

TECHNICAL INFORMATION

HYDRAULIC ADAPTERS

BSPT, BSPP and Metric Adapter Specifications

BSPT and Metric tapered threads install and work in the same manner as NPT and NPTF.

Male BSPP fittings include an inverted 60° cone inside an internally threaded swivel union nut. Male BSPP fittings that have a 30° internal chamfer that make a 60° inverted cone, will mate with Female BSPP swivel unions.

NOTE: THE MATING MALE THREADS MUST INCLUDE AN INSIDE CHAMFER ON THE END OF THE FITTING THAT MATES WITH THE INVERTED CONE. THREADS ARE FOR CLAMPING FORCE ONLY AND THE SEALING OCCURS ON A SMALL RADIAL SECTION BETWEEN THE MALE FITTING INTERNAL CHAMFER AND THE SWIVEL UNION INVERTED CONE.

DIN swivel unions have a 24° inverted cone and may be installed into DIN bite-ring compression fittings. To provide enhanced performance, an O-ring is sometimes included in the cone of some DIN swivel unions.

British Standard Pipe Parallel (BSPP) and Metric Parallel threaded ports do not include a port cavity like the O-ring Boss or ISO 6149 port. Instead, an O-ring sits on top of the spot face or external surface and is surrounded by a metal retaining ring or other retaining component to trap the O-ring between the fitting hex, body, and spot face.

Elbow and Tee fittings have a locknut, backup washer, O-ring and retaining washer to permit 360° orientation around the axis of the port.

The following table lists the specifications for **BSPP & BSPT Adapters**

BSPP & BSPT Specifications				
Dash Size	BSPT & BSPP		Torque	
	THREAD SIZE	MAJOR OD ^o (inch)	BSPP Swivel Union	BSPT
02	1/8-28	0.383	2	2-3
04	1/4-19	0.518	2	2-3
06	3/8-19	0.656	2	2-3
08	1/2-14	0.825	2	2-3
10	5/8-14	0.929	2	2-3
12	3/4-14	1.041	2	2-3
16	1-11	1.309	1 1/2	1 1/2 - 2 1/2
20	1 1/4-11	1.650	1 1/2	1 1/2 - 2 1/2
24	1 1/2-11	1.882	1 1/2	1 1/2 - 2 1/2
32	2-11	2.347	1 1/2	1 1/2 - 2 1/2

The following table lists the specifications for **Metric Adapters**

Metric DIN 3852-1 Threads	
Dash Size	THREAD SIZE (mm)
08	8 x 1.0
10	10 x 1.0
12	12 x 1.5
14	14 x 1.5
16	16 x 1.5
18	18 x 1.5
20	20 x 1.5
22	22 x 1.5
24	24 x 1.5
26	26 x 1.5
27	27 x 2.0
30	30 x 2.0
33	33 x 2.0
39	39 x 2.0
42	42 x 2.0
48	48 x 2.0
60	60 x 2.0

Values are from DIN 3852-1

STEEL BSPT ADAPTERS

HYDRAULIC ADAPTERS

STRAIGHT THREAD SWIVEL NUT ELBOW



PART #	O-RING THREAD 1	FACE SEAL THREAD 2	
FS680944	7/16-20	9/16-18	----
FS680966	9/16-18	11/16-16	----
FS680988	3/4-16	13/16-16	----
FS68091212	1-1/16-12	1-3/16-12	----

FF6809 FF1239 4535 AOELC

STEEL BSPT ADAPTERS

JIC MALE CONNECTOR BSPT



PART #	JIC THREAD SIZE 1	MALE BSPT 2	
700042	7/16-20	1/8-28	----
700044	7/16-20	1/4-19	----
700064	9/16-18	1/4-19	----
700066	9/16-18	3/8-19	----
700068	9/16-18	1/2-14	----
700086	3/4-16	3/8-19	----
700088	3/4-16	1/2-14	----
7000812	3/4-16	3/4-14	----
7000108	7/8-14	1/2-14	----
70001012	7/8-14	3/4-14	----
7000128	1-1/16-12	1/2-14	----
70001212	1-1/16-12	3/4-14	----
70001616	1-5/16-12	1-11	----

3404 305

JIC MALE ELBOW BSPT



PART #	JIC THREAD SIZE 1	MALE BSPT 2	
720042	7/16-20	1/8-28	----
720044	7/16-20	1/4-19	----
720064	9/16-18	1/4-19	----
720066	9/16-18	3/8-19	----
720068	9/16-18	1/2-14	----
720086	3/4-16	3/8-19	----
720088	3/4-16	1/2-14	----
72001212	1-1/16-12	3/4-14	----

3501 315

BSPT HEX NIPPLE



PART #	MALE BSPT 1	MALE BSPT 2	
752022	1/8-28	1/8-28	----
752044	1/4-19	1/4-19	----
752066	3/8-19	3/8-19	----
752088	1/2-14	1/2-14	----
75201010	5/8-14	5/8-14	----
75201212	3/4-14	3/4-14	----

3520 MBT

BSPT PLUG



PART #	BSPT	
95082	1/8-28	----
95084	1/4-19	----
95086	3/8-19	----
95088	1/2-14	----
950812	3/4-14	----
950816	1-11	----

100B-Y KA-RM MHL 296

STEEL BSPP ADAPTERS

BSPP HEX NIPPLE



PART #	MALE BSPP 1	MALE BSPP 2	
742022	1/8-28	1/8-28	----
742042	1/4-19	1/8-28	----
742064	3/8-19	1/4-19	----
742066	3/8-19	3/8-19	----
742086	1/2-14	3/8-19	----
742088	1/2-14	1/2-14	----
7420108	5/8-14	1/2-14	----
7420128	3/4-14	1/2-14	----
74201212	3/4-14	3/4-14	----
74201612	1-11	3/4-14	----
74201616	1-11	1-11	----

3420 MB 9022

WARNING: This product can expose you to chemicals, including Cobalt, which are known to the State of California to cause cancer. For more information, visit www.P65Warnings.ca.gov

STEEL BSPP ADAPTERS

HYDRAULIC ADAPTERS

BSPP COUPLING



PART #	BSPP	
74252	1/8-28	----
74254	1/4-19	----
74258	1/2-14	----
742510	5/8-14	----
742512	3/4-14	----
742516	1-11	----

3425 FB

JIC TO BSPP 45° ELBOW



PART #	JIC THREAD SIZE 1	MALE BSPP 2	
78024	7/16-20	1/4-19	----
78026	9/16-18	3/8-19	----
78028	3/4-16	1/2-14	----
780212	1-1/16-12	3/4-14	----
780216	1-5/16-12	1-11	----

3802 35J

JIC TO FEMALE BSPP STRAIGHT SWIVEL



PART #	JIC THREAD SIZE 1	FEMALE BSPP SWIVEL 2	
72404	7/16-20	1/4-19	----
72406	9/16-18	3/8-19	----
72408	3/4-16	1/2-14	----
724010	7/8-14	5/8-14	----
724012	1-1/16-12	3/4-14	----
724016	1-5/16-12	1-11	----

3240 MJFBS

BSPP TO MALE PIPE NIPPLE



PART #	MALE BSPP SIZE 1	MALE PIPE THREAD SIZE 2	
78252	1/8-28	1/8	----
78254	1/4-19	1/4	----
78256	3/8-19	3/8	----
78258	1/2-14	1/2	----
782512	3/4-14	3/4	----
782516	1-11	1	----

MBMP 3825

JIC TO BSPP MALE ELBOW



PART #	JIC THREAD SIZE 1	MALE BSPP 2	
7202NWO42	7/16-20	1/8-28	----
7202NWO44	7/16-20	1/4-19	----
7202NWO64	9/16-18	1/4-19	----
7202NWO66	9/16-18	3/8-19	----
7202NWO68	9/16-18	1/2-14	----
7202NWO86	3/4-16	3/8-19	----
7202NWO88	3/4-16	1/2-14	----
7202NWO812	3/4-16	3/4-14	----
7202NWO108	7/8-14	1/2-14	----
7202NWO1212	1-1/16-12	3/4-14	----
7202NWO1216	1-1/16-12	1-11	----
7202NWO1616	1-5/16-12	1-11	----

3801 315

JIC TO BSPP MALE CONNECTOR



PART #	JIC THREAD SIZE 1	MALE BSPP 2	
700242	7/16-20	1/8-28	----
700244	7/16-20	1/4-19	----
700246	7/16-20	3/8-19	----
700248	7/16-20	1/2-14	----
700264	9/16-18	1/4-19	----
700266	9/16-18	3/8-19	----
700268	9/16-18	1/2-14	----
700286	3/4-16	3/8-19	----
700288	3/4-16	1/2-14	----
7002812	3/4-16	3/4-14	----
7002108	7/8-14	1/2-14	----
70021212	1-1/16-12	3/4-14	----
70021216	1-1/16-12	1-11	----
70021616	1-5/16-12	1-11	----

30J 3800

WARNING: This product can expose you to chemicals, including Cobalt, which are known to the State of California to cause cancer. For more information, visit www.P65Warnings.ca.gov

STEEL BSPP ADAPTERS

HYDRAULIC ADAPTERS

JIC TO BSPP STRAIGHT SWIVEL



PART #	JIC THREAD SIZE 1	MALE BSPP 2	
702242	7/16-20	1/8-28	----
702244	7/16-20	1/4-19	----
702266	9/16-18	3/8-19	----
702288	3/4-16	1/2-14	----
7022108	7/8-14	1/2-14	----
70221212	1-1/16-12	3/4-14	----
70221616	1-5/16-12	1-11	----

3402 3055

HEX HEAD PLUG BSPP



PART #	MALE BSPP	
9522P2	1/8-28	----
9522P4	1/4-19	----
9522P6	3/8-19	----
9522P8	1/2-14	----
9522P12	3/4-14	----
9522P16	1-11	----

3408

HOLLOW HEX PLUG BSPP



PART #	MALE BSPP	
9522H2	1/8-28	----
9522H4	1/4-19	----
9522H6	3/8-19	----
9522H8	1/2-14	----
9522H12	3/4-14	----
9522H16	1-11	----

3408 HHP

Save 5% by ordering online at
www.midlandindustries.com

FEMALE ADAPTER BSPP



PART #	FEMALE PIPE 1	MALE BSPP 2	
704222	1/8	1/8-28	----
704242	1/4	1/8-28	----
704244	1/4	1/4-19	----
704266	3/8	3/8-19	----
704288	1/2	1/2-14	----
70421212	3/4	3/4-14	----
70421616	1	1-11	----

3455 MMFP

STEEL METRIC ADAPTERS

MALE CONNECTOR



PART #	JIC THREAD SIZE 1	METRIC THREAD 2	
7005410	7/16-20	10x1.0	----
7005412	7/16-20	12x1.5	----
7005414	7/16-20	14x1.5	----
7005418	7/16-20	18x1.5	----
7005512	1/2-20	12x1.5	----
7005514	1/2-20	14x1.5	----
7005614	9/16-18	14x1.5	----
7005616	9/16-18	16x1.5	----
7005618	9/16-18	18x1.5	----
7005816	3/4-16	16x1.5	----
7005818	3/4-16	18x1.5	----
7005822	3/4-16	22x1.5	----
70051018	7/8-14	18x1.5	----
70051020	7/8-14	20x1.5	----
70051022	7/8-14	22x1.5	----
70051222	1-1/16-12	22x1.5	----

Port-seal crush washer and O-ring included

7400 30J (R) 7011

WARNING: This product can expose you to chemicals, including Cobalt, which are known to the State of California to cause cancer. For more information, visit www.P65Warnings.ca.gov