12-12	3/4	1-1/16-12UN	3/4	2.83	2.28	1-1/8
1804-12-16	3/4	1-1/16-12UN	1	2.83	2.40	1-1/8
1804-12-20	3/4	1-1/16-12UN	1-1/4	2.83	2.76	1-1/8
1804-16-12	1	1-5/16-12UN	3/4	2.93	2.28	1-3/8
1804-16-16	1	1-5/16-12UN	1	3.39	2.87	1-3/8
1804-16-20	1	1-5/16-12UN	1-1/4	3.39	3.03	1-3/8
1804-16-24	1	1-5/16-12UN	1-1/2	3.39	3.23	1-3/8
1804-20-16	1-1/4	1-5/8-12UN	1	3.54	2.87	1-11/16
1804-20-20	1-1/4	1-5/8-12UN	1-1/4	3.98	3.46	1-11/16
1804-20-24	1-1/4	1-5/8-12UN	1-1/2	3.98	3.66	1-11/16
1804-24-16	1-1/2	1-7/8-12UN	1	3.94	2.87	2
1804-24-20	1-1/2	1-7/8-12UN	1-1/4	4.33	3.46	2
1804-24-24	1-1/2	1-7/8-12UN	1-1/2	4.57	4.02	2
1804-32-32	2	2-1/2-12UN	2	5.79	5.31	2-3/4

D-006

MORB-Flange Straight Code 62 1810 Series



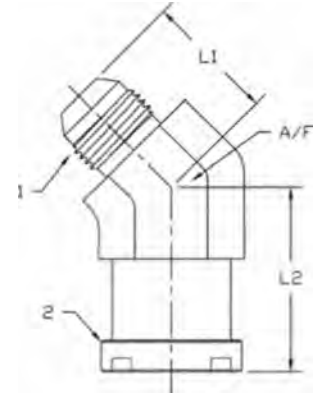
PART NO./SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L (in.)	A/F (in.)
1810-08-08	1/2	3/4-16UNF	1/2		7/8
1810-12-12	3/4	1-1/16-12UN	3/4		1-1/4
1810-16-16	1	1-5/16-12UN	1		1-1/2
1810-20-20	1-1/4	1-5/8-12UN	1-1/4		1-7/8
1810-24-24	1-1/2	1-7/8-12UN	1-1/2		2-1/8
1810-32-32	2	2-1/2-12UN	2		2-3/4

MJ-Flange 45°

Code 61 1703FG Series

D-007

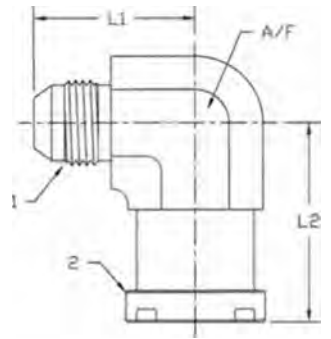
PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	LI (in.)	L2 (in.)	A/F (in.)
1703-12-12-FG	3/4	1-1/16-12UN	3/4	1.28	1.58	1-1/16
1703-16-16-FG	1	1-5/16-12UN	1	1.47	1.85	1-5/16
1703-20-20-FG	1-1/4	1-5/8-12UN	1-1/4	1.59	2.04	1-5/8
1703-24-24-FG	1-1/2	1-7/8-12UN	1-1/2	1.78	2.38	1-7/8
1703-32-32-FG	2	2-1/2-12UN	2	2.22	3.00	2-5/8



MJ-Flange 90°

Code 61 1704FG Series

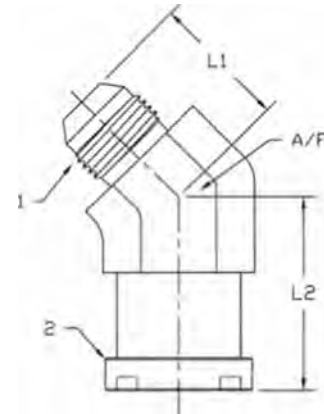
PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	LI (in.)	L2 (in.)	A/F (in.)
1704-08-12-FG	1/2	3/4-16UNF	3/4	1.66	2.13	1-1/16
1704-12-12-FG	3/4	1-1/16-12UN	3/4	1.66	2.13	1-1/16
1704-12-16-FG	3/4	1-1/16-12UN	1	1.81	2.37	1-5/16
1704-12-20-FG	3/4	1-1/16-12UN	1-1/4	1.97	2.62	1-5/16
1704-12-24-FG	3/4	1-1/16-12UN	1-1/2	2.20	3.15	1-5/8
1704-16-12-FG	1	1-5/16-12UN	3/4	1.66	2.13	1-5/16
1704-16-16-FG	1	1-5/16-12UN	1	2.02	2.37	1-5/16
1704-16-20-FG	1	1-5/16-12UN	1-1/4	2.02	2.62	1-5/16
1704-20-16-FG	1-1/4	1-5/8-12UN	1	1.90	2.37	1-5/8
1704-20-20-FG	1-1/4	1-5/8-12UN	1-1/4	2.06	2.62	1-5/8
1704-20-24-FG	1-1/4	1-5/8-12UN	1-1/2	2.33	3.15	1-5/8
1704-24-20-FG	1-1/2	1-7/8-12UN	1-1/4	2.19	2.62	1-7/8
1704-24-24-FG	1-1/2	1-7/8-12UN	1-1/2	2.33	3.15	1-7/8
1704-24-32-FG	1-1/2	1-7/8-12UN	2	3.06	4.25	1-7/8
1704-32-24-FG	2	2-1/2-12UN	1-1/2	3.06	4.25	2-5/8
1704-32-32-FG	2	2-1/2-12UN	2	3.06	4.25	2-5/8



Hydraulic Flanges & Accessories

MJ-Flange 45° Code 62 1803FG Series

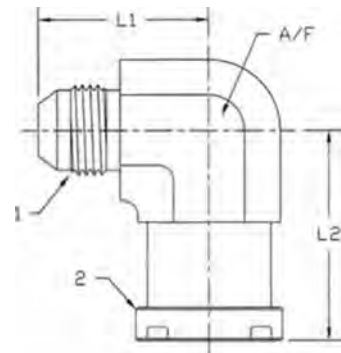
PART NO.SIZE	TUBE O.D.	1 2 THREAD FLANGE		L1 L2 (in.) (in.)		A/F (in.)
1803-12-12-FG	3/4	1-1/16-12UN	3/4	1.28	1.58	1-1/16
1803-16-16-FG	1	1-5/16-12UN	1	1.47	1.85	1-5/16
1803-20-20-FG	1-1/4	1-5/8-12UN	1-1/4	1.59	2.04	1-5/8
1803-24-24-FG	1-1/2	1-7/8-12UN	1-1/2	1.78	2.90	1-7/8
1803-32-32-FG	2	2-1/2-12UN	2	2.22	3.00	2-5/8



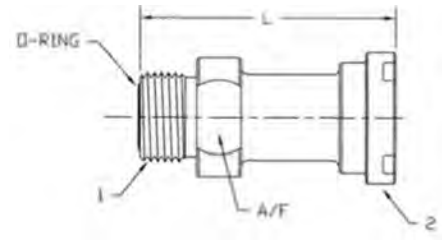
D-008

MJ-Flange 90° Code 62 1804FG Series

PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	11 (in.)	12 (in.)	A/F (in.)
1804-12-12-FG	3/4	1-1/16-12UN	3/4	1.72	2.13	1-1/16
1804-12-16-FG	3/4	1-1/16-12UN	1	1.81	2.37	1-5/16
1804-16-12-FG	1	1-5/16-12UN	3/4	1.81	2.13	1-5/16
1804-16-16-FG	1	1-5/16-12UN	1	2.06	2.37	1-5/16
1804-16-20-FG	1	1-5/16-12UN	1-1/4	2.06	2.76	1-5/16
1804-20-16-FG	1-1/4	1-5/8-12UN	1	2.06	2.72	1-5/8
1804-20-20-FG	1-1/4	1-5/8-12UN	1-1/4	2.06	2.76	1-5/8
1804-20-24-FG	1-1/4	1-5/8-12UN	1-1/2	2.33	3.15	1-5/8
1804-24-20-FG	1-1/2	1-7/8-12UN	1-1/4	2.19	2.76	1-7/8
1804-24-24-FG	1-1/2	1-7/8-12UN	1-1/2	2.33	3.15	1-7/8
1804-24-32-FG	1-1/2	1-7/8-12UN	2	3.06	4.25	2-5/8
1804-32-24-FG	2	2-1/2-12UN	1-1/2	3.06	4.25	2-5/8
1804-32-32-FG	2	2-1/2-12UN	2	3.06	4.25	2-5/8



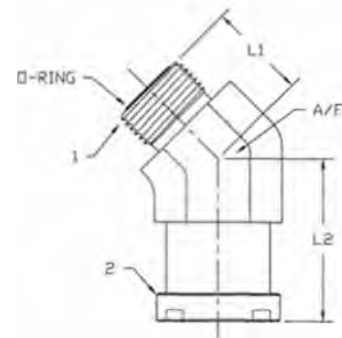
MFS-Flange Straight Code 61 FS1700 Series



D-009

PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	1 (in.)	A/F (in.)
FS1700-08-08	1/2	13/16-16UN	1/2	2.45	7/8
FS1700-12-12	3/4	1-3/16-12UN	3/4	2.75	1-1/4
FS1700-12-16	3/4	1-3/16-12UN	1	2.80	1-1/4
FS1700-16-12	1	1-7/16-12UN	3/4	2.75	1-1/2
FS1700-16-16	1	1-7/16-12UN	1	2.80	1-1/2
FS1700-16-20	1	1-7/16-12UN	1-1/4	2.80	1-1/2
FS1700-20-16	1-1/4	1-11/16-12UN	1	2.80	1-7/8
FS1700-20-20	1-1/4	1-11/16-12UN	1-1/4	2.80	1-7/8
FS 1700-20-24	1-1/4	1-11/16-12UN	1-1/2	3.50	1-7/8
FS1700-24-20	1-1/2	2-12UN	1-1/4	3.20	2-1/8
FS1700-24-24	1-1/2	2-12UN	1-1/2	3.50	2-1/8
FS1700-24-32	1-1/2	2-12UN	2	3.33	2-1/8

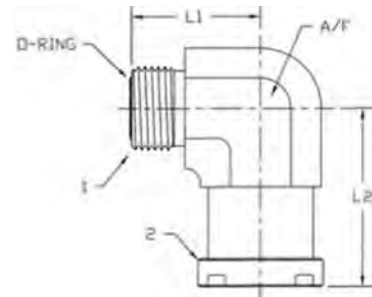
MFS-Flange 45° Code 61 FS1703FG Series



PART NG.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	11 (in.)	L2 (in.)	A/F (in.)
FS1703-12-12-FG	3/4	1-3/16-12UN	3/4	1.28	1.58	1-1/8
FS1703-16-16-FG	1	1-7/16-12UN	1	1.47	1.85	1-3/8
FS1703-20-20-FG	1-1/4	1-11/16-12UN	1-1/4	1.59	2.04	1-11/16
FS1703-24-24-FG	1-1/2	2-12UN	1-1/2	1.78	2.38	2

Hydraulic Flanges & Accessories

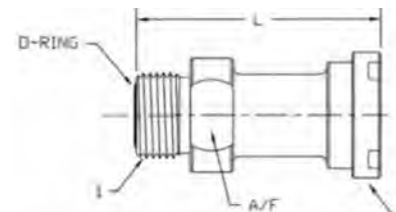
MFS-Flange 90° Code 61 FS1704FG Series



PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L1 (in.)	L2 (in.)	A/F (in.)
FS1704-12-12-FG	3/4	1-3/16-12UN	3/4	2.13	1.66	1-3/16
FS1704-12-16-FG	3/4	1-3/16-12UN	1	2.37	1.81	1-3/16
FS1704-16-12-FG	1	1-7/16-12UN	3/4	2.13	1.66	1-7/16
FS1704-16-16-FG	1	1-7/16-12UN	1	2.37	1.81	1-7/16
FS1704-16-20-FG	1	1-7/16-12UN	1-1/4	2.62	2.06	1-7/16
FS1704-20-16-FG	1-1/4	1-11/16-12UN	1	2.37	1.81	1-5/8
FS1704-20-20-FG	1-1/4	1-11/16-12UN	1-1/4	2.62	2.06	1-5/8
FS1704-20-24-FG	1-1/4	1-11/16-12UN	1-1/2	3.15	2.33	1-5/8
FS1704-24-20-FG	1-1/2	2-12UN	1-1/4	2.62	2.06	1-7/8
FS1704-24-24-FG	1-1/2	2-12UN	1-1/2	3.15	2.33	1-7/8

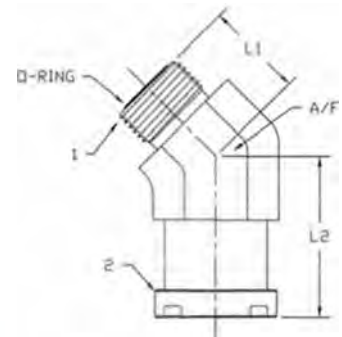
D-010

MFS-Flange Straight Code 62 FS1800 Series



PART NO.SIZE	TUBE O.D.	1 THREAD	2 FLANGE	L (in.)	A/F (in.)
FS1800-08-08	1/2	13/16-16UN	1/2	2.58	7/8
FS1800-12-12	3/4	1-3/16-12UN	3/4	2.75	1-1/4
FS1800-12-16	3/4	1-3/16-12UN	1	2.80	1-1/4
FS1800-16-12	1	1-7/16-12UN	3/4	2.75	1-1/2
FS1800-16-16	1	1-7/16-12UN	1	2.80	1-1/2
FS1800-16-20	1	1-7/16-12UN	1-1/4	3.05	1-1/2
FS1800-20-16	1-1/4	1-11/16-12UN	1	3.20	1-7/8
FS1800-20-20	1-1/4	1-11/16-12UN	1-1/4	3.05	1-7/8
FS 1800-20-24	1-1/4	1-11/16-12UN	1-1/2	3.50	1-3/4
FS 1800-24-20	1-1/2	2-12UN	1-1/4	3.30	2-1/8
FS1800-24-24	1-1/2	2-12UN	1-1/2	3.50	2-1/8
FS 1800-24-32	1-1/2	2-12UN	2	3.58	2-1/8

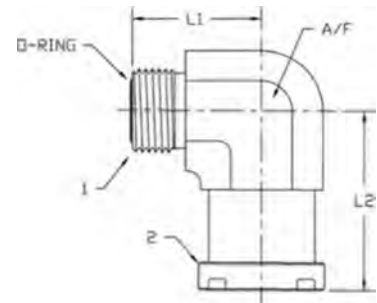
MFS-Flange 45° Code 62 FS1803FG Series



D-011

PART NO.SIZE	TUBE O.O.	1 THREAD	2 FLANGE	L1 (in.)	L2 (in.)	A/F (in.)
FS1803-12-12-FG	3/4	1-3/16-12UN	3/4	1.28	1.58	1-1/8
FS1803-16-16-FG	1	1-7/16-12UN	1	1.47	1.85	1-3/8
FS1803-20-20-FG	1-1/4	1-11/16-12UN	1-1/4	1.59	2.04	1-11/16
FS1803-24-24-FG	1-1/2	2-12UN	1-1/2	1.78	2.38	2

MFS-Flange 90° Code 62 FS1804FG Series

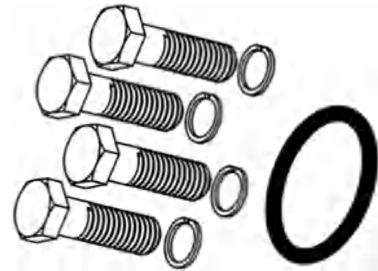


PART NO.SIZE	TUBE O.O.	1 THREAD	2 FLANGE	L1 (in.)	L2 (in.)	A/F (in.)
FS1804-12-12-FG	3/4	1-3/16-12UN	3/4	2.13	1.66	1-3/16
FS1804-12-16-FG	3/4	1-3/16-12UN	1	2.37	1.81	1-3/16
FS1804-16-12-FG	1	1-7/16-12UN	3/4	2.13	1.66	1-7/16
FS1804-16-16-FG	1	1-7/16-12UN	1	2.37	1.81	1-7/16
FS1804-16-20-FG	1	1-7/16-12UN	1-1/4	2.76	2.06	1-7/16
FS1804-20-16-FG	1-1/4	1-11/16-12UN	1	2.37	1.81	1-5/8
FS1804-20-20-FG	1-1/4	1-11/16-12UN	1-1/4	2.76	2.06	1-5/8
FS1804-20-24-FG	1-1/4	1-11/16-12UN	1-1/2	3.15	2.33	1-5/8
FS1804-24-20-FG	1-1/2	2-12UN	1-1/4	2.76	2.06	1-7/8
FS1804-24-24-FG	1-1/2	2-12UN	1-1/2	3.15	2.33	1-7/8

Hydraulic Flanges & Accessories

Hex Head Mounting Kit Code 61 1900-61 Series

PART NO.SIZE	FLANGE SIZE
1900-61 -08-K	1/2
1900-61 -12-K	3/4
1900-61-16-K	1
1900-61-20-K	1-1/4
1900-61-24-K	1-1/2
1900-61-32-K	2
1900-61-40-K	2-1/2
1900-61-48-K	3
1900-61-56-K	3-1/2
1900-61-64-K	4



D-012

Hex Head Mounting Kit Code 62 1900-62 Series

PART NO.SIZE	FLANGE SIZE
1900-62-08-K	1/2
1900-62-12-K	3/4
1900-62-16-K	1
1900-62-20-K	1-1/4
1900-62-24-K	1-1/2
1900-62-32-K	2

Mounting Kit:4 hex head bolts,4 lock washers,and 1 Buna-No-ring

Hex Head Mounting Kit Metric 1900-M Series

PART NO.SIZE
1900-M08-K
1900-M10-K
1900-MI 2-K
1900-MI 6-K
1900-M20-K
1900-M24-K
1900-M30-K

Mounting Kit:4 hex head bolts,4 lock washers,and 1 Buna-No-ring

Split Flange Kit Split Flange Kit Code 61 1901 Series Code 62 1902 Series

1901-08-K	1/2
1901-12-K	3/4
1901-16-K	1
1901-20-K	1-1/4
1901-24-K	1-1/2
1901-32-K	2
1901-40-K	2-1/2
1901-48-K	3
1901-56-K	3-1/2
1901-64-K	4



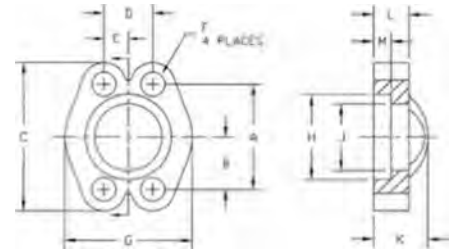
1902-08-K	1/2
1902-12-K	3/4
1902-16-K	1
1902-20-K	1-1/4
1902-24-K	1-1/2
1902-32-K	2

Split Flange Kit:2 split flange halves,4 hex head bolts,4 lock washers,and 1 Buna-NO-ring.
See 1900 Series for MountingKit without split flange halves.

Captive Flange

Code 61 1903-61 Series

Code 61 1904-61 Series



D-013

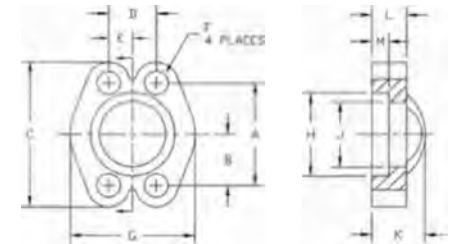
PART NO. PART NO.
DRILLED TAPPED FLANGE A 8 C 0 E F F G H J K L M
HOLES HOLES SIZE ±.010 ±.010 ±.030 ±.010 ±.010 ±.010 THD. ±.030 ±.010 ±.010 ±.010 ±.010 ±.005

1903-61-08	1904-61-08	1/2	1.500	0.750	2.12	0.688	0.344	0.344	5/16-18	1.81	1.219	0.955	0.75	0.50	0.245
1903-61-12	1904-61-12	3/4	1.875	0.938	2.56	0.875	0.438	0.406	3/8-16	2.06	1.531	1.265	0.88	0.56	0.245
1903-61-16	1904-61-16	1	2.062	1.031	2.75	1.031	0.516	0.406	3/8-16	2.31	1.781	1.515	0.94	0.62	0.295
1903-61-20	1904-61-20	1-1/4	2.312	1.156	3.12	1.188	0.594	0.469	7/16-14	2.88	2.031	1.720	0.88	0.56	0.295
1903-61-24	1904-61-24	1-1/2	2.750	1.375	3.69	1.406	0.703	0.531	1/2-13	3.25	2.406	2.000	1.00	0.62	0.295
1903-61-32	1904-61-32	2	3.062	1.531	4.00	1.688	0.844	0.531	1/2-13	3.81	2.844	2.470	1.03	0.62	0.355
1903-61-40	1904-61-40	2-1/2	3.500	1.750	4.50	2.000	1.000	0.531	1/2-13	4.28	3.344	2.950	1.50	0.75	0.355
1903-61-48	1904-61-48	3	4.188	2.094	5.31	2.438	1.219	0.656	5/8-11	5.16	4.031	3.580	1.62	0.88	0.355
1903-61-56	1904-61-56	3-1/2	4.750	2.375	6.00	2.750	1.375	0.656	5/8-11	5.50	4.531	4.030	1.12	0.88	0.422
1903-61-64	1904-61-64	4	5.125	2.562	6.38	3.062	1.531	0.656	5/8-11	6.00	5.031	4.530	1.38	1.00	0.422

Captive Flange

Code 62 1903-62 Series

Code 62 1904-62 Series

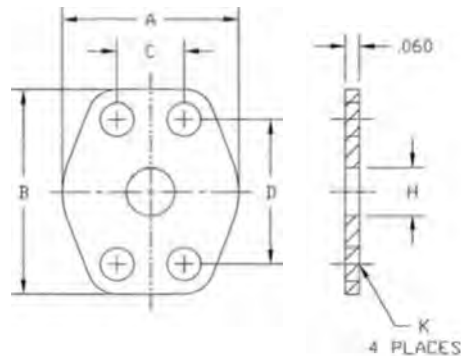


PART NO. PART NO.
DRILLED TAPPED FLANGE A B G 0 E F F G H J X L M
HOLES HOLES SIZE ±.010 ±.010 ±.030 ±.010 ±.010 ±.010 THD. ±.030 ±.010 ±.010 ±.010 ±.010 ±.005

1903-62-12	1904-62-12	3/4	2.000	1.000	2.81	0.938	0.469	0.406	3/8-16	2.38	1.656	1.280	1.12	0.75	0.325
1903-62-16	1904-62-16	1	2.250	1.125	3.19	1.094	0.547	0.469	7/16-14	2.75	1.906	1.530	1.31	0.94	0.355
1903-62-20	1904-62-20	1-1/4	2.625	1.313	3.75	1.250	0.625	0.531	1/2-13	3.06	2.156	1.750	1.50	1.06	0.385
1903-62-24	1904-62-24	1-1/2	3.125	1.563	4.44	1.438	0.719	0.656	5/8-11	3.75	2.531	2.030	1.69	1.19	0.475
1903-62-32	1904-62-32	2	3.812	1.906	5.25	1.750	0.875	0.781	3/4-10	4.50	3.156	2.660	2.06	1.44	0.475

Hydraulic Flanges & Accessories

Connector Plate Code 61 1914 Series



PART NO.SIZE	FLANGE SIZE	A	B	C	D	H	K DRILL
1914-61-08	1/2	1.810	2.120	0.688	1.500	0.500	0.344
1914-61-12	3/4	2.060	2.560	0.875	1.875	0.750	0.406
1914-61-16	1	2.310	2.750	1.031	2.062	1.000	0.406
1914-61-20	1-1/4	2.880	3.120	1.188	2.312	1.250	0.469
1914-61-24	1-1/2	3.250	3.690	1.406	2.750	1.500	0.531
1914-61-32	2	3.810	4.000	1.688	3.062	2.000	0.531
1914-61-40	2-1/2	4.120	4.440	2.000	3.500	2.500	0.531
1914-61-48	3	5.160	5.310	2.438	4.188	3.000	0.656

D-014

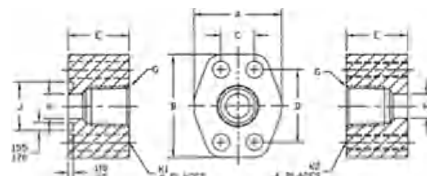
Connector Plate Code 62 1914 Series

PART NO.SIZE	FLANGE SIZE	A	B	C	D	H	K DRILL
1914-62-12	3/4	2.380	2.810	0.937	2.000	0.750	0.406
1914-62-16	1	2.750	3.190	1.093	2.250	1.000	0.469
1914-62-20	1-1/4	3.060	3.750	1.250	2.625	1.250	0.531
1914-62-24	1-1/2	3.750	4.440	1.437	3.125	1.500	0.656
1914-62-32	2	4.500	5.250	1.750	3.812	2.000	0.781

NPTF Port Block

Code 61 1927-61 Series

Code 61 1928-61 Series



D-015

PART NO. O-RING FACE	PART NO. FLAT FACE	PIPE FLANGE SIZE SIZE		A	B	C	O	E	G NPTF	H	J MIN	J MAX	K1 DRILL	K2 THD.
1927-61-08-08	1928-61-08-08	1/2	1/2	1.82	2.17	0.688	1.500	1.25	1/2-14	0.50	1.000	1.005	0.344	5/16-18
1927-61-12-12	1928-61-12-12	3/4	3/4	2.06	2.69	0.875	1.875	1.25	3/4-14	0.75	1.250	1.255	0.406	3/8-16
1927-61-16-16	1928-61-16-16	1	1	2.31	2.88	1.031	2.062	1.50	1-11 1/2	1.00	1.560	1.565	0.406	3/8-16
1927-61-20-20	1928-61-20-20	1-1/4	1-1/4	2.88	3.25	1.188	2.312	1.50	1-1/4-11 1/2	1.25	1.750	1.755	0.469	7/16-14
1927-61-24-24	1928-61-24-24	1-1/2	1-1/2	3.25	3.81	1.406	2.750	1.75	1-1/2-11 1/2	1.50	2.115	2.125	0.531	1/2-13
1927-61-32-32	1928-61-32-32	2	2	3.81	4.13	1.688	3.062	1.75	2-11 1/2	2.00	2.490	2.500	0.531	1/2-13
1927-61-40-40	1928-61-40-40	2-1/2	2-1/2	4.28	4.63	2.000	3.500	2.00	2-1/2-8	2.50	2.995	3.005	0.531	1/2-13
1927-61-48-48	1928-61-48-48	3	3	5.16	5.44	2.438	4.188	2.25	3-8	3.00	3.615	3.625	0.656	5/8-11

All items available with metric mounting holes upon request.

NPTF Port Block

Code 62 1927-62 Series

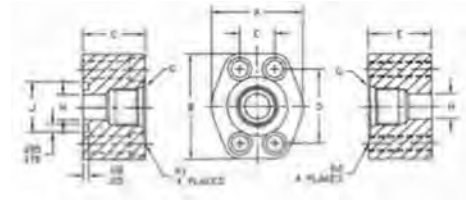
Code 62 1928-62 Series

PART NO. O-RING FACE	PART NO. FLAT FACE	PIPE FLANGE SIZE SIZE		A	B	C	O	E	G NPTF	H	J MIN	J MAX	K1 DRILL	K2 THD.
1927-62-08-08	1928-62-08-08	1/2	1/2	1.94	2.30	0.718	1.594	1.25	1/2-14	0.50	1.000	1.005	0.344	5/16-18
1927-62-12-12	1928-62-12-12	3/4	3/4	2.38	2.81	0.937	2.000	1.25	3/4-14	0.75	1.250	1.255	0.406	3/8-16
1927-62-16-16	1928-62-16-16	1	1	2.75	3.19	1.093	2.250	1.50	1-11 1/2	1.00	1.560	1.565	0.469	7/16-14
1927-62-20-20	1928-62-20-20	1-1/4	1-1/4	3.06	3.75	1.25	2.625	1.50	1-1/4-11 1/2	1.25	1.750	1.755	0.531	1/2-13
1927-62-24-24	1928-62-24-24	1-1/2	1-1/2	3.75	4.44	1.437	3.125	1.75	1-1/2-11 1/2	1.50	2.115	2.125	0.656	5/8-11
1927-62-32-32	1928-62-32-32	2	2	4.50	5.25	1.750	3.812	1.75	2-11 1/2	2.00	2.490	2.500	0.781	3/4-10

All items available with metric mounting holes upon request.

Hydraulic Flanges & Accessories

SAE Port Block Code 61 1929-61 Series Code 61 1930-61 Series



PART NO. PART NO.
O-RING FLAT PIPE FLANGE G J J K1 K2
FACE FACE SIZE SIZE A B C D E THREAD H MIN MAX DRILL THD.

1929-61-08-08	1930-61-08-08	1/2	1/2	1.820	2.17	0.688	1.500	1.25	3/4-16	0.50	1.000	1.005	0.344	5/16-18
1929-61-12-12	1930-61-12-12	3/4	3/4	2.060	2.69	0.875	1.875	1.25	1-1/16-12	0.75	1.250	1.255	0.406	3/8-16
1929-61-16-16	1930-61-16-16	1	1	2.310	2.88	1.031	2.062	1.50	1-5/16-12	1.00	1.560	1.565	0.406	3/8-16
1929-61-20-20	1930-61-20-20	1-1/4	1-1/4	2.880	3.25	1.188	2.312	1.50	1-5/8-12	1.25	1.750	1.755	0.469	7/16-14
1929-61-24-24	1930-61-24-24	1-1/2	1-1/2	3.250	3.81	1.406	2.750	1.75	1-7/8-12	1.50	2.115	2.125	0.531	1/2-13

All items available with metric mounting holes upon request.

D-016

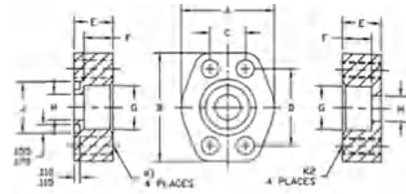
SAE Port Block Code 62 1929-62 Series Code 62 1930-62 Series

PART NO. PART NO.
O-RING FLAT PIPE FLANGE G J J K1 K2
FACE FACE SIZE SIZE A B C D E THREAD H MIN MAX DRILL THD.

1929-62-08-08	1930-62-08-08	1/2	1/2	1.94	2.30	0.718	1.594	1.25	3/4-16	0.50	1.000	1.005	0.344	5/16-18
1929-62-12-12	1930-62-12-12	3/4	3/4	2.38	2.81	0.937	2.000	1.25	1-1/16-12	0.75	1.250	1.255	0.406	3/8-16
1929-62-16-16	1930-62-16-16	1	1	2.75	3.19	1.093	2.250	1.50	1-5/16-12	1.00	1.560	1.565	0.469	7/16-14
1929-62-20-20	1930-62-20-20	1-1/4	1-1/4	3.06	3.75	1.25	2.625	1.50	1-5/8-12	1.25	1.750	1.755	0.531	1/2-13
1929-62-24-24	1930-62-24-24	1-1/2	1-1/2	3.75	4.44	1.437	3.125	1.75	1-7/8-12	1.50	2.115	2.125	0.656	5/8-11
1929-62-32-32	1930-62-32-32	2	2	4.50	5.25	1.750	3.812	1.75	2-1/2-12	2.00	2.490	2.500	0.781	3/4-10

All items available with metric mounting holes upon request.

Flat Socket Block - Pipe 500 psi 1933 Series and 1934 Series



D-017

PART NO. O-RING FACE	PART NO. FLAT FACE	PIPE FLANGE SIZE SIZE		A	B	C	Ø	E	F	G	H	J MIN	J MAX	XI DRILL	K2 THD.
1933-48-48	1934-48-48	3	3	5.12	5.31	2.438	4.188	1.38	1.120	3.547	3.00	3.615	3.625	0.656	5/8-11
1933-56-56	1934-56-56	3-1/2	3-1/2	5.50	6.00	2.750	4.750	1.44	1.190	4.047	3.50	4.095	4.115	0.656	5/8-11
1933-64-64	1934-64-64	4	4	6.00	6.38	3.062	5.125	1.50	1.250	4.578	4.00	4.595	4.615	0.656	5/8-11
1933-80-80	1934-80-80	5	5	7.12	7.25	3.625	6.000	1.75	1.380	5.641	5.00	5.595	5.615	0.656	5/8-11

All items available with metric mounting holes upon request

Flat Socket Block - Pipe Code 61 1935-61 Series and 1936-61 Series

PART NO. O-RING FACE	PART NO. FLAT FACE	PIPE FLANGE SIZE SIZE		A	B	C	Ø	E	F	G	H	J MIN	J MAX	XI DRILL	K2 THD.
1935-61-08-08	1936-61-08-08	1/2	1/2	1.813	2.125	0.688	1.500	0.75	0.560	0.855	0.50	1.000	1.005	0.344	5/16-18
1935-61-12-12	1936-61-12-12	3/4	3/4	2.063	2.563	0.875	1.875	0.75	0.560	1.062	0.75	1.250	1.255	0.406	3/8-16
1935-61-16-16	1936-61-16-16	1	1	2.313	2.750	1.031	2.062	0.88	0.630	1.326	1.00	1.560	1.565	0.406	3/8-16
1935-61-20-20	1936-61-20-20	1-1/4	1-1/4	2.875	3.125	1.188	2.312	0.94	0.690	1.672	1.25	1.750	1.755	0.469	7/16-14
1935-61-24-24	1936-61-24-24	1-1/2	1-1/2	3.250	3.688	1.406	2.750	1.19	0.750	1.922	1.50	2.115	2.125	0.531	1/2-13
1935-61-32-32	1936-61-32-32	2	2	3.813	4.000	1.688	3.062	1.38	0.875	2.406	2.00	2.490	2.500	0.531	1/2-13
1935-61-40-40	1936-61-40-40	2-1/2	2-1/2	4.281	4.500	2.000	3.500	1.75	1.000	2.906	2.50	2.995	3.005	0.531	1/2-13
1935-61-48-48	1936-61-48-48	3	3	5.156	5.313	2.438	4.188	2.12	1.250	3.541	3.00	3.615	3.625	0.656	5/8-11

All items available with metric mounting holes upon request

Flat Socket Block - Pipe Code 62 1935-62 Series and 1936-62 Series

PART NO. O-RING FACE	PART NO. FLAT FACE	PIPE FLANGE SIZE SIZE		A	B	C	Ø	E	F	G	H	J MIN	J MAX	XI DRILL	K2 THD.
1935-62-08-08	1936-62-08-08	1/2	1/2	1.94	2.30	0.718	1.594	0.57	0.560	0.855	0.50	1.000	1.005	0.344	5/16-18
1935-62-12-12	1936-62-12-12	3/4	3/4	2.38	2.81	0.937	2.000	1.25	0.560	1.063	0.75	1.250	1.255	0.406	3/8-16
1935-62-16-16	1936-62-16-16	1	1	2.75	3.19	1.093	2.250	1.50	0.630	1.328	1.00	1.560	1.565	0.469	7/16-14
1935-62-20-20	1936-62-20-20	1-1/4	1-1/4	3.06	3.75	1.250	2.625	1.50	0.690	1.672	1.25	1.750	1.755	0.531	1/2-13
1935-62-24-24	1936-62-24-24	1-1/2	1-1/2	3.75	4.44	1.437	3.125	1.75	0.750	1.922	1.50	2.115	2.125	0.656	5/8-11
1935-62-32-32	1936-62-32-32	2	2	4.50	5.25	1.750	3.812	1.75	0.875	2.406	2.00	2.490	2.500	0.781	3/4-10
1935-62-40-40	1936-62-40-40	2-1/2	2-1/2	5.87	6.87	2.312	4.875	2.06	1.000	2.906	2.50	2.995	3.005	0.906	7/8-9
1935-62-48-48	1936-62-48-48	3	3	7.00	8.50	2.812	6.000	2.62	1.250	3.547	3.00	3.615	3.625	1.156	1 1/8-7

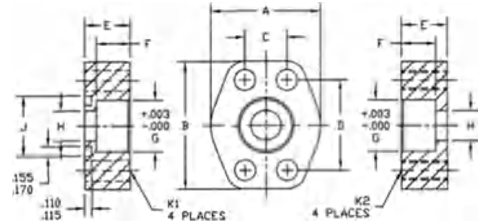
All items available with metric mounting holes upon request

Hydraulic Flanges & Accessories

Flat Socket Block - Tube

Code 61 1937-61 Series

Code 61 1938-61 Series



D-018

PART NO. O-RING FACE	PART NO. FIAT FACE	TUBE FLANGE SIZE	FLANGE SIZE	A	B	C	O	E	F	G	H	J MIN	J MAX	K1 DRILL	K2 THD.
1937-61-12-12	1938-61-12-12	3/4	3/4	2.06	2.56	0.875	1.875	0.750	0.560	0.752	0.63	1.250	1.255	0.406	3/8-16
1937-61-16-12	1938-61-16-12	1	3/4	2.06	2.56	0.875	1.875	0.750	0.560	1.002	0.75	1.250	1.255	0.406	3/8-16
1937-61-16-16	1938-61-16-16	1	1	2.31	2.75	1.031	2.062	0.880	0.630	1.002	0.88	1.560	1.565	0.406	3/8-16
1937-61-20-16	1938-61-20-16	1-1/4	1	2.31	2.75	1.031	2.062	0.880	0.630	1.252	1.00	1.560	1.565	0.406	3/8-16
1937-61-20-20	1938-61-20-20	1-1/4	1 1/4	2.88	3.12	1.188	2.312	0.940	0.690	1.252	1.13	1.750	1.755	0.469	7/16-14
1937-61-24-20	1938-61-24-20	1-1/2	1 1/4	2.88	3.12	1.188	2.312	0.940	0.690	1.502	1.25	1.750	1.755	0.469	7/16-14
1937-61-24-24	1938-61-24-24	1-1/2	1 1/2	3.25	3.69	1.406	2.750	1.190	0.750	1.502	1.38	2.115	2.125	0.531	1/2-13
1937-61-28-24	1938-61-28-24	1-3/4	1 1/2	3.25	3.69	1.406	2.750	1.190	0.750	1.752	1.50	2.115	2.125	0.531	1/2-13
1937-61-32-32	1938-61-32-32	2	2	3.81	4.00	1.688	3.062	1.375	0.875	2.002	1.88	2.490	2.500	0.531	1/2-13
1937-61-36-32	1938-61-36-32	2-1/4	2	3.81	4.00	1.688	3.062	1.375	0.875	2.252	2.00	2.490	2.500	0.531	1/2-13

All items available with metric mounting holes upon request

Flat Socket Block - Tube

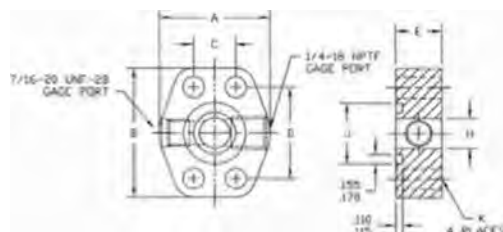
Code 62 1937-62 Series

Code 62 1938-62 Series

PART NO. O-RING FACE	PART NO. FLAT FACE	TUBE FLANGE SIZE	FLANGE SIZE	A	B	C	O	E	F	G	H	J MIN	J MAX	K1 DRILL	K2 THO.
1937-62-12-12	1938-62-12-12	3/4	3/4	2.38	2.81	0.937	2.000	1.25	0.560	0.752	0.63	1.250	1.255	0.406	3/8-16
1937-62-16-12	1938-62-16-12	1	3/4	2.38	2.81	0.937	2.000	1.25	0.560	1.002	0.75	1.250	1.255	0.406	3/8-16
1937-62-16-16	1938-62-16-16	1	1	2.75	3.19	1.093	2.250	1.50	0.630	1.002	0.88	1.560	1.565	0.469	7/16-14
1937-62-20-16	1938-62-20-16	1-1/4	1	2.75	3.19	1.093	2.250	1.50	0.630	1.252	1.00	1.560	1.565	0.469	7/16-14
1937-62-20-20	1938-62-20-20	1-1/4	1-1/4	3.06	3.75	1.250	2.625	1.50	0.690	1.252	1.13	1.750	1.755	0.531	1/2-13
1937-62-24-20	1938-62-24-20	1-1/2	1-1/4	3.06	3.75	1.250	2.625	1.50	0.690	1.502	1.25	1.750	1.755	0.531	1/2-13
1937-62-24-24	1938-62-24-24	1-1/2	1-1/2	3.75	4.44	1.437	3.125	1.75	0.750	1.502	1.38	2.115	2.125	0.656	5/8-11
1937-62-28-24	1938-62-28-24	1-3/4	1-1/2	3.75	4.44	1.437	3.125	1.75	0.750	1.752	1.50	2.115	2.125	0.656	5/8-11
1937-62-32-32	1938-62-32-32	2	2	4.50	5.25	1.750	3.812	1.75	0.875	2.002	1.88	2.490	2.500	0.781	3/4-10
1937-62-36-32	1938-62-36-32	2-1/4	2	4.50	5.25	1.750	3.812	1.75	0.875	2.252	2.00	2.490	2.500	0.781	3/4-10

All items available with metric mounting holes upon request

Flange Spacer with Side Gage Ports Code 61 1940 Series



PART NO./SIZE	FLANGE SIZE	A	B	C	D	E	H	J	K DRILL
1940-61-08	1/2	1.813	2.125	0.688	1.500	1.250	0.500	1.000	0.344
1940-61-12	3/4	2.063	2.563	0.875	1.875	1.250	0.750	1.250	0.406
1940-61-16	1	2.313	2.750	1.031	2.063	0.875	1.000	1.560	0.406
1940-61-20	1-1/4	2.875	3.125	1.188	2.313	0.937	1.250	1.750	0.469
1940-61-24	1-1/2	3.250	3.688	1.406	2.750	1.188	1.500	2.115	0.531
1940-61-32	2	3.813	4.000	1.688	3.063	1.375	2.000	2.490	0.531
1940-61-40	2-1/2	4.281	4.500	2.000	3.500	1.750	2.500	2.995	0.531
1940-61-48	3	5.156	5.313	2.438	4.188	2.125	3.000	3.615	0.656

Flange Spacer with Side Gage Ports Code 62 1940 Series

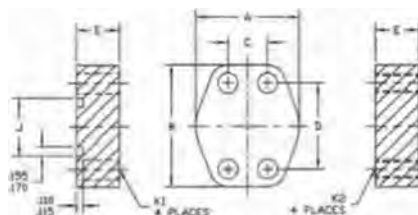
PART NO./SIZE	FLANGE SIZE	A	B	C	D	E	H	J	K DRILL
1940-62-08	1/2	1.940	2.300	0.718	1.594	0.870	0.500	1.000	0.344
1940-62-12	3/4	2.500	2.950	0.937	2.000	1.250	0.750	1.250	0.406
1940-62-16	1	2.750	3.190	1.093	2.250	1.500	1.000	1.560	0.492
1940-62-20	1-1/4	3.060	3.750	1.250	2.625	1.500	1.250	1.750	0.531
1940-62-24	1-1/2	3.750	4.440	1.437	3.125	1.750	1.500	2.115	0.656
1940-62-32	2	4.500	5.250	1.750	3.812	1.750	2.000	2.490	0.781
1940-62-40	2-1/2	5.870	6.870	2.312	4.875	2.060	2.500	2.995	0.906
1940-62-48	3	7.000	8.500	2.812	6.000	2.620	3.000	3.615	1.156

Hydraulic Flanges & Accessories

Plug Block

Code 61 1942-61 Series

Code 61 1943-61 Series



PART NO. O-RING FACE	PART NO. FIAT FACE	FLANGE SIZE	A	B	C	Ø	E	J MIN	J MAX	K1 DRILL	K2 THD.
1942-61-08	1943-61-08	1/2	1.813	2.125	0.688	1.500	0.690	1.000	1.005	0.344	5/16-18
1942-61-12	1943-61-12	3/4	2.063	2.563	0.875	1.875	0.750	1.250	1.255	0.406	3/8-16
1942-61-16	1943-61-16	1	2.313	2.750	1.031	2.063	0.880	1.560	1.565	0.406	3/8-16
1942-61-20	1943-61-20	1-1/4	2.875	3.125	1.188	2.313	0.940	1.750	1.755	0.469	7/16-14
1942-61-24	1943-61-24	1-1/2	3.250	3.688	1.406	2.750	1.190	2.115	2.125	0.531	1/2-13
1942-61-32	1943-61-32	2	3.813	4.000	1.688	3.063	1.380	2.490	2.500	0.531	1/2-13
1942-61-40	1943-61-40	2-1/2	4.281	4.500	2.000	3.500	1.750	2.995	3.005	0.531	1/2-13
1942-61-48	1943-61-48	3	5.156	5.313	2.438	4.188	2.120	3.615	3.625	0.656	5/8-11

All items available with metric mounting holes upon request.

D-020

Plug Block

Code 62 1942-62 Series

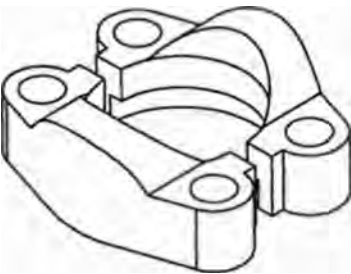
Code 62 1943-62 Series

PART NO. O-RING FACE	PART NO. FLAT FACE	FLANGE SIZE	A	B	C	Ø	E	J MIN	J MAX	K1 DRILL	K2 THD.
1942-62-12	1943-62-12	3/4	2.380	2.810	0.937	2.000	1.250	1.250	1.255	0.406	3/8-16
1942-62-16	1943-62-16	1	2.750	3.190	1.093	2.250	1.500	1.560	1.565	0.469	7/16-14
1942-62-20	1943-62-20	1-1/4	3.060	3.750	1.250	2.625	1.500	1.750	1.755	0.531	1/2-13
1942-62-24	1943-62-24	1-1/2	3.750	4.440	1.437	3.125	1.750	2.115	2.125	0.656	5/8-11
1942-62-32	1943-62-32	2	4.500	5.250	1.750	3.812	1.750	2.490	2.500	0.781	3/4-10

All items available with metric mounting holes upon request.

Split Flange

Code 61 1951 Series



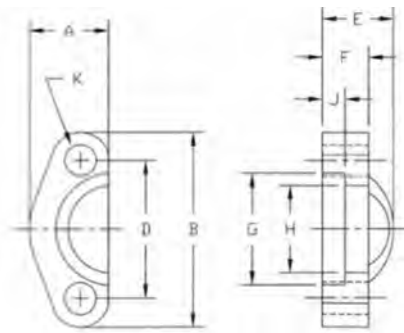
PART NO.SIZE	FLANGE SIZE
1951-08	1/2
1951-12	3/4
1951-16	1
1951-20	1-1/4
1951-24	1-1/2
1951-32	2
1951-40	2-1/2
1951-48	3
1951-56	3-1/2
1951-64	4

All items available with metric mounting holes upon request.

D-021

Flange Halves

Code 61 1951-H Series



'PART NO.SIZE	"FLANGE KIT	FLANGE SIZE	A ±.030	0 ±.030	0 ±.010	E ±.030	F ±.01G	G ±.010	H ±.010	J ±.005	K ±.005
1951-08-H	1901-08-K	1/2	0.86	2.12	1.50	0.75	0.50	1.22	0.96	0.25	0.34
1951-12-H	1901-12-K	3/4	0.98	2.56	1.88	0.88	0.56	1.53	1.27	0.25	0.41
1951-16-H	1901-16-K	1	1.11	2.75	2.06	0.94	0.62	1.78	1.52	0.30	0.41
1951-20-H	1901-20-K	1-1/4	1.39	3.12	2.31	0.88	0.56	2.03	1.72	0.30	0.47
1951-24-H	1901-24-K	1-1/2	1.58	3.69	2.75	1.00	0.62	2.41	2.00	0.30	0.53
1951-32-H	1901-32-K	2	1.86	4.00	3.06	1.03	0.62	2.84	2.47	0.36	0.53
1951-40-H	1901-40-K	2-1/2	2.09	4.50	3.50	1.50	0.75	3.34	2.95	0.36	0.53
1951-48-H	1901-48-K	3	2.53	5.31	4.19	1.62	0.88	4.03	3.58	0.36	0.66
1951-56-H	1901-56-K	3-1/2	2.70	6.00	4.75	1.12	0.88	4.53	4.03	0.42	0.66
1951-64-H	1901-64-K	4	2.95	6.38	5.13	1.38	1.00	5.03	4.53	0.42	0.66

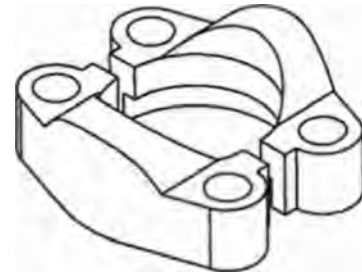
*Part No.:l split flange half only.

* * Flange Kit:2 split flange halves, 4 hex head bolts, 4 lock washers, and 1 Buna-N o-ring.

All items available with metric mounting upon request.

Hydraulic Flanges & Accessories

Split Flange Code 62 1952 Series



PART
NO.SIZE

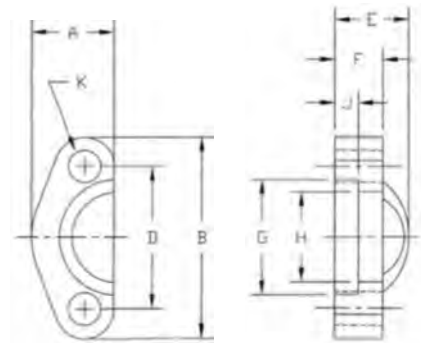
FLANGE
SIZE

1952-08	1/2
1952-12	3/4
1952-16	1
1952-20	1-1/4
1952-24	1-1/2
1952-32	2

All items available with metric mounting holes upon request.

D-022

Flange Halves Code 62 1952-H Series



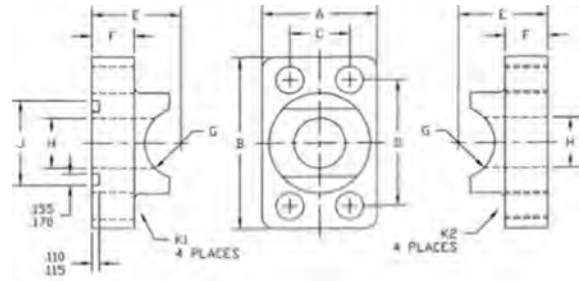
•PART NO.SIZE	“FLANGE KIT	FLANGE SIZE	A ±.030	B ±.030	C ±.010	E ±.030	F ±.016	G ±.010	H ±.010	J ±.005	K ±.005
1952-08-H	1902-08-K	1/2	0.89	2.22	1.59	0.88	0.62	1.28	0.97	0.29	0.34
1952-12-H	1902-12-K	3/4	1.14	2.81	2.00	1.12	0.75	1.66	1.28	0.33	0.41
1952-16-H	1902-16-K	1	1.33	3.19	2.25	1.31	0.94	1.91	1.53	0.36	0.47
1952-20-H	1902-20-K	1-1/4	1.48	3.75	2.63	1.50	1.06	2.16	1.75	0.39	0.53
1952-24-H	1902-24-K	1-1/2	1.83	4.44	3.13	1.69	1.19	2.53	2.03	0.48	0.66
1952-32-H	1902-32-K	2	2.20	5.25	3.81	2.06	1.44	3.16	2.66	0.48	0.78

* Part No.: 1 split flange half only.

•Flange Kit: 2 split flange halves, 4 hex head bolts, 4 lock washers, and 1 Buna-N o-ring.

All items available with metric mounting holes upon request.

Pipe Saddle Weld Block Connector 1959-P Series



PART NO. O-RING FACE	PART NO. FIAT FACE	PIPE SIZE	FLANGE SIZE	A	B	C	O	E	F	G	H	J MIN	J MAX	K1 DRILL	K2 THO.
1959-P-12-12	1960-P-12-12	3/4	3/4	1.690	2.560	0.875	1.875	1.310	0.630	0.532	0.750	1.250	1.255	0.406	3/8-16
1959-P-16-16	1960-P-16-16	1	1	1.940	2.750	1.031	2.062	1.500	0.560	0.665	1.000	1.560	1.565	0.406	3/8-16
1959-P-20-20	1960-P-20-20	1-1/4	1-1/4	2.190	3.120	1.188	2.312	1.810	0.630	0.837	1.250	1.750	1.755	0.469	7/16-14
1959-P-24-24	1960-P-24-24	1-1/2	1-1/2	2.560	3.690	1.406	2.750	2.120	0.810	0.957	1.500	2.115	2.125	0.531	1/2-13
1959-P-32-32	1960-P-32-32	2	2	3.060	4.000	1.688	3.062	2.620	1.060	1.200	2.000	2.490	2.500	0.531	1/2-13

Grade 8 Flange Bolts 1961 Series

PART NO.SIZE	FLANGE SIZE
1961-08	1/2
1961-12	3/4
1961-16	1
1961-20	1-1/4
1961-24	1-1/2
1961-32	2
1961-40	2-1/2
1961-48	3
1961-56	3-1/2
1961-64	4



Grade 8 Flange Bolts 1962 Series

PART NO.SIZE	FLANGE SIZE
1962-08	1/2
1962-12	3/4
1962-16	1
1962-20	1-1/4
1962-24	1-1/2
1962-32	2

Lock Washers 1971 Series

PART NO.SIZE	FLANGE SIZE
1971-08	1/2
1971-12	3/4
1971-16	1
1971-20	1-1/4
1971-24	1-1/2
1971-32	2
1971-40	2-1/2
1971-48	3
1971-56	3-1/2
1971-64	4

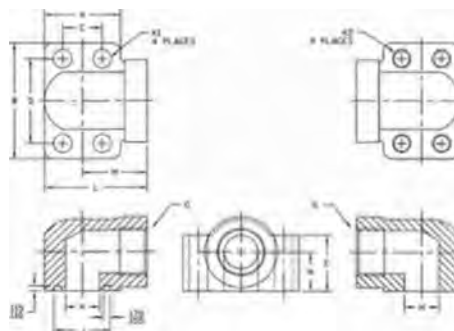


Lock Washers 1972 Series

PART NO.SIZE	FLANGE SIZE
1972-08	1/2
1972-12	3/4
1972-16	1
1972-20	1-1/4
1972-24	1-1/2
1972-32	2

Hydraulic Flanges & Accessories

SAE Port Block Elbow Code 61 1965 Series



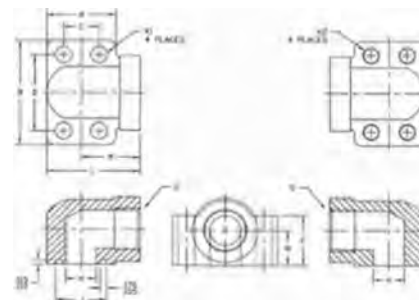
PART NO. O-RING FACE	PART NO. FLAT FACE	TUBE SIZE	FLANGE SIZE	A	B	C	O	E	G THREAD	H	J	K1 DRILL	K2 THD.	L	M	N
1965-61-12-12	1966-61-12-12	3/4	3/4	1.690	2.560	0.875	1.875	1.250	1-1/16-12	0.750	1.250	0.406	3/8-16	2.280	1.440	0.875
1965-61-16-16	1966-61-16-16	1	1	1.940	2.750	1.031	2.062	1.500	1-5/16-12	1.000	1.560	0.406	3/8-16	2.620	1.660	1.062
1965-61-20-20	1966-61-20-20	1-1/4	1-1/4	2.190	3.120	1.188	2.312	1.810	1-5/8-12	1.250	1.750	0.469	7/16-14	3.000	1.910	1.188
1965-61-24-24	1966-61-24-24	1-1/2	1-1/2	2.560	3.690	1.406	2.750	2.000	1-7/8-12	1.500	2.115	0.531	1/2-13	3.330	2.050	1.312
1965-61-32-32	1966-61-32-32	2	2	3.060	4.330	1.688	3.062	2.500	2-1/2-12	2.000	2.490	0.531	1/2-13	3.810	2.280	1.656

D-024

SAE Port Block Elbow Code 62 1965 Series

PART NO. O-RING FACE	PART NO. FLAT FACE	TUBE SIZE	FLANGE SIZE	A	B	C	O	E	G THREAD	H	J	K1 DRILL	K2 THD.	I	M	N
1965-62-12-12	1966-62-12-12	3/4	3/4	1.940	2.750	0.937	2.000	1.500	1-1/16-12	0.750	1.250	0.406	3/8-16	2.620	1.660	1.062
1965-62-16-16	1966-62-16-16	1	1	2.190	3.120	1.093	2.250	1.810	1-5/16-12	1.000	1.560	0.492	7/16-14	3.000	1.910	1.188
1965-62-20-20	1966-62-20-20	1-1/4	1-1/4	2.560	3.690	1.250	2.625	2.000	1-5/8-12	1.250	1.750	0.531	1/2-13	3.320	2.050	1.312
1965-62-24-24	1966-62-24-24	1-1/2	1-1/2	3.060	4.330	1.437	3.125	2.500	1-7/8-12	1.500	2.115	0.656	5/8-11	3.810	2.280	1.656

NPTF Port Block Elbow Code 61 1967 Series



PART NO. O-RING FACE	PART NO. FLAT FACE	PIPE SIZE	FLANGE SIZE	A	B	C	D	E	G THREAD	H	J	K1 DRILL	K2 THO.	L	M	N
1967-61-12-12	1968-61-12-12	3/4	3/4	1.690	2.560	0.875	1.875	1.250	3/4-14	0.750	1.250	0.406	3/8-16	2.280	1.440	0.875
1967-61-16-16	1968-61-16-16	1	1	1.940	2.750	1.031	2.062	1.500	1-11-1/2	1.000	1.560	0.406	3/8-16	2.620	1.660	1.062
1967-61-20-20	1968-61-20-20	1-1/4	1-1/4	2.190	3.120	1.188	2.312	1.810	1-1/4-11 1/2	1.250	1.750	0.469	7/16-14	3.000	1.910	1.188
1967-61-24-24	1968-61-24-24	1-1/2	1-1/2	2.560	3.690	1.406	2.750	2.000	1-1/2-11 1/2	1.500	2.115	0.531	1/2-13	3.330	2.050	1.312
1967-61-32-32	1968-61-32-32	2	2	3.060	4.330	1.688	3.062	2.500	2-11-1/2	2.000	2.490	0.531	1/2-13	3.810	2.280	1.656

NPTF Port Block Elbow

Code 62 1967 Series

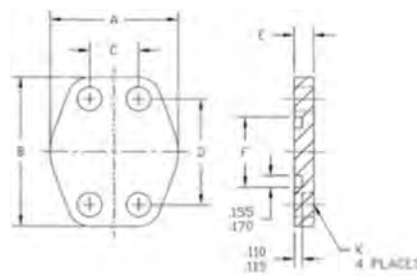
D-025

PART NO. O-RING FACE	PART NO. FLAT FACE	PIPE FLANGE SIZE SIZE		A	B	C	Ø	E	G THREAD	H	J	K1 DRILL	K2 THD.	L	M	N
1967-62-12-12	1968-62-12-12	3/4	3/4	1.940	2.750	0.937	2.000	1.500	3/4-14	0.750	1.250	0.406	3/8-16	2.620	1.660	1.062
1967-62-16-16	1968-62-16-16	1	1	2.190	3.120	1.093	2.250	1.810	1-11-1/2	1.000	1.560	0.492	7/16-14	3.000	2.000	1.188
1967-62-20-20	1968-62-20-20	1-1/4	1-1/4	2.560	3.690	1.250	2.625	2.000	1-1/4-11 1/2	1.250	1.750	0.531	1/2-13	3.320	2.050	1.312
1967-62-24-24	1968-62-24-24	1-1/2	1-1/2	3.060	4.330	1.437	3.125	2.500	1-1/2-11 1/2	1.500	2.115	0.656	5/8-11	3.810	2.280	1.656

Flange Shipping Plate/

0-PSI

Code 61 1979 Series



PART NO. SIZE	FLANGE SIZE	A	B	C	Ø	E	F	K DRILL
1979-61-12	3/4	2.060	2.560	0.875	1.875	0.330	1.250	0.406
1979-61-20	1-1/4	2.880	3.120	1.188	2.313	0.330	1.750	0.469
1979-61-32	2	3.810	4.000	1.688	3.063	0.330	2.490	0.531
1979-61-48	3	5.160	5.310	2.438	4.188	0.330	3.615	0.656

*Other sizes available upon request

Flange Shipping Plate/0-PSI

Code 62 1979 Series

PART NO. SIZE	FLANGE SIZE	A	B	C	Ø	E	F	K DRILL
1979-62-12	3/4	2.500	2.810	0.937	2.000	0.330	1.250	0.406
1979-62-20	1-1/4	3.060	3.750	1.250	2.625	0.330	1.750	0.531
1979-62-32	2	4.500	5.250	1.750	3.812	0.330	2.490	0.781

*Other sizes available upon request

Hydraulic Flanges & Accessories

Socket Head Mounting Kit Code 61 1990-61 Series



PART NO. SIZE	FLANGE SIZE
1990-61-08-K	1/2
1990-61-12-K	3/4
1990-61-16-K	1
1990-61-20-K	1-1/4
1990-61-24-K	1-1/2
1990-61-32-K	2
1990-61-40-K	2-1/2
1990-61-48-K	3
1990-61-56-K	3-1/2
1990-61-64-K	4

D-026

Socket Head Mounting Kit Code 62 1990-62 Series

PART NO. SIZE	FLANGE SIZE
1990-62-08-K	1/2
1990-62-12-K	3/4
1990-62-16-K	1
1990-62-20-K	1-1/4
1990-62-24-K	1-1/2
1990-62-32-K	2

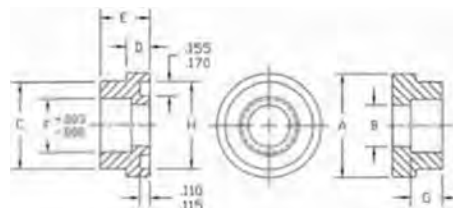
Mounting Kit: 4 socket head bolts, 4 lock washers, and 1 Buna-N O-Ring

Socket Head Mounting Kit Metric 1990-M Series

PART NO. SIZE
1990-M08-K
1990-M10-K
1990-M12-K
1990-M16-K
1990-M20-K
1990-M24-K
1990-M30-K

Mounting Kit: 4 socket head bolts, 4 lock washers, and 1 Buna-N O-Ring

Tube Braze Flange Head Connector Code 61 3300-61 Series Code 61 3301-61 Series



D-027

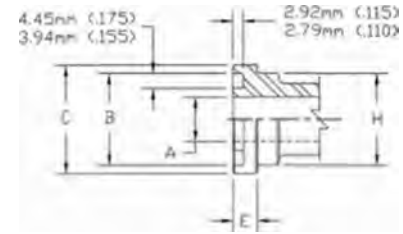
PART NO. O-RING FACE	PART NO. FIAT FACE	TUBE SIZE	FLANGE SIZE	A	B	C	B	E	F	G	H
3300-61-08-08	330161-0868	1/2	1/2	1.188	0.406	1.00	0.265	0.50	0.502	0.312	1.000
330081-10-08	330161-1008	5/8	1/2	1.188	0.500	1.00	0.235	0.50	0.625	0.312	1.000
3300-61-12-12	330161-12-12	3/4	3/4	1.500	0.656	1.25	0.265	0.56	0.752	0.375	1.250
3300-61-16-12	3301-61-16-12	1	3/4	1.500	0.750	1.25	0.265	0.56	0.100	0.375	1.250
330061-16-16	3301-61-16-16	1	1	1.750	0.906	1.50	0.315	0.56	1.002	0.375	1.560
330061-20-16	330161-20-16	1-1/4	1	1.750	1.000	1.50	0.315	0.56	1.252	0.375	1.560
3300-61-20-20	330161-20-20	1-1/4	1-1/4	2.000	1.125	1.70	0.315	0.56	1.252	0.375	1.750
330061-24-20	330161-24-20	1-1/2	1-1/4	2.000	1.250	1.70	0.315	0.56	1.502	0.375	1.750
3300-61-24-24	330161-24-24	1-1/2	1-1/2	2.380	1.375	1.98	0.315	0.62	1.502	0.438	2.115
330061-28-24	3301-61-2824	1-3/4	1-1/2	2.380	1.500	1.98	0.315	0.62	1.752	0.438	2.115
330061-32-32	3301-61-32-32	2	2	2.810	1.875	2.45	0.315	0.62	2.002	0.500	2.490
330061-36-32	3301-61-3832	2-1/4	2	2.810	2.000	2.45	0.375	0.62	2.252	0.500	2.490
330061-40-40	3301-61-4040	2-1/2	2-1/2	3.312	2.375	2.92	0.375	0.68	2.502	0.500	2.995
330061-44-40	3301-61-4440	2-3/4	2-1/2	3.312	2.500	2.92	0.375	0.68	2.752	0.500	2.995
330061-48-48	3301-614848	3	3	4.000	2.875	3.55	0.375	0.75	3.002	0.562	3.615

Tube Braze Flange Head Connector Code 62 3300-62 Series Code 62 3301-62 Series

PARTNB. O-RING FACE	PARTNB. FIAT FACE	TUBE SIZE	FLANGE SIZE	A	B	C	B	E	F	G	H
3300-62-12-12	330182-12-12	3/4	3/4	1.625	0.656	1.250	0.345	0.69	0.752	0.500	1.250
3300-62-1812	330182-1812	1	3/4	1.625	0.750	1.250	0.345	0.69	1.002	0.500	1.250
3300-62-1816	330182-1816	1	1	1.875	0.810	1.500	0.375	0.81	1.002	0.625	1.560
330082-2816	330182-2816	1-1/4	1	1.875	1.000	1.500	0.375	0.81	1.252	0.625	1.560
330082-2820	330182-2820	1-1/4	1-1/4	2.125	1.010	1.718	0.405	1.00	1.252	0.812	1.750
330082-24-20	330182-24-20	1-1/2	1-1/4	2.125	1.250	1.718	0.405	1.00	1.502	0.812	1.750
330082-24-24	3301-62-24-24	1-1/2	1-1/2	2.500	1.250	2.000	0.495	1.19	1.502	1.000	2.115
330082-2824	330182-2824	1-3/4	1-1/2	2.500	1.500	2.000	0.495	1.19	1.752	1.000	2.115
330082-32-32	330182-32-32	2	2	3.125	1.750	2.000	0.495	1.50	2.002	1.375	2.490
330082-3832	3301-62-3832	2-1/4	2	3.125	2.000	2.000	0.495	1.50	2.252	1.312	2.490

Hydraulic Flanges & Accessories

Flange Head Detail Code 61



FLANGE SIZE	DASH SIZE	A MAX (in.)	A MAX (mm)	B (in.)	B (mm)	C±.010 (in.)	C±0.25 (mm)	E±.005 (in.)	E±0.13 (mm)	H MAX (in.)	H MAX (mm)
1/2	-8	0.50	13	1.005-1.000	25.53-25.40	1.188	30.18	0.265	6.73	0.94	24
3/4	-12	0.75	19	1.255-1.250	31.88-31.75	1.500	38.10	0.265	6.73	1.25	32
1	-16	1.00	25	1.565-1.560	39.75-39.62	1.750	44.45	0.315	8.00	1.50	38
1-1/4	-20	1.25	32	1.755-1.750	44.58-44.45	2.000	50.80	0.315	8.00	1.70	43
1-1/2	-24	1.50	38	2.125-2.115	53.9853.72	2.375	60.33	0.315	8.00	1.98	50
2	-32	2.00	51	2.500-2.490	63.50-63.25	2.812	71.42	0.375	9.53	2.45	62
2-1/2	-40	2.50	64	3.005-2.995	76.33-76.07	3.312	84.12	0.375	9.53	2.92	74
3	-48	3.00	76	3.625-3.615	92.08-91.82	4.000	101.60	0.375	9.53	3.55	90
3-1/2	-56	3.50	89	4.115-4.095	104.52-104.01	4.500	114.30	0.422	11.23	4.00	102
4	-64	4.00	102	4.6154.595	117.22-116.71	5.000	127.00	0.422	11.23	4.50	114

D-028

Flange Head Detail Code 62

FLANGE SIZE	DASH SIZE	A MAX (in.)	A MAX (mm)	B (in.)	B (mm)	C±.010 (in.)	C±0.25 (mm)	E±.005 (in.)	E±0.13 (mm)	H MAX (in.)	H MAX (mm)
1/2	-8	0.50	13	1.005-1.000	25.53-25.40	1.250	31.75	0.305	7.75	0.94	24
3/4	-12	0.75	19	1.255-1.250	31.88-31.75	1.625	41.28	0.345	8.76	1.25	32
1	-16	1.00	25	1.565-1.560	39.75-39.62	1.875	47.63	0.375	9.53	1.50	38
1-1/4	-20	1.25	32	1.755-1.750	44.58-44.45	2.125	53.98	0.405	10.29	1.72	44
1-1/2	-24	1.50	38	2.125-2.115	53.98-53.72	2.500	63.50	0.495	12.57	2.00	51
2	-32	2.00	51	2.500-2.499	63.50-63.25	3.125	79.38	0.495	12.57	2.62	67

SAE J518 Maximum Working Pressure Ratings for Code 61 Flange Fittings

D-029

NOMINAL FLANGE SIZE INCH	MAXIMUM RECOMMENDED WORKING PRESSURE MPa	MAXIMUM RECOMMENDED WORKING PRESSURE PSI*
1/2	34.5	5,000
3/4	34.5	5,000
1	34.5	5,000
1-1/4	27.6	4,000
1-1/2	20.7	3,000
2	20.7	3,000

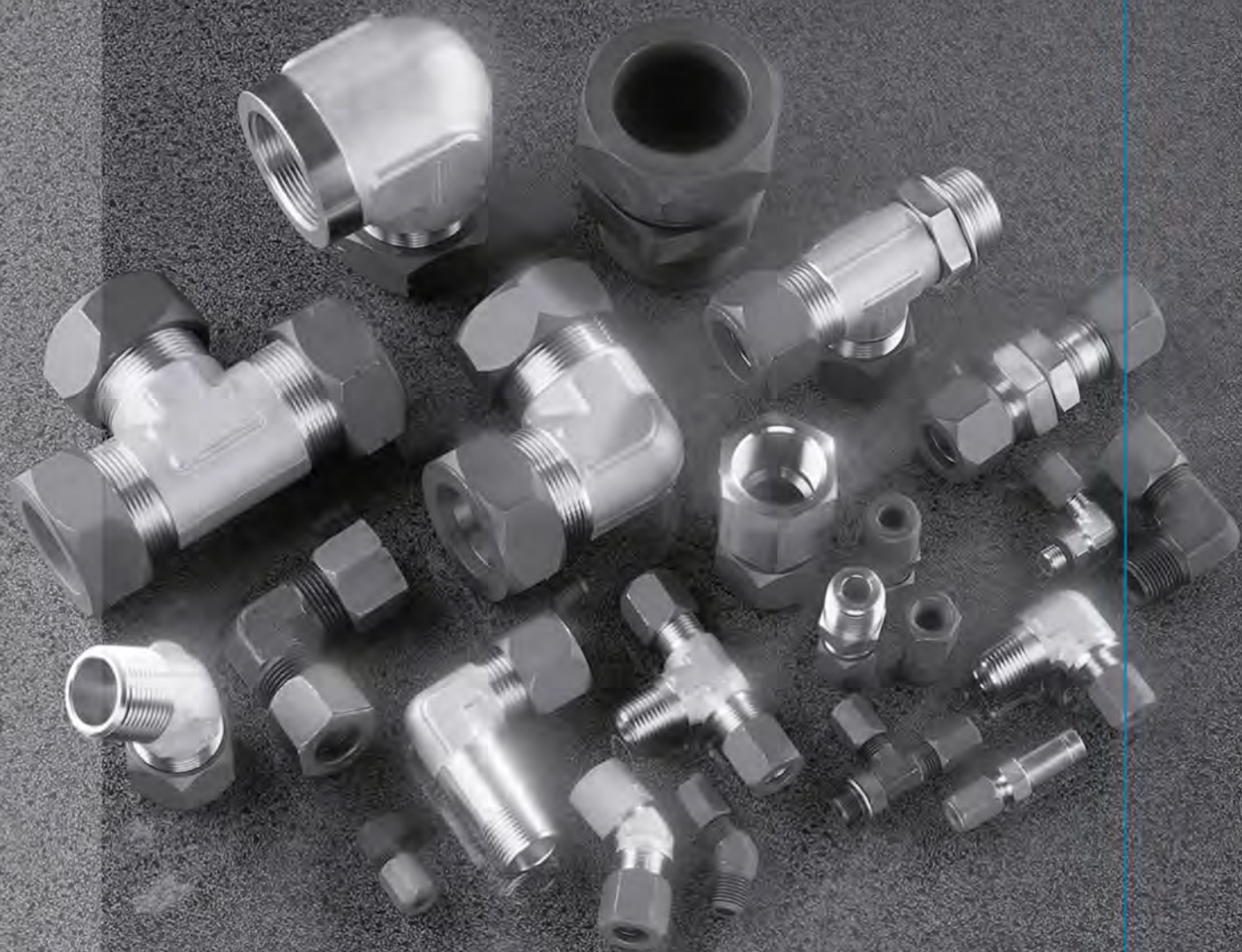
MPa(Mega Pascals)-1MPa=145 PSI

SAE J518 Maximum Working Pressure Ratings for Code 62 Flange Fittings

NOMINAL FLANGE SIZE INCH	MAXIMUM RECOMMENDED WORKING PRESSURE MPa	MAXIMUM RECOMMENDED WORKING PRESSURE PSI*
1/2	41.4	6,000
3/4	41.4	6,000
1	41.4	6,000
1-1/4	41.4	6,000
1-1/2	41.4	6,000
2	41.4	6,000

MPa(Mega Pascals)-1 MPa= 145 PSI

*Pressure ratings for flange head only



Flareless Bite Type Fittings

Flareless Bite Type Fittings

Brennan Industries, Inc.'s steel and stainless steel bite type fittings meet all design and performance requirements for hydraulic flareless fittings in Standard J514 published by the Society of Automotive Engineers (SAE).

E-001

 C0304-C Cap Nut (080112/MS#51590) E-003	 C0318 Nut (080110/MS#51823) E-003	 C0319 Ferrule (080115A/MS#51825A) E-004	 C2402 BT-MJ E-004	 C2403 BT-BT Tube Union Straight (080101/MS#51814) E-005	 C2403-LH BT-BT Tube Union Large Hex Straight (080119/MS#51856) E-005
 C2404 BT-MP Adapter Straight (080102/MS#51819) E-006	 C2405 BT-FP Adapter Straight (080103) E-007	 C2406 Tube-BT Reducer (080123) E-007	 C2408 Plug BT (080109) E-008	 C2500 BT-BT Elbow 90° (080201/MS#51820) E-008	 C2501 BT-MP Elbow 90° (080202/MS#51815) E-009
 C2501-L BT-MP Elbow 90° Long (071502) E-009	 C2501-LL BT-MP Elbow 90° X-Long (081602) E-010	 C2502 BT-FP Elbow 90° (080203/MS#51813) E-010	 C2503 BT-MP Elbow 45° (080302/MS#51817) E-011	 C2504 BT-BT Elbow 45° E-011	 C2601 BT-BT-MP Tee (080425/MS#51818) E-012
 C2602 BT-BT-FP Tee (080427/MS#51821) E-012	 C2603 BT-BT-BT Tee (080401/MS#51811) E-013	 C2605 BT-MP-BT Tee (080424/MS#51824) E-013	 C2606 BT-FP-BT Tee (080426/MS#51822) E-014	 C2650 BT-BT-BT-BT Cross (080501/MS#51894) E-014	 C2700 BT-BT Bulkhead Union (080601) E-015
 C2701 BT-BT Bulkhead Union 90° (080701/MS#51855) E-015	 C2702 BT-BT Bulkhead Union 45° (080801) E-016	 C2703 BT-BT-BT Bulkhead Branch Tee (080959) E-016	 C2704 BT-BT-BT Bulkhead Run Tee (080958) E-016	 C2706 MP-BT Bulkhead E-017	 C2707 BT-MJ Bulkhead E-017
 C6400-0 BT-MORB (080120/MS#51843) E-018	 C6400-L-0 BT-MORB Long E-018	 C6500 BT-BTS 90° (080221/MS#51852) E-019	 C6502 BT-BTS 45° (080321) E-019	 C6600 BT-BT-BTS Tee (080433/MS#51853) E-019	 C6602 BT-BTS-BT Tee (080432/MS#51854) E-020
 C6801-NW0 BT-MAORB 90° (080220/MS#51539) E-020	 C6802-NW0 BT-MAORB 45° (080320/MS#51842) E-021	 C6803-NW0 BT-BT-MAORB Tee (080429/MS#51841) E-021	 C6804-NW0 BT-MAORB-BT Tee (080428/MS#51892) E-021		

Flareless Bite Type Fittings

Assembly instructions

The assembly of Brennan Steel and Stainless Steel Bite-Type Fittings involves four steps:

1)cutting, deburring and cleaning;2) pre-setting the ferrule to the tubing;3) ferrule bite inspection; and 4) installation

Cutting, Deburring & Cleaning

1. Square-cut the seamless or welded-and-drawn tubing using a hacksaw with a fine-tooth blade, or a circular-toothed cut-off saw. Use only tubing that is fully annealed for bending and flaring.
2. Remove all burrs and sharp edges on the tube by lightly deburring the I.D. and O.D. Emery paper may be used to perform this task.
3. Wipe the tube end completely with a clean cloth. Be sure to remove all metal chips from the tube end.

Pre-Setting Ferrule to the Tubing

This procedure must be followed to ensure the proper location of the ferrule to the tubing.

1. Lubricate the fitting body thread and the thread of the nut.
2. Slip the nut and ferrule over the deburred end of the tube. The long, straight end of the ferrule must point toward the deburred tube end.
3. Lubricate the ferrule.
4. Position the deburred tube end squarely on the shoulder of the fitting body.
5. Manually screw the nut onto the fitting body until it is finger-tight.
6. Put a reference mark on the nut and the tube.
7. Hold the tube firmly on the fitting body and tighten the nut an additional 1-3/4 turns. Proper

assembly of bite-type fittings is dependent upon the ferrule traveling a prescribed distance into the fitting throat. This allows it to "bite" into the tube, creating a strong grip and seal.

8. The use of a Ferulset tool is recommended for sizes -08 through -32.

E-002

Ferrule Bite Inspection

The following inspection procedures must be completed prior to final assemble.

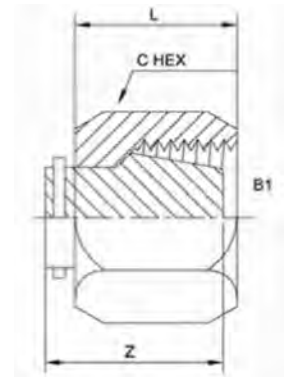
1. Disassemble the fitting.
2. The tube surface must have a raised ridge of metal that is at least 50% of the thickness of the leading edge of the ferrule.
3. There must be a slight bow to the pilot section of the ferrule.
4. The tail of the ferrule should be snug against the tube.
5. A slight indentation around the deburred end of the tube indicates that the tube was bottomed in the fitting. If this indentation is not visible, the ferrule may not be properly seated.
6. Do not rotate the ferrule.

Installation

1. Finger-tighten the nut.
2. Wrench-tighten the nut another 1/3 to 1/2 turn

Cap Nut C0304-C Series

SAE# 080112 / MS# 51590

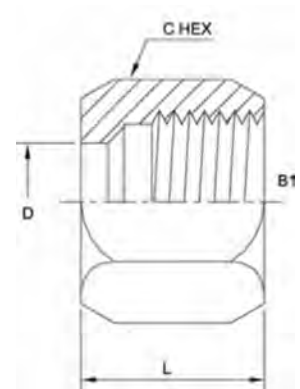


C0304-C-02	1/8	5/16-24	0.53	0.58	0.375
C0304-C-04	1/4	7/16-20	0.70	0.72	0.562
C0304-C-05	5/16	1/2-20	0.72	0.74	0.625
C0304-C-06	3/8	9/16-18	0.75	0.77	0.688
C0304-C-08	1/2	3/4-16	0.84	0.93	0.875
C0304-C-10	5/8	7/8-14	0.92	0.94	1.000
C0304-C-12	3/4	1-1/16-12	0.97	0.93	1.250
C0304-C-16	1	1-5/16-12	1.05	1.08	1.500
C0304-C-20	1-1/4	1-5/8-12	1.05	1.19	2.000

E-003

Nut C0318 Series

SAE# 080110 / MS# 51823

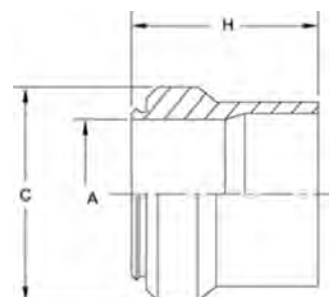


C0318-02	1/8	5/16-24	0.53	0.130	0.375
C0318-03	3/16	3/8-24	0.61	0.193	0.438
C0318-04	1/4	7/16-20	0.70	0.255	0.562
C031805	5/16	1/2-20	0.72	0.318	0.625
C031806	3/8	9/16-18	0.75	0.380	0.688
C0318-08	1/2	3/4-16	0.84	0.505	0.875
C0318-10	5/8	7/8-14	0.92	0.631	1.000
C0318-12	3/4	1-1/16-12	0.97	0.756	1.250
C0318-14	7/8	1-3/16-12	1.00	0.881	1.375
C0318-16	1	1-5/16-12	1.05	1.006	1.500
C0318-20	1-1/4	1-5/8-12	1.05	1.260	2.000
C0318-24	1-1/2	1-7/8-12	1.03	1.510	2.250
C0318-32	2	2-1/2-12	1.12	2.014	2.875

Flareless Bite Type Fittings

Ferrule C0319 Series

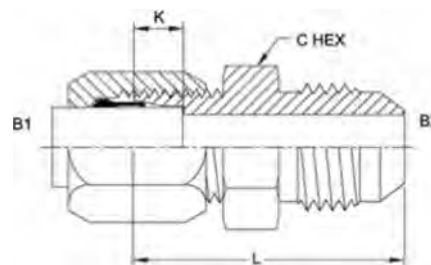
SAE# 0 8 0 1 1 5A / MS# 51825A



PART NO.SIZE	TUBE O.D.	A	C	H
C0319-02	1/8	0.130	0.237	0.288
C0319-03	3/16	0.193	0.307	0.329
C0319-04	1/4	0.255	0.367	0.363
C0319-05	5/16	0.318	0.430	0.367
C0319-06	3/8	0.380	0.492	0.393
C0319-08	1/2	0.505	0.663	0.429
C0319-10	5/8	0.631	0.780	0.442
C0319-12	3/4	0.756	0.925	0.475
C0319-14	7/8	0.881	1.040	0.475
C0319-16	1	1.006	1.187	0.475
C0319-20	1-1/4	1.260	1.446	0.475
C0319-24	1-1/2	1.510	1.694	0.475
C0319-32	2	2.014	2.210	0.509

E-004

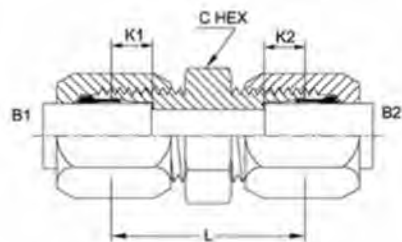
BT-MJ C2402 Series



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	L LGTH	K DEPTH	C HEX
C2402-04-04	1/4	7/16-20	7/16-20	0.203	0.172	1.23	0.234	0.500
C2402-06-06	3/8	9/16-18	9/16-18	0.281	0.297	1.28	0.250	0.625
C2402-08-08	1/2	3/4-16	3/4-16	0.422	0.391	1.47	0.305	0.812
C2402-08-12	1/2	3/4-16	1-1/16-12	0.422	0.609	1.68	0.305	1.125
C2402-12-12	3/4	1-1/16-12	1-1/16-12	0.656	0.609	1.94	0.350	1.125
C2402-16-16	1	1-5/16-12	1-5/16-12	0.875	0.844	1.98	0.415	1.375
C2402-20-20	1-1/4	1-5/8-12	1-5/8-12	1.093	1.078	2.11	0.415	1.688

BT-BT Tube Union Straight C2403 Series

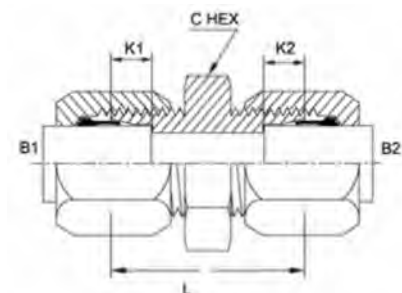
SAE# 080101 / MS# 51814



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	L LGTH	K1 DEPTH	K2 DEPTH	C HEX
C2403-02-02	1/8	5/16-24	5/16-24	0.093	0.093	1.02	0.188	0.188	0.438
C2403-03-03	3/16	3/8-24	3/8-24	0.125	0.125	1.11	0.234	0.234	0.438
C2403-04-04	1/4	7/16-20	7/16-20	0.203	0.203	1.18	0.234	0.234	0.500
C2403-05-05	5/16	1/2-20	1/2-20	0.234	0.234	1.18	0.250	0.250	0.562
C2403-06-04	3/8 1/4	9/16-18	7/16-18	0.281	0.203	1.22	0.250	0.234	0.625
C2403-06-06	3/8	9/16-18	9/16-18	0.281	0.281	1.24	0.250	0.250	0.625
C2403-08-08	1/2	3/4-16	3/4-16	0.422	0.422	1.42	0.305	0.305	0.812
C2403-10-10	5/8	7/8-14	7/8-14	0.500	0.500	1.61	0.350	0.350	0.937
C2403-12-08	3/4 1/2	1-1/16-12	1/2-14	0.656	0.422	1.69	0.350	0.305	1.125
C2403-12-12	3/4	1-1/16-12	1-1/16-12	0.656	0.656	1.81	0.350	0.350	1.125
C2403-14-14	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.81	0.350	0.350	1.250
C2403-16-16	1	1-5/16-12	1-5/16-12	0.875	0.875	1.81	0.415	0.415	1.375
C2403-20-20	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	1.89	0.415	0.415	1.688
C2403-24-24	1-1/2	1-7/8-12	1-7/8-12	1.344	1.344	1.96	0.485	0.485	2.000
C2403-32-32	2	2-1/2-12	2-1/2-12	1.813	1.813	2.11	0.485	0.485	2.625

BT-BT Tube Union Large Hex Straight C2403-LH Series

SAE# 080119 / MS# 51856

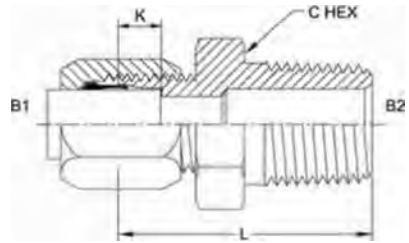


PART ND.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	L LGTH	K1 DEPTH	K2 DEPTH	C HEX
C2403-LH-04-04	1/4	7/16-20	7/16-20	0.203	0.203	1.18	0.234	0.234	0.688
C2403-LH-06-06	3/8	9/16-18	9/16-18	0.281	0.281	1.24	0.250	0.250	0.812
C2403-LH-08-06	1/2 3/8	3/4-16	9/16-18	0.422	0.281	1.33	0.305	0.250	1.000
C2403-LH-08-08	1/2	3/4-16	3/4-16	0.422	0.422	1.42	0.305	0.305	1.000
C2403-LH-10-10	5/8	7/8-14	7/8-14	0.500	0.500	1.61	0.350	0.350	1.125
C2403-LH-12-12	3/4	1-1/16-12	1-1/16-12	0.656	0.656	1.81	0.350	0.350	1.375
C2403-LH-16-16	1	1-5/16-12	1-5/16-12	0.875	0.875	1.81	0.415	0.415	1.625

Flareless Bite Type Fittings

BT-MP Adapter Straight C2404 Series

SAE# 080102 / MS# 51819

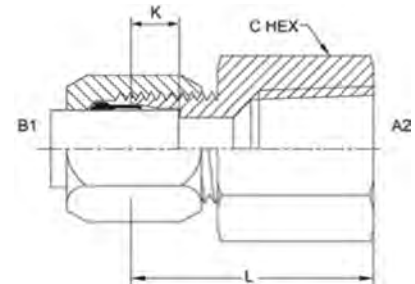


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 NPTF	B1 DRILL	B2 DRILL	L LGTH	K DEPTH	C HEX
C2404-02-02	1/8	5/16-24	1/8-27	0.093	0.188	1.04	0.188	0.438
C2404-02-04	1/8	5/16-24	1/4-18	0.093	0.281	1.24	0.188	0.625
C2404-03-02	3/16	3/8-24	1/8-27	0.125	0.188	1.09	0.234	0.438
C2404-04-02	1/4	7/16-20	1/8-27	0.203	0.188	1.12	0.234	0.500
C2404-04-04	1/4	7/16-20	1/4-18	0.203	0.281	1.32	0.234	0.625
C2404-04-06	1/4	7/16-20	3/8-18	0.203	0.406	1.33	0.234	0.812
C2404-04-08	1/4	7/16-20	1/2-14	0.203	0.531	1.58	0.234	0.937
C2404-05-02	5/16	1/2-20	1/8-27	0.234	0.188	1.12	0.250	0.562
C2404-05-04	5/16	1/2-20	1/4-18	0.234	0.281	1.32	0.250	0.625
C2404-05-06	5/16	1/2-20	3/8-18	0.234	0.406	1.33	0.250	0.812
C2404-06-02	3/8	9/16-18	1/8-27	0.281	0.188	1.15	0.250	0.625
C2404-06-04	3/8	9/16-18	1/4-18	0.281	0.281	1.34	0.250	0.625
C2404-06-06	3/8	9/16-18	3/8-18	0.281	0.406	1.35	0.250	0.812
C2404-06-08	3/8	9/16-18	1/2-14	0.281	0.531	1.60	0.250	0.937
C2404-08-04	1/2	3/4-16	1/4-18	0.422	0.281	1.44	0.305	0.812
C2404-08-06	1/2	3/4-16	3/8-18	0.422	0.406	1.44	0.305	0.812
C2404-08-08	1/2	3/4-16	1/2-14	0.422	0.531	1.69	0.305	0.937
C2404-08-12	1/2	3/4-16	3/4-14	0.422	0.719	1.76	0.305	1.125
C2404-10-06	5/8	7/8-14	3/8-18	0.500	0.406	1.56	0.350	0.937
C2404-10-08	5/8	7/8-14	1/2-14	0.500	0.531	1.75	0.350	0.937
C2404-10-12	5/8	7/8-14	3/4-14	0.500	0.719	1.82	0.350	1.125
C2404-12-08	3/4	1-1/16-12	1/2-14	0.656	0.531	1.88	0.350	1.125
C2404-12-12	3/4	1-1/16-12	3/4-14	0.656	0.719	1.88	0.350	1.125
C2404-12-16	3/4	1-1/16-12	1-11 1/2	0.656	0.938	2.07	0.350	1.375
C2404-14-12	7/8	1-3/16-12	3/4-14	0.719	0.719	1.88	0.350	1.250
C2404-16-12	1	1-5/16-12	3/4-14	0.875	0.719	1.88	0.415	1.375
C2404-16-16	1	1-5/16-12	1-11 1/2	0.875	0.938	2.07	0.415	1.375
C2404-20-20	1-1/4	1-5/8-12	1-1/4-11 1/2	1.093	1.250	2.18	0.415	1.688
C2404-24-20	1-1/2	1-7/8-12	1-1/4-11 1/2	1.344	1.250	2.25	0.485	2.000
C2404-24-24	1-1/2	1-7/8-12	1-1/2-11 1/2	1.344	1.500	2.28	0.485	2.000
C2404-32-32	2	2-1/2-12	2-11 1/2	1.813	1.938	2.46	0.485	2.625

E-006

BT-FP Adapter Straight C2405 Series

SAE# 080103

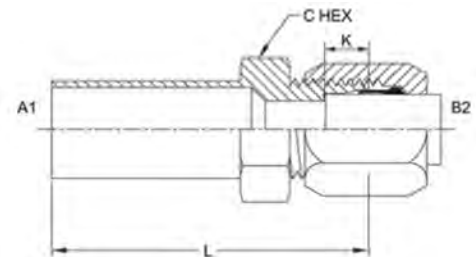


E-007

PART NO.SIZE	TUBE O.D.	B1 THREAD	A2 NPTf	B1 DRILL	L IBTH	K DEPTH	C HEX
C2405-02-02	1/8	5/16-24	1/8-27	0.093	1.05	0.188	0.562
C2405-04-02	1/4	7/16-20	1/8-27	0.203	1.09	0.234	0.562
C2405-04-04	1/4	7/16-20	1/4-18	0.203	1.30	0.234	0.750
C2405-05-02	5/16	1/2-20	1/8-27	0.234	1.08	0.250	0.562
C2405-05-04	5/16	1/2-20	1/4-18	0.234	1.30	0.250	0.750
C2405-06-04	3/8	9/16-18	1/4-18	0.281	1.31	0.250	0.750
C2405-06-06	3/8	9/16-18	3/8-18	0.281	1.36	0.250	0.875
C2405-06-08	3/8	9/16-18	1/2-14	0.281	1.53	0.250	1.125
C2405-08-04	1/2	3/4-16	1/4-18	0.422	1.46	0.305	0.875
C2405-08-06	1/2	3/4-16	3/8-18	0.422	1.47	0.305	0.875
C2405-08-08	1/2	3/4-16	1/2-14	0.422	1.64	0.305	1.125
C2405-10-06	5/8	7/8-14	3/8-18	0.500	1.54	0.350	1.125
C2405-10-08	5/8	7/8-14	1/2-14	0.500	1.76	0.350	1.125
C2405-12-12	3/4	1-1/16-12	3/4-14	0.656	1.89	0.350	1.375
C2405-14-12	7/8	1-3/16-12	3/4-14	0.719	1.86	0.350	1.375
C2405-16-16	1	1-5/16-12	1-11-1/2	0.875	2.13	0.415	1.625
C2405-20-20	1-1/4	1-5/8-12	1-1/4-11-1/2	1.093	2.22	0.415	2.000
C2405-24-24	1-1/2	1-7/8-12	1-1/2-11-1/2	1.344	2.23	0.485	2.375

Tube-BT Reducer C2406 Series

SAE# 080123

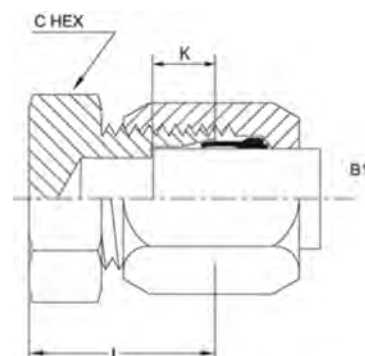


PART NO.SIZE	A1 TUBE O.D.	A1 TUBE	B2 TUBE	B2 THREAD	A1 DRILL	B2 DRILL	L LGTH	K DEPTH	G HEX
C2406-06-04	3/8	0.375	1/4	7/16-20	0.250	0.203	1.61	0.234	0.500
C2406-08-04	1/2	0.500	1/4	7/16-20	0.375	0.203	1.73	0.234	0.562
C2406-08-06	1/2	0.500	3/8	9/16-18	0.375	0.281	1.77	0.250	0.625
C2406-10-08	5/8	0.625	1/2	3/4-16	0.500	0.422	1.96	0.305	0.812
C2406-12-06	3/4	0.750	3/8	9/16-18	0.625	0.281	1.93	0.250	0.812
C2406-12-08	3/4	0.750	1/2	3/4-16	0.625	0.422	2.03	0.305	0.812
C2406-16-08	1	1.000	1/2	3/4-16	0.844	0.422	2.05	0.305	1.062
C2406-16-12	1	1.000	3/4	1-1/16-12	0.844	0.656	2.24	0.350	1.125
C2406-20-16	1-1/4	1.250	1	1-5/16-12	1.031	0.875	2.28	0.415	1.375

Flareless Bite Type Fittings

Plug BT C2408 Series

SAE# 080109

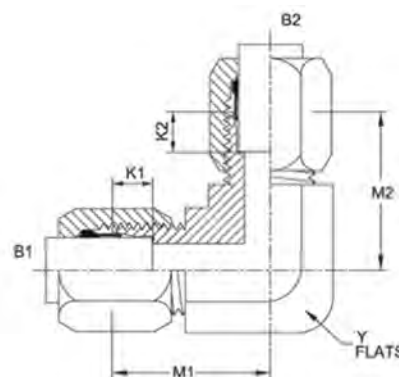


PART NO.SIZE	TUBE O.D.	B1 THREAD	B1 DRILL	L LO TH	K DEPTH	C HEX
C2408-02	1/8	5/16-24	0.093	0.63	0.188	0.438
C2408-04	1/4	7/16-20	0.203	0.71	0.234	0.500
C2408-06	3/8	9/16-18	0.281	0.75	0.250	0.625
C2408-08	1/2	3/4-16	0.422	0.85	0.305	0.812
C2408-10	5/8	7/8-14	0.500	0.97	0.350	0.938
C2408-12	3/4	1-1/16-12	0.656	1.10	0.350	1.125
C2408-16	1	1-5/16-12	0.875	1.10	0.415	1.375
C2408-20	1-1/4	1-5/8-12	1.093	1.18	0.415	1.688

E-008

BT-BT Elbow 90° C2500 Series

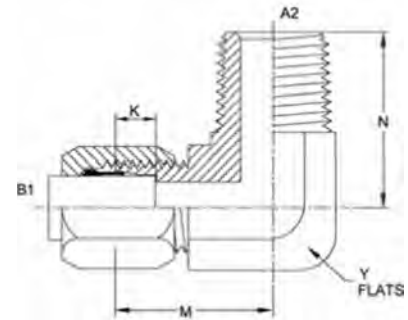
SAE# 080201 / MS#51820



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	M1 LE TH	M2 LE TH	K1 DEPTH	K2 DEPTH	Y FLATS
C2500-02-02-FG	1/8	5/16-24	5/16-24	0.093	0.093	0.77	0.77	0.188	0.188	0.438
C2500-04-04-FG	1/4	7/16-20	7/16-20	0.203	0.203	0.89	0.89	0.234	0.234	0.438
C2500-05-05-FG	5/16	1/2-20	1/2-20	0.234	0.234	0.95	0.95	0.250	0.250	0.562
C2500-06-06-FG	3/8	9/16-18	9/16-18	0.281	0.281	1.05	1.05	0.250	0.250	0.562
C2500-08-08-FG	1/2	3/4-16	3/4-16	0.422	0.422	1.25	1.25	0.305	0.305	0.750
C2500-10-10-FG	5/8	7/8-14	7/8-14	0.500	0.500	1.42	1.42	0.350	0.350	0.875
C2500-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	1.58	1.58	0.350	0.350	1.062
C2500-16-16-FG	1	1-5/16-12	1-5/16-12	0.875	0.875	1.73	1.73	0.415	0.415	1.312
C2500-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	1.89	1.89	0.415	0.415	1.625
C2500-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1.344	1.344	2.02	2.02	0.485	0.485	1.875

BT-MP Elbow 90° C2501 Series

SAE# 080202 / MS#51815

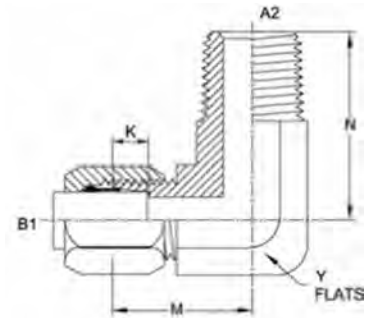


E-009

PART NO./SIZE	TUBE D.D.	B1 THREAD	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	N LGTH	K DEPTH	Y FLATS
C2501-02-02-FG	1/8	5/16-24	1/8-27	0.093	0.188	0.77	0.72	0.188	0.438
C2501-03-02-FG	3/16	3/8-24	1/8-27	0.125	0.188	0.83	0.72	0.234	0.438
C2501-04-02-FG	1/4	7/16-20	1/8-27	0.203	0.188	0.89	0.78	0.234	0.438
C2501-04-04-FG	1/4	7/16-20	1/4-18	0.203	0.281	1.03	1.09	0.234	0.562
C2501-04-06-FG	1/4	7/16-20	3/8-18	0.203	0.406	1.12	1.22	0.234	0.750
C2501-04-08-FG	1/4	7/16-20	1/2-14	0.203	0.531	1.22	1.47	0.234	0.875
C2501-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.188	0.95	0.81	0.250	0.562
C2501-05-04-FG	5/16	1/2-20	1/4-18	0.234	0.281	1.03	1.09	0.250	0.562
C2501-06-02-FG	3/8	9/16-18	1/8-27	0.281	0.188	1.05	0.90	0.250	0.562
C2501-06-04-FG	3/8	9/16-18	1/4-18	0.281	0.281	1.05	1.09	0.250	0.562
C2501-06-06-FG	3/8	9/16-18	3/8-18	0.281	0.406	1.14	1.22	0.250	0.750
C2501-06-08-FG	3/8	9/16-18	1/2-14	0.281	0.531	1.24	1.47	0.250	0.875
C2501-08-04-FG	1/2	3/4-16	1/4-18	0.422	0.281	1.25	1.22	0.305	0.750
C2501-08-06-FG	1/2	3/4-16	3/8-18	0.422	0.406	1.25	1.22	0.305	0.750
C2501-08-08-FG	1/2	3/4-16	1/2-14	0.422	0.531	1.35	1.47	0.305	0.875
C2501-08-12-FG	1/2	3/4-16	3/4-14	0.422	0.719	1.43	1.59	0.305	1.062
C2501-10-06-FG	5/8	7/8-14	3/8-18	0.500	0.406	1.42	1.28	0.350	0.875
C2501-10-08-FG	5/8	7/8-14	1/2-14	0.500	0.531	1.42	1.47	0.350	0.875
C2501-10-12-FG	5/8	7/8-14	3/4-14	0.500	0.719	1.50	1.59	0.350	1.062
C2501-12-08-FG	3/4	1-1/16-12	1/2-14	0.656	0.531	1.58	1.59	0.350	1.062
C2501-12-12-FG	3/4	1-1/16-12	3/4-14	0.656	0.719	1.58	1.59	0.350	1.062
C2501-16-12-FG	1	1-5/16-12	3/4-14	0.875	0.719	1.73	1.78	0.415	1.312
C2501-16-16-FG	1	1-5/16-12	1-11 1/2	0.875	0.938	1.73	1.97	0.415	1.312
C2501-20-20-FG	1-1/4	1-5/8-12	1-1/4-11 1/2	1.093	1.250	1.89	2.38	0.415	1.625
C2501-24-24-FG	1-1/2	1-7/8-12	1-1/2-11 1/2	1.344	1.500	2.02	2.64	0.485	1.875
C2501-32-32-FG	2	2-1/2-12	2-11 1/2	1.813	1.938	2.45	3.00	0.485	2.500

BT-MP Elbow 90° Long C2501-L Series

SAE# 071502

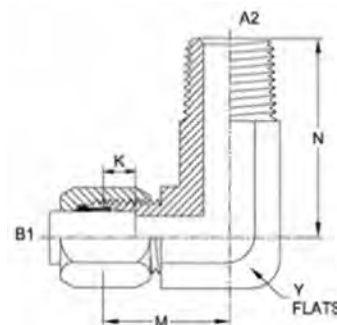


PART NO./SIZE	TUBE O.D.	B1 THREAD	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	N LGTH	K DEPTH	Y FLATS
C2501-L-04-02-FG	1/4	7/16-20	1/8-27	0.203	0.188	0.89	1.17	0.234	0.438
C2501-L-04-04-FG	1/4	7/16-20	1/4-18	0.203	0.281	1.03	1.58	0.234	0.562
C2501-L-05-04-FG	5/16	1/2-20	1/4-18	0.234	0.281	0.95	1.58	0.250	0.562
C2501-L-06-06-FG	3/8	9/16-18	3/8-18	0.281	0.406	1.14	1.82	0.250	0.750
C2501-L-12-12-FG	3/4	1-1/16-12	3/4-14	0.656	0.719	1.58	2.44	0.350	1.062
C2501-L-16-16-FG	1	1-5/16-12	1-11 1/2	0.875	0.938	1.73	3.01	0.415	1.312
C2501-L-20-20-FG	1-1/4	1-5/8-12	1-1/4-11 1/2	1.093	1.250	1.89	3.69	0.415	1.625
C2501-L-24-24-FG	1-1/2	1-7/8-12	1-1/2-11 1/2	1.344	1.500	2.02	4.10	0.485	1.875
C2501-L-32-32-FG	2	2-1/2-12	2-11 1/2	1.813	1.938	2.45	4.81	0.485	2.500

Flareless Bite Type Fittings

BT-MP Elbow 90° X-Long C2501-LL Series

SAE# 081602

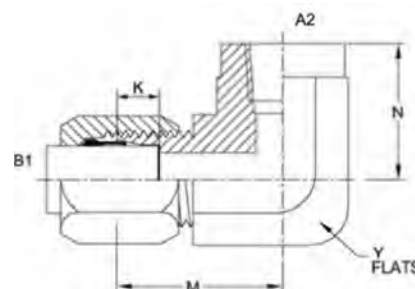


PART NO.SIZE	TUBE O.D.	B1 THREAD	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	N LGTH	K DEPTH	Y FLATS
C2501-LL-04-02-FG	1/4	7/16-20	1/8-27	0.203	0.188	0.89	1.56	0.234	0.438
C2501-LL-04-04-FG	1/4	7/16-20	1/4-18	0.203	0.281	1.03	2.07	0.234	0.562
C2501-LL-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.188	0.95	1.63	0.250	0.562
C2501-LL-06-04-FG	3/8	9/16-18	1/4-18	0.281	0.281	1.05	2.07	0.250	0.562
C2501-LL-08-06-FG	1/2	3/4-16	3/8-18	0.422	0.406	1.25	2.42	0.305	0.750
C2501-LL-10-08-FG	5/8	7/8-14	1/2-14	0.500	0.531	1.42	2.87	0.350	0.875
C2501-LL-12-12-FG	3/4	1-1/16-12	3/4-14	0.656	0.719	1.58	3.28	0.350	1.062
C2501-LL-16-16-FG	1	1-5/16-12	1-1 1/2	0.875	0.938	1.73	4.05	0.415	1.312
C2501-LL-20-20-FG	1-1/4	1-5/8-12	1-1/4-11 1/2	1.093	1.250	1.89	5.00	0.415	1.625
C2501-LL-24-24-FG	1-1/2	1-7/8-12	1-1/2-11 1/2	1.344	1.500	2.02	5.55	0.485	1.875
C2501-LL-32-32-FG	2	2-1/2-12	2-1 1/2	1.813	1.938	2.45	6.63	0.485	2.500

E-010

BT-FP Elbow 90° C2502 Series

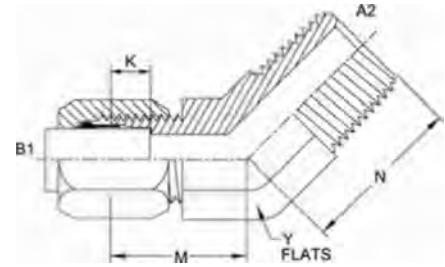
SAE# 080203 / MS# 51813



PART NO.SIZE	TUBE O.D.	B1 THREAD	A2 NPTF	B1 DRILL	M LGTH	N LGTH	K DEPTH	Y FLATS
C2502-04-02-FG	1/4	7/16-20	1/8-27	0.203	0.89	0.66	0.234	0.562
C2502-04-04-FG	1/4	7/16-20	1/4-18	0.203	1.03	0.88	0.234	0.750
C2502-05-02-FG	5/16	1/2-20	1/8-27	0.234	0.95	0.66	0.250	0.562
C2502-06-04-FG	3/8	9/16-18	1/4-18	0.281	1.05	0.88	0.250	0.750
C2502-06-06-FG	3/8	9/16-18	3/8-18	0.281	1.12	1.02	0.250	0.875
C2502-08-04-FG	1/2	3/4-16	1/4-18	0.422	1.23	1.02	0.305	0.875
C2502-08-06-FG	1/2	3/4-16	3/8-18	0.422	1.23	1.02	0.305	0.875
C2502-08-08-FG	1/2	3/4-16	1/2-14	0.422	1.35	1.23	0.305	1.062
C2502-10-08-FG	5/8	7/8-14	1/2-14	0.500	1.42	1.23	0.350	1.062
C2502-12-12-FG	3/4	1-1/16-12	3/4-14	0.656	1.58	1.36	0.350	1.312
C2502-16-16-FG	1	1-5/16-12	1-1 1/2	0.875	1.73	1.62	0.415	1.625
C2502-20-20-FG	1-1/4	1-5/8-12	1-1/4-11 1/2	1.093	2.08	1.70	0.415	1.875
C2502-24-24-FG	1-1/2	1-7/8-12	1-1/2-11 1/2	1.344	2.58	2.08	0.485	2.562

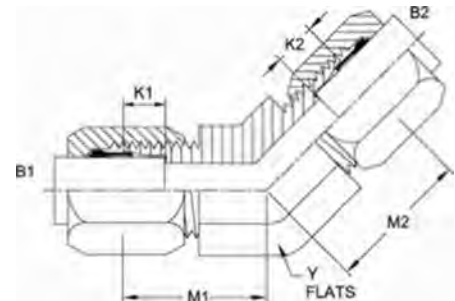
BT-MP Elbow 45° C2503 Series

SAE# 080302 / MS# 51817



PART NO.SIZE	TUBE O.D.	B1 THREAD	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	N LGTH	K DEPTH	Y FLATS
C250304-02-FG	1/4	7/16-20	1/8-27	0.203	0.188	0.70	0.64	0.234	0.438
C250304-04-FG	1/4	7/16-20	1/4-18	0.203	0.281	0.81	0.86	0.234	0.562
C2503-06-04-FG	3/8	9/16-18	1/4-18	0.281	0.281	0.83	0.86	0.250	0.562
C2503-06-06-FG	3/8	9/16-18	3/8-18	0.281	0.406	0.87	0.95	0.250	0.750
C2503-06-08-FG	3/8	9/16-18	1/2-14	0.281	0.531	0.90	1.17	0.250	0.875
C2503-08-06-FG	1/2	3/4-16	3/8-18	0.422	0.406	0.98	0.95	0.305	0.750
C2503-08-08-FG	1/2	3/4-16	1/2-14	0.422	0.531	1.01	1.17	0.305	0.875
C2503-08-12-FG	1/2	3/4-16	3/4-14	0.422	0.719	1.12	1.20	0.305	1.062
C2503-10-06-FG	5/8	7/8-14	3/8-18	0.500	0.406	1.08	0.98	0.350	0.875
C2503-10-08-FG	5/8	7/8-14	1/2-14	0.500	0.531	1.08	1.17	0.350	0.875
C2503-12-08-FG	3/4	1-1/16-12	1/2-14	0.656	0.531	1.27	1.20	0.350	1.062
C2503-12-12-FG	3/4	1-1/16-12	3/4-14	0.656	0.719	1.27	1.20	0.350	1.062
C2503-16-16-FG	1	1-5/16-12	1-11 1/2	0.875	0.938	1.36	1.48	0.415	1.312
C2503-20-20-FG	1-1/4	1-5/8-12	1-1/4-11 1/2	1.093	1.250	1.45	1.67	0.415	1.625

BT-BT Elbow 45° C2504 Series

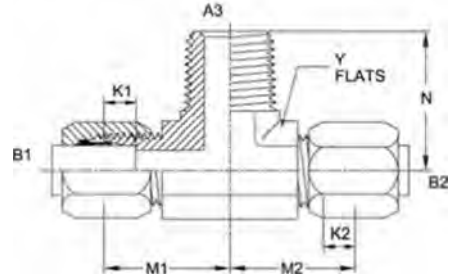


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	M1 LGTH	M2 LGTH	K1 DEPTH	K2 DEPTH	Y FLATS
C2504-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	1.27	1.27	0.350	0.350	1.062
C2504-16-16-FG	1	1-5/16-12	1-5/16-12	0.875	0.875	1.36	1.36	0.415	0.415	1.312
C2504-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	1.45	1.45	0.415	0.415	1.625

Flareless Bite Type Fittings

BT-BT-MP Tee C2601 Series

SAE# 080425 / MS#51818

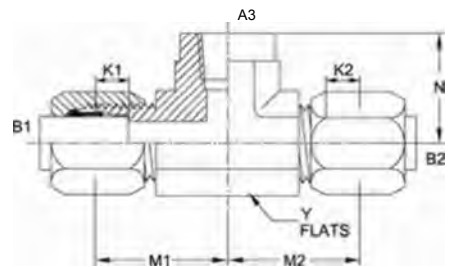


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	A3 NPTF	B1 DRILL	B2 DRILL	A3 DRILL	M1 LBTH	M2 LBTH	N LGTH	K1 DEPTH	K2 DEPTH	Y FLATS
C2601-02-02-02-FG	1/8	5/16-24	5/16-24	1/8-27	0.093	0.093	0.188	0.77	0.77	0.72	0.188	0.188	0.438
C2601-04-04-02-FG	1/4	7/16-20	7/16-20	1/8-27	0.203	0.203	0.188	0.89	0.89	0.78	0.234	0.234	0.438
C2601-04-04-04-FG	1/4	7/16-20	7/16-20	1/4-18	0.203	0.203	0.281	1.03	1.03	1.09	0.234	0.234	0.562
C2601-05-05-02-FG	5/16	1/2-20	1/2-20	1/8-27	0.234	0.234	0.188	0.95	0.95	0.81	0.250	0.250	0.562
C2601-06-06-04-FG	3/8	9/16-18	9/16-18	1/4-18	0.281	0.281	0.281	1.05	1.05	1.09	0.250	0.250	0.562
C2601-06-06-06-FG	3/8	9/16-18	9/16-18	3/8-18	0.281	0.281	0.406	1.14	1.14	1.22	0.250	0.250	0.750
C2601-08-08-06-FG	1/2	3/4-16	3/4-16	3/8-18	0.422	0.422	0.406	1.25	1.25	1.22	0.305	0.305	0.750
C2601-08-08-08-FG	1/2	3/4-16	3/4-16	1/2-14	0.422	0.422	0.531	1.35	1.35	1.47	0.305	0.305	0.875
C2601-10-10-08-FG	5/8	7/8-14	7/8-14	1/2-14	0.500	0.500	0.531	1.42	1.42	1.47	0.350	0.350	0.875
C2601-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	3/4-14	0.656	0.656	0.719	1.58	1.58	1.59	0.350	0.350	1.062
C2601-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-11/16-12	0.875	0.875	0.938	1.73	1.73	1.97	0.415	0.415	1.312

E-012

BT-BT-FP Tee C2602 Series

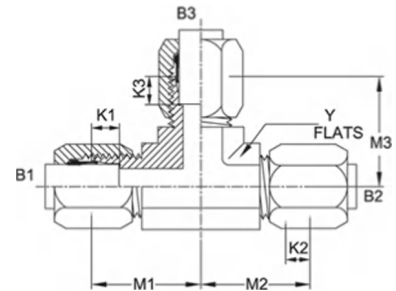
SAE# 080427 / MS#51821



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	A3 NPTF	B1 DRILL	B2 DRILL	M1 LGTH	M2 LGTH	N LGTH	K1 DEPTH	K2 DEPTH	Y FLATS
C2602-04-04-02-FG	1/4	7/16-20	7/16-20	1/8-27	0.203	0.203	0.89	0.89	0.66	0.234	0.234	0.562
C2602-04-04-04-FG	1/4	7/16-20	7/16-20	1/4-18	0.203	0.203	1.03	1.03	0.88	0.234	0.234	0.750
C2602-06-06-04-FG	3/8	9/16-18	9/16-18	1/4-18	0.281	0.281	1.05	1.05	0.88	0.250	0.250	0.750
C2602-06-06-06-FG	1/2	3/4-16	3/4-16	3/8-18	0.422	0.422	1.23	1.23	1.02	0.305	0.305	0.875
C2602-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.422	0.422	1.35	1.35	1.23	0.305	0.305	1.062
C2602-10-10-08-FG	5/8	7/8-14	7/8-14	1/2-14	0.500	0.500	1.42	1.42	1.23	0.350	0.350	1.062
C2602-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	3/4-14	0.656	0.656	1.58	1.58	1.36	0.350	0.350	1.312
C2602-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-11/16-12	0.875	0.875	1.73	1.73	1.62	0.415	0.415	1.625
C2602-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-11/4-11 1/2	1.093	1.093	2.08	2.08	1.70	0.415	0.415	1.875

BT-BT-BT Tee C2603 Series

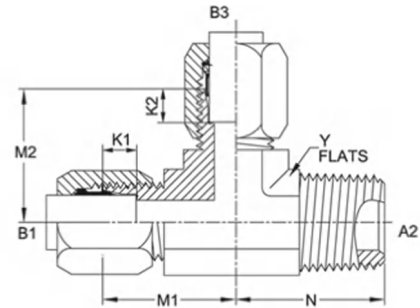
SAE# 080401 / MS#51811



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B1 DRILL	B2 DRILL	B3 DRILL	M1 LGTH	M2 LGTH	M3 LGTH	K1 DEPTH	K2 DEPTH	K3 DEPTH	Y FLATS
C2603-02-02-02-FG	1/8	5/16-24	5/16-24	5/16-24	0.093	0.093	0.093	0.77	0.77	0.77	0.188	0.188	0.188	0.438
C2603-03-03-03-FG	3/16	3/8-24	3/8-24	3/8-24	0.125	0.125	0.125	0.83	0.83	0.83	0.234	0.234	0.234	0.438
C2603-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.203	0.203	0.203	0.89	0.89	0.89	0.234	0.234	0.234	0.438
C2603-05-05-05-FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.95	0.95	0.250	0.250	0.250	0.562
C2603-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.281	0.281	0.281	1.05	1.05	1.05	0.250	0.250	0.250	0.562
C2603-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.422	0.422	0.422	1.25	1.25	1.25	0.305	0.305	0.305	0.750
C2603-10-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	0.500	0.500	0.500	1.42	1.42	1.42	0.350	0.350	0.350	0.875
C2603-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.656	0.656	0.656	1.58	1.58	1.58	0.350	0.350	0.350	1.062
C2603-14-14-14-FG	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.66	1.66	1.66	0.350	0.350	0.350	1.312
C2603-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.875	0.875	0.875	1.73	1.73	1.73	0.415	0.415	0.415	1.312
C2603-20-20-16-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/16-12	1.093	1.093	0.875	1.89	1.89	1.89	0.415	0.415	0.415	1.625
C2603-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.093	1.093	1.093	1.89	1.89	1.89	0.415	0.415	0.415	1.625
C2603-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.344	1.344	1.344	2.02	2.02	2.02	0.485	0.485	0.485	1.875
C2603-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	1.813	1.813	1.813	2.45	2.45	2.45	0.485	0.485	0.485	2.500

BT-MP-BT Tee C2605 Series

SAE# 080424 / MS#51824

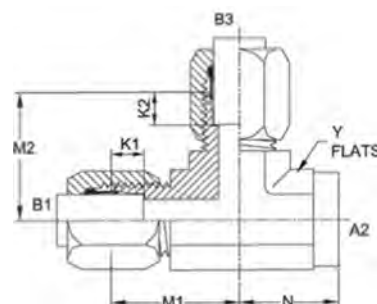


PART NO.SIZE	TUBE O.D.	B1 THREAD	A2 NPTF	B3 THREAD	B1 DRILL	A2 DRILL	B3 DRILL	M1 LGTH	N LGTH	M2 LGTH	K1 DEPTH	K2 DEPTH	Y FLATS
C2605-04-02-04-FG	1/4	7/16-20	1/8-27	7/16-20	0.203	0.188	0.203	0.89	0.78	0.89	0.234	0.234	0.438
C2605-04-04-04-FG	1/4	7/16-20	1/4-18	7/16-20	0.203	0.281	0.203	1.03	1.09	1.03	0.234	0.234	0.562
C2605-05-02-05-FG	5/16	1/2-20	1/8-27	1/2-20	0.234	0.188	0.234	0.95	0.81	0.95	0.250	0.250	0.562
C2605-06-04-06-FG	3/8	9/16-18	1/4-18	9/16-18	0.281	0.281	0.281	1.05	1.09	1.05	0.250	0.250	0.562
C2605-06-06-06-FG	3/8	9/16-18	3/8-18	9/16-18	0.281	0.406	0.281	1.14	1.22	1.14	0.250	0.250	0.750
C2605-06-06-08-FG	1/2	3/4-16	3/8-18	3/4-16	0.281	0.406	0.422	1.14	1.22	1.25	0.250	0.305	0.750
C2605-08-08-08-FG	1/2	3/4-16	1/2-14	3/4-16	0.422	0.531	0.422	1.35	1.47	1.35	0.305	0.305	0.875
C2605-10-08-10-FG	5/8	7/8-14	1/2-14	7/8-14	0.500	0.531	0.500	1.42	1.47	1.42	0.350	0.350	0.875
C2605-12-12-12-FG	3/4	1-1/16-12	3/4-14	1-1/16-12	0.656	0.719	0.656	1.58	1.59	1.58	0.350	0.350	1.062
C2605-16-16-16-FG	1	1-5/16-12	1-11/16-12	1-5/16-12	0.875	0.938	0.875	1.73	1.97	1.73	0.415	0.415	1.312

Flareless Bite Type Fittings

BT-FP-BT Tee C2606 Series

SAE# 080426 / MS#51822

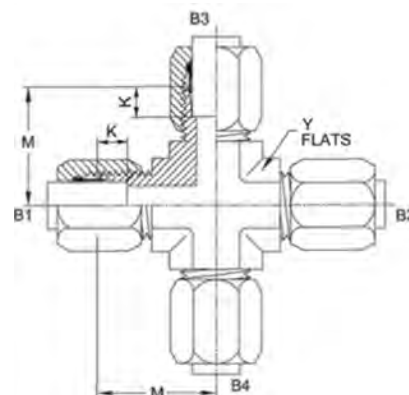


PART NO.SIZE	TUBE O.D.	B1 THREAD	A2 NPTF	B3 THREAD	B1 DRILL	B3 DRILL	MI LBTH	N LGTH	MZ LGTH	K1 DEPTH	K2 DEPTH	Y FLATS
C2606-04-02-04-FG	1/4	7/16-20	1/8-27	7/16-20	0.203	0.203	0.89	0.66	0.89	0.234	0.234	0.562
C2606-06-04-06-FG	3/8	9/16-18	1/4-18	9/16-18	0.281	0.281	1.05	0.88	1.05	0.250	0.250	0.750
C2606-08-06-08-FG	1/2	3/4-16	3/8-18	3/4-16	0.422	0.422	1.23	1.02	1.23	0.305	0.305	0.875
C2606-10-08-10-FG	5/8	7/8-14	1/2-14	7/8-14	0.500	0.500	1.42	1.23	1.42	0.350	0.350	1.062
C2606-12-12-12-FG	3/4	1-1/16-12	3/4-14	1-1/16-12	0.656	0.656	1.58	1.36	1.58	0.350	0.350	1.312
C2606-16-16-16-FG	1	1-5/16-12	1-1/2	1-5/16-12	0.875	0.875	1.73	1.62	1.73	0.415	0.415	1.625

E-014

BT-BT-BT-BT Cross C2650 Series

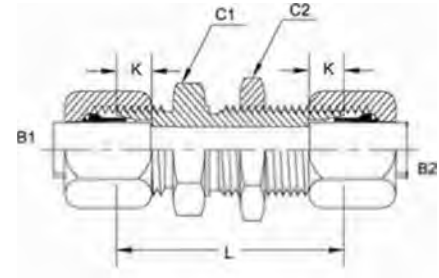
SAE# 080501 / M S # 51894



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B4 THREAD	B1 DRILL	M LCTH	K DEPTH	Y FLATS
C2650-04-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	7/16-20	0.203	0.89	0.234	0.438
C2650-06-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	9/16-18	0.281	1.05	0.250	0.562
C2650-08-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	3/4-16	0.422	1.25	0.305	0.750
C2650-10-10-10-10-FG	5/8	7/8-14	7/8-14	7/8-14	7/8-14	0.500	1.42	0.350	0.875
C2650-16-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	1-5/16-12	0.875	1.73	0.415	1.312
C2650-20-20-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1-5/8-12	1.093	1.89	0.415	1.625
C2650-24-24-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1-7/8-12	1.344	2.02	0.485	1.875
C2650-32-32-32-32-FG	2	2-1/2-12	2-1/2-12	2-1/2-12	2-1/2-12	1.813	2.45	0.485	2.500

BT-BT Bulkhead Union C2700 Series

SAE# 080601

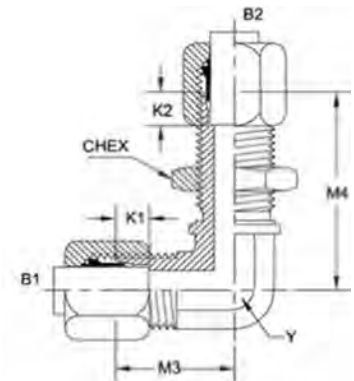


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	K DEPTH	I LGTH	C1 HEX	C2 HEX
C2700-04-04	1/4	7/16-20	7/16-20	0.203	0.203	0.234	1.89	0.688	0.688
C2700-06-06	3/8	9/16-18	9/16-18	0.281	0.281	0.250	1.98	0.813	0.812
C2700-08-08	1/2	3/4-16	3/4-16	0.422	0.422	0.305	2.22	1.000	1.000
C2700-10-10	5/8	7/8-14	7/8-14	0.500	0.500	0.350	2.48	1.125	1.125
C2700-12-12	3/4	1-1/16-12	1-1/16-12	0.656	0.656	0.350	2.72	1.375	1.375
C2700-16-16	1	1-5/16-12	1-5/16-12	0.875	0.875	0.415	2.72	1.625	1.625

E-015

BT-BT Bulkhead Union 90° C2701 Series

SAE# 080701 / MS# 51855

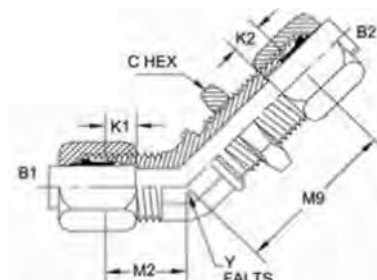


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	M3 LGTH	M4 LGTH	K1 DEPTH	K2 DEPTH	C HEX	Y FLATS
C2701-03-03-FG	3/16	3/8-24	3/8-24	0.125	0.125	0.94	1.44	0.234	0.234	0.625	0.438
C2701-04-04-FG	1/4	7/16-20	7/16-20	0.203	0.203	0.95	1.52	0.234	0.234	0.688	0.438
C2701-06-06-FG	3/8	9/16-18	9/16-18	0.281	0.281	1.08	1.70	0.250	0.250	0.813	0.562
C2701-08-08-FG	1/2	3/4-16	3/4-16	0.422	0.422	1.33	1.97	0.305	0.305	1.000	0.750
C2701-10-10-FG	5/8	7/8-14	7/8-14	0.500	0.500	1.52	2.27	0.350	0.350	1.125	0.875
C2701-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	1.64	2.48	0.350	0.350	1.375	1.062
C2701-16-16-FG	1	1-5/16-12	1-5/16-12	0.875	0.875	1.73	2.61	0.415	0.415	1.625	1.312
C2701-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	2.02	2.89	0.415	0.415	2.000	1.625

Flareless Bite Type Fittings

BT-BT Bulkhead Union 45° C2702 Series

SAE# 080801

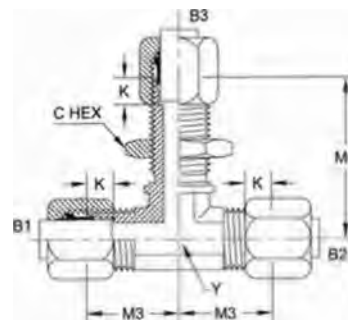


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	M2 LGTH	M9 LGTH	K1 DEPTH	K2 DEPTH	C HEX	Y FLATS
C2702-04-04-FG	1/4	7/16-20	7/16-20	0.203	0.203	0.70	1.45	0.234	0.234	0.688	0.438
C2702-06-06-FG	3/8	9/16-18	9/16-18	0.281	0.281	0.83	1.56	0.250	0.250	0.813	0.562
C2702-08-08-FG	1/2	3/4-16	3/4-16	0.422	0.422	0.98	1.81	0.305	0.305	1.000	0.750
C2702-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	1.27	2.25	0.350	0.350	1.375	1.062

E-016

BT-BT-BT Bulkhead Branch Tee C2703 Series

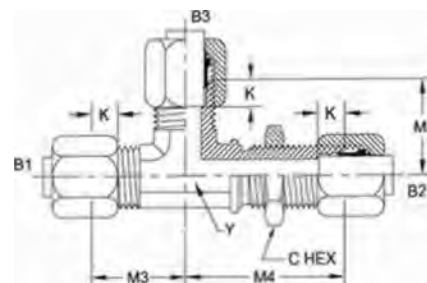
SAE# 080959



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B1 DRILL	B2 DRILL	B3 DRILL	K DEPTH	M3 LGTH	M4 LGTH	C HEX	Y FLATS
C2703-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.203	0.203	0.203	0.234	0.95	1.52	0.688	0.438
C2703-05-05-05-FG	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.250	1.05	1.66	0.750	0.562
C2703-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.281	0.281	0.281	0.250	1.08	1.70	0.813	0.562
C2703-10-10-10-FG	1/2	7/8-14	7/8-14	7/8-14	0.500	0.500	0.500	0.350	1.52	2.27	1.125	0.875
C2703-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.656	0.656	0.656	0.350	1.64	2.48	1.375	1.062

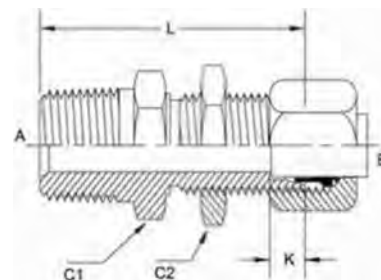
BT-BT-BT Bulkhead Run Tee C2704 Series

SAE# 080958



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B1 DRILL	B2 DRILL	B3 DRILL	K DEPTH	M3 LGTH	M4 LGTH	C HEX	Y FLATS
C2704-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.203	0.203	0.203	0.234	0.95	1.52	0.688	0.438
C2704-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.281	0.281	0.281	0.250	1.08	1.70	0.813	0.562
C2704-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.422	0.422	0.422	0.305	1.33	1.97	1.000	0.750
C2704-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.656	0.656	0.656	0.350	1.64	2.48	1.375	1.062

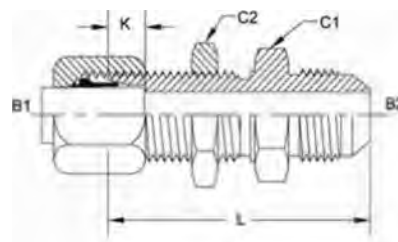
MP-BT Bulkhead C2706 Series



PART NO.SIZE	TUBE O.D.	A NPTF	B THREAD	A DRILL	B DRILL	L LGTH	K DEPTH	C1 HEX	C2 HEX
C2706-02-04	1/4	1/8-27	7/16-20	0.188	0.203	1.77	0.234	0.688	0.688
C2706-04-04	1/4	1/4-18	7/16-20	0.281	0.203	1.98	0.234	0.688	0.688
C2706-04-06	3/8	1/4-18	9/16-18	0.281	0.281	2.03	0.250	0.812	0.812
C2706-06-06	3/8	3/8-18	9/16-18	0.406	0.281	2.03	0.250	0.812	0.812
C2706-08-06	3/8	1/2-14	9/16-18	0.531	0.281	2.28	0.250	0.875	0.875
C2706-08-08	1/2	1/2-14	3/4-16	0.531	0.422	2.42	0.305	1.000	1.000
C2706-12-12	3/4	3/4-14	1-1/16-12	0.719	0.656	2.74	0.350	1.375	1.375
C2706-16-16	1	1-11-1/2	1-5/16-12	0.938	0.875	2.93	0.415	1.625	1.625

E-017

BT-MJ Bulkhead C2707 Series

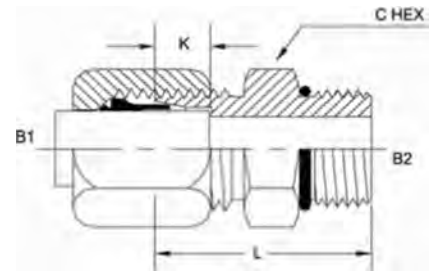


PART NO.SIZE	TUBE D.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	K DEPTH	L LGTH	C1 HEX	C2 HEX
C2707-04-04	1/4	7/16-20	7/16-20	0.203	0.172	0.234	1.94	0.688	0.688
C2707-06-06	3/8	9/16-18	9/16-18	0.281	0.297	0.250	2.08	0.812	0.812
C2707-08-08	1/2	3/4-16	3/4-16	0.422	0.391	0.305	2.31	1.000	1.000
C2707-12-12	3/4	1-1/16-12	1-1/16-12	0.656	0.609	0.350	2.94	1.375	1.375
C2707-16-16	1	1-5/16-12	1-5/16-12	0.875	0.844	0.415	2.95	1.625	1.625

Flareless Bite Type Fittings

BT-MORB C6400-0 Series

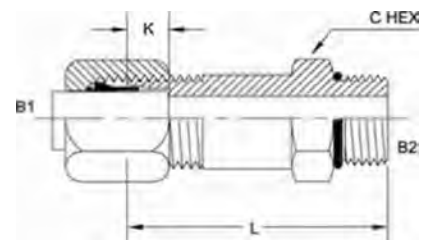
SAE # 080120 / MS # 51843



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	K DEPTH	L LBTH	C HEX
C6400-02-02-0	1/8	5/16-24	5/16-24	0.093	0.093	0.188	0.99	0.438
C6400-03-03-0	3/16	3/8-24	3/8-24	0.125	0.125	0.234	1.04	0.500
C6400-04-04-0	1/4	7/16-20	7/16-20	0.203	0.203	0.234	1.13	0.562
C6400-04-05-0	1/4 5/16	7/16-20	1/2-20	0.203	0.234	0.234	1.13	0.625
C6400-04-06-0	1/4 3/8	7/16-20	9/16-18	0.203	0.281	0.234	1.19	0.688
C6400-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	0.250	1.13	0.625
C6400-06-04-0	3/8 1/4	9/16-18	7/16-20	0.281	0.203	0.250	1.24	0.688
C6400-06-05-0	3/8 5/16	9/16-18	1/2-20	0.281	0.234	0.250	1.24	0.688
C6400-06-06-0	3/8	9/16-18	9/16-18	0.281	0.281	0.250	1.21	0.688
C6400-06-08-0	3/8 1/2	9/16-18	3/4-16	0.281	0.422	0.250	1.29	0.875
C6400-08-06-0	1/2 3/8	3/4-16	9/16-18	0.422	0.281	0.305	1.42	0.875
C6400-08-08-0	1/2	3/4-16	3/4-16	0.422	0.422	0.305	1.38	0.875
C6400-08-10-0	1/2 5/8	3/4-16	7/8-14	0.422	0.500	0.305	1.51	1.000
C6400-08-12-0	1/2 3/4	3/4-16	1-1/16-12	0.422	0.656	0.305	1.67	1.250
C6400-10-10-0	5/8	7/8-14	7/8-14	0.500	0.500	0.350	1.57	1.000
C6400-12-08-0	3/4 1/2	1-1/16-12	3/4-16	0.656	0.422	0.350	1.82	1.250
C6400-12-12-0	3/4	1-1/16-12	1-1/16-12	0.656	0.656	0.350	1.79	1.250
C6400-12-16-0	3/4 1	1-1/16-12	1-5/16-12	0.656	0.875	0.350	1.82	1.500
C6400-16-12-0	1-3/4	1-5/16-12	1-1/16-12	0.875	0.656	0.415	1.82	1.500
C6400-16-16-0	1	1-5/16-12	1-5/16-12	0.875	0.875	0.415	1.82	1.500
C6400-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	0.415	1.90	1.875
C6400-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.344	1.344	0.485	1.97	2.125
C6400-32-32-0	2	2-1/2-12	2-1/2-12	1.813	1.813	0.485	2.13	2.750

E-018

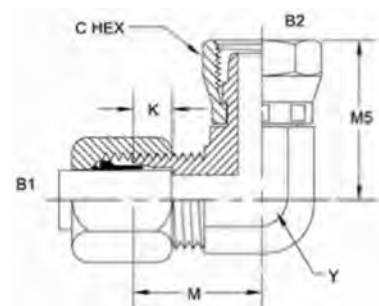
BT-MORB Long C6400-L-0 Series



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	K DEPTH	L LGTH	G HEX
C6400-L-04-04-0	1/4	7/16-20	7/16-20	0.203	0.203	0.234	2.02	0.562
C6400-L-06-06-0	3/8	9/16-18	9/16-18	0.281	0.281	0.250	2.23	0.688
C6400-L-08-08-0	1/2	3/4-16	3/4-16	0.422	0.422	0.305	2.62	0.875
C6400-L-10-10-0	5/8	7/8-14	7/8-14	0.500	0.500	0.350	2.98	1.000
C6400-L-12-12-0	3/4	1-1/16-12	1-1/16-12	0.656	0.656	0.350	3.53	1.250
C6400-L-16-16-0	1	1-5/16-12	1-5/16-12	0.875	0.875	0.415	3.91	1.500

BT-BTS 90° C6500 Series

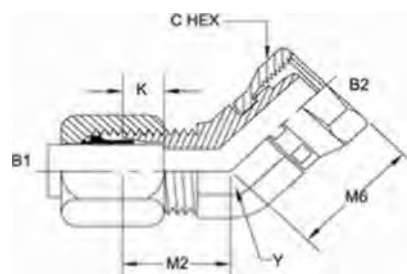
SAE# 080221 / MS# 51852



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	X DEPTH	M LGTH	M5 LGTH	C HEX	Y FLATS
C6500-04-04-FG	1/4	7/16-20	7/16-20	0.203	0.203	0.234	0.89	1.05	0.562	0.438
C6500-06-06-FG	3/8	9/16-18	9/16-18	0.281	0.281	0.250	1.05	1.28	0.688	0.562
C6500-08-08-FG	1/2	3/4-16	3/4-16	0.422	0.422	0.305	1.25	1.47	0.875	0.750
C6500-10-10-FG	5/8	7/8-14	7/8-14	0.500	0.500	0.350	1.42	1.61	1.000	0.875
C6500-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	0.350	1.58	1.77	1.250	1.062
C6500-16-16-FG	1	1-5/16-12	1-5/16-12	0.875	0.875	0.415	1.73	1.86	1.500	1.312
C6500-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	0.415	1.89	2.08	2.000	1.625

BT-BTS 45° C6502 Series

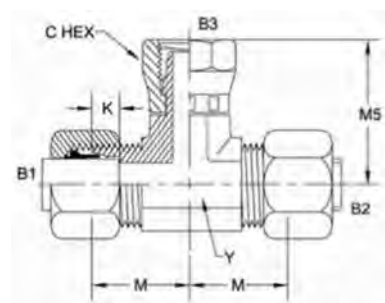
SAE# 080321



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	X DEPTH	M2 LGTH	M6 LGTH	C HEX	Y FLATS
C6502-04-04-FG	1/4	7/16-20	7/16-20	0.203	0.203	0.234	0.70	0.98	0.562	0.438
C6502-06-06-FG	3/8	9/16-18	9/16-18	0.281	0.281	0.25	0.83	1.20	0.688	0.562
C6502-08-08-FG	1/2	3/4-16	3/4-16	0.422	0.422	0.305	0.98	1.33	0.875	0.750
C6502-12-12-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	0.35	1.27	1.61	1.250	1.062
C6502-16-16-FG	1	1-5/16-12	1-5/16-12	0.875	0.875	0.415	1.36	1.70	1.500	1.312
C6502-20-20-FG	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	0.415	1.45	1.80	2.000	1.625
C6502-24-24-FG	1-1/2	1-7/8-12	1-7/8-12	1.344	1.344	0.485	1.52	1.92	2.250	1.875

BT-BT-BTS Tee C6600 Series

SAE# 080433 / MS# 51853

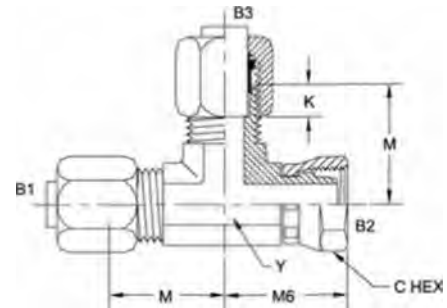


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B1 DRILL	B2 DRILL	B3 DRILL	X DEPTH	M LGTH	M5 LGTH	C HEX	Y FLATS
C6600-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.203	0.203	0.203	0.234	0.89	1.05	0.562	0.438
C6600-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.281	0.281	0.281	0.250	1.05	1.28	0.688	0.562
C6600-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.422	0.422	0.422	0.305	1.25	1.47	0.875	0.750
C6600-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.656	0.656	0.656	0.350	1.58	1.77	1.250	1.062

Flareless Bite Type Fittings

BT-BTS-BT Tee C6602 Series

SAE# 080432 / MS# 51854

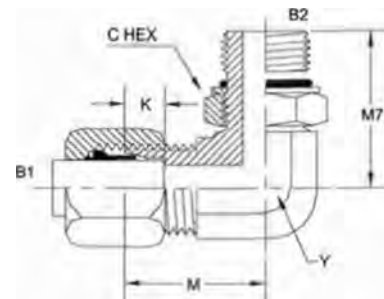


PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B1 DRILL	B2 DRILL	B3 DRILL	K DEPTH	M LGTH	M6 LGTH	C HEX	Y FLATS
C6602-04-04-04-FG	1/4	7/16-20	7/16-20	7/16-20	0.203	0.203	0.203	0.234	0.89	1.05	0.562	0.438
C6602-06-06-06-FG	3/8	9/16-18	9/16-18	9/16-18	0.281	0.281	0.281	0.250	1.05	1.28	0.688	0.562
C6602-08-08-08-FG	1/2	3/4-16	3/4-16	3/4-16	0.422	0.422	0.422	0.305	1.25	1.47	0.875	0.750
C6602-12-12-12-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.656	0.656	0.656	0.350	1.58	1.77	1.250	1.062
C6602-16-16-16-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.875	0.875	0.875	0.415	1.73	1.86	1.500	1.312

E-020

BT-MAORB 90° C6801-NWO Series

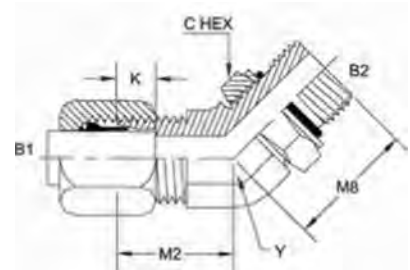
SAE# 080220 / MS# 51539



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	K DEPTH	M LGTH	M7 LGTH	C HEX	Y FLATS
C6801-03-03-NWO-FG	3/16	3/8-24	3/8-24	0.125	0.125	0.234	0.83	0.94	0.500	0.438
C6801-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.203	0.203	0.234	0.89	1.03	0.562	0.438
C6801-05-05-NWO-FG	5/16	1/2-20	1/2-20	0.234	0.234	0.250	0.95	1.13	0.625	0.562
C6801-06-04-NWO-FG	3/8	9/16-18	7/16-20	0.281	0.203	0.250	1.05	1.19	0.562	0.562
C6801-06-06-N WO-FG	3/8	9/16-18	9/16-18	0.281	0.281	0.250	1.05	1.25	0.688	0.562
C6801-06-08-NWO-FG	3/8	9/16-18	3/4-16	0.281	0.422	0.250	1.14	1.45	0.875	0.750
C6801-08-06-NWO-FG	1/2	3/4-16	9/16-18	0.422	0.281	0.305	1.25	1.32	0.688	0.750
C6801-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.422	0.422	0.305	1.25	1.45	0.875	0.750
C6801-08-10-N WO-FG	1/2	3/4-16	7/8-14	0.422	0.500	0.305	1.35	1.70	1.000	0.875
C6801-08-12-N WO-FG	1/2	3/4-16	1-1/16-12	0.422	0.656	0.305	1.43	1.94	1.250	1.062
C6801-10-10-N WO-FG	5/8	7/8-14	7/8-14	0.500	0.500	0.350	1.42	1.70	1.000	0.875
C6801-12-08-N WO-FG	3/4	1-1/16-12	3/4-16	0.656	0.422	0.350	1.58	1.62	0.875	1.062
C6801-12-10-N WO-FG	3/4	1-1/16-12	7/8-14	0.656	0.500	0.350	1.58	1.78	1.000	1.062
C6801-12-12-N WO-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	0.350	1.58	1.94	1.250	1.062
C6801-12-16-N WO-FG	3/4	1-1/16-12	1-5/16-12	0.656	0.875	0.350	1.73	2.05	1.500	1.312
C6801-16-12-N WO-FG	1	1-5/16-12	1-1/16-12	0.875	0.656	0.415	1.73	2.05	1.250	1.312
C6801-16-16-N WO-FG	1	1-5/16-12	1-5/16-12	0.875	0.875	0.415	1.73	2.05	1.500	1.312
C6801-20-20-NWO-FG	1-1/4	1-5/8-12	1-5/8-12	1.093	1.093	0.415	1.89	2.25	1.875	1.625
C6801-24-24-N WO-FG	1-1/2	1-7/8-12	1-7/8-12	1.344	1.344	0.485	2.02	2.39	2.125	1.875

BT-MAORB 45° C6802-NWO Series

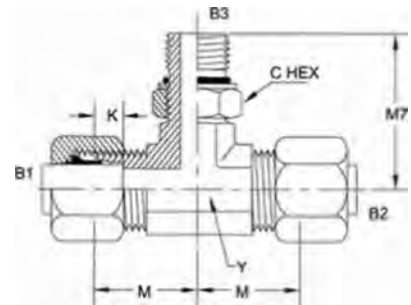
SAE# 080320 / MS# 51842



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B1 DRILL	B2 DRILL	K DEPTH	M2 LETH	MB LGTH	C HEX	Y FLATS
C6802-04-04-NWO-FG	1/4	7/16-20	7/16-20	0.203	0.203	0.234	0.70	1.05	0.562	0.438
C6802-06-06-NWO-FG	3/8	9/16-18	9/16-18	0.281	0.281	0.250	0.83	1.14	0.688	0.562
C6802-08-08-NWO-FG	1/2	3/4-16	3/4-16	0.422	0.422	0.305	0.98	1.30	0.875	0.750
C6802-10-10-NWO-FG	5/8	7/8-14	7/8-14	0.500	0.500	0.350	1.08	1.52	1.000	0.875
C6802-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	0.656	0.656	0.350	1.27	1.73	1.250	1.062
C6802-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	0.875	0.875	0.415	1.36	1.86	1.500	1.312

BT-BT-MAORB Tee C6803-NWO Series

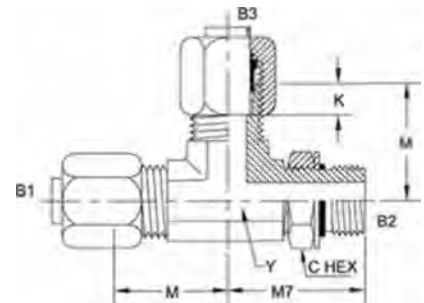
SAE# 080429 / MS# 51841



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B1 DRILL	B2 DRILL	B3 DRILL	X DEPTH	M LGTH	M7 LGTH	C HEX	Y FLATS
C6803-04-04-04-NWO-FG	1/4	7/16-20	7/16-20	7/16-20	0.203	0.203	0.203	0.234	0.89	1.03	0.562	0.438
C6803-06-06-06-NWO-FG	3/8	9/16-18	9/16-18	9/16-18	0.281	0.281	0.281	0.250	1.05	1.25	0.688	0.562
C6803-08-08-08-NWO-FG	1/2	3/4-16	3/4-16	3/4-16	0.422	0.422	0.422	0.305	1.25	1.45	0.875	0.750
C6803-12-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.656	0.656	0.656	0.350	1.58	1.94	1.250	1.062
C6803-16-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.875	0.875	0.875	0.415	1.73	2.05	1.500	1.312

BT-MAORB-BT Tee C6804-NWO Series

SAE# 080428 / MS# 51892



PART NO.SIZE	TUBE O.D.	B1 THREAD	B2 THREAD	B3 THREAD	B1 DRILL	B2 DRILL	B3 DRILL	K DEPTH	M LGTH	M7 LGTH	C HEX	Y FLATS
C6804-04-04-04-NWO-FG	1/4	7/16-20	7/16-20	7/16-20	0.203	0.203	0.203	0.234	0.89	1.03	0.562	0.438
C6804-06-06-06-NWO-FG	3/8	9/16-18	9/16-18	9/16-18	0.281	0.281	0.281	0.250	1.05	1.25	0.688	0.562
C6804-08-08-08-NWO-FG	1/2	3/4-16	3/4-16	3/4-16	0.422	0.422	0.422	0.305	1.25	1.45	0.875	0.750
C6804-10-10-10-NWO-FG	5/8	7/8-14	7/8-14	7/8-14	0.500	0.500	0.500	0.350	1.42	1.70	1.000	0.875
C6804-12-12-12-NWO-FG	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.656	0.656	0.656	0.350	1.58	1.94	1.250	1.062
C6804-16-16-16-NWO-FG	1	1-5/16-12	1-5/16-12	1-5/16-12	0.875	0.875	0.875	0.415	1.73	2.05	1.500	1.312

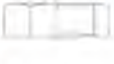


Metric Bite Type Fittings

Metric Bite Type Fittings

Brennan Industries Inc manufactures its Din fittings in accordance to the Din 2353 and ISO 8434-1 in hot forged steel and upon request stainless steel and brass.

F-001

 D8002 Hexagonal Bulkhead Nut	 D8003 Tube Plug	 D8004 Tube Cap	 D8005 Single Bite Ring	 D8006 Double Bite Ring	 D8007 DiNova Bite Ring
 D8008 Tube Nut	 D8020 Gauge Coupling BSP Body Only	 D8020-NBR Gauge Coupling BSP	 D8021 Gauge Coupling Male Stud Standpipe Type	 D8030-NBR Straight Male Stud Coupling Metric Parallel Sealing Bite	 D8031 Straight Male Stud Coupling Metric Parallel Elastomer Seal Body Only
 D8031-NBR Straight Male Stud Coupling Metric Parallel Elastomer Seal	 D8032 Straight Male Stud Coupling ISO 6149 O-ring Seal	 D8034 Female Stud Coupling Metric Body Only	 D8034-NBR Female Stud Coupling Metric	 D8036 Straight Stud Standpipe Adapter Metric Parallel Elastomer Seal	 D8040 Straight Male Stud Coupling BSPP Sealing Bite Body Only
 D8040-NBR Straight Male Stud Coupling BSPP Sealing Bite	 D8041 Straight Male Stud Coupling BSPP Elastomer Seal Body Only	 D8041-NBR Straight Male Stud Coupling BSPP Elastomer Seal	 D8043 Straight Male Stud Coupling BSPT Body Only	 D8043-NBR Straight Male Stud Coupling BSPT	 D8044 Female Stud Coupling BSPP Body Only
 D8044-NBR Female Stud Coupling BSPP	 D8045 Straight Stud Standpipe Adapter BSPP Sealing Bite	 D8046 Straight Stud Standpipe Adapter BSPP Elastomer Seal	 D8050 Straight Male Stud Coupling NPTF Body Only	 D8050-NBR Straight Male Stud Coupling NPTF	 D8051 Straight Male Stud Coupling ORB Body Only
 D8051-NBR Straight Male Stud Coupling ORB	 D8060 Straight Coupling Body Only	 D8060-NBR Straight Coupling	 D8061 Straight Bulkhead Coupling Body Only	 D8061-NBR Straight Bulkhead Coupling	 D8062 Reducing Adjustable Coupling

Metric Bite Type Fittings

 D8062-NBR Reducing Adjustable Coupling	 D8067 Straight Adjustable Coupling	 D8097 Welding Boss Body Only	 D8097-NBR Welding Boss	 D8233 Male Stud Elbow Metric Taper Body Only	 D8233-NBR Male Stud Elbow Metric Taper
 D8243 Male Stud Elbow BSPT Body Only	 D8243-NBR Male Stud Elbow BSPT	 D8250 Male Stud Elbow NPTF Body Only	 D8250-NBR Male Stud Elbow NPTF	 D8260 Elbow Coupling Body Only	 D8260-NBR Elbow Coupling
 D8261 Bulkhead Elbow Body	 D8261-NBR Bulkhead Elbow	 D8263 Adjustable Elbow with Tube Connection Body Only	 D8263-NBR Adjustable Elbow with Tube Connection	 D8269 Adjustable Elbow Body With O-ring	 D8269-NBR Adjustable Elbow with O-ring
 D8360 Tee Coupling Body Only	 D8360-NBR Tee Coupling	 D8433 Male Stud Branch Tee Metric Taper Body Only	 D8433-NBR Male Stud Branch Tee Metric Taper	 D8443 Male Stud Branch Tee BSPT Body Only	 D8443-NBR Male Stud Branch Tee BSPT
 D8463 Adjustable Branch Tee with Tube Connection Body Only	 D8463-NBR Adjustable Branch Tee with Tube Connection	 D8469 Adjustable Branch Tee Body with O-ring	 D8469-NBR Adjustable Branch Tee with Tube connection	 D8543 Male Stud Barrel Tee BSPT Body Only	 D8543-NBR Male Stud Barrel Tee BSPT
 D8563 Adjustable Run Tee with Tube Connection Body Only	 D8563-NBR Adjustable Run Tee with Tube Connection	 D8569 Adjustable Barrel Tee Body with O-ring	 D8569-NBR Adjustable Barrel Tee with O-ring	 D8660 Cross Coupling Body Only	 D8660-NBR Cross Coupling

F-002

Couplings to DIN 2353 / ISO 8434-1

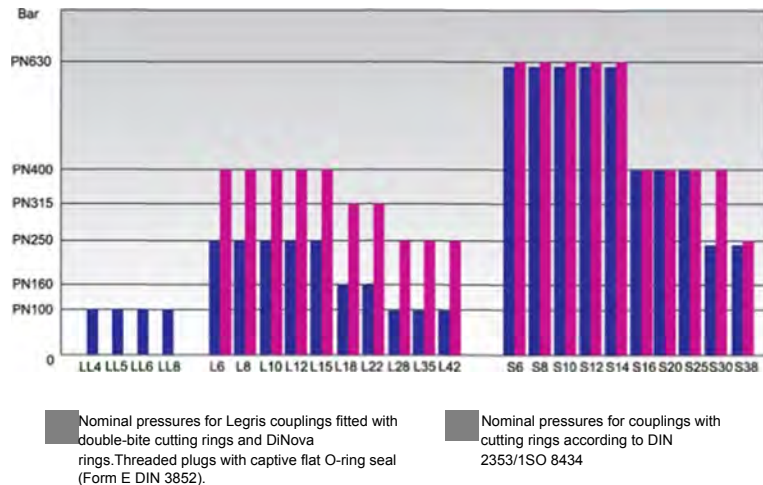
Pressures

The pressure levels given in this catalogue are those for steel couplings that have been installed correctly.

Nominal pressures (PN) represent the acceptable working pressures, with a safety factor of 4, a constant load and temperatures from -20° to +120°C, according to ISO 8424-1.

Working pressures represent maximum acceptable pressures, with a safety factor of 2,5, a constant load and temperatures from -20° to +120°C, according to DIN 2401.

When higher temperatures and mechanical vibrations are involved, the working pressures should be reduced accordingly.



F-003

Principle

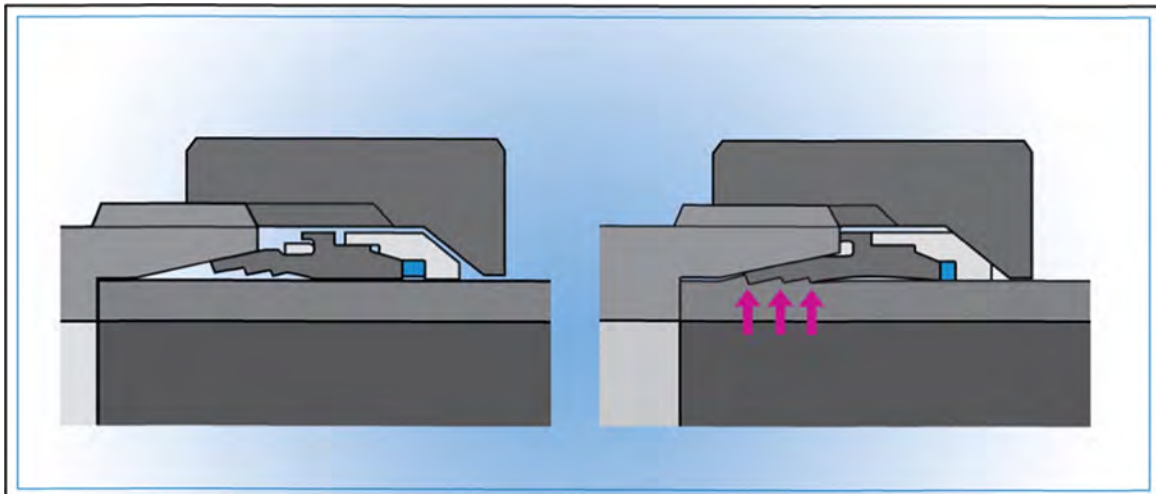
Cutting ring couplings enable the easy assembly of hydraulic pipe circuits, guaranteeing a high level of security. These couplings comprise a body, a cutting ring and a tightening nut. Depending on the pressure of an installation, the Brennan range offers bodies and nuts in 3 series: LL, for low pressure, L for medium pressure and S for high pressure. Several cutting ring models are also available, giving maximum performance adapted to various installation problems.

the DiNova cutting ring, for all hydraulic installations

The DiNova ring is an answer to the sealing and safety requirements of hydraulic installations. Its performance is based on metal/metal sealing, reinforced by 2 PTFE seals and a gripping safety ensured by 3 bites.

Principal advantages:

- **Seal protection:** the geometry of the seal cavity prevents distortion and guarantees resistance to vibration. The protection of the seal is ensured throughout assembly, it will not compress until final crimping has been achieved (Legris patent). Its two PTFE seals enable repeated assembly with no deterioration in performance over time. In addition, they resist almost all aggressive fluids and a wide range of temperatures.



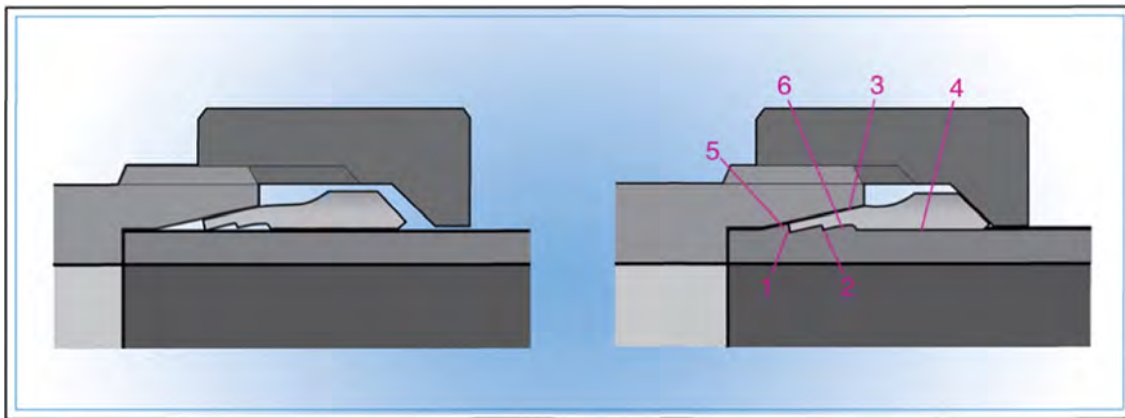
Metric Bite Type Fittings

- **Reliability and easy assembly:** a mechanical stop clearly indicates the crimp position and avoids the risk of insufficient tightening or over-tightening.
- **Safe connection:** three bites ensure a more precise assembly, less tube distortion and reinforce the safety of connection, even in severe conditions of use. Thanks to an increased area of interface with the tube upon tightening and the seal position within the assembly, the DiNova ring resistance to vibrations is extremely good. Visual control for proper crimping is possible (according to DIN 3859-2).

the double-bite ring, for standard applications

By combining simplicity and assembly safety with good sealing performance, the Brennan double-bite ring is a solution well adapted to many hydraulic applications.

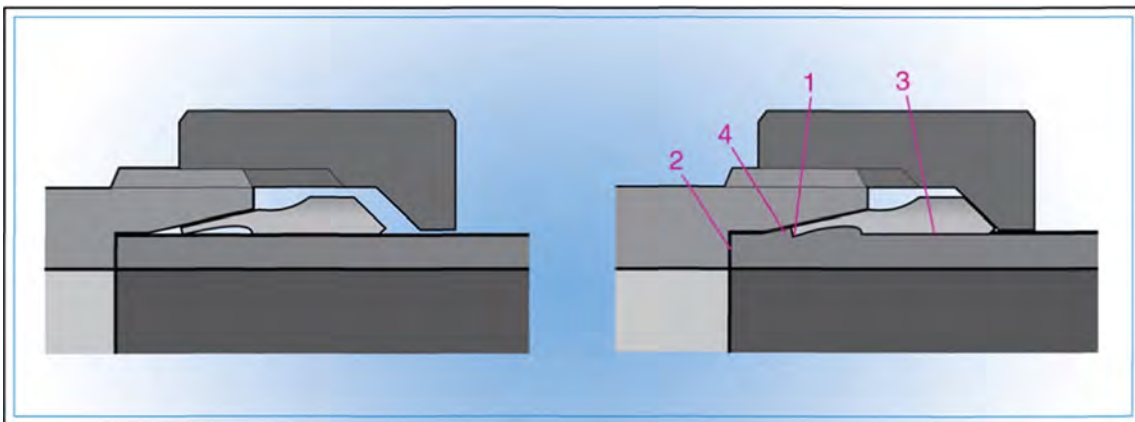
During the assembly, its two bites penetrate the tube one after the other. When tightening the nut, the cutting bites (1) and (2) penetrate the pipe wall and raise visible collars (5) and (6) around the pipe surface. The ring body (3) becomes wedged between the pipe wall and the inner cone thus preventing the advance of the double-bite ring. Part (4) projects forward to the end of the pipe and lies firmly against it. This dampens vibration which is then absorbed by ring body (3) preventing it from reaching the pipe grooves (1) and (2). This arrangement produces maximum compression strength and resistance to the effect of temperature fluctuations. When fitted properly, repeated assemblies are possible.



F-004

the single-bite cutting ring, for low pressure circuits (couplings only series LL)

The Brennan single-bite ring is suitable for applications lower than 100 bar. Its low tightening torque enables easy use. When tightening the nut, the cutting ring, with its pre-formed and hardened cutting bite (1) moves along the 24° inner cone of the coupling body. The cutting ring engages the pipe, cuts into the surface with its cutting edge and produces a visible collar (4). The pipe, which is cut at right angles (2) must push against the locating face in the body, without fail, in order to ensure a secure bite. Due to the internal shape of the cutting ring, vibration of the pipe is prevented.

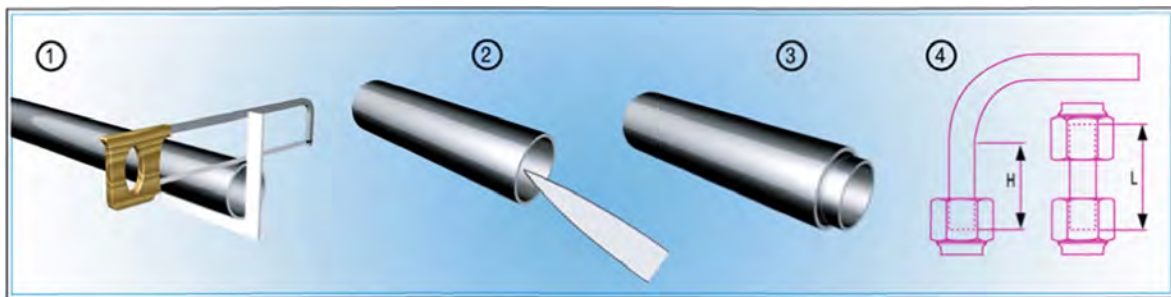


Tube preparation

- 1- Saw the tube square (do not use a tube cutter). A 0,5° angular gap is acceptable.
- 2- Deburr the tube inside and outside. Acceptable chamfer 0,2x45°. Clean.
- 3- To ensure safe assembly, reinforcement should be used for tubes which are made of copper or aluminium and for thin walled steel tubes.
- 4- Minimum length of straight tube with tube bends and minimum straight tube length, see table.

Series	u	L	S
o.d. tube	4 5 6 8	6 8 10 12 15 18 22 28 35 42	6 8 10 12 14 16 20 25 30 38
H min	24 25 25 26	31 31 33 33 36 38 42 42 48 48	35 35 37 37 43 43 50 54 58 65
Lmin	30 32 32 33	39 39 42 42 45 48 53 53 60 60	44 44 47 47 54 54 63 68 73 82

F-005



Note on lubrication

Galvanized couplings have a colourless lubricant coating.
Lubrication of the couplings components is unnecessary (diameters smaller than 20 mm).

In the case of bonded couplings and galvanized couplings that are still in circulation, the thread of the nut and the cone of the coupling body should be oiled.

Metric Bite Type Fittings

Installation

Installation with pre-assembly unit-single-bite, double-bite, and DiNova rings

The pre-assembled pressure is different from each ring model to another.

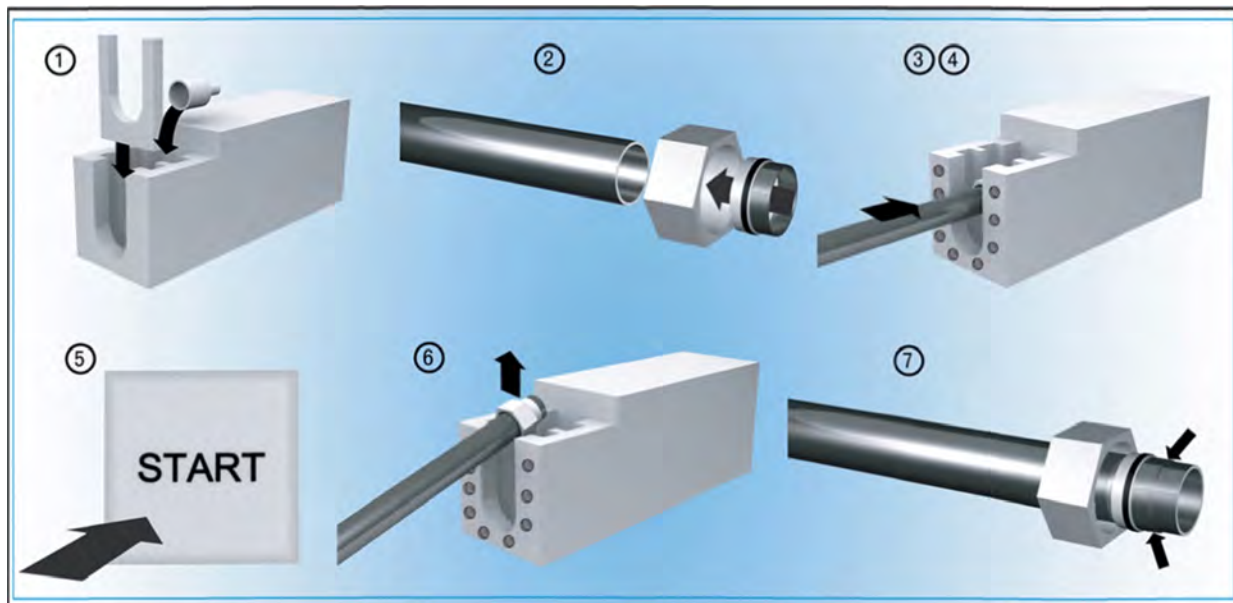
Please refer to pressure data in the following table.

o.d.tube (mm)	6	8	10	12	14	15	16	18	20	22	25	28	30	35	38	42
Tube thickness (bar)	1-2	1-2,5	1-3	1-3,5	2-4	1,5-3	2-3	1,5-3	2-4	1,5-3,5	2 2,5-5	2-3,5	2-4 5-6	2 12,5-5	2-3 14-6	2 3-5
Double-bite ring (bar)	25	30	35	40	45	45	55	55	70	70	90	80	110	100	135	125
DiNova ring (bar)	25	25	25	45	45	45	55	55	70	80	90 130	80	130 160	130 160	130 170	130 170

- 1 - Select the retainer plates and the pre-installed body, according to series of the model and pipe size.
- 2- Push the nut and the cutting ring onto the sawn-off and deburred pipe.
- 3- Insert the pipe so that the nut and cutting ring lie between the retainer plates and installed body.
- 4- Press the pipe end firmly against the stop of the pre-installed body.
- 5- Hold firmly the pipe end in position and press the control button until the pre-assembled unit automatically stops.
- 6- After completion of pre-assembly, remove the pipe.
- 7- Check whether a visible flange projection is present.

Final installation: Screw on the nut, by hand, until contact is perceptible. Hold the coupling body with a wrench and tighten the nut past the point of perceptible increase in force approximately 1/4 to 1/3 turns, until no further tightening is possible.

F-006



Installation with pre-assembly block -single-bite, double-bite and DiNova rings

Pre-installation

Lubricate the thread and the end of the pre-assembly block.

- 1 - Push the nut and the cutting ring onto the pipe.
- 2- Screw on the nut until contact is perceptible.
- 3- Push the pipe against the end of the lubricated pre-installation block, tightening the nut approximately 1 1/4 turns (1 1/2 turns for DiNova ring), with the help of the wrench

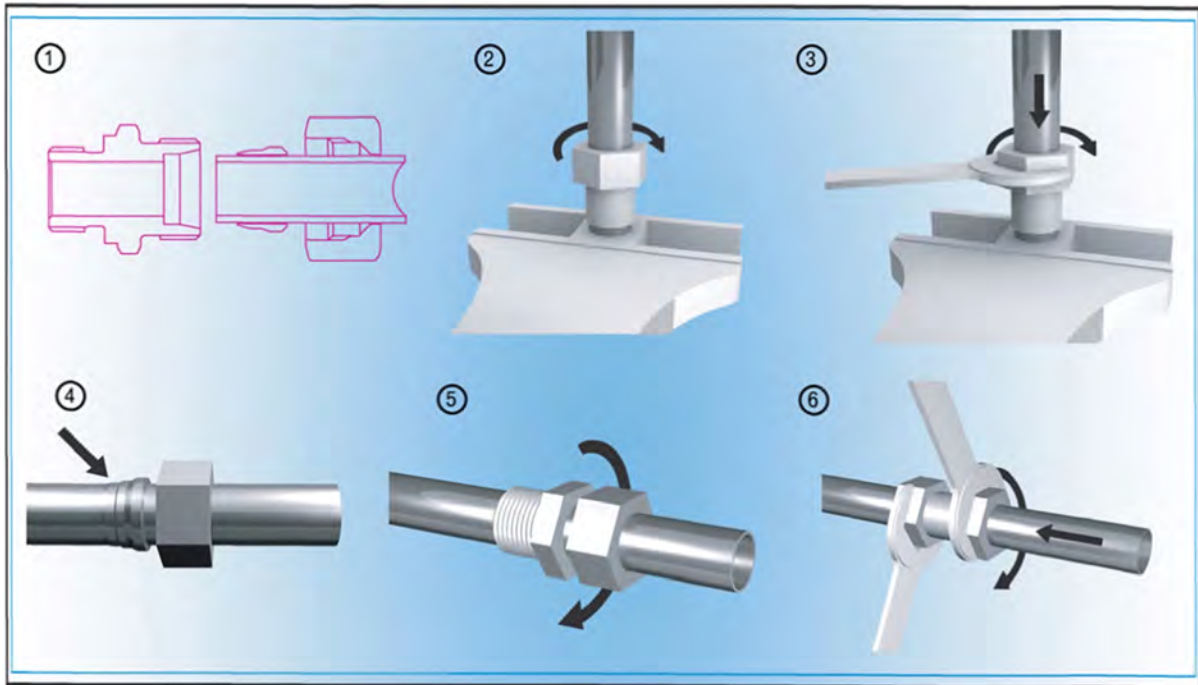
Checking pre-assembly:

- 4- After pre-assembly, slacken the nut. A visible cut edge must be present in front of the cutting ring. The cutting ring may rotate but will not permit axial displacement.

Final installation in the coupling body:

- 5- Screw on the nut by hand until noticeable contact is made.
- 6- Hold the coupling body with the wrench. Tighten the nut past the point of perceptible increase in force approximately 1/4 to 1/3 turns.

F-007



Metric Bite Type Fittings

Manual installation

-single-bite and double-bite rings

- 1 - Push the nut and the cutting ring onto the pipe.
- 2- Screw on the nut until contact is detected.
- 3- Press the pipe against the stop in the coupling body for correct pipe incision. With a wrench, thghten the nut approxi-
mately 1 1/2 turns, whilst holding the coupling body in position.
- 4- Checking: Disassemble the tube connection by slackening the nut. A visible cut edge must be apparent in front of
the cutting ring. The cutting ring may rotate, but will not permit axial displacement.

Re-installation

For re-installation, tighten the nut with the same torque as the initial installation. For this, screw on the nut until contact is
apparent, then tighten approximately 1/8 turn with a wrench.

Manual installation

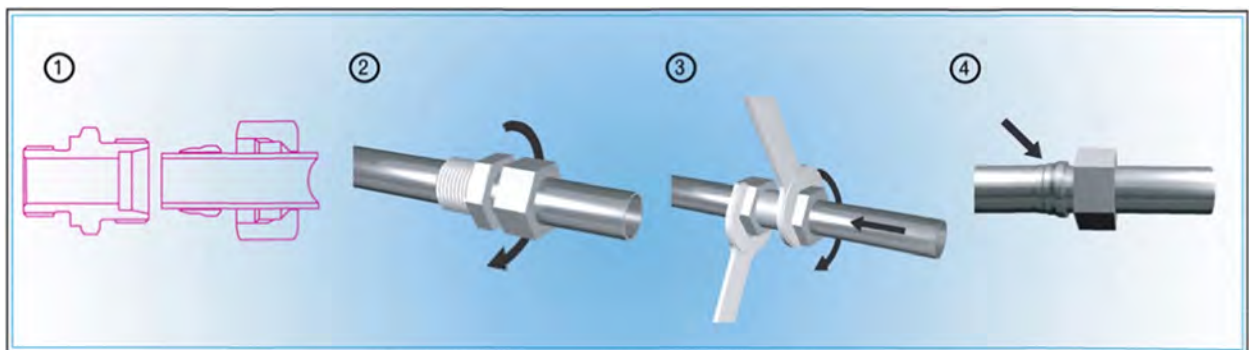
- DiNova ring

- 1 - Push the nut and the DiNova ring onto the pipe.
- 2- Screw on the nut until contact is noticeable.
- 3- With the help of the wrench, tighten the nut until contact is perceptible, that is, approximately 1 3/4 turns.
- 4- Checking: Disassemble the connection by slackening the nut. A visible cut edge must be apparent in front of the
cutting ring.

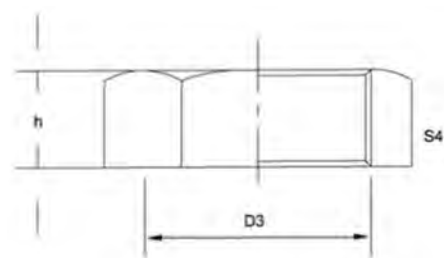
Re-installation

Screw on then tighten by wrench, until contact is detected (approximately 1/6 turn).

F-008



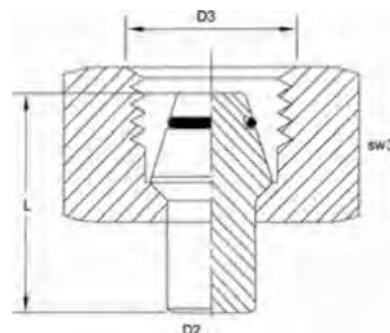
Hexagonal Bulkhead Nut D8002 Series



PART NO. SIZE	TUBE O.D.	O3 THD	h THK	S4 HEX
D8002-16x1.5	10	M16 x 1.5	6	22
D8002-18x1.5	12	M18 x 1.5	6	24
D8002-22 x 1.5	15	M22 x 1.5	7	30

F-009

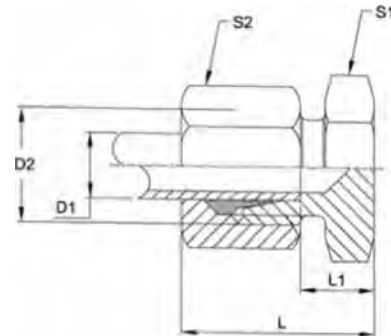
Tube Plug D8003 Series



PART NO. SIZE	O2 TUBE O.D.	O3 THREAD	L LGTH	SW3 HEX
D8003-L06	6	M12 x 1.5	18.5	14
D8003-L08	8	M14 x 1.5	18.5	17
D8003-L10	10	M16 x 1.5	20.0	19
D8003-L12	12	M18 x 1.5	20.5	22
D8003-L15	15	M22 x 1.5	20.5	27
D8003-L18	18	M26 x 1.5	22.5	32
D8003-L22	22	M30 x 2	25.0	36
D8003-L28	28	M36 x 2	25.5	41
D8003-L35	35	M45 x 2	30.0	50
D8003-L42	42	M52 x 2	30.0	60
D8003-S06	6	M14 x 1.5	18.5	17
D8003-S08	8	M16 x 1.5	18.5	19
D8003-S10	10	M18 x 1.5	20.0	22
D8003-S12	12	M20 x 1.5	20.5	24
D8003-S14	14	M22 x 1.5	22.5	27
D8003-S16	16	M24 x 1.5	23.5	30
D8003-S20	20	M30 x 2	28.5	36
D8003-S25	25	M36 x 2	29.0	46
D8003-S30	30	M42 x 2	30.5	50
D8003-S38	38	M52 x 2	33.0	60

Metric Bite Type Fittings

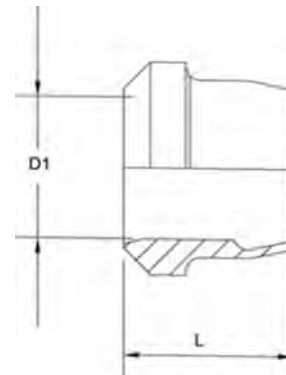
Tube Cap D8004 Series



PART NO. SIZE	D1 TUBE O.D.	O2 THREAD	LI LGTH	L LGTH	SI HEX	SZ HEX
D8004-L06	06	M12 x 1.5	7.0	21.5	12.0	14.0
D8004-L08	08	M14 x 1.5	8.0	22.5	14.0	17.0
D8004-L10	10	M16 x 1.5	9.0	23.5	17.0	19.0
D8004-L12	12	M18 x 1.5	10.0	24.5	19.0	22.0
D8004-L15	15	M22 x 1.5	11.0	26.0	24.0	27.0
D8004-L18	18	M26 x 1.5	11.5	27.5	27.0	32.0
D8004-L22	22	M30 x 2	13.5	29.5	32.0	36.0
D8004-L28	28	M36 x 2	14.5	31.0	41.0	41.0
D8004-L35	35	M45 x 2	14.5	36.0	46.0	50.0
D8004-L42	42	M52 x 2	16.0	38.5	55.0	60.0
D8004-S06	06	M14 x 1.5	11.0	25.5	14.0	17.0
D8004-S08	08	M16 x 1.5	13.0	27.5	17.0	19.0
D8004-S10	10	M18 x 1.5	12.5	28.5	19.0	22.0
D8004-S12	12	M20 x 1.5	14.5	30.5	22.0	24.0
D8004-S14	14	M22 x 1.5	15.5	33.5	24.0	27.0
D8004-S16	16	M24 x 1.5	15.5	33.5	27.0	30.0
D8004-S20	20	M30 x 2	17.5	39.0	32.0	36.0
D8004-S25	25	M36 x 2	20.0	44.0	41.0	46.0
D8004-S30	30	M42 x 2	20.5	47.0	46.0	50.0
D8004-S38	38	M52 x 2	23.0	53.5	55.0	60.0

F-010

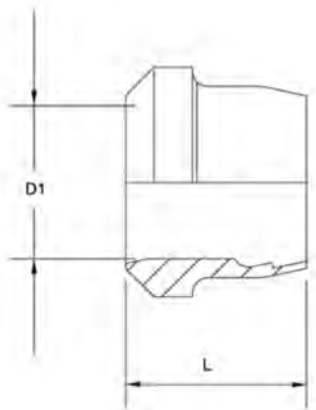
Single Bite Ring D8005 Series



PART NO. SIZE	O1 TUBE O.D.	L LGTH
D8005-E04	6	9.5
D8005-E06	8	9.5
D8005-E08	10	10.5
D8005-E10	12	10
D8005-E12	15	10

Double Bite Ring

D8006 Series

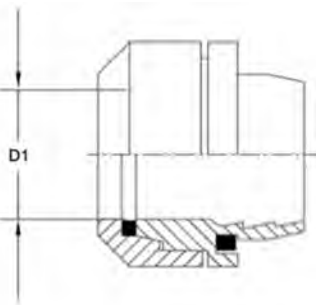


PART NO. SIZE	D1TUBE 0.0	I LO TH
D8006-06	6	9.5
D8006-08	8	9.5
D8006-10	10	10.5
D8006-12	12	10.0
D8006-14	14	10.0
D8006-15	15	10.0
D8006-16	16	10.5
D8006-18	18	10.0
D8006-20	20	12.5
D8006-22	22	10.5
D8006-25	25	12.5
D8006-28	28	10.5
D8006-30	30	13.0
D8006-35	35	13.5
D8006-38	38	13.5
D8006-42	42	13.5

F-011

DiNova Bite Ring

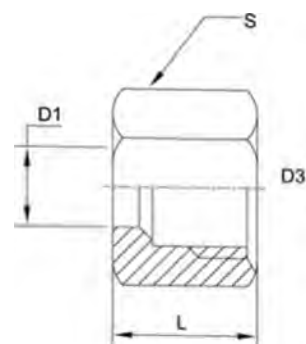
D8007 Series



PART NO. SIZE	01 TUBE 0.0
D8007-06	6
D8007-08	8
D8007-10	10
D8007-12	12
D8007-14	14
D8007-15	15
D8007-16	16
D8007-18	18
D8007-20	20
D8007-22	22
D8007-25	25
D8007-28	28
D8007-30	30
D8007-35	35
D8007-38	38
D8007-42	

Metric Bite Type Fittings

Tube Nut D8008 Series



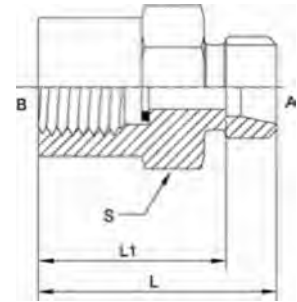
PART NO. SIZE	D1 TUBE O.D.	O.D. THREAD	L LGTH	S HEX
D8008-E04	4	M8 x 1	11.5	10.0
D8008-E05	5	M10 x 1	12.0	12.0
D8008-E06	6	M10 x 1	12.0	12.0
D8008-E08	8	M12 x 1	12.5	14.0
D8008-E10	10	M14 x 1	13.0	17.0
D8008-E12	12	M16 x 1	13.0	19.0
D8008-L06	6	M12 x 1.5	15.0	14.0
D8008-L08	8	M14 x 1.5	15.0	17.0
D8008-L10	10	M16 x 1.5	16.0	19.0
D8008-L12	12	M18 x 1.5	16.0	22.0
D8008-L15	15	M22 x 1.5	17.5	27.0
D8008-L18	18	M26 x 1.5	18.5	32.0
D8008-L22	22	M30 x 2	20.5	36.0
D8008-L28	28	M36 x 2	21.5	41.0
D8008-L35	35	M45 x 2	24.5	50.0
D8008-L42	42	M52 x 2	24.5	60.0
D8008-S06	6	M14 x 1.5	17.0	17.0
D8008-S08	8	M16 x 1.5	17.0	19.0
D8008-S10	10	M18 x 1.5	18.0	22.0
D8008-S12	14	M20 x 1.5	18.0	24.0
D8008-S14	14	M22 x 1.5	21.0	27.0
D8008-S16	16	M24 x 1.5	21.0	30.0
D8008-S20	20	M30 x 2	24.5	36.0
D8008-S25	25	M36 x 2	27.5	46.0
D8008-S30	30	M42 x 2	29.5	50.0
D8008-S38	38	M52 x 2	33.0	60.0

F-012

Gauge Coupling BSP

Body Only

D8020 Series

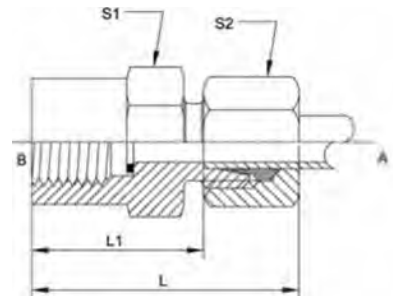


PART NO. SIZE	A TUBE O.D	A THREAD	B BSPP	A DRILL	11 LGTH	L LGTH	S HEX
D8020-L06-04	6	M12x 1.5	1/4-19	4.0	28.0	35.0	19.0
D8020-L08-04	8	M14x 1.5	1/4-19	6.0	28.0	35.0	19.0
D8020-S06-08	6	M14 x 1.5	1/2-14	4.0	38.0	45.0	27.0
D8020-S08-08	8	M16x 1.5	1/2-14	5.0	38.0	45.0	27.0
D8020-S10-08	10	M18 x 1.5	1/2-14	7.0	37.5	45.0	27.0
D8020-S12-08	12	M20x 1.5	1/2-14	8.0	37.5	45.0	27.0

F-013

Gauge Coupling BSP

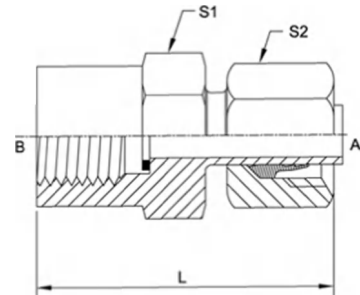
D8020-NBR Series



PART NO. SIZE	A TUBE O.D	A THREA0	B BSPP	A DRILL	11 LGTH	I LGTH	SI HEX	S2 HEX
D8020-L06-04-N BR	6	M12 x 1.5	1/4-19	4.0	28.0	42.5	19.0	14.0
D8020-L08-04-NBR	8	M14x 1.5	1/4-19	6.0	28.0	42.5	19.0	17.0
D8020-S06-08-N BR	6	M14x 1.5	1/2-14	4.0	38.0	52.5	27.0	17.0
D8020-S08-08-N BR	8	M16x 1.5	1/2-14	5.0	38.0	52.5	27.0	19.0
D8020-S10-08-N BR	10	M18 x 1.5	1/2-14	7.0	37.5	53.5	27.0	22.0
D8020-S12-08-NBR	12	M20x 1.5	1/2-14	8.0	37.5	53.5	27.0	24.0

Metric Bite Type Fittings

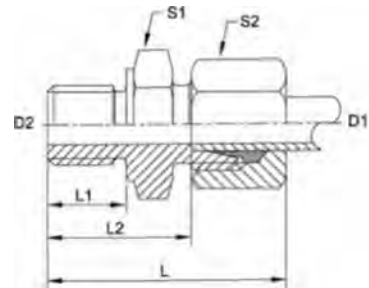
Gauge Coupling Male Stud Standpipe Type D8021 Series



PART NO. SIZE	A TUBE O.D	A THD	B BSPP	A DRILL	L LO TH HEX	SI HEX	S2 HEX
D8021-L08-04	8	M14 x 1.5	1/4-19	4.5	44.5	19.0	17.0
D8021-S06-04	6	M14 x 1.5	1/4-19	3.5	48.0	19.0	17.0
D8021-S06-08	6	M14 x 1.5	1/2-14	3.5	52.0	27.0	17.0
D8021-S08-08	8	M16 x 1.5	1/2-14	4.5	52.5	27.0	19.0
D8021-S10-08	10	M18 x 1.5	1/2-14	7.0	54.5	27.0	22.0
D8021-S12-08	12	M20 x 1.5	1/2-14	6.5	54.5	27.0	24.0

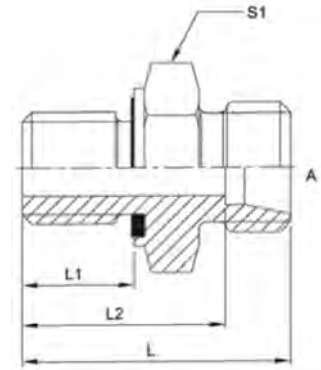
F-014

Straight Male Stud Coupling Metric Parallel Sealing Bite D8030-NBR Series



PART NO. SIZE	D1 TUBE O.D	01 THO	02 THD	01 DRILL	02 DRILL	L1 LO TH	L2 LO TH	I LO TH	SI HEX	S2 HEX
D8030-L06-10-N BR	6	M12 x 1.5	M10x1	4.0	4.0	8.0	16.5	31.0	14.0	14.0
D8030-L08-12-N BR	8	M14 x 1.5	M12 x 1.5	6.0	6.0	12.0	22.0	36.5	17.0	17.0
D8030-L10-14-NBR	10	M16 x 1.5	M14 x 1.5	8.0	7.0	12.0	23.0	37.5	19.0	19.0
D8030-L15-18-NBR	15	M22 x 1.5	M18 x 1.5	12.0	11.0	12.0	25.5	40.5	24.0	27.0
D8030-L15-22-N BR	15	M22 x 1.5	M22 x 1.5	12.0	14.0	14.0	29.0	44.0	27.0	27.0
D8030-L22-26-NBR	22	M30 x 2	M26 x 1.5	19.0	18.0	16.0	32.5	48.5	32.0	36.0
D8030-L28-33-N BR	28	M36 x 2	M33 x 2	24.0	23.0	18.0	35.5	52.0	41.0	41.0
D8030-S06-12-N BR	6	M14 x 1.5	M12 x 1.5	4.0	4.0	12.0	25.0	39.5	17.0	17.0
D8030-S16-22-N BR	16	M24 x 1.5	M22 x 1.5	12.0	12.0	14.0	32.5	50.5	27.0	30.0

Straight Male Stud Coupling Metric Parallel • Elastomer Seal Body Only D8031 Series

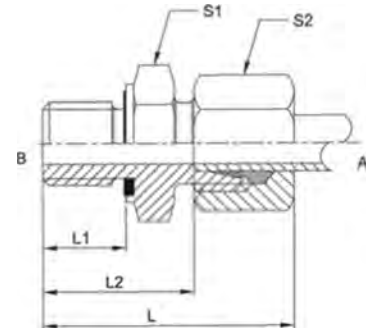


F-015

PART NO. SIZE	A TUBE O.D.	A T.H.D.	B T.H.D.	A DRILL	B DRILL	LI LOTH	L2 LOTH	L LOTH	SI HEX
D8031-L06-10-0	6	M12 x 1.5	M10x1	4.0	4.0	8.0	16.5	23.5	14.0
D8031-L08-12-0	8	M14 x 1.5	M12 x 1.5	6.0	6.0	12.0	22.0	29.0	17.0
D8031-L08-14-0	8	M14 x 1.5	M14 x 1.5	6.0	7.0	12.0	22.0	29.0	19.0
D8031-L10-14-0	10	M16 x 1.5	M14x 1.5	8.0	7.0	12.0	23.0	30.0	19.0
D8031-L12-14-0	12	M18x 1.5	M14 x 1.5	10.0	7.0	12.0	23.0	30.0	19.0
D8031-L12-16-0	12	M18 x 1.5	M16x 1.5	10.0	9.0	12.0	24.5	31.5	22.0
D8031-L12-18-0	12	M18 x 1.5	M18 x 1.5	10.0	11.0	12.0	24.5	31.5	24.0
D8031-L15-16-0	15	M22 x 1.5	M16 x 1.5	12.0	9.0	12.0	23.0	30.0	24.0
D8031-L15-18-0	15	M22 x 1.5	M18 x 1.5	12.0	11.0	12.0	25.5	32.5	24.0
D8031-LI 5-22-0	15	M22 x 1.5	M22 x 1.5	12.0	14.0	14.0	29.0	36.0	27.0
D8031 -LI 8-22-0	18	M26 x 1.5	M22 x 1.5	15.0	14.0	14.0	28.5	36.0	27.0
D8031-L22-22-0	22	M30 x 2	M22 x 1.5	19.0	14.0	14.0	27.5	35.0	32.0
D8031-L22-26-0	22	M30 x 2	M26 x 1.5	19.0	18.0	16.0	32.5	40.0	32.0
D8031-L28-33-0	28	M36 x 2	M33 x 2	24.0	23.0	18.0	35.5	43.0	41.0
D8031-L35-42-0	35	M45 x 2	M42 x 2	30.0	30.0	20.0	37.5	48.0	50.0
D8031-L42-48-0	42	M52 x 2	M48 x 2	36.0	36.0	22.0	41.0	52.0	55.0
D8031-S06-12-0	6	M14 x 1.5	M12 x 1.5	4.0	4.0	12.0	25.0	32.0	17.0
D8031-S08-14-0	8	M16 x 1.5	M14 x 1.5	5.0	5.0	12.0	27.0	34.0	19.0
D8031-S10-16-0	10	M18 x 1.5	M16 x 1.5	7.0	7.0	12.0	27.0	34.5	22.0
D8031-S12-18-0	12	M20 x 1.5	M18 x 1.5	8.0	8.0	12.0	29.0	36.5	24.0
D8031-SI 4-20-0	14	M22 x 1.5	M20 x 1.5	10.0	10.0	14.0	32.5	41.0	27.0
D8031-SI 6-22-0	16	M24 x 1.5	M22 x 1.5	12.0	12.0	14.0	32.5	41.0	27.0
D8031-S20-27-0	20	M30 x 2	M27 x 1.5	16.0	16.0	16.0	36.5	47.0	32.0
D8031-S25-33-0	25	M36 x 2	M33 x 2	20.0	20.0	18.0	41.0	53.0	41.0
D8031-S30-42-0	30	M42 x 2	M42 x 2	25.0	25.0	20.0	43.5	57.0	50.0
D8031-S38-48-0	38	M52 x 2	M48 x 2	32.0	32.0	22.0	48.0	64.0	55.0

Metric Bite Type Fittings

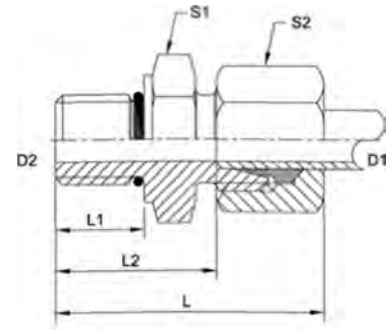
Straight Male Stud Coupling Metric Parallel Elastomer Seal D8031-NBR Series



PART NO. SIZE	A TUBE O.D.	A THD	B T.O.D.	A DRILL	B DRILL	L1 LOTH	L2 LEITH	I LOTH	SI HEX	S2 HEX
D8031-L06-10-O-N BR	6	M12x 1.5	M10x1	4.0	4.0	8.0	16.5	31.0	14.0	14.0
D8031-L08-12-O-NBR	8	M14x 1.5	M12 x 1.5	6.0	6.0	12.0	22.0	36.5	17.0	17.0
D8031-L08-14-O-N BR	8	M14x 1.5	M14x 1.5	6.0	7.0	12.0	22.0	36.5	19.0	17.0
D8031 -LI 0-14-O-N BR	10	M16x 1.5	M14 x 1.5	8.0	7.0	12.0	23.0	37.5	19.0	19.0
D8031 -LI 2-14-O-N BR	12	M18x 1.5	M14 x 1.5	10.0	7.0	12.0	23.0	37.5	19.0	22.0
D8031-L12-16-O-NBR	12	M18x 1.5	M16x 1.5	10.0	9.0	12.0	24.5	39.0	22.0	22.0
D8031 -LI 2-18-O-N BR	12	M18x 1.5	M18 x 1.5	10.0	11.0	12.0	24.5	39.0	24.0	22.0
D8031 -LI 5-16-O-N BR	15	M22x 1.5	M16 x 1.5	12.0	9.0	12.0	23.0	38.0	24.0	27.0
D8031-LI 5-18-O-N BR	15	M22 x 1.5	M18x 1.5	12.0	11.0	12.0	25.5	40.5	24.0	27.0
D8031 -LI 5-22-O-N BR	15	M22x 1.5	M22 x 1.5	12.0	14.0	14.0	29.0	44.0	27.0	27.0
D8031 -LI 8-22-O-N BR	18	M26x 1.5	M22x 1.5	15.0	14.0	14.0	28.5	44.5	27.0	32.0
D8031-L22-22-O-NBR	22	M30 x 2	M22 x 1.5	19.0	14.0	14.0	27.5	43.5	32.0	36.0
D8031-L22-26-O-N BR	22	M30 x 2	M26 x 1.5	19.0	18.0	16.0	32.5	48.5	32.0	36.0
D8031-L28-33-O-NBR	28	M36 x 2	M33 x 2	24.0	23.0	18.0	35.5	52.0	41.0	41.0
D8031-L35-42-O-N BR	35	M45 x 2	M42 x 2	30.0	30.0	20.0	37.5	59.0	50.0	50.0
D8031-L42-48-O-NBR	42	M52 x 2	M48 x 2	36.0	36.0	22.0	41.0	63.5	55.0	60.0
D8031-S06-12-O-N BR	6	M14 x 1.5	M12 x 1.5	4.0	4.0	12.0	25.0	39.5	17.0	17.0
D8031-S08-14-O-N BR	8	M16 x 1.5	M14 x 1.5	5.0	5.0	12.0	27.0	41.5	19.0	19.0
D8031 -SI 0-16-O-N BR	10	M18 x 1.5	M16 x 1.5	7.0	7.0	12.0	27.0	43.0	22.0	22.0
D8031-SI 2-18-O-N BR	12	M20 x 1.5	M18 x 1.5	8.0	8.0	12.0	29.0	45.0	24.0	24.0
D8031-S14-20-O-NBR	14	M22 x 1.5	M20 x 1.5	10.0	10.0	14.0	32.5	50.5	27.0	27.0
D8031 -SI 6-22-O-N BR	16	M24 x 1.5	M22 x 1.5	12.0	12.0	14.0	32.5	50.5	27.0	30.0
D8031-S20-27-O-N BR	20	M30 x 2	M27 x 1.5	16.0	16.0	16.0	36.5	58.0	32.0	36.0
D8031-S25-33-O-NBR	25	M36 x 2	M33 x 2	20.0	20.0	18.0	41.0	65.0	41.0	46.0
D8031-S30-42-O-NBR	30	M42 x 2	M42 x 2	25.0	25.0	20.0	43.5	70.0	50.0	50.0
D8031-S38-48-O-NBR	38	M52 x 2	M48 x 2	32.0	32.0	22.0	48.0	78.5	55.0	60.0

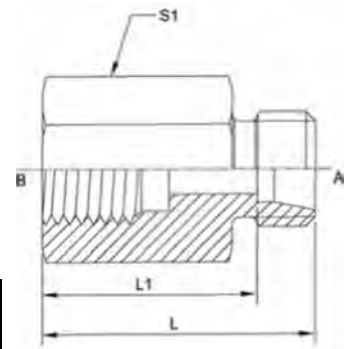
F-016

Straight Male Stud Coupling ISO 6149 O-ring Seal D8032 Series



PART NO. SIZE	01 TUBE 0.0	01 TH0	02 TH0	01 DRILL	02 DRILL	LI LGTH	12 LOTH	I LGTH	SI HEX	S2 HEX
D8032-L06-10-O-N BR	6	M12 x 1.5	M10 x 1	4.0	4.5	9.5	18.0	32.5	14.0	14.0
D8032-L08-12-O-NBR	8	M14 x 1.5	M12 x 1.5	6.0	6.0	11.0	21.0	35.5	17.0	17.0
D8032-L12-16-O-NBR	12	M18 x 1.5	M16 x 1.5	10.0	9.0	12.5	25.0	39.5	22.0	22.0
D8032-L15-18-O-NBR	15	M22 x 1.5	M18 x 1.5	12.0	11.0	14.0	27.5	42.5	24.0	27.0
D8032-L18-18-O-NBR	18	M26 x 1.5	M18 x 1.5	15.0	11.0	14.0	25.5	41.5	24.0	32.0
D8032-L18-22-O-N BR	18	M26 x 1.5	M22 x 1.5	15.0	14.0	15.0	29.5	45.5	27.0	32.0
D8032-L22-27-O-NBR	22	M30 x 2	M27 x 2	19.0	18.0	18.5	35.0	51.0	32.0	36.0
D8032-L28-33-O-NBR	28	M36 x 2	M33 x 2	24.0	23.0	18.5	36.0	52.5	41.0	41.0
D8032-L35-42-O-NBR	35	M45 x 2	M42 x 2	30.0	30.0	19.0	36.5	58.0	50.0	50.0
D8032-S06-12-O-NBR	6	M14 x 1.5	M12 x 1.5	4.0	4.0	11.0	24.0	38.5	17.0	17.0
D8032-S08-14-O-NBR	8	M16 x 1.5	M14 x 1.5	5.0	6.0	11.0	26.0	40.5	19.0	19.0
D8032-S10-16-O-NBR	10	M18 x 1.5	M16 x 1.5	7.0	7.0	12.5	27.5	43.5	22.0	22.0
D8032-S12-18-O-NBR	12	M20 x 1.5	M18 x 1.5	8.0	9.0	14.0	31.0	47.0	24.0	24.0
D8032-S16-22-O-NBR	16	M24 x 1.5	M22 x 1.5	12.0	12.0	15.0	33.5	51.5	27.0	30.0
D8032-S20-27-O-NBR	20	M30 x 2	M27 x 2	16.0	15.0	18.5	39.0	60.5	32.0	36.0
D8032-S25-33-O-NBR	25	M36 x 2	M33 x 2	20.0	20.0	18.5	41.5	65.5	41.0	46.0

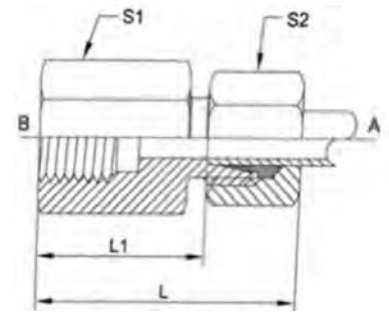
Female Stud Coupling Metric Body Only D8034 Series



PART NO. SIZE	A TUBE 0.0	A THD	B THD	A DRILL	LI LGTH	L LGTH	SI HEX
D8034-L08-12	8	M14 x 1.5	M12 x 1.5	6.0	24.0	31.0	17.0
D8034-L08-22	8	M14 x 1.5	M22 x 1.5	6.0	28.0	35.0	30.0
D8034-L10-12	10	M16 x 1.5	M12 x 1.5	8.0	25.0	32.0	17.0
D8034-L10-14	10	M16 x 1.5	M14 x 1.5	8.0	25.0	32.0	19.0
D8034-L12-16	12	M18 x 1.5	M16 x 1.5	10.0	26.0	33.0	22.0
D8034-L12-22	12	M18 x 1.5	M22 x 1.5	10.0	29.0	36.0	30.0
D8034-L15-18	15	M22 x 1.5	M18 x 1.5	12.0	28.0	35.0	24.0
D8034-L18-22	18	M26 x 1.5	M22 x 1.5	15.0	29.5	37.0	30.0
D8034-L22-26	22	M30 x 2	M26 x 1.5	19.0	34.5	42.0	32.0
D8034-S06-12	6	M14 x 1.5	M12 x 1.5	4.0	26.0	33.0	17.0
D8034-S08-14	8	M16 x 1.5	M14 x 1.5	5.0	26.0	33.0	19.0
D8034-S10-16	10	M18 x 1.5	M16 x 1.5	7.0	26.5	34.0	22.0
D8034-S12-18	12	M20 x 1.5	M18 x 1.5	8.0	27.5	35.0	24.0
D8034-S14-20	14	M22 x 1.5	M20 x 1.5	10.0	31.0	39.5	27.0
D8034-S16-22	16	M24 x 1.5	M22 x 1.5	12.0	30.5	39.0	30.0
D8034-S20-27	20	M30 x 2	M27 x 2	16.0	34.5	45.0	36.0

Metric Bite Type Fittings

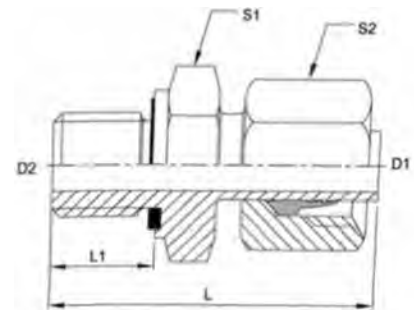
Female Stud Coupling Metric SZ034TNBR Series



PART NO. SIZE	A TUBE O.D	A THD	B THD	A DRILL	11 LGTH	L LGTH	SI HEX	S2 HEX
D8034-L08-12-NBR	8	M14 x 1.5	M12 x 1.5	6.0	24.0	38.5	17.0	17.0
D8034-L08-22-N BR	8	M14x 1.5	M22 x 1.5	6.0	28.0	42.5	30.0	17.0
D8034-L10-12-NBR	10	M16 x 1.5	M12 x 1.5	8.0	25.0	39.5	17.0	19.0
D8034-L10-14-NBR	10	M16 x 1.5	M14 x 1.5	8.0	25.0	39.5	19.0	19.0
D8034-L12-16-NBR	12	M18 x 1.5	M16 x 1.5	10.0	26.0	40.5	22.0	22.0
D8034-L12-22-NBR	12	M18 x 1.5	M22 x 1.5	10.0	29.0	43.5	30.0	22.0
D8034-L15-18-NBR	15	M22 x 1.5	M18 x 1.5	12.0	28.0	43.0	24.0	27.0
D8034-L18-22-NBR	18	M26 x 1.5	M22 x 1.5	15.0	29.5	45.5	30.0	32.0
D8034-L22-26-NBR	22	M30 x 2	M26x 1.5	19.0	34.5	50.5	32.0	36.0
D8034-S06-12-N BR	6	M14 x 1.5	M12 x 1.5	4.0	26.0	40.5	17.0	17.0
D8034-S08-14-NBR	8	M16 x 1.5	M14 x 1.5	5.0	26.0	40.5	19.0	19.0
D8034-S10-16-NBR	10	M18 x 1.5	M16 x 1.5	7.0	26.5	42.5	22.0	22.0
D8034-S12-18-NBR	12	M20 x 1.5	M18 x 1.5	8.0	27.5	43.5	24.0	24.0
D8034-S14-20-NBR	14	M22x 1.5	M20x 1.5	10.0	31.0	49.0	27.0	27.0
D8034-S16-22-NBR	16	M24x 1.5	M22x 1.5	12.0	30.5	48.5	30.0	30.0
D8034-S20-27-NBR	20	M30 x 2	M27 x 2	16.0	34.5	56.0	36.0	36.0

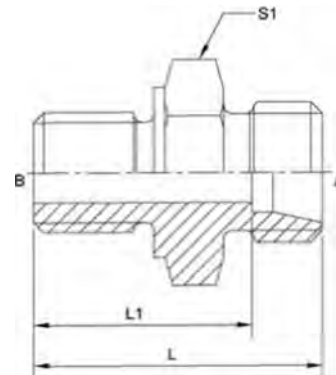
F-018

Straight Stud Standpipe Adapter Metric Parallel Elastomer Seal D8036 Series



PAST NO. SIZE	01 TUBE O.D	01 THD	02 TUD	01 DRILL	02 DRILL	LI LOTH	I LGTH	SI HEX	S2 HEX
D8036-L10-14-0	10	M16x 1.5	M14 x 1.5	7.5	7.5	12	39.5	19	19
D8036-L12-16-0	12	M18 x 1.5	M16 x 1.5	9	9	12	42.5	22	22
D8036-S08-14-0	8	M16 x 1.5	M14 x 1.5	4.5	4.5	12	41.5	19	19
D8036-S10-16-0	10	M18x 1.5	M16 x 1.5	6.5	6.5	12	44	22	22
D8036-S12-18-0	12	M20 x 1.5	M18 x 1.5	7.5	7.5	12	46	24	24

Straight Male Stud Coupling BSPP Sealing Bite Body Only D8040 Series

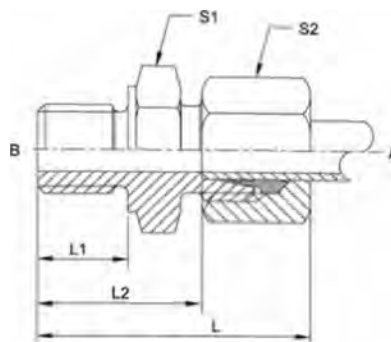


F-019

PART NO. SIZE	A TUBE O.D.	A THD	B BSPP	« DRILL	B DRILL	LI LGTH	I LGTH	SI HEX
D8040-L06-02	6	M12 x 1.5	G 1/8 A	4.0	4.0	16.5	23.5	14.0
D8040-L06-04	6	M12 x 1.5	G 1/4 A	4.0	6.0	22.0	29.0	19.0
D8040-L08-02	8	M14 x 1.5	G 1/8 A	6.0	4.0	16.5	23.5	14.0
D8040-L08-04	8	M14 x 1.5	G 1/4 A	6.0	6.0	22.0	29.0	19.0
D8040-L08-06	8	M14 x 1.5	G 3/8 A	6.0	9.0	23.5	30.5	22.0
D8040-L08-08	8	M14 x 1.5	G 1/2 A	6.0	14.0	26.0	33.0	27.0
D8040-L10-02	10	M16 x 1.5	G 1/8 A	8.0	4.0	17.0	24.0	17.0
D8040-L10-04	10	M16 x 1.5	G 1/4 A	8.0	6.0	23.0	30.0	19.0
D8040-L10-06	10	M16 x 1.5	G 3/8 A	8.0	9.0	24.5	31.5	22.0
D8040-L10-08	10	M16 x 1.5	G 1/2 A	8.0	14.0	27.0	34.0	27.0
D8040-L12-04	12	M18 x 1.5	G 1/4 A	10.0	6.0	23.0	30.0	19.0
D8040-L12-06	12	M18 x 1.5	G 3/8 A	10.0	9.0	24.5	31.5	22.0
D8040-L12-08	12	M18 x 1.5	G 1/2 A	10.0	14.0	27.0	34.0	27.0
D8040-L12-12	12	M18 x 1.5	G 3/4 A	10.0	18.0	30.0	37.0	32.0
D8040-L15-06	15	M22 x 1.5	G 3/8 A	12.0	9.0	23.0	30.0	24.0
D8040-L15-08	15	M22 x 1.5	G 1/2 A	12.0	14.0	28.0	35.0	27.0
D8040-L18-08	18	M26 x 1.5	G 1/2 A	15.0	14.0	28.5	36.0	27.0
D8040-L22-12	22	M30 x 2	G 3/4 A	19.0	18.0	32.5	40.0	32.0
D8040-L28-16	28	M36x2	G 1 A	24.0	23.0	35.5	43.0	41.0
D8040-L35-20	35	M45 x 2	G 1-1/4 A	30.0	30.0	37.5	48.0	50.0
D8040-L42-24	42	M52 x 2	G 1-1/2 A	36.0	36.0	41.0	52.0	55.0
D8040-S06-04	6	M14 x 1.5	G 1/4 A	4.0	5.0	25.0	32.0	19.0
D8040-S10-06	10	M18x 1.5	G 3/8 A	7.0	8.0	27.0	34.5	22.0
D8040-S12-06	12	M20x 1.5	G 3/8 A	8.0	8.0	29.0	36.5	22.0
D8040-S16-08	16	M24 x 1.5	G 1/2 A	12.0	12.0	32.5	41.0	27.0
D8040-S20-08	20	M30 x 2	G 1/2 A	16.0	12.0	31.5	42.0	32.0
D8040-S25-16	25	M36 x 2	G 1 A	20.0	20.0	41.0	53.0	41.0
D8040-S38-24	38	M52 x 2	G 1-1/2 A	32.0	32.0	48.0	64.0	55.0

Metric Bite Type Fittings

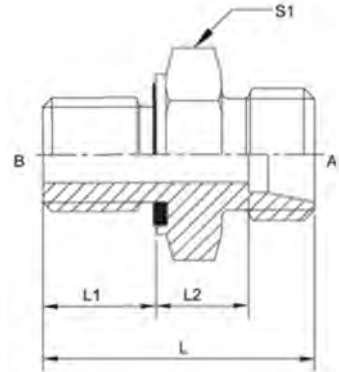
Straight Male Stud Coupling BSPP Sealing Bite D8040-NBR Series



PART NO.SIZE	A TUBE O.D	A THD	B TUB	A DRILL	B DRILL	LI LGTH	L2 LGTH	I LGTH	SI HEX	S2 HEX
D8040-L06-02-N BR	6	M12 x 1.5	G 1/8 A	4.0	4.0	8.0	16.5	31.0	14.0	14.0
D8040-L06-04-N BR	6	M12 x 1.5	G 1/4 A	4.0	6.0	12.0	22.0	36.5	19.0	14.0
D8040-L08-02-N BR	8	M14x 1.5	G 1/8 A	6.0	4.0	8.0	16.5	31.0	14.0	17.0
D8040-L08-04-N BR	8	M14 x 1.5	G 1/4 A	6.0	6.0	12.0	22.0	36.5	19.0	17.0
D8040-L08-06-N BR	8	M14x 1.5	G 3/8 A	6.0	9.0	12.0	23.5	38.0	22.0	17.0
D8040-L08-08-N BR	8	M14x 1.5	G 1/2 A	6.0	14.0	14.0	26.0	40.5	27.0	17.0
D8040-L10-02-N BR	10	M16x 1.5	G 1/8 A	8.0	4.0	8.0	17.0	31.5	17.0	19.0
D8040-L10-04-N BR	10	M16 x 1.5	G 1/4 A	8.0	6.0	12.0	23.0	37.5	19.0	19.0
D8040-L10-06-N BR	10	M16 x 1.5	G 3/8 A	8.0	9.0	12.0	24.5	39.0	22.0	19.0
D8040-L10-08-N BR	10	M16x 1.5	G 1/2 A	8.0	14.0	14.0	27.0	41.5	27.0	19.0
D8040- LI 2-04-N B R	12	M18 x 1.5	G 1/4 A	10.0	6.0	12.0	23.0	37.5	19.0	22.0
D8040-112-06-N BR	12	M18 x 1.5	G 3/8 A	10.0	9.0	12.0	24.5	39.0	22.0	22.0
D8040-L12-08-NBR	12	M18x 1.5	G 1/2 A	10.0	14.0	14.0	27.0	41.5	27.0	22.0
D8040-L12-12-NBR	12	M18x 1.5	G 3/4 A	10.0	18.0	16.0	30.0	44.5	32.0	22.0
D8040-L15-06-NBR	15	M22 x 1.5	G 3/8 A	12.0	9.0	12.0	23.0	38.0	24.0	27.0
D8040-L15-08-NBR	15	M22x 1.5	G 1/2 A	12.0	14.0	14.0	28.0	43.0	27.0	27.0
D8040-L18-08-NBR	18	M26 x 1.5	G 1/2 A	15.0	14.0	14.0	28.5	44.5	27.0	32.0
D8040-L22-12-NBR	22	M30 x 2	G 3/4 A	19.0	18.0	16.0	32.5	48.5	32.0	36.0
D8040-L28-16-NBR	28	M36 x 2	G 1 A	24.0	23.0	18.0	35.5	52.0	41.0	41.0
D8040-L35-20-NBR	35	M45 x 2	G 1-1/4 A	30.0	30.0	20.0	37.5	59.0	50.0	50.0
D8040-L42-24-NBR	42	M52 x 2	G 1-1/2 A	36.0	36.0	22.0	41.0	63.5	55.0	60.0
D8040-S06-04-NBR	6	M14x 1.5	G 1/4 A	4.0	5.0	12.0	25.0	39.5	19.0	17.0
D8040-S10-06-NBR	10	M18 x 1.5	G 3/8 A	7.0	8.0	12.0	27.0	43.0	22.0	22.0
D8040-S12-06-N B R	12	M20x 1.5	G 3/8 A	8.0	8.0	12.0	29.0	45.0	22.0	24.0
D8040-S16-08-N B R	16	M24 x 1.5	G 1/2 A	12.0	12.0	14.0	32.5	50.5	27.0	30.0
D8040-S20-08-NBR	20	M30 x 2	G 1/2 A	16.0	12.0	14.0	31.5	53.0	32.0	36.0
D8040-S25-16-NBR	25	M36 x 2	G 1 A	20.0	20.0	18.0	41.0	65.0	41.0	46.0
D8040-S38-24-N8R	38	M52 x 2	G 1-1/2 A	32.0	32.0	22.0	48.0	78.5	55.0	60.0

F-020

Straight Male Stud Coupling BSPP Elastomer Seal Body Only D8041 Series

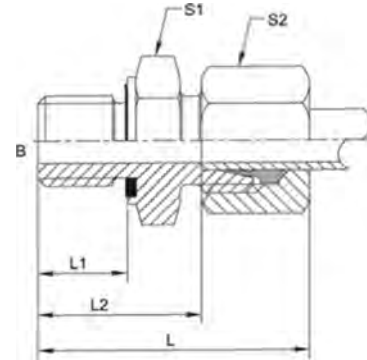


F-021

PART NO. SIZE	A TUBE O.D	A THD	B BSPP	k DRILL	B DRILL	LI LGTH	12 LETH	L LGTH	SI HEX
D8041-L06-02-0	6	M12 x 1.5	G 1/8 A	4.0	4.0	8.0	8.5	23.5	14.0
D8041-L06-04-0	6	M12 x 1.5	G 1/4 A	4.0	6.0	12.0	10.0	29.0	19.0
D8041-L08-02-0	8	M14 x 1.5	G 1/8 A	6.0	4.0	8.0	8.5	23.5	14.0
D8041-L08-04-0	8	M14 x 1.5	G 1/4 A	6.0	6.0	12.0	10.0	29.0	19.0
D8041-L08-06-0	8	M14 x 1.5	G3/8 A	6.0	9.0	12.0	11.5	30.5	22.0
D8041-LI 0-04-0	10	M16 x 1.5	G 1/4 A	8.0	6.0	12.0	11.0	30.0	19.0
D8041-LI 0-06-0	10	M16 x 1.5	G 3/8 A	8.0	9.0	12.0	12.5	31.5	22.0
D8041 -LI 0-08-0-N DV	10	M16 x 1.5	G 1/2 A	8.0	14.0	14.0	13.0	34.0	27.0
D8041-LI 2-04-0	12	M18 x 1.5	G 1/4 A	10.0	6.0	12.0	11.0	30.0	19.0
D8041-LI 2-06-0	12	M18 x 1.5	G 3/8 A	10.0	9.0	12.0	12.5	31.5	22.0
D8041-LI 2-08-0	12	M18 x 1.5	G 1/2 A	10.0	14.0	14.0	13.0	34.0	27.0
D8041-L15-06-0	15	M22 x 1.5	G 3/8 A	12.0	9.0	12.0	11.0	30.0	24.0
D8041-LI 5-08-0	15	M22 x 1.5	G 1/2 A	12.0	14.0	14.0	14.0	35.0	27.0
D8041-LI 8-08-0	18	M26 x 1.5	G 1/2 A	15.0	14.0	14.0	14.5	36.0	27.0
D8041-L22-08-0-N DV	22	M30x2	G 1/2 A	19.0	14.0	14.0	13.5	35.0	32.0
D8041-L22-12-0	22	M30 x 2	G 3/4 A	19.0	18.0	16.0	16.5	40.0	32.0
D8041-L22-16-0-N DV	22	M30 x 2	G 1 A	19.0	23.0	18.0	17.5	43.0	41.0
D8041-L28-16-0	28	M36 x 2	G 1 A	24.0	23.0	18.0	17.5	43.0	41.0
D8041-L35-20-0	35	M45 x 2	G 1-1/4 A	30.0	30.0	20.0	17.5	48.0	50.0
D8041-L42-24-0	42	M52 x 2	G 1-1/2 A	36.0	36.0	22.0	19.0	52.0	55.0
D8041-S06-04-0	6	M14 x 1.5	G 1/4 A	4.0	5.0	12.0	13.0	32.0	19.0
D8041-S08-04-0	8	M16 x 1.5	G 1/4 A	5.0	5.0	12.0	15.0	34.0	19.0
D8041-SI 0-04-0	10	M18 x 1.5	G 1/4 A	7.0	5.0	12.0	12.5	32.0	19.0
D8041-SI 0-06-0	10	M18 x 1.5	G 3/8 A	7.0	8.0	12.0	15.0	34.5	22.0
D8041-SI 2-04-0	12	M20 x 1.5	G 1/4 A	8.0	5.0	12.0	14.5	34.0	22.0
D8041-S12-06-0	12	M20 x 1.5	G 3/8 A	8.0	8.0	12.0	17.0	36.5	22.0
D8041-S12-08-0	12	M20 x 1.5	G 1/2 A	8.0	12.0	14.0	17.5	39.0	27.0
D8041 -SI 4-08-0	14	M22 x 1.5	G 1/2 A	10.0	12.0	14.0	18.5	41.0	27.0
D8041-S16-08-0	16	M24 x 1.5	G 1/2 A	12.0	12.0	14.0	18.5	41.0	27.0
D8041-S16-12-0	16	M24 x 1.5	G 3/4 A	12.0	16.0	16.0	20.5	45.0	32.0
D8041-S20-08-0	20	M30 x 2	G 1/2 A	16.0	12.0	14.0	17.5	42.0	32.0
D8041-S20-12-0	20	M30 x 2	G 3/4 A	16.0	16.0	16.0	20.5	47.0	32.0
D8041-S25-12-0	25	M36 x 2	G 3/4 A	20.0	16.0	16.0	20.0	48.0	41.0
D8041-S25-16-0	25	M36 x 2	G 1 A	20.0	20.0	18.0	23.0	53.0	41.0
D8041-S30-20-0	30	M42 x 2	G 1-1/4 A	25.0	25.0	20.0	23.5	57.0	50.0
D8041-S38-24-0	38	M52 x 2	G 1-1/2 A	32.0	32.0	22.0	26.0	64.0	55.0

Metric Bite Type Fittings

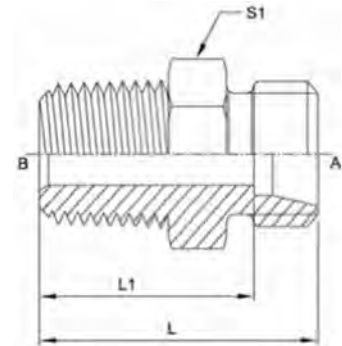
Straight Male Stud Coupling BSPP Elastomer Seal D8041-NBR Series



PART NO. SIZE	A TUBE 0.0	A THD	B THD	A DRILL	B DRILL	LI LOTH	L2 LOTH	L LOTH	SI HEX	S2 HEX
D8041-L06-02-0-N BR	6	M12x 1.5	G 1/8 A	4.0	4.0	8.0	16.5	31.0	14.0	14.0
D8041-L06-04-0-N BR	6	M12 x 1.5	G 1/4 A	4.0	6.0	12.0	22.0	36.5	19.0	14.0
D8041-L08-02-0-N BR	8	M14x 1.5	G 1/8 A	6.0	4.0	8.0	16.5	31.0	14.0	17.0
D8041 - L08-04-0- N BR	8	M14x 1.5	G 1/4 A	6.0	6.0	12.0	22.0	36.5	19.0	17.0
D8041-L08-06-0-NBR	8	M14 x 1.5	G 3/8 A	6.0	9.0	12.0	23.5	38.0	22.0	17.0
D8041-L10-04-0-NBR	10	M16x 1.5	G 1/4 A	8.0	6.0	12.0	23.0	37.5	19.0	19.0
D8041-L10-06-0-NBR	10	M16x 1.5	G 3/8 A	8.0	9.0	12.0	24.5	39.0	22.0	19.0
D8041 -LI 0-08-0-N DV	10	M16x 1.5	G 1/2 A	8.0	14.0	14.0	27.0	41.5	27.0	19.0
D8041 -LI 2-04-0-N BR	12	M18 x 1.5	G 1/4 A	10.0	6.0	12.0	23.0	37.5	19.0	22.0
D8041 -LI 2-06-0-N BR	12	M18x 1.5	G 3/8 A	10.0	9.0	12.0	24.5	39.0	22.0	22.0
D8041 -LI 2-08-0-N BR	12	M18 x 1.5	G 1/2 A	10.0	14.0	14.0	27.0	41.5	27.0	22.0
D8041-L15-06-0-NBR	15	M22x 1.5	G 3/8 A	12.0	9.0	12.0	23.0	38.0	24.0	27.0
D8041 -LI 5-08-0-N BR	15	M22x 1.5	G 1/2 A	12.0	14.0	14.0	28.0	43.0	27.0	27.0
D8041-L1808-0-NBR	18	M26x 1.5	G 1/2 A	15.0	14.0	14.0	28.5	44.5	27.0	32.0
D8041-L22-08-0-NDV	22	M30 x 2	G 1/2 A	19.0	14.0	14.0	27.5	43.5	32.0	36.0
D8041-L22-12-0-NBR	22	M30 x 2	G 3/4 A	19.0	18.0	16.0	32.5	48.5	32.0	36.0
D8041-L22-16-0-NDV	22	M30 x 2	G 1 A	19.0	23.0	18.0	35.5	51.5	41.0	36.0
D8041-L28-16-0-NBR	28	M36 x 2	G 1 A	24.0	23.0	18.0	35.5	52.0	41.0	41.0
D8041-L35-20-0-N BR	35	M45 x 2	G 1-1/4 A	30.0	30.0	20.0	37.5	59.0	50.0	50.0
D8041-L42-24-0-NBR	42	M52 x 2	G 1-1/2 A	36.0	36.0	22.0	41.0	63.5	55.0	60.0
D8041-S06-04-0-N BR	6	M14x 1.5	G 1/4 A	4.0	5.0	12.0	25.0	39.5	19.0	17.0
D8041-S08 04-0-NBR	8	M16x 1.5	G 1/4 A	5.0	5.0	12.0	27.0	41.5	19.0	19.0
D8041 -SI 0-04-0-N BR	10	M18x 1.5	G 1/4 A	7.0	5.0	12.0	24.5	40.5	19.0	22.0
D8041 -SI0-06-0- N BR	10	M18x 1.5	G 3/8 A	7.0	8.0	12.0	27.0	43.0	22.0	22.0
D8041 -SI 2-04-0-N BR	12	M20 x 1.5	G 1/4 A	8.0	5.0	12.0	26.5	42.5	22.0	24.0
D8041 -SI 2-06-0-NBR	12	M20x 1.5	G 3/8 A	8.0	8.0	12.0	29.0	45.0	22.0	24.0
D8041 -SI 2-08-0-N BR	12	M20 x 1.5	G 1/2 A	8.0	12.0	14.0	31.5	47.5	27.0	24.0
D8041-S14-08-0-NBR	14	M22x 1.5	G 1/2 A	10.0	12.0	14.0	32.5	50.5	27.0	27.0
D8041-S16-08-0-NBR	16	M24x 1.5	G 1/2 A	12.0	12.0	14.0	32.5	50.5	27.0	30.0
D8041-S16-12-0-NBR	16	M24x 1.5	G 3/4 A	12.0	16.0	16.0	36.5	54.5	32.0	30.0
D8041-S20-08-0-N BR	20	M30 x 2	G 1/2 A	16.0	12.0	14.0	31.5	53.0	32.0	36.0
D8041-S20-12-0-NBR	20	M30 x 2	G 3/4 A	16.0	16.0	16.0	36.5	58.0	32.0	36.0
D8041-S25-12-0-N BR	25	M36 x 2	G 3/4 A	20.0	16.0	16.0	36.0	60.0	41.0	46.0
D8041-S25-16-0-N BR	25	M36 x 2	G 1 A	20.0	20.0	18.0	41.0	65.0	41.0	46.0
D8041-S30-20-0-N BR	30	M42 x 2	G 1-1/4 A	25.0	25.0	20.0	43.5	70.0	50.0	50.0
D8041-S38-24-0-NBR	38	M52 x 2	G 1-1/2 A	32.0	32.0	22.0	48.0	78.5	55.0	60.0

F-022

Straight Male Stud Coupling BSPT Body Only D8043 Series

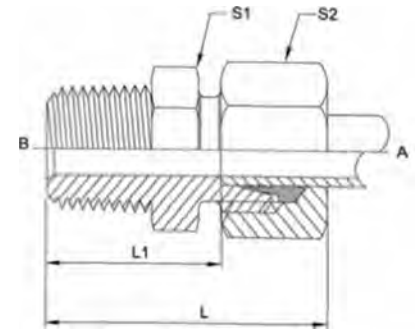


F-023

PAST NO. SIZE	A TUBE O.D.	A THD	B BSPT	A DRILL	B DRILL	L1 LGTH	L LGTH	S1 HEX
D8043-E04-02	4	M8 x 1	R 1/8	3	3	19.8	20	11
D8043-E06-02	6	M10 x 1	R 1/8	4.5	4.5	18.3	20	11
D8043-E08-02	8	M12 x 1	R 1/8	6	6	18.7	22	12
D8043-E08-04	8	M12 x 1	R 1/4	6	6	24.6	30.1	14
D8043-L06-02	6	M12 x 1.5	R 1/8	4	4	17.2	24.2	12
D8043-L08-02	8	M14 x 1.5	R 1/8	6	6	18.2	25.2	14
D8043-L08-04	8	M14 x 1.5	R 1/4	6	6	24.1	31.1	14
D8043-L08-06	8	M14 x 1.5	R 3/8	6	6	24.1	31.1	19
D8043-L10-04	10	M16 x 1.5	R 1/4	8	7	23.7	30.7	17
D8043-L10-06	10	M16 x 1.5	R 3/8	8	8	25.1	32.1	19
D8043-L10-08	10	M16 x 1.5	R 1/2	8	8	31.4	38.4	22
D8043-L12-04	12	M18 x 1.5	R 1/4	10	7	24.7	31.7	19
D8043-L12-06	12	M18 x 1.5	R 3/8	10	10	25.1	32.1	19
D8043-L12-08	12	M18 x 1.5	R 1/2	10	10	31.4	38.4	22
D8043-L15-08	15	M22 x 1.5	R 1/2	12	12	30.5	37.5	24
D8043-L18-08	18	M26 x 1.5	R 1/2	15	13.5	31	38.5	27
D8043-L22-12	22	M30 x 2	R 3/4	19	18	33	40.5	32
D8043-L28-16	28	M36 x 2	R 1	24	23.8	38.9	46.4	41
D8043-S06-04	6	M14 x 1.5	R 1/4	4	4	26.1	33.1	14
D8043-S08-04	8	M16 x 1.5	R 1/4	5	5	27.7	34.7	17
D8043-S20-08	20	M30 x 2	R 1/2	16	16	37	47.5	32
D8043-S25-16	25	M36 x 2	R 1	20	20	44.4	56.4	41

Metric Bite Type Fittings

Straight Male Stud Coupling BSPT D8043-NBR Series

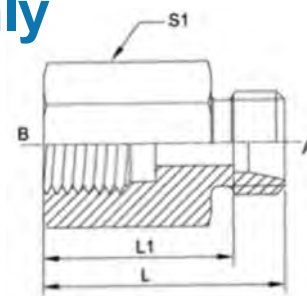


PART NO. SIZE	A TUBE O.D.	A THD	B BSPT	A DRILL	B DRILL	11 LGTH	L LGTH HEX	S1 HEX	S2 HEX
D8043-E04-02-N BR	4	M8 x 1	R 1/8	3.0	4.8	19.8	29.3	11.0	10.0
D8043-E06-02-NBR	6	M10x1	R 1/8	4.5	4.8	18.3	29.8	11.0	12.0
D8043-E08-02-N BR	8	M12 x 1	R 1/8	6.0	6.0	18.7	30.2	12.0	14.0
D8043-E08-04-N BR	8	M12 x 1	R 1/4	6.0	6.0	24.6	36.1	14.0	14.0
D8043-L06-02-NBR	6	M12 x 1.5	R 1/8	4.0	4.0	17.2	31.7	12.0	14.0
D8043-L08-02-NBR	8	M14 x 1.5	R 1/8	6.0	6.0	18.2	32.7	14.0	17.0
D8043-L08-04-NBR	8	M14x 1.5	R 1/4	6.0	7.0	24.1	38.6	14.0	17.0
D8043-L08-06-NBR	8	M14 x 1.5	R 3/8	6.0	10.3	24.1	38.6	19.0	17.0
D8043-L10-04-NBR	10	M16 x 1.5	R 1/4	8.0	7.0	23.7	38.2	17.0	19.0
D8043-L10-06-NBR	10	M16 x 1.5	R 3/8	8.0	10.3	25.1	39.6	19.0	19.0
D8043-L10-08-NBR	10	M16 x 1.5	R 1/2	8.0	13.5	31.4	45.9	22.0	19.0
D8043-L12-04-NBR	12	M18 x 1.5	R 1/4	10.0	7.0	24.7	39.2	19.0	22.0
D8043-L12-06-N BR	12	M18 x 1.5	R 3/8	10.0	10.3	25.1	39.6	19.0	22.0
D8043-L12-08-NBR	12	M18 x 1.5	R 1/2	10.0	13.5	31.4	45.9	22.0	22.0
D8043-L15-08-N BR	15	M22 x 1.5	R 1/2	12.0	13.5	30.5	45.5	24.0	27.0
D8043-L18-08-N BR	18	M26 x 1.5	R 1/2	15.0	13.5	31.0	47.0	27.0	32.0
D8043-L22-12-N BR	22	M30 x 2	R 3/4	19.0	18.0	33.0	49.0	32.0	36.0
D8043-L28-16-N BR	28	M36 x 2	R 1	24.0	23.8	38.9	55.4	41.0	41.0
D8043-S06-04-N BR	6	M14 x 1.5	R 1/4	4.0	7.0	26.1	40.6	14.0	17.0
D8043-S08-04-N BR	8	M16 x 1.5	R 1/4	5.0	7.0	27.7	42.2	17.0	19.0
D8043-S20-08-N BR	20	M30 x 2	R 1/2	16.0	13.5	37.0	58.5	32.0	36.0
D8043-S25-16-NBR	25	M36 x 2	R 1	20.0	23.8	44.4	68.4	41.0	46.0

F-024

Female Stud Coupling BSPP Body Only

D8044 Series

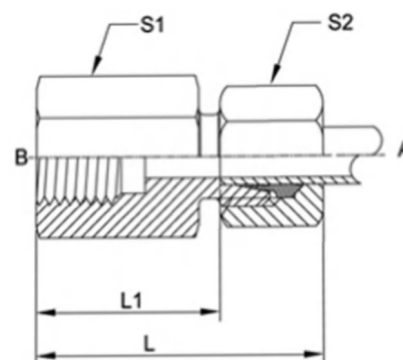


F-025

PART NO. SIZE	A TUBE O.D.	A THD	B BSPP	A DRILL	LI LGTH	L LGTH	SI HEX
D8044-L06-06	6	M12 x 1.5	G 3/8	4.0	24.0	31.0	22.0
D8044-L08-04	8	M14 x 1.5	G 1/4	6.0	22.0	29.0	19.0
D8044-L08-06	8	M14 x 1.5	G 3/8	6.0	24.0	31.0	22.0
D8044-L10-04	10	M16 x 1.5	G 1/4	8.0	23.0	30.0	19.0
D8044-L10-06	10	M16 x 1.5	G 3/8	8.0	25.0	32.0	22.0
D8044-L12-08	12	M18 x 1.5	G 1/2	10.0	27.0	34.0	27.0
D8044-S12-06	12	M20 x 1.5	G 3/8	8.0	25.5	33.0	22.0
D8044-S14-08	14	M22 x 1.5	G 1/2	10.0	28.5	37.0	27.0
D8044-S25-16	25	M36 x 2	G 1	20.0	37.0	49.0	41.0
D8044-S30-20	30	M42 x 2	G 1-1/4	25.0	42.5	56.0	50.0

Female Stud Coupling BSPP

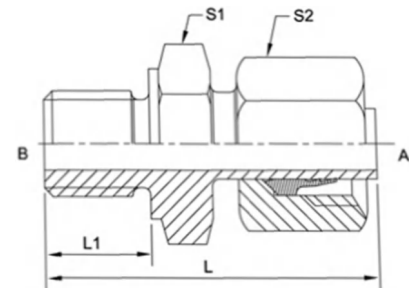
D8044-NBR Series



PART NO. SIZE	A TUBE O.D.	A TNO	B THO	A DRILL	LI LGTH	L LGTH	SI HEX	S2 HEX
D8044- L06-06- N B R	6	M12 x 1.5	G 3/8	4.0	24.0	38.5	22.0	14.0
D8044-L08-04-NBR	8	M14 x 1.5	G1/4	6.0	22.0	36.5	19.0	17.0
D8044-L08-06-NBR	8	M14 x 1.5	G 3/8	6.0	24.0	38.5	22.0	17.0
D8044-L10-04-NBR	10	M16 x 1.5	G 1/4	8.0	23.0	37.5	19.0	19.0
D8044-L10-06-NBR	10	M16 x 1.5	G 3/8	8.0	25.0	39.5	22.0	19.0
D8044-L12-08-NBR	12	M18 x 1.5	G 1/2	10.0	27.0	41.5	27.0	22.0
D8044-S12-06-NBR	12	M20x 1.5	G 3/8	8.0	25.5	41.5	22.0	24.0
D8044-S14-08-N BR	14	M22 x 1.5	G 1/2	10.0	28.5	46.5	27.0	27.0
D8044-S25-16-NBR	25	M36 x 2	G 1	20.0	37.0	61.0	41.0	46.0
D8044-S30-20-NBR	30	M42 x 2	G 1-1/4	25.0	42.5	69.0	50.0	50.0

Metric Bite Type Fittings

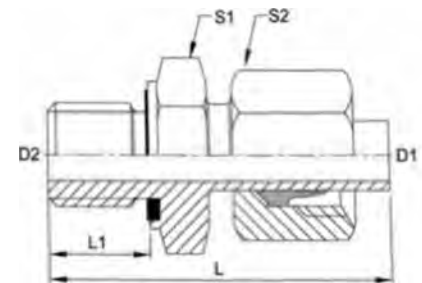
Straight Stud Standpipe Adapter BSPP Sealing Bite D8045 Series



PART NO. SIZE	D1 TUBE O.D.	01 THO	02 THO	01 DRILL	02 DRILL	11 LOTH	L LETH	SI HEX	S2 HEX
D8045-L12-06	12	M18 x 1.5	G 3/8 A	7.5	9.0	12.0	42.5	22.0	22.0
D8045-L18-08	18	M26 x 1.5	G 1/2 A	14.0	14.0	14.0	44.5	27.0	32.0
D8045-L22-12	22	M30 x 2	G 3/4 A	18.0	18.0	16.0	48.5	32.0	36.0
D8045-S25-16	25	M36 x 2	G 1 A	18.0	20.0	18.0	66.0	41.0	46.0

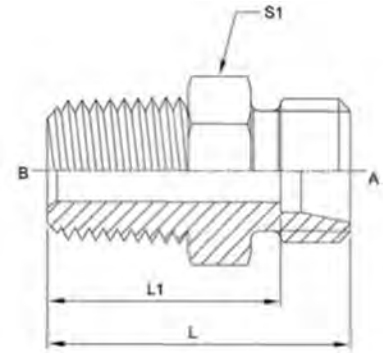
F-026

Straight Stud Standpipe Adapter BSPP Elastomer Seal D8046 Series



PART NO. SIZE	01 TUBE O.D.	01 THO	02 THO	01 DRILL	02 DRILL	LI LOTH	L LGTH	SI HEX	S2 HEX
D8046-L08-04-0	8	M14 x 1.5	G 1/4 A	4.5	6.0	12.0	38.5	19.0	17.0
D8046-L10-04-0	10	M16 x 1.5	G 1/4 A	7.0	6.0	12.0	39.5	19.0	19.0
D8046-L12-06-0	12	M18 x 1.5	G 3/8 A	7.5	9.0	12.0	42.5	22.0	22.0
D8046-L15-08-0	15	M22 x 1.5	G 1/2 A	11.0	14.0	14.0	46.0	27.0	27.0
D8046-L22-12-0	22	M30 x 2	G 3/4 A	18.0	18.0	16.0	48.5	32.0	36.0
D8046-L28-16-0	28	M36 x 2	G 1 A	23.0	23.0	18.0	53.0	41.0	41.0
D8046-L35-20-0	35	M45 x 2	G 1-1/4 A	29.5	30.0	20.0	62.5	50.0	50.0
D8046-L42-24-0	42	M52 x 2	G 1-1/2 A	35.5	36.0	22.0	68.5	55.0	60.0
D8046-S06-04-0	6	M14 x 1.5	G 1/4 A	3.5	5.0	12.0	39.0	19.0	17.0
D8046-S08-04-0	8	M16 x 1.5	G 1/4 A	4.5	5.0	12.0	39.5	19.0	19.0
D8046-S10-04-0	10	M18 x 1.5	G 1/4 A	7.0	5.0	12.0	41.5	19.0	22.0
D8046-S10-06-0	10	M18 x 1.5	G 3/8 A	7.0	8.0	12.0	44.0	22.0	22.0
D8046-S12-06-0	12	M20 x 1.5	G 3/8 A	6.5	8.0	12.0	44.0	22.0	24.0
D8046-S16-08-0	16	M24 x 1.5	G 1/2 A	11.5	12.0	14.0	51.0	27.0	30.0
D8046-S20-12-0	20	M30 x 2	G 3/4 A	15.5	16.0	16.0	59.0	32.0	36.0
D8046-S25-12-0	25	M36 x 2	G 3/4 A	18.0	16.0	16.0	61.0	41.0	46.0
D8046-S30-20-0	30	M42 x 2	G 1-1/4 A	23.0	25.0	20.0	71.0	50.0	50.0

Straight Male Stud Coupling NPTF Body Only D8050 Series

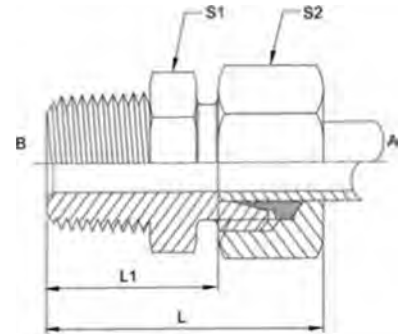


F-027

PART NO. SIZE	A TUBE 0.0	A THD	0 NPTF	A DRILL	8 DRILL	LI LGTH	I LOTH	SI HEX
D8050-E04-02	4	M8 x 1	1/8-27	3.0	4.8	19.8	23.8	11.0
D8050-E06-02	6	M10x1	1/8-27	4.5	4.8	18.3	23.8	11.0
D8050-E08-02	8	M12 x 1	1/8-27	6.0	4.8	18.7	24.2	12.0
D8050-L06-02	6	M12 x 1.5	1/8-27	4.0	4.8	17.2	24.2	12.0
D8050 L06-04	6	M12 x 1.5	1/4-18	4.0	7.0	24.1	31.1	14.0
D8050 L08-02	8	M14x 1.5	1/8-27	6.0	4.8	18.2	25.2	14.0
D8050-L08-04	8	M14 x 1.5	1/4-18	6.0	7.0	24.1	31.1	14.0
D8050-L08-06	8	M14 x 1.5	3/8-18	6.0	10.3	24.1	31.1	19.0
D8050-L10-02	10	M16 x 1.5	1/8-27	8.0	4.8	19.2	26.2	17.0
D8050-L10-04	10	M16 x 1.5	1/4-18	8.0	7.0	23.7	30.7	17.0
D8050-L10-06	10	M16 x 1.5	3/8-18	8.0	10.3	25.1	32.1	19.0
D8050-L12-04	12	M18 x 1.5	1/4-18	10.0	7.0	24.7	31.7	19.0
D8050-L12-06	12	M18 x 1.5	3/8-18	10.0	10.3	25.1	32.1	19.0
D8050-L12-08	12	M18 x 1.5	1/2-14	10.0	13.5	31.4	38.4	22.0
D8050-L15-08	15	M22 x 1.5	1/2-14	12.0	13.5	30.5	37.5	24.0
D8050-L18-08	18	M26 x 1.5	1/2-14	15.0	13.5	31.0	38.5	27.0
D8050-L18-12	18	M26 x 1.5	3/4-14	15.0	18.0	33.7	41.2	27.0
D8050-L22-12	22	M30 x 2	3/4-14	19.0	18.0	33.0	40.5	32.0
D8050-L28-16	28	M36 x 2	1-11-1/2	24.0	23.8	38.9	46.4	41.0
D8050-L35-20	35	M45 x 2	1-1/4-11-1/2	30.0	31.7	39.6	50.1	46.0
D8050-L42-24	42	M52 x 2	1-1/2-11-1/2	36.0	38.0	41.9	52.9	55.0
D8050-S06-04	6	M14 x 1.5	1/4-18	4.0	7.0	26.1	33.1	14.0
D8050-S08-04	8	M16 x 1.5	1/4-18	5.0	7.0	27.7	34.7	17.0
D8050-S10-04	10	M18 x 1.5	1/4-18	7.0	7.0	27.2	34.7	19.0
D8050-S10-06	10	M18 x 1.5	3/8-18	7.0	10.3	25.6	33.1	19.0
D8050-S12-06	12	M20 x 1.5	3/8-18	8.0	10.3	29.2	36.7	22.0
D8050-S12-08	12	M20 x 1.5	1/2-14	8.0	13.5	31.9	39.4	22.0
D8050-S14-06	14	M22 x 1.5	3/8-18	10.0	10.3	30.2	38.7	24.0
D8050-S14-08	14	M22 x 1.5	1/2-14	10.0	13.5	35.0	43.5	24.0
D8050-S16-06	16	M24 x 1.5	3/8-18	12.0	10.3	30.2	38.7	27.0
D8050-S16-08	16	M24 x 1.5	1/2-14	12.0	13.5	35.0	43.5	27.0
D8050-S16-12	16	M24 x 1.5	3/4-14	12.0	18.0	34.7	43.2	27.0
D8050-S20-12	20	M30 x 2	3/4-14	16.0	18.0	37.0	47.5	32.0
D8050-S25-16	25	M36 x 2	1-11-1/2	20.0	23.8	44.4	56.4	41.0
D8050-S30-20	30	M42 x 2	1-1/4-11-1/2	25.0	31.7	45.6	59.1	46.0
D8050-S38-24	38	M52 x 2	1-1/2-11-1/2	32.0	38.0	48.9	64.9	55.0

Metric Bite Type Fittings

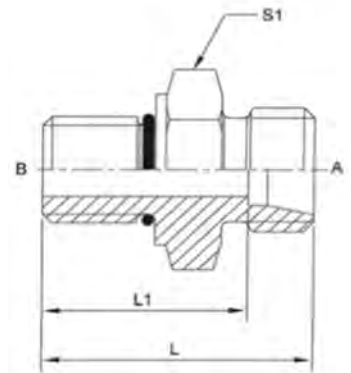
Straight Male Stud Coupling NPTF D8050-NBR Series



PART NO.SIZE	A TUBE O.D	A THD	B NPTF	A DRILL	B DRIU	11 LGTH	L LGTH	SI HEX	S2 HEX
D8050-E04-02-N BR	4	M8 x 1	1/8-27	3.0	4.8	19.8	29.3	11.0	10.0
D8050-E06-02-NBR	6	M10 x 1	1/8-27	4.5	4.8	18.3	29.8	11.0	12.0
D8050-E08-02-N BR	8	M12 x 1	1/8-27	6.0	4.8	18.7	30.2	12.0	14.0
D8050-L06-02-N BR	6	M12x 1.5	1/8-27	4.0	4.8	17.2	31.7	12.0	14.0
D8050-L06-04-N BR	6	M12x 1.5	1/4-18	4.0	7.0	24.1	38.6	14.0	14.0
D8050-L08-02-N BR	8	M14x 1.5	1/8-27	6.0	4.8	18.2	32.7	14.0	17.0
D8050-L08-04-N BR	8	M14x 1.5	1/4-18	6.0	7.0	24.1	38.6	14.0	17.0
D8050-L08-06-N BR	8	M14x 1.5	3/8-18	6.0	10.3	24.1	38.6	19.0	17.0
D8050-L10-02-N BR	10	M16x 1.5	1/8-27	8.0	4.8	19.2	33.7	17.0	19.0
D8050-L10-04-N BR	10	M16x 1.5	1/4-18	8.0	7.0	23.7	38.2	17.0	19.0
D8050-L10-06-N BR	10	M16 x 1.5	3/8-18	8.0	10.3	25.1	39.6	19.0	19.0
D8050-L12-04-NBR	12	M18x 1.5	1/4-18	10.0	7.0	24.7	39.2	19.0	22.0
D8050-L12-06-N BR	12	M18x 1.5	3/8-18	10.0	10.3	25.1	39.6	19.0	22.0
D8050-L12-08-N BR	12	M18x 1.5	1/2-14	10.0	13.5	31.4	45.9	22.0	22.0
D8050-L15-08-N BR	15	M22x 1.5	1/2-14	12.0	13.5	30.5	45.5	24.0	27.0
D8050-L18-08-N BR	18	M26x 1.5	1/2-14	15.0	13.5	31.0	47.0	27.0	32.0
D8050-L18-12-NBR	18	M26 x 1.5	3/4-14	15.0	18.0	33.7	49.7	27.0	32.0
D8050-L22-12-NBR	22	M30 x 2	3/4-14	19.0	18.0	33.0	49.0	32.0	36.0
D8050-L28-16-N BR	28	M36 x 2	1-11-1/2	24.0	23.8	38.9	55.4	41.0	41.0
D8050-L35-20-N BR	35	M45 x 2	1-1/4-11-1/2	30.0	31.7	39.6	61.1	46.0	50.0
D8050-L42-24-N BR	42	M52 x 2	1-1/2-11-1/2	36.0	38.0	41.9	64.4	55.0	60.0
D8050-S06-04-N BR	6	M14 x 1.5	1/4-18	4.0	7.0	26.1	40.6	14.0	17.0
D8050-S08-04-NBR	8	M16 x 1.5	1/4-18	5.0	7.0	27.7	42.2	17.0	19.0
D8050-S10-04-NBR	10	M18 x 1.5	1/4-18	7.0	7.0	27.2	43.2	19.0	22.0
D8050-S10-06- N BR	10	M18 x 1.5	3/8-18	7.0	10.3	25.6	41.6	19.0	22.0
D8050-S12-06- N BR	12	M20 x 1.5	3/8-18	8.0	10.3	29.2	45.2	22.0	24.0
D8050-S12-08-NBR	12	M20 x 1.5	1/2-14	8.0	13.5	31.9	47.9	22.0	24.0
D8050-S14-06- N BR	14	M22 x 1.5	3/8-18	10.0	10.3	30.2	48.2	24.0	27.0
D8050-S14-08-NBR	14	M22 x 1.5	1/2-14	10.0	13.5	35.0	53.0	24.0	27.0
D8050-S16-06-NBR	16	M24 x 1.5	3/8-18	12.0	10.3	30.2	48.2	27.0	30.0
D8050-S16-08-NBR	16	M24 x 1.5	1/2-14	12.0	13.5	35.0	53.0	27.0	30.0
D8050-S16-12-NBR	16	M24 x 1.5	3/4-14	12.0	18.0	34.7	52.7	27.0	30.0
D8050-S20-12-NBR	20	M30 x 2	3/4-14	16.0	18.0	37.0	58.5	32.0	36.0
D8050-S25-16-N BR	25	M36 x 2	1-11-1/2	20.0	23.8	44.4	68.4	41.0	46.0
D8050-S30-20-NBR	30	M42 x 2	1-1/4-11-1/2	25.0	31.7	45.6	72.1	46.0	50.0
D8050-S38-24-NBR	38	M52 x 2	1-1/2-11-1/2	32.0	38.0	48.9	79.4	55.0	60.0

F-028

Straight Male Stud Coupling ORB Body Only D8051 Series

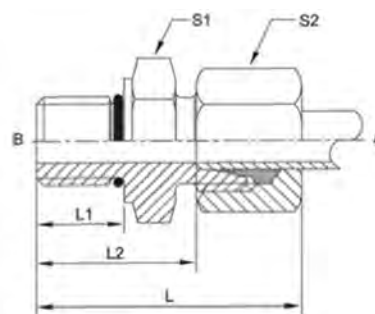


F-029

PART NO. SIZE	A TUBE O.D.	A THD	B ORB	A DRILL	B DRILL	LI LGTH	L LGTH	SI HEX
D8051 - L06-04-0- N B R	6	M12 x 1.5	7/16-20	4.0	4.4	20.0	27.0	14.0
D8051-L08-04-0-NBR	8	M14 x 1.5	7/16-20	6.0	4.4	20.0	27.0	14.0
D8051-L08-05-0-NBR	8	M14 x 1.5	1/2-20	6.0	6.0	20.0	27.0	17.0
D8051-L10-04-0-NBR	10	M16 x 1.5	7/16-20	8.0	4.4	18.1	25.1	17.0
D8051-L10-06-0-NBR	10	M16x 1.5	9/16-18	8.0	7.5	22.9	29.9	17.0
D8051-L12-06-0-NBR	12	M18x 1.5	9/16-18	10.0	7.5	20.0	27.0	19.0
D8051 -LI 2-06-O-N DV	12	M18x 1.5	9/16-18	10.0	7.5	20.0	27.0	19.0
D8051-L12-08-0-NBR	12	M18 x 1.5	3/4-16	10.0	9.9	24.8	31.8	22.0
D8051 -LI 5-08-O-N BR	15	M22 x 1.5	3/4-16	12.0	9.9	22.1	29.1	24.0
D8051 -LI 5-10-O-N BR	15	M22x 1.5	7/8-14	12.0	12.3	28.7	35.7	27.0
D8051 -LI 8-08-O-N BR	18	M26x 1.5	3/4-16	15.0	9.9	22.6	30.1	27.0
D8051 -LI 8-10-O-N BR	18	M26x 1.5	7/8-14	15.0	12.3	28.2	35.7	27.0
D8051-L22-10-O-N BR	22	M30 x 2	7/8-14	19.0	12.3	26.2	33.7	32.0
D8051-L22-12-O-N BR	22	M30 x 2	1-1/16-12	19.0	15.5	34.6	42.1	32.0
D8051-L22-16-O-N BR	22	M30 x 2	1-5/16-12	19.0	21.4	35.4	42.9	41.0
D8051-L28-12-O-N BR	28	M36 x 2	1-1/16-12	24.0	15.5	29.6	37.1	41.0
D8051-L28-16-O-NBR	28	M36 x 2	1-5/16-12	24.0	21.4	35.4	42.9	41.0
D8051-L35-20-0-NBR	35	M45 x 2	1-5/8-12	30.0	27.4	36.2	46.7	50.0
D8051-S06-04-0-N BR	6	M14 x 1.5	7/16-20	4.0	4.4	24.0	31.0	17.0
D8051-S08-04-0-N BR	8	M16x 1.5	7/16-20	5.0	4.4	24.0	31.0	17.0
D8051-S08-05-0-NBR	8	M16x 1.5	1/2-20	5.0	6.0	24.7	31.7	19.0
D8051 -SI 0-06-O-NBR	10	M18x 1.5	9/16-18	7.0	6.5	25.1	32.6	19.0
D8051-S12-06-0-NBR	12	M20x 1.5	9/16-18	8.0	6.5	26.5	34.0	22.0
D8051-S12-08-0-NBR	12	M20x 1.5	3/4-16	8.0	9.5	28.3	35.8	22.0
D8051 -SI 4-08-O-N BR	14	M22x 1.5	3/4-16	10.0	9.5	29.5	38.0	24.0
D8051 -SI 6-08-O-N BR	16	M24x 1.5	3/4-16	12.0	9.5	29.5	38.0	27.0
D8051 -SI 6-10-O-N BR	16	M24x 1.5	7/8-14	12.0	12.3	33.2	41.7	27.0
D8051-SI 6-12-O-N BR	16	M24 x 1.5	1-1/16-12	12.0	15.5	37.2	45.7	32.0
D8051-S20-08-0-N BR	20	M30 x 2	3/4-16	16.0	9.5	31.5	42.0	32.0
D8051-S20-10-O-N BR	20	M30 x 2	7/8-14	16.0	12.3	33.5	44.0	32.0
D8051-S20-12-O-N BR	20	M30 x 2	1-1/16-12	16.0	15.5	37.2	47.7	32.0
D8051-S25-16-O-N BR	25	M36 x 2	1-5/16-12	20.0	20.6	38.7	50.7	41.0

Metric Bite Type Fittings

Straight Male Stud Coupling ORB D8051-NBR Series

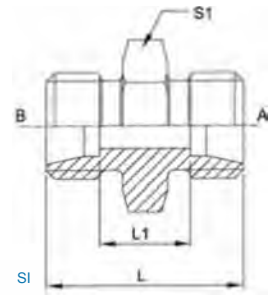


PART NO. SIZE	A TUBE O.D.	A TDD	B ORB	A DRILL	B ORILL	LI LOTH	12 LOTH	L LOTH	SI HEX	S2 HEX
D8051-L06-04-0-N BR	6	M12 x 1.5	7/16-20	4.0	4.4	9.1	20.0	34.5	14.0	14.0
D8051-L08-04-0-N BR	8	M14 x 1.5	7/16-20	6.0	4.4	9.1	20.0	34.5	14.0	17.0
D8051-L08-05-0-N BR	8	M14 x 1.5	1/2-20	6.0	6.0	9.1	20.0	34.5	17.0	17.0
D8051-L10-04-0-NBR	10	M16x 1.5	7/16-20	8.0	4.4	9.1	18.1	32.6	17.0	19.0
D8051 -LI 0-06-0-N BR	10	M16 x 1.5	9/16-18	8.0	7.5	10.0	22.9	37.4	17.0	19.0
D8051 -LI 2-06-0-N BR	12	M18 x 1.5	9/16-18	10.0	7.5	10.0	20.0	34.5	19.0	22.0
D8051 -LI 2-06-0-N DV	12	M18x 1.5	9/16-18	10.0	7.5	10.0	20.0	34.5	19.0	22.0
D8051-L12-08-0-NBR	12	M18 x 1.5	3/4-16	10.0	9.9	11.1	24.8	39.3	22.0	22.0
D8051 -LI 5-08-0-N BR	15	M22 x 1.5	3/4-16	12.0	9.9	11.1	22.1	37.1	24.0	27.0
D8051-L15-10-0-NBR	15	M22 x 1.5	7/8-14	12.0	12.3	12.7	28.7	43.7	27.0	27.0
D8051 -LI 8-08-0-N BR	18	M26 x 1.5	3/4-16	15.0	9.9	11.1	22.6	38.6	27.0	32.0
D8051-L18-10-0-NBR	18	M26 x 1.5	7/8-14	15.0	12.3	12.7	28.2	44.2	27.0	32.0
D8051-L22-10-0-N BR	22	M30 x 2	7/8-14	19.0	12.3	12.7	26.2	42.2	32.0	36.0
D8051-L22-12-0-NBR	22	M30 x 2	1-1/16-12	19.0	15.5	15.1	34.6	50.6	32.0	36.0
D8051-L22-16-0-N BR	22	M30 x 2	1-5/16-12	19.0	21.4	15.1	35.4	51.4	41.0	36.0
D8051-L28-12-0-NBR	28	M36 x 2	1-1/16-12	24.0	15.5	15.1	29.6	46.1	41.0	41.0
D8051-L28-16-0-N BR	28	M36 x 2	1-5/16-12	24.0	21.4	15.1	35.4	51.9	41.0	41.0
D8051-L35-20-0-N BR	35	M45 x 2	1-5/8-12	30.0	27.4	15.1	36.2	57.7	50.0	50.0
D8051-S06-04-0-N BR	6	M14 x 1.5	7/16-20	4.0	4.4	11.0	24.0	38.5	17.0	17.0
D8051-S08-04-0-N BR	8	M16 x 1.5	7/16-20	5.0	4.4	11.0	24.0	38.5	17.0	19.0
D8051-S08-05-0-NBR	8	M16 x 1.5	1/2-20	5.0	6.0	11.0	24.7	39.2	19.0	19.0
D8051-S10-06-0-NBR	10	M18 x 1.5	9/16-18	7.0	6.5	12.0	25.1	41.1	19.0	22.0
D8051-S12-06-0-NBR	12	M20 x 1.5	9/16-18	8.0	6.5	12.0	26.5	42.5	22.0	24.0
D8051-S12-08-0-NBR	12	M20 x 1.5	3/4-16	8.0	9.5	14.0	28.3	44.3	22.0	24.0
D8051 -SI 4-08-0-N BR	14	M22 x 1.5	3/4-16	10.0	9.5	14.0	29.5	47.5	24.0	27.0
D8051 -S16-08-0- N BR	16	M24 x 1.5	3/4-16	12.0	9.5	14.0	29.5	47.5	27.0	30.0
D8051 -SI 6-10-0-N BR	16	M24 x 1.5	7/8-14	12.0	12.3	16.0	33.2	51.2	27.0	30.0
D8051-SI 6-12-0-NBR	16	M24 x 1.5	1-1/16-12	12.0	15.5	18.5	37.2	55.2	32.0	30.0
D8051-S20-08-0- N BR	20	M30 x 2	3/4-16	16.0	9.5	14.0	31.5	53.0	32.0	36.0
D8051-S20-10-0-NBR	20	M30 x 2	7/8-14	16.0	12.3	16.0	33.5	55.0	32.0	36.0
D8051-S20-12-0-NBR	20	M30 x 2	1-1/16-12	16.0	15.5	18.5	37.2	58.7	32.0	36.0
D8051-S25-16-0-N BR	25	M36 x 2	1-5/16-12	20.0	20.6	18.5	38.7	62.7	41.0	46.0

F-030

Straight Coupling Body Only

D8060 Series

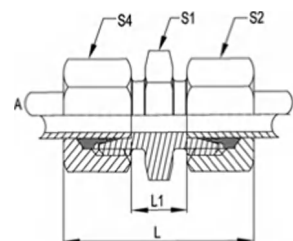


F-031

PART NO. SIZE	A TUBE O.O	BTUBE O.O	A THD	B THD	A DRILL	B BRILL	LI LGTH	L LGTH	SI HEX
D8060-E04-04	4	4	M8 x 1	M8 x 1	3.0	3.0	12.0	20.0	9.0
D8060-E05-05	5	5	M10x1	M10x1	3.5	3.5	9.0	20.0	11.0
D8060-E06-04	6	4	M10x1	M8 x 1	4.5	3.0	10.5	20.0	11.0
D8060-E06-06	6	6	M10x 1	M10 x 1	4.5	4.5	9.0	20.0	11.0
D8060-E08-08	8	8	M12 x 1	M12 x 1	6.0	6.0	12.0	23.0	12.0
D8060-L06-06	6	6	M12 x 1.5	M12 x 1.5	4.0	4.0	10.0	24.0	12.0
D8060-L08-06	8	6	M14 x 1.5	M12 x 1.5	6.0	4.0	11.0	25.0	14.0
D8060-L08-08	8	8	M14 x 1.5	M14 x 1.5	6.0	6.0	11.0	25.0	14.0
D8060-L10-06	10	6	M16x 1.5	M12 x 1.5	8.0	4.0	12.0	26.0	17.0
D8060-L10-08	10	8	M16 x 1.5	M14 x 1.5	8.0	6.0	12.0	26.0	17.0
D8060-L10-10	10	10	M16x 1.5	M16 x 1.5	8.0	8.0	13.0	27.0	17.0
D8060-L12-06	12	6	M18 x 1.5	M12 x 1.5	10.0	4.0	13.0	27.0	19.0
D8060-L12-08	12	8	M18 x 1.5	M14x1.5	10.0	6.0	13.0	27.0	19.0
D8060-L12-10	12	10	M18 x 1.5	M16 x 1.5	10.0	8.0	14.0	28.0	19.0
D8060-L12-12	12	12	M18 x 1.5	M18 x 1.5	10.0	10.0	14.0	28.0	19.0
D8060-L12-22	12	22	M18 x 1.5	M30 x 2	10.0	19.0	17.5	32.0	32.0
D8060-L15-08	15	8	M22 x 1.5	M14 x 1.5	12.0	6.0	14.0	28.0	24.0
D8060-L15-10	15	10	M22x 1.5	M16 x 1.5	12.0	8.0	15.0	29.0	24.0
D8060-L15-12	15	12	M22 x 1.5	M18x 1.5	12.0	10.0	15.0	29.0	24.0
D8060-L15-15	15	15	M22 x 1.5	M22 x 1.5	12.0	12.0	16.0	30.0	24.0
D8060-L18-10	18	10	M26 x 1.5	M16x 1.5	15.0	8.0	15.5	30.0	27.0
D8060-L18-12	18	12	M26 x 1.5	M18 x 1.5	15.0	10.0	15.5	30.0	27.0
D8060-L18-15	18	15	M26 x 1.5	M22 x 1.5	15.0	12.0	16.5	31.0	27.0
D8060-L18-18	18	18	M26 x 1.5	M26 x 1.5	15.0	15.0	16.0	31.0	27.0
D8060-L22-12	22	12	M30 x 2	M18 x 1.5	19.0	10.0	17.5	32.0	32.0
D8060-L22-15	22	15	M30 x 2	M22 x 1.5	19.0	12.0	18.5	33.0	32.0
D8060-L22-18	22	18	M30 x 2	M26 x 1.5	19.0	15.0	18.0	33.0	32.0
D8060-L22-22	22	22	M30 x 2	M30 x 2	19.0	19.0	20.0	35.0	32.0
D8060-L28-15	28	15	M36 x 2	M22 x 1.5	24.0	12.0	19.5	34.0	41.0
D8060-L28-18	28	18	M36 x 2	M26 x 1.5	24.0	15.0	19.0	34.0	41.0
D8060-L28-22	28	22	M36 x 2	M30 x 2	24.0	19.0	21.0	36.0	41.0
D8060-L28-28	28	28	M36 x 2	M36 x 2	24.0	24.0	21.0	36.0	41.0
D8060-L35-22	35	22	M45 x 2	M30 x 2	30.0	19.0	21.0	39.0	46.0
D8060-L35-28	35	28	M45 x 2	M36 x 2	30.0	24.0	21.0	39.0	46.0
D8060-L35-35	35	35	M45 x 2	M45 x 2	30.0	30.0	20.0	41.0	46.0
D8060-L42-42	42	42	M52 x 2	M52 x 2	36.0	36.0	21.0	43.0	55.0
D8060-S06-06	6	6	M14 x 1.5	M14x 1.5	4.0	4.0	16.0	30.0	14.0
D8060-S08-06	8	6	M16 x 1.5	M14 x 1.5	5.0	4.0	18.0	32.0	17.0
D8060-S08-08	8	8	M16x 1.5	M16 x 1.5	5.0	5.0	18.0	32.0	17.0
D8060-S10-06	10	6	M18 x 1.5	M14 x 1.5	7.0	4.0	17.5	32.0	19.0
D8060-S10-08	10	8	M18 x 1.5	M16 x 1.5	7.0	5.0	17.5	32.0	19.0
D8060-S10-10	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	17.0	32.0	19.0
D8060-S12-06	12	6	M20 x 1.5	M14 x 1.5	8.0	4.0	19.5	34.0	22.0
D8060-S12-08	12	8	M20 x 1.5	M16 x 1.5	8.0	5.0	19.5	34.0	22.0
D8060-S12-10	12	10	M20 x 1.5	M18 x 1.5	8.0	7.0	19.0	34.0	22.0
D8060-S12-12	12	12	M20 x 1.5	M20x 1.5	8.0	8.0	19.0	34.0	22.0
D8060-S14-12	14	12	M22 x 1.5	M20 x 1.5	10.0	8.0	20.0	36.0	24.0
D8060-S14-14	14	14	M22 x 1.5	M22 x 1.5	10.0	10.0	21.0	38.0	24.0
D8060-S16-10	16	10	M24 x 1.5	M18 x 1.5	12.0	7.0	20.0	36.0	27.0
D8060-S16-12	16	12	M24 x 1.5	M20 x 1.5	12.0	8.0	20.0	36.0	27.0
D8060-S16-14	16	14	M24 x 1.5	M22 x 1.5	12.0	10.0	21.0	38.0	27.0
D8060-S16-16	16	16	M24 x 1.5	M24 x 1.5	12.0	12.0	21.0	38.0	27.0
D8060-S20-10	20	10	M30 x 2	M18 x 1.5	16.0	7.0	22.0	40.0	32.0
D8060-S20-12	20	12	M30 x 2	M20 x 1.5	16.0	8.0	22.0	40.0	32.0
D8060-S20-14	20	14	M30 x 2	M22 x 1.5	16.0	10.0	23.0	42.0	32.0
D8060-S20-16	20	16	M30 x 2	M24 x 1.5	16.0	12.0	23.0	42.0	32.0
D8060-S20-20	20	20	M30 x 2	M30 x 2	16.0	16.0	23.0	44.0	32.0
D8060-S25-16	25	16	M36 x 2	M24 x 1.5	20.0	12.0	25.5	46.0	41.0
D8060-S25-20	25	20	M36 x 2	M30 x 2	20.0	16.0	25.5	48.0	41.0
D8060-S25-25	25	25	M36 x 2	M36 x 2	20.0	20.0	26.0	50.0	41.0
D8060-S30-20	30	20	M42 x 2	M30x2	25.0	16.0	26.0	50.0	46.0
D8060-S30-25	30	25	M42 x 2	M36 x 2	25.0	20.0	26.5	52.0	46.0
D8060-S30-30	30	30	M42 X 2	M42 x 2	25.0	25.0	27.0	54.0	46.0
D8060-S38-30	38	30	M52 X 2	M42 x 2	32.0	25.0	29.5	59.0	55.0
D8060-S38-38	38	38	M52 x 2	M52 x 2	32.0	32.0	29.0	61.0	55.0

Metric Bite Type Fittings

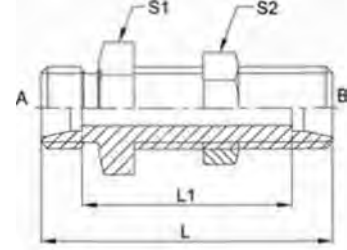
Straight Coupling D8060-NBR Series



PART NO. SIZE	A TUBE O.D.	BTUBE O.D.	A THD	B THD	A DRILL	B DRILL	I1 LGTH	I LGTH	SI HEX	S4 HEX	S2 HEX
D8060-E04-04-NBR	4	4	M8 x 1	M8 x 1	3.0	3.0	12.0	31.0	9.0	10.0	10.0
D8060-E05-05-NBR	5	5	M10 x 1	M10x1	3.5	3.5	9.0	32.0	11.0	12.0	12.0
D8060-E0604- N B R	6	4	M10x1	M8 x 1	4.5	3.0	10.5	31.5	11.0	12.0	10.0
D8060- E06-06- N B R	6	6	M10x1	M10x1	4.5	4.5	9.0	32.0	11.0	12.0	12.0
D8060-E08-08-NBR	8	8	M12 x 1	M12 x 1	6.0	6.0	12.0	35.0	12.0	14.0	14.0
D8060-L06-06-NBR	6	6	M12x 1.5	M12 x 1.5	4.0	4.0	10.0	39.0	12.0	14.0	14.0
D8060-L08-06-NBR	8	6	M14 x 1.5	M12 x 1.5	6.0	4.0	11.0	40.0	14.0	17.0	14.0
D8060-L08-08-NBR	8	8	M14 x 1.5	M14 x 1.5	6.0	6.0	11.0	40.0	14.0	17.0	17.0
D8060-L10-06-NBR	10	6	M16 x 1.5	M12 x 1.5	8.0	4.0	12.0	41.0	17.0	19.0	14.0
D8060-L10-08-NBR	10	8	M16 x 1.5	M14 x 1.5	8.0	6.0	12.0	41.0	17.0	19.0	17.0
D8060-L10-10-NBR	10	10	M16 x 1.5	M16 x 1.5	8.0	8.0	13.0	42.0	17.0	19.0	19.0
D8060-L12-06-NBR	12	6	M18 x 1.5	M12 x 1.5	10.0	4.0	13.0	42.0	19.0	22.0	14.0
D8060-L12-08-NBR	12	8	M18 x 1.5	M14 x 1.5	10.0	6.0	13.0	42.0	19.0	22.0	17.0
D8060-L12-10-NBR	12	10	M18 x 1.5	M16 x 1.5	10.0	8.0	14.0	43.0	19.0	22.0	19.0
D8060-L12-12-N BR	12	12	M18 x 1.5	M18 x 1.5	10.0	10.0	14.0	43.0	19.0	22.0	22.0
D8060-L12-22-NBR	12	22	M18 x 1.5	M30 x 2	10.0	19.0	17.5	48.0	32.0	22.0	36.0
D8060-L15-08-NBR	15	8	M22 x 1.5	M14x 1.5	12.0	6.0	14.0	43.5	24.0	27.0	17.0
D8060-L15-10-NBR	15	10	M22 x 1.5	M16 x 1.5	12.0	8.0	15.0	44.5	24.0	27.0	19.0
D8060-L15-12-NBR	15	12	M22 x 1.5	M18 x 1.5	12.0	10.0	15.0	44.5	24.0	27.0	22.0
D8060-L15-15-NBR	15	15	M22 x 1.5	M22 x 1.5	12.0	12.0	16.0	46.0	24.0	27.0	27.0
D8060-L18-10-NBR	18	10	M26 x 1.5	M16 x 1.5	15.0	8.0	15.5	46.0	27.0	32.0	19.0
D8060-L18-12-N BR	18	12	M26 x 1.5	M18 x 1.5	15.0	10.0	15.5	46.0	27.0	32.0	22.0
D8060-L18-15-NBR	18	15	M26 x 1.5	M22 x 1.5	15.0	12.0	16.5	47.5	27.0	32.0	27.0
D8060-L18-18-NBR	18	18	M26 x 1.5	M26 x 1.5	15.0	15.0	16.0	48.0	27.0	32.0	32.0
D8060-L22-12-N BR	22	12	M30x2	M18 x 1.5	19.0	10.0	17.5	48.0	32.0	36.0	22.0
D8060-L22-15-NBR	22	15	M30 x 2	M22 x 1.5	19.0	12.0	18.5	49.5	32.0	36.0	27.0
D8060-L22-18-NBR	22	18	M30x 2	M26 x 1.5	19.0	15.0	18.0	50.0	32.0	36.0	32.0
D8060-L22-22-NBR	22	22	M30 x 2	M30 x 2	19.0	19.0	20.0	52.0	32.0	36.0	36.0
D8060-L28-15-NBR	28	15	M36 x 2	M22 x 1.5	24.0	12.0	19.5	51.0	41.0	41.0	27.0
D8060-L28-18-NBR	28	18	M36 x 2	M26 x 1.5	24.0	15.0	19.0	51.5	41.0	41.0	32.0
D8060-L28-22-NBR	28	22	M36 x 2	M30 x 2	24.0	19.0	21.0	53.5	41.0	41.0	36.0
D8060-L28-28-NBR	28	28	M36 x 2	M36 x 2	24.0	24.0	21.0	54.0	41.0	41.0	41.0
D8060-L35-22-NBR	35	22	M45 x 2	M30 x 2	30.0	19.0	21.0	58.5	46.0	50.0	36.0
D8060- L35-28- N B R	35	28	M45 x 2	M36 x 2	30.0	24.0	21.0	59.0	46.0	50.0	41.0
D8060-L35-35-NBR	35	35	M45x 2	M45x2	30.0	30.0	20.0	63.0	46.0	50.0	50.0
D8060-L42-42-NBR	42	42	M52 x 2	M52 x 2	36.0	36.0	21.0	66.0	55.0	60.0	60.0
D8060-S0606-NBR	6	6	M14 x 1.5	M14 x 1.5	4.0	4.0	16.0	45.0	14.0	17.0	17.0
D8060-S0806-NBR	8	6	M16x 1.5	M14 x 1.5	5.0	4.0	18.0	47.0	17.0	19.0	17.0
D8060-S08-08-NBR	8	8	M16x 1.5	M16 x 1.5	5.0	5.0	18.0	47.0	17.0	19.0	19.0
D8060-S10-06-NBR	10	6	M18 x 1.5	M14 x 1.5	7.0	4.0	17.5	48.0	19.0	22.0	17.0
D8060-S10-08-NBR	10	8	M18 x 1.5	M16 x 1.5	7.0	5.0	17.5	48.0	19.0	22.0	19.0
D8060-S10-10-NBR	10	10	M18 x 1.5	M18x 1.5	7.0	7.0	17.0	49.0	19.0	22.0	22.0
D8060-S12-06-N BR	12	6	M20 x 1.5	M14 x 1.5	8.0	4.0	19.5	50.0	22.0	24.0	17.0
D8060-S12-08- N B R	12	8	M20 x 1.5	M16 x 1.5	8.0	5.0	19.5	50.0	22.0	24.0	19.0
D8060-S12-10-NBR	12	10	M20 x 1.5	M18x 1.5	8.0	7.0	19.0	51.0	22.0	24.0	22.0
D8060-S12-12-NBR	12	12	M20 x 1.5	M20 x 1.5	8.0	8.0	19.0	51.0	22.0	24.0	24.0
D8060-S14-12-NBR	14	12	M22 x 1.5	M20x 1.5	10.0	8.0	20.0	54.0	24.0	27.0	24.0
D8060-S14-14-NBR	14	14	M22x 1.5	M22 x 1.5	10.0	10.0	21.0	57.0	24.0	27.0	27.0
D8060-S16-10-NBR	16	10	M24 x 1.5	M18 x 1.5	12.0	7.0	20.0	54.0	27.0	30.0	22.0
D8060-S16-12-NBR	16	12	M24 x 1.5	M20 x 1.5	12.0	8.0	20.0	54.0	27.0	30.0	24.0
D8060-S16-14- N B R	16	14	M24 x 1.5	M22 x 1.5	12.0	10.0	21.0	57.0	27.0	30.0	27.0
D8060-S16-16-NBR	16	16	M24 x 1.5	M24 x 1.5	12.0	12.0	21.0	57.0	27.0	30.0	30.0
D8060-S20-10-NBR	20	10	M30x2	M18 x 1.5	16.0	7.0	22.0	59.5	32.0	36.0	22.0
D8060-S20-12-N BR	20	12	M30 x 2	M20 x 1.5	16.0	8.0	22.0	59.5	32.0	36.0	24.0
D8060-S20-14-NBR	20	14	M30 x 2	M22 x 1.5	16.0	10.0	23.0	62.5	32.0	36.0	27.0
D8060-S20-16-NBR	20	16	M30 x 2	M24 x 1.5	16.0	12.0	23.0	62.5	32.0	36.0	30.0
D8060-S20-20- N B R	20	20	M30x2	M30 x 2	16.0	16.0	23.0	66.0	32.0	36.0	36.0
D8060-S25-16-NBR	25	16	M36 x 2	M24 x 1.5	20.0	12.0	25.5	67.5	41.0	46.0	30.0
D8060-S25-20- N B R	25	20	M36x2	M30 x 2	20.0	16.0	25.5	71.0	41.0	46.0	36.0
D8060-S25-25-NBR	25	25	M36x2	M36 x 2	20.0	20.0	26.0	74.0	41.0	46.0	46.0
D8060-S30-20-NBR	30	20	M42 x 2	M30x2	25.0	16.0	26.0	74.0	46.0	50.0	36.0
D8060-S30-25-NBR	30	25	M42 x 2	M36 x 2	25.0	20.0	26.5	77.0	46.0	50.0	46.0
D8060-S30-30-N BR	30	30	M42 x 2	M42 x 2	25.0	25.0	27.0	80.0	46.0	50.0	50.0
D8060-S38-30-NBR	38	30	M52 x 2	M42 x 2	32.0	25.0	29.5	86.5	55.0	60.0	50.0
D8060-S38-38-NBR	38	38	M52 x 2	M52x2	32.0	32.0	29.0	90.0	55.0	60.0	60.0

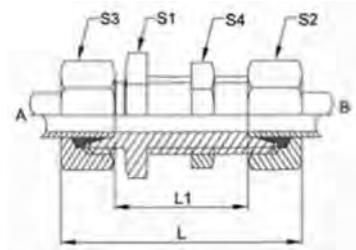
F-032

Straight Bulkhead Coupling Body Only D8061 Series



PART NO. SIZE	A TUBE 0.0	BTUBE 0.0	A THD	B THD	A DRILL	B DRILL	LI LBTH	L LOTH	SI HEX	S2 HEX
D8061-LN-L06-06	6	6	M12 x 1.5	M12 x 1.5	4.0	4.0	34.0	48.0	17.0	17.0
D8061-LN-L08-08	8	8	M14 x 1.5	M14 x 1.5	6.0	6.0	35.0	49.0	19.0	19.0
D8061-LN-L10-10	10	10	M16 x 1.5	M16 x 1.5	8.0	8.0	38.0	52.0	22.0	22.0
D8061-LN-L12-12	12	12	M18 x 1.5	M18 x 1.5	10.0	10.0	39.0	53.0	24.0	24.0
D8061-LN-L15-15	15	15	M22 x 1.5	M22 x 1.5	12.0	12.0	43.0	57.0	27.0	27.0
D8061-LN-L18-18	18	18	M26 x 1.5	M26 x 1.5	15.0	15.0	46.0	61.0	32.0	32.0
D8061-LN-L22-22	22	22	M30 x 2	M30 x 2	19.0	19.0	51.0	66.0	36.0	36.0
D8061-LN-L28-28	28	28	M36 x 2	M36 x 2	24.0	24.0	54.0	69.0	41.0	41.0
D8061-LN-L35-35	35	35	M45 x 2	M45 x 2	30.0	30.0	55.0	76.0	50.0	50.0
D8061-LN-L42-42	42	42	M52 x 2	M52 x 2	36.0	36.0	55.0	77.0	60.0	60.0
D8061-LN-S06-06	6	6	M14x 1.5	M14 x 1.5	4.0	4.0	41.0	55.0	19.0	19.0
D8061-LN-S08-08	8	8	M16 x 1.5	M16 x 1.5	5.0	5.0	42.0	56.0	22.0	22.0
D8061-LN-S10-10	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	44.0	59.0	24.0	24.0
D8061-LN-S12-12	12	12	M20 x 1.5	M20 x 1.5	8.0	8.0	45.0	60.0	27.0	27.0
D8061-LN-S14-14	14	14	M22 x 1.5	M22 x 1.5	10.0	10.0	48.0	65.0	32.0	32.0
D8061-LN-S16-16	16	16	M24 x 1.5	M24 x 1.5	12.0	12.0	48.0	65.0	32.0	32.0
D8061-LN-S20-20	20	20	M30 x 2	M30 x 2	16.0	16.0	51.0	72.0	41.0	41.0
D8061-LN-S25-25	25	25	M36 x 2	M36 x 2	20.0	20.0	55.0	79.0	46.0	46.0
D8061-LN-S30-30	30	30	M42 x 2	M42 x 2	25.0	25.0	59.0	86.0	50.0	50.0
D8061-LN-S38-38	38	38	M52 x 2	M52 x 2	32.0	32.0	59.0	91.0	65.0	65.0

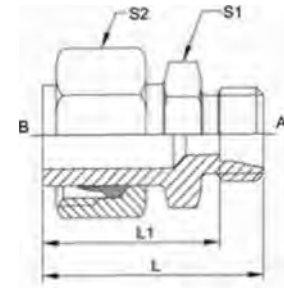
Straight Bulkhead Coupling D8061-NBR Series



PART NO. SIZE	A TUBE 0.0	BTUBE 0.0	A THD	B THD	A DRILL	B DRILL	LI LGTH	I LGTH	SI HEX	S3 HEX	S4 HEX	S2 HEX
D8061-LN-L06-06-NBR	6	6	M12 x 1.5	M12 x 1.5	4.0	4.0	34.0	63.0	17.0	14.0	17.0	14.0
D8061-LN-L08-08-NBR	8	8	M14 x 1.5	M14x 1.5	6.0	6.0	35.0	64.0	19.0	17.0	19.0	17.0
D8061-LN-L10-10-NBR	10	10	M16x 1.5	M16 x 1.5	8.0	8.0	38.0	67.0	22.0	19.0	22.0	19.0
D8061-LN-L12-12-NBR	12	12	M18 x 1.5	M18x 1.5	10.0	10.0	39.0	68.0	24.0	22.0	24.0	22.0
D8061-LN-L15-15-NBR	15	15	M22 x 1.5	M22x 1.5	12.0	12.0	43.0	73.0	27.0	27.0	27.0	27.0
D8061-LN-L18-18-NBR	18	18	M26 x 1.5	M26x 1.5	15.0	15.0	46.0	78.0	32.0	32.0	32.0	32.0
D8061-LN-L22-22-NBR	22	22	M30 x 2	M30 x 2	19.0	19.0	51.0	83.0	36.0	36.0	36.0	36.0
D8061-LN-L28-28-NBR	28	28	M36 x 2	M36 x 2	24.0	24.0	54.0	87.0	41.0	41.0	41.0	41.0
D8061-LN-L35-35-NBR	35	35	M45x2	M45 x 2	30.0	30.0	55.0	98.0	50.0	50.0	50.0	50.0
D8061-LN-L42-42-NBR	42	42	M52 x 2	M52 x 2	36.0	36.0	55.0	100.0	60.0	60.0	60.0	60.0
D8061-LN-S06-06-N BR	6	6	M14 x 1.5	M14x 1.5	4.0	4.0	41.0	70.0	19.0	17.0	19.0	17.0
D8061-LN-S08-08-N BR	8	8	M16 x 1.5	M16x 1.5	5.0	5.0	42.0	71.0	22.0	19.0	22.0	19.0
D8061-LN-S10-10-NBR	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	44.0	76.0	24.0	22.0	24.0	22.0
D8061-LN-S12-12-N BR	12	12	M20 x 1.5	M20x 1.5	8.0	8.0	45.0	77.0	27.0	24.0	27.0	24.0
D8061-LN-S14-14-NBR	14	14	M22 x 1.5	M22x 1.5	10.0	10.0	48.0	84.0	32.0	27.0	32.0	27.0
D8061-LN-S16-16-N BR	16	16	M24 x 1.5	M24x 1.5	12.0	12.0	48.0	84.0	32.0	30.0	32.0	30.0
D8061-LN-S20-20-N BR	20	20	M30 x 2	M30 x 2	16.0	16.0	51.0	94.0	41.0	36.0	41.0	36.0
D8061-LN-S25-25-NBR	25	25	M36 x 2	M36 x 2	20.0	20.0	55.0	103.0	46.0	46.0	46.0	46.0
D8061-LN-S30-30-N BR	30	30	M42 x 2	M42 x 2	25.0	25.0	59.0	112.0	50.0	50.0	50.0	50.0
D8061-LN-S38-38-N BR	38	38	M52 x 2	M52 x 2	32.0	32.0	59.0	120.0	65.0	60.0	65.0	60.0

Metric Bite Type Fittings

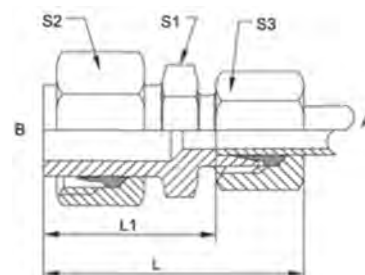
Reducing Adjustable Coupling D8062 Series



PART NO. SIZE	A TUBE O.D	B TUBE O.D	A THD	B TND	A DRILL	B DRILL	11 LGTH	L LOTH	SI HEX	S2 HEX
D8062-L08-06	8	6	M14 x 1.5	M12 x 1.5	4.5	4.0	27.5	34.5	14.0	17.0
D8062-L10-06	10	6	M16 x 1.5	M12 x 1.5	7.0	4.0	28.5	35.5	17.0	19.0
D8062-L10-08	10	8	M16 x 1.5	M14 x 1.5	7.0	6.0	28.5	35.5	17.0	19.0
D8062-L12-06	12	6	M18 x 1.5	M12 x 1.5	7.5	4.0	31.0	38.0	19.0	22.0
D8062-L12-08	12	8	M18 x 1.5	M14 x 1.5	7.5	6.0	31.0	38.0	19.0	22.0
D8062-L12-10	12	10	M18 x 1.5	M16 x 1.5	7.5	8.0	32.0	39.0	19.0	22.0
D8062-L15-06	15	6	M22 x 1.5	M12 x 1.5	11.0	4.0	32.0	39.0	24.0	27.0
D8062-L15-08	15	8	M22 x 1.5	M14 x 1.5	11.0	6.0	32.0	39.0	24.0	27.0
D8062-L15-10	15	10	M22 x 1.5	M16 x 1.5	11.0	8.0	33.0	40.0	24.0	27.0
D8062-L15-12	15	12	M22 x 1.5	M18 x 1.5	11.0	10.0	33.0	40.0	24.0	27.0
D8062-L18-08	18	8	M26 x 1.5	M14x 1.5	14.0	6.0	31.5	38.5	27.0	32.0
D8062-L18-10	18	10	M26 x 1.5	M16 x 1.5	14.0	8.0	32.5	39.5	27.0	32.0
D8062-L18-12	18	12	M26 x 1.5	M18 x 1.5	14.0	10.0	32.5	39.5	27.0	32.0
D8062-L18-15	18	15	M26 x 1.5	M22 x 1.5	14.0	12.0	33.5	40.5	27.0	32.0
D8062-L22-08	22	8	M30 x 2	M14 x 1.5	18.0	6.0	32.5	39.5	32.0	36.0
D8062-L22-10	22	10	M30 x 2	M16 x 1.5	18.0	8.0	33.5	40.5	32.0	36.0
D8062-L22-12	22	12	M30 x 2	M18 x 1.5	18.0	10.0	33.5	40.5	32.0	36.0
D8062-L22-15	22	15	M30 x 2	M22x 1.5	18.0	12.0	34.5	41.5	32.0	36.0
D8062-L22-18	22	18	M30 x 2	M26 x 1.5	18.0	15.0	34.0	41.5	32.0	36.0
D8062-L28-15	28	15	M36 x 2	M22x 1.5	23.0	12.0	37.0	44.0	41.0	41.0
D8062-L28-18	28	18	M36 x 2	M26 x 1.5	23.0	15.0	36.5	44.0	41.0	41.0
D8062-L28-22	28	22	M36 x 2	M30 x 2	23.0	19.0	38.5	46.0	41.0	41.0
D8062-L35-18	35	18	M45 x 2	M26 x 1.5	29.5	15.0	44.0	51.5	46.0	50.0
D8062-L35-22	35	22	M45 x 2	M30 x 2	29.5	19.0	46.0	53.5	46.0	50.0
D8062-L35-28	35	28	M45 x 2	M36 x 2	29.5	24.0	46.0	53.5	46.0	50.0
D8062-L42-22	42	22	M52 x 2	M30 x 2	35.5	19.0	50.0	57.5	55.0	60.0
D8062-L42-28	42	28	M52 x 2	M36 x 2	35.5	24.0	50.0	57.5	55.0	60.0
D8062-L42-35	42	35	M52 x 2	M45 x 2	35.5	30.0	49.0	59.5	55.0	60.0
D8062-S08-06	8	6	M16 x 1.5	M14 x 1.5	4.5	4.0	32.5	39.5	17.0	19.0
D8062-S10-08	10	8	M18 x 1.5	M16 x 1.5	7.0	5.0	34.5	41.5	19.0	22.0
D8062-S12-08	12	8	M20 x 1.5	M16 x 1.5	6.5	5.0	36.5	43.5	22.0	24.0
D8062-S12-10	12	10	M20 x 1.5	M18 x 1.5	6.5	7.0	36.0	43.5	22.0	24.0
D8062-S14-08	14	8	M22 x 1.5	M16 x 1.5	9.5	5.0	29.0	36.0	24.0	27.0
D8062-S14-10	14	10	M22 x 1.5	M18x 1.5	9.5	7.0	28.5	36.0	24.0	27.0
D8062-S14-12	14	12	M22 x 1.5	M20 x 1.5	9.5	8.0	28.5	36.0	24.0	27.0
D8062-S16-06	16	6	M24 x 1.5	M14x 1.5	11.5	4.0	39.0	46.0	27.0	30.0
D8062-S16-08	16	8	M24 x 1.5	M16 x 1.5	11.5	5.0	39.0	46.0	27.0	30.0
D8062-S16-10	16	10	M24 x 1.5	M18x 1.5	11.5	7.0	38.5	46.0	27.0	30.0
D8062-S16-12	16	12	M24 x 1.5	M20 x 1.5	11.5	8.0	38.5	46.0	27.0	30.0
D8062-S16-14	16	14	M24 x 1.5	M22 x 1.5	11.5	10.0	39.5	48.0	27.0	30.0
D8062-S16-20	16	20	M24 x 1.5	M30 x 2	11.5	16.0	41.5	52.0	32.0	30.0
D8062-S20-08	20	8	M30 x 2	M16x 1.5	15.5	5.0	45.0	52.0	32.0	36.0
D8062-S20-12	20	12	M30 x 2	M20 x 1.5	15.5	8.0	44.5	52.0	32.0	36.0
D8062-S20-14	20	14	M30 x 2	M22x 1.5	15.5	10.0	45.5	54.0	32.0	36.0
D8062-S20-16	20	16	M30 x 2	M24 x 1.5	15.5	12.0	45.5	54.0	32.0	36.0
D8062-S25-10	25	10	M36 x 2	M18 x 1.5	18.0	7.0	49.5	57.0	41.0	46.0
D8062-S25-12	25	12	M36 x 2	M20 x 1.5	18.0	8.0	49.5	57.0	41.0	46.0
D8062-S25-14	25	14	M36 x 2	M22 x 1.5	18.0	10.0	50.5	59.0	41.0	46.0
D8062-S25-16	25	16	M36 x 2	M24 x 1.5	18.0	12.0	50.5	59.0	41.0	46.0
D8062-S25-20	25	20	M36 x 2	M30 x 2	18.0	16.0	50.5	61.0	41.0	46.0
D8062-S30-12	30	12	M42 x 2	M20 x 1.5	23.0	8.0	52.5	60.0	46.0	50.0
D8062-S30-16	30	16	M42 x 2	M24 x 1.5	23.0	12.0	53.5	62.0	46.0	50.0
D8062-S30-20	30	20	M42 x 2	M30 x 2	23.0	16.0	53.5	64.0	46.0	50.0
D8062-S30-25	30	25	M42 x 2	M36 x 2	23.0	20.0	54.0	66.0	46.0	50.0
D8062-S38-16	38	16	M52 x 2	M24 x 1.5	29.0	12.0	62.5	71.0	55.0	60.0
D8062-S38-20	38	20	M52 x 2	M30 x 2	29.0	16.0	62.5	73.0	55.0	60.0
D8062-S38-25	38	25	M52 x 2	M36 x 2	29.0	20.0	63.0	75.0	55.0	60.0
D8062-S38-30	38	30	M52 x 2	M42 x 2	29.0	25.0	63.5	77.0	55.0	60.0

F-034

Reducing Adjustable Coupling D8062-NBR Series

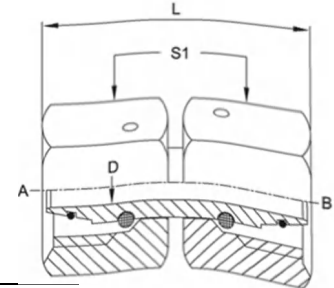


F-035

PART NO. SIZE	A TUBE 0.0	TUBE 0.0	A TWO	B mo	A DRILL	B ORILL	LI LETH	L LOTH	SI HEX	S2 HEX	S3 HEX
D8062-L08-06-N BR	8	6	M14 x 1.5	M12 x 1.5	4.5	4.0	27.5	42.0	14.0	17.0	14.0
D8062-L10-06-N BR	10	6	M16 x 1.5	M12 x 1.5	7.0	4.0	28.5	43.0	17.0	19.0	14.0
D8062-L10-08-N BR	10	8	M16 x 1.5	M14 x 1.5	7.0	6.0	28.5	43.0	17.0	19.0	17.0
D8062-L12-06-N BR	12	6	M18 x 1.5	M12x 1.5	7.5	4.0	31.0	45.5	19.0	22.0	14.0
D8062-L12-08-N BR	12	8	M18 x 1.5	M14 x 1.5	7.5	6.0	31.0	45.5	19.0	22.0	17.0
D8062-L12-10-NBR	12	10	M18 x 1.5	M16x 1.5	7.5	8.0	32.0	46.5	19.0	22.0	19.0
D8062-L15-06-NBR	15	6	M22 x 1.5	M12 x 1.5	11.0	4.0	32.0	46.5	24.0	27.0	14.0
D8062-L15-08-NBR	15	8	M22 x 1.5	M14 x 1.5	11.0	6.0	32.0	46.5	24.0	27.0	17.0
D8062-L15-10-NBR	15	10	M22 x 1.5	M16 x 1.5	11.0	8.0	33.0	47.5	24.0	27.0	19.0
D8062-L15-12-NBR	15	12	M22 x 1.5	M18x 1.5	11.0	10.0	33.0	47.5	24.0	27.0	22.0
D8062-L18-08-N BR	18	8	M26 x 1.5	M14 x 1.5	14.0	6.0	31.5	46.0	27.0	32.0	17.0
D8062-L18-10-NBR	18	10	M26 x 1.5	M16x 1.5	14.0	8.0	32.5	47.0	27.0	32.0	19.0
D8062-L18-12-NBR	18	12	M26 x 1.5	M18 x 1.5	14.0	10.0	32.5	47.0	27.0	32.0	22.0
D8062-L18-15-NBR	18	15	M26 x 1.5	M22x 1.5	14.0	12.0	33.5	48.5	27.0	32.0	27.0
D8062-L22-08-NBR	22	8	M30 x 2	M14 x 1.5	18.0	6.0	32.5	47.0	32.0	36.0	17.0
D8062-L22-10-NBR	22	10	M30 x 2	M16 x 1.5	18.0	8.0	33.5	48.0	32.0	36.0	19.0
D8062-L22-12-NBR	22	12	M30 x 2	M18 x 1.5	18.0	10.0	33.5	48.0	32.0	36.0	22.0
D8062-L22-15-NBR	22	15	M30 x 2	M22 x 1.5	18.0	12.0	34.5	49.5	32.0	36.0	27.0
D8062-L22-18-N BR	22	18	M30 x 2	M26 x 1.5	18.0	15.0	34.0	50.0	32.0	36.0	32.0
D8062-L28-15-NBR	28	15	M36 x 2	M22 x 1.5	23.0	12.0	37.0	52.0	41.0	41.0	27.0
D8062-L28-18-N BR	28	18	M36 x 2	M26 x 1.5	23.0	15.0	36.5	52.5	41.0	41.0	32.0
D8062-L28-22-N BR	28	22	M36 x 2	M30 x 2	23.0	19.0	38.5	54.5	41.0	41.0	36.0
D8062-L35-18-N B R	35	18	M45 x 2	M26 x 1.5	29.5	15.0	44.0	60.0	46.0	50.0	32.0
D8062-L35-22-NBR	35	22	M45 x 2	M30 x 2	29.5	19.0	46.0	62.0	46.0	50.0	36.0
D8062-L35-28-N B R	35	28	M45 x 2	M36 x 2	29.5	24.0	46.0	62.5	46.0	50.0	41.0
D8062-L42-22-N BR	42	22	M52 x 2	M30 x 2	35.5	19.0	50.0	66.0	55.0	60.0	36.0
D8062-L42-28-N BR	42	28	M52 x 2	M36 x 2	35.5	24.0	50.0	66.5	55.0	60.0	41.0
D8062-L42-35-NBR	42	35	M52 x 2	M45 x 2	35.5	30.0	49.0	70.5	55.0	60.0	50.0
D8062-S08-06-NBR	8	6	M16 x 1.5	M14 x 1.5	4.5	4.0	32.5	47.0	17.0	19.0	17.0
D8062-S10-08-N BR	10	8	M18 x 1.5	M16 x 1.5	7.0	5.0	34.5	49.0	19.0	22.0	19.0
D8062-S12-08-N BR	12	8	M20 x 1.5	M16 x 1.5	6.5	5.0	36.5	51.0	22.0	24.0	19.0
D8062-S12-10-NBR	12	10	M20 x 1.5	M18 x 1.5	6.5	7.0	36.0	52.0	22.0	24.0	22.0
D8062-S14-08-N BR	14	8	M22 x 1.5	M16 x 1.5	9.5	5.0	29.0	43.5	24.0	27.0	19.0
D8062-S14-10-NBR	14	10	M22 x 1.5	M18 x 1.5	9.5	7.0	28.5	44.5	24.0	27.0	22.0
D8062-S14-12-NBR	14	12	M22 x 1.5	M20 x 1.5	9.5	8.0	28.5	44.5	24.0	27.0	24.0
D8062-S16-06-NBR	16	6	M24 x 1.5	M14 x 1.5	11.5	4.0	39.0	53.5	27.0	30.0	17.0
D8062-S16-08-NBR	16	8	M24 x 1.5	M16 x 1.5	11.5	5.0	39.0	53.5	27.0	30.0	19.0
D8062-S16-10-NBR	16	10	M24 x 1.5	M18 x 1.5	11.5	7.0	38.5	54.5	27.0	30.0	22.0
D8062-S16-12-NBR	16	12	M24 x 1.5	M20 x 1.5	11.5	8.0	38.5	54.5	27.0	30.0	24.0
D8062-S16-14-N BR	16	14	M24 x 1.5	M22 x 1.5	11.5	10.0	39.5	57.5	27.0	30.0	27.0
D8062-S16-20-N BR	16	20	M24 x 1.5	M30 x 2	11.5	16.0	41.5	63.0	32.0	30.0	36.0
D8062-S20-08-N BR	20	8	M30 x 2	M16 x 1.5	15.5	5.0	45.0	59.5	32.0	36.0	19.0
D8062-S20-12-N BR	20	12	M30 x 2	M20 x 1.5	15.5	8.0	44.5	60.5	32.0	36.0	24.0
D8062-S20-14-N BR	20	14	M30 x 2	M22 x 1.5	15.5	10.0	45.5	63.5	32.0	36.0	27.0
D8062-S20-16-N BR	20	16	M30 x 2	M24 x 1.5	15.5	12.0	45.5	63.5	32.0	36.0	30.0
D8062-S25-10-N BR	25	10	M36 x 2	M18 x 1.5	18.0	7.0	49.5	65.5	41.0	46.0	22.0
D8062-S25-12-N BR	25	12	M36 x 2	M20 x 1.5	18.0	8.0	49.5	65.5	41.0	46.0	24.0
D8062-S25-14-N BR	25	14	M36 x 2	M22 x 1.5	18.0	10.0	50.5	68.5	41.0	46.0	27.0
D8062-S25-16-N BR	25	16	M36 x 2	M24 x 1.5	18.0	12.0	50.5	68.5	41.0	46.0	30.0
D8062-S25-20-N BR	25	20	M36 x 2	M30 x 2	18.0	16.0	50.5	72.0	41.0	46.0	36.0
D8062-S30-12-N BR	30	12	M42 x 2	M20 x 1.5	23.0	8.0	52.5	68.5	46.0	50.0	24.0
D8062-S30-16-N BR	30	16	M42 x 2	M24x 1.5	23.0	12.0	53.5	71.5	46.0	50.0	30.0
D8062-S30-20-NBR	30	20	M42 x 2	M30 x 2	23.0	16.0	53.5	75.0	46.0	50.0	36.0
D8062-S30-25-NBR	30	25	M42 x 2	M36 x 2	23.0	20.0	54.0	78.0	46.0	50.0	46.0
D8062-S38-16-N BR	38	16	M52 x 2	M24 x 1.5	29.0	12.0	62.5	80.5	55.0	60.0	30.0
D8062-S38-20-NBR	38	20	M52 x 2	M30 x 2	29.0	16.0	62.5	84.0	55.0	60.0	36.0
D8062-S38-25-NBR	38	25	M52 x 2	M36 x 2	29.0	20.0	63.0	87.0	55.0	60.0	46.0
D8062-S38-30- N BR	38	30	M52 x 2	M42 x 2	29.0	25.0	63.5	90.0	55.0	60.0	50.0

Metric Bite Type Fittings

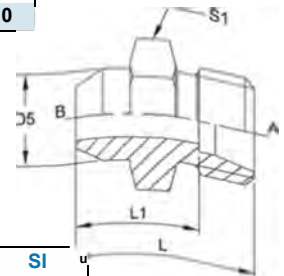
Straight Adjustable Coupling D8067 Series



PART NO.SIZE	A TUBE O.D	BTUBE O.O	A THO	B THO	A DRILL	B DRILL	L LOTH	SI HEX
D8067-L06-06	6	6	M12 x 1.5	M12 x 1.5	2.5	2.5	38.0	14.0
D8067-L08-08	8	8	M14 x 1.5	M14 x 1.5	4.0	4.0	35.0	17.0
D8067-L10-10	10	10	M16 x 1.5	M16 x 1.5	6.0	6.0	39.0	19.0
D8067-L12-12	12	12	M18 x 1.5	M18 x 1.5	8.0	8.0	39.0	22.0
D8067-L15-15	15	15	M22 x 1.5	M22 x 1.5	10.0	10.0	43.0	27.0
D8067-L18-18	18	18	M26 x 1.5	M26 x 1.5	13.0	13.0	39.0	32.0
D8067-L22-22	22	22	M30 x 2	M30 x 2	17.0	17.0	40.0	36.0
D8067-L28-28	28	28	M36 x 2	M36 x 2	22.0	22.0	43.0	41.0
D8067-L35-35	35	35	M45 x 2	M45 x 2	28.0	28.0	55.0	50.0
D8067-L42-42	42	42	M52 x 2	M52 x 2	34.0	34.0	57.0	60.0
D8067-S-06-06	6	6	M14 x 1.5	M14 x 1.5	2.5	2.5	38.0	17.0
D8067-S-08-08	8	8	M16 x 1.5	M16 x 1.5	4.0	4.0	39.0	19.0
D8067-S-10-10	10	10	M18 x 1.5	M18 x 1.5	6.0	6.0	43.0	22.0
D8067-S-12-12	12	12	M20 x 1.5	M20 x 1.5	8.0	8.0	43.0	24.0
D8067-S-14-14	14	14	M22 x 1.5	M22 x 1.5	9.0	9.0	48.0	27.0
D8067-S-16-16	16	16	M24 x 1.5	M24 x 1.5	11.0	11.0	48.0	30.0
D8067-S-20-20	20	20	M30 x 2	M30 x 2	14.0	14.0	56.0	36.0
D8067-S-25-25	25	25	M36 x 2	M36 x 2	18.0	18.0	62.0	46.0
D8067-S-30-30	30	30	M42 x 2	M42 x 2	23.0	23.0	68.0	50.0
D8067-S-38-38	38	38	M52 x 2	M52 x 2	30.0	30.0	80.0	60.0

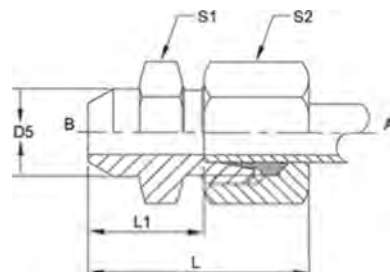
F-036

Welding Boss Body Only D8097 Series



PART NO.SIZE	A TUBE O.J	BTUBE O.O	09 D1A	A THO	A DRILL	B DRILL	LI LOTH	L LOTH	SI HEX
D8097-L06-06	6	6	10	M12 x 1.5	4.0	4.0	14.0	21.0	12.0
D8097-L08-08	8	8	12	M14 x 1.5	6.0	6.0	16.0	23.0	14.0
D8097-L10-10	10	10	14	M16 x 1.5	8.0	8.0	18.0	25.0	17.0
D8097-L12-12	12	12	16	M18 x 1.5	10.0	10.0	18.0	25.0	19.0
D8097-L15-15	15	15	19	M22 x 1.5	12.0	12.0	22.0	29.0	24.0
D8097-L22-22	22	22	27	M30 x 2	19.0	19.0	28.5	36.0	32.0
D8097-L35-35	35	35	40	M45 x 2	30.0	30.0	32.5	43.0	46.0
D8097-S06-06	6	6	11	M14x 1.5	4.0	4.0	19.0	26.0	14.0
D8097-S08-08	8	8	13	M16 x 1.5	5.0	5.0	21.0	28.0	17.0
D8097-S10-10	10	10	15	M18 x 1.5	7.0	7.0	22.5	30.0	19.0
D8097-S12-12	12	12	17	M20 x 1.5	8.0	8.0	24.5	32.0	22.0
D8097-S14-14	14	14	19	M22 x 1.5	10.0	10.0	26.5	35.0	24.0
D8097-S16-16	16	16	21	M24 x 1.5	12.0	12.0	26.5	35.0	27.0
D8097-S20-20	20	20	26	M30 x 2	16.0	16.0	29.5	40.0	32.0
D8097-S25-25	25	25	31	M36 x 2	20.0	20.0	32.0	44.0	41.0
D8097-S30-30	30	30	36	M42 x 2	25.0	25.0	35.5	49.0	46.0
D8097-S38-38	38	38	44	M52 x 2	32.0	32.0	38.0	54.0	55.0

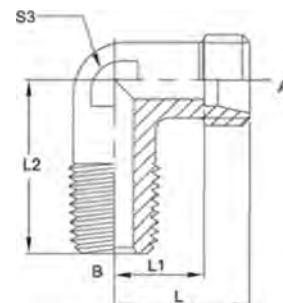
Welding Boss D8097-NBR Series



F-037

PART NO. SIZE	A TUBE 0.0	BTUBE 0.0	05 OIA	A THD	A DRILL	B ORILI	11 LETH	I LETH	SI HEX	S2 HEX
D8097-L06-06- N B R	6	6	10	M12 x 1.5	4.0	4.0	14.0	28.5	12.0	14.0
D8097-L08-08-NBR	8	8	12	M14 x 1.5	6.0	6.0	16.0	30.5	14.0	17.0
D8097-L10-10-NBR	10	10	14	M16 x 1.5	8.0	8.0	18.0	32.5	17.0	19.0
D8097-L12-12-NBR	12	12	16	M18 x 1.5	10.0	10.0	18.0	32.5	19.0	22.0
D8097-L15-15-NBR	15	15	19	M22 x 1.5	12.0	12.0	22.0	37.0	24.0	27.0
D8097-L22-22-NBR	22	22	27	M30 x 2	19.0	19.0	28.5	44.5	32.0	36.0
D8097-L35-35-NBR	35	35	40	M45 x 2	30.0	30.0	32.5	54.0	46.0	50.0
D8097-S06-06-NBR	6	6	11	M14 x 1.5	4.0	4.0	19.0	33.5	14.0	17.0
D8097-S08-08-N BR	8	8	13	M16 x 1.5	5.0	5.0	21.0	35.5	17.0	19.0
D8097-S10-10-NBR	10	10	15	M18 x 1.5	7.0	7.0	22.5	38.5	19.0	22.0
D8097-S12-12-N BR	12	12	17	M20 x 1.5	8.0	8.0	24.5	40.5	22.0	24.0
D8097-S14-14-NBR	14	14	19	M22 x 1.5	10.0	10.0	26.5	44.5	24.0	27.0
D8097-S16-16-N BR	16	16	21	M24 x 1.5	12.0	12.0	26.5	44.5	27.0	30.0
D8097-S20-20-NBR	20	20	26	M30 x 2	16.0	16.0	29.5	51.0	32.0	36.0
D8097-S25-25-NBR	25	25	31	M36 x 2	20.0	20.0	32.0	56.0	41.0	46.0
D8097-S30-30-NBR	30	30	36	M42 x 2	25.0	25.0	35.5	62.0	46.0	50.0
D8097-S38-38- N BR	38	38	44	M52 x 2	32.0	32.0	38.0	68.5	55.0	60.0

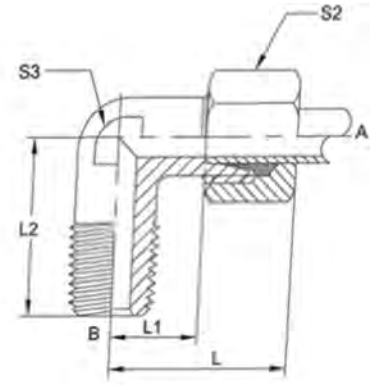
Male Stud Elbow Metric Taper Body Only D8233 Series



PART NO. SIZE	A TUBE 0.0	A THD	B THD	A ORILI	B ORILL	11 LETH	L LETH	L2 LETH	S3 FLATS
D8233-E04-08	4	M8 x 1	M8 x 1	3.0	3.5	11.0	15.0	17.0	9.0
D8233-E06-10	6	M10 x 1	M10 x 1	4.5	4.5	9.5	15.0	17.0	9.0
D8233-L08-12	8	M14 x 1.5	M12 x 1.5	6.0	6.0	14.0	21.0	26.0	12.0
D8233-L10-14	10	M16 x 1.5	M14 x 1.5	8.0	7.0	15.0	22.0	27.0	14.0
D8233-L15-18	15	M22 x 1.5	M18 x 1.5	12.0	11.0	21.0	28.0	32.0	19.0
D8233-L18-22	18	M26 x 1.5	M22 x 1.5	15.0	14.0	23.5	31.0	36.0	24.0
D8233-S06-12	6	M14 x 1.5	M12 x 1.5	4.0	4.0	16.0	23.0	26.0	12.0
D8233-S10-16	10	M18 x 1.5	M16 x 1.5	7.0	7.0	17.5	25.0	28.0	17.0
D8233-S12-18	12	M20 x 1.5	M18 x 1.5	8.0	8.0	21.5	29.0	28.0	17.0
D8233-S14-20	14	M22 x 1.5	M20 x 1.5	10.0	10.0	21.5	30.0	32.0	19.0
D8233-S16-22	16	M24 x 1.5	M22 x 1.5	12.0	12.0	24.5	33.0	32.0	24.0

Metric Bite Type Fittings

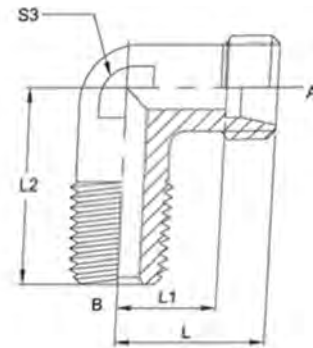
Male Stud Elbow Metric Taper D8233-NBR Series



PART NO. SIZE	A TUBE O.D.	A THD	B THD	A DRILL	B DRILL	LI LGTH	L LGTH	L2 LGTH	S3 FLATS	S2 HEX
D8233-E04-08-NBR	4	M8 x 1	M8 x 1	3.0	3.5	11.0	20.5	17.0	9.0	10.0
D8233-E06-10-NBR	6	M10 x 1	M10 x 1	4.5	4.5	9.5	21.0	17.0	9.0	12.0
D8233-L08-12-NBR	8	M14 x 1.5	M12 x 1.5	6.0	6.0	14.0	28.5	26.0	12.0	17.0
D8233-L10-14-NBR	10	M16 x 1.5	M14 x 1.5	8.0	7.0	15.0	29.5	27.0	14.0	19.0
D8233-L15-18-NBR	15	M22 x 1.5	M18 x 1.5	12.0	11.0	21.0	36.0	32.0	19.0	27.0
D8233-L18-22-NBR	18	M26 x 1.5	M22 x 1.5	15.0	14.0	23.5	39.5	36.0	24.0	32.0
D8233-S06-12-NBR	6	M14 x 1.5	M12 x 1.5	4.0	4.0	16.0	30.5	26.0	12.0	17.0
D8233-S10-16-NBR	10	M18 x 1.5	M16 x 1.5	7.0	7.0	17.5	33.5	28.0	17.0	22.0
D8233-S12-18-NBR	12	M20 x 1.5	M18 x 1.5	8.0	8.0	21.5	37.5	28.0	17.0	24.0
D8233-S14-20-NBR	14	M22 x 1.5	M20 x 1.5	10.0	10.0	21.5	39.5	32.0	19.0	27.0
D8233-S16-22-NBR	16	M24 x 1.5	M22 x 1.5	12.0	12.0	24.5	42.5	32.0	24.0	30.0

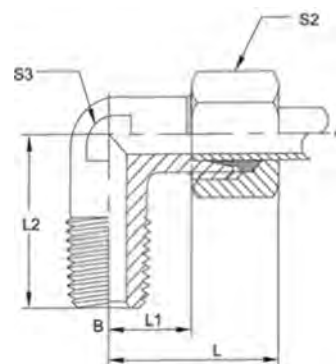
F-038

Male Stud Elbow BSPT Body Only D8243 Series



PART NO. SIZE	A TUBE O.D.	A THD	B BSPT	A DRILL	B DRILL	LI LGTH	L LGTH	L2 LGTH	S3 FLATS
D8243-E04-02	4	M8 x 1	R 1/8	3.0	4.0	11.0	15.0	17.0	9.0
D8243-E06-02	6	M10 x 1	R 1/8	4.5	4.5	9.5	15.0	17.0	9.0
D8243-E08-02	8	M12 x 1	R 1/8	6.0	6.0	11.5	17.0	20.0	12.0
D8243-L06-02	6	M12 x 1.5	R 1/8	4.0	4.0	12.0	19.0	20.0	12.0
D8243-L06-04	6	M12 x 1.5	R 1/4	4.0	6.0	12.0	19.0	26.0	12.0
D8243-L08-04	8	M14 x 1.5	R 1/4	6.0	6.0	14.0	21.0	26.0	12.0
D8243-L10-04	10	M16 x 1.5	R 1/4	8.0	7.0	15.0	22.0	27.0	14.0
D8243-L12-06	12	M18 x 1.5	R 3/8	10.0	9.0	17.0	24.0	28.0	17.0
D8243-L15-08	15	M22 x 1.5	R 1/2	12.0	11.0	21.0	28.0	34.0	19.0
D8243-L18-08	18	M26 x 1.5	R 1/2	15.0	14.0	23.5	31.0	36.0	24.0
D8243-S06-04	6	M14 x 1.5	R 1/4	4.0	4.0	16.0	23.0	26.0	12.0
D8243-S08-04	8	M16 x 1.5	R 1/4	5.0	5.0	17.0	24.0	27.0	14.0
D8243-S10-06	10	M18 x 1.5	R 3/8	7.0	7.0	17.5	25.0	28.0	17.0
D8243-S12-06	12	M20 x 1.5	R 3/8	8.0	8.0	21.5	29.0	28.0	17.0
D8243-S14-08	14	M22 x 1.5	R 1/2	10.0	10.0	21.5	30.0	32.0	19.0
D8243-S16-08	16	M24 x 1.5	R 1/2	12.0	12.0	24.5	33.0	32.0	24.0

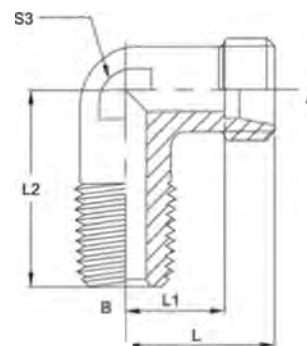
Male Stud Elbow BSPT D8243-NBR Series



PART NO. SIZE	A TUBE O.D.	A THD	B BSPT	A DRIU	B DRIU	11 LOTH	1 LOTH	L2 LOTH	S3 FIATS	S2 HEX
D8243-E04-02-NBR	4	M8 x 1	R 1/8	3.0	4.0	11.0	20.5	17.0	9.0	10.0
D8243-E06-02-NBR	6	M10x1	R 1/8	4.5	4.5	9.5	21.0	17.0	9.0	12.0
D8243-E08-02-NBR	8	M12 x 1	R 1/8	6.0	6.0	11.5	23.0	20.0	12.0	14.0
D8243-L06-02-NBR	6	M12 x 1.5	R 1/8	4.0	4.0	12.0	26.5	20.0	12.0	14.0
D8243-L06-04-N BR	6	M12 x 1.5	R 1/4	4.0	6.0	12.0	26.5	26.0	12.0	14.0
D8243-L08-04-NBR	8	M14x 1.5	R 1/4	6.0	6.0	14.0	28.5	26.0	12.0	17.0
D8243-L10-04-N BR	10	M16 x 1.5	R 1/4	8.0	7.0	15.0	29.5	27.0	14.0	19.0
D8243-L12-06-NBR	12	M18 x 1.5	R 3/8	10.0	9.0	17.0	31.5	28.0	17.0	22.0
D8243-L15-08-N BR	15	M22 x 1.5	R 1/2	12.0	11.0	21.0	36.0	34.0	19.0	27.0
D8243-L18-08-N BR	18	M26 x 1.5	R 1/2	15.0	14.0	23.5	39.5	36.0	24.0	32.0
D8243-S06-04-N BR	6	M14 x 1.5	R 1/4	4.0	4.0	16.0	30.5	26.0	12.0	17.0
D8243-S08-04-N BR	8	M16 x 1.5	R 1/4	5.0	5.0	17.0	31.5	27.0	14.0	19.0
D8243-S10-06-N BR	10	M18 x 1.5	R 3/8	7.0	7.0	17.5	33.5	28.0	17.0	22.0
D8243-S12-06-N BR	12	M20 x 1.5	R 3/8	8.0	8.0	21.5	37.5	28.0	17.0	24.0
D8243-S14-08-N BR	14	M22 x 1.5	R 1/2	10.0	10.0	21.5	39.5	32.0	19.0	27.0
D8243-S16-08-N BR	16	M24 x 1.5	R 1/2	12.0	12.0	24.5	42.5	32.0	24.0	30.0

F-039

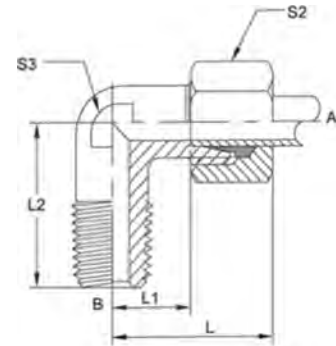
Male Stud Elbow NPTF Body Only D8250 Series



PART NO. SIZE	A TUBE O.D.	A THD	B THD	A DRIU	B DRIU	11 LGTH	L LGTH	L2 LGTH	S3 FLATS
D8250-E04-02	4	M8 x 1	1/8 NPTF	3.0	4.0	11.0	15.0	17.0	9.0
D8250-E08-02	8	M12 x 1	1/8 NPTF	6.0	6.0	11.5	17.0	20.0	12.0
D8250-L06-02	6	M12 x 1.5	1/8 NPTF	4.0	4.0	12.0	19.0	20.0	12.0
D8250-L06-04	6	M12x 1.5	1/4 NPTF	4.0	6.0	12.0	19.0	26.0	12.0
D8250-L08-04	8	M14x 1.5	1/4 NPTF	6.0	6.0	14.0	21.0	26.0	12.0
D8250-L10-04	10	M16 x 1.5	1/4 NPTF	8.0	7.0	15.0	22.0	27.0	14.0
D8250-L12-04	12	M18 x 1.5	1/4 NPTF	10.0	7.0	17.0	24.0	28.0	17.0
D8250-L12-06	12	M18 x 1.5	3/8 NPTF	10.0	9.0	17.0	24.0	28.0	17.0
D8250-L15-08	15	M22 x 1.5	1/2 NPTF	12.0	11.0	21.0	28.0	34.0	19.0
D8250-L18-08	18	M26 x 1.5	1/2 NPTF	15.0	14.0	23.5	31.0	36.0	24.0
D8250-L22-12	22	M30 x 2	3/4 NPTF	19.0	18.0	27.5	35.0	40.5	27.0
D8250-S06-04	6	M14 x 1.5	1/4 NPTF	4.0	4.0	16.0	23.0	26.0	12.0
D8250-S08-04	8	M16 x 1.5	1/4 NPTF	5.0	5.0	17.0	24.0	27.0	14.0
D8250-S10-06	10	M18 x 1.5	3/8 NPTF	7.0	7.0	17.5	25.0	28.0	17.0
D8250-S12-06	12	M20 x 1.5	3/8 NPTF	8.0	8.0	21.5	29.0	28.0	17.0
D8250-S16-08	16	M24x 1.5	1/2 NPTF	12.0	12.0	24.5	33.0	32.0	24.0

Metric Bite Type Fittings

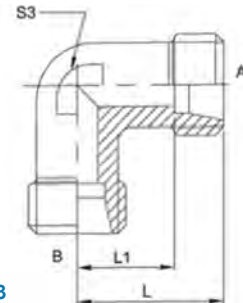
Male Stud Elbow NPTF D8250-NBR Series



PART NO. SIZE	A TUBE O.D	A THD	B THD	A DRILL	B DRILL	LI LBTH	L2 LBTH	L LBTH	S3 FLATS	S2 HEX
D8250-E04-02-NBR	4	M8 x 1	1/8 NPTF	3.0	4.0	11.0	20.5	17.0	9.0	10.0
D8250-E08-02-N BR	8	M12 x 1	1/8 NPTF	6.0	6.0	11.5	23.0	20.0	12.0	14.0
D8250-L06-02-N BR	6	M12 x 1.5	1/8 NPTF	4.0	4.0	12.0	26.5	20.0	12.0	14.0
D8250-L06-04-NBR	6	M12 x 1.5	1/4 NPTF	4.0	6.0	12.0	26.5	26.0	12.0	14.0
D8250-L08-04- N B R	8	M14 x 1.5	1/4 NPTF	6.0	6.0	14.0	28.5	26.0	12.0	17.0
D8250-L10-04-N BR	10	M16 x 1.5	1/4 NPTF	8.0	7.0	15.0	29.5	27.0	14.0	19.0
D8250-L12-04-N BR	12	M18 x 1.5	1/4 NPTF	10.0	7.0	17.0	31.5	28.0	17.0	22.0
D8250-L12-06-N BR	12	M18 x 1.5	3/8 NPTF	10.0	9.0	17.0	31.5	28.0	17.0	22.0
D8250-L15-08-N BR	15	M22 x 1.5	1/2 NPTF	12.0	11.0	21.0	36.0	34.0	19.0	27.0
D8250-L18-08-N BR	18	M26 x 1.5	1/2 NPTF	15.0	14.0	23.5	39.5	36.0	24.0	32.0
D8250-L22-12-NBR	22	M30 x 2	3/4 NPTF	19.0	18.0	27.5	43.5	40.5	27.0	36.0
D8250-S06-04-N B R	6	M14x 1.5	1/4 NPTF	4.0	4.0	16.0	30.5	26.0	12.0	17.0
D8250-S08-04-N B R	8	M16 x 1.5	1/4 NPTF	5.0	5.0	17.0	31.5	27.0	14.0	19.0
D8250-S10-06-NBR	10	M18x 1.5	3/8 NPTF	7.0	7.0	17.5	33.5	28.0	17.0	22.0
D8250-S12-06-N BR	12	M20 x 1.5	3/8 NPTF	8.0	8.0	21.5	37.5	28.0	17.0	24.0
D8250-S16-08-NBR	16	M24x 1.5	1/2 NPTF	12.0	12.0	24.5	42.5	32.0	24.0	30.0

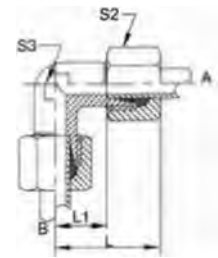
F-040

Elbow Coupling Body Only D8260 Series



PART NO. SIZE	A TUBE O.D	B TUBE O.D	A THD	B THD	A DRILL	B DRILL	LI LBTH	I LBTH	S3 FLATS
D8260-E04-04	4	4	M8 x 1	M8 x 1	3.0	3.0	11.0	15.0	9.0
D8260-E06-06	6	6	M10x1	M10x1	4.5	4.5	9.5	15.0	9.0
D8260-E08-08	8	8	M12 x 1	M12 x 1	6.0	6.0	11.5	17.0	12.0
D8260-L06-06	6	6	M12 x 1.5	M12 x 1.5	4.0	4.0	12.0	19.0	12.0
D8260-L08-08	8	8	M14 x 1.5	M14x 1.5	6.0	6.0	14.0	21.0	12.0
D8260-L10-10	10	10	M16 x 1.5	M16 x 1.5	8.0	8.0	15.0	22.0	14.0
D8260-L12-12	12	12	M18 x 1.5	M18 x 1.5	10.0	10.0	17.0	24.0	17.0
D8260-L15-15	15	15	M22 x 1.5	M22x 1.5	12.0	12.0	21.0	28.0	19.0
D8260-L18-18	18	18	M26 x 1.5	M26 x 1.5	15.0	15.0	23.5	31.0	24.0
D8260-L22-22	22	22	M30 x 2	M30 x 2	19.0	19.0	27.5	35.0	27.0
D8260-L28-28	28	28	M36 x 2	M36 x 2	24.0	24.0	30.5	38.0	36.0
D8260-L35-35	35	35	M45 x 2	M45 x 2	30.0	30.0	34.5	45.0	41.0
D8260-L42-42	42	42	M52 x 2	M52 x 2	36.0	36.0	40.0	51.0	50.0
D8260-S06-06	6	6	M14 x 1.5	M14 x 1.5	4.0	4.0	16.0	23.0	12.0
D8260-S08-08	8	8	M16 x 1.5	M16 x 1.5	5.0	5.0	17.0	24.0	14.0
D8260-S10-10	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	17.5	25.0	17.0
D8260-S12-12	12	12	M20 x 1.5	M20 x 1.5	8.0	8.0	21.5	29.0	17.0
D8260-S14-14	14	14	M22x 1.5	M22 x 1.5	10.0	10.0	21.5	30.0	19.0
D8260-S16-16	16	16	M24 x 1.5	M24 x 1.5	12.0	12.0	24.5	33.0	24.0
D8260-S20-20	20	20	M30 x 2	M30 x 2	16.0	16.0	26.5	37.0	27.0
D8260-S25-25	25	25	M36 x 2	M36 x 2	20.0	20.0	30.0	42.0	36.0
D8260-S30-30	30	30	M42 x 2	M42 x 2	25.0	25.0	35.5	49.0	41.0
D8260-S38-38	38	38	M52 x 2	M52 x 2	32.0	32.0	41.0	57.0	50.0

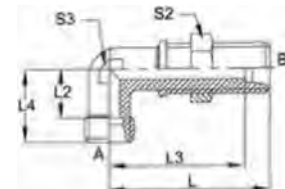
Elbow Coupling D8260-NBR Series



PART NO. SIZE	« TUBE 0.0	BTUBE 0.0	« THO	B THO	A DRILL	B DRILL	LI LGTH	L LGTH	S3 FIATS	S2 HEX
D8260-E04-04-NBR	4	4	M8 x 1	M8 x 1	3.0	3.0	11.0	20.5	9.0	10.0
D8260-E06-06-NBR	6	6	M10 x 1	M10x1	4.5	4.5	9.5	21.0	9.0	12.0
D8260-E08-08-N BR	8	8	M12 x 1	M12 x 1	6.0	6.0	11.5	23.0	12.0	14.0
D8260-L06-06-NBR	6	6	M12 x 1.5	M12 x 1.5	4.0	4.0	12.0	26.5	12.0	14.0
D8260-L08-08-NBR	8	8	M14x 1.5	M14 x 1.5	6.0	6.0	14.0	28.5	12.0	17.0
D8260-L10-10-NBR	10	10	M16 x 1.5	M16 x 1.5	8.0	8.0	15.0	29.5	14.0	19.0
D8260-L12-12-NBR	12	12	M18 x 1.5	M18 x 1.5	10.0	10.0	17.0	31.5	17.0	22.0
D8260-L15-15-NBR	15	15	M22 x 1.5	M22 x 1.5	12.0	12.0	21.0	36.0	19.0	27.0
D8260-L18-18-NBR	18	18	M26 x 1.5	M26 x 1.5	15.0	15.0	23.5	39.5	24.0	32.0
D8260-L22-22-NBR	22	22	M30 x 2	M30x2	19.0	19.0	27.5	43.5	27.0	36.0
D8260-L28-28-NBR	28	28	M36 x 2	M36 x 2	24.0	24.0	30.5	47.0	36.0	41.0
D8260-L35-35-NBR	35	35	M45 x 2	M45 x 2	30.0	30.0	34.5	56.0	41.0	50.0
D8260-L42-42-NBR	42	42	M52 x 2	M52 x 2	36.0	36.0	40.0	62.5	50.0	60.0
D8260-S06-06-NBR	6	6	M14 x 1.5	M14x 1.5	4.0	4.0	16.0	30.5	12.0	17.0
D8260-S08-08-NBR	8	8	M16x 1.5	M16 x 1.5	5.0	5.0	17.0	31.5	14.0	19.0
D8260-S10-10-NBR	10	10	M18x 1.5	M18 x 1.5	7.0	7.0	17.5	33.5	17.0	22.0
D8260-S12-12-N BR	12	12	M20 x 1.5	M20 x 1.5	8.0	8.0	21.5	37.5	17.0	24.0
D8260-S14-14-NBR	14	14	M22 x 1.5	M22 x 1.5	10.0	10.0	21.5	39.5	19.0	27.0
D8260-S16-16-N BR	16	16	M24 x 1.5	M24 x 1.5	12.0	12.0	24.5	42.5	24.0	30.0
D8260-S20-20-N BR	20	20	M30 x 2	M30 x 2	16.0	16.0	26.5	48.0	27.0	36.0
D8260-S25-25-N BR	25	25	M36 x 2	M36 x 2	20.0	20.0	30.0	54.0	36.0	46.0
D8260-S30-30-N BR	30	30	M42 x 2	M42 x 2	25.0	25.0	35.5	62.0	41.0	50.0
D8260-S38-38-N BR	38	38	M52 x 2	M52 x 2	32.0	32.0	41.0	71.5	50.0	60.0

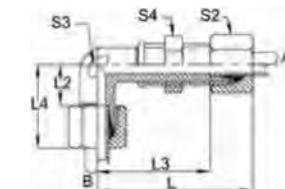
F-041

Bulkhead Elbow Body D8261 Series



PART NO. SIZE	A TUBE 0.0	BTUBE 0.0	A THO	B THO	A DRILL	B DRILL	12 LGTH	L4 LGTH	L3 LGTH	L LGTH	S3 FLATS	S2 HEX
D8261-LN-L08-08-N BR	8	8	M14 x 1.5	M14 x 1.5	6.0	6.0	14.0	21.0	44.0	51.0	12.0	19.0
D8261-LN-L12-12-NBR	12	12	M18 x 1.5	M18 x 1.5	10.0	10.0	17.0	24.0	49.0	56.0	17.0	24.0
D8261-LN-L15-15-NBR	15	15	M22 x 1.5	M22x 1.5	12.0	12.0	21.0	28.0	54.0	61.0	19.0	27.0
D8261-LN-S12-12-NBR	12	12	M20 x 1.5	M20x 1.5	8.0	8.0	21.5	29.0	51.5	59.0	17.0	27.0
D8261-LN-S20-20-NBR	20	20	M30 x 2	M30 x 2	16.0	16.0	26.5	37.0	63.5	74.0	27.0	41.0
D8261-LN-S30-30-N BR	30	30	M42 x 2	M42 x 2	25.0	25.0	35.5	49.0	76.5	90.0	41.0	50.0
D8261-LN-S38-38-N BR	38	38	M52 x 2	M52 x 2	32.0	32.0	41.0	57.0	80.0	96.0	50.0	65.0

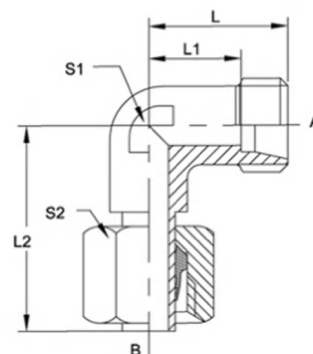
Bulkhead Elbow D8261-NBR Series



PART NO. SIZE	A TUBE 0.0	BTUBE 0.0	A THO	B THO	A DRILL	B DRILL	L2 LGTH	L4 LGTH	L3 LGTH	L LGTH	S3 FLATS	S2 HEX	S4 HEX
D8261-LN-L08-08-NBR	8	8	M14x 1.5	M14x 1.5	6.0	6.0	14.0	28.5	44.0	58.5	12.0	19.0	17.0
D8261-LN-L12-12-NBR	12	12	M18x 1.5	M18 x 1.5	10.0	10.0	17.0	31.5	49.0	63.5	17.0	24.0	22.0
D8261-LN-L15-15-NBR	15	15	M22 x 1.5	M22 x 1.5	12.0	12.0	21.0	36.0	54.0	69.0	19.0	27.0	27.0
D8261-LN-S12-12-NBR	12	12	M20 x 1.5	M20 x 1.5	8.0	8.0	21.5	37.5	51.5	67.5	17.0	27.0	24.0
D8261-LN-S20-20-NBR	20	20	M30 x 2	M30 x 2	16.0	16.0	26.5	48.0	63.5	85.0	27.0	41.0	36.0
D8261-LN-S30-30-NBR	30	30	M42 x 2	M42 x 2	25.0	25.0	35.5	62.0	76.5	103.0	41.0	50.0	50.0
D8261-LN-S38-38-NBR	38	38	M52 x 2	M52 x 2	32.0	32.0	41.0	71.5	80.0	110.5	50.0	65.0	60.0

Metric Bite Type Fittings

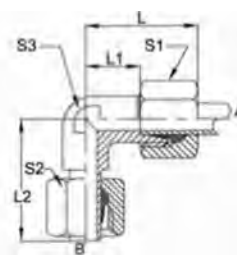
Adjustable Elbow with Tube Connection Body Only D8263 Series



PART NO.SIZE	A TUBE/TUBE 0.0 0.0		A THD	B THD	A DRILL	B ORILL	LI LOTH	L2 LOTH	L LOTH	SI FIATS	S2 HEX
D8263-L06-06-N BR	6	6	M12 x 1.5	M12x 1.5	4.0	3.5	12.0	19.0	26.0	12.0	14.0
D8263-L08-08-NBR	8	8	M14 x 1.5	M14 x 1.5	6.0	4.5	14.0	21.0	27.5	12.0	17.0
D8263-L10-10-NBR	10	10	M16 x 1.5	M16 x 1.5	8.0	7.0	15.0	22.0	29.0	14.0	19.0
D8263-L12-12-NBR	12	12	M18 x 1.5	M18x 1.5	10.0	7.5	17.0	24.0	29.5	17.0	22.0
D8263-L15-15-NBR	15	15	M22 x 1.5	M22 x 1.5	12.0	11.0	21.0	28.0	32.5	19.0	27.0
D8263-L18-18-NBR	18	18	M26 x 1.5	M26x 1.5	15.0	14.0	23.5	31.0	35.5	24.0	32.0
D8263-L22-22-NBR	22	22	M30 x 2	M30 x 2	19.0	18.0	27.5	35.0	38.5	27.0	36.0
D8263-L28-28-NBR	28	28	M36 x 2	M36 x 2	24.0	23.0	30.5	38.0	41.5	36.0	41.0
D8263-L35-35-N BR	35	35	M45 x 2	M45 x 2	30.0	29.5	34.5	45.0	51.0	41.0	50.0
D8263-L42-42-N BR	42	42	M52 x 2	M52 x 2	36.0	35.5	40.0	51.0	56.0	50.0	60.0
D8263-S06-06-NBR	6	6	M14 x 1.5	M14 x 1.5	4.0	3.5	16.0	23.0	27.0	12.0	17.0
D8263-S08-08-NBR	8	8	M16 x 1.5	M16x 1.5	5.0	4.5	17.0	24.0	27.5	14.0	19.0
D8263-S10-10-NBR	10	10	M18 x 1.5	M18x 1.5	7.0	7.0	17.5	25.0	30.0	17.0	22.0
D8263-S12-12-NBR	12	12	M20 x 1.5	M20x 1.5	8.0	6.5	21.5	29.0	31.0	17.0	24.0
D8263-S14-14-NBR	14	14	M22 x 1.5	M22 x 1.5	10.0	9.5	21.5	30.0	33.5	19.0	27.0
D8263-S16-16-NBR	16	16	M24 x 1.5	M24 x 1.5	12.0	11.5	24.5	33.0	36.5	24.0	30.0
D8263-S20-20-NBR	20	20	M30 x 2	M30 x 2	16.0	15.5	26.5	37.0	44.5	27.0	36.0
D8263-S25-25-NBR	25	25	M36 x 2	M36 x 2	20.0	18.0	30.0	42.0	50.0	36.0	46.0
D8263-S30-30-NBR	30	30	M42 x 2	M42 x 2	25.0	23.0	35.5	49.0	55.0	41.0	50.0
D8263-S38-38-NBR	38	38	M52 x 2	M52 x 2	32.0	29.0	41.0	57.0	63.0	50.0	60.0

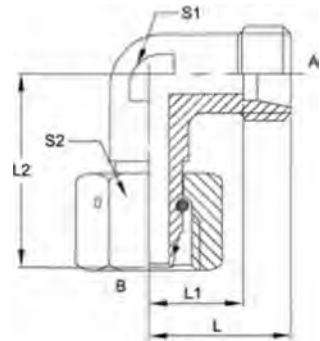
F-042

Adjustable Elbow with Tube Connection D8263-NBR Series



PART NO.SIZE	A TUBE/TUBE 0.0 0.0		A THD	B THD	A DRILL	B ORILL	LI LGTH	I LGTH	L2 LGTH	S3 FIATS	SI HEX	S2 HEX
D8263-L06-06-NBR	6	6	M12 x 1.5	M12 x 1.5	4.0	3.5	12.0	26.5	26.0	12.0	14.0	14.0
D8263-L08-08-NBR	8	8	M14 x 1.5	M14 x 1.5	6.0	4.5	14.0	28.5	27.5	12.0	17.0	17.0
D8263-L10-10-NBR	10	10	M16 x 1.5	M16 x 1.5	8.0	7.0	15.0	29.5	29.0	14.0	19.0	19.0
D8263-L12-12-NBR	12	12	M18 x 1.5	M18 x 1.5	10.0	7.5	17.0	31.5	29.5	17.0	22.0	22.0
D8263-L15-15-NBR	15	15	M22 x 1.5	M22 x 1.5	12.0	11.0	21.0	36.0	32.5	19.0	27.0	27.0
D8263-L18-18-NBR	18	18	M26 x 1.5	M26 x 1.5	15.0	14.0	23.5	39.5	35.5	24.0	32.0	32.0
D8263-L22-22-N BR	22	22	M30 x 2	M30 x 2	19.0	18.0	27.5	43.5	38.5	27.0	36.0	36.0
D8263-L28-28-NBR	28	28	M36 x 2	M36 x 2	24.0	23.0	30.5	47.0	41.5	36.0	41.0	41.0
D8263-L35-35-NBR	35	35	M45 x 2	M45 x 2	30.0	29.5	34.5	56.0	51.0	41.0	50.0	50.0
D8263-L42-42-N BR	42	42	M52 x 2	M52 x 2	36.0	35.5	40.0	62.5	56.0	50.0	60.0	60.0
D8263-S06-06-N BR	6	6	M14 x 1.5	M14 x 1.5	4.0	3.5	16.0	30.5	27.0	12.0	17.0	17.0
D8263-S08-08-NBR	8	8	M16 x 1.5	M16 x 1.5	5.0	4.5	17.0	31.5	27.5	14.0	19.0	19.0
D8263-S10-10-NBR	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	17.5	33.5	30.0	17.0	22.0	22.0
D8263-S12-12-NBR	12	12	M20 x 1.5	M20 x 1.5	8.0	6.5	21.5	37.5	31.0	17.0	24.0	24.0
D8263-S14-14-NBR	14	14	M22 x 1.5	M22 x 1.5	10.0	9.5	21.5	39.5	33.5	19.0	27.0	27.0
D8263-S16-16-NBR	16	16	M24 x 1.5	M24 x 1.5	12.0	11.5	24.5	42.5	36.5	24.0	30.0	30.0
D8263-S20-20-NBR	20	20	M30 x 2	M30 x 2	16.0	15.5	26.5	48.0	44.5	27.0	36.0	36.0
D8263-S25-25-N BR	25	25	M36 x 2	M36 x 2	20.0	18.0	30.0	54.0	50.0	36.0	46.0	46.0
D8263-S30-30-N BR	30	30	M42 x 2	M42 x 2	25.0	23.0	35.5	62.0	55.0	41.0	50.0	50.0
D8263-S38-38-N B R	38	38	M52 x 2	M52 x 2	32.0	29.0	41.0	71.5	63.0	50.0	60.0	60.0

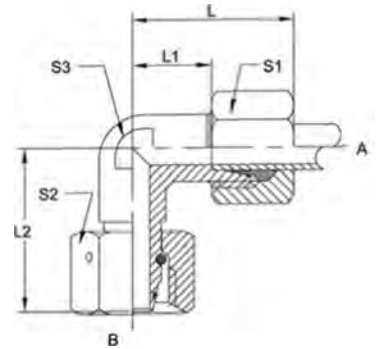
Adjustable Elbow Body With O-ring D8269 Series



PART NO. SIZE	ATUBE 0.0	TUBE 0.0	A THD	B THD	A DRILL	B DRILL	LI LOTH	I LGTH	L2 LGTH	SI FLATS	S2 HEX
D8269-L06-06	6	6	M12 x 1.5	M12 x 1.5	4.0	2.5	12.0	19.0	27.0	12.0	14.0
D8269-L08-08	8	8	M14 x 1.5	M14 x 1.5	6.0	4.0	14.0	21.0	27.5	12.0	17.0
D8269-L10-10	10	10	M16 x 1.5	M16 x 1.5	8.0	6.0	15.0	22.0	30.0	14.0	19.0
D8269-L12-12	12	12	M18 x 1.5	M18 x 1.5	10.0	8.0	17.0	24.0	31.0	17.0	22.0
D8269-L15-15	15	15	M22 x 1.5	M22 x 1.5	12.0	10.0	21.0	28.0	32.5	19.0	27.0
D8269-L18-18	18	18	M26 x 1.5	M26 x 1.5	15.0	13.0	23.5	31.0	35.5	24.0	32.0
D8269-L22-22	22	22	M30 x 2	M30 x 2	19.0	17.0	27.5	35.0	38.5	27.0	36.0
D8269-L28-28	28	28	M36 x 2	M36 x 2	24.0	22.0	30.5	38.0	41.5	36.0	41.0
D8269-L35-35	35	35	M45x2	M45 x 2	30.0	28.0	34.5	45.0	51.0	41.0	50.0
D8269-L42-42	42	42	M52 x 2	M52 x 2	36.0	34.0	40.0	51.0	56.0	50.0	60.0
D8269-S06-06	6	6	M14 x 1.5	M14 x 1.5	4.0	2.5	16.0	23.0	27.0	12.0	17.0
D8269-S08-08	8	8	M16 x 1.5	M16 x 1.5	5.0	4.0	17.0	24.0	27.5	14.0	19.0
D8269-S10-10	10	10	M18 x 1.5	M18 x 1.5	7.0	6.0	17.5	25.0	30.0	17.0	22.0
D8269-S12-12	12	12	M20 x 1.5	M20 x 1.5	8.0	8.0	21.5	29.0	31.0	17.0	24.0
D8269-S14-14	14	14	M22 x 1.5	M22 x 1.5	10.0	9.0	21.5	30.0	32.5	19.0	27.0
D8269-S16-16	16	16	M24x 1.5	M24 x 1.5	12.0	11.0	24.5	33.0	36.5	24.0	30.0
D8269-S20-20	20	20	M30 x 2	M30 x 2	16.0	14.0	26.5	37.0	44.5	27.0	36.0
D8269-S25-25	25	25	M36 x 2	M36 x 2	20.0	18.0	30.0	42.0	50.0	36.0	46.0
D8269-S30-30	30	30	M42 x 2	M42 x 2	25.0	23.0	35.5	49.0	55.0	41.0	50.0
D8269-S38-38	38	38	M52 x 2	M52 x 2	32.0	30.0	41.0	57.0	63.0	50.0	60.0

Metric Bite Type Fittings

Adjustable Elbow with O-ring D8269-NBR Series

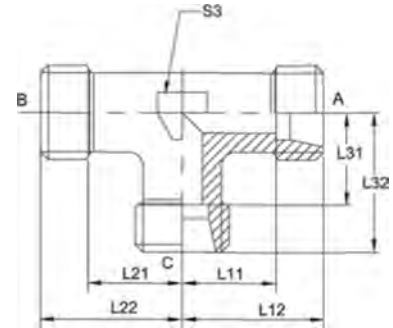


PART ND.SIZE	A 0.0	TUBE 0.0	BORE 0.0	A THD	B THD	A DRILL	B RILL	LI LGTH	L LGTH	L2 LGTH	S3 FLATS	SI HEX	S2 HEX
D8269-L06-06-N B R	6	6		M12 x 1.5	M12 x 1.5	4.0	2.5	12.0	26.5	27.0	12.0	14.0	14.0
D8269-L08-08-NBR	8	8		M14 x 1.5	M14 x 1.5	6.0	4.0	14.0	28.5	27.5	12.0	17.0	17.0
D8269-L10-10-N 8 R	10	10		M16 x 1.5	M16 x 1.5	8.0	6.0	15.0	29.5	30.0	14.0	19.0	19.0
D8269-L12-12-NBR	12	12		M18 x 1.5	M18 x 1.5	10.0	8.0	17.0	31.5	31.0	17.0	22.0	22.0
D8269-L15-15-NBR	15	15		M22 x 1.5	M22 x 1.5	12.0	10.0	21.0	36.0	32.5	19.0	27.0	27.0
D8269-L18-18-NBR	18	18		M26 x 1.5	M26 x 1.5	15.0	13.0	23.5	39.5	35.5	24.0	32.0	32.0
D8269-L22-22-N B R	22	22		M30 x 2	M30 x 2	19.0	17.0	27.5	43.5	38.5	27.0	36.0	36.0
D8269-L28-28-NBR	28	28		M36 x 2	M36 x 2	24.0	22.0	30.5	47.0	41.5	36.0	41.0	41.0
D8269-L35-35-NBR	35	35		M45 x 2	M45 x 2	30.0	28.0	34.5	56.0	51.0	41.0	50.0	50.0
D8269-L42-42-NBR	42	42		M52 x 2	M52 x 2	36.0	34.0	40.0	62.5	56.0	50.0	60.0	60.0
D8269-S06-06-N B R	6	6		M14 x 1.5	M14 x 1.5	4.0	2.5	16.0	30.5	27.0	12.0	17.0	17.0
D8269-S08-08-N B R	8	8		M16 x 1.5	M16 x 1.5	5.0	4.0	17.0	31.5	27.5	14.0	19.0	19.0
D8269-S10-10-N BR	10	10		M18 x 1.5	M18 x 1.5	7.0	6.0	17.5	33.5	30.0	17.0	22.0	22.0
D8269-S12-12-NBR	12	12		M20 x 1.5	M20 x 1.5	8.0	8.0	21.5	37.5	31.0	17.0	24.0	24.0
D8269-S14-14-NBR	14	14		M22 x 1.5	M22 x 1.5	10.0	9.0	21.5	39.5	32.5	19.0	27.0	27.0
D8269-S16-16-NBR	16	16		M24x 1.5	M24x 1.5	12.0	11.0	24.5	42.5	36.5	24.0	30.0	30.0
D8269-S20-20-N B R	20	20		M30 x 2	M30 x 2	16.0	14.0	26.5	48.0	44.5	27.0	36.0	36.0
D8269-S25-25-NBR	25	25		M36 x 2	M36 x 2	20.0	18.0	30.0	54.0	50.0	36.0	46.0	46.0
D8269-S30-30-N B R	30	30		M42 x 2	M42 x 2	25.0	23.0	35.5	62.0	55.0	41.0	50.0	50.0
D8269-S38-38-NBR	38	38		M52 x 2	M52 x 2	32.0	30.0	41.0	71.5	63.0	50.0	60.0	60.0

F-044

Tee Coupling Body Only

D8360 Series

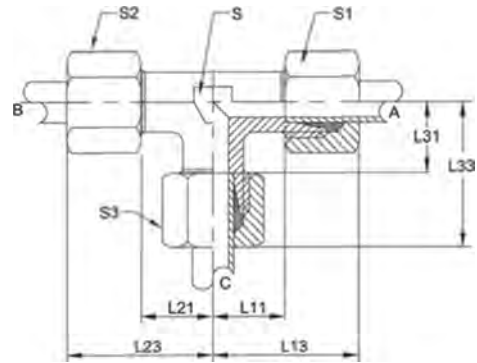


F-045

PART NO. SIZE	A TUBE O.D	B TUBE O.D	TUBE 0.0	A THD	B THD	C THD	A DRILL	B DRILL	C DRILL	L11 LGTH	L12 LGTH	L21 LGTH	L22 LGTH	131 LGTH	L32 LGTH	S3 FLATS
D8360-E04-04-04	4	4	4	M8 x 1	M8 x 1	M8 x 1	3.0	3.0	3.0	11.0	15.0	11.0	15.0	11.0	15.0	9.0
D8360-E06-06-06	6	6	6	M10x1	M10x1	M10x1	4.5	4.5	4.5	9.5	15.0	9.5	15.0	9.5	15.0	9.0
D8360-E08-08-08	8	8	8	M12 x 1	M12 x 1	M12 x 1	6.0	6.0	6.0	11.5	17.0	11.5	17.0	11.5	17.0	12.0
D8360-L06-06-06	6	6	6	M12 x 1.5	M12 x 1.5	M12 x 1.5	4.0	4.0	4.0	12.0	19.0	12.0	19.0	12.0	19.0	12.0
D8360-L08-08-08	8	8	8	M14 x 1.5	M14 x 1.5	M14 x 1.5	6.0	6.0	6.0	14.0	21.0	14.0	21.0	14.0	21.0	12.0
D8360-L10-10-10	10	10	10	M16x 1.5	M16x 1.5	M16x 1.5	8.0	8.0	8.0	15.0	22.0	15.0	22.0	15.0	22.0	14.0
D8360-L12-12-12	12	12	12	M18 x 1.5	M18x 1.5	M18 x 1.5	10.0	10.0	10.0	17.0	24.0	17.0	24.0	17.0	24.0	17.0
D8360-L12-12-18	12	12	18	M18 x 1.5	M18 x 1.5	M26 x 1.5	10.0	10.0	15.0	23.0	30.0	23.0	30.0	23.5	31.0	24.0
D8360-L15-15-12	15	15	12	M22 x 1.5	M22 x 1.5	M18 x 1.5	12.0	12.0	10.0	21.0	28.0	21.0	28.0	20.0	27.0	19.0
D8360-L15-15-15	15	15	15	M22 x 1.5	M22 x 1.5	M22 x 1.5	12.0	12.0	12.0	21.0	28.0	21.0	28.0	21.0	28.0	19.0
D8360-L15-15-18	15	15	18	M22 x 1.5	M22 x 1.5	M26 x 1.5	12.0	12.0	15.0	24.0	31.0	24.0	31.0	23.5	31.0	24.0
D8360-L18-18-08	18	18	8	M26 x 1.5	M26 x 1.5	M14 x 1.5	15.0	15.0	6.0	23.5	31.0	23.5	31.0	22.0	29.0	24.0
D8360-L18-18-10	18	18	10	M26 x 1.5	M26 x 1.5	M16 x 1.5	15.0	15.0	8.0	23.5	31.0	23.5	31.0	23.0	30.0	24.0
D8360-L18-18-12	18	18	12	M26x 1.5	M26 x 1.5	M18x 1.5	15.0	15.0	10.0	23.5	31.0	23.5	31.0	23.0	30.0	24.0
D8360-L18-18-15	18	18	15	M26 x 1.5	M26x 1.5	M22x 1.5	15.0	15.0	12.0	23.5	31.0	23.5	31.0	24.0	31.0	24.0
D8360-L18-18-18	18	18	18	M26 x 1.5	M26 x 1.5	M26x 1.5	15.0	15.0	15.0	23.5	31.0	23.5	31.0	23.5	31.0	24.0
D8360-L22-22-10	22	22	10	M30 x 2	M30 x 2	M16x 1.5	19.0	19.0	8.0	27.5	35.0	27.5	35.0	26.0	33.0	27.0
D8360-L22-22-12	22	22	12	M30 x 2	M30 x 2	M18 x 1.5	19.0	19.0	10.0	27.5	35.0	27.5	35.0	26.0	33.0	27.0
D8360-L22-22-15	22	22	15	M30 x 2	M30 x 2	M22 x 1.5	19.0	19.0	12.0	27.5	35.0	27.5	35.0	27.0	34.0	27.0
D8360-L22-22-18	22	22	18	M30x2	M30 x 2	M26x 1.5	19.0	19.0	15.0	27.5	35.0	27.5	35.0	26.5	34.0	27.0
D8360-L22-22-22	22	22	22	M30 x 2	M30 x 2	M30 x 2	19.0	19.0	19.0	27.5	35.0	27.5	35.0	27.5	35.0	27.0
D8360-L22-22-28	22	22	28	M30 x 2	M30 x 2	M36 x 2	19.0	19.0	24.0	30.5	38.0	30.5	38.0	30.5	38.0	36.0
D8360-L28-28-28	28	28	28	M36 x 2	M36 x 2	M36 x 2	24.0	24.0	24.0	30.5	38.0	30.5	38.0	30.5	38.0	36.0
D8360-L35-35-35	35	35	35	M45 x 2	M45 x 2	M45 x 2	30.0	30.0	30.0	34.5	45.0	34.5	45.0	34.5	45.0	41.0
D8360-L42-42-42	42	42	42	M52 x 2	M52 x 2	M52 x 2	36.0	36.0	36.0	40.0	51.0	40.0	51.0	40.0	51.0	50.0
D8360-S06-06-06	6	6	6	M14 x 1.5	M14 x 1.5	M14 x 1.5	4.0	4.0	4.0	16.0	23.0	16.0	23.0	16.0	23.0	12.0
D8360-S08-08-08	8	8	8	M16 x 1.5	M16 x 1.5	M16x 1.5	5.0	5.0	5.0	17.0	24.0	17.0	24.0	17.0	24.0	14.0
D8360-S10-10-06	10	10	6	M18 x 1.5	M18 x 1.5	M14 x 1.5	7.0	7.0	4.0	17.5	25.0	17.5	25.0	18.0	25.0	17.0
D8360-S10-10-10	10	10	10	M18 x 1.5	M18 x 1.5	M18 x 1.5	7.0	7.0	7.0	17.5	25.0	17.5	25.0	17.5	25.0	17.0
D8360-S12-12-06	12	12	6	M20 x 1.5	M20 x 1.5	M14 x 1.5	8.0	8.0	4.0	21.5	29.0	21.5	29.0	22.0	29.0	17.0
D8360-S12-12-08	12	12	8	M20 x 1.5	M20 x 1.5	M16x 1.5	8.0	8.0	5.0	21.5	29.0	21.5	29.0	22.0	29.0	17.0
D8360-S12-12-10	12	12	10	M20 x 1.5	M20 x 1.5	M18 x 1.5	8.0	8.0	7.0	21.5	29.0	21.5	29.0	21.5	29.0	17.0
D8360-S12-12-12	12	12	12	M20 x 1.5	M20 x 1.5	M20 x 1.5	8.0	8.0	8.0	21.5	29.0	21.5	29.0	21.5	29.0	17.0
D8360-S12-12-16	12	12	16	M20 x 1.5	M20 x 1.5	M24 x 1.5	8.0	8.0	12.0	23.5	31.0	23.5	31.0	24.5	33.0	24.0
D8360-S14-14-10	14	14	10	M22 x 1.5	M22 x 1.5	M18 x 1.5	10.0	10.0	7.0	21.5	30.0	21.5	30.0	20.5	28.0	19.0
D8360-S14-14-14	14	14	14	M22 x 1.5	M22 x 1.5	M22 x 1.5	10.0	10.0	10.0	21.5	30.0	21.5	30.0	21.5	30.0	19.0
D8360-S16-16-06	16	16	6	M24 x 1.5	M24 x 1.5	M14 x 1.5	12.0	12.0	4.0	24.5	33.0	24.5	33.0	24.0	31.0	24.0
D8360-S16-16-08	16	16	8	M24 x 1.5	M24 x 1.5	M16x 1.5	12.0	12.0	5.0	24.5	33.0	24.5	33.0	24.0	31.0	24.0
D8360-S16-16-10	16	16	10	M24 x 1.5	M24 x 1.5	M18 x 1.5	12.0	12.0	7.0	24.5	33.0	24.5	33.0	23.5	31.0	24.0
D8360-S16-16-12	16	16	12	M24 x 1.5	M24 x 1.5	M20 x 1.5	12.0	12.0	8.0	24.5	33.0	24.5	33.0	23.5	31.0	24.0
D8360-S16-16-16	16	16	16	M24 x 1.5	M24 x 1.5	M24 x 1.5	12.0	12.0	12.0	24.5	33.0	24.5	33.0	24.5	33.0	24.0
D8360-S16-16-20	16	16	20	M24 x 1.5	M24 x 1.5	M30 x 2	12.0	12.0	16.0	27.5	36.0	27.5	36.0	26.5	37.0	27.0
D8360-S20-20-10	20	20	10	M30x2	M30 x 2	M18 x 1.5	16.0	16.0	7.0	26.5	37.0	26.5	37.0	26.5	34.0	27.0
D8360-S20-20-12	20	20	12	M30 x 2	M30 x 2	M20 x 1.5	16.0	16.0	8.0	26.5	37.0	26.5	37.0	26.5	34.0	27.0
D8360-S20-20-16	20	20	16	M30 x 2	M30 x 2	M24 x 1.5	16.0	16.0	12.0	26.5	37.0	26.5	37.0	27.5	36.0	27.0
D8360-S20-20-20	20	20	20	M30 x 2	M30 x 2	M30 x 2	16.0	16.0	16.0	26.5	37.0	26.5	37.0	26.5	37.0	27.0
D8360-S20-20-25	20	20	25	M30 x 2	M30 x 2	M36 x 2	16.0	16.0	20.0	29.5	40.0	29.5	40.0	30.0	42.0	36.0
D8360-S25-25-25	25	25	25	M36 x 2	M36 x 2	M36 x 2	20.0	20.0	20.0	30.0	42.0	30.0	42.0	30.0	42.0	36.0
D8360-S30-30-30	30	30	30	M42 x 2	M42 x 2	M42 x 2	25.0	25.0	25.0	35.5	49.0	35.5	49.0	35.5	49.0	41.0
D8360-S38-38-38	38	38	38	M52 x 2	M52 x 2	M52 x 2	32.0	32.0	32.0	41.0	57.0	41.0	57.0	41.0	57.0	50.0

Metric Bite Type Fittings

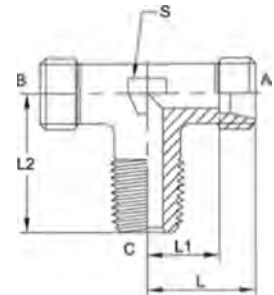
Tee Coupling D8360-NBR Series



PART NO. SIZE	A TUBE ao	B TUBE ao	C TUBE an	B mo	C mo	A DRILL	B DRILL	C DRILL	HI mm	L13	121	123	131	133	S	SI	S2	S3
D8360E04040M>JBR 4	4	4	M8x1	M8x1	M8x1	30	30	30	11.0	205	110	205	11.0	205	90	100	100	100
D836&E060606JMBR6	6	6	M10x1	M10x1	M10x1	45	45	45	95	210	95	210	95	210	120	120	120	120
D8360E060808NBR 8	8	8	M12x1	M12x1	M12x1	60	60	60	115	230	115	280	115	230	140	140	140	140
D8360-L060606NBR 6	6	6	M12x15	M12x15	M12x15	4.0	40	4.0	120	265	120	265	120	265	120	140	140	140
D8360L080808NBR 8	8	8	M14x15	M14x15	M14x15	60	60	60	14.0	285	140	285	140	285	120	170	170	170
D8366LKM0-10NBR 10	10	10	M16x15	M16x15	M16x15	80	80	80	150	295	150	295	160	295	140	190	190	190
D8360-L12-12-12-NBR12	12	12	M18x15	M18x15	M18x15	100	100	10.0	17.0	315	170	315	17.0	315	170	220	220	220
D8360L12-12-1&NBR12	12	18	M18x15	M18x15	M26x15	10.0	100	150	230	375	280	375	235	395	24.0	220	220	320
D8360L15-15-12-NBR15	15	12	M22x15	M22x15	M18x15	120	120	10.0	21.0	360	210	360	200	345	19.0	270	270	220
D8360L15-15-15NBR15	15	15	M22x15	M22x15	M22x15	120	120	120	21.0	360	210	360	21.0	360	19.0	270	270	27.0
D8360L15-15-1&NBR15	15	18	M22x15	M22x15	M26x15	120	120	150	24.0	39.0	240	390	235	395	24.0	270	270	320
D836OL18-1806MER18	18	8	M26x15	M26x15	M14x15	150	150	60	235	395	235	395	220	365	240	320	320	170
D8360-L18-181CLNBR18	18	10	M26x15	M26x15	M16x15	150	150	80	235	395	235	395	280	375	240	320	320	190
D8360L18-18-12-NBR18	18	12	M26x15	M26x15	M18x1.5	150	150	10.0	235	395	235	395	280	375	240	320	320	220
D8360L18-1815NBR 18	18	15	M26x15	M26x15	M22x1.5	150	150	120	235	395	235	395	240	390	24.0	320	320	27.0
D8360L18181&NBR 18	18	18	M26x15	M26x15	M26x1.5	150	150	150	235	395	235	395	235	395	24.0	320	320	320
D8360L22-22-10NBR22	22	10	M30x2	M30x2	M16x1.5	190	190	80	275	435	275	435	260	405	27.0	360	360	190
D8360L22-22-12-NBR22	22	12	M30x2	M30x2	M18x1.5	190	190	100	275	435	275	435	260	405	270	360	360	220
D8360-L22-22-1&NBR22	22	15	M30x2	M30x2	M22x1.5	19.0	190	120	275	435	275	435	27.0	420	27.0	360	360	270
D8366L22-22-1&NBR22	22	18	M30x2	M30x2	M26x1.5	19.0	190	150	275	435	275	435	265	425	270	360	360	320
D8360-L22-22-2&NBR22	22	22	M30x2	M30x2	M30x2	19.0	190	190	275	435	275	435	275	435	270	360	360	360
D8300L22-22-28NBR22	22	28	M30x2	M30x2	M36x2	19.0	190	240	305	465	305	465	305	470	360	360	360	410
D8360-L28-2&2&NBR28	28	28	M36x2	M36x2	M36x2	24.0	240	240	305	470	305	47.0	305	470	360	410	410	410
D836&L35353&NBR 35	35	35	M45x2	M45x2	M45x2	30.0	300	300	345	560	345	560	345	560	500	500	500	500
D836&L424242-NBR42	42	42	M52x2	M52x2	M52x2	350	360	360	400	625	400	625	40.0	625	500	600	600	600
D8360-S060606NBR 6	6	6	M14x15	M14x15	M14x15	4.0	40	4.0	160	305	160	305	160	305	120	170	170	170
D8360S080808NBR 8	8	8	M16x15	M16x15	M16x1.5	50	50	5.0	170	315	170	315	17.0	315	140	190	190	190
D8360S1&100&NBR 10	10	6	M18x15	M18x15	M14x1.5	70	70	4.0	175	335	175	335	180	325	170	220	220	170
D8360S10-10-1&NBR10	10	10	M18x15	M18x15	M18x1.5	7.0	70	7.0	175	335	175	335	175	335	170	220	220	220
D8360S12-120&NBR 12	12	6	M20x15	M20x15	M14x15	80	80	40	215	375	215	375	220	365	170	240	240	170
D8360S12-12-0&NBR12	12	8	M20x15	M20x15	M16x1.5	80	80	50	215	375	215	375	220	365	170	240	240	190
D8360-S12-12-10MBR12	12	10	M20x15	M20x15	M18x1.5	80	80	70	215	375	215	375	215	375	170	240	240	220
D8360S12-12-12-NBR12	12	12	M20x15	M20x15	M20x1.5	80	80	80	215	375	215	375	215	375	170	240	240	24.0
D8360-S12-12-1&NBR12	12	16	M20x15	M20x15	M24x1.5	80	80	120	235	395	235	395	245	425	24.0	240	240	300
D8360S14-14-10NBR14	14	10	M22x15	M22x15	M18x1.5	10.0	100	7.0	215	395	215	395	205	365	190	270	270	220
D8360S14-14-144VBR14	14	14	M22x15	M22x15	M22x1.5	10.0	100	10.0	215	395	215	395	215	395	190	270	270	27.0
D8360S1&160&NBR 16	16	6	M24x15	M24x15	M14x1.5	120	120	40	245	425	245	425	24.0	385	240	300	300	170
D8360S1&160&NBR 16	16	8	M24x15	M24x15	M16x15	120	120	50	245	425	245	425	24.0	385	240	300	300	190
D8360S161610NBR 16	16	10	M24x15	M24x15	M18x1.5	120	120	7.0	245	425	245	425	235	395	24.0	300	300	220
D8360S1&1612-NBR 16	16	12	M24x15	M24x15	M20x15	120	120	80	245	425	245	425	235	395	240	300	300	24.0
D8360S16161&NBR 16	16	16	M24x15	M24x15	M24x1.5	120	120	120	245	425	245	425	245	425	240	300	300	30.0
D8360-S16162ONBR16	16	20	M24x15	M24x15	M30x2	120	120	160	275	455	275	455	265	480	270	300	300	360
D8360-S20-20-10MBR20	20	10	M30x2	M30x2	M18x1.5	160	160	7.0	265	480	265	480	265	425	270	360	360	220
D836&S20-2012-NBR20	20	12	M30x2	M30x2	M20x1.5	160	160	80	265	480	265	480	265	425	270	360	360	240
D8360S2620-1&NBR20	20	16	M30x2	M30x2	M24x1.5	160	160	120	265	480	265	480	275	455	270	360	360	30.0
D8360-S20-20-2&NBR20	20	20	M30x2	M30x2	M30x2	160	160	160	265	480	265	480	265	480	270	360	360	360
D8360S20202&NBR 20	20	25	M30x2	M30x2	M36x2	160	160	200	295	510	295	510	30.0	540	360	360	360	460
D8360S2525-25NBR 25	25	25	M36x2	M36x2	M36x2	200	200	200	300	540	300	540	30.0	540	360	460	460	460
D8360S30303&NBR 30	30	30	M42x2	M42x2	M42x2	250	250	250	355	620	355	620	355	620	410	500	500	50.0
D8360-S38-3838-NBR38	38	38	M52x2	M52x2	M52x2	320	320	320	410	715	410	715	410	715	500	600	600	60.0

F-046

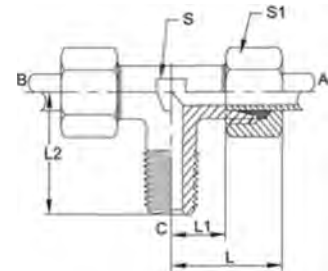
Male Stud Branch Tee Metric Taper Body Only D8433 Series



PART NO. SIZE	A TUBE O.D	BTUBE O.D	A THD	B THD	C THD	A DRILL	B DRILL	C DRILL	LI L	I L	L2 L	S FIAT
D8433-S12-12-18	12	12	M20 x 1.5	M20 x 1.5	M18 x 1.5 keg	8.0	8.0	8.0	21.5	29.0	28.0	17.0

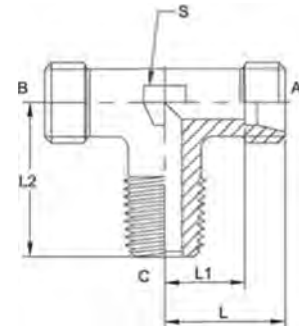
F-047

Male Stud Branch Tee Metric Taper D8433-NBR Series



PART NO. SIZE	A TUBE O.D	BTUBE O.D	A THD	B THD	C THD	A DRILL	B DRILL	C DRILL	LI L	L L	L2 L	SI L	S HEX FIAT
D8433-S12-12-18-NBR	12	12	M20x 1.5	M20 x 1.5	M18 x 1.5 keg	8.0	8.0	8.0	21.5	37.5	28.0	24.0	17.0

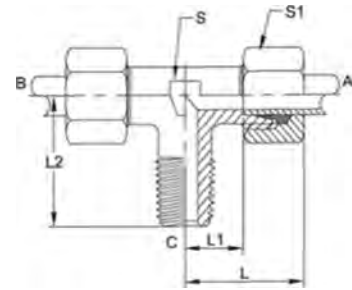
Male Stud Branch Tee BSPT Body Only D8443 Series



PART NO. SIZE	A TUBE O.D	BTUBE O.D	A THD	B THD	C BSPT	A DRILL	B DRILL	C DRILL	LI L	I L	L2 L	S FLAT
D8443-L06-06-02	6	6	M12 x 1.5	M12x 1.5	R 1/8	4.0	4.0	4.0	12.0	19.0	20.0	12.0
D8443-L10-10-04	10	10	M16x 1.5	M16 x 1.5	R 1/4	8.0	8.0	7.0	15.0	22.0	27.0	14.0
D8443-L12-12-06	12	12	M18 x 1.5	M18 x 1.5	R 3/8	10.0	10.0	9.0	17.0	24.0	28.0	17.0
D8443-S12-12-06	12	12	M20 x 1.5	M20x 1.5	R 3/8	8.0	8.0	8.0	21.5	29.0	28.0	17.0

Metric Bite Type Fittings

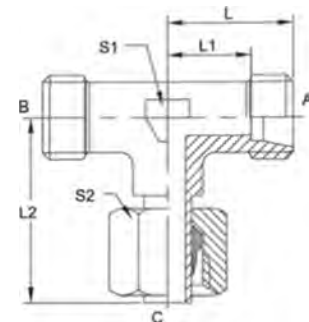
Male Stud Branch Tee BSPT D8443-NBR Series



PART NO. SIZE	A TUBE 0.0	B TUBE 0.0	A THD	B THD	C BSPT	A DRILL	B DRILL	C DRILL	LI WITH	L LOTH	12 LOTH	S FLATS	SI HEX
D8443-L06-06-02-N BR	6	6	M12 x 1.5	M12 x 1.5	R 1/8	4	4	4	12	26.5	20	12	14
D8443-L10-10-04-NBR	10	10	M16 x 1.5	M16 x 1.5	R 1/4	8	8	7	15	29.5	27	14	19
D8443-L12-12-06-N BR	12	12	M18 x 1.5	M18 x 1.5	R 3/8	10	10	9	17	31.5	28	17	22
D8443-S12-12-06-NBR	12	12	M20 x 1.5	M20 x 1.5	R 3/8	8	8	8	21.5	37.5	28	17	24

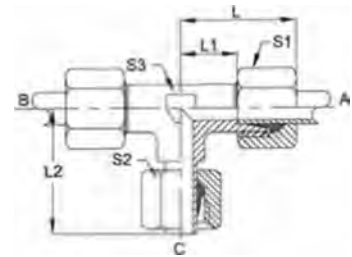
F-048

Adjustable Branch Tee with Tube Connection Body Only D8463 Series



PART NO. SIZE	A/TUBE 0.0	B/TUBE 0.0	A/B THD	C THD	A/B DRILL	C DRILL	LI LETH	I LETH	12 LETH	SI FLATS	S2 HEX
D8463-L06-06-06	6	6	M12 x 1.5	M12 x 1.5	4.0	3.5	12.0	19.0	26.0	12.0	14.0
D8463-L08-08-08	8	8	M14 x 1.5	M14 x 1.5	6.0	4.5	14.0	21.0	27.5	12.0	17.0
D8463-L10-10-10	10	10	M16 x 1.5	M16 x 1.5	8.0	7.0	15.0	22.0	29.0	14.0	19.0
D8463-L12-12-12	12	12	M18 x 1.5	M18 x 1.5	10.0	7.5	17.0	24.0	29.5	17.0	22.0
D8463-L15-15-15	15	15	M22 x 1.5	M22 x 1.5	12.0	11.0	21.0	28.0	32.5	19.0	27.0
D8463-L18-18-18	18	18	M26 x 1.5	M26 x 1.5	15.0	14.0	23.5	31.0	35.5	24.0	32.0
D8463-L22-22-22	22	22	M30 x 2	M30 x 2	19.0	18.0	27.5	35.0	38.5	27.0	36.0
D8463-L28-28-28	28	28	M36 x 2	M36 x 2	24.0	23.0	30.5	38.0	41.5	36.0	41.0
D8463-L35-35-35	35	35	M45 x 2	M45 x 2	30.0	29.5	34.5	45.0	51.0	41.0	50.0
D8463-L42-42-42	42	42	M52 x 2	M52 x 2	36.0	35.5	40.0	51.0	56.0	50.0	60.0
D8463-S06-06-06	6	6	M14 x 1.5	M14 x 1.5	4.0	3.5	16.0	23.0	27.0	12.0	17.0
D8463-S08-08-08	8	8	M16 x 1.5	M16 x 1.5	5.0	4.5	17.0	24.0	27.5	14.0	19.0
D8463-S10-10-10	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	17.5	25.0	30.0	17.0	22.0
D8463-S12-12-12	12	12	M20 x 1.5	M20 x 1.5	8.0	6.5	21.5	29.0	31.0	17.0	24.0
D8463-S14-14-14	14	14	M22 x 1.5	M22 x 1.5	10.0	9.5	21.5	30.0	33.5	19.0	27.0
D8463-S16-16-16	16	16	M24 x 1.5	M24 x 1.5	12.0	11.5	24.5	33.0	36.5	24.0	30.0
D8463-S20-20-20	20	20	M30 x 2	M30 x 2	16.0	15.5	26.5	37.0	44.5	27.0	36.0
D8463-S25-25-25	25	25	M36 x 2	M36 x 2	20.0	18.0	30.0	42.0	50.0	36.0	46.0
D8463-S30-30-30	30	30	M42 x 2	M42 x 2	25.0	23.0	35.5	49.0	55.0	41.0	50.0
D8463-S38-38-38	38	38	M52 x 2	M52 x 2	32.0	29.0	41.0	57.0	63.0	50.0	60.0

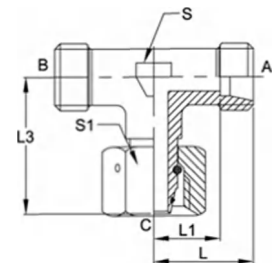
Adjustable Branch Tee with Tube Connection D8463-NBR Series



PART NO. SIZE	A/B TUBE O.D.	TUBE O.D.	A/B THO	C THO	A/B DRILL	C DRILL	LI LBTH	I LGTH	L2 LGTH	S3 FLATS	SI HEX	S2 HEX
D8463-L06-06-06-N BR	6	6	M12 x 1.5	M12 x 1.5	4.0	3.5	12.0	26.5	26.0	12.0	14.0	14.0
D8463-L08-08-08-N BR	8	8	M14 x 1.5	M14 x 1.5	6.0	4.5	14.0	28.5	27.5	12.0	17.0	17.0
D8463-L10-10-10-N BR	10	10	M16 x 1.5	M16 x 1.5	8.0	7.0	15.0	29.5	29.0	14.0	19.0	19.0
D8463-L12-12-12-N BR	12	12	M18 x 1.5	M18 x 1.5	10.0	7.5	17.0	31.5	29.5	17.0	22.0	22.0
D8463-L15-15-15-NBR	15	15	M22 x 1.5	M22 x 1.5	12.0	11.0	21.0	36.0	32.5	19.0	27.0	27.0
D8463-L18-18-18-N BR	18	18	M26 x 1.5	M26 x 1.5	15.0	14.0	23.5	39.5	35.5	24.0	32.0	32.0
D8463-L22-22-22-N BR	22	22	M30 x 2	M30 x 2	19.0	18.0	27.5	43.5	38.5	27.0	36.0	36.0
D8463-L28-28-28-N BR	28	28	M36 x 2	M36 x 2	24.0	23.0	30.5	47.0	41.5	36.0	41.0	41.0
D8463-L35-35-35-N BR	35	35	M45 x 2	M45 x 2	30.0	29.5	34.5	56.0	51.0	41.0	50.0	50.0
D8463-L42-42-42-NBR	42	42	M52 x 2	M52 x 2	36.0	35.5	40.0	62.5	56.0	50.0	60.0	60.0
D8463-S06-06-06-NBR	6	6	M14 x 1.5	M14 x 1.5	4.0	3.5	16.0	30.5	27.0	12.0	17.0	17.0
D8463-S08-08-08-N BR	8	8	M16 x 1.5	M16 x 1.5	5.0	4.5	17.0	31.5	27.5	14.0	19.0	19.0
D8463-S10-10-10-NBR	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	17.5	33.5	30.0	17.0	22.0	22.0
D8463-S12-12-12-N BR	12	12	M20 x 1.5	M20 x 1.5	8.0	6.5	21.5	37.5	31.0	17.0	24.0	24.0
D8463-S14-14-14-N BR	14	14	M22 x 1.5	M22 x 1.5	10.0	9.5	21.5	39.5	33.5	19.0	27.0	27.0
D8463-S16-16-16-NBR	16	16	M24 x 1.5	M24 x 1.5	12.0	11.5	24.5	42.5	36.5	24.0	30.0	30.0
D8463-S20-20-20-NBR	20	20	M30 x 2	M30 x 2	16.0	15.5	26.5	48.0	44.5	27.0	36.0	36.0
D8463-S25-25-25-N BR	25	25	M36x2	M36 x 2	20.0	18.0	30.0	54.0	50.0	36.0	46.0	46.0
D8463-S30-30-30-NBR	30	30	M42 x 2	M42 x 2	25.0	23.0	35.5	62.0	55.0	41.0	50.0	50.0
D8463-S38-38-38-NBR	38	38	M52 x 2	M52 x 2	32.0	29.0	41.0	71.5	63.0	50.0	60.0	60.0

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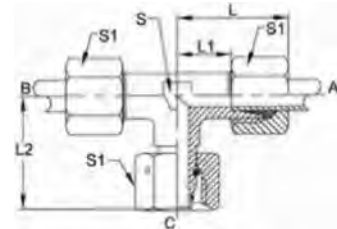
Adjustable Branch Tee Body with O-ring D8469 Series



PART NO. SIZE	A TUBE O.D.	TUBE O.D.	UCTUBE O.D.	A THD	B THD	C THO	A DRILL	B DRILL	C DRILL	LI LGTH	I LGTH	U LGTH	S FLATS	SI HEX
D8469-L06-06-06	6	6	6	M12 x 1.5	M12x 1.5	M12 x 1.5	4.0	4.0	2.5	12.0	19.0	27.0	12.0	14.0
D8469-L08-08-08	8	8	8	M14x 1.5	M14x 1.5	M14 x 1.5	6.0	6.0	4.0	14.0	21.0	27.5	12.0	17.0
D8469-L10-10-10	10	10	10	M16 x 1.5	M16 x 1.5	M16x 1.5	8.0	8.0	6.0	15.0	22.0	30.0	14.0	19.0
D8469-L12-12-12	12	12	12	M18 x 1.5	M18 x 1.5	M18 x 1.5	10.0	10.0	8.0	17.0	24.0	31.0	17.0	22.0
D8469-L12-15-15	12	15	15	M18 x 1.5	M22 x 1.5	M22 x 1.5	10.0	12.0	10.0	20.0	27.0	32.5	19.0	27.0
D8469-L18-18-18	18	18	18	M26 x 1.5	M26x 1.5	M26 x 1.5	15.0	15.0	13.0	23.5	31.0	35.5	24.0	32.0
D8469-L22-22-22	22	22	22	M30 x 2	M30 x 2	M30 x 2	19.0	19.0	17.0	27.5	35.0	38.5	27.0	36.0
D8469-L28-28-28	28	28	28	M36 x 2	M36 x 2	M36 x 2	24.0	24.0	22.0	30.5	38.0	41.5	36.0	41.0
D8469-L35-35-35	35	35	35	M45 x 2	M45 x 2	M45 x 2	30.0	30.0	28.0	34.5	45.0	51.0	41.0	50.0
D8469-L42-42-42	42	42	42	M52 x 2	M52 x 2	M52 x 2	36.0	36.0	34.0	40.0	51.0	56.0	50.0	60.0
D8469-S06-06-06	6	6	6	M14 x 1.5	M14 x 1.5	M14 x 1.5	4.0	4.0	2.5	16.0	23.0	27.0	12.0	17.0
D8469-S08-08-08	8	8	8	M16 x 1.5	M16 x 1.5	M16 x 1.5	5.0	5.0	4.0	17.0	24.0	27.5	14.0	19.0
D8469-S10-10-10	10	10	10	M18 x 1.5	M18 x 1.5	M18 x 1.5	7.0	7.0	6.0	17.5	25.0	30.0	17.0	22.0
D8469-S12-12-12	12	12	12	M20 x 1.5	M20 x 1.5	M20 x 1.5	8.0	8.0	8.0	21.5	29.0	31.0	17.0	24.0
D8469-S14-14-14	14	14	14	M22 x 1.5	M22 x 1.5	M22 x 1.5	10.0	10.0	9.0	21.5	30.0	32.5	19.0	27.0
D8469-S16-16-16	16	16	16	M24 x 1.5	M24 x 1.5	M24 x 1.5	12.0	12.0	11.0	24.5	33.0	36.5	24.0	30.0
D8469-S20-20-20	20	20	20	M30 x 2	M30 x 2	M30 x 2	16.0	16.0	14.0	26.5	37.0	44.5	27.0	36.0
D8469-S25-25-25	25	25	25	M36 x 2	M36 x 2	M36 x 2	20.0	20.0	18.0	30.0	42.0	50.0	36.0	46.0
D8469-S30-30-30	30	30	30	M42 x 2	M42 x 2	M42 x 2	25.0	25.0	23.0	35.5	49.0	55.0	41.0	50.0
D8469-S38-38-38	38	38	38	M52 x 2	M52 x 2	M52 x 2	32.0	32.0	30.0	41.0	57.0	63.0	50.0	60.0

Metric Bite Type Fittings

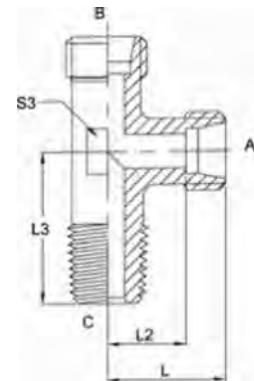
Adjustable Branch Tee with Tube connection D8469-NBR Series



PART NO. SIZE	A O.D.	B O.D.	C O.D.	A THD	B THD	C THD	A DRILL	B DRILL	C DRILL	L1 LOTH	L2 LOTH	S FLATS	SI HEX
D8469-L06-06-06-N BR	6	6	6	M12 x 1.5	M12 x 1.5	M12 x 1.5	4	4	2.5	12	27	12	14
D8469-L08-08-08-N BR	8	8	8	M14 x 1.5	M14 x 1.5	M14 x 1.5	6	6	4	14	27.5	12	17
D8469-L10-10-10-N BR	10	10	10	M16 x 1.5	M16 x 1.5	M16 x 1.5	8	8	6	15	30	14	19
D8469-L12-12-12-NBR	12	12	12	M18 x 1.5	M18 x 1.5	M18 x 1.5	10	10	8	17	31	17	22
D8469-L12-15-15-NBR	12	15	15	M18 x 1.5	M22 x 1.5	M22 x 1.5	10	12	10	20	32.5	19	22
D8469-L18-18-18-N BR	18	18	18	M26 x 1.5	M26 x 1.5	M26 x 1.5	15	15	13	23.5	35.5	24	32
D8469-L22-22-22-NBR	22	22	22	M30 x 2	M30 x 2	M30 x 2	19	19	17	27.5	38.5	27	36
D8469-L28-28-28-N BR	28	28	28	M36 x 2	M36 x 2	M36 x 2	24	24	22	30.5	41.5	36	41
D8469-L35-35-35-N BR	35	35	35	M45 x 2	M45 x 2	M45 x 2	30	30	28	34.5	51	41	50
D8469-L42-42-42-N BR	42	42	42	M52 x 2	M52 x 2	M52 x 2	36	36	34	40	56	50	60
D8469-S06-06-06-N BR	6	6	6	M14 x 1.5	M14 x 1.5	M14 x 1.5	4	4	2.5	16	27	12	17
D8469-S08-08-08-N BR	8	8	8	M16 x 1.5	M16 x 1.5	M16 x 1.5	5	5	4	17	27.5	14	19
D8469-S10-10-10-N BR	10	10	10	M18 x 1.5	M18 x 1.5	M18 x 1.5	7	7	6	17.5	30	17	22
D8469-S12-12-12-NBR	12	12	12	M20 x 1.5	M20 x 1.5	M20 x 1.5	8	8	8	21.5	31	17	24
D8469-S14-14-14-NBR	14	14	14	M22 x 1.5	M22 x 1.5	M22 x 1.5	10	10	9	21.5	32.5	19	27
D8469-S16-16-16-NBR	16	16	16	M24 x 1.5	M24 x 1.5	M24 x 1.5	12	12	11	24.5	36.5	24	30
D8469-S20-20-20-N BR	20	20	20	M30 x 2	M30 x 2	M30 x 2	16	16	14	26.5	44.5	27	36
D8469-S25-25-25-N BR	25	25	25	M36 x 2	M36 x 2	M36 x 2	20	20	18	30	50	36	46
D8469-S30-30-30-N BR	30	30	30	M42 x 2	M42 x 2	M42 x 2	25	25	23	35.5	55	41	50
D8469-S38-38-38-NBR	38	38	38	M52 x 2	M52 x 2	M52 x 2	32	32	30	41	63	50	60

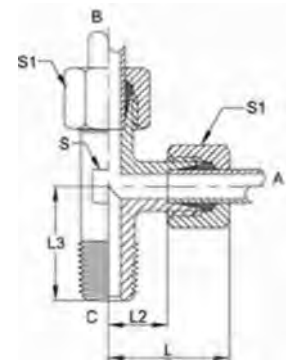
F-050

Male Stud Barrel Tee BSPT Body Only D8543 Series



PART NO. SIZE	A O.D.	B O.D.	C O.D.	A THD	C BSPT	B THO	A DRILL	B DRILL	C DRILL	L2 LGTH	L LGTH	L3 LGTH	S3 FIATS
D8543-S12-06-12	12	12	12	M20 x 1.5	R 3/8	M20 x 1.5	8.0	8.0	8.0	21.5	29.0	28.0	17.0

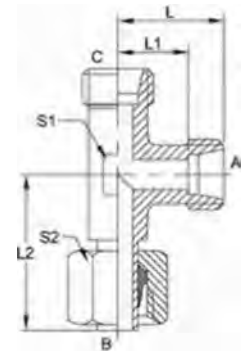
Male Stud Barrel Tee BSPT D8543-NBR Series



PART NO. SIZE	A TUBE O.D.	BTUBE O.D.	A THO	C BSPT	B THO	A DRILL	B ORILL	C ORILL	L2 LGTH	I LGTH	L3 LGTH	S FLAT	SI SHEX
D8543-S12-06-12-N BR	12	12	M20 x 1.5	R 3/8	M20 x 1.5	8.0	8.0	8.0	21.5	37.5	28.0	17.0	24.0

F-051

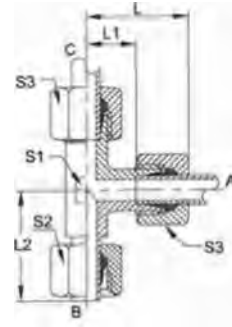
Adjustable Run Tee with Tube Connection Body Only D8563 Series



PART NO. SIZE	A/C TUBE O.D.	BTUBE O.D.	A/C THD	B THD	A/C DRILL	B ORILL	LI LGTH	I LGTH	L2 LGTH	SI FLAT	S2 SHEX
D8563-L06-06-06	6	6	M12 x 1.5	M12 x 1.5	4.0	3.5	12.0	19.0	26.0	12.0	14.0
D8563-L08-08-08	8	8	M14 x 1.5	M14 x 1.5	6.0	4.5	14.0	21.0	27.5	12.0	17.0
D8563-L10-10-10	10	10	M16 x 1.5	M16 x 1.5	8.0	7.0	15.0	22.0	29.0	14.0	19.0
D8563-L12-12-12	12	12	M18 x 1.5	M18 x 1.5	10.0	7.5	17.0	24.0	29.5	17.0	22.0
D8563-L15-15-15	15	15	M22 x 1.5	M22 x 1.5	12.0	11.0	21.0	28.0	32.5	19.0	27.0
D8563-L18-18-18	18	18	M26 x 1.5	M26 x 1.5	15.0	14.0	23.5	31.0	35.5	24.0	32.0
D8563-L22-22-22	22	22	M30 x 2	M30 x 2	19.0	18.0	27.5	35.0	38.5	27.0	36.0
D8563-L28-28-28	28	28	M36 x 2	M36 x 2	24.0	23.0	30.5	38.0	41.5	36.0	41.0
D8563-L35-35-35	35	35	M45 x 2	M45 x 2	30.0	29.5	34.5	45.0	51.0	41.0	50.0
D8563-L42-42-42	42	42	M52 x 2	M52 x 2	36.0	35.5	40.0	51.0	56.0	50.0	60.0
D8563-S06-06-06	6	6	M14 x 1.5	M14 x 1.5	4.0	3.5	16.0	23.0	27.0	12.0	17.0
D8563-S08-08-08	8	8	M16 x 1.5	M16 x 1.5	5.0	4.5	17.0	24.0	27.5	14.0	19.0
D8563-S10-10-10	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	17.5	25.0	30.0	17.0	22.0
D8563-S12-12-12	12	12	M20 x 1.5	M20 x 1.5	8.0	6.5	21.5	29.0	31.0	17.0	24.0
D8563-S14-14-14	14	14	M22 x 1.5	M22 x 1.5	10.0	9.5	21.5	30.0	33.5	19.0	27.0
D8563-S16-16-16	16	16	M24 x 1.5	M24 x 1.5	12.0	11.5	24.5	33.0	36.5	24.0	30.0
D8563-S20-20-20	20	20	M30 x 2	M30 x 2	16.0	15.5	26.5	37.0	44.5	27.0	36.0
D8563-S25-25-25	25	25	M36 x 2	M36 x 2	20.0	18.0	30.0	42.0	50.0	36.0	46.0
D8563-S30-30-30	30	30	M42 x 2	M42 x 2	25.0	23.0	35.5	49.0	55.0	41.0	50.0
D8563-S38-38-38	38	38	M52 x 2	M52 x 2	32.0	29.0	41.0	57.0	63.0	50.0	60.0

Metric Bite Type Fittings

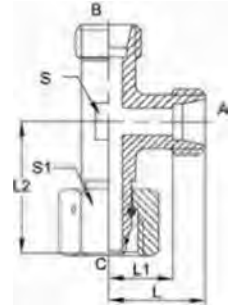
Adjustable Run Tee with Tube Connection D8563-NBR Series



PART NO. SIZE	A/C TUBE O.D. O.O		A/C THD	B THD	A/C DRILL	B DRILL	LI LGTH	L LGTH	L2 LGTH	SI FLATS	S2 HEX	S3 HEX
D8563-L06-06-06-NBR	6	6	M12 x 1.5	M12x 1.5	4.0	3.5	12.0	26.5	26.0	12.0	14.0	14.0
D8563-L08-08-08-NBR	8	8	M14x 1.5	M14x 1.5	6.0	4.5	14.0	28.5	27.5	12.0	17.0	17.0
D8563-L10-10-10-NBR	10	10	M16 x 1.5	M16x 1.5	8.0	7.0	15.0	29.5	29.0	14.0	19.0	19.0
D8563-L12-12-12-NBR	12	12	M18 x 1.5	M18 x 1.5	10.0	7.5	17.0	31.5	29.5	17.0	22.0	22.0
D8563-L15-15-15-N BR	15	15	M22 x 1.5	M22 x 1.5	12.0	11.0	21.0	36.0	32.5	19.0	27.0	27.0
D8563-L18-18-18-NBR	18	18	M26 x 1.5	M26 x 1.5	15.0	14.0	23.5	39.5	35.5	24.0	32.0	32.0
D8563-L22-22-22-N BR	22	22	M30 x 2	M30 x 2	19.0	18.0	27.5	43.5	38.5	27.0	36.0	36.0
D8563-L28-28-28-NBR	28	28	M36 x 2	M36 x 2	24.0	23.0	30.5	47.0	41.5	36.0	41.0	41.0
D8563-L35-35-35-N BR	35	35	M45 x 2	M45 x 2	30.0	29.5	34.5	56.0	51.0	41.0	50.0	50.0
D8563-L42-42-42-NBR	42	42	M52 x 2	M52 x 2	36.0	35.5	40.0	62.5	56.0	50.0	60.0	60.0
D8563-S06-06-06-N BR	6	6	M14 x 1.5	M14 x 1.5	4.0	3.5	16.0	30.5	27.0	12.0	17.0	17.0
D8563-S08-08-08-NBR	8	8	M16 x 1.5	M16 x 1.5	5.0	4.5	17.0	31.5	27.5	14.0	19.0	19.0
D8563-S10-10-10-N BR	10	10	M18 x 1.5	M18 x 1.5	7.0	7.0	17.5	33.5	30.0	17.0	22.0	22.0
D8563-S12-12-12-NBR	12	12	M20 x 1.5	M20 x 1.5	8.0	6.5	21.5	37.5	31.0	17.0	24.0	24.0
D8563-S14-14-14-N BR	14	14	M22 x 1.5	M22 x 1.5	10.0	9.5	21.5	39.5	33.5	19.0	27.0	27.0
D8563-S16-16-16-NBR	16	16	M24 x 1.5	M24x 1.5	12.0	11.5	24.5	42.5	36.5	24.0	30.0	30.0
D8563-S20-20-20-N BR	20	20	M30 x 2	M30 x 2	16.0	15.5	26.5	48.0	44.5	27.0	36.0	36.0
D8563-S25-25-25-NBR	25	25	M36 x 2	M36 x 2	20.0	18.0	30.0	54.0	50.0	36.0	46.0	46.0
D8563-S30-30-30-N BR	30	30	M42 x 2	M42 x 2	25.0	23.0	35.5	62.0	55.0	41.0	50.0	50.0
D8563-S38-38-38-NBR	38	38	M52 x 2	M52 x 2	32.0	29.0	41.0	71.5	63.0	50.0	60.0	60.0

F-052

Adjustable Barrel Tee Body with O-ring D8569 Series

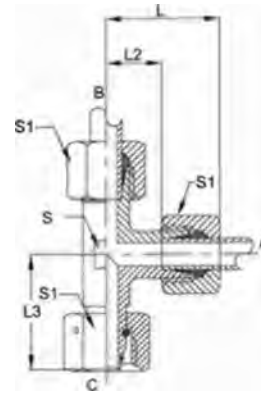


F-053

PART NO. SIZE	A 0.0	TUBE 0.0	TUBE 0.0	A THD	8 THD	C THD	A DRILL	C DRILL	B DBILL	11 LGTH	L LGTH	L2 LGTH	S FLAT	SI SHX
D8569-L06-06-06	6	6	6	M12 x 1.5	M12 x 1.5	M12 x 1.5	4.0	2.5	4.0	12.0	19.0	27.0	12.0	14.0
D8569-L08-08-08	8	8	8	M14 x 1.5	M14 x 1.5	M14 x 1.5	6.0	4.0	6.0	14.0	21.0	27.5	12.0	17.0
D8569-L10-10-10	10	10	10	M16 x 1.5	M16 x 1.5	M16 x 1.5	8.0	6.0	8.0	15.0	22.0	30.0	14.0	19.0
D8569-L12-12-12	12	12	12	M18 x 1.5	M18 x 1.5	M18 x 1.5	10.0	8.0	10.0	17.0	24.0	31.0	17.0	22.0
D8569-L15-15-15	15	15	15	M22 x 1.5	M22 x 1.5	M22 x 1.5	12.0	10.0	12.0	21.0	28.0	32.5	19.0	27.0
D8569-L18-18-18	18	18	18	M26 x 1.5	M26 x 1.5	M26 x 1.5	15.0	13.0	15.0	23.5	31.0	35.5	24.0	32.0
D8569-L22-22-22	22	22	22	M30 x 2	M30 x 2	M30 x 2	19.0	17.0	19.0	27.5	35.0	38.5	27.0	36.0
D8569-L28-28-28	28	28	28	M36 x 2	M36 x 2	M36 x 2	24.0	22.0	24.0	30.5	38.0	41.5	36.0	41.0
D8569-L35-35-35	35	35	35	M45 x 2	M45 x 2	M45 x 2	30.0	28.0	30.0	34.5	45.0	51.0	41.0	50.0
D8569-L42-42-42	42	42	42	M52 x 2	M52 x 2	M52 x 2	36.0	34.0	36.0	40.0	51.0	56.0	50.0	60.0
D8569-S06-06-06	6	6	6	M14 x 1.5	M14 x 1.5	M14 x 1.5	4.0	2.5	4.0	16.0	23.0	27.0	12.0	17.0
D8569-S08-08-08	8	8	8	M16 x 1.5	M16 x 1.5	M16 x 1.5	5.0	4.0	5.0	17.0	24.0	27.5	14.0	19.0
D8569-S10-10-10	10	10	10	M18 x 1.5	M18 x 1.5	M18 x 1.5	7.0	6.0	7.0	17.5	25.0	30.0	17.0	22.0
D8569-S12-12-12	12	12	12	M20 x 1.5	M20 x 1.5	M20 x 1.5	8.0	8.0	8.0	21.5	29.0	31.0	17.0	24.0
D8569-S14-14-14	14	14	14	M22 x 1.5	M22 x 1.5	M22 x 1.5	10.0	9.0	10.0	21.5	30.0	32.5	19.0	27.0
D8569-S16-16-16	16	16	16	M24 x 1.5	M24 x 1.5	M24 x 1.5	12.0	11.0	12.0	24.5	33.0	36.5	24.0	30.0
D8569-S20-20-20	20	20	20	M30 x 2	M30 x 2	M30 x 2	16.0	14.0	16.0	26.5	37.0	44.5	27.0	36.0
D8569-S25-25-25	25	25	25	M36 x 2	M36 x 2	M36 x 2	20.0	18.0	20.0	30.0	42.0	50.0	36.0	46.0
D8569-S30-30-30	30	30	30	M42 x 2	M42 x 2	M42 x 2	25.0	23.0	25.0	35.5	49.0	55.0	41.0	50.0
D8569-S38-38-38	38	38	38	M52 x 2	M52 x 2	M52 x 2	32.0	30.0	32.0	41.0	57.0	63.0	50.0	60.0

Metric Bite Type Fittings

Adjustable Barrel Tee with O-ring D8569-NBR Series

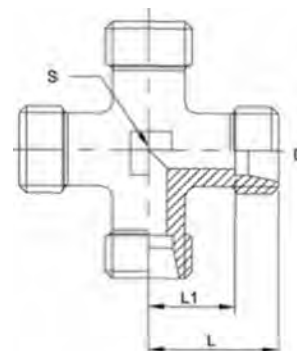


PART NO. SIZE	A O.D	TUBB O.D	TUBE O.D	CTUBE O.D	A THD	B THD	C THD	A DRILL	C DRILL	B DRILL	L2 GTH	I GTH	13 GTH	S FLATS	SI SHEX
D8569-L06-06-06-NBR	6	6	6	6	M12 x 1.5	M12 x 1.5	M12x 1.5	4.0	2.5	4.0	12.0	26.5	27.0	12.0	14.0
D8569-L08-08-08-NBR	8	8	8	8	M14 x 1.5	M14 x 1.5	M14 x 1.5	6.0	4.0	6.0	14.0	28.5	27.5	12.0	17.0
D8569-L10-10-10-N BR	10	10	10	10	M16 x 1.5	M16 x 1.5	M16x 1.5	8.0	6.0	8.0	15.0	29.5	30.0	14.0	19.0
D8569-L12-12-12-N BR	12	12	12	12	M18 x 1.5	M18 x 1.5	M18 x 1.5	10.0	8.0	10.0	17.0	31.5	31.0	17.0	22.0
D8569-L15-15-15-N BR	15	15	15	15	M22 x 1.5	M22 x 1.5	M22 x 1.5	12.0	10.0	12.0	21.0	36.0	32.5	19.0	27.0
D8569-L18-18-18-N BR	18	18	18	18	M26 x 1.5	M26 x 1.5	M26 x 1.5	15.0	13.0	15.0	23.5	39.5	35.5	24.0	32.0
D8569-L22-22-22-NBR	22	22	22	22	M30 x 2	M30 x 2	M30 x 2	19.0	17.0	19.0	27.5	43.5	38.5	27.0	36.0
D8569-L28-28-28-NBR	28	28	28	28	M36 x 2	M36 x 2	M36 x 2	24.0	22.0	24.0	30.5	47.0	41.5	36.0	41.0
D8569-L35-35-35-NBR	35	35	35	35	M45 x 2	M45 x 2	M45 x 2	30.0	28.0	30.0	34.5	56.0	51.0	41.0	50.0
D8569-L42-42-42-NBR	42	42	42	42	M52 x 2	M52 x 2	M52 x 2	36.0	34.0	36.0	40.0	62.5	56.0	50.0	60.0
D8569-S06-06-06-N B R	6	6	6	6	M14 x 1.5	M14 x 1.5	M14x 1.5	4.0	2.5	4.0	16.0	30.5	27.0	12.0	17.0
D8569-S08-08-08-NBR	8	8	8	8	M16 x 1.5	M16 x 1.5	M16x 1.5	5.0	4.0	5.0	17.0	31.5	27.5	14.0	19.0
D8569-S10-10-10-N BR	10	10	10	10	M18 x 1.5	M18 x 1.5	M18 x 1.5	7.0	6.0	7.0	17.5	33.5	30.0	17.0	22.0
D8569-S12-12-12-N BR	12	12	12	12	M20x 1.5	M20 x 1.5	M20 x 1.5	8.0	8.0	8.0	21.5	37.5	31.0	17.0	24.0
D8569-S14-14-14-N BR	14	14	14	14	M22 x 1.5	M22 x 1.5	M22 x 1.5	10.0	9.0	10.0	21.5	39.5	32.5	19.0	27.0
D8569-S16-16-16-N BR	16	16	16	16	M24 x 1.5	M24 x 1.5	M24x 1.5	12.0	11.0	12.0	24.5	42.5	36.5	24.0	30.0
D8569-S20-20-20-N BR	20	20	20	20	M30 x 2	M30 x 2	M30 x 2	16.0	14.0	16.0	26.5	48.0	44.5	27.0	36.0
D8569-S25-25-25-N BR	25	25	25	25	M36 x 2	M36 x 2	M36 x 2	20.0	18.0	20.0	30.0	54.0	50.0	36.0	46.0
D8569-S30-30-30-N BR	30	30	30	30	M42 x 2	M42 x 2	M42 x 2	25.0	23.0	25.0	35.5	62.0	55.0	41.0	50.0
D8569-S38-38-38-NBR	38	38	38	38	M52 x 2	M52 x 2	M52 x 2	32.0	30.0	32.0	41.0	71.5	63.0	50.0	60.0

F-054

Cross Coupling Body Only

D8660 Series

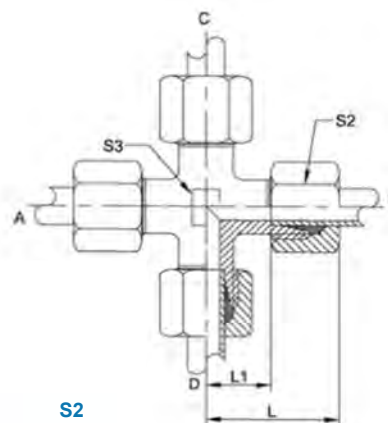


PART NO. SIZE	TUBE O.O	O THD	O DRILL	LI LOTH	L LOTH	S FLATS
D8660-L06-06-06-06	6	M12 x 1.5	4.0	12.0	19.0	12.0
D8660-L10-10-10-10	10	M16 x 1.5	8.0	15.0	22.0	14.0
D8660-L12-12-12-12	12	M18 x 1.5	10.0	17.0	24.0	17.0
D8660-L15-15-15-15	15	M22x 1.5	12.0	21.0	28.0	19.0
D8660-L18-18-18-18	18	M26x 1.5	15.0	23.5	31.0	24.0
D8660-L22-22-22-22	22	M30 x 2	19.0	27.5	35.0	27.0
D8660-S06-06-06-06	6	M14x 1.5	4.0	16.0	23.0	12.0
D8660-S08-08-08-08	8	M16 x 1.5	5.0	17.0	24.0	14.0
D8660-S10-10-10-10	10	M18 x 1.5	7.0	17.5	25.0	17.0
D8660-S12-12-12-12	12	M20 x 1.5	8.0	21.5	29.0	17.0
D8660-S14-14-14-14	14	M22 x 1.5	10.0	21.5	30.0	19.0
D8660-S25-25-25-25	25	M36 x 2	20.0	30.0	42.0	36.0
D8660-S30-30-30-30	30	M42 x 2	25.0	35.5	49.0	41.0

F-055

Cross Coupling

D8660-NBR Series



PART NO. SIZE	TUBE O.O	A THD	A DRILL	11 LEITH	I LOTH	S3 FLATS	S2 HEX
D8660-L06-06-06-06-NBR	6	M12 x 1.5	4.0	12.0	26.5	12.0	14.0
D8660-L10-10-10-10-NBR	10	M16 x 1.5	8.0	15.0	29.5	14.0	19.0
D8660-L12-12-12-12-N BR	12	M18 x 1.5	10.0	17.0	31.5	17.0	22.0
D8660-L15-15-15-15-NBR	15	M22x 1.5	12.0	21.0	36.0	19.0	27.0
D8660-L18-18-18-18-NBR	18	M26 x 1.5	15.0	23.5	39.5	24.0	32.0
D8660-L22-22-22-22-NBR	22	M30 x 2	19.0	27.5	43.5	27.0	36.0
D8660-S06-06-06-06-NBR	6	M14 x 1.5	4.0	16.0	30.5	12.0	17.0
D8660-S08-08-08-08- N BR	8	M16 x 1.5	5.0	17.0	31.5	14.0	19.0
D8660-S10-10-10-10-N BR	10	M18 x 1.5	7.0	17.5	33.5	17.0	22.0
D8660-S12-12-12-12-N BR	12	M20x 1.5	8.0	21.5	37.5	17.0	24.0
D8660-S14-14-14-14-NBR	14	M22 x 1.5	10.0	21.5	39.5	19.0	27.0
D8660-S25-25-25-25-NBR	25	M36 x 2	20.0	30.0	54.0	36.0	46.0
D8660-S30-30-30-30-N BR	30	M42 x 2	25.0	35.5	62.0	41.0	50.0



International Fittings

International Fittings

Brennan industries, Inc/s steel and stainless steel international fittings are designed for the hydraulic systems using threads that are the standard throughout the world. These include British (BSPP, BSPT), Japanese, (JIS, Komatsu) and German (DIN) thread. Brennan currently offers these fittings in a wide range of sizes and configurations.

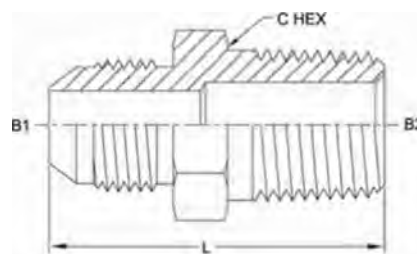
 7000 MJ-MBSPT	 7001 MJ-MMORR	 7002 MJ-MBSPP	 7003 MJ-FBSPP	 7004 MJ-FBSPPS	 7005 MJ-MM Port Metric
 7005-L MJ-MM Light Metric (Dual Purpose)	 7005-S MJ-MM Heavy Metric (Dual Purpose)	 7007-L MJ-FMS Light Metric	 7007-S MJ-FMS Heavy Metric	 7008 MJ-MJIS Union	 7008-F MJ-FJIS
 7009 Komatsu MJ-MK Union	 7009-F Komatsu MJ-FK	 7022 FJS-MBSPP	 7023 FJS-FBSPP	 7025 FJS-MM Metric	 7030 MP-MBSPT Nipple
 7032 MP-MBSPP Nipple	 7033 MP-FBSPP	 7034 MP-FBSPPS	 7040 FNPT-MBSPT	 7042 FP-MBSPP	 7045 FP-MM Metric
 7062 MORB-MBSPP	 7100 MJ-MBSPT 45° Elbow	 7102 MJ-MBSPPSADJ 45° Elbow	 7200 MJ-MBSPT 90° Elbow	 7202-NW0 MJ-MBSPPSADJ 90° Elbow	 7204 MJ-FBSPPS 90° Elbow
 7205-NW0 MJ-MMADJ 90° Elbow	 7220 FJS-MBSPT 90° Elbow	 7222 FJS-MBSPP 90° Elbow	 7588-P MJIS Plug	 7599-P Komatsu MK Plug	 7688-C FJIS Cap

International Fittings

 7699-C Komatsu FK Cap	 8055 Metric MM-MM Nipple	 8080 MJIS-MBSPT Union	 8088 MJIS-MJIS Union	 8180 MJIS-MBSPT 45° Elbow	 8280 MJIS-MBSPT 90° Elbow
 8555-H Metric MM Hollow Hex Plug	 8555-P Metric MM Plug 1.5 Pitch	 8600 Metric Bonded Seal	 9000 MBSPT-MBSPT Nipple	 9001 MBSPT-FBSPT Bushing	 9002 MBSPT-FBSPT 90° Elbow
 9020 MBSPP-MBSPT Straight	 9022 MBSPP-MBSPP Nipple	 9023 MBSPP-FBSPP	 9024 MBSPP-FBSPPS	 9025 Metric MBSPP-MM Nipple	 9033 FBSPP-FBSPP Coupling
 9124 MBSPP-FBSPPS Swept 45°	 9222 MBSPP-MBSPP 90°	 9224 MBSPP-FBSPPS 90°	 9224-L MBSPP-FBSPPS 90° Long	 9322 MBSPP-MBSPP-MBSPP Tee	 9344 FBSPP-FBSPP-FBSPP Tee
 9500-P MBSPT Plug	 9522-H MBSPP Hollow Hex Plug	 9522-P MBSPP Hex Plug	 9644-C FBSPP Cap	 9722-LN MBSPP-MBSPP Bulkhead	 9900 British Bonded Seal
 9925 BSPP Locknut					

G-002

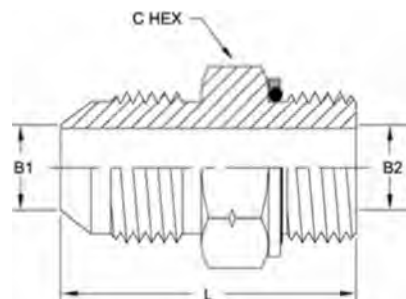
MJ-MBSPT 7000 Series



PART NO.SIZE	TUBE O.D	B1 JIC	B2 BSPT	B1 DRILL	B2 DRILL	L LGTH	C HEX
7000-04-02	1/4	7/16-20	1/8-28	4.4	4.8	31.0	12.0
7000-04-04	1/4	7/16-20	1/4-19	4.4	7.0	35.1	14.0
7000-04-06	1/4	7/16-20	3/8-19	4.4	10.3	35.1	19.0
7000-05-02	5/16	1/2-20	1/8-28	6.0	4.8	31.0	14.0
7000-05-04	5/16	1/2-20	1/4-19	6.0	7.0	35.5	14.0
7000-06-02	3/8	9/16-18	1/8-28	7.5	4.8	31.9	17.0
7000-06-04	3/8	9/16-18	1/4-19	7.5	7.0	36.4	17.0
7000-06-06	3/8	9/16-18	3/8-19	7.5	10.3	35.2	19.0
7000-06-08	3/8	9/16-18	1/2-14	7.5	13.5	41.5	22.0
7000-08-04	1/2	3/4-16	1/4-19	9.9	7.0	39.1	19.0
7000-08-06	1/2	3/4-16	3/8-19	9.9	10.3	39.1	19.0
7000-08-08	1/2	3/4-16	1/2-14	9.9	13.5	44.1	22.0
7000-08-12	1/2	3/4-16	3/4-14	9.9	18.0	45.9	27.0
7000-10-06	5/8	7/8-14	3/8-19	12.3	10.3	43.2	24.0
7000-10-08	5/8	7/8-14	1/2-14	12.3	13.5	48.0	24.0
7000-10-12	5/8	7/8-14	3/4-14	12.3	18.0	48.5	27.0
7000-12-08	3/4	1-1/16-12	1/2-14	15.5	13.5	52.5	27.0
7000-12-12	3/4	1-1/16-12	3/4-14	15.5	18.0	52.5	27.0
7000-12-16	3/4	1-1/16-12	1-11	15.5	23.8	56.0	36.0
7000-16-12	1	1-5/16-12	3/4-14	21.5	18.0	53.6	36.0
7000-16-16	1	1-5/16-12	1-11	21.5	23.8	58.5	36.0
7000-20-16	1-1/4	1-5/8-12	1-11	27.5	23.8	61.8	46.0
7000-20-20	1-1/4	1-5/8-12	1-1/4-11	27.5	31.7	62.5	46.0
7000-24-24	1-1/2	1-7/8-12	1-1/2-11	33.0	38.0	68.2	50.0
7000-32-32	2	2-1/2-12	2-11	45.0	49.0	79.2	65.0

G-003

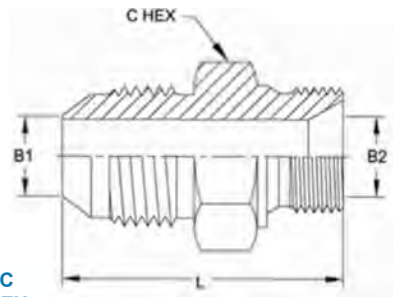
MJ-MMORR 7001 Series



PART NO.SIZE	TUBE O.D	B1 JIC	B2 THREAD	B1 DRILL	B2 DRILL	L LGTH	C HEX
7001-04-08	1/4	7/16-20	M8 x 1	4.4	3.0	27.5	16.0
7001-04-10	1/4	7/16-20	M10 x 1	4.4	4.5	27.5	16.0
7001-04-12	1/4	7/16-20	M12 x 1.5	4.4	6.0	33.0	19.0
7001-04-14	1/4	7/16-20	M14 x 1.5	4.4	7.5	33.0	19.0
7001-05-12	5/16	1/2-20	M12 x 1.5	6.0	6.0	33.0	19.0
7001-06-14	3/8	9/16-18	M14 x 1.5	7.5	7.5	33.1	19.0
7001-06-16	3/8	9/16-18	M16 x 1.5	7.5	9.0	34.6	22.0
7001-08-16	1/2	3/4-16	M16 x 1.5	9.9	9.0	37.2	22.0
7001-08-18	1/2	3/4-16	M18 x 1.5	9.9	11.0	37.2	24.0
7001-08-22	1/2	3/4-16	M22 x 1.5	9.9	14.0	40.7	27.0
7001-10-18	5/8	7/8-14	M18 x 1.5	12.3	11.0	39.8	24.0
7001-10-20	5/8	7/8-14	M20 x 1.5	12.3	12.5	40.3	27.0
7001-10-22	5/8	7/8-14	M22 x 1.5	12.3	14.0	43.3	27.0
7001-12-22	3/4	1-1/16-12	M22 x 1.5	15.5	14.0	45.9	27.0
7001-12-27	3/4	1-1/16-12	M27 x 2	15.5	18.0	47.9	32.0
7001-16-33	1	1-5/16-12	M33 x 2	21.5	23.0	52.1	41.0
7001-20-42	1-1/4	1-5/8-12	M42 x 2	27.5	30.0	56.3	50.0
7001-24-48	1-1/2	1-7/8-12	M48 x 2	33.0	36.0	63.5	55.0

International Fittings

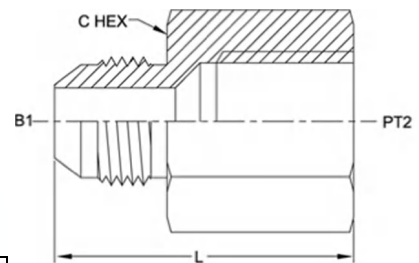
MJ-MBSPP 7002 Series



PART NO./SIZE	TUBE O.D	B1 JIC	B2 BSPP	B1 DRILL	B2 DRILL	L LGTH	C HEX
7002-04-02	1/4	7/16-20	1/8-28	4.4	3.5	27.0	14.0
7002-04-04	1/4	7/16-20	1/4-19	4.4	6.3	32.0	19.0
7002-04-06	1/4	7/16-20	3/8-19	4.4	7.9	34.0	22.0
7002-04-08	1/4	7/16-20	1/2-14	4.4	11.1	38.0	27.0
7002-04-12	1/4	7/16-20	3/4-14	4.4	16.7	42.0	32.0
7002-05-02	5/16	1/2-20	1/8-28	6.0	3.5	28.8	14.0
7002-05-04	5/16	1/2-20	1/4-19	6.0	6.3	32.0	19.0
7002-05-06	5/16	1/2-20	3/8-19	6.0	7.9	34.0	22.0
7002-05-08	5/16	1/2-20	1/2-14	6.0	11.1	38.0	27.0
7002-05-12	5/16	1/2-20	3/4-14	6.0	16.7	42.0	32.0
7002-06-02	3/8	9/16-18	1/8-28	7.5	3.5	29.7	17.0
7002-06-04	3/8	9/16-18	1/4-19	7.5	4.7	32.1	19.0
7002-06-06	3/8	9/16-18	3/8-19	7.5	7.9	34.1	22.0
7002-06-08	3/8	9/16-18	1/2-14	7.5	11.1	38.1	27.0
7002-06-10	3/8	9/16-18	5/8-14	7.5	14.3	42.1	30.0
7002-06-12	3/8	9/16-18	3/4-14	7.5	16.7	42.1	32.0
7002-08-04	1/2	3/4-16	1/4-19	9.9	4.7	35.4	19.0
7002-08-06	1/2	3/4-16	3/8-19	9.9	7.9	36.7	22.0
7002-08-08	1/2	3/4-16	1/2-14	9.9	11.1	40.7	27.0
7002-08-10	1/2	3/4-16	5/8-14	9.9	14.3	44.7	30.0
7002-08-12	1/2	3/4-16	3/4-14	9.9	16.7	44.7	32.0
7002-08-16	1/2	3/4-16	1-11	9.9	22.2	50.7	41.0
7002-10-04	5/8	7/8-14	1/4-19	12.3	4.7	39.5	24.0
7002-10-06	5/8	7/8-14	3/8-19	12.3	7.9	40.5	24.0
7002-10-08	5/8	7/8-14	1/2-14	12.3	11.1	43.3	27.0
7002-10-10	5/8	7/8-14	5/8-14	12.3	14.3	47.3	30.0
7002-10-12	5/8	7/8-14	3/4-14	12.3	16.7	47.3	32.0
7002-10-16	5/8	7/8-14	1-11	12.3	22.2	53.3	41.0
7002-12-06	3/4	1-1/16-12	3/8-19	15.5	7.9	45.0	27.0
7002-12-08	3/4	1-1/16-12	1/2-14	15.5	11.1	47.0	27.0
7002-12-10	3/4	1-1/16-12	5/8-14	15.5	14.3	49.9	30.0
7002-12-12	3/4	1-1/16-12	3/4-14	15.5	16.7	49.9	32.0
7002-12-16	3/4	1-1/16-12	1-11	15.5	22.2	55.9	41.0
7002-12-20	3/4	1-1/16-12	1-1/4-11	15.5	28.6	60.9	50.0
7002-14-12	7/8	1-3/16-12	3/4-14	18.3	16.7	49.5	32.0
7002-14-16	7/8	1-3/16-12	1-11	18.3	22.2	56.6	41.0
7002-16-08	1	1-5/16-12	1/2-14	21.5	11.1	48.1	36.0
7002-16-12	1	1-5/16-12	3/4-14	21.5	16.7	50.1	36.0
7002-16-16	1	1-5/16-12	1-11	21.5	22.2	57.1	41.0
7002-16-20	1	1-5/16-12	1-1/4-11	21.5	28.6	62.1	50.0
7002-16-24	1	1-5/16-12	1-1/2-11	21.5	33.3	68.1	55.0
7002-20-12	1-1/4	1-5/8-12	3/4-14	27.5	16.7	53.4	46.0
7002-20-16	1-1/4	1-5/8-12	1-11	27.5	22.2	56.4	46.0
7002-20-20	1-1/4	1-5/8-12	1-1/4-11	27.5	28.6	63.3	50.0
7002-20-24	1-1/4	1-5/8-12	1-1/2-11	27.5	33.3	69.3	55.0
7002-24-16	1-1/2	1-7/8-12	1-11	33.0	22.2	61.3	50.0
7002-24-20	1-1/2	1-7/8-12	1-1/4-11	33.0	28.6	62.3	50.0
7002-24-24	1-1/2	1-7/8-12	1-1/2-11	33.0	33.3	72.5	55.0
7002-24-32	1-1/2	1-7/8-12	2-11	33.0	46.0	81.5	70.0
7002-32-16	2	2-1/2-12	1-11	45.0	22.2	71.5	65.0
7002-32-20	2	2-1/2-12	1-1/4-11	45.0	28.6	72.5	65.0
7002-32-24	2	2-1/2-12	1-1/2-11	45.0	33.3	74.5	65.0
7002-32-32	2	2-1/2-12	2-11	45.0	46.0	87.9	70.0

ADD -BS AS SUFFIX TO ORDER WITH BONDED SEAL
ORDER PART NUMBER 7012 FOR RETAINING RING STYLE

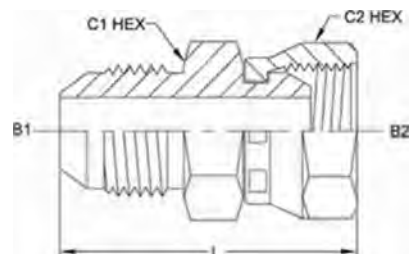
MJ-FBSPP 7003 Series



PART NO.SIZE	TUBE O.D.	B1 JIC	PT2 BSPP	B1 DRILL	L LGTH	C HEX
7003-04-02	1/4	7/16-20	1/8-28	4.4	30.0	14.0
7003-04-04	1/4	7/16-20	1/4-19	4.4	33.0	19.0
7003-04-06	1/4	7/16-20	3/8-19	4.4	35.0	22.0
7003-06-04	3/8	9/16-18	1/4-19	7.5	33.1	19.0
7003-06-06	3/8	9/16-18	3/8-19	7.5	35.1	22.0
7003-06-08	3/8	9/16-18	1/2-14	7.5	37.1	27.0
7003-08-06	1/2	3/4-16	3/8-19	9.9	37.7	22.0
7003-08-08	1/2	3/4-16	1/2-14	9.9	39.7	27.0
7003-08-10	1/2	3/4-16	5/8-14	9.9	41.7	30.0
7003-08-12	1/2	3/4-16	3/4-14	9.9	44.7	32.0
7003-10-08	5/8	7/8-14	1/2-14	12.3	42.3	27.0
7003-10-10	5/8	7/8-14	5/8-14	12.3	44.3	30.0
7003-10-12	5/8	7/8-14	3/4-14	12.3	47.3	32.0
7003-12-12	3/4	1-1/16-12	3/4-14	15.5	49.9	32.0
7003-12-16	3/4	1-1/16-12	1-11	15.5	52.9	41.0
7003-16-12	1	1-5/16-12	3/4-14	21.5	34.1	36.0
7003-16-16	1	1-5/16-12	1-11	21.5	54.1	41.0
7003-20-20	1-1/4	1-5/8-12	1-1/4-11	27.5	60.3	50.0
7003-24-24	1-1/2	1-7/8-12	1-1/2-11	33.0	68.5	55.0
7003-32-32	2	2-1/2-12	2-11	45.0	79.9	70.0

G-005

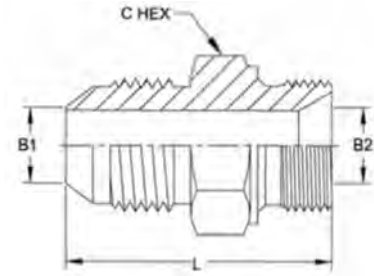
MJ-FBSPPS 7004 Series



PART NO.SIZE	TUBE O.D.	B1 JIC	B2 BSPP	B1 DRILL	B2 DRILL	I LGTH	C2 HEX	C1 HEX
7004-04-02	1/4	7/16-20	1/8-28	4.4	3.5	36.8	14.0	12.0
7004-04-04	1/4	7/16-20	1/4-19	4.4	4.7	38.0	19.0	14.0
7004-04-06	1/4	7/16-20	3/8-19	4.4	7.9	41.0	22.0	19.0
7004-06-04	3/8	9/16-18	1/4-19	7.5	4.7	38.7	19.0	17.0
7004-06-06	3/8	9/16-18	3/8-19	7.5	7.9	41.1	22.0	19.0
7004-06-08	3/8	9/16-18	1/2-14	7.5	11.1	46.1	27.0	22.0
7004-08-06	1/2	3/4-16	3/8-19	9.9	7.9	43.4	22.0	19.0
7004-08-08	1/2	3/4-16	1/2-14	9.9	11.1	48.7	27.0	22.0
7004-08-10	1/2	3/4-16	5/8-14	9.9	14.3	53.7	30.0	22.0
7004-08-12	1/2	3/4-16	3/4-14	9.9	16.7	53.7	32.0	27.0
7004-10-08	5/8	7/8-14	1/2-14	12.3	11.1	50.5	27.0	24.0
7004-10-10	5/8	7/8-14	5/8-14	12.3	14.3	53.5	30.0	24.0
7004-10-12	5/8	7/8-14	3/4-14	12.3	16.7	56.3	32.0	27.0
7004-12-12	3/4	1-1/16-12	3/4-14	15.5	16.7	58.0	32.0	27.0
7004-12-16	3/4	1-1/16-12	1-11	15.5	22.2	68.9	41.0	33.0
7004-12-24	3/4	1-1/16-12	1-1/2-11	15.5	33.3	73.7	55.0	50.0
7004-16-12	1	1-5/16-12	3/4-14	21.5	16.7	59.1	32.0	36.0
7004-16-16	1	1-5/16-12	1-11	21.5	22.2	66.1	41.0	36.0
7004-20-20	1-1/4	1-5/8-12	1-1/4-11	27.5	28.6	70.4	50.0	46.0
7004-24-24	1-1/2	1-7/8-12	1-1/2-11	33.0	33.3	79.3	55.0	50.0
7004-32-32	2	2-1/2-12	2-11	45.0	46.0	92.5	70.0	65.0

International Fittings

MJ-MM Port Metric 7005 Series

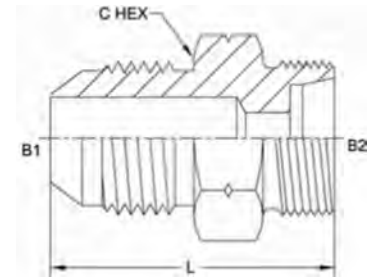


PART NO.SIZE	TUBE O.D	B1 JIC	B2 MM	B1 DRILL	B2 DRILL	L LGTH	C HEX
7005-04-08	1/4	7/16-20	M8 x 1	4.4	3.0	27.5	16.0
7005-04-10	1/4	7/16-20	M10x1	4.4	4.5	27.5	16.0
7005-04-12	1/4	7/16-20	M12 x 1.5	4.4	6.0	33.0	19.0
7005-04-14	1/4	7/16-20	M14 x 1.5	4.4	7.5	33.0	19.0
7005-04-18	1/4	7/16-20	M18 x 1.5	4.4	11.0	34.5	24.0
7005-04-20	1/4	7/16-20	M20 x 1.5	4.4	12.5	35.0	27.0
7005-04-22	1/4	7/16-20	M22 x 1.5	4.4	14.0	38.0	27.0
7005-05-12	5/16	1/2-20	M12 x 1.5	6.0	6.0	33.0	19.0
7005-06-12	3/8	9/16-18	M12 x 1.5	7.5	6.0	33.1	19.0
7005-06-14	3/8	9/16-18	M14 x 1.5	7.5	7.5	33.1	19.0
7005-06-16	3/8	9/16-18	M16 x 1.5	7.5	9.0	34.6	22.0
7005-06-18	3/8	9/16-18	M18 x 1.5	7.5	11.0	34.6	24.0
7005-06-20	3/8	9/16-18	M20 x 1.5	7.5	12.5	35.1	27.0
7005-08-12	1/2	3/4-16	M12 x 1.5	9.9	6.0	36.4	19.0
7005-08-14	1/2	3/4-16	M14 x 1.5	9.9	7.5	36.4	19.0
7005-08-16	1/2	3/4-16	M16 x 1.5	9.9	9.0	37.2	22.0
7005-08-18	1/2	3/4-16	M18 x 1.5	9.9	11.0	37.2	24.0
7005-08-20	1/2	3/4-16	M20 x 1.5	9.9	12.5	37.7	27.0
7005-08-22	1/2	3/4-16	M22 x 1.5	9.9	14.0	40.7	27.0
7005-08-27	1/2	3/4-16	M27 x 2	9.9	18.0	42.7	32.0
7005-10-18	5/8	7/8-14	M18 x 1.5	12.3	11.0	40.5	24.0
7005-10-20	5/8	7/8-14	M20 x 1.5	12.3	12.5	40.3	27.0
7005-10-22	5/8	7/8-14	M22 x 1.5	12.3	14.0	43.3	27.0
7005-10-26	5/8	7/8-14	M26 x 1.5	12.3	18.0	45.3	32.0
7005-12-22	3/4	1-1/16-12	M22 x 1.5	15.5	14.0	47.0	27.0
7005-12-24	3/4	1-1/16-12	M24 x 1.5	15.5	15.5	47.4	32.0
7005-12-26	3/4	1-1/16-12	M26 x 1.5	15.5	18.0	47.9	32.0
7005-12-27	3/4	1-1/16-12	M27 x 2	15.5	18.0	47.9	32.0
7005-16-33	1	1-5/16-12	M33 x 2	21.5	23.0	52.1	41.0
7005-20-30	1-1/4	1-5/8-12	M30 x 2	27.5	21.0	55.4	46.0
7005-20-42	1-1/4	1-5/8-12	M42 x 2	27.5	30.0	56.3	50.0
7005-24-42	1-1/2	1-7/8-12	M42 x 2	33.0	30.0	62.3	50.0
7005-24-48	1-1/2	1-7/8-12	M48 x 2	33.0	36.0	63.5	55.0

ADD -BS AS SUFFIX TO ORDER WITH BONDED SEAL
 ORDER PART NUBER 7001 FOR RETAINING RING STYLE
 ORDER PART NUBER 7640 FOR ISO 6149-3 STYLE

G-006

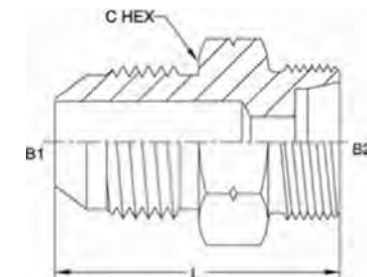
MJ-MM Light Metric (Dual Purpose) 7005-L Series



PART NO.SIZE	B1 TUBE D.D	B2 TUBE D.D	B1 JIC	B2 MM	B1 DRILL	B2 DRILL	I LGTH	C HEX
7005-04-L06-12	1/4	06	7/16-20	M12 x 1.5	4.4	4.0	30.8	12.0
7005-04-L08-14	1/4	08	7/16-20	M14 x 1.5	4.4	6.0	29.0	14.0
7005-06-L08-14	3/8	08	9/16-18	M14 x 1.5	7.5	6.0	31.7	17.0
7005-06-L10-16	3/8	10	9/16-18	M16 x 1.5	7.5	8.0	32.7	17.0
7005-06-L12-18	3/8	12	9/16-18	M18 x 1.5	7.5	10.0	31.1	19.0
7005-08-L10-16	1/2	10	3/4-16	M16 x 1.5	9.9	8.0	35.4	19.0
7005-08-L12-18	1/2	12	3/4-16	M18 x 1.5	9.9	10.0	35.4	19.0
7005-08-L15-22	1/2	15	3/4-16	M22 x 1.5	9.9	12.0	34.7	24.0
7005-10-L15-22	5/8	15	7/8-14	M22 x 1.5	12.3	12.0	40.5	24.0
7005-10-L18-26	5/8	18	7/8-14	M26 x 1.5	12.3	15.0	38.3	27.0
7005-12-L15-22	3/4	15	1-1/16-12	M22 x 1.5	15.5	12.0	45.0	27.0
7005-12-L18-26	3/4	18	1-1/16-12	M26 x 1.5	15.5	15.0	45.0	27.0
7005-12-L22-30	3/4	22	1-1/16-12	M30 x 2	15.5	19.0	42.9	32.0
7005-12-L28-36	3/4	28	1-1/16-12	M36 x 2	15.5	24.0	43.9	41.0
7005-16-L22-30	1	22	1-5/16-12	M30 x 2	21.5	19.0	48.1	36.0
7005-16-L28-36	1	28	1-5/16-12	M36 x 2	21.5	24.0	45.1	41.0
7005-16-L35-45	1	35	1-5/16-12	M45 x 2	21.5	30.0	48.1	46.0
7005-20-L35-45	1-1/4	35	1-5/8-12	M45 x 2	27.5	30.0	53.4	46.0
7005-24-L42-52	1-1/2	42	1-7/8-12	M52 x 2	33.0	36.0	54.5	55.0

G-007

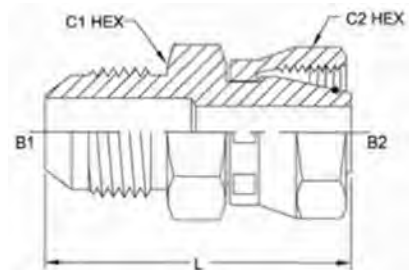
MJ-MM Heavy Metric (Dual Purpose) 7005-S Series



PART NO.SIZE	B1 TUBE D.D	B2 TUBE O.D	B1 JIC	B2 MM	B1 DRILL	B2 DRILL	I LGTH	C HEX
7005-04-S06-14	1/4	06	7/16-20	M14 x 1.5	4.4	4.0	32.0	14.0
7005-04-S08-16	1/4	08	7/16-20	M16 x 1.5	4.4	5.0	34.0	17.0
7005-06-S08-16	3/8	08	9/16-18	M16 x 1.5	7.5	5.0	33.7	17.0
7005-06-SI 0-18	3/8	10	9/16-18	M18 x 1.5	7.5	7.0	34.1	19.0
7005-06-SI 2-20	3/8	12	9/16-18	M20 x 1.5	7.5	8.0	36.1	22.0
7005-08-S08-16	1/2	08	3/4-16	M16 x 1.5	9.9	5.0	36.4	19.0
7005-08-SI 0-18	1/2	10	3/4-16	M18 x 1.5	9.9	7.0	36.4	19.0
7005-08-SI 2-20	1/2	12	3/4-16	M20 x 1.5	9.9	8.0	38.7	22.0
7005-08-S14-22	1/2	14	3/4-16	M22x 1.5	9.9	10.0	40.7	24.0
7005-08-SI 6-24	1/2	16	3/4-16	M24 x 1.5	9.9	12.0	40.7	27.0
7005-10-S12-20	5/8	12	7/8-14	M20 x 1.5	12.3	8.0	40.5	24.0
7005-10-S16-24	5/8	16	7/8-14	M24 x 1.5	12.3	12.0	43.3	27.0
7005-12-S16-24	3/4	16	1-1/16-12	M24 x 1.5	15.5	12.0	47.0	27.0
7005-12-S20-30	3/4	20	1-1/16-12	M30 x 2	15.5	16.0	49.9	32.0
7005-12-S25-36	3/4	25	1-1/16-12	M36 x 2	15.5	20.0	53.9	41.0
7005-16-S30-42	1	30	1-5/16-12	M42 x 2	21.5	25.0	57.1	46.0
7005-20-S38-52	1-1/4	38	1-5/8-12	M52 x 2	27.5	32.0	63.3	55.0
7005-24-S38-52	1-1/2	38	1-7/8-12	M52 x 2	33.0	32.0	66.5	55.0

International Fittings

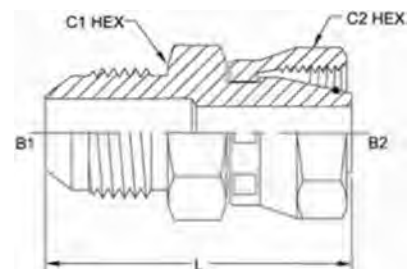
MJ-FMS Light Metric 7007-L Series



PART NO.SIZE	B1 TUBE O.D	B2TUBE O.D	B1 JIG	B2 MS	B1 DRILL	B2 DRILL	L LBTH	C1 HEX	C2 HEX
7007-04-L06-12	1/4	06	7/16-20	M12 x 1.5	4.4	2.5	37.8	12.0	14.0
7007-05-L06-12	5/16	06	1/2-20	M12 x 1.5	6.0	2.5	37.8	14.0	14.0
7007-06-L08-14	3/8	08	9/16-18	M14 x 1.5	7.5	4.0	39.2	17.0	17.0
7007-06-L10-16	3/8	10	9/16-18	M16 x 1.5	7.5	6.0	41.2	17.0	19.0
7007-06-L12-18	3/8	12	9/16-18	M18 x 1.5	7.5	8.0	39.1	19.0	22.0
7007-06-L15-22	3/8	15	9/16-18	M22 x 1.5	7.5	10.0	39.6	22.0	27.0
7007-08-L10-16	1/2	10	3/4-16	M16 x 1.5	9.9	6.0	43.9	19.0	19.0
7007-08-L12-18	1/2	12	3/4-16	M18 x 1.5	9.9	8.0	43.9	19.0	22.0
7007-08-L15-22	1/2	15	3/4-16	M22 x 1.5	9.9	10.0	42.2	22.0	27.0
7007-08-L18-26	1/2	18	3/4-16	M26 x 1.5	9.9	13.0	43.2	24.0	32.0
7007-10-L12-18	5/8	12	7/8-14	M18 x 1.5	12.3	8.0	48.0	24.0	22.0
7007-10-L15-22	5/8	15	7/8-14	M22 x 1.5	12.3	10.0	50.0	24.0	27.0
7007-12-L18-26	3/4	18	1-1/16-12	M26x 1.5	15.5	13.0	54.5	27.0	32.0
7007-12-L22-30	3/4	22	1-1/16-12	M30x2	15.5	17.0	56.5	27.0	36.0
7007-20-L35-45	1-1/4	35	1-5/8-12	M45 x 2	27.5	29.0	64.9	46.0	50.0

G-008

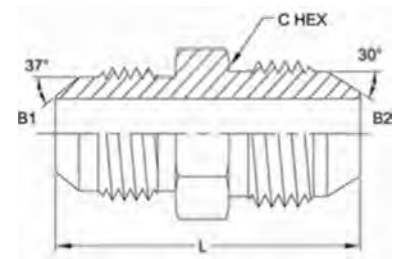
MJ-FMS Heavy Metric 7007-S Series



PART NO.SIZE	B1 TUBE O.D	B2 TUBE D.D	B1 JIC	B2 MS	B1 DRILL	B2 DRILL	I LGTH	C1 HEX	C2 HEX
7007-04-S06-14	1/4	06	7/16-20	M14x 1.5	4.4	2.5	39.8	12.0	17.0
7007-06-SI 0-18	3/8	10	9/16-18	M18 x 1.5	7.5	6.0	43.2	17.0	22.0
7007-06-SI 2-20	3/8	12	9/16-18	M20 x 1.5	7.5	8.0	39.1	19.0	24.0
7007-08-SI 2-20	1/2	12	3/4-16	M20 x 1.5	9.9	8.0	45.9	19.0	24.0
7007-08-SI 6-24	1/2	16	3/4-16	M24 x 1.5	9.9	11.0	43.7	22.0	30.0
7007-10-S12-20	5/8	12	7/8-14	M20 x 1.5	12.3	8.0	50.0	24.0	24.0
7007-12-SI 6-24	3/4	16	1-1/16-12	M24 x 1.5	15.5	11.0	57.0	27.0	30.0
7007-12-S20-30	3/4	20	1-1/16-12	M30 x 2	15.5	14.0	61.0	27.0	36.0
7007-12-S25-36	3/4	25	1-1/16-12	M36 x 2	15.5	19.0	55.4	32.0	46.0
7007-16-S30-42	1	30	1-5/16-12	M42 x 2	21.5	24.0	62.1	41.0	50.0
7007-20-S30-42	1-1/4	30	1-5/8-12	M42 x 2	27.5	24.0	71.4	46.0	50.0
7007-24-S38-52	1-1/2	38	1-7/8-12	M52 x 2	33.0	32.0	82.3	50.0	60.0

MJ-MJIS Union

7008 Series

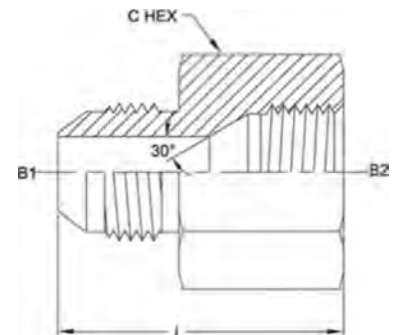


PART NO.SIZE	TUBE O.D	B1 JIC	B2 JIS BSPP	B1 DRILL	B2 DRILL	I LGTH	C HEX
7008-04-02	1/4	7/16-20	1/8-28	4.4		34.0	14.0
7008-04-04	1/4	7/16-20	1/4-19	4.4	5.0	38.0	17.0
7008-06-06	3/8	9/16-18	3/8-19	7.5	8.0	40.1	19.0
7008-08-08	1/2	3/4-16	1/2-14	9.9	11.0	46.7	22.0
7008-12-12	3/4	1-1/16-12	3/4-14	15.5	16.0	55.9	30.0

G-009

MJ-FJIS

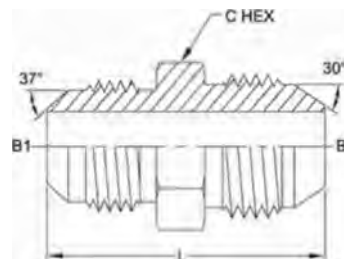
7008-F Series



PART NO.SIZE	TUBE O.D	B1 JIC	B2 JIS BSPP	B1 DRILL	I LGTH	C HEX
7008-F-04-04	1/4	7/16-20	1/4-19	4.4	33.0	19.0
7008-F-06-06	3/8	9/16-18	3/8-19	7.5	35.1	22.0
7008-F-08-08	1/2	3/4-16	1/2-14	9.9	39.7	27.0
7008-F-10-10	5/8	7/8-14	5/8-14	12.3	44.3	30.0
7008-F-12-12	3/4	1-1/16-12	3/4-14	15.5	49.9	32.0
7008-F-16-16	1	1-5/16-12	1-11	21.5	54.1	41.0

International Fittings

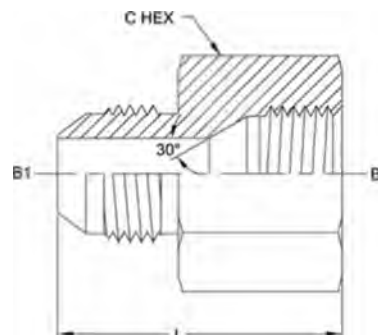
Komatsu MJ-MK Union 7009 Series



PART NO.SIZE	TUBE O.D	B1 JIC	B2 MK METRIC	B1 DRILL	B2 DRILL	L LGTH	C HEX
7009-04-14	1/4	7/16-20	M14 x 1.5	4.4	5.0	37.4	17.0
7009-06-16	3/8	9/16-18	M16 x 1.6				19.0
7009-06-18	3/8	9/16-18	M18 x 1.5	7.5	8.0	39.2	22.0
7009-08-22	1/2	3/4-16	M22 x 1.5	9.9	10.0	45.4	24.0
7009-10-24	5/8	7/8-14	M24 x 1.5	12.3	13.0	51.3	27.0
7009-12-30	3/4	1-1/16-12	M30 x 1.5	15.5	14.0	58.5	32.0
7009-16-33	1	1-5/16-12	M33 x 1.5	21.5	22.0	63.7	38.0

G-010

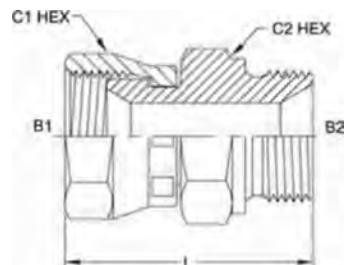
Komatsu MJ-FK 7009-F Series



PART NO.SIZE	TUBE O.D	B1 JIC	B2 FK METRIC	B1 DRILL	I LGTH	CI HEX
7009-F-04-14	1/4	7/16-20	M14 x 1.5	4.4	35.4	19.0
7009-F-06-18	3/8	9/16-18	M18 x 1.5	7.5	36.6	24.0
7009-F-08-22	1/2	3/4-16	M22 x 1.5	9.9	42.2	27.0
7009-F-10-24	5/8	7/8-14	M24 x 1.5	12.3	41.8	32.0
7009-F-12-30	3/4	1-1/16-12	M30 x 1.5	15.5	49.4	36.0
7009-F-16-33	1	1-5/16-12	M33 x 1.5	21.5	55.1	41.0

FJS-MBSPP

7022 Series

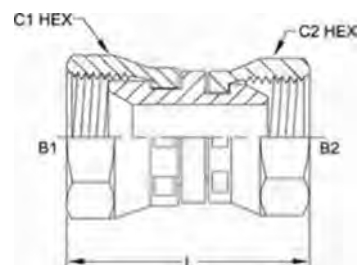


PART NO.SIZE	TUBE O.D	B1 JIC	B2 BSPP	B1 DRILL	B2 DRILL	L LGTH	C1 HEX	C2 HEX
7022-04-02	1/4	7/16-20	1/8-28	4.4	3.5	30.0	14.0	14.0
7022-04-04	1/4	7/16-20	1/4-19	4.4	4.7	35.0	14.0	19.0
7022-04-06	1/4	7/16-20	3/8-19	4.4	7.9	37.0	14.0	22.0
7022-05-04	5/16	1/2-20	1/4-19	6.0	4.7	36.7	17.0	19.0
7022-06-04	3/8	9/16-18	1/4-19	7.5	4.7	37.7	19.0	19.0
7022-06-06	3/8	9/16-18	3/8-19	7.5	7.9	39.7	19.0	22.0
7022-06-08	3/8	9/16-18	1/2-14	7.5	11.1	43.7	19.0	27.0
7022-08-06	1/2	3/4-16	3/8-19	9.9	7.9	42.1	22.0	22.0
7022-08-08	1/2	3/4-16	1/2-14	9.9	11.1	46.1	22.0	27.0
7022-10-08	5/8	7/8-14	1/2-14	12.3	11.1	48.9	27.0	27.0
7022-10-10	5/8	7/8-14	5/8-14	12.3	14.3	52.9	27.0	30.0
7022-12-12	3/4	1-1/16-12	3/4-14	15.5	16.7	55.4	32.0	32.0
7022-16-12	3/4	1-5/16-12	3/4-14	21.5	16.7	55.3	41.0	36.0
7022-16-16	1	1-5/16-12	1-11	21.5	22.2	63.7	41.0	41.0
7002-20-20	1-1/4	1-5/8-12	1-1/4-11	27.5	28.6	70.1	50.0	50.0
7002-24-24	1-1/2	1-7/8-12	1-1/2-11	33.0	33.3	81.1	60.0	55.0

G-011

FJS-FBSPP

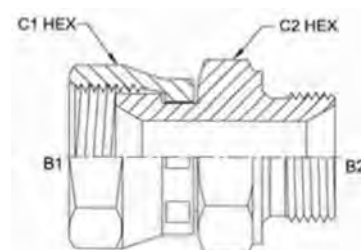
7023 Series



PART ND.SIZE	TUBE O.D	B1 JIC	B2 BSPP	B1 DRILL	B2 DRILL	L LGTH	C1 HEX	C2 HEX
7023-04-04	1/4	7/16-20	1/4-19	4.4	4.7	37.0	14.0	19.0
7023-06-04	1/4	9/16-18	1/4-19	7.5	4.7	39.7	19.0	19.0
7023-06-06	3/8	9/16-18	3/8-19	7.5	7.9	41.7	19.0	22.0
7023-06-08	3/8	9/16-18	1/2-14	7.5	11.1	44.7	19.0	27.0
7023-08-06	1/2	3/4-16	3/8-19	9.9	7.9	44.1	22.0	22.0
7023-08-08	1/2	3/4-16	1/2-14	9.9	11.1	47.1	22.0	27.0

International Fittings

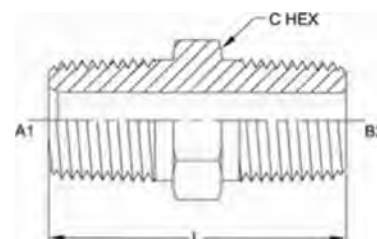
FJS-MM Metric 7025 Series



PART NO.SIZE	TUBE O.D	B1 JIC	B2 MM	B1 DRILL	B2 DRILL	L LGTH	C1 HEX	C2 HEX
7025-05-12	5/16	1/2-20	M12 x 1.5	6.0	6.0	37.7	17.0	19.0
7025-06-14	3/8	9/16-18	M14 x 1.5	7.5	7.5	38.7	19.0	19.0
7025-06-16	3/8	9/16-18	M16 x 1.5	7.5	9.0	40.2	19.0	22.0
7025-06-18	3/8	9/16-18	M18 x 1.5	7.5	11.0	40.2	19.0	24.0
7025-06-20	3/8	9/16-18	M20 x 1.5	7.5	12.5	40.7	19.0	27.0
7025-06-22	3/8	9/16-18	M22 x 1.5	7.5	14.0	43.7	19.0	27.0
7025-08-16	1/2	3/4-16	M16 x 1.5	9.9	9.0	42.6	22.0	22.0
7025-08-18	1/2	3/4-16	M18 x 1.5	9.9	11.0	42.6	22.0	24.0
7025-08-20	1/2	3/4-16	M20 x 1.5	9.9	12.5	43.1	22.0	27.0
7025-08-22	1/2	3/4-16	M22 x 1.5	9.9	14.0	46.1	22.0	27.0
7025-10-08	5/8	7/8-14	M8 x 1	12.3	3.0	40.8	27.0	24.0
7025-10-16	5/8	7/8-14	M16 x 1.5	12.3	9.0	44.8	27.0	24.0
7025-10-18	5/8	7/8-14	M18 x 1.5	12.3	11.0	44.8	27.0	24.0
7025-10-20	5/8	7/8-14	M20 x 1.5	12.3	12.5	45.9	27.0	27.0
7025-10-22	5/8	7/8-14	M22 x 1.5	12.3	14.0	48.9	27.0	27.0

G-012

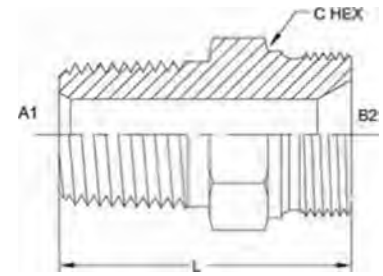
MP-MBSPT Nipple 7030 Series



PART NO.SIZE	A1 NPTF	B2 BSPT	A1 DRILL	B2 DRILL	L LGTH	C HEX
7030-02-02	1/8-27	1/8-28	4.8	4.8	26.0	11.0
7030-04-04	1/4-18	1/4-19	7.0	7.0	35.8	14.0
7030-04-06	1/4-18	3/8-19	7.0	10.3	35.8	19.0
7030-06-04	3/8-18	1/4-19	10.3	7.0	35.8	19.0
7030-06-06	3/8-18	3/8-19	10.3	10.3	35.8	19.0
7030-08-08	1/2-14	1/2-14	13.5	13.5	46.9	22.0
7030-12-12	3/4-14	3/4-14	18.0	18.0	48.7	27.0
7030-16-16	1-11-1/2	1-11	23.8	23.8	58.5	36.0
7030-20-20	1-1/4-11-1/2	1-1/4-11	31.7	31.7	61.9	42.0
7030-24-24	1-1/2-11-1/2	1-1/2-11	38.0	38.0	65.3	50.0
7030-32-32	2-11-1/2	2-11	49.0	49.0	70.7	65.0

MP-MBSP Nipple

7032 Series



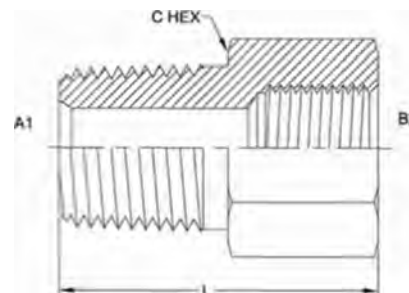
G-013

PART NO.SIZE	A1 NPTF	B2 BSPP	A1 DRILL	B2 DRILL	I LGTH	C HEX
7032-02-02	1/8-27	1/8-28	4.8	3.5	23.2	14.0
7032-02-04	1/8-27	1/4-19	4.8	4.7	28.2	19.0
7032-02-06	1/8-27	3/8-19	4.8	7.9	30.2	22.0
7032-04-02	1/4-18	1/8-28	7.0	3.5	29.1	14.0
7032-04-04	1/4-18	1/4-19	7.0	4.7	32.7	19.0
7032-04-06	1/4-18	3/8-19	7.0	7.9	34.7	22.0
7032-04-08	1/4-18	1/2-14	7.0	11.1	38.7	27.0
7032-06-02	3/8-18	1/8-28	10.3	3.5	29.1	19.0
7032-06-04	3/8-18	1/4-19	10.3	4.7	32.1	19.0
7032-06-06	3/8-18	3/8-19	10.3	7.9	34.7	22.0
7032-06-08	3/8-18	1/2-14	10.3	11.1	38.7	27.0
7032-06-12	3/8-18	3/4-14	10.3	16.7	42.7	32.0
7032-08-04	1/2-14	1/4-19	13.5	4.7	38.4	22.0
7032-08-06	1/2-14	3/8-19	13.5	7.9	39.4	22.0
7032-08-08	1/2-14	1/2-14	13.5	11.1	43.5	27.0
7032-08-10	1/2-14	5/8-14	13.5	14.3	47.5	30.0
7032-08-12	1/2-14	3/4-14	13.5	16.7	47.5	32.0
7032-08-16	1/2-14	1-11	13.5	22.2	53.5	41.0
7032-12-06	3/4-14	3/8-19	18.0	7.9	41.2	27.0
7032-12-08	3/4-14	1/2-14	18.0	11.1	43.2	27.0
7032-12-10	3/4-14	5/8-14	18.0	14.3	47.5	30.0
7032-12-12	3/4-14	3/4-14	18.0	16.7	47.5	32.0
7032-12-16	3/4-14	1-11	18.0	22.2	53.5	41.0
7032-16-08	1-11-1/2	1/2-14	23.8	11.1	48.1	36.0
7032-16-12	1-11-1/2	3/4-14	23.8	16.7	50.1	36.0
7032-16-16	1-11-1/2	1-11	23.8	22.2	58.4	41.0
7032-16-20	1-11-1/2	1-1/4-11	23.8	28.6	63.4	50.0
7032-20-12	1-1/4-11-1/2	3/4-14	31.7	16.7	52.8	42.0
7032-20-16	1-1/4-11-1/2	1-11	31.7	22.2	55.8	42.0
7032-20-20	1-1/4-11-1/2	1-1/4-11	31.7	28.6	64.1	50.0
7032-20-24	1-1/4-11-1/2	1-1/2-11	31.7	33.3	70.1	55.0
7032-24-20	1-1/2-11-1/2	1-1/4-11	38.0	28.6	59.4	50.0
7032-24-24	1-1/2-11-1/2	1-1/2-11	38.0	33.3	70.9	55.0
7032-24-32	1-1/2-11-1/2	2-11	38.0	46.0	79.9	70.0
7032-32-20	2-11-1/2	1-1/4-11	49.0	28.6	64.0	65.0
7032-32-32	2-11-1/2	2-11	49.0	46.0	80.7	70.0

International Fittings

MP-FBSPP 7033 Series

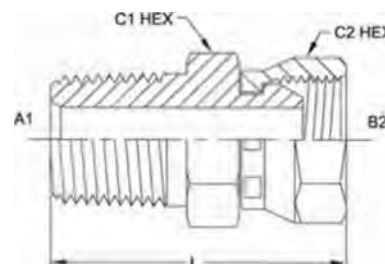
PART NO.SIZE	A1 NPTF	B2 BSPP	A1 DRILL	I LGTH	C HEX
7033-02-02	1/8-27	1/8-28	4.8	26.2	14.0
7033-04-04	1/4-18	1/4-19	7.0	33.7	19.0
7033-06-04	3/8-18	1/4-19	10.3	33.7	19.0
7033-06-06	3/8-18	3/8-19	10.3	35.7	22.0
7033-08-04	1/2-14	1/4-19	13.5	27.4	22.0
7033-08-06	1/2-14	3/8-19	13.5	40.5	22.0
7033-08-08	1/2-14	1/2-14	13.5	42.5	27.0
7033-12-12	3/4-14	3/4-14	18.0	47.5	32.0
7033-16-16	1-11-1/2	1-11	23.8	55.4	41.0
7033-20-20	1-1/4-11-1/2	1-1/4-11	31.7	61.1	50.0
7033-24-24	1-1/2-11-1/2	1-1/2-11	38.0	66.9	55.0
7033-32-32	2-11-1/2	2-11	49.0	72.7	70.0



G-014

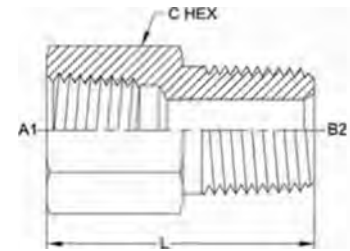
MP-FBSPPS 7034 Series

PART NO.SIZE	A1 NPTF	B2 BSPPS	A1 DRILL	B2 DRILL	L LGTH	C1 HEX	C2 HEX
7034-02-02	1/8-27	1/8-28	4.8	3.5	31.2	12.0	14.0
7034-02-04	1/8-27	1/4-19	4.8	4.7	34.2	14.0	19.0
7034-04-04	1/4-18	1/4-19	7.0	4.7	38.1	14.0	19.0
7034-04-06	1/4-18	3/8-19	7.0	7.9	41.7	19.0	22.0
7034-06-04	3/8-18	1/4-19	10.3	4.7	38.1	19.0	19.0
7034-06-06	3/8-18	3/8-19	10.3	7.9	40.1	19.0	22.0
7034-06-08	3/8-18	1/2-14	10.3	11.1	46.7	22.0	27.0
7034-08-06	1/2-14	3/8-19	13.5	7.9	46.4	22.0	22.0
7034-08-08	1/2-14	1/2-14	13.5	11.1	49.4	22.0	27.0
7034-12-08	3/4-14	1/2-14	18.0	11.1	51.2	27.0	27.0
7034-12-12	3/4-14	3/4-14	18.0	16.7	54.2	27.0	32.0
7034-16-12	1-11-1/2	3/4-14	23.8	16.7	59.1	36.0	32.0
7034-16-16	1-11-1/2	1-11	23.8	22.2	66.1	36.0	41.0



FNPT-MBSPT 7040 Series

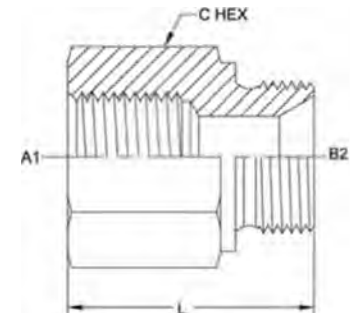
PART NO.SIZE	A1 NPTF	B2 BSPT	B2 DRILL	L LCTH	C HEX
7040-02-02	1/8-27	1/8-28	4.8	26.4	15.0
7040-04-04	1/4-18	1/4-19	7.0	35.3	19.0
7040-06-06	3/8-18	3/8-19	10.3	36.6	22.0
7040-08-08	1/2-14	1/2-14	13.5	47.5	28.0
7040-12-08	3/4-14	1/2-14	13.5	49.0	35.0
7040-12-12	3/4-14	3/4-14	18.0	49.0	35.0
7040-16-16	1-11-1/2	1-11	23.8	60.2	41.0
7040-24-24	1-1/2-11-1/2	1-1/2-11	38.0	64.3	60.0



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FP-MBSPP 7042 Series

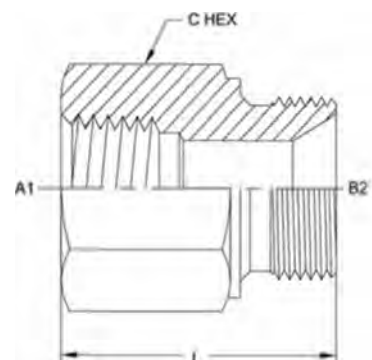
PART NO.SIZE	A1 NPTF	B2 BSPP	B2 DRILL	I LGTH	C HEX
7042-02-02	1/8-27	1/8-28	3.5	24.2	15.0
7042-02-04	1/8-27	1/4-19	4.7	18.0	19.0
7042-02-06	1/8-27	3/8-19	7.9	20.0	22.0
7042-02-08	1/8-27	1/2-14	11.1	24.0	27.0
7042-04-02	1/4-18	1/8-28	3.5	28.6	19.0
7042-04-04	1/4-18	1/4-19	4.7	31.6	19.0
7042-04-06	1/4-18	3/8-19	7.9	20.0	22.0
7042-04-08	1/4-18	1/2-14	11.1	24.0	27.0
7042-04-12	1/4-18	3/4-14	16.7	28.0	32.0
7042-06-04	3/8-18	1/4-19	4.7	32.9	22.0
7042-06-06	3/8-18	3/8-19	7.9	33.9	22.0
7042-06-08	3/8-18	1/2-14	11.1	24.0	27.0
7042-08-02	1/2-14	1/8-28	3.5	36.0	28.0
7042-08-04	1/2-14	1/4-19	4.7	39.0	28.0
7042-08-06	1/2-14	3/8-19	7.9	40.0	28.0
7042-08-08	1/2-14	1/2-14	11.1	42.0	28.0
7042-08-12	1/2-14	3/4-14	16.7	28.0	32.0
7042-12-08	3/4-14	1/2-14	11.1	43.5	35.0
7042-12-12	3/4-14	3/4-14	16.7	45.5	35.0
7042-16-16	1-11-1/2	1-11	22.2	54.8	41.0
7042-16-20	1-11-1/2	1-1/4-11	28.6	39.0	50.0
7042-20-16	1-1/4-11-1/2	1-11	22.2	57.1	50.0
7042-20-20	1-1/4-11-1/2	1-1/4-11	28.6	58.1	50.0
7042-20-24	1-1/4-11-1/2	1-1/2-11	33.3	45.0	55.0
7042-24-20	1-1/2-11-1/2	1-1/4-11	28.6	58.4	60.0
7042-24-24	1-1/2-11-1/2	1-1/2-11	33.3	60.4	60.0
7042-32-32	2-11-1/2	2-11	46.0	65.9	73.0



International Fittings

FP-MM Metric 7045 Series

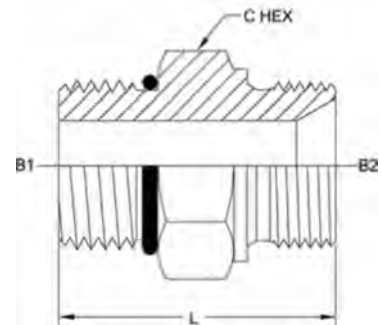
PART NO.SIZE	A1 NPTF	B2 MM	B2 DRILL	L LGTH	CI HEX
7045-02-06	1/8-27	M6 x 1			15.0
7045-02-08	1/8-27	M8 x 1	3.0	24.2	15.0
7045-02-10	1/8-27	M10x1	4.5	13.5	16.0
7045-02-12	1/8-27	M12x 1.5	6.0	19.0	19.0
7045-02-14	1/8-27	M14 x 1.5	7.5	19.0	19.0
7045-02-16	1/8-27	M16 x 1.5	9.0	20.5	22.0
7045-02-18	1/8-27	M18 x 1.5	11.0	20.5	24.0
7045-02-20	1/8-27	M20 x 1.5	12.5	21.0	27.0
7045-04-10	1/4-18	M10x 1	4.5	28.6	19.0
7045-04-12	1/4-18	M12 x 1.5	6.0	32.6	19.0
7045-04-14	1/4-18	M14 x 1.5	7.5	32.6	19.0
7045-04-16	3/8-18	M16x 1.5	9.0	33.9	22.0
7045-06-16	3/8-18	M16 x 1.5	9.0	33.9	22.0
7045-06-18	3/8-18	M18 x 1.5	11.0	20.5	24.0
7045-06-20	3/8-18	M20 x 1.5	12.5	21.0	27.0
7045-06-22	3/8-18	M22 x 1.5	14.0	24.0	27.0
7045-08-16	1/2-14	M16x 1.5	9.0	40.0	28.0
7045-08-18	1/2-14	M18 x 1.5	11.0	40.0	28.0
7045-08-22	1/2-14	M22 x 1.5	14.0	42.0	28.0
7045-08-26	1/2-14	M26x 1.5	18.0	26.0	32.0
7045-12-24	3/4-14	M24x 1.5	15.5	45.5	35.0
7045-12-26	3/4-14	M26x 1.5	18.0	45.5	35.0
7045-12-27	3/4-14	M27 x 2	18.0	45.5	35.0
7045-12-30	3/4-14	M30 x 2	21.0	30.0	36.0
7045-16-33	1-11-1/2	M33 x 2	23.0	53.8	41.0
7045-16-42	1-11-1/2	M42 x 2	30.0	32.0	50.0



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MORB-MBSP

7062 Series

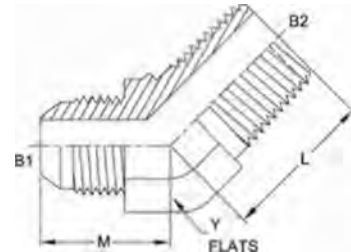


PART NO.SIZE	B1 SAE ORB	B2 BSPP	B1 DRILL	B2 DRIL	I LGTH	C HEX
7062-03-04	3/8-24	1/4-19	3.2	4.7	25.5	19.0
7062-04-04	7/16-20	1/4-19	4.4	4.7	27.1	19.0
7062-04-06	7/16-20	3/8-19	4.4	7.9	29.1	22.0
7062-05-04	1/2-20	1/4-19	6.0	4.7	27.1	19.0
7062-06-04	9/16-18	1/4-19	7.5	4.7	28.0	19.0
7062-06-06	9/16-18	3/8-19	7.5	7.9	30.0	22.0
7062-06-08	9/16-18	1/2-14	7.5	11.1	34.0	27.0
7062-08-06	3/4-16	3/8-19	9.9	7.9	32.8	22.0
7062-08-08	3/4-16	1/2-14	9.9	11.1	35.1	27.0
7062-08-10	3/4-16	5/8-14	9.9	14.3	39.1	30.0
7062-08-12	3/4-16	3/4-14	9.9	16.7	39.1	32.0
7062-10-06	7/8-14	3/8-19	12.3	7.9	35.7	27.0
7062-10-08	7/8-14	1/2-14	12.3	11.1	37.7	27.0
7062-10-12	7/8-14	3/4-14	12.3	16.7	40.7	32.0
7062-12-08	1-1/16-12	1/2-14	15.5	11.1	42.1	32.0
7062-12-12	1-1/16-12	3/4-14	15.5	16.7	44.1	32.0
7062-12-16	1-1/16-12	1-11	15.5	22.2	49.1	41.0
7062-16-12	1-5/16-12	3/4-14	21.4	16.7	44.9	41.0
7062-16-16	1-5/16-12	1-11	21.4	22.2	47.9	41.0
7062-20-16	1-5/8-12	1-11	27.4	22.2	49.7	50.0
7062-20-20	1-5/8-12	1-1/4-11	27.4	28.6	50.7	50.0
7062-24-20	1-7/8-12	1-1/4-11	33.3	28.6	52.5	55.0
7062-24-24	1-7/8-12	1-1/2-11	33.3	33.3	54.5	55.0

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International Fittings

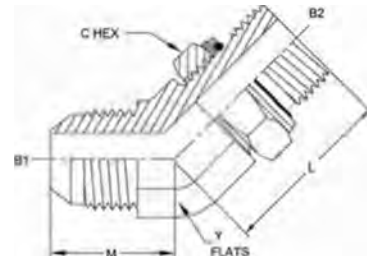
MJ-MBSPT 45° Elbow 7100 Series



PART NO.SIZE	B1 JIC	B2 BSPT	B1 DRILL	B2 DRILL	M LGTH	L LGTH	Y FLATS
7100-04-02-FG	7/16-20	1/8-28	4.4	4.8	18.5	16.5	12.0
7100-04-04-FG	7/16-20	1/4-19	4.4	7.0	20.7	22.0	14.0
7100-06-04-FG	9/16-18	1/4-19	7.5	7.0	21.0	22.0	14.0
7100-06-06-FG	9/16-18	3/8-19	7.5	10.3	22.2	24.0	19.0
7100-08-06-FG	3/4-16	3/8-19	9.9	10.3	25.0	24.0	19.0
7100-08-08-FG	3/4-16	1/2-14	9.9	13.5	25.0	30.0	22.0
7100-10-08-FG	7/8-14	1/2-14	12.3	13.5	28.0	30.0	22.0
7100-12-12-FG	1-1/16-12	3/4-14	15.5	18.0	32.5	30.5	27.0
7100-16-16-FG	1-5/16-12	1-11	21.5	23.8	37.5	37.5	33.0

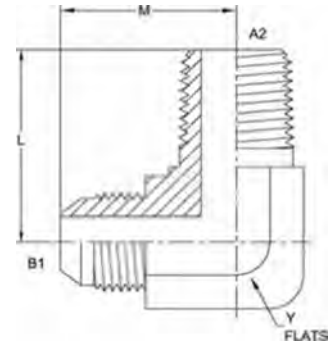
G-018

MJ-MBSPPSADJ 45° Elbow 7102 Series



PART NO.SIZE	B1 JIC	B2 BSPP	B1 DRILL	B2 DRILL	M LGTH	L LGTH	C HEX	Y FLATS
7102-04-04-NWO-FG	7/16-20	1/4-19	4.4	7.5	20.7	29.0	19.0	14.0
7102-06-04-NWO-FG	9/16-18	1/4-19	7.5	7.5	21.0	29.0	19.0	14.0
7102-06-06-NWO-FG	9/16-18	3/8-19	7.5	9.9	22.2	33.0	22.0	19.0
7102-06-08-NWO-FG	9/16-18	1/2-14	7.5	12.3	22.2	38.5	27.0	22.0
7102-08-06-NWO-FG	3/4-16	3/8-19	9.9	9.9	25.0	33.0	22.0	19.0
7102-08-08-NWO-FG	3/4-16	1/2-14	9.9	12.3	25.0	38.5	27.0	22.0
7102-10-08-NWO-FG	7/8-14	1/2-14	12.3	12.3	28.0	38.5	27.0	22.0
7102-12-08-NWO-FG	1-1/16-12	1/2-14	15.5	12.3	32.5	44.0	27.0	27.0
7102-12-12-NWO-FG	1-1/16-12	3/4-14	15.5	15.5	32.5	44.0	36.0	27.0
7102-14-12-NWO-FG	1-3/16-12	3/4-14	18.3	15.5	37.0	44.0	36.0	33.0
7102-16-16-NWO-FG	1-5/16-12	1-11	21.5	21.5	37.5	47.0	41.0	33.0
7102-20-20-NWO-FG	1-5/8-12	1-1/4-11	27.5	27.5	40.5	48.0	50.0	41.0

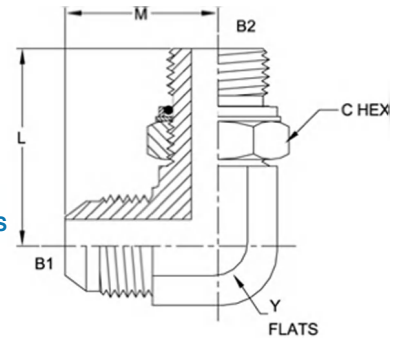
MJ-MBSPT 90° Elbow 7200 Series



PART NO.SIZE	B1 JIC37	A2 BSPT	B1 BRILL	A2 ORILL	M LGTH	L LGTH	Y FLATS
7200-04-02-FG	7/16-20	1/8-28	4.4	4.8	22.5	20.0	12.0
7200-04-04-FG	7/16-20	1/4-19	4.4	7.0	26.7	28.0	14.0
7200-06-04-FG	9/16-18	1/4-19	7.5	7.0	27.0	28.0	14.0
7200-06-06-FG	9/16-18	3/8-19	7.5	10.3	29.2	31.0	19.0
7200-08-06-FG	3/4-16	3/8-19	9.9	10.3	32.0	31.0	19.0
7200-08-08-FG	3/4-16	1/2-14	9.9	13.5	34.0	37.5	22.0
7200-12-08-FG	1-1/16-12	1/2-14	15.5	13.5	42.0	40.5	27.0
7200-12-12-FG	1-1/16-12	3/4-14	15.5	18.0	42.0	40.5	27.0
7200-16-16-FG	1-5/16-12	1-11	21.5	23.8	46.0	50.0	33.0
7200-20-20-FG	1-5/8-12	1-1/4-11	27.5	31.7	52.5	60.5	41.0

G-019

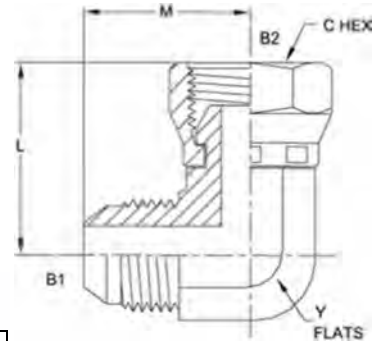
MJ-MBSPPSADJ 90° Elbow 7202-NWO Series



PART NO.SIZE	B1 JIC37	B2 BSPP	B1 DRILL	B2 DRILL	M LGTH	L LGTH	C HEX	Y FLATS
7202-04-02-NWO-FG	7/16-20	1/8-28	4.4	4.4	22.5	26.5	14.0	12.0
7202-04-04-NWO-FG	7/16-20	1/4-19	4.4	7.5	23.7	32.0	19.0	14.0
7202-04-06-NWO-FG	7/16-20	3/8-19	4.4	9.9	28.7	37.0	22.0	19.0
7202-05-02-NWO-FG	1/2-20	1/8-28	6.0	4.4	24.0	28.0	14.0	14.0
7202-05-04-NWO-FG	1/2-20	1/4-19	6.0	7.5	24.0	32.0	19.0	14.0
7202-06-04-NWO-FG	9/16-18	1/4-19	7.5	7.5	27.0	32.0	19.0	14.0
7202-06-06-NWO-FG	9/16-18	3/8-19	7.5	9.9	29.2	37.0	22.0	19.0
7202-06-08-NWO-FG	9/16-18	1/2-14	7.5	12.3	31.2	43.0	27.0	22.0
7202-08-04-NWO-FG	3/4-16	1/4-19	9.9	7.5	32.0	37.0	19.0	19.0
7202-08-06-NWO-FG	3/4-16	3/8-19	9.9	9.9	32.0	37.0	22.0	19.0
7202-08-08-NWO-FG	3/4-16	1/2-14	9.9	12.3	34.0	43.0	27.0	22.0
7202-08-12-NWO-FG	3/4-16	3/4-14	9.9	15.5	35.9	49.5	36.0	27.0
7202-10-06-NWO-FG	7/8-14	3/8-19	12.3	9.9	37.0	37.0	22.0	22.0
7202-10-08-NWO-FG	7/8-14	1/2-14	12.3	12.3	37.0	43.0	27.0	22.0
7202-10-12-NWO-FG	7/8-14	3/4-14	12.3	15.5	39.0	49.5	36.0	27.0
7202-12-08-NWO-FG	1-1/16-12	1/2-14	15.5	12.3	42.0	49.5	27.0	27.0
7202-12-12-NWO-FG	1-1/16-12	3/4-14	15.5	15.5	42.0	49.5	36.0	27.0
7202-12-16-NWO-FG	1-1/16-12	1-11	15.5	21.5	44.7	52.0	41.0	33.0
7202-16-12-NWO-FG	1-5/16-12	3/4-14	21.5	15.5	46.0	49.5	36.0	33.0
7202-16-16-NWO-FG	1-5/16-12	1-11	21.5	21.5	46.0	52.0	41.0	33.0
7202-16-20-NWO-FG	1-5/16-12	1-1/4-11	21.5	27.5	51.2	57.0	50.0	41.0
7202-20-20-NWO-FG	1-5/8-12	1-1/4-11	27.5	27.5	52.5	57.0	50.0	41.0
7202-24-24-NWO-FG	1-7/8-12	1-1/2-11	33.0	33.0	59.0	60.5	55.0	48.0

International Fittings

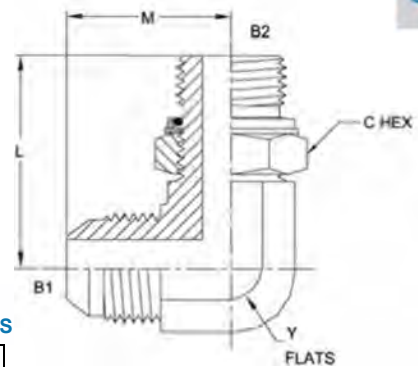
MJ-FBSPPS 90° Elbow 7204 Series



PART NO. SIZE	B1 JIC37	B2 BSPP	B1 DRILL	B2 DRILL	M LGTH	L LOTH	C HEX	Y FLATS
7204-06-06-FG	9/16-18	3/8-19	7.5	7.9	29.2	33.0	22.0	19.0
7204-08-08-FG	3/4-16	1/2-14	9.9	11.1	34.0	38.8	27.0	22.0
7204-12-12-FG	1-1/16-12	3/4-14	15.5	16.7	42.0	42.3	32.0	27.0

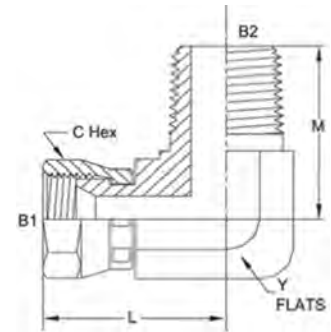
MJ-MMADJ 90° Elbow 7205-NWO Series

G-020



PART NO. SIZE	B1 JIC37	B2 MM	B1 DRILL	B2 DRILL	M LGTH	L LGTH	C HEX	V FLATS
7205-04-10-NWO-FG	7/16-20	MIOxl	4.4	4.5	22.5	25.4	14.0	12.0
7205-04-12-NWO-FG	7/16-20	M12 x 1.5	4.4	6.0	26.7	28.5	17.0	14.0
7205-04-14-NWO-FG	7/16-20	M14 x 1.5	4.4	7.5	26.7	32.5	19.0	14.0
7205-05-10-NWO-FG	1/2-20	MIOxl	6.0	4.5	24.0	25.4	14.0	14.0
7205-05-12-NWO-FG	1/2-20	M12 x 1.5	6.0	6.0	24.0	28.5	17.0	14.0
7205-06-14-NWO-FG	9/16-18	M14 x 1.5	7.5	7.5	27.0	32.5	19.0	14.0
7205-06-16-NWO-FG	9/16-18	M16 x 1.5	7.5	9.0	29.2	36.4	22.0	19.0
7205-08-16-NWO-FG	3/4-16	M16x 1.5	9.9	9.0	32.0	36.4	22.0	19.0
7205-08-18-NWO-FG	3/4-16	M18 x 1.5	9.9	11.0	32.0	36.8	24.0	19.0
7205-08-22-NWO-FG	3/4-16	M22 x 1.5	9.9	14.0	34.0	42.5	27.0	22.0
7205-10-18-NWO-FG	7/8-14	M18 x 1.5	12.3	11.0	37.0	41.0	24.0	22.0
7205-10-20-NWO-FG	7/8-14	M20 x 1.5	12.3	10.0	37.0	41.5	27.0	22.0
7205-10-22-NWO-FG	7/8-14	M22 x 1.5	12.3	14.0	37.0	42.5	27.0	22.0
7205-12-22-NWO-FG	1-1/16-12	M22 x 1.5	15.5	14.0	42.0	44.0	27.0	27.0
7205-12-26-NWO-FG	1-1/16-12	M26 x 1.5	15.5	18.0	42.0	50.0	32.0	27.0
7205-12-27-NWO-FG	1-1/16-12	M27 x 2	15.5	18.0	42.0	50.0	32.0	27.0
7205-12-33-NWO-FG	1-1/16-12	M33 x 2	15.5	23.0	44.7	53.0	41.0	33.0
7205-16-27-NWO-FG	1-5/16-12	M27 x 2	21.5	18.0	46.0	53.0	32.0	33.0
7205-16-33-NWO-FG	1-5/16-12	M33 x 2	21.5	23.0	46.0	53.0	41.0	33.0

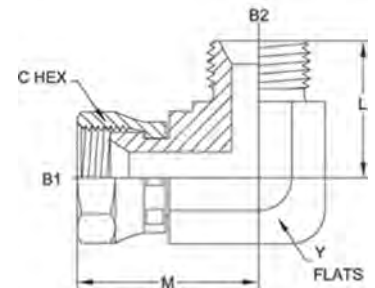
FJS-MBSPT 90° Elbow 7220 Series



PART NO.SIZE	B1 JIC37	B2 BSPT	B1 DRILL	B2 DRILL	L LGTH	M LGTH	C HEX	Y FLATS
7220-06-08-FG	9/16-18	1/2-14	7.5	13.5	31.8	37.0	19.0	22.0

G-021

FJS-MBSPP 90° Elbow 7222 Series

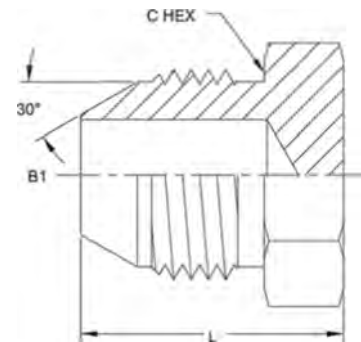


PART NO.SIZE	B1 JIC37	B2 BSPP	B1 DRILL	B2 DRILL	M LGTH	L LGTH	C HEX	Y FLATS
7222-04-04-FG	7/16-20	1/4-19	4.4	4.7	29.1	27.8	14.0	14.0
7222-06-06-FG	9/16-18	3/8-19	7.5	7.9	32.6	31.7	19.0	19.0
7222-06-08-FG	9/16-18	1/2-14	7.5	11.1	35.9	37.0	19.0	22.0
7222-08-06-FG	3/4-16	3/8-19	9.9	7.9	35.1	31.7	22.0	19.0
7222-08-08-FG	3/4-16	1/2-14	9.9	11.1	38.4	37.0	22.0	22.0
7222-10-08-FG	7/8-14	1/2-14	12.3	11.1	41.1	37.0	27.0	22.0
7222-12-12-FG	1-1/16-12	3/4-14	15.5	16.7	44.4	41.6	32.0	27.0

International Fittings

MJIS Plug 7588-P Series

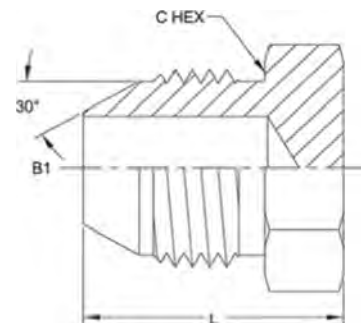
PART NO.SIZE	B1 JIS BSPP	L LGTH	C HEX
7588-P-02	1/8-28	20.0	14.0
7588-P-04	1/4-19	24.0	17.0
7588-P-06	3/8-19	26.0	19.0
7588-P-08	1/2-14	30.0	22.0
7588-P-12	3/4-14	34.0	30.0
7588-P-16	1-11	36.0	36.0



G-022

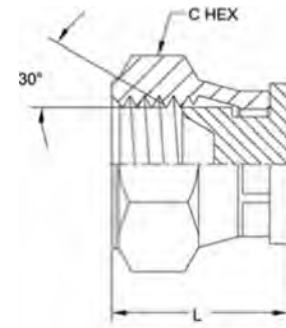
Komatsu MK Plug 7599-P Series

PART NO.SIZE	B1 M K	L LGTH	C HEX
7599-P-14	M14 x 1.5	23.4	17.0
7599-P-18	M18 x 1.5	25.1	22.0
7599-P-22	M22 x 1.5	28.7	24.0
7599-P-24	M24 x 1.5	32.0	27.0
7599-P-30	M30 x 1.5	36.6	32.0
7599-P-33	M33 x 1.5	40.6	38.0



FJIS Cap 7688-C Series

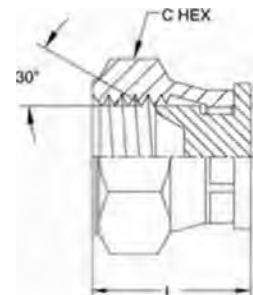
PART NO.SIZE	B1 JIS BSPP	I LGTH	C HEX
7688-C-02	1/8-28	17.90	14
7688-C-04	1/4-19	22.00	19
7688-C-06	3/8-19	22.40	22
7688-C-08	1/2-14	27.40	27
7688-C-12	3/4-14	31.50	32
7688-C-16	1-11	34.50	41



G-023

Komatsu FK Cap 7699-C Series

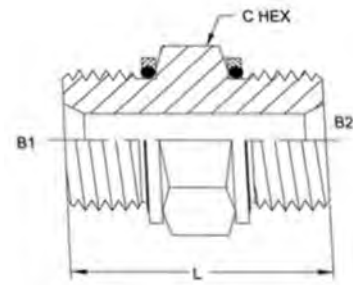
PART NO.SIZE	61 FK	I LGTH	C HEX
7699-C-14	M14x 1.5	20.0	19.0
7699-C-18	M18 x 1.5	23.8	24.0
7699-C-22	M22 x 1.5	28.1	27.0
7699-C-24	M24 x 1.5	31.8	32.0
7699-C-30	M30 x 1.5	29.9	36.0
7699-C-33	M33 x 1.5	39.9	41.0



International Fittings

Metric MM-MM Nipple 8055 Series

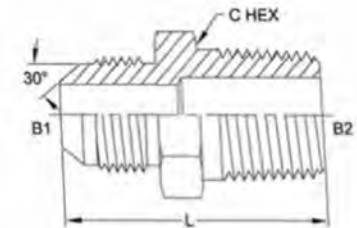
PART NO.SIZE	B1 MM	B2 MM	B1 DRILL	B2 DRILL	L LGTH	C HEX
8055-16-16	M16x 1.5	M16x 1.5	9.0	9.0	32.5	22.0
8055-18-18	M18x 1.5	M18 x 1.5	11.0	11.0	32.5	24.0
8055-20-20	M20 x 1.5	M20 x 1.5	12.5	12.5	35.0	27.0



G-024

MJIS-MBSPT Union 8080 Series

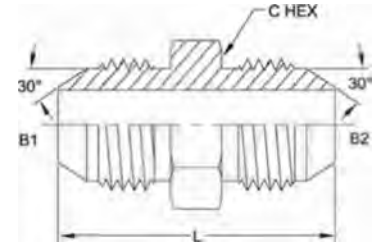
PART NO.SIZE	B1 JIS BSPP	B2 BSPT	B1 DRILL	B2 DRILL	L LGTH	C HEX
8080-04-04	1/4-19	1/4-19	5.0	7.0	38.7	17.0
8080-04-06	1/4-19	3/8-19	5.0	10.3	37.1	19.0
8080-06-04	3/8-19	1/4-19	8.0	7.0	40.7	19.0
8080-06-06	3/8-19	3/8-19	8.0	10.3	40.7	19.0
8080-08-06	1/2-14	3/8-19	11.0	10.3	44.7	22.0
8080-08-08	1/2-14	1/2-14	11.0	13.5	49.5	22.0
8080-12-12	3/4-14	3/4-14	16.0	18.0	53.5	30.0
8080-16-16	1-11	1-11	22.0	23.8	60.4	36.0



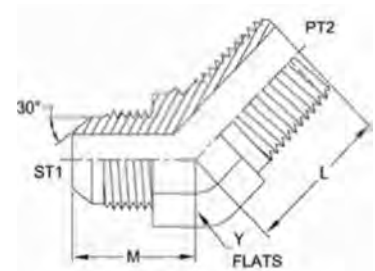
MJIS-MJIS Union

8088 Series

PART NO.SIZE	B1 JISBSPP	B2 JIS BSPP	B1 DRILL	B2 DRILL	L LETH	C HEX
8088-04-04	1/4-19	1/4-19	5.0	5.0	40.0	17.0
8088-06-06	3/8-19	3/8-19	8.0	8.0	44.0	19.0
8088-08-08	1/2-14	1/2-14	11.0	11.0	50.0	22.0
8088-12-12	3/4-14	3/4-14	16.0	16.0	56.0	30.0



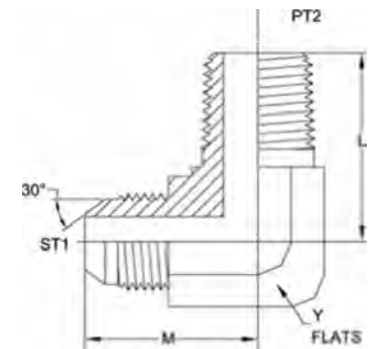
G-025



PART NO.SIZE	ST1 JIS BSPP	PT2 BSPT	ST1 DRILL	PT2 DRILL	M LETH	I LETH	Y FIATS
8180-04-04	1/4-19	1/4-19	5.0	7.0	22.0	19.0	17.0
8180-06-06	3/8-19	3/8-19	8.0	10.3	25.0	22.0	19.0
8180-08-08	1/2-14	1/2-14	11.0	13.5	28.0	26.0	24.0
8180-12-12	3/4-14	3/4-14	16.0	18.0	32.0	30.0	30.0
8180-16-16	1-11	1-11	22.0	23.8	36.0	34.0	36.0

MJIS-MBSPT 90° Elbow

8280 Series

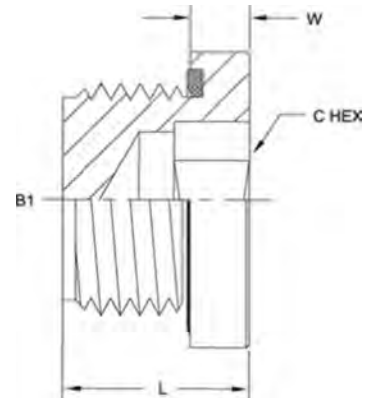


PART NO.SIZE	ST1 JIS BSPP	PT2 BSPT	ST1 DRILL	PT2 DRILL	M LETH	L LETH	Y FIATS
8280-04-04	1/4-19	1/4-19	5.0	7.0	25.0	26.0	17.0
8280-06-06	3/8-19	3/8-19	8.0	10.3	28.0	30.0	19.0
8280-08-08	1/2-14	1/2-14	11.0	13.5	32.0	36.0	24.0
8280-12-12	3/4-14	3/4-14	16.0	18.0	37.0	43.0	30.0
8280-16-16	1-11	1-11	22.0	23.8	42.0	50.0	36.0

International Fittings

Metric MM Hollow Hex Plug 8555-H Series

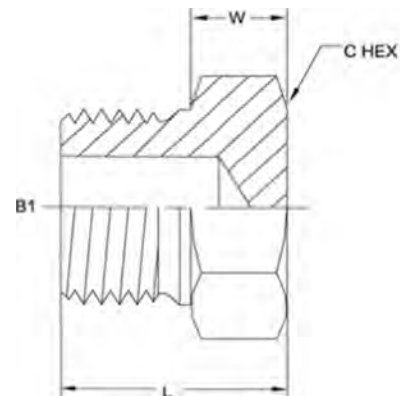
8555-H08-O	M08X1.5	12.3	4.3	5.0
8555-H10-O	M10X 1.5	12.3	4.3	5.0
8555-H12-O	M12X1.5	17.3	5.3	6.0
8555-H14-O	MMX 1.5	17.3	5.3	6.0
8555-H16-O	M16X1.5	17.3	5.3	8.0
8555-H18-O	M18X1.5	17.3	5.3	8.0
8555-H20-O	M20X1.5	19.3	5.3	10.0
8555-H22-O	M22X 1.5	19.3	5.3	10.0
8555-H24-O	M24X1.5	19.3	5.3	10.0
8555-H26-O	M26X1.5	21.3	5.3	12.0
8555-H27-O	M27X2	21.3	5.3	12.0
8555-H33-O	M33X2	22.8	6.8	17.0
8555-H42-O	M42X2	22.8	6.8	22.0



G-026

Metric MM Plug 1.5 Pitch 8555-P Series

PART NO.SIZE	B1 MM	L LGTH	W WIDTH	C HEX
8555-PI 0-0	M10X1	12.0	4.0	14.0
8555-PI 2-0	M12X1.5	16.7	7.0	17.0
8555-PI 4-0	M14X1.5	17.4	8.0	19.0
8555-PI 6-0	M16X1.5	16.4	8.0	22.0
8555-PI 8-0	M18X1.5	17.1	8.0	24.0
8555-P20-O	M20X 1.5	16.8	8.0	27.0
8555-P24-O	M24X1.5	17.6	8.0	33.0
8555-P26-O	M26X1.5	17.6	8.0	33.0
8555-P36-O	M36X1.5	19.6	8.0	46.0

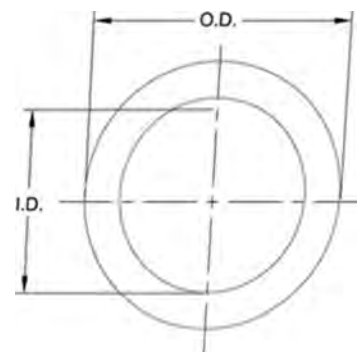


International Fittings

Metric Bonded Seal 8800 Series

PART NO.SIZE	I.D. MM	O.D. LGTH
8800-06	6	10
8800-08	8	13
8800-10	10	18
8800-12	12	20
8800-14	14	22
8800-16	16	24
8800-18	18	26
8800-20	20	28
8800-22	22	30
8800-23	23	31
8800-24	24	32
8800-26	26	35
8800-27	27	36
8800-30	30	39
8800-33	33	43
8800-36	36	46
8800-42	42	53
8800-45	45	56
8800-52	52	64

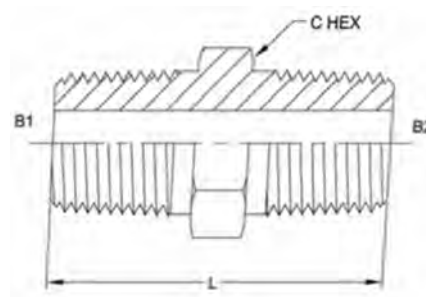
For metric threads



G-027

MBSPT-MBSPT Nipple 9000 Series

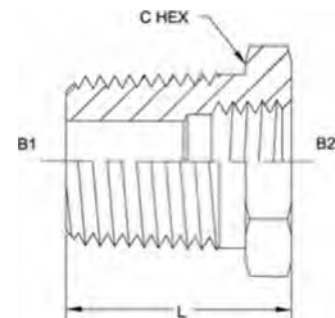
PART NO.SIZE	B1 BSPT	B2 BSPT	B1 DRILL	B2 DRILL	L LGTH	C HEX
9000-02-02	1/8-28	1/8-28	4.8	4.8	26.0	11.0
9000-04-02	1/4-19	1/8-28	7.0	4.8	31.3	14.0
9000-04-04	1/4-19	1/4-19	7.0	7.0	35.8	14.0
9000-06-02	3/8-19	1/8-28	10.3	4.8	31.3	19.0
9000-06-04	3/8-19	1/4-19	10.3	7.0	35.8	19.0
9000-06-06	3/8-19	3/8-19	10.3	10.3	35.8	19.0
9000-08-04	1/2-14	1/4-19	13.5	7.0	42.1	22.0
9000-08-06	1/2-14	3/8-19	13.5	10.3	42.1	22.0
9000-08-08	1/2-14	1/2-14	13.5	13.5	46.9	22.0
9000-10-10	5/8-14	5/8-14	15.0	15.0	53.7	26.0
9000-12-08	3/4-14	1/2-14	18.0	13.5	48.7	27.0
9000-12-12	3/4-14	3/4-14	18.0	18.0	48.7	27.0
9000-16-12	1-11	3/4-14	23.8	18.0	53.6	36.0
9000-16-16	1-11	1-11	23.8	23.8	58.5	36.0
9000-20-20	1-1/4-11	1-1/4-11	31.7	31.7	61.9	42.0
9000-24-24	1-1/2-11	1-1/2-11	38.0	38.0	65.3	50.0
9000-32-32	2-11	2-11	49.0	49.0	70.7	65.0



International Fittings

MBSPT-FBSPT Bushing 9001 Series

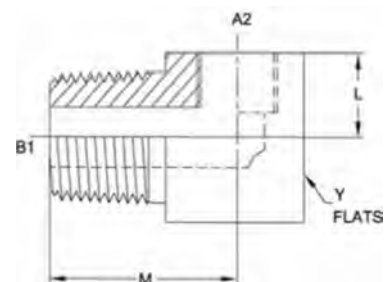
PART NO.SIZE	81 BSPT	B2 BSPT	L LGTH	C HEX
9001-04-02	1/4-19	1/8-28	23.8	14.0
9001-06-02	3/8-19	1/8-28	25.8	19.0
9001-06-04	3/8-19	1/4-19	25.8	19.0
9001-08-04	1/2-14	1/4-19	28.0	22.0
9001-08-06	1/2-14	3/8-19	28.0	22.0
9001-12-06	3/4-14	3/8-19	31.0	27.0
9001-12-08	3/4-14	1/2-14	31.0	27.0
9001-16-12	1-11	3/4-14	34.5	36.0
9001-20-16	1-1/4-11	1-11	40.6	42.0



G-028

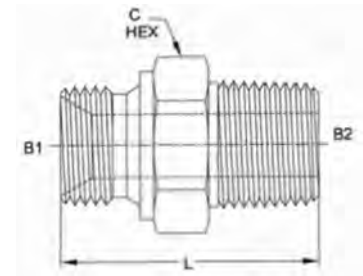
MBSPT-FBSPT 90° Elbow 9002 Series

PART NO.SIZE	B1 BSPT	B2 BSPT	I LGTH	M LGTH	Y FLATS
9002-02-02	1/8-28	1/8-28	8.0	19.0	17.5
9002-04-04	1/4-19	1/4-19	15.0	24.5	19.0



MBSP-BSPT Straight 9020 Series

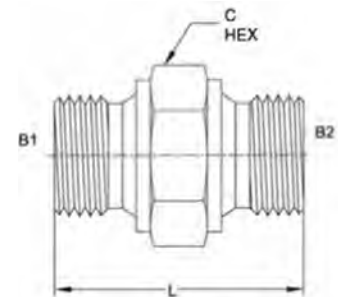
PART NO.SIZE	81 BSPP	B2 BSPT	B1 ORILL	B2 DRILL	L LGTH	C HEX
9020-04-02	1/4-19	1/8-28	4.7	4.8	28.2	19.0
9020-04-04	1/4-19	1/4-19	4.7	7.0	32.7	19.0
9020-04-06	1/4-19	3/8-19	4.7	10.3	32.7	19.0
9020-06-04	3/8-19	1/4-19	7.9	7.0	34.7	22.0
9020-06-06	3/8-19	3/8-19	7.9	10.3	34.7	22.0
9020-08-04	1/2-14	1/4-19	11.1	7.0	38.7	27.0
9020-08-08	1/2-14	1/2-14	11.1	13.5	43.5	27.0
9020-12-12	3/4-14	3/4-14	16.7	18.0	47.5	32.0
9020-16-16	1-11	1-11	22.2	23.8	58.4	41.0
9020-20-20	1-1/4-11	1-1/4-11	28.6	31.7	64.1	50.0
9020-24-24	1-1/2-11	1-1/2-11	33.3	38.0	70.9	55.0
9020-32-32	2-11	2-11	46.0	49.0	80.7	70.0



G-029

MBSP-BSPP Nipple 9022 Series

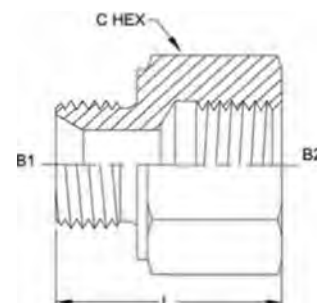
PART NO.SIZE	B1 BSPP	B2 BSPP	B1 DRILL	B2 DRILL	L LGTH	C HEX
9022-02-02	1/8-28	1/8-28	3.5	3.5	21.0	14.0
9022-04-02	1/4-19	1/8-28	4.7	3.5	26.0	19.0
9022-04-04	1/4-19	1/4-19	4.7	4.7	29.0	19.0
9022-06-02	3/8-19	1/8-28	7.9	3.5	28.0	22.0
9022-06-04	3/8-19	1/4-19	7.9	4.7	31.0	22.0
9022-06-06	3/8-19	3/8-19	7.9	7.9	32.0	22.0
9022-08-02	1/2-14	1/8-28	11.1	3.5	32.0	27.0
9022-08-04	1/2-14	1/4-19	11.1	4.7	35.0	27.0
9022-08-06	1/2-14	3/8-19	11.1	7.9	36.0	27.0
9022-08-08	1/2-14	1/2-14	11.1	11.1	38.0	27.0
9022-10-04	5/8-14	1/4-19	14.3	4.7	39.0	30.0
9022-10-06	5/8-14	3/8-19	14.3	7.9	40.0	30.0
9022-10-08	5/8-14	1/2-14	14.3	11.1	42.0	30.0
9022-10-10	5/8-14	5/8-14	14.3	14.3	44.0	30.0
9022-12-06	3/4-14	3/8-19	16.7	7.9	40.0	32.0
9022-12-08	3/4-14	1/2-14	16.7	11.1	42.0	32.0
9022-12-10	3/4-14	5/8-14	16.7	14.3	44.0	32.0
9022-12-12	3/4-14	3/4-14	16.7	16.7	44.0	32.0
9022-16-08	1-11	1/2-14	22.2	11.1	48.0	41.0
9022-16-10	1-11	5/8-14	22.2	14.3	50.0	41.0
9022-16-12	1-11	3/4-14	22.2	16.7	50.0	41.0
9022-16-16	1-11	1-11	22.2	22.2	53.0	41.0
9022-20-16	1-1/4-11	1-11	28.6	22.2	58.0	50.0
9022-20-12	1-1/4-11	3/4-14	28.6	16.7	55.0	50.0
9022-20-16	1-1/4-11	1-11	28.6	22.2	58.0	50.0
9022-20-20	1-1/4-11	1-1/4-11	28.6	28.6	59.0	50.0
9022-24-16	1-1/2-11	1-11	33.3	22.2	64.0	55.0
9022-24-20	1-1/2-11	1-1/4-11	33.3	28.6	65.0	55.0
9022-24-24	1-1/2-11	1-1/2-11	33.3	33.3	67.0	55.0
9022-32-16	2-11	1-11	46.0	22.2	73.0	70.0
9022-32-20	2-11	1-1/4-11	46.0	28.6	74.0	70.0
9022-32-24	2-11	1-1/2-11	46.0	33.3	76.0	70.0
9022-32-32	2-11	2-11	46.0	46.0	79.0	70.0



International Fittings

MBSP-BSPP 9023 Series

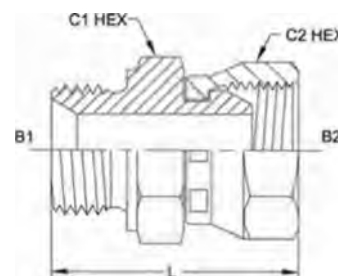
PART NO.SIZE	B1 BSPP	B2 BSPP	B1 DRILL	L LGTH	C HEX
9023-04-02	1/4-19	11/8-28	4.7	18.0	19.0
9023-04-04	1/4-19	1/4-19	4.7	18.0	19.0
9023-04-06	1/4-19	3/8-19	4.7	32.0	22.0
9023-06-02	3/8-19	1/8-28	7.9	20.0	22.0
9023-06-04	3/8-19	1/4-19	7.9	20.0	22.0
9023-06-06	3/8-19	3/8-19	7.9	20.0	22.0
9023-06-08	3/8-19	1/2-14	7.9	35.0	27.0
9023-08-04	1/2-14	1/4-19	11.1	24.0	27.0
9023-08-06	1/2-14	3/8-19	11.1	24.0	27.0
9023-08-08	1/2-14	1/2-14	11.1	24.0	27.0
9023-08-12	1/2-14	3/4-14	11.1	42.0	32.0
9023-08-16	1/2-14	1-11	11.1	45.0	41.0
9023-12-04	3/4-14	1/4-19	16.7	28.0	32.0
9023-12-06	3/4-14	3/8-19	16.7	28.0	32.0
9023-12-08	3/4-14	1/2-14	16.7	28.0	32.0
9023-12-12	3/4-14	3/4-14	16.7	28.0	32.0
9023-12-16	3/4-14	1-11	16.7	47.0	41.0
9023-16-08	1-11	1/2-14	22.2	34.0	41.0
9023-16-12	1-11	3/4-14	22.2	34.0	41.0
9023-16-20	1-11	1-1/4-11	22.2	55.0	50.0
9023-20-12	1-1/4-11	3/4-14	28.6	39.0	50.0
9023-20-16	1-1/4-11	1-11	28.6	39.0	50.0
9023-24-16	1-1/2-11	1-11	33.3	45.0	55.0
9023-24-20	1-1/2-11	1-1/4-11	33.3	45.0	55.0
9023-32-16	2-11	1-11	46.0	54.0	70.0



G-030

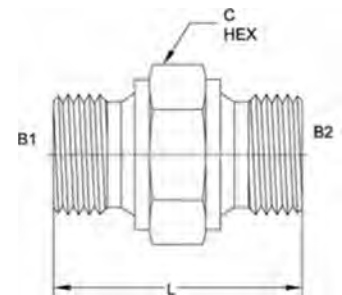
MBSP-BSPPS 9024 Series

PART NO.SIZE	B1 BSPP	B2 BSPP	B1 DRILL	62 ORILL	L LGTH	C1 HEX	C2 HEX
9024-02-02	1/8-28	1/8-28	3.5	3.5	29.0	14.0	3.5
9024-04-02	1/4-19	1/8-28	4.7	3.5	34.0	19.0	3.5
9024-04-04	1/4-19	1/4-19	4.7	4.7	35.0	19.0	4.7
9024-04-06	1/4-19	3/8-19	4.7	7.9	37.0	19.0	7.9
9024-06-04	3/8-19	1/4-19	7.9	4.7	37.0	22.0	4.7
9024-06-06	3/8-19	3/8-19	7.9	7.9	39.0	22.0	7.9
9024-08-06	1/2-14	3/8-19	11.1	7.9	43.0	27.0	7.9
9024-08-08	1/2-14	1/2-14	11.1	11.1	46.0	27.0	11.1
9024-08-12	1/2-14	3/4-14	11.1	16.7	49.0	27.0	16.7
9024-08-16	1/2-14	1-11	11.1	22.2	61.0	33.0	22.2
9024-10-10	5/8-14	5/8-14	14.3	14.3	53.0	30.0	14.3
9024-12-08	3/4-14	1/2-14	16.7	11.1	50.0	32.0	11.1
9024-12-12	3/4-14	3/4-14	16.7	16.7	53.0	32.0	16.7
9024-12-16	3/4-14	1-11	16.7	22.2	63.0	33.0	22.2
9024-16-16	1-11	1-11	22.2	22.2	66.0	41.0	22.2
9024-16-20	1-11	1-1/4-11	22.2	28.6	67.0	41.0	28.6
9024-20-20	1-1/4-11	1-1/4-11	28.6	28.6	72.0	50.0	28.6
9024-24-24	1-1/2-11	1-1/2-11	33.3	33.3	82.0	55.0	33.3



Metric MBSP-**MM** Nipple

9025 Series

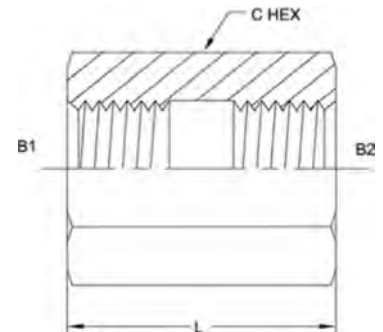


PART NO.SIZE	B1 BSPP	B2 MM	B1 DRILL	B2 DRILL	L LCTH	C HEX
9025-04-14	1/4-19	M14x 1.5	4.7	7.5	30.0	19.0
9025-04-18	1/4-19	M18x 1.5	4.7	11.0	31.5	24.0
9025-06-12	3/8-19	M12x 1.5	7.9	6.0	32.0	22.0
9025-06-16	3/8-19	M16x 1.5	7.9	9.0	32.0	22.0
9025-06-18	3/8-19	M18x 1.5	7.9	11.0	32.5	24.0
9025-06-20	3/8-19	M20x 1.5	7.9	12.5	33.0	27.0
9025-06-24	3/8-19	M24x 1.5	7.9	15.5	37.5	32.0
9025-08-18	1/2-14	M18x 1.5	11.1	11.0	36.0	27.0
9025-12-18	3/4-14	M18x 1.5	16.7	11.0	40.0	32.0
9025-12-20	3/4-14	M20 x 1.5	16.7	12.5	42.0	32.0
9025-12-22	3/4-14	M22x 1.5	16.7	14.0	42.0	32.0
9025-12-26	3/4-14	M26x 1.5	16.7	18.0	44.0	32.0
9025-12-30	3/4-14	M30 x 2	16.7	21.0	46.0	36.0

G-031

FBSP-**FBSP** Coupling

9033 Series

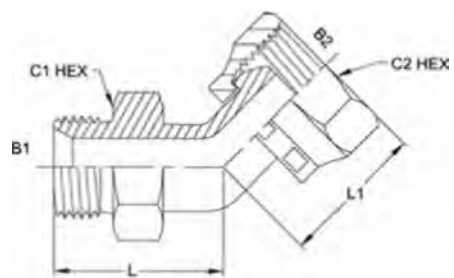


PART NO.SIZE	B1 BSPP	B2 BSPP	L LGTH	C HEX
9033-02-02	1/8-28	1/8-28	19.0	14.0
9033-04-02	1/4-19	1/8-28	28.7	19.0
9033-04-04	1/4-19	1/4-19	28.7	19.0
9033-06-04	3/8-19	1/4-19	28.7	22.0
9033-06-06	3/8-19	3/8-19	28.7	22.0
9033-08-06	1/2-14	3/8-19	38.1	27.0
9033-08-08	1/2-14	1/2-14	38.1	27.0
9033-10-08	5/8-14	1/2-14	38.2	30.0
9033-10-10	5/8-14	5/8-14	38.2	30.0
9033-12-08	3/4-14	1/2-14	38.9	32.0
9033-12-12	3/4-14	3/4-14	38.9	32.0
9033-16-12	1-11	3/4-14	48.0	41.0
9033-16-16	1-11	1-11	48.0	41.0
9033-20-20	1-1/4-11	1-1/4-11	49.0	50.0
9033-24-24	1-1/2-11	1-1/2-11	49.0	55.0
9033-32-32	2-11	2-11	49.8	70.0

International Fittings

MBSP-PP-FBSP-PS

Swept 45° 9124 Series

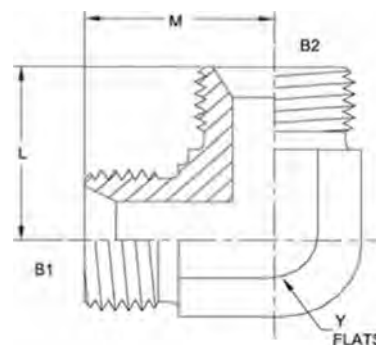


PART NO.SIZE	B1 BSPP	B2 BSPP	B1 DRILL	B2 DRILL	L LGTH	LI LETH	CI HEX	C2 HEX
9124-04-04	1/4-19	1/4-19	4.7	4.7			19.0	19.0
9124-06-06	3/8-19	3/8-19	7.9	7.9			22.0	22.0
9124-08-08	1/2-14	1/2-14	11.1	11.1	38.0	40.0	27.0	27.0

G-032

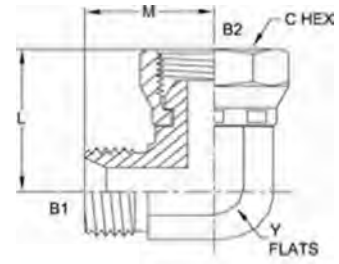
MBSP-PP-MBSP-PP 90

9222 Series



PART ND.SIZE	B1 BSPP	B2 BSPP	B1 DRILL	B2 DRILL	L LGTH	M LGTH	Y FLATS
9222-04-04-FG	1/4-19	1/4-19	4.7	4.7	27.8	27.8	14.0
9222-06-06-FG	3/8-19	3/8-19	7.9	7.9	31.7	31.7	19.0
9222-08-08-FG	1/2-14	1/2-14	11.1	11.1	37.0	37.0	22.0
9222-12-12-FG	3/4-14	3/4-14	16.7	16.7	41.6	41.6	27.0
9222-16-16-FG	1-11	1-11	22.2	22.2	49.7	49.7	33.0

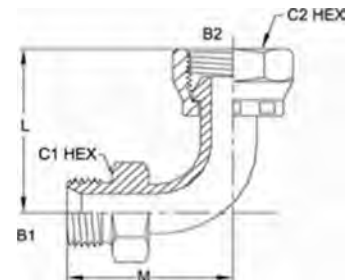
MBSP-BSPPS 90° 9224 Series



PART NO. SIZE	B1 BSPP	B2 BSPP	B1 DRILL	B2 DRILL	M LETH	I LGTH	C HEX	Y FLATS
9224-02-02-FG	1/8-28	1/8-28	3.5	3.5	16.6	22.0	14.0	11.0
9224-04-04-FG	1/4-19	1/4-19	4.7	4.7	27.8	31.2	19.0	14.0
9224-06-06-FG	3/8-19	3/8-19	7.9	7.9	31.7	36.2	22.0	19.0
9224-08-08-FG	1/2-14	1/2-14	11.1	11.1	37.0	41.0	27.0	22.0
9224-12-12-FG	3/4-14	3/4-14	16.7	16.7	41.6	45.3	32.0	27.0
9224-16-16-FG	1-11	1-11	22.2	22.2	49.7	53.9	41.0	33.0
9224-20-20-FG	1-1/4-11	1-1/4-11	28.6	28.6	54.4	60.0	50.0	41.0
9224-24-24-FG	1-1/2-11	1-1/2-11	33.3	33.3	53.7	63.3	55.0	48.0

G-033

MBSP-BSPPS 90° Long 9224-L Series

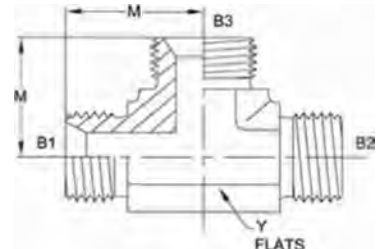


PART NO. SIZE	B1 BSPP	B2 BSPP	B1 DRILL	B2 DRILL	L LETH	M LGTH	C1 HEX	C2 HEX
9224-L-06-06	3/8-19	3/8-19	7.9	7.9			22.0	22.0
9224-L-08-08	1/2-14	1/2-14	11.1	11.1	50.0	53.5	27.0	27.0
9224-L-12-12	3/4-14	3/4-14	16.7	16.7			32.0	32.0
9224-L-16-16	1-11	1-11	22.2	22.2	75.0	72.0	41.0	41.0
9224-L-24-24	1-1/2-11	1-1/2-11	33.3	33.3	104.0	100.0	55.0	55.0

International Fittings

MBSP- MBSP- MBSP Tee 9322 Series

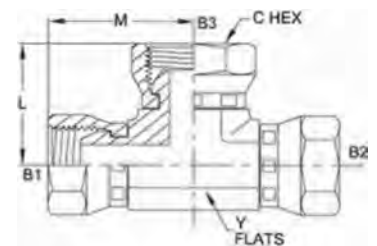
PART NO. SIZE	B1 BSPP	B2 BSPP	B3 BSPP	M LOTH	Y FLATS
9322-04-04-04-FG	1/4-19	1/4-19	1/4-19	27.8	14.0
9322-06-06-06-FG	3/8-19	3/8-19	3/8-19	31.7	19.0
9322-08-08-08-FG	1/2-14	1/2-14	1/2-14	37.0	22.0
9322-12-12-12-FG	3/4-14	3/4-14	3/4-14	41.6	27.0
9322-16-16-16-FG	1-11	1-11	1-11	49.7	33.0
9322-20-20-20-FG	1-1/4-11	1-1/4-11	1-1/4-11	54.4	41.0



G-034

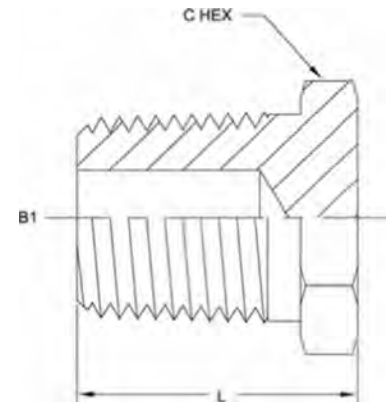
FBSP- FBSP- FBSP Tee 9344 Series

PART NO. SIZE	B1 BSPP	B2 BSPP	B2 BSPP	L LGTH	M LGTH	C HEX	Y FLATS
9344-02-02-02-FG	1/8-28	1/8-28	1/8-28	21.0	21.0	14.0	11.0
9344-04-04-04-FG	1/4-19	1/4-19	1/4-19	30.5	30.5	19.0	14.0
9344-06-06-06-FG	3/8-19	3/8-19	3/8-19	33.0	33.0	22.0	19.0
9344-08-08-08-FG	1/2-14	1/2-14	1/2-14	38.8	38.8	27.0	22.0
9344-12-12-12-FG	3/4-14	3/4-14	3/4-14	42.3	42.3	32.0	27.0
9344-16-16-16-FG	1-11	1-11	1-11	49.0	49.0	41.0	33.0



MBSPT Plug 9500-P Series

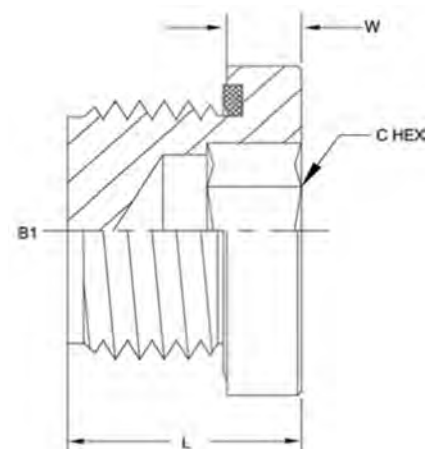
PART NO.SIZE	B1 BSPT	L LGTH	C HEX
9500-P-02	1/8-28	15.8	11.0
9500-P-04	1/4-19	21.1	14.0
9500-P-06	3/8-19	21.1	19.0
9500-P-08	1/2-14	27.4	22.0
9500-P-10	5/8-14	31.4	26.0
9500-P-12	3/4-14	29.2	27.0
9500-P-16	1-11	34.1	36.0
9500-P-20	1-1/4-11	36.8	42.0
9500-P-24	1-1/2-11	39.4	50.0
9500-P-32	2-11	44.0	65.0



G-035

MBSPH Hollow Hex Plug 9522-H Series

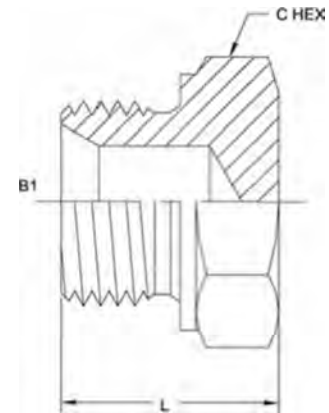
PART NO.SIZE	B1 BSPP	L LGTH	C HEX
9522-H-02-O	1/8-28	12.1	5.0
9522-H-04-O	1/4-19	16.6	6.0
9522-H-06-O	3/8-19	17.0	8.0
9522-H-08-O	1/2-14	19.0	10.0
9522-H-10-O	5/8-14	21.2	12.0
9522-H-12-O	3/4-14	21.2	12.0
9522-H-16-O	1-11	22.5	17.0
9522-H-20-O	1-1/4-11	22.5	22.0



International Fittings

MBSP Hex Plug 9522-P Series

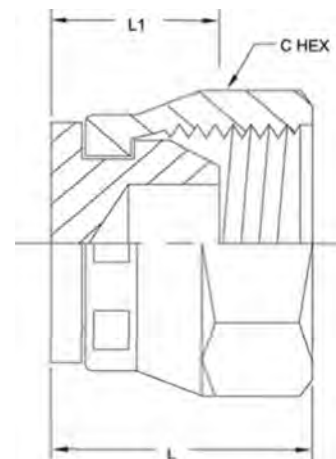
PART NO.SIZE	B1 BSPP	I LGTH	C HEX
9522-P-02	1/8-28	15.5	14.0
9522-P-04	1/4-19	17.0	19.0
9522-P-06	3/8-19	18.5	22.0
9522-P-08	1/2-14	20.0	27.0
9522-P-10	5/8-14	26.7	30.0
9522-P-12	3/4-14	26.7	32.0
9522-P-16	1-11	30.2	41.0
9522-P-20	1-1/4-11	38.7	50.0
9522-P-24	1-1/2-11	42.7	55.0
9522-P-32	2-11	48.2	70.0
9522-P-48	3-11	41.9	94.8



G-036

FBSP Cap 9644-C Series

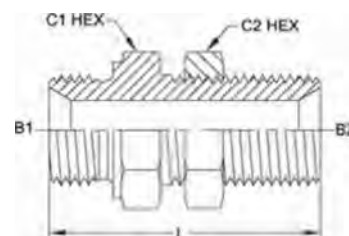
PART NO.SIZE	B1 BSPP	L LGTH	11 LGTH	C HEX
9644-C-02	1/8-28	16.0	11.9	14.0
9644-C-04	1/4-19	20.6	15.1	19.0
9644-C-06	3/8-19	22.3	15.8	22.0
9644-C-08	1/2-14	26.3	18.6	27.0
9644-C-10	5/8-14	26.6	17.1	30.0
9644-C-12	3/4-14	28.0	19.0	32.0
9644-C-16	1-11	33.6	20.5	41.0
9644-C-20	1-1/4-11	36.0	25.5	50.0
9644-C-24	1-1/2-11	38.0	24.6	55.0
9644-C-32	2-11	41.3	26.0	70.0



MBSP-BSPP

Bulkhead

9722-LN Series



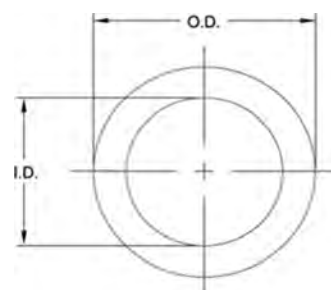
PART NO.SIZE	B1 BSPP	B2 BSPP	B1 DRILL	B2 DRILL	L LGTH	C1 HEX	C2 HEX
9722-04-04-LN	1/4-19	1/4-19	4.7	4.7	46.0	19.0	19.0
9722-04-06-LN	1/4-19	3/8-19	4.7	7.9	51.0	22.0	22.0
9722-06-06-LN	3/8-19	3/8-19	7.9	7.9	52.0	22.0	22.0
9722-06-08-LN	3/8-19	1/2-14	7.9	11.1	57.0	27.0	27.0
9722-08-08-LN	1/2-14	1/2-14	11.1	11.1	59.0	27.0	27.0
9722-10-10-LN	5/8-14	5/8-14	14.3	14.3	63.0	30.0	30.0
9722-12-12-LN	3/4-14	3/4-14	16.7	16.7	66.0	32.0	32.0
9722-16-16-LN	1-11	1-11	22.2	22.2	75.0	41.0	41.0

G-037

British Bonded Seal

9900 Series

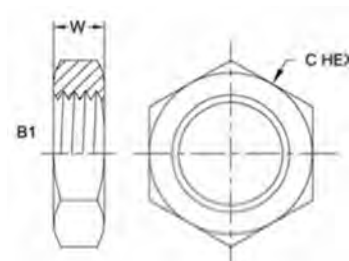
PART NO.SIZE	I.D.	O.D.
9900-02	0.408	0.625
9900-04	0.540	0.809
9900-06	0.682	0.937
9900-08	0.850	1.125
9900-10	0.925	1.250
9900-12	1.062	1.375
9900-16	1.338	1.687
9900-20	1.699	2.063
9900-24	1.910	2.310
9900-32	2.389	2.875



BSPP Locknut

9925 Series

PART NO.SIZE	B1 BSPP	W WIDTH	C HEX
9925-04	1/4-19	7.1	19.00
9925-06	3/8-19	7.1	22.00
9925-08	1/2-14	8.6	27.00
9925-10	5/8-14	8.6	30.00
9925-12	3/4-14	8.6	36.00
9925-16	1-11	11.9	41.00
9925-20	1-1/4-11	11.9	50.00
9925-24	1-1/2-11	11.9	55.00
9925-32	2-11	11.9	70.00





NWD Technology Fittings

NWD® Technology Fittings

Patented NWD® Technology is an innovative feature available on many of the hydraulic fittings and pressure connections available from Brennan. Products from Brennan that include this new technology are engineered with multiple seals to provide protection against leakage and “weeps.” this unique, multiple-seal design incorporates metal-to-metal sealing, as well as an elastomeric seal. Each seal works independently of the other. Thus, in the unlikely event that one seal should fail, the other serves as a backup to stop leaks.

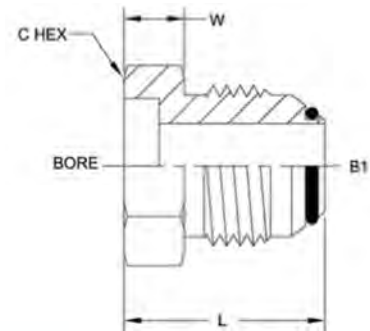
 F0403 Bore-FO Straight	 F0500 Bore-FO 90°	 F0600 Bore-Bore-FO	 F2403 FO-FO Straight	 F2403-LH FO-FO Straight Large Hex	 F2404 FO-MP Straight
 F2405 FO-FP Straight	 F2406 FJ-FO Straight Reducer	 F2408 FO Plug	 F2500 FO-FO 90°	 F2501 FO-MP 90°	 F2501-L FO-MP 90° Long
 F2501-LL FO-MP 90° X-Long	 F2501-LLL FO-MP 90° XX-Long	 F2502 FO-FP 90°	 F2503 FO-MP 45°	 F2601 FO-FO-MP Tee	 F2602 FO-FO-FP Tee
 F2603 FO-FO-FO Tee	 F2605 FO-MP-FO Tee	 F2606 FO-FP-FO Tee	 F2650 FO-FO-FO-FO Cross	 F2700 FO-FO Bulkhead Straight	 F2701 FO-FO Bulkhead 90°
 F2702 FO-FO Bulkhead 45°	 F2703 FO-FO-FO Bulkhead Branch Tee	 F2706 MP-FO Bulkhead Straight	 F4003 Flare-O Buna O-Ring	 F4004 Flare-O Viton O-Ring	 F6400-0 FO-MORB Straight
 F6400-L-0 FO-MORB Straight Long	 F6500 FO-FJS 90°	 F6502 FO-FJS 45°	 F6600 FO-FO-FJS Tee	 F6602 FO-FJS-FO Tee	 F6801-NWD FO-MAORB 90°

NWD Technology Fittings

 F6801-L-NWD FO-MAORB 90° Long	 F6801-LL-NWD FO-MAORB 90° X-Long	 F6802-NWD FO-MAORB 45°	 F6803-NWD FO-FO-MAORB Branch Tee	 F6804-NWD FO-MAORB-FO Run Tee	

H-002

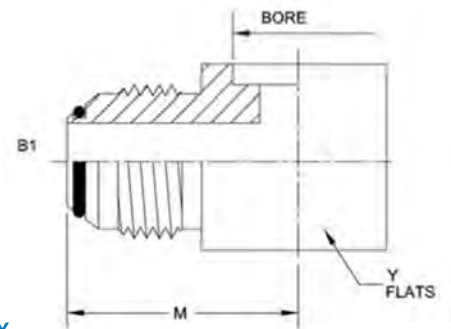
Bore-FO Straight F0403 Series



PART NO.SIZE	TUBE O.D.	B1 THREAD	BORE	B1 DRILL	L LGTH	W WIDTH	C HEX
F0403-04-04-0	1/4	7/16-20	0.256	0.172	0.796	0.220	0.500
F0403-06-06-0	3/8	9/16-18	0.381	0.297	0.843	0.250	0.625
F0403-08-08-0	1/2	3/4-16	0.506	0.391	0.937	0.250	0.812
F0403-10-10-0	5/8	7/8-14	0.631	0.484	1.093	0.310	0.937
F0403-12-12-0	3/4	1-1/16-12	0.757	0.609	1.281	0.380	1.250
F0403-14-14-0	7/8	1-3/16-12	0.882	0.719	1.312	0.380	1.375
F0403-16-16-0	1	1-5/16-12	1.007	0.844	1.328	0.380	1.375
F0403-20-20-0	1-1/4	1-5/8-12	1.258	1.078	1.453	0.460	1.688
F0403-24-24-0	1-1/2	1-7/8-12	1.508	1.312	1.656	0.530	2.000
F0403-32-32-0	2	2-1/2-12	2.008	1.781	2.046	0.680	2.625

H-003

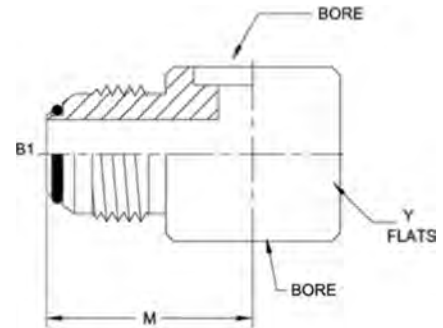
Bore-FO 90° F0500 Series



PART NO.SIZE	TUBE O.D.	BORE	B1 THREAD	B1 DRILL	M LGTH	Y FLATS
F0500-04-04-0	1/4	0.256	7/16-20	0.172	0.890	0.500
F0500-05-05-0	5/16	0.319	1/2-20	0.234	0.953	0.562
F0500-06-06-0	3/8	0.381	9/16-18	0.297	1.062	0.625
F0500-08-08-0	1/2	0.506	3/4-16	0.391	1.250	0.812
F0500-10-10-0	5/8	0.631	7/8-14	0.484	1.453	0.937
F0500-12-12-0	3/4	0.757	1-1/16-12	0.609	1.656	1.125
F0500-14-14-0	7/8	0.882	1-3/16-12	0.719	1.734	1.250
F0500-16-16-0	1	1.007	1-5/16-12	0.844	1.812	1.375
F0500-20-20-0	1-1/4	1.258	1-5/8-12	1.078	2.062	1.750
F0500-24-24-0	1-1/2	1.508	1-7/8-12	1.312	2.328	2.000
F0500-32-32-0	2	2.008	2-1/2-12	1.781	3.062	2.625

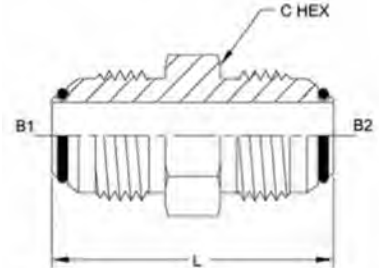
NWD Technology Fittings

Bore-Bore-FO F0600 Series



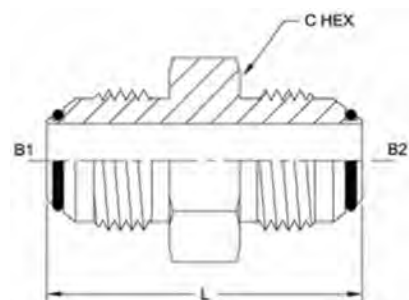
PART NO.SIZE	TUBE O.D.	BORE	B1 THREAD	B1 DRILL	M LBTH	Y FLATS
F0600-04-04-0	1/4	0.256	7/16-20	0.172	0.890	0.500
F0600-05-05-0	5/16	0.319	1/2-20	0.234	0.953	0.562
F0600-06-06-0	3/8	0.381	9/16-18	0.297	1.062	0.625
F0600-08-08-0	1/2	0.506	3/4-16	0.391	1.250	0.812
F0600-10-10-0	5/8	0.631	7/8-14	0.484	1.453	0.937
F0600-12-12-0	3/4	0.757	1-1/16-12	0.609	1.656	1.125
F0600-14-14-0	7/8	0.882	1-3/16-12	0.719	1.734	1.250
F0600-16-16-0	1	1.007	1-5/16-12	0.844	1.812	1.375
F0600-20-20-0	1-1/4	1.258	1-5/8-12	1.078	2.062	1.750
F0600-24-24-0	1-1/2	1.508	1-7/8-12	1.312	2.328	2.000

FO-FO Straight F2403 Series



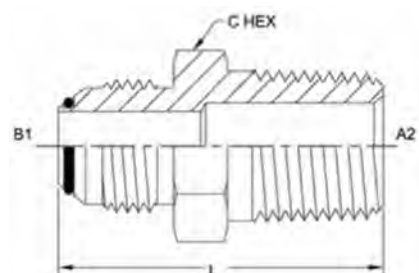
PART NO.SIZE	B1 TUBE O.D.	B2 TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	L LGTH	C HEX
F2403-04-04-0	1/4	1/4	7/16-20	7/16-20	0.172	0.172	1.37	0.500
F2403-05-05-0	5/16	5/16	1/2-20	1/2-20	0.234	0.234	1.37	0.562
F2403-06-04-0	3/8	1/4	9/16-18	7/16-20	0.297	0.172	1.40	0.625
F2403-06-05-0	3/8	5/16	9/16-18	1/2-20	0.297	0.234	1.40	0.625
F2403-06-06-0	3/8	3/8	9/16-18	9/16-18	0.297	0.297	1.41	0.625
F2403-08-06-0	1/2	3/8	3/4-16	9/16-18	0.391	0.297	1.52	0.812
F2403-08-08-0	1/2	1/2	3/4-16	3/4-16	0.391	0.391	1.62	0.812
F2403-10-06-0	5/8	3/8	7/8-14	9/16-18	0.484	0.297	1.68	0.937
F2403-10-08-0	5/8	1/2	7/8-14	3/4-16	0.484	0.391	1.78	0.937
F2403-10-10-0	5/8	5/8	7/8-14	7/8-14	0.484	0.484	1.88	0.937
F2403-12-08-0	3/4	1/2	1-1/16-12	3/4-16	0.609	0.391	1.95	1.125
F2403-12-10-0	3/4	5/8	1-1/16-12	7/8-14	0.609	0.484	2.05	1.125
F2403-12-12-0	3/4	3/4	1-1/16-12	1-1/16-12	0.609	0.609	2.16	1.125
F2403-14-14-0	7/8	7/8	1-3/16-12	1-3/16-12	0.719	0.719	2.21	1.250
F2403-16-08-0	1	1/2	1-5/16-12	3/4-18	0.844	0.391	2.00	1.375
F2403-16-12-0	1	3/4	1-5/16-12	1-1/16-12	0.844	0.609	2.20	1.375
F2403-16-16-0	1	1	1-5/16-12	1-5/16-12	0.844	0.844	2.25	1.375
F2403-20-16-0	1-1/4	1	1-5/8-12	1-5/16-12	1.078	0.844	2.38	1.688
F2403-20-20-0	1-1/4	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.43	1.688
F2403-24-16-0	1-1/2	1	1-7/8-12	1-5/16-12	1.312	0.844	2.58	2.000
F2403-24-24-0	1-1/2	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.75	2.000
F2403-32-32-0	2	2	2-1/2-12	2-1/2-12	1.781	1.781	3.40	2.625

FO-FO Straight Large Hex F2403-LH Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	L LGTH	C HEX
F2403-LH-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	1.37	0.688
F2403-LH-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	1.41	0.812
F2403-LH-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.62	1.000
F2403-LH-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.88	1.125
F2403-LH-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	2.16	1.375
F2403-LH-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	2.25	1.625
F2403-LH-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.43	1.875
F2403-LH-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.75	2.125

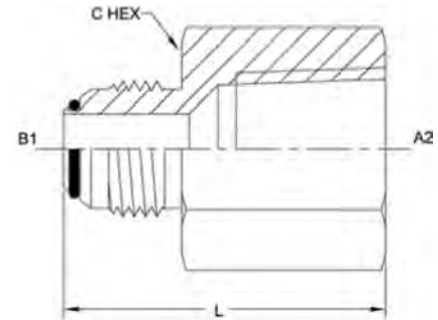
FO-MP Straight F2404 Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	L LGTH	C HEX
F2404-04-02-0	1/4	7/16-20	1/8-27	0.172	0.188	1.22	0.500
F2404-04-04-0	1/4	7/16-20	1/4-18	0.172	0.281	1.42	0.625
F2404-04-06-0	1/4	7/16-20	3/8-18	0.172	0.406	1.42	0.812
F2404-04-08-0	1/4	7/16-20	1/2-14	0.172	0.531	1.68	0.875
F2404-05-02-0	5/16	1/2-20	1/8-27	0.234	0.188	1.22	0.562
F2404-05-04-0	5/16	1/2-20	1/4-18	0.234	0.281	1.42	0.625
F2404-05-06-0	5/16	1/2-20	3/8-18	0.234	0.406	1.42	0.812
F2404-06-02-0	3/8	9/16-18	1/8-27	0.297	0.188	1.24	0.625
F2404-06-04-0	3/8	9/16-18	1/4-18	0.297	0.281	1.43	0.625
F2404-06-06-0	3/8	9/16-18	3/8-18	0.297	0.406	1.43	0.812
F2404-06-08-0	3/8	9/16-18	1/2-14	0.297	0.531	1.69	0.875
F2404-06-12-0	3/8	9/16-18	3/4-14	0.297	0.719	1.75	1.125
F2404-08-04-0	1/2	3/4-16	1/4-18	0.391	0.281	1.53	0.812
F2404-08-06-0	1/2	3/4-16	3/8-18	0.391	0.406	1.53	0.812
F2404-08-08-0	1/2	3/4-16	1/2-14	0.391	0.531	1.79	0.937
F2404-08-12-0	1/2	3/4-16	3/4-14	0.391	0.719	1.85	1.125
F2404-08-16-0	1/2	3/4-16	1-11-1/2	0.391	0.938	2.05	1.375
F2404-10-06-0	5/8	7/8-14	3/8-18	0.484	0.406	1.70	0.937
F2404-10-08-0	5/8	7/8-14	1/2-14	0.484	0.531	1.89	0.937
F2404-10-12-0	5/8	7/8-14	3/4-14	0.484	0.719	1.95	1.125
F2404-12-08-0	3/4	1-1/16-12	1/2-14	0.609	0.531	2.06	1.125
F2404-12-12-0	3/4	1-1/16-12	3/4-14	0.609	0.719	2.06	1.125
F2404-12-16-0	3/4	1-1/16-12	1-11-1/2	0.609	0.938	2.25	1.375
F2404-14-12-0	7/8	1-3/16-12	3/4-14	0.719	0.719	2.09	1.250
F2404-16-12-0	1	1-5/16-12	3/4-14	0.844	0.719	2.11	1.375
F2404-16-16-0	1	1-5/16-12	1-11-1/2	0.844	0.938	2.30	1.375
F2404-16-20-0	1	1-5/16-12	1-1/4-11-1/2	0.844	1.250	2.40	1.688
F2404-20-16-0	1-1/4	1-5/8-12	1-11-1/2	1.078	0.938	2.42	1.688
F2404-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.45	1.688
F2404-20-24-0	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	1.500	2.55	2.000
F2404-24-20-0	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.250	2.65	2.000
F2404-24-24-0	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.68	2.000
F2404-32-32-0	2	2 1/2-12	2-11 1/2	1.781	1.938	3.11	2.625

NWD Technology Fittings

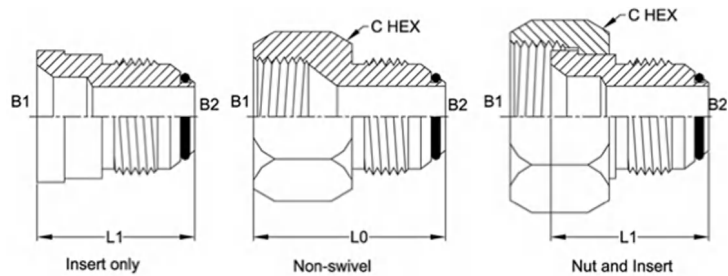
FO-FP Straight F2405 Series



PART ND.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	L LGTH	C HEX
F2405-04-02-0	1/4	7/16-20	1/8-27	0.172	1.19	0.562
F2405-04-04-0	1/4	7/16-20	1/4-18	0.172	1.39	0.750
F2405-04-06-0	1/4	7/16-20	3/8-18	0.172	1.45	0.875
F2405-05-02-0	5/16	1/2-20	1/8-27	0.234	1.17	0.562
F2405-05-04-0	5/16	1/2-20	1/4-18	0.234	1.39	0.750
F2405-06-04-0	3/8	9/16-18	1/4-18	0.297	1.40	0.750
F2405-06-06-0	3/8	9/16-18	3/8-18	0.297	1.46	0.875
F2405-08-04-0	1/2	3/4-16	1/4-18	0.391	1.55	0.875
F2405-08-06-0	1/2	3/4-16	3/8-18	0.391	1.56	0.875
F2405-08-08-0	1/2	3/4-16	1/2-14	0.391	1.79	1.125
F2405-08-12-0	1/2	3/4-16	3/4-14	0.391	1.85	1.375
F2405-10-08-0	5/8	7/8-14	1/2-14	0.484	1.89	1.125
F2405-12-08-0	3/4	1-1/16-12	1/2-14	0.609	2.05	1.375
F2405-12-12-0	3/4	1-1/16-12	3/4-14	0.609	2.06	1.375
F2405-14-12-0	7/8	1-3/16-12	3/4-14	0.719	2.06	1.375
F2405-16-12-0	1	1-5/16-12	3/4-14	0.844	2.12	1.625
F2405-16-16-0	1	1-5/16-12	1-11 1/2	0.844	2.35	1.625
F2405-20-20-0	1-1/4	1-5/8-12	1-1/4-11 1/2	1.078	2.49	2.000
F2405-24-24 O	1-1/2	1-7/8-12	1-1/2-11 1/2	1.312	2.62	2.375
F2405-32-32-0	2	2-1/2-12	2-11 1/2	1.781	2.97	2.875

H-006

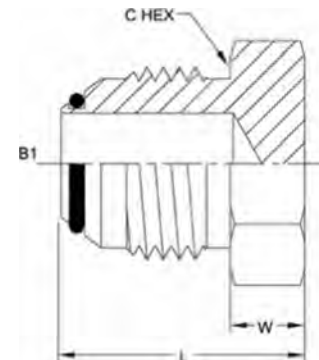
FJ-FO Straight Reducer F2406 Series



PART NO Insert only	PART NO Non-swivel	PART NO Nut and Insert	B1 TUBE O.D.	B2 TUBE O.D.	B1 SAE37	B2 SAE37	LI LOTH	LO LGTH	C HEX
F2406-06-04-IN-0	F2406-06-04-0	F2406-06-04-2 PC-0	3/8	1/4	9/16-18	7/16-20	0.97	1.17	0.688
F2406-08-04-IN-0	F2406-08-04-0	F2406-08-04-2 PC-0	1/2	1/4	3/4-16	7/16-20	1.00	1.30	0.875
F2406-08-06-IN-0	F2406-08-06-0	F2406-08-06-2 PC-0	1/2	3/8	3/4-16	9/16-18	1.00	1.31	0.875
F2406-10-04-IN-0	F2406-10-04-0	F2406-10-04-2 PC-0	5/8	1/4	7/8-14	7/16-20	1.03	1.39	1.000
F2406-10-06-IN-0	F2406-10-06-0	F2406-10-06-2 PC-0	5/8	3/8	7/8-14	9/16-18	1.03	1.40	1.000
-	F2406-10-08-0	-	5/8	1/2	7/8-14	3/4-16	-	1.50	1.000
F2406-12-04-IN-0	F2406-12-04-0	F2406-12-04-2 PC-0	3/4	1/4	1-1/16-12	7/16-20	1.09	1.46	1.250
F2406-12-06-IN-0	F2406-12-06-0	F2406-12-06-2 PC-0	3/4	3/8	1-1/16-12	9/16-18	1.09	1.46	1.250
F2406-12-08-IN-0	F2406-12-08-0	F2406-12-08-2PC-0	3/4	1/2	1-1/16-12	3/4-16	1.19	1.56	1.250
-	F2406-12-10-0	-	3/4	5/8	1-1/16-12	7/8-14	-	1.66	1.250
-	F2406-12-16-0	-	3/4	1	1-1/16-12	1-5/16-12	-	1.82	1.375
F2406-14-06-IN-0	F2406-14-06-0	F2406-14-06-2 PC-0	7/8	3/8	1-3/16-12	9/16-18	1.13	1.53	1.375
F2406-14-08-IN-0	F2406-14-08-0	F2406-14-08-2PC-0	7/8	1/2	1-3/16-12	3/4-16	1.23	1.63	1.375
F2406-14-10-IN-0	F2406-14-10-0	F2406-14-10-2PC-0	7/8	5/8	1-3/16-12	7/8-14	1.33	1.73	1.375
-	F2406-14-12-0	-	7/8	3/4	1-3/16-12	1-1/16-12	-	1.83	1.375
F2406-16-04-IN-0	F2406-16-04-0	F2406-16-04-2PC-0	1	1/4	1-5/16-12	7/16-20	1.22	1.57	1.500
F2406-16-08-IN-0	F2406-16-08-0	F2406-16-08-2 PC-0	1	1/2	1-5/16-12	3/4-16	1.27	1.67	1.500
F2406-16-10-IN-0	F2406-16-10-0	F2406-16-10-2PC-0	1	5/8	1-5/16-12	7/8-14	1.38	1.77	1.500
F2406-16-12-IN-0	F2406-16-12-0	F2406-16-12-2PC-0	1	3/4	1-5/16-12	1-1/16-12	1.47	1.88	1.500
-	F2406-16-14-0	-	1	7/8	1-5/16-12	1-3/16-12	-	1.91	1.500
-	F2406-16-20-0	-	1	1-1/4	1-5/16-12	1-5/8-12	-	1.97	1.688
F2406-20-12-IN-0	F2406-20-12-0	F2406-20-12-2 PC-0	1-1/4	3/4	1-5/8-12	1-1/16-12	1.53	1.93	2.000
F2406-20-16-IN-0	F2406-20-16-0	F2406-20-16-2 PC-0	1-1/4	1	1-5/8-12	1-5/16-12	1.59	1.97	2.000
-	F2406-20-24-0	-	1-1/4	1-1/2	1-5/8-12	1-7/8-12	-	2.15	2.000
F2406-24-16-IN-0	F2406-24-16-0	F2406-24-16-2 PC-0	1-1/2	1	1-7/8-12	1-5/16-12	1.63	2.10	2.250
F2406-24-20-IN-0	F2406-24-20-0	F2406-24-20-2 PC-0	1-1/2	1-1/4	1-7/8-12	1-5/8-12	1.69	2.15	2.250
F2406-32-24-IN-0	F2406-32-24-0	F2406-32-24-2 PC-0	2	1-1/2	2-1/2-12	1-7/8-12	1.91	2.52	2.875

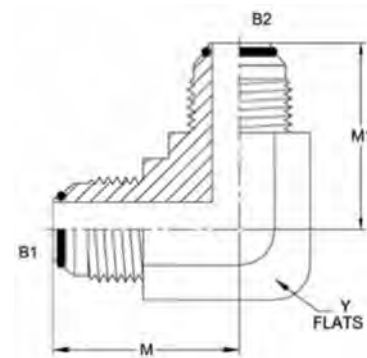
NWD Technology Fittings

FO Plug F2408 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	L LGTH	W WIDTH	C HEX
F2408-04-0	1/4	7/16-20	0.80	0.22	0.500
F2408-05-0	5/16	1/2-20	0.80	0.22	0.562
F2408-06-0	3/8	9/16-18	0.84	0.25	0.625
F2408-08-0	1/2	3/4-16	0.94	0.25	0.812
F2408-10-0	5/8	7/8-14	1.10	0.31	0.937
F2408-12-O	3/4	1-1/16-12	1.28	0.38	1.125
F2408-14-O	7/8	1-3/16-12	1.31	0.38	1.250
F2408-16-O	1	1-5/16-12	1.33	0.38	1.375
F2408-20-0	1-1/4	1-5/8-12	1.45	0.46	1.688
F2408-24-O	1-1/2	1-7/8-12	1.65	0.53	2.000
F2408-32-O	2	2-1/2-12	2.05	0.68	2.625

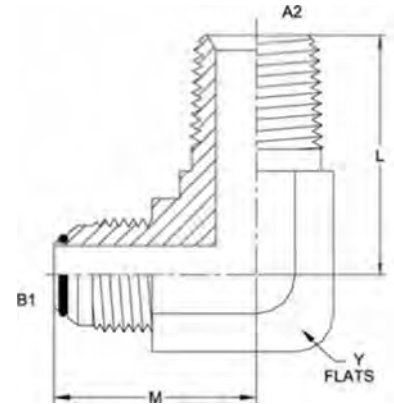
FO-FO 90° F2500 Series



PART NO.SIZE	B1 TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	MI LGTH	Y LGTH FLATS
F2500-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	0.89	0.89	0.438
F2500-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	0.95	0.95	0.562
F2500-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.06	0.562
F2500-08-06-0	1/2	3/4-16	9/16-18	0.391	0.297	1.25	1.14	0.750
F2500-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.25	0.750
F2500-10-08-0	5/8	7/8-14	3/4-16	0.484	0.391	1.45	1.33	0.875
F2500-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.45	1.45	0.875
F2500-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	1.66	1.062
F2500-14-14-0	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.80	1.80	1.312
F2500-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	1.81	1.312
F2500-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	2.06	1.625
F2500-24-24-O	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.33	2.33	1.875
F2500-32-32-O	2	2-1/2-12	2-1/2-12	1.781	1.781	3.06	3.06	2.500

H-008

FO-MP 90° F2501 Series

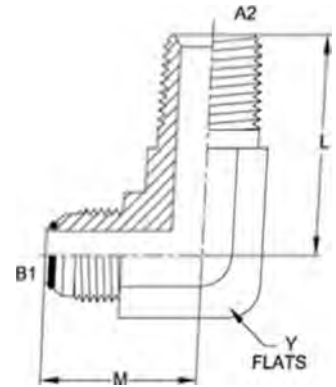


H-009

PART NO. SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	L LGTH	Y FLATS
F2501-04-02-0	1/4	7/16-20	1/8-27	0.172	0.188	0.89	0.78	0.438
F2501-04-04-0	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.09	0.562
F2501-04-06-0	1/4	7/16-20	3/8-18	0.172	0.406	1.12	1.22	0.750
F2501-04-08-0	1/4	7/16-20	1/2-14	0.172	0.531	1.21	1.47	0.875
F2501-04-12-0	1/4	7/16-20	3/4-14	0.172	0.719	1.30	1.59	1.062
F2501-05-02-0	5/16	1/2-20	1/8-27	0.234	0.188	0.95	0.78	0.562
F2501-05-04-0	5/16	1/2-20	1/4-18	0.234	0.281	1.05	1.09	0.562
F2501-05-06-0	5/16	1/2-20	3/8-18	0.234	0.406	1.12	1.22	0.750
F2501-06-02-0	3/8	9/16-18	1/8-27	0.297	0.188	1.06	0.90	0.562
F2501-06-04-0	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.09	0.562
F2501-06-06-0	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.22	0.750
F2501-06-08-0	3/8	9/16-18	1/2-14	0.297	0.531	1.22	1.47	0.875
F2501-06-12-0	3/8	9/16-18	3/4-14	0.297	0.719	1.31	1.59	1.062
F2501-08-04-0	1/2	3/4-16	1/4-18	0.391	0.281	1.25	1.22	0.750
F2501-08-06-0	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.22	0.750
F2501-08-08-0	1/2	3/4-16	1/2-14	0.391	0.531	1.33	1.47	0.875
F2501-08-12-0	1/2	3/4-16	3/4-14	0.391	0.719	1.42	1.59	1.062
F2501-08-16-0	1/2	3/4-16	1-11-1/2	0.391	0.938	1.52	1.97	1.312
F2501-10-06-0	5/8	7/8-14	3/8-18	0.484	0.406	1.45	1.28	0.875
F2501-10-08-0	5/8	7/8-14	1/2-14	0.484	0.531	1.45	1.47	0.875
F2501-10-12-0	5/8	7/8-14	3/4-14	0.484	0.719	1.54	1.59	1.062
F2501-10-16-0	5/8	7/8-14	1-11-1/2	0.484	0.938	1.64	1.97	1.312
F2501-12-08-0	3/4	1-1/16-12	1/2-14	0.609	0.531	1.66	1.59	1.062
F2501-12-12-0	3/4	1-1/16-12	3/4-14	0.609	0.719	1.66	1.59	1.062
F2501-12-16-0	3/4	1-1/16-12	1-11-1/2	0.609	0.938	1.76	1.97	1.312
F2501-14-12-0	7/8	1-3/16-12	3/4-14	0.719	0.719	1.80	1.69	1.312
F2501-16-12-0	1	1-5/16-12	3/4-14	0.844	0.719	1.81	1.78	1.312
F2501-16-16-0	1	1-5/16-12	1-11-1/2	0.844	0.938	1.81	1.97	1.312
F2501-16-20-0	1	1-5/16-12	1-1/4-11-1/2	0.844	1.250	2.01	2.38	1.625
F2501-20-16-0	1-1/4	1-5/8-12	1-11-1/2	1.078	0.938	2.06	2.35	1.625
F2501-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.06	2.38	1.625
F2501-20-24-0	1-1/4	1-5/8-12	1-1/2-11-1/2	1.078	1.500	2.20	2.64	1.875
F2501-24-20-0	1-1/2	1-7/8-12	1-1/4-11-1/2	1.312	1.250	2.33	2.61	1.875
F2501-24-24-0	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.33	2.64	1.875
F2501-32-32-0	2	2-1/2-12	2-11-1/2	1.781	1.938	3.06	3.00	2.500

NWD Technology Fittings

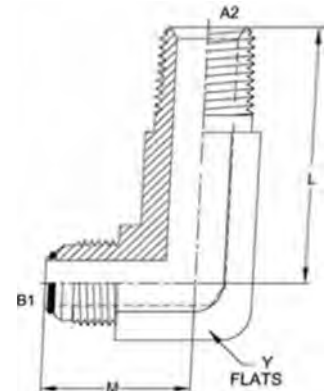
FO-MP 90° Long F2501-L Series



PART NO.SIZE	TUBE O.O.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LCTH	I L6TH	Y FLATS
F2501-L-04-02-0	1/4	7/16-20	1/8-27	0.172	0.188	0.89	1.17	0.438
F2501-L-04-04-0	1/4	7/16-20	1/4-18	0.172	0.281	1.05	1.58	0.562
F2501-L-05-02-0	5/16	1/2-20	1/8-27	0.234	0.188	0.95	1.17	0.562
F2501-L-05-04-0	5/16	1/2-20	1/4-18	0.234	0.281	0.95	1.58	0.562
F2501-L-06-04-0	3/8	9/16-18	1/4-18	0.297	0.281	1.06	1.58	0.562
F2501-L-06-06-0	3/8	9/16-18	3/8-18	0.297	0.406	1.14	1.82	0.750
F2501-L-08-06-0	1/2	3/4-16	3/8-18	0.391	0.406	1.25	1.82	0.750
F2501-L-08-08-0	1/2	3/4-16	1/2-14	0.391	0.531	1.33	2.17	0.875
F2501-L-08-12-0	1/2	3/4-16	3/4-14	0.391	0.719	1.42	2.44	1.062
F2501-L-10-08-0	5/8	7/8-14	1/2-14	0.484	0.531	1.45	2.17	0.875
F2501-L-12-12-0	3/4	1-1/16-12	3/4-14	0.609	0.719	1.66	2.44	1.062
F2501-L-14-12-0	7/8	1-3/16-12	3/4-14	0.719	0.719	1.80	2.59	1.312
F2501-L-16-16-0	1	1-5/16-12	1-11-1/2	0.844	0.938	1.81	3.01	1.312
F2501-L-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.06	3.69	1.625
F2501-L-24-24-0	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	2.33	4.10	1.875

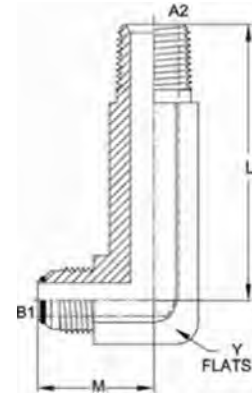
H-010

FO-MP 90° X-Long F2501-LL Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	I LGTH	Y FLATS
F2501-LL-04-02-0	1/4	7/16-20	1/8-27	0.172	0.188	0.89	1.56	0.438
F2501-LL-04-04-0	1/4	7/16-20	1/4-18	0.172	0.281	1.05	2.07	0.562
F2501-LL-05-02-0	5/16	1/2-20	1/8-27	0.234	0.188	0.95	1.56	0.562
F2501-LL-05-04-0	5/16	1/2-20	1/4-18	0.234	0.281	1.05	2.07	0.562
F2501-LL-06-04-0	3/8	9/16-18	1/4-18	0.297	0.281	1.06	2.07	0.562
F2501-LL-06-06-0	3/8	9/16-18	3/8-18	0.297	0.406	1.14	2.42	0.750
F2501-LL-08-06-0	1/2	3/4-16	3/8-18	0.391	0.406	1.25	2.42	0.750
F2501-LL-08-08-0	1/2	3/4-16	1/2-14	0.391	0.531	1.33	2.87	0.875
F2501-LL-10-08-0	5/8	7/8-14	1/2-14	0.484	0.531	1.45	2.87	0.875
F2501-LL-12-12-0	3/4	1-1/16-12	3/4-14	0.609	0.719	1.66	3.28	1.062
F2501-LL-14-12-0	7/8	1-3/16-12	3/4-14	0.719	0.719	1.80	3.50	1.312
F2501-LL-16-16-0	1	1-5/16-12	1-11-1/2	0.844	0.938	1.81	4.05	1.312
F2501-LL-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	2.06	5.00	1.625

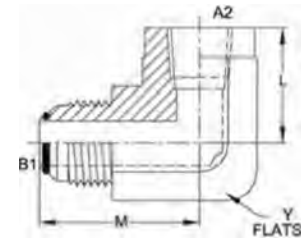
FO-MP 90° XX-Long F2501-LLL Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LGTH	L LGTH	Y FLATS
F2501-LLL-08-06-0	1/2	3/4-16	3/8-18	0.391	0.406	1.25	3.75	0.750

H-011

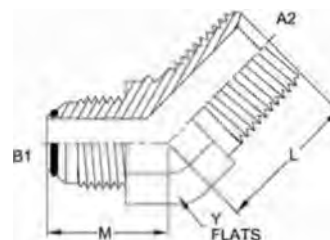
FO-FP 90° F2502 Series



PART NO.SIZE	TUBE O.O.	B1 SAE37	A2 NPTF	B1 DRILL	M LGTH	L LGTH	Y FLATS
F2502-04-02-0	1/4	7/16-20	1/8-27	0.172	1.08	0.66	0.562
F2502-04-04-0	1/4	7/16-20	1/4-18	0.172	1.22	0.88	0.750
F2502-05-02-0	5/16	1/2-20	1/8-27	0.234	1.08	0.66	0.562
F2502-05-04-0	5/16	1/2-20	1/4-18	0.234	1.22	0.88	0.750
F2502-06-04-0	3/8	9/16-18	1/4-18	0.297	1.23	0.88	0.750
F2502-06-06-0	3/8	9/16-18	3/8-18	0.297	1.31	1.02	0.875
F2502-06-08-0	3/8	9/16-18	1/2-14	0.297	1.41	1.23	1.062
F2502-08-06-0	1/2	3/4-16	3/8-18	0.391	1.42	1.02	0.875
F2502-08-08-0	1/2	3/4-16	1/2-14	0.391	1.52	1.23	1.062
F2502-10-08-0	5/8	7/8-14	1/2-14	0.484	1.64	1.23	1.062
F2502-12-12-0	3/4	1-1/16-12	3/4-14	0.609	1.89	1.36	1.312
F2502-14-12-0	7/8	1-3/16-12	3/4-14	0.719	1.86	1.42	1.312
F2502-16-16-0	1	1-5/16-12	1-11-1/2	0.844	2.17	1.62	1.625
F2502-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	2.33	1.70	1.875
F2502-24-24-0	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	2.89	2.08	2.562
F2502-32-32-0	2	2-1/2-12	2-11-1/2	1.781	3.30	2.39	2.812

NWD Technology Fittings

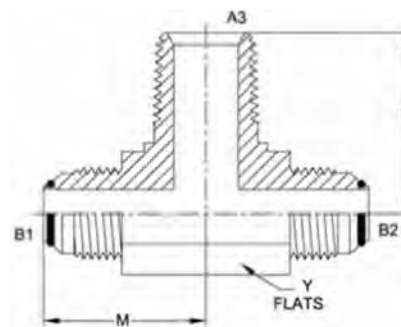
FO-MP 45° F2503 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B1 DRILL	A2 DRILL	M LETH	L LETH	Y FLATS
F2503-04-02-0	1/4	7/16-20	1/8-27	0.172	0.188	0.72	0.64	0.438
F2503-04-04-0	1/4	7/16-20	1/4-18	0.172	0.281	0.82	0.86	0.562
F2503-05-02-0	5/16	1/2-20	1/8-27	0.234	0.188	0.77	0.64	0.562
F2503-05-04-0	5/16	1/2-20	1/4-18	0.234	0.281	0.82	0.86	0.562
F2503-06-02-0	3/8	9/16-18	1/8-27	0.297	0.188	0.83	0.67	0.562
F2503-06-04-0	3/8	9/16-18	1/4-18	0.297	0.281	0.83	0.86	0.562
F2503-06-06-0	3/8	9/16-18	3/8-18	0.297	0.406	0.87	0.95	0.750
F2503-06-08-0	3/8	9/16-18	1/2-14	0.297	0.531	0.88	1.17	0.875
F2503-08-04-0	1/2	3/4-16	1/4-18	0.391	0.281	0.98	0.95	0.750
F2503-08-06-0	1/2	3/4-16	3/8-18	0.391	0.406	0.98	0.95	0.750
F2503-08-08-0	1/2	3/4-16	1/2-14	0.391	0.531	0.99	1.17	0.875
F2503-08-12-0	1/2	3/4-16	3/4-14	0.391	0.719	1.04	1.20	1.062
F2503-10-06-0	5/8	7/8-14	3/8-18	0.484	0.406	1.11	0.98	0.875
F2503-10-08-0	5/8	7/8-14	1/2-14	0.484	0.531	1.11	1.17	0.875
F2503-10-12-0	5/8	7/8-14	3/4-14	0.484	0.719	1.16	1.20	1.062
F2503-12-08-0	3/4	1-1/16-12	1/2-14	0.609	0.531	1.28	1.20	1.062
F2503-12-12-O	3/4	1-1/16-12	3/4-14	0.609	0.719	1.28	1.20	1.062
F2503-12-16-O	3/4	1-1/16-12	1-11-1/2	0.609	0.938	1.42	1.48	1.312
F2503-14-12-O	7/8	1-3/16-12	3/4-14	0.719	0.719	1.45	1.30	1.312
F2503-16-12-O	1	1-5/16-12	3/4-14	0.844	0.719	1.47	1.29	1.312
F2503-16-16-O	1	1-5/16-12	1-11-1/2	0.844	0.938	1.47	1.48	1.312
F2503-20-20-0	1-1/4	1-5/8-12	1-1/4-11-1/2	1.078	1.250	1.59	1.67	1.625
F2503-24-24-O	1-1/2	1-7/8-12	1-1/2-11-1/2	1.312	1.500	1.78	1.77	1.875
F2503-32-32-O	2	2-1/2-12	2-11-1/2	1.781	1.938	2.22	2.11	2.500

H-012

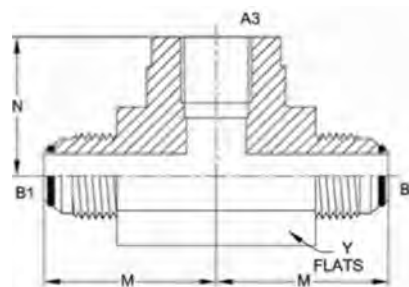
FO-FO-MP Tee F2601 Series



PART NO./SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	A3 NPTF	B1 DRILL	B2 DRILL	A3 DRILL	M LGTH	L LGTH	Y FLATS
F2601-04-04-02-0	1/4	7/16-20	7/16-20	1/8-27	0.172	0.172	0.188	0.89	0.78	0.438
F2601-04-04-04-0	1/4	7/16-20	7/16-20	1/4-18	0.172	0.172	0.281	1.05	1.09	0.562
F2601-05-05-02-0	5/16	1/2-20	1/2-20	1/8-27	0.234	0.234	0.188	0.95	0.78	0.562
F2601-05-05-04-0	5/16	1/2-20	1/2-20	1/4-18	0.234	0.234	0.281	1.05	1.09	0.562
F2601-06-06-04-0	3/8	9/16-18	9/16-18	1/4-18	0.297	0.297	0.281	1.06	1.09	0.562
F2601-06-06-06-0	3/8	9/16-18	9/16-18	3/8-18	0.297	0.297	0.406	1.14	1.22	0.750
F2601-08-08-06-0	1/2	3/4-16	3/4-16	3/8-18	0.391	0.391	0.406	1.25	1.22	0.750
F2601-08-08-08-0	1/2	3/4-16	3/4-16	1/2-14	0.391	0.391	0.531	1.33	1.47	0.875
F2601-10-10-08-0	5/8	7/8-14	7/8-14	1/2-14	0.484	0.484	0.531	1.45	1.47	0.875
F2601-12-12-12-0	3/4	1-1/16-12	1-1/16-12	3/4-14	0.609	0.609	0.719	1.66	1.59	1.062
F2601-14-14-12-0	7/8	1-3/16-12	1-3/16-12	3/4-14	0.719	0.719	0.719	1.80	1.69	1.312
F2601-16-16-16-0	1	1-5/16-12	1-5/16-12	1-11-1/2	0.844	0.844	0.938	1.81	1.97	1.312
F2601-20-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1-1/4-11-1/2	1.078	1.078	1.250	2.06	2.38	1.625
F2601-24-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1-1/2-11-1/2	1.312	1.312	1.500	2.33	2.64	1.875

H-013

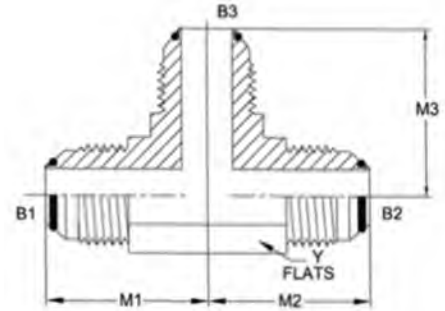
FO-FO-FP Tee F2602 Series



PART NO./SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	A3 NPTF	B1 DRILL	B2 DRILL	M LGTH	M LGTH	N LGTH	Y FLATS
F2602-04-04-02-0	1/4	7/16-20	7/16-20	1/8-27	0.172	0.172	1.08	1.08	0.66	0.562
F2602-04-04-04-0	1/4	7/16-20	7/16-20	1/4-18	0.172	0.172	1.22	1.22	0.88	0.750
F2602-05-05-02-0	5/16	1/2-20	1/2-20	1/8-27	0.234	0.234	1.08	1.08	0.66	0.562
F2602-06-06-04-0	3/8	9/16-18	9/16-18	1/4-18	0.297	0.297	1.23	1.23	0.88	0.750
F2602-06-06-06-0	3/8	9/16-18	9/16-18	3/8-18	0.297	0.297	1.31	1.31	1.02	0.875
F2602-08-08-06-0	1/2	3/4-16	3/4-16	3/8-18	0.391	0.391	1.42	1.42	1.02	0.875
F2602-08-08-08-0	1/2	3/4-16	3/4-16	1/2-14	0.391	0.391	1.52	1.52	1.23	1.062
F2602-10-10-08-0	5/8	7/8-14	7/8-14	1/2-14	0.484	0.484	1.64	1.64	1.23	1.062
F2602-12-12-12-0	3/4	1-1/16-12	1-1/16-12	3/4-14	0.609	0.609	1.89	1.89	1.36	1.312
F2602-14-14-12-0	7/8	1-3/16-12	1-3/16-12	3/4-14	0.719	0.719	1.86	1.86	1.42	1.312
F2602-16-16-16-0	1	1-5/16-12	1-5/16-12	1-11-1/2	0.844	0.844	2.17	2.17	1.62	1.625
F2602-20-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1-1/4-11-1/2	1.078	1.078	2.33	2.33	1.70	1.875
F2602-24-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1-1/2-11-1/2	1.312	1.312	2.89	2.89	2.08	2.562
F2602-32-32-32-0	2	2-1/2-12	2-1/2-12	2-11-1/2	1.781	1.781	3.30	3.30	2.39	2.812

NWD Technology Fittings

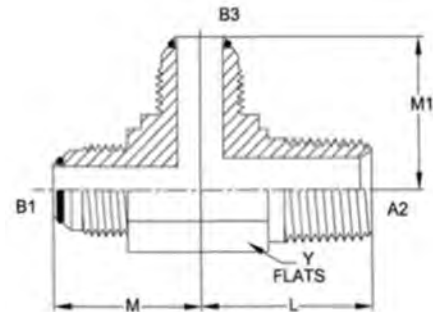
FO-FO-FO Tee F2603 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	M1 LO TH	M2 LGTH	M3 LGTH	Y FLATS
F2603-04-04-04-O	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.89	0.89	0.438
F2603-05-05-05-O	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.95	0.95	0.562
F2603-06-06-06-O	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	1.06	1.06	0.562
F2603-08-08-08-O	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.25	1.25	0.750
F2603-08-08-12-O	1/2	3/4-16	3/4-16	1-1/16-12	0.391	0.391	0.609	1.42	1.42	1.66	1.062
F2603-10-08-08-O	5/8	7/8-14	3/4-16	3/4-16	0.484	0.391	0.391	1.45	1.33	1.33	0.875
F2603-10-10-08-O	5/8	7/8-14	7/8-14	3/4-16	0.484	0.484	0.391	1.45	1.45	1.33	0.875
F2603-10-10-10-O	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.45	1.45	0.875
F2603-10-10-12-O	5/8	7/8-14	7/8-14	1-1/16-12	0.484	0.484	0.609	1.54	1.54	1.66	1.062
F2603-12-12-12-O	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.66	1.66	1.062
F2603-14-14-14-O	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.80	1.80	1.312
F2603-16-16-16-O	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.81	1.81	1.312
F2603-20-20-16-O	1-1/4	1-5/8-12	1-5/8-12	1-5/16-12	1.078	1.078	0.844	2.06	2.06	2.01	1.625
F2603-20-20-20-O	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	2.06	2.06	1.625
F2603-24-24-24-O	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	2.33	2.33	1.875
F2603-32-32-32-O	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	3.06	3.06	2.500

H-014

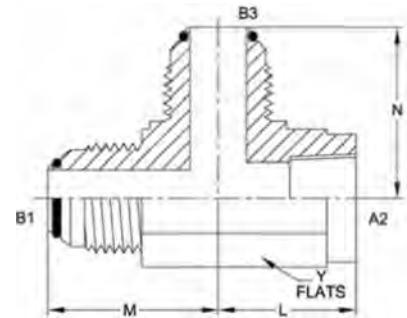
FO-MP-FO Tee F2605 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B3 SAE37	B1 DRILL	A2 DRILL	B3 DRILL	M LGTH	L LGTH	M1 LGTH	Y FLATS
F2605-04-02-04-O	1/4	7/16-20	1/8-27	7/16-20	0.172	0.188	0.172	0.89	0.78	0.89	0.438
F2605-04-04-04-O	1/4	7/16-20	1/4-18	7/16-20	0.172	0.281	0.172	1.05	1.09	1.05	0.562
F2605-05-02-05-O	5/16	1/2-20	1/8-27	1/2-20	0.234	0.188	0.234	0.95	0.78	0.95	0.562
F2605-06-04-06-O	3/8	9/16-18	1/4-18	9/16-18	0.297	0.281	0.297	1.06	1.09	1.06	0.562
F2605-06-06-06-O	3/8	9/16-18	3/8-18	9/16-18	0.297	0.406	0.297	1.14	1.22	1.14	0.750
F2605-06-08-06-O	3/8	9/16-18	1/2-14	9/16-18	0.297	0.531	0.297	1.22	1.47	1.22	0.875
F2605-08-06-08-O	1/2	3/4-16	3/8-18	3/4-16	0.391	0.406	0.391	1.25	1.22	1.25	0.750
F2605-08-08-08-O	1/2	3/4-16	1/2-14	3/4-16	0.391	0.531	0.391	1.33	1.47	1.33	0.875
F2605-10-08-10-O	5/8	7/8-14	1/2-14	7/8-14	0.484	0.531	0.484	1.45	1.47	1.45	0.875
F2605-12-08-12-O	3/4	1-1/16-12	1/2-14	1-1/16-12	0.609	0.531	0.609	1.66	1.59	1.66	1.062
F2605-12-12-12-O	3/4	1-1/16-12	3/4-14	1-1/16-12	0.609	0.719	0.609	1.66	1.59	1.66	1.062
F2605-14-12-14-O	7/8	1-3/16-12	3/4-14	1-3/16-12	0.719	0.719	0.719	1.80	1.69	1.80	1.312
F2605-16-16-16-O	1	1-5/16-12	1-11-1/2	1-5/16-12	0.844	0.938	0.844	1.81	1.97	1.81	1.312
F2605-20-20-20-O	1-1/4	1-5/8-12	1-1/4-11-1/2	1-5/8-12	1.078	1.250	1.078	2.06	2.38	2.06	1.625
F2605-24-24-24-O	1-1/2	1-7/8-12	1-1/2-11-1/2	1-7/8-12	1.312	1.500	1.312	2.33	2.64	2.33	1.875
F2605-32-32-32-O	2	2-1/2-12	2-11-1/2	2-1/2-12	1.781	1.938	1.781	3.06	3.00	3.06	2.500

FO-FP-FO Tee

F2606 Series

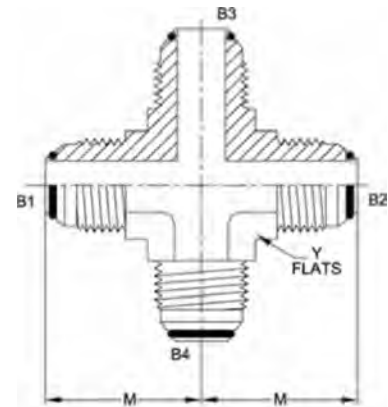


PART NO. SIZE	TUBE O.D.	B1 SAE37	A2 NPTF	B3 SAE37	B1 DRILL	B3 DRILL	M LGTH	L LGTH	N LGTH	Y FLATS
F2606-04-02-04-0	1/4	7/16-20	1/8-27	7/16-20	0.172	0.172	1.08	0.66	1.08	0.562
F2606-04-04-04-0	1/4	7/16-20	1/4-18	7/16-20	0.172	0.172	1.22	0.88	1.22	0.750
F2606-06-04-06-0	3/8	9/16-18	1/4-18	9/16-18	0.297	0.297	1.23	0.88	1.23	0.750
F2606-06-06-06-0	3/8	9/16-18	3/8-18	9/16-18	0.297	0.297	1.31	1.02	1.31	0.875
F2606-08-06-08-0	1/2	3/4-16	3/8-18	3/4-16	0.391	0.391	1.42	1.02	1.42	0.875
F2606-08-08-08-0	1/2	3/4-16	1/2-14	3/4-16	0.391	0.391	1.52	1.23	1.52	1.062
F2606-10-08-10-0	5/8	7/8-14	1/2-14	7/8-14	0.484	0.484	1.64	1.23	1.64	1.062
F2606-12-12-12-O	3/4	1-1/16-12	3/4-14	1-1/16-12	0.609	0.609	1.89	1.36	1.89	1.312
F2606-14-12-14-O	7/8	1-3/16-12	3/4-14	1-3/16-12	0.719	0.719	1.86	1.42	1.86	1.312
F2606-16-16-16-O	1	1-5/16-12	1-11-1/2	1-5/16-12	0.844	0.844	2.17	1.62	2.17	1.625
F2606-24-24-24-O	1-1/2	1-7/8-12	1-1/2-11-1/2	1-7/8-12	1.312	1.312	2.89	2.08	2.89	2.562

H-015

FO-FO-FO-FO Cross

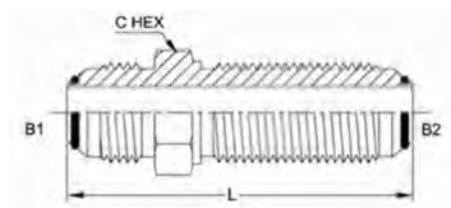
F2650 Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	B4 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	B4 DRILL	M LGTH	Y FLATS
F2650-04-04-04-04-0	1/4	7/16-20	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.172	0.89	0.438
F2650-05-05-05-05-0	5/16	1/2-20	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.234	0.95	0.562
F2650-06-06-06-06-0	3/8	9/16-18	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	0.297	1.06	0.562
F2650-08-08-08-08-0	1/2	3/4-16	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	0.391	1.25	0.75
F2650-10-10-10-10-0	5/8	7/8-14	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	0.484	1.45	0.875
F2650-12-12-12-12-O	3/4	1-1/16-12	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	0.609	1.66	1.062
F2650-14-14-14-14-0	7/8	1-3/16-12	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	0.719	1.80	1.312
F2650-16-16-16-16-0	1	1-5/16-12	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	0.844	1.81	1.312
F2650-20-20-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	1.078	2.06	1.625
F2650-24-24-24-24-O	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	1.312	2.33	1.875

NWD Technology Fittings

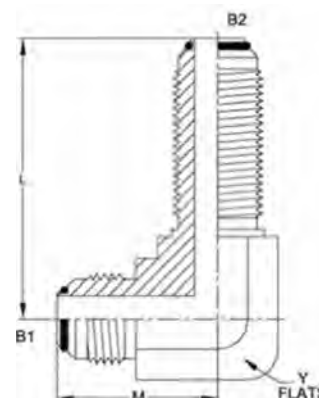
FO-FO Bulkhead Straight F2700 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	L LGTH	C HEX
F2700-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	2.07	0.688
F2700-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	2.07	0.750
F2700-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	2.18	0.812
F2700-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	2.44	1.000
F2700-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	2.74	1.125
F2700-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	3.09	1.375
F2700-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	3.14	1.625
F2700-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	3.31	1.875
F2700-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	3.52	2.125
F2700-32-32-0	2	2-1/2-12	2-1/2-12	1.781	1.781	4.20	2.750

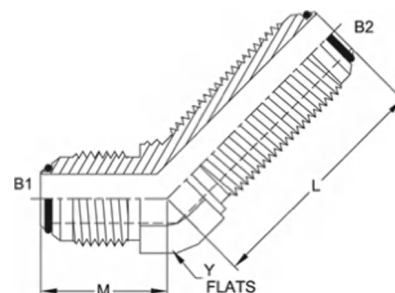
H-016

FO-FO Bulkhead 90° F2701 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	L LGTH	Y FLATS
F2701-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	0.97	1.59	0.438
F2701-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	1.06	1.72	0.562
F2701-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	1.09	1.81	0.562
F2701-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.36	2.11	0.750
F2701-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.56	2.39	0.875
F2701-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.78	2.67	1.062
F2701-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	1.94	2.80	1.312

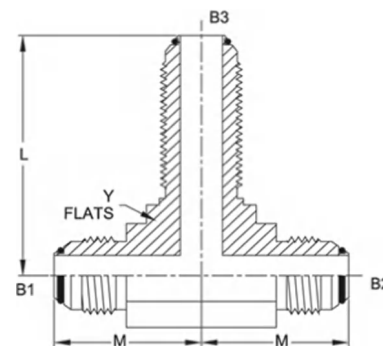
FO-FO Bulkhead 45° F2702 Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LOTH	L LOTH	Y FLATS
F2702-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	0.72	1.53	0.438
F2702-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	0.77	1.66	0.562
F2702-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	0.83	1.67	0.562
F2702-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	0.98	1.94	0.750
F2702-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.11	2.17	0.875
F2702-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.28	2.44	1.062
F2702-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	1.47	2.56	1.312

H-017

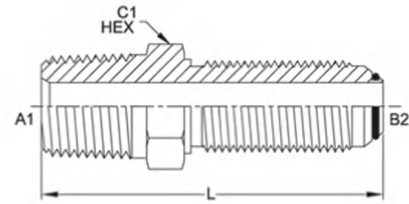
FO-FO-FO Bulkhead Branch Tee F2703 Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	M LGTH	M LGTH	L LGTH	Y FLATS
F2703-04-04-04-0	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.97	0.97	1.59	0.438
F2703-06-06-06-0	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.09	1.09	1.81	0.562
F2703-08-08-08-0	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.36	1.36	2.11	0.750
F2703-10-10-10-0	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.56	1.56	2.39	0.875
F2703-12-12-12-0	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.78	1.78	2.67	1.062
F2703-16-16-16-0	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.94	1.94	2.80	1.312

NWD Technology Fittings

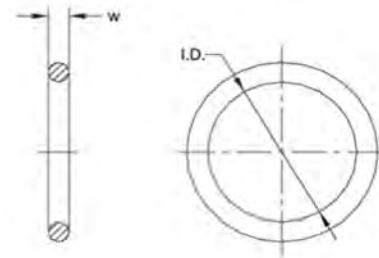
MP-FO Bulkhead Straight F2706 Series



PART NO.SIZE	TUBE O.D.	A1 NPTF	B2 SAE37	A1 DRILL	B2 DRILL	L LGTH	C1 HEX
F2706-12-12-O	3/4	3/4-14	1-1/16-12	0.719	0.609	2.98	1.375

Flare-O Buna O-Ring F4003 Series

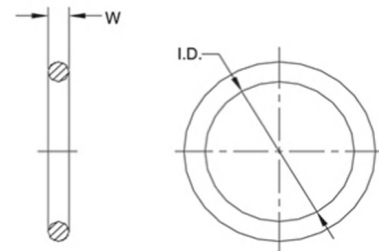
PART NO.SIZE	TUBE O.D.	W WIDTH	I.D.
F4003-04	1/4	0.040	0.176
F4003-05	5/16	0.040	0.228
F4003-06	3/8	0.040	0.295
F4003-08	1/2	0.040	0.395
F4003-10	5/8	0.040	0.492
F4003-12	3/4	0.070	0.614
F4003-14	7/8	0.070	0.739
F4004-16	1	0.070	0.884
F4003-20	1-1/4	0.070	1.114
F4003-24	1-1/2	0.070	1.364
F4003-32	2	0.103	1.862



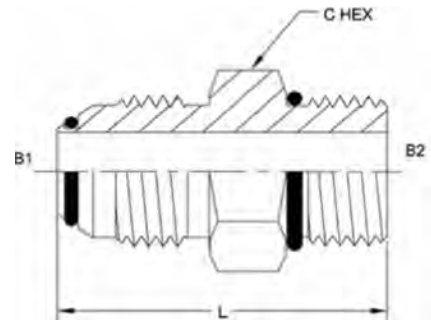
H-018

Flare-O Viton O-Ring F4004 Series

PART NO.SIZE	TUBE O.D.	W WIDTH	I.D.
F4004-04	1/4	0.040	0.176
F4004-05	5/16	0.040	0.228
F4004-06	3/8	0.040	0.295
F4004-08	1/2	0.040	0.395
F4004-10	5/8	0.040	0.492
F4004-12	3/4	0.070	0.614
F4004-14	7/8	0.070	0.739
F4004-16	1	0.070	0.884
F4004-20	1-1/4	0.070	1.114
F4004-24	1-1/2	0.070	1.364
F4004-32	2	0.103	1.862



FO-MORB Straight F6400-0 Series

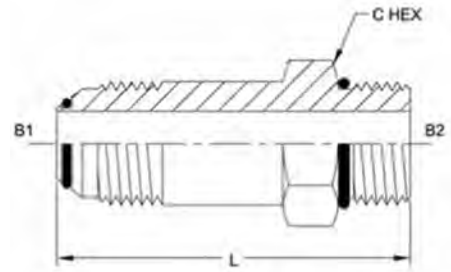


H-019

PART NO./SIZE	TUBE O.D.	B1 SAE 37	B2 SAE ORB	B1 DRILL	B2 DRILL	L LGTH	C HEX
F6400-04-02-0	1/4	7/16-20	5/16-24	0.172	0.062	1.17	0.500
F6400-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	1.23	0.562
F6400-04-05-0	1/4	7/16-20	1/2-20	0.172	0.234	1.23	0.625
F6400-04-06-0	1/4	7/16-20	9/16-18	0.172	0.297	1.29	0.688
F6400-04-08-0	1/4	7/16-20	3/4-16	0.172	0.391	1.37	0.875
F6400-04-10-0	1/4	7/16-20	7/8-14	0.172	0.484	1.49	1.000
F6400-04-12-0	1/4	7/16-20	1-1/16-12	0.172	0.609	1.66	1.250
F6400-05-04-0	5/16	1/2-20	7/16-20	0.234	0.172	1.23	0.562
F6400-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	1.23	0.625
F6400-05-06-0	5/16	1/2-20	9/16-18	0.234	0.297	1.29	0.688
F6400-06-04-0	3/8	9/16-18	7/16-20	0.297	0.172	1.27	0.687
F6400-06-05-0	3/8	9/16-18	1/2-20	0.297	0.234	1.27	0.687
F6400-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	1.30	0.688
F6400-06-08-0	3/8	9/16-18	3/4-16	0.297	0.391	1.38	0.875
F6400-06-10-0	3/8	9/16-18	7/8-14	0.297	0.484	1.50	1.000
F6400-06-12-0	3/8	9/16-18	1-1/16-12	0.297	0.609	1.66	1.250
F6400-08-04-0	1/2	3/4-16	7/16-20	0.391	0.172	1.49	0.875
F6400-08-06-0	1/2	3/4-16	9/16-18	0.391	0.297	1.44	0.812
F6400-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.48	0.875
F6400-08-10-0	1/2	3/4-16	7/8-14	0.391	0.484	1.60	1.000
F6400-08-12-0	1/2	3/4-16	1-1/16-12	0.391	0.609	1.76	1.250
F640008-16-0	1/2	3/4-16	1-5/16-12	0.391	0.844	1.79	1.500
F6400-10-06-0	5/8	7/8-14	9/16-18	0.484	0.297	1.71	1.000
F6400-10-08-0	5/8	7/8-14	3/4-16	0.484	0.391	1.64	1.000
F6400-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.70	1.000
F6400-10-12-0	5/8	7/8-14	1-1/16-12	0.484	0.609	1.86	1.250
F6400-10-16-0	5/8	7/8-14	1-5/16-12	0.484	0.844	1.89	1.500
F6400-12-08-0	3/4	1-1/16-12	3/4-16	0.609	0.391	1.94	1.125
F6400-12-10-0	3/4	1-1/16-12	7/8-14	0.609	0.484	1.88	1.125
F6400-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.97	1.250
F6400-12-14-0	3/4	1-1/16-12	1-3/16-12	0.609	0.719	1.96	1.375
F6400-12-16-0	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.99	1.500
F6400-12-20-0	3/4	1-1/16-12	1-5/8-12	0.609	1.078	2.08	1.875
F6400-14-12-0	7/8	1-3/16-12	1-1/16-12	0.719	0.609	1.99	1.250
F6400-14-14-0	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.99	1.375
F6400-14-16-0	7/8	1-3/16-12	1-5/16-12	0.719	0.844	2.02	1.500
F6400-16-10-0	1	1-5/16-12	7/8-14	0.844	0.484	2.07	1.375
F6400-16-12-0	1	1-5/16-12	1-1/16-12	0.844	0.609	2.04	1.375
F6400-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	2.04	1.500
F6400-16-20-0	1	1-5/16-12	1-5/8-12	0.844	1.078	2.12	1.875
F6400-16-24-0	1	1-5/16-12	1-7/8-12	0.844	1.312	2.20	2.125
F6400-20-16-0	1-1/4	1-5/8-12	1-5/16-12	1.078	0.844	2.33	1.688
F6400-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.17	1.875
F6400-20-24-0	1-1/4	1-5/8-12	1-7/8-12	1.078	1.312	2.24	2.125
F6400-24-20-0	1-1/2	1-7/8-12	1-5/8-12	1.312	1.078	2.53	2.125
F6400-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.37	2.125
F6400-24-32-0	1-1/2	1-7/8-12	2-1/2-12	1.312	1.781	2.53	2.750
F6400-32-24-0	2	2-1/2-12	1-7/8-12	1.781	1.312	2.94	2.625
F6400-32-32-0	2	2-1/2-12	2-1/2-12	1.781	1.781	2.78	2.750

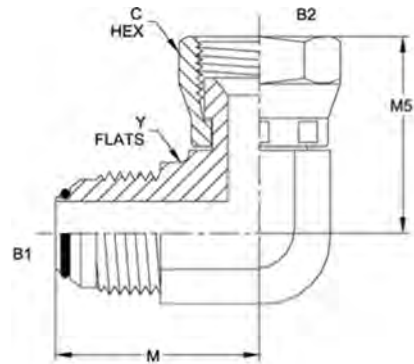
NWD Technology Fittings

FO-MORB Straight Long F6400-L-0 Series



PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	L LGTH	C HEX
F6400-L-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	2.08	0.562
F6400-L-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	2.70	0.875
F6400-L-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	3.04	1.000
F6400-L-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	3.61	1.250
F6400-L-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	3.98	1.500

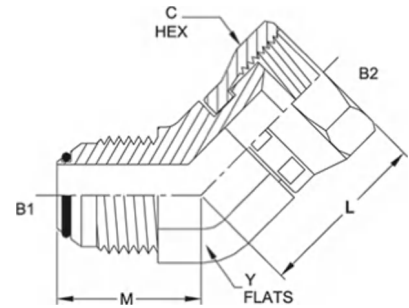
FO-FJS 90° F6500 Series



H-020

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	M5 LGTH	C HEX	Y FLATS
F6500-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.00	0.563	0.438
F6500-05-05-0	5/16	1/2-20	1/2-20	0.234	0.234	0.95	1.06	0.625	0.562
F6500-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.25	0.688	0.562
F6500-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.38	0.875	0.750
F6500-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.45	1.62	1.000	0.875
F6500-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	1.75	1.250	1.062
F6500-14-14-0	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.80	1.78	1.375	1.312
F6500-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	2.00	1.500	1.312
F6500-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	2.31	2.000	1.625
F6500-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.33	2.59	2.250	1.875
F6500-32-32-0	2	2-1/2-12	2-1/2-12	1.781	1.781	3.06	3.38	2.875	2.500

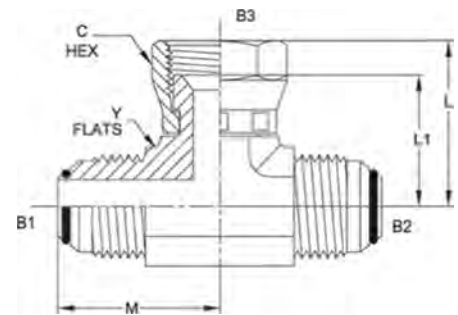
FO-FJS 45° F6502 Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B1 DRILL	B2 DRILL	M LGTH	L LGTH	C HEX	Y FLATS
F6502-04-04-0	1/4	7/16-20	7/16-20	0.172	0.172	0.72	0.94	0.563	0.438
F6502-06-06-0	3/8	9/16-18	9/16-18	0.297	0.297	0.83	1.12	0.688	0.562
F6502-08-08-0	1/2	3/4-16	3/4-16	0.391	0.391	0.98	1.28	0.875	0.750
F6502-10-10-0	5/8	7/8-14	7/8-14	0.484	0.484	1.11	1.44	1.000	0.875
F6502-12-12-0	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.28	1.50	1.250	1.062
F6502-16-16-0	1	1-5/16-12	1-5/16-12	0.844	0.844	1.47	1.75	1.500	1.312
F6502-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.59	2.03	2.000	1.625
F6502-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.78	2.25	2.250	1.875
F6502-32-32-0	2	2-1/2-12	2-1/2-12	1.781	1.781	2.22	2.91	2.875	2.500

H-021

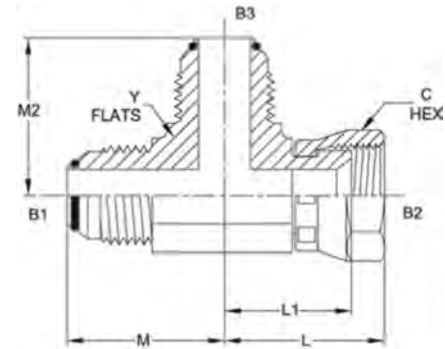
FO-FO-FJS Tee F6600 Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	M LEITH	LI LGTH	L LGTH	C HEX	Y FLATS
F6600-04-04-04-0	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.65	1.00	0.563	0.438
F6600-05-05-05-0	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.68	1.06	0.625	0.562
F6600-06-06-06-0	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	0.87	1.25	0.688	0.562
F6600-08-08-08-0	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	0.95	1.38	0.875	0.750
F6600-10-10-10-0	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.12	1.62	1.000	0.875
F6600-12-12-12-0	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.18	1.75	1.250	1.062
F6600-14-14-14-0	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.20	1.78	1.375	1.312
F6600-16-16-16-0	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.40	2.00	1.500	1.312
F6600-20-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	1.67	2.31	2.000	1.625
F6600-24-24-24-0	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	1.87	2.59	2.250	1.875
F6600-32-32-32-0	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	2.43	3.38	2.875	2.500

NWD Technology Fittings

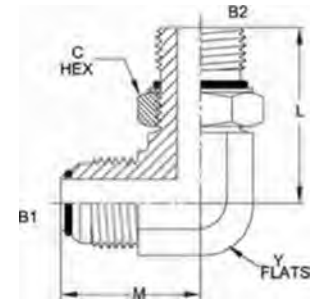
FO-FJS-FO Tee F6602 Series



PART NO. SIZE	TUBE O.D.	B1 SAE37	B2 SAE37	B3 SAE37	B1 DRILL	B2 DRILL	B3 DRILL	M LGTH	LI LGTH	L LGTH	M2 LGTH	C HEX	Y FLATS
F6602-04-04-04-0	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.65	1.00	0.89	0.563	0.438
F6602-05-05-05-0	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.68	1.06	0.95	0.625	0.562
F6602-06-06-06-0	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	0.87	1.25	1.06	0.688	0.562
F6602-08-08-08-0	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.08	1.38	1.25	0.875	0.750
F6602-10-10-10-0	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.12	1.62	1.45	1.000	0.875
F6602-12-12-12-O	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.18	1.75	1.66	1.250	1.062
F6602-14-14-14-O	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.20	1.78	1.80	1.375	1.312
F6602-16-16-16-O	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.40	2.00	1.81	1.500	1.312
F6602-20-20-20-0	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	1.67	2.31	2.06	2.000	1.625
F6602-24-24-24-O	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	1.87	2.59	2.33	2.250	1.875
F6602-32-32-32-O	2	2-1/2-12	2-1/2-12	2-1/2-12	1.781	1.781	1.781	3.06	2.43	3.38	3.06	2.875	2.500

H-022

FO-MAORB 90° F6801-NWO Series

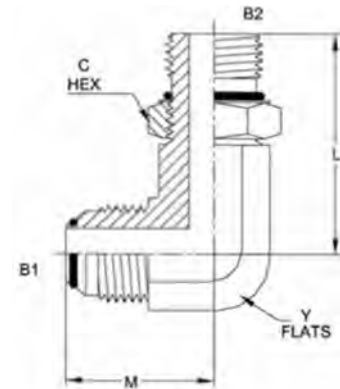


H-023

PART NO.SIZE	TUBE O.D.	B1 SAE37	B2 SAEORB	B1 DRILL	B2 DRILL	M LGTH	L LGTH	C HEX	Y FLATS
F6801 -04-04-N WO	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.03	0.563	0.438
F6801-04-05-NWO	1/4	7/16-20	1/2-20	0.172	0.234	0.95	1.13	0.625	0.562
F6801-04-06-NWO	1/4	7/16-20	9/16-18	0.172	0.297	1.05	1.25	0.688	0.562
F6801-04-08-NWO	1/4	7/16-20	3/4-16	0.172	0.391	1.12	1.45	0.875	0.750
F6801-05-04-NWO	5/16	1/2-20	7/16-20	0.234	0.172	0.95	1.13	0.563	0.562
F6801-05-05-NWO	5/16	1/2-20	1/2-20	0.234	0.234	0.95	1.13	0.625	0.562
F6801-05-06-NWO	5/16	1/2-20	9/16-18	0.234	0.297	1.05	1.25	0.688	0.562
F6801-05-08-NWO	5/16	1/2-20	3/4-16	0.234	0.391	1.12	1.45	0.875	0.750
F6801-06-04-NWO	3/8	9/16-18	7/16-20	0.297	0.172	1.06	1.19	0.563	0.562
F6801-06-05-NWO	3/8	9/16-18	1/2-20	0.297	0.234	1.06	1.19	0.625	0.562
F6801-06-06-NWO	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.25	0.688	0.562
F6801-06-08-NWO	3/8	9/16-18	3/4-16	0.297	0.391	1.14	1.45	0.875	0.750
F6801-06-10-NWO	3/8	9/16-18	7/8-14	0.297	0.484	1.22	1.70	1.000	0.875
F6801-08-04-NWO	1/2	3/4-16	7/16-20	0.391	0.172	1.25	1.26	0.563	0.750
F6801-08-06-NWO	1/2	3/4-16	9/16-18	0.391	0.297	1.25	1.32	0.688	0.750
F6801-08-08-NWO	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.45	0.875	0.750
F6801-08-10-NWO	1/2	3/4-16	7/8-14	0.391	0.484	1.33	1.70	1.000	0.875
F6801-08-12-NWO	1/2	3/4-16	1-1/16-12	0.391	0.609	1.42	1.94	1.250	1.062
F6801-10-06-NWO	5/8	7/8-14	9/16-18	0.484	0.297	1.45	1.41	0.688	0.875
F6801-10-08-NWO	5/8	7/8-14	3/4-16	0.484	0.391	1.45	1.54	0.875	0.875
F6801-10-10-NWO	5/8	7/8-14	7/8-14	0.484	0.484	1.45	1.70	1.000	0.875
F6801-10-12-NWO	5/8	7/8-14	1-1/16-12	0.484	0.609	1.54	1.94	1.250	1.062
F6801-12-08-NWO	3/4	1-1/16-12	3/4-16	0.609	0.391	1.66	1.62	0.875	1.062
F6801-12-10-NWO	3/4	1-1/16-12	7/8-14	0.609	0.484	1.66	1.78	1.000	1.062
F6801-12-12-NWO	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	1.94	1.250	1.062
F6801-12-14-NWO	3/4	1-1/16-12	1-3/16-12	0.609	0.719	1.77	2.00	1.375	1.312
F6801-12-16-NWO	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.76	2.05	1.500	1.312
F6801-12-20-NWO	3/4	1-1/16-12	1-5/8-12	0.609	1.078	1.97	2.25	1.875	1.625
F6801-14-12-NWO	7/8	1-3/16-12	1-1/16-12	0.719	0.609	1.80	2.00	1.250	1.312
F6801-14-14-NWO	7/8	1-3/16-12	1-3/16-12	0.719	0.719	1.80	2.00	1.375	1.312
F6801-16-12-NWO	1	1-5/16-12	1-1/16-12	0.844	0.609	1.81	2.05	1.250	1.312
F6801-16-14-NWO	1	1-5/16-12	1-3/16-12	0.844	0.719	1.81	2.05	1.375	1.312
F6801-16-16-NWO	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	2.05	1.500	1.312
F6801-16-20-NWO	1	1-5/16-12	1-5/8-12	0.844	1.078	2.01	2.25	1.875	1.625
F6801-20-14-NWO	1-1/4	1-5/8-12	1-3/16-12	1.078	0.719	2.06	2.25	1.375	1.625
F6801-20-16-NWO	1-1/4	1-5/8-12	1-5/16-12	1.078	0.844	2.06	2.25	1.500	1.625
F6801-20-20-NWO	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	2.06	2.25	1.875	1.625
F6801-20-24-NWO	1-1/4	1-5/8-12	1-7/8-12	1.078	1.312	2.20	2.39	2.125	1.875
F6801-24-20-NWO	1-1/2	1-7/8-12	1-5/8-12	1.312	1.078	2.33	2.39	1.875	1.875
F6801-24-24-NWO	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	2.33	2.39	2.125	1.875
F6801-32-32-NWO	2	2-1/2-12	2-1/2-12	1.781	1.781	3.06	2.89	2.750	2.500

NWD Technology Fittings

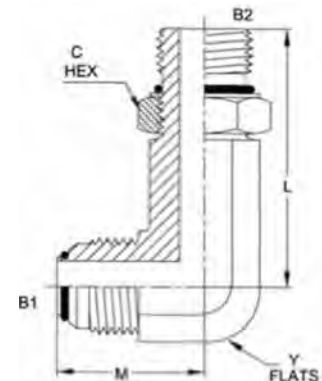
FO-MAORB 90° Long F6801-L-NWO Series



PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE ORB	B1 DRILL	B2 DRILL	M LOTH	L LGTH	C HEX	Y FLATS
F6801-L-04-04-NWO	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.54	0.563	0.438
F6801-L-06-06-NWO	3/8	9/16-18	9/16-18	0.297	0.297	1.06	1.66	0.688	0.562
F6801-L-08-08-NWO	1/2	3/4-16	3/4-16	0.391	0.391	1.25	1.97	0.875	0.750
F6801-L-08-10-NWO	1/2	3/4-16	7/8-14	0.391	0.484	1.33	2.26	1.000	0.875
F6801-L-10-10-NWO	5/8	7/8-14	7/8-14	0.484	0.484	1.45	2.26	1.000	0.875
F6801-L-12-12-NWO	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	2.62	1.250	1.062
F6801-L-16-16-NWO	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	3.06	1.500	1.312

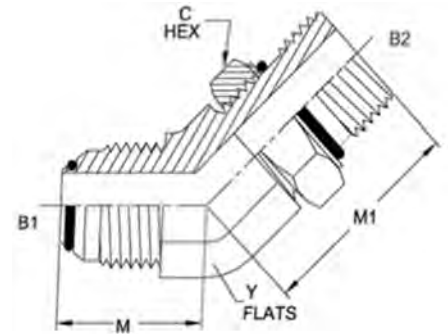
H-024

FO-MAORB 90° X-Long F6801-LL-NWO Series



PART NO.SIZE	TUBE O.D.	B1 SAE 37	B2 SAE ORB	B1 DRILL	B2 DRILL	M LOTH	L LGTH	C HEX	Y FLATS
F6801-LL-04-04-N WO	1/4	7/16-20	7/16-20	0.172	0.172	0.89	1.73	0.563	0.438
F6801-LL-06-06-NWO	3/8	9/16-18	9/16-18	0.297	0.297	1.06	2.08	0.688	0.562
F6801-LL-06-08-NWO	3/8	9/16-18	3/4-16	0.297	0.391	1.14	2.48	0.875	0.750
F6801-LL-08-08-NWO	1/2	3/4-16	3/4-16	0.391	0.391	1.25	2.48	0.875	0.750
F6801-LL-10-10-NWO	5/8	7/8-14	7/8-14	0.484	0.484	1.45	2.89	1.000	0.875
F6801-LL-12-12-NWO	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.66	3.34	1.250	1.062
F6801-LL-16-16-NWO	1	1-5/16-12	1-5/16-12	0.844	0.844	1.81	3.72	1.500	1.312

FO-MAORB 45° F6802-NWO Series

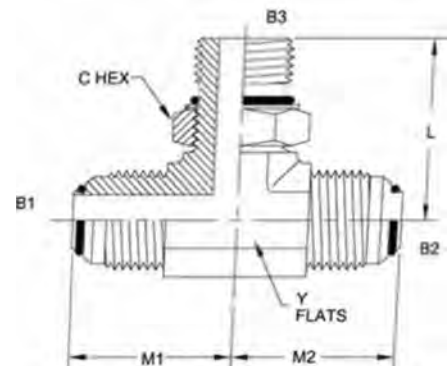


PART NO. SIZE TUBE O.D. B1 SAE37 B2 SAEORB B1 DRILL B2 DRILL M LGTH MI LGTH C HEX Y FLATS

F6802-04-04-NWO	1/4	7/16-20	7/16-20	0.172	0.172	0.72	1.05	0.563	0.438
F6802-05-05-NWO	5/16	1/2-20	1/2-20	0.234	0.234	0.77	1.05	0.625	0.562
F6802-06-06-NWO	3/8	9/16-18	9/16-18	0.297	0.297	0.83	1.14	0.688	0.562
F6802-06-08-NWO	3/8	9/16-18	3/4-16	0.297	0.391	0.87	1.30	0.875	0.750
F6802-08-06-NWO	1/2	3/4-16	9/16-18	0.391	0.297	0.98	1.17	0.688	0.750
F6802-08-08-NWO	1/2	3/4-16	3/4-16	0.391	0.391	0.98	1.30	0.875	0.750
F6802-08-10-NWO	1/2	3/4-16	7/8-14	0.391	0.484	0.99	1.52	1.000	0.875
F6802-10-08-NWO	5/8	7/8-14	3/4-16	0.484	0.391	1.11	1.36	0.875	0.875
F6802-10-10-NWO	5/8	7/8-14	7/8-14	0.484	0.484	1.11	1.52	1.000	0.875
F6802-12-10-NWO	3/4	1-1/16-12	7/8-14	0.609	0.484	1.28	1.57	1.000	1.062
F6802-12-12-NWO	3/4	1-1/16-12	1-1/16-12	0.609	0.609	1.28	1.73	1.250	1.062
F6802-12-16-NWO	3/4	1-1/16-12	1-5/16-12	0.609	0.844	1.42	1.86	1.500	1.312
F6802-14-14-NWO	5/8	1-3/16-12	1-3/16-12	0.719	0.719	1.45	1.86	1.375	1.312
F6802-16-12-NWO	1	1-5/16-12	1-1/16-12	0.844	0.609	1.47	1.86	1.250	1.312
F6802-16-16-NWO	1	1-5/16-12	1-5/16-12	0.844	0.844	1.47	1.86	1.500	1.312
F6802-16-20-NWO	1	1-5/16-12	1-5/8-12	0.844	1.078	1.54	1.91	1.875	1.625
F6802-20-20-NWO	1-1/4	1-5/8-12	1-5/8-12	1.078	1.078	1.59	1.91	1.875	1.625
F6802-24-24-NWO	1-1/2	1-7/8-12	1-7/8-12	1.312	1.312	1.78	1.91	2.125	1.875
F6802-32-32-NWO	2	2-1/2-12	2-1/2-12	1.781	1.781	2.22	1.86	2.750	2.500

H-025

FO-FO-MAORB Branch Tee F6803-NWO Series

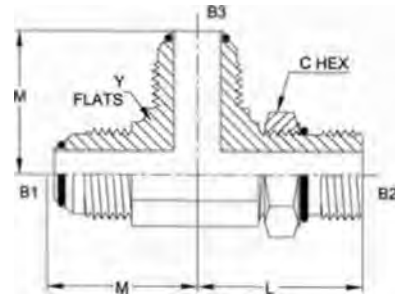


PART NO. SIZE TUBE O.D. B1 SAE37 B2 SAE37 B3 SAEORB B1 DRILL B2 DRILL B3 DRILL MI LGTH M2 LGTH I LGTH C HEX y FLATS

F6803-04-04-04-NWO	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	0.89	1.03	0.563	0.438
F6803-05-05-05-NWO	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	0.95	1.13	0.625	0.562
F6803-06-06-06-NWO	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	1.06	1.25	0.688	0.562
F6803-08-08-08-NWO	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.25	1.45	0.875	0.750
F6803-10-10-10-NWO	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.45	1.70	1.000	0.875
F6803-12-12-12-NWO	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.66	1.94	1.250	1.062
F6803-14-14-14-NWO	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	1.80	2.00	1.375	1.312
F6803-16-16-16-NWO	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	1.81	2.05	1.500	1.312
F6803-20-20-20-NWO	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	2.06	2.25	1.875	1.625
F6803-24-24-24-NWO	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	2.33	2.39	2.125	1.875

NWD Technology Fittings

FO-MAORB-FO Run Tee F6804-NWO Series



PART ND.SIZE	TUBE O.D.	B1 SAE37	B2 SAE ORB	B3 SAE 37	B1 DRILL	B2 DRILL	B3 DRILL	M LGTH	L LGTH	C HEX	Y FLATS
F6804-04-04-04-NWO	1/4	7/16-20	7/16-20	7/16-20	0.172	0.172	0.172	0.89	1.03	0.563	0.438
F6804-05-05-05-NWO	5/16	1/2-20	1/2-20	1/2-20	0.234	0.234	0.234	0.95	1.13	0.625	0.562
F6804-06-06-06-NWO	3/8	9/16-18	9/16-18	9/16-18	0.297	0.297	0.297	1.06	1.25	0.688	0.562
F6804-08-08-08-NWO	1/2	3/4-16	3/4-16	3/4-16	0.391	0.391	0.391	1.25	1.45	0.875	0.750
F6804-10-10-10-NWO	5/8	7/8-14	7/8-14	7/8-14	0.484	0.484	0.484	1.45	1.70	1.000	0.875
F6804-12-12-12-NWO	3/4	1-1/16-12	1-1/16-12	1-1/16-12	0.609	0.609	0.609	1.66	1.94	1.250	1.062
F6804-14-14-14-NWO	7/8	1-3/16-12	1-3/16-12	1-3/16-12	0.719	0.719	0.719	1.80	2.00	1.375	1.312
F6804-16-16-16-NWO	1	1-5/16-12	1-5/16-12	1-5/16-12	0.844	0.844	0.844	1.81	2.05	1.500	1.312
F6804-20-20-20NWO	1-1/4	1-5/8-12	1-5/8-12	1-5/8-12	1.078	1.078	1.078	2.06	2.25	1.875	1.625
F6804-24-24-24-NWO	1-1/2	1-7/8-12	1-7/8-12	1-7/8-12	1.312	1.312	1.312	2.33	2.39	2.125	1.875

H-026

	Brennan	Aeroquip	Dayco	Flodar	Form rite	Gates	Imperial	L&L	Lenz	Parker Tube	Parker Hose	Piper	SSP	Strato Flex	Trident	United Tech	Weather Head
0302	—	302	—	—	50	—	—	37-15S	—	—	—	—	—	1286	1326	—	—
0304	221000	304	H18	25242	—	—	—	37-15	2205-S	—	—	—	—	1287	1327	—	C5115
0304-C	210292	304-C	A66	16	FJ-CAP	830-FS	—	37-16	2205-C	FNTX	06CP	520	JZ	1229	1329	820	C5129
0306	210212	306	A17	—	—	711-BH-FS	—	37-N	3208	WIN	53N	—	BN	1284	1332	894	C5624
030E-N	210295	306-N	R17	—	TLN-711-FS	011-FSO	—	SAN	—	—	—	—	—	1296	1330	—	—
0318	1290	318	A18	37	TSN	841-FS	—	37-15A	3205	BTX	06B	—	IN	1253	1311	818	C5105
0319	900605	319	A19	38	TS	840-FS	—	37-SL	3165	TX	06S	—	IS	1244	1253	819	C5165
0403	73014	403	—	20604	—	—	—	—	—	—	—	—	—	2333	1403	—	—
0403-TS	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0404	73056	404	—	20605	—	—	—	—	—	—	—	—	—	—	1404	—	—
0405	FF1131	—	—	—	—	—	—	—	—	—	—	—	—	—	1502	—	—
0406	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0500	FF1131	500	—	20614	—	—	—	—	—	—	—	—	—	—	1500	—	—
0501	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0600	FF1404	600	—	20615	—	—	—	—	—	—	—	—	—	—	1600	—	—
0601	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0602	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0702	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0801	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0954	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0954-L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1404	2045-[R]	53	SN1000	—	—	MP-FPX	60SA	PSU-2	M-UAD	0107	—	1400	PSC	1210	1210	42-[R]	9205-[R]
1405	2046-[R]	54	SN1100	—	—	FP-FPX	60SG	PSU-3	F-UAD	0207	—	1500	PSFC	1029	1212	23-[R]	6255-[R]
1406	—	—	—	—	—	—	—	—	—	—	—	—	—	1222	—	—	—
1501	2047-[R]	55	SN2000	—	—	MP-FPX90	60UA	PSU-6	ME-UAD	2107	—	1490	—	1037	1218	44-[R]	9405-[R]
1501-L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1502	MP-	56	SN2100	—	—	FP-FPX90	60UG	PSU-7	FE-UAD	2207	—	1590	—	1030	1216	45-[R]	9455-[R]
1503	2049-[R]	57	SN4500	—	—	MP-FPX45	60TA	PSU-5	MEX-UAD	3107	—	1445	—	1036	1214	35-[R]	9355-[R]
1504	2050-[R]	58	SN4510	—	—	FP-EPX45	60TG	PSU-55	FEX-UAD	—	—	1545	—	15854	1249	37-[R]	9385-[R]
1601	2254-[R]	61	SN3000	—	—	MPX-FPXT	60VC	PSU-9	MT-UAD	—	—	1430	—	15855	1258	46	9406-[R]
1602	2253-[R]	62	SN3100	—	—	—	60VH	PSU-10	FT-UAD	—	—	1530	—	15856	1259	47	9456-[R]
1603	2255	63	SN3200	—	—	—	60VJ	PSU-11	T-UAD	—	—	1630	—	15857	1223	48	9705-[R]
1604	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1700	500025-[R]	360	—	—	—	R-MJ-[R]	63SB	—	—	—	—	—	—	—	6100	—	-1
1703	500023-JR	361	—	—	—	FI-MI45-[R]	63TB	—	—	—	—	—	—	—	6145	—	—
1704	500024-[R]	362	—	—	—	R-MI90-[R]	63UB	—	—	—	—	—	—	—	6190	—	—
1800	FF5541-[R]	—	—	—	—	FLH6K-MI	63SF	—	—	XHQ2	—	—	—	—	6200	—	—
1803	FF5539-[R]	—	—	—	—	FIH6K-MI45	63TF	—	—	XVQ2	—	—	—	—	6245	—	—
1804	FF5540-[R]	—	—	—	—	FIH6K-MI90	63UF	—	—	XEQ2	—	—	—	—	6290	—	-1
1901	—	—	—	—	—	CFHS	PA	—	—	5151HK	—	—	—	—	—	—	—
1902	—	—	—	—	—	FHHS	PH	—	—	HFHFHK	—	—	—	—	—	—	—
1951	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1952	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Interchange Chart

Brennan	Aeroquip	Oayco	Flodar	Formrite	Gates	Imperial	L&L	Lenz	Parker Tube	Parker Hose	Piper	SSP	Strata Flex	Trident	United Tech	Weather Head
1961	2027	2403	AC1200	4	MJ-MJ	842-FS	37-4	3305	HTX	0303	400-SH	JU	1019	1204	811	C5305
1962	202712	2304-LH	—	—	—	842-H-FS	37-4LH	3305-LH	LHTX	03L3	410-LH	1LHU	—	1204-m	815	C5306
1971	2021-IR1	2404	AC1000	2	MI-MP	848-FS	37-2	3105	FTX	0103-[R]	100	JC	1012-[R]	1202-[R]	816	C5205
1972	202113-[R]	—	—	—	—	848L-FS	37-12	—	—	—	—	—	1091-[R]	1202-L0-[R]	—	—
2111	202114-IR1	—	—	—	—	—	37-LX2	—	—	—	—	—	1098-rm	1202-LL-f[R]	—	—
2112	2022-[R]	2405	AC1100	3	MJ-FP	846-FS	37-3	3255	6TX	0203-[R]	200	JFC	1015-[R]	1230-[R]	887	C5255
2113	2215	2406	AC55	—	—	883-FS	37-TR	3145**	TRTX**	0603**	530	JTER	—	1246	892	C5015
2114	900599	2408	A77	17	MJ-PLUG	839-FS	37-17	3105-P	PNTC	03CP	500	JP	1227	1254	806	C5229
2115	2039	2500	AC2200	8	—	855-FS	37-8	3505	ETC	2303	490	IE	1039	1234	821	C5505
2116	2024-[R]	2501	AC2000	6	MJ-MP90	849-FS	37-6	3405	CTC	2103-[R]	190	IME	1025-[R]	1208-IR	822	C5405
2117	202411-[R]	2501-L	AC201L	58	—	849-L-FS	37L-6	3405-L	CCTC	5603-[R]	190-L	—	1092-[R]	1208-L-[R]	875	C5425
2118	202413-[R]	2501-LL	AC202L	56	—	849-LL-FS	37LX-6	3405-LL	CCBX	5703-IR	190-XL	—	1099-[R]	120841-[R]	876	C5435
2119	202414-JR	—	AC203L	—	—	—	37LLX-6	3405-LL	—	—	—	—	16969-[R]	—	—	—
2120	2025-1R	2502	AC2100	7	MJ-FP90	850-FS	37-7	3455	OTC	2203-IR	290	JFE	1027-[R]	1242-IRJ	886	C5455
2121	2023-[R]	2503	AC4500	5	MJ-MP45	854-FS	37-5	3355	VTC	3103-[R]	145	JME-45	1021-[R]	1206-[R]	823	C5365
2122	—	—	—	—	—	—	37-54	—	—	—	—	—	—	—	—	—
2123	2044-IR	—	—	—	—	—	37-55	—	—	—	—	—	—	—	—	—
2124	2030-[R]	2601	AC3000	9	MJ-MP-MJ	845-FS	37-9	3605	SIX	213T-[R]	130	JTTM	1033-[R]	1221-JR	825	C5605
2125	2031-[R]	2602	AC3100	10	—	858-FS	37-10	3655	OTX	223T-[R]	230	inF	1034-[R]	1228-JR	889	C5655
2126	2033	2603	AC3200	11	MI-MJ-MI	844-FS	37-11	3705	ITC	033T	430	JT	1031	1220	824	C5705
2127	2028-IR	2605	AC3300	12	—	851-FS	37-12	3755	RTC	013T-IR1	120	JTMT	1032-IR1	1224-IR	826	C5755
2128	2029-1R	2606	AC3400	—	—	857-FS	37-13	3805	MTC	023T-IR	220	JTFT	1035-[R]	1226-IRJ	888	C5805
2129	203007-IR1	—	—	—	—	—	37-26	3895	—	—	—	—	—	—	—	—
2130	203006-[R]	2608	—	—	—	—	37-27	3885	—	—	—	—	—	—	—	—
2131	203104-[R]	—	—	—	—	—	37-28	3935	—	—	—	—	—	—	—	—
2132	202832-1R	—	—	—	—	—	37-30	3875	—	—	—	—	—	—	—	—
2133	203103-[R]	—	—	—	—	—	37-29	3915	—	—	—	—	—	—	—	—
2134	202901	—	—	—	—	—	37-31	3925	—	—	—	—	—	—	—	—
2135	203301	—	—	32	—	—	37-32	3865	—	—	—	—	—	—	—	—
2136	2020	2650	AC4200	—	—	852-FS*	37-14	3855	KTC	033X	440	IX	1009	1229	827	C5955
2651	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Brennan	Aeroquip	Dayco	Flodar	Form rite	Gates	Imperial	L&L	Lenz	Parker Tube	Parker Hose	Piper	SSP	Strato Flex	Trident	United Tech	Weather Head
2652																
2653																
2654																
2700	2041-1R1*	2700	AC1009	104	MJ-BKHB55-BH-FS*	37-104	3905*		WTX	0353*	1000	JBU	1000*	1260	832	C5325
2701	2043-1R1*	2701	AC1209	108	854-BH-FS*	37-108	3955*		WETX	2353*	1090	1BE	1002*	1262	833	C5525
2702	2042*	2702	AC4529	-	870FS*	37-105	3945*		WETX	3353*	1045	IBE-45	1001*	1261	837	C5375
2703	203002'	2703	AG209	-	-	37-111	3965*		WIT	543T*	1030	JBBT	1003*	1283	834	C5725
2704	203008*	2704	AG309	-	-	-	-		WJIT	533T*	-	-	-	1284	804	C5726
2705	2239*	2705-[R]AC1109-[R]	-	-	-	37-103	3985-[R]		WGTX	0253*	-	JBFC	-	-	870-[R]	C5275
2706	2240*	2706-[R]AC1009-[R]	-	-	-	-	3995-[R]		-	-	-	JBC	-	-	-	-
3051	-	-	-	-	-	-	-		-	-	-	-	1243C	-	-	-
3474	-	-	-	-	-	-	-		F50F50	0505	-	6CU	-	1286	-	-
4000																
4001																
4004	22617	-	RB	22013	-	710-FS0	-		-	711509	-	-	1249	2030	629	7629
4404	-	-	-	HI	-	-	AM-180		-	-	900	-	15851	1041-[R]	840	-
4501	FF1162-[R]	4501	-	23916	-	-	AM-90		-	-	990	-	15853	1045-[R]	842	-
4503	-	-	-	-	-	-	AM-45		-	-	945	-	15852	1043-[R]	844	-
4504																
4505																
4506																
4601	FF1167-[R]	4601	-	-	-	-	AMSA-90		-	-	890	-	-	1046-[R]	845	-
4603	FF1168-[R]	4603	-	-	-	-	AMSA-45		-	-	845	-	-	1040-[R]	846	-
4604	-	4604	-	-	-	-	AMSA-180		-	-	800	-	-	1044-[R]	-	-
5000	2096	5000	PF11	-	FP-FP	24-SJ	PC-13	PC	GG	0202	1300	HC	1008	1273	847	C3309
5304																
5316																
5404	2083	5404	PF10	-	MP-MP	24-SA	PC-11	PN	FF	0101	1150	HN	1042	1252	910	C3069
5404-N	2084	-	PF102	-	-	-	-		FFF	-	-	HN	-	-	911	-
5405	2040	5405	PF110	-	MP-FPL	24-SG-[R]	-	PRC	FG-[R]	0201-[R]	1110	RA	1050	1274	920-[R]	C3209-[R]
5406	2081	5406	PF101	247	MP-FPS	24-SB	HB	HB	PTR	0102	1120	PTR	1093	1250	912	C3109
5406-C																
5406-HP	2222	-	PFH60	248	-	24-SR	-	HHP	HHP	01HP	-	-	-	-	-	C3169
5406-P	2082	5406-P	PFHP60	-	MP-PLUG	-	HP	HP	HP	01CP	1100	HP	1219	1251	933	C3159
5406-SHP																
5500	2085	5500	PF20	217	MP-MP90	25-UA	PC-17	MPE	CR	2101	1190	MM	1094	1275	919	C3529
5501	2247	5501	PF50	-	-	-	PC-14	-	-	-	-	-	-	-	-	-
5502	2089	5502	PF201	218	MP-FP90	25-UG	PC-18	SE	CD	2102	1290	MF	1095	1243-[R]	914	C3409
5503	2088	5503	PF501	-	-	25-TG	PC-15	45-SE	CD-45	3102	1245	MF-45	1096	1244	915	C3359
5504	2087	5504	PF21	219	-	25-UJ	PC-19	FPE	DD	2202	1390	FF	1097	1245	916	C3509
5505	5505	5505	PF51	-	-	-	PC-16	-	DD-45	4202	-	FF-45	-	1241	928	C3559
5600	2257	-	PF30	220	FP-FP90	-	PC-20	MPT	RRS	-	-	MMM	-	-	-	-
5601	2256	-	PF3001	-	-	-	PC-23	MRT	-	-	-	-	15861	-	-	-
5602	2092	5602	PF3011	224	-	25-VK	PC-24	ST	MRO	012T	1220	FMF	16970	1276	902	C3759
5603	2093	5603	PF3010	-	-	-	PC-21	MST	MMO	-	-	-	16913	1277	-	-

Interchange Chart

	Brennan	Aeroquip	Oayco	Flodar	Formrite	Gates	Imperial	L&I	lenz	Parker Tube	Parker Hose	Piper	SSP	Strata Flex	Trident	United Tech	Weather Head
5604	2091	5604	PF3110	PF31	225	FP-FP-MP	25-VC	PC-22	FRT	KMMOO	212T	1230	FFM	15862	1278	904	C3609
5605	2090	5605	PF31			FP-FP-FP	25-VJ	PC-25	PT	—	022T	1330	FFF	—	1225	917	C3709
5650	208004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
5651	2080	5652	PF41	PF41	—	—	25-WJ	PC-41	FPC	—	022X	1340	FFFF	15850	1279	918	C3959
5653	208007	—	PF40111	—	—	—	—	PC-24	—	—	—	—	—	—	—	—	—
5655	2251	—	—	—	—	—	—	SPC-17	—	—	—	—	—	—	—	—	—
5700	2249-IR]	—	—	—	—	—	—	S37-6	—	—	—	—	—	—	—	—	9453
5701	2252	—	—	—	—	—	833-FS	SPC-18	—	—	—	—	—	—	—	—	—
5702	—	—	—	—	—	—	—	—	A3105	—	—	—	—	—	—	—	—
6000	202702-IR]	6400	RAC1000	62	62	MB-MJ	848-FSO	SA-2	A3105L	F50X	0503-IR]	700	JGC	1040-IR]	1231	850	C5312
6400-L	202713-IR]	6400-1	RAC101L	—	—	—	848L-FSO	SA-L2	—	FF50X	E503	—	—	15867-IR]	1231-10	851	C5316
6401	—	6401	R1000	—	—	—	—	SAPC-11	APN	F5F	—	380	—	—	1264-IR)	29	C3249
6402	2266	—	—	—	—	—	—	—	—	F65X	—	—	—	—	1213	—	9316
6404	2246-IR]	6404	—	—	—	—	—	—	—	FH65	—	300	—	—	1267-IR)	31	C3239
6405	2216-IR]	6405	R1100	—	—	MB-FP	720-FSO	SAPC-12	APC	F50G	502	360	GCF	16339-IR]	1268-IR]	32	C3269
6408	900598	6408	R77	64	64	MB-PIUG	721-FSO	SA-17	A3105P	P50N	05CP	510	GP	1228	1255	33	7237
6408-H	FF2138	—	R771	—	—	—	—	SA-17SH	—	HP50N	05HP	510	CGP	—	1256	—	7238
6410	FF1010	6410	SAE11	—	—	—	719-FSO	—	—	F50G5	510	340	—	—	1270	—	7033
6420	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6425	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6464	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6500	2071-IR]	6500	RASC2000	71	71	MJ-FIX90	879-FS	SW-6	3505-SW	C6X	3903	690	JSE	1005	1236	863	C5506
6500-L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6501	2250	6501	RMSC2000	—	—	—	—	SWPC-17	—	—	—	660	—	—	1247-IR]	—	TF5406
6502	2070-IR]	6502	RASC4500	—	—	MI-FJX45	889-FS	SW-5	3355-SW	V6X	3703	645	JSE-45	1004	1237	874	C5356
6503	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6504	2018	60	—	—	—	—	881-FS-IR]	—	—	F6X	—	—	—	—	1205	862	—
6505	2242	66	—	—	—	—	882-FS-IR]	—	—	—	—	—	—	—	1211	—	—
6506	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1215	—	—
6565	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6600	203101-IR]	6600	RASC3000	72	72	—	872-FS	SW-9	3605-SW	S6X	393T	630	ISBT	1006	1227	865	C5707
6602	203102-IRJ	6602	RASC3300	73	73	MI-FIX-MI	871-FS	SW-12	3755-SW	R6X	063T	620	ISRT	1007	1248	864	C5706
6603	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6604	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6605	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6606	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6701	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6801	2062-IR]	6801	RAC2000	66	66	MB-MI90	849-FSO	SA-6	A3405	C50X	2503-IR)	790	JGE	1048-IR]	1238-IR]	853	C5515
6801-I	—	6801-L	—	—	—	—	—	SAL-6	A3405L	—	—	—	—	—	1238-10-1R)	—	—
6801-LL	206209-IR)	—	—	—	—	—	—	SASLX-6	A3405LL	—	—	—	—	—	1238-LL-IRJ	C-5365	—
6801-ILL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6802	2061-IR]	6802	RAC4500	65	65	MB-MI45	854-FSO	SA-5	A3355	V50X	3503-IR)	745	JGE-45	1047-IR)	1240-IR]	852	C5365
6803	203003-IRJ	6803	RAC3000	69	69	—	845-FSO	SA-9	A3605	S50X	253T	730	IGBT	1089	1265-IRJ	855	C5715

I-005

Brennan	Aeroquip	Dayco	Flodar	Formite	Gates	Imperial	L&L	Lenz	Parker Tube	Parker Hose	Piper	SSP	Strato Flex	Trident	United Tech	Weather Head
6804	203005-IR1	6804	RAG300	67	851-FSO	851-FSO	SA-12	A3755	R50X	053T	720	JGRT	1090	1266-IR1	854	C5716
6805	206801-IR1	6805	RF2100	—	—	—	SAPC-18	—	AEOG	2502	760	—	—	1269	56	0459
6805-L	206804-IR1	—	—	—	—	—	—	—	AE40G	5502	—	—	—	—	—	0469
6806	—	6806	RM2000	—	—	—	—	—	—	—	780	—	—	1263	57	TF3569
6807	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	- I
6808	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6807-LL	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6809	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6810	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6815	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6832	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6840	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6850	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
6900	2066-IR1	59	SNR1000	—	MB-FPX	60-SB	SASU-2	SM-UAD	—	507	1700	—	15858-IR1	1235	38	9315
6901	2068-IR1	64	SNR2000	—	MB-FPX90	60-UB	SASU-6	SME-UAD	—	2507	1790	—	15860-IR1	1271	39	9515
6902	2067-IR1	65	SNR4500	—	MB-FPX45	60-TB	SASU-5	—	—	3507	1745	—	15859-IR1	1272	40	9365
7000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7005-L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7005-S	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7007-L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7007-S	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7008	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7008-F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7009	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7009-F	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7022	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7023	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7025	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7030	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7032	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7033	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7034	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7040	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7042	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7045	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7062	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7102-NW0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7202-NW0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7204	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Interchange Chart

Brennan	Aeroquip	Dayco	Flodar	Form rite	Gates	Imperial	L&L	Lenz	Parker Tube	Parker Hose	Piper	SSP	Strato Flex	Trident	United Tech	Weather Head
7205-NW0																
7220																
7222																
7588-P																
7599-P																
7888-C																
7699-C																
8055																
8080																
8088																
8180																
8280																
8555-H																
8555-P																
8800																
9000																
9001																
9002																
9020																
9022																
9023																
9024																
9025																
9033																
9124																
9222																
9224																
9224-L																
9322																
9344																
9500-P																
9522-H																
9522-P																
9644-C																
9722-LN																
9900																
9925																7141
C0304-C									FUN			MZ				
C0304																
C0306									WIN			BN				7936
C0318									BU			MN				7117
C0319									TU			MS				7176
C2402																
C2403									HBU			MU				7317
C2403-LH									WBU			MLHU				7318

I-007

Brennan	Aeroquip	Dayco	Flodar	Formrite	Gates	Imperial	I&L	Lenz	Parker Tube	Parker Hose	Piper	SSP	Strato Flex	Trident	United 1 Tech	Weather Head
C2404	—	—	—	—	—	—	—	—	FHU	—	—	MC	—	—	—	7217
C2405	—	—	—	—	—	—	—	—	GBU	—	—	MFC	—	—	—	7287
C2406																
C2408																
C2500	—	—	—	—	—	—	—	—	EBU	—	—	ME	—	—	—	7517
C2501	—	—	—	—	—	—	—	—	CBU	—	—	MME	—	—	—	7417
C2501-L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7437
C2501-U	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7447
C2502	—	—	—	—	—	—	—	—	DBU	—	—	MFE	—	—	—	7467
C2503	—	—	—	—	—	—	—	—	VBU	—	—	MME-45	—	—	—	7387
C2504																
C2B01	—	—	—	—	—	—	—	—	SBU	—	—	MTTM	—	—	—	7617
C2B02	—	—	—	—	—	—	—	—	OBU	—	—	MTTF	—	—	—	7667
C2B03	—	—	—	—	—	—	—	—	IBU	—	—	MT	—	—	—	7717
C2B05	—	—	—	—	—	—	—	—	RBU	—	—	MTMT	—	—	—	7767
C2B06	—	—	—	—	—	—	—	—	MBU	—	—	MTFT	—	—	—	7817
C2B50	—	—	—	—	—	—	—	—	KBU	—	—	MX	—	—	—	7967
C2700	—	—	—	—	—	—	—	—	WBU	—	—	MBU	—	—	—	7337
C2701	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7537
C2702	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
C2703	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
C2704	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12706	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12707	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
C6400	—	—	—	—	—	—	—	—	—	F5BU	—	—	MGC	—	—	7327
C6400-L	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7328
CS500	—	—	—	—	—	—	—	—	—	C6BU	—	—	MSE	—	—	7518
C8502	—	—	—	—	—	—	—	—	—	—	—	—	MSE-45	—	—	7388
C8600	—	—	—	—	—	—	—	—	—	S6BU	—	—	MSBT	—	—	7719
C8602	—	—	—	—	—	—	—	—	—	R6BU	—	—	MSRT	—	—	7718
C8801-NW0	—	—	—	—	—	—	—	—	—	C5BU	—	—	M6E	—	—	7527
C8802-NW0	—	—	—	—	—	—	—	—	—	V6BU	—	—	MGE-45	—	—	7377
C8803-NW0	—	—	—	—	—	—	—	—	—	S5BU	—	—	MG8T	—	—	7727
CS804-NW0	—	—	—	—	—	—	—	—	—	R6BU	—	—	MGRT	—	—	7728
FS0304-C	FF9863	—	—	—	—	830-TT	—	—	FNL	—	—	—	—	—	—	4129
FSO306	FF9788	—	—	—	—	711BH-TT	—	—	WLN	—	—	—	—	—	—	4924
FS0318	FC2326	—	—	—	—	841-TT	—	—	BL	—	—	—	—	—	—	4105
FS0319	FC1229	—	—	—	—	840-TT	—	—	TI	—	—	—	—	—	—	4165
FS0403	FF1851T	—	—	—	—	834-TT	—	—	LHB30	—	—	—	—	—	—	—
FS1700																
FS1703																
FS1800																
FS1803																
FS1805																
FS2403	FF2000T	—	—	—	—	—	—	—	HLO	—	—	—	—	—	—	4305

Interchange Chart

Brennan	Aeroquip	Dayco	Flodar	Form rite	Gates	Imperial	L&L	Lenz	Parker Tube	Parker Hose	Piper	SSP	Strato Flex	Trident	United Tech	Weather Head
FS2404	FF2031T	--	--	--	--	848-TT	--	--	a0	--	--	--	--	--	--	4205
FS2406	FF2281T	--	--	--	--	883-TT	--	--	TRLO	--	--	--	--	--	--	4015
FS24Q8	FF9767	--	--	--	--	839-TT	--	--	PNLO	--	--	--	--	--	--	4229
FS2500	FF2035T	--	--	--	--	855-TT	--	--	a0	--	--	--	--	--	--	4505
FS2501	FF2032T	--	--	--	--	849-TT	--	--	a0	--	--	--	--	--	--	--
FS2503	FF2093T	--	--	--	--	854-TT	--	--	--	--	--	--	--	--	--	--
FS2601	FF2001T	--	--	--	--	--	--	--	10	--	--	--	--	--	--	--
FS2B03	FF1898T	--	--	--	--	844-TT	--	--	KLO	--	--	--	--	--	--	4705
FS2650	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4955
FS2700	FF1994T	--	--	--	--	832-TT	--	--	WIO	--	--	--	--	--	--	4325
FS2701	FF2030T	--	--	--	--	--	--	--	wa0	--	--	--	--	--	--	4525
FS2702	--	--	--	--	--	--	--	--	WNLO	--	--	--	--	--	--	--
FS2703	--	--	--	--	--	--	--	--	WJML0	--	--	--	--	--	--	--
FS2704	--	--	--	--	--	--	--	--	WHO	--	--	--	--	--	--	4726
FS4000	FF9446	--	--	--	--	TT-77	--	--	--	--	--	--	--	--	--	4629
FSG001	FF9075	--	--	--	--	836-TT	--	--	S8R	--	--	--	--	--	--	--
FS6400	FF1852T	--	--	--	--	848-TTO	--	--	F5010	--	--	--	--	--	--	4315
FS6400-L	FF1854T	--	--	--	--	848L-TTO	--	--	FF50L0	--	--	--	--	--	--	4316
FS6402	--	--	--	--	--	--	--	--	LOHX6	--	--	--	--	--	--	4214
FS6403	--	--	--	--	--	--	--	--	XHLO	--	--	--	--	--	--	--
FS6500	FF2098T	--	--	--	--	879-TT	--	--	C6L0	--	--	--	--	--	--	4506
FSG503	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FS6504	--	--	--	--	--	--	--	--	XHL6	--	--	--	--	--	--	--
FS6S05	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FS6G0D	FF1857T	--	--	--	--	872-TT	--	--	S6L0	--	--	--	--	--	--	4707
FS6602	FF2114T	--	--	--	--	871-rr	--	--	R610	--	--	--	--	--	--	4706
FS6801	FF1868T	--	--	--	--	849-TTO	--	--	C3010	--	--	--	--	--	--	4515
FS6801-L	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FSG801-LL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
FS6802	FF2068T	--	--	--	--	854-TTO	--	--	V50L0	--	--	--	--	--	--	4385
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FS6804	FF1865T	--	--	--	--	851-TTO	--	--	R50L0	--	--	--	--	--	--	4716
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FS7215	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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Terms of Payment:

Subject to credit approval and, unless otherwise specified, cash discount terms are 1% 10 Days, Net 30 Days.

Shipping:

All prices are F.O.B. Warehouse.

Returns:

Fittings may be returned only with the authorization of Brennan Industries, Inc., subject to our inspection and must be shipped freight-prepaid. A minimum handling charge of 20% will apply.

All returns must be clearly marked with the Return Goods Authorization number on the package and all paperwork.

Special Fittings:

Special fittings made to your specifications are not returnable.

I-011

Minimum Billing Charge:

All orders are subject to a \$25.00 minimum billing charge per order.

Material:

All Brennan fittings and adapters are produced using high-quality Carbon Steel, 316 Stainless Steel and Brass and conform to the design requirements as specified in the Society of Automotive Engineers Section J514, J1453 and J518.

Note:

This catalog supersedes any previous catalog covering these products. Prices are subject to change without notice.

Disclaimer:

Brennan Industries, Inc. cannot be held responsible for omissions or typographical errors.

O-Ring Face Seal/Flat Face Fittings • Flareless Bite Type Fittings
Push-to-Connect Fittings • Tube Fittings & Adapters
Conversion Adapters • Metric Bite Type Fittings* NWD • Test Points
Hydraulic Flanges • Instrumentation Tube Fittings



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