



B R E N N A N

c a t a l o g

Dear Valued Customer:

We are pleased to present our hydraulic tube fitting and adapter catalog. Since 1953, Brennan Industries, Inc. has been supplying hydraulic tube fittings and adapters to all types of industries. As a result of our efforts to continuously improve, today we offer the most complete line of hydraulic tube fittings and adapters anywhere in the world. With over 10,000 line items inventoried in 6 strategically located, full-service warehouses and over 4,000 distributors, Brennan not only has what you need when you need it, but we have what you need where you need it. Whether you need steel, stainless steel or brass, standards or specials, we have the fittings you are looking for...in stock, and in sizes ranging from 1/8" to 2". All are high-quality products that meet or, in most cases, exceed J.I.C./S.A.E. specifications.

To order any of our many products, please contact the regional warehouse nearest you, as listed on the back of this catalog. Our experienced sales and customer service representatives are available to assist you with any questions or special arrangements that you may require.

Thank you for doing business with Brennan.

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.

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.

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 & Female Swivel MPa	Adjustable SAE Std. Thread & Female Swivel 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	—	—
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 Paskels) – 1 MPa = 145 PSI

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

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

General Technical

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

AORB: Adjustable O-ring Boss (NWO)

B: Brass

BHLN: Bulk Head Lock Nut

BSPP: British Standard Pipe Parallel

BSPPS: British Standard Pipe Parallel Swivel

BSPT: British Standard Pipe Taper

BT: Bite Type

BTS: Bite Type Swivel

BULN: Back-up Lock Nut (NWO)

BW: Butt Weld

C: (before number) Bite Type

C: (after number) Cap

C HEX: Width Across the Wrench

D: Aluminum

F: (before number) Flare-O

FBSP: Female British Standard Pipe Parallel

FBSP: Female British Standard Pipe Tapered

FBSPS: 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

FJIS: Female J.I.S.

FK: Female Komatsu

FMS: Female Metric Swivel

FO: Flare-O

FORB: Female O-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-O)

LGTH: Length

LH: Large Hex

LL: Extra Long

LLL: Extra Extra Long

LLLL: Extra Extra Extra Long

MAORB: Male Adjustable O-ring Boss (NWO)

Glossary of Descriptions

MBSPP: Male British Standard Pipe Parallel

MBSPPADJ: Male British Standard Pipe Parallel Adjustable

MBSPPAORB: Male British Standard Pipe Parallel Adjustable O-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.

MK: Male Komatsu

M.M.: Millimeters

MM: Male Metric

MMADJ: Male Metric Adjustable

MMAORB: Male Metric Adjustable O-ring Boss

MORB: Male O-ring Boss

MP: Male Pipe

MS: Metric Swivel

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

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

NPSM: American (formerly National) Pipe Straight Mechanical

NPTF: American (formerly National) Pipe Taper Fuel

NWO: Nut Washer O-ring (MAORB)

O: O Ring

O.D.: Outside Dimension

ORB: O-ring Boss

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

Y FLATS: Width Across the Wrench Flats

V: Versa Flare

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 you would 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 you would add the suffix SS and if you are ordering brass products you would add the suffix B. 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 you would order the part number with the FG suffix. All stainless steel and brass shapes are forged one piece construction and therefore do not require

the FG suffix. For example:

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.

NEW Product Dimensions

For products indicated as "*NEW*," the dimensions can be found on the Brennan web site. Please visit the site at www.brennaninc.com and follow the instructions to find a specific product.

**Check Out
Our Web Site**

www.brennaninc.com



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The Entire Brennan Catalog Is Now On-Line**
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