

STEEL PIPE ADAPTERS

CONFORMANCE

- SAE J514 for hex nipples, expanders, elbows, tees and crosses
- SAE J514, J530 and J531 for bushing and plugs.
- Temperature Range" -65° F to +400° F

MATERIALS

- Steel - SAE 12L14 carbon steel plated zinc with yellow dichromate or bright iridite finish.

STYLES

- Barstock
- Forged
- Chamfered-male ends have an internal 30-degree chamfer to mate with NPSM female swivel union connections. Many pipe fittings do not have this chamfer, as it is not required per SAE J514 standard.

CAUTION: Although most pipe fittings have sufficient structural integrity to support the weight of many components, consult our technical support department for guidance in selection of parts for this purpose.

WORKING PRESSURES

The following table lists the recommended working pressures for steel NPTF hydraulic pipe fittings manufactured in accordance with SAE standard J514. Many factors such as number of threads engaged, impulsing, vibration, mechanical shock removal and reassembly, thermal expansion and contractions may affect the integrity of the fitting or fitting connection. For these reasons, the recommended working pressures are actually lower than the capacity of the fittings. SAE recommends sufficient testing to be conducted to assure that performance levels will be safe and satisfactory, especially if installed in systems operating at elevated pressures or in severe conditions.

SAE J514 NPTF PIPE WORKING PRESSURES

Dash Size	NPTF Thread Size	4 TO 1 Minimum Burst PSI
-1	1/16-27	5000
-2	1/8-27	5000
-4	1/4-18	5000
-6	3/8-18	4000
-8	1/2-14	3000
-12	3/4-14	2500
-16	1-11 1/2	2000
-20	1-1/4-11 1/2	1150
-24	1-1/2-11 1/2	1000
-32	2-11 1/2	750

NPTF DRY SEAL PIPE
ASSEMBLY INSTRUCTIONS

Step 1. Inspect port and fitting to ensure that both are free of contaminants and excessive burrs and nicks..

Step 2. Apply a stripe of an anaerobic liquid pipe sealant around the male threads leaving the first two threads uncovered. If no liquid sealant is available, wrap Teflon tape 1-1/2 to 2 turns in a clockwise direction, viewed from the pipe end, leaving the first two threads uncovered. **Caution: Teflon tape and some pipe sealants are destructive to hydraulic components. Always use extreme caution and follow manufactures recommendations for proper application of any sealant in order to prevent contamination.**

Step 3. Screw finger tight into the port.

Step 4. Wrench tighten the fitting to the correct Turns Past Finger Tight position. (See following table). When installing elbows or tees, consider final orientation position as to not exceed the recommended TPFT.

Caution: Never back off an installed pipe fitting to achieve proper alignment. Loosening installed pipe fittings will corrupt the seal and contribute to leakage and failure.

Dash Size	NPTF Thread Size	Turns Past Finger Tight
-1	1/16-27	2.0 - 3.0
-2	1/8-27	2.0 - 3.0
-4	1/4-18	2.0 - 3.0
-6	3/8-18	2.0 - 3.0
-8	1/2-14	2.0 - 3.0
-12	3/4-14	2.0 - 3.0
-16	1-11 1/2	1.5 - 2.5
-20	1-1/4-11 1/2	1.5 - 2.5
-24	1-1/2-11 1/2	1.5 - 2.5
-32	2-11 1/2	1.5 - 2.5

Torque installation of pipe fittings is not a recommended practice. Thread taper and quality, different port and fitting materials, plating thickness and types, varying threads sealants, orientation, and other factors reduce the reliability of a torqued connection. If torque installation is required, refer to the following table for suggested torque values. consistency and quality for convenience.

Dash Size	NPTF Thread Size	Torque Foot/LBS
-2	1/8-27	12
-4	1/4-18	25
-6	3/8-18	40
-8	1/2-14	54
-12	3/4-14	78
-16	1-11 1/2	112
-20	1-1/4-11 1/2	154
-24	1-1/2-11 1/2	211
-32	2-11 1/2	300

See STRAIGHT THREAD O-RING FITTING SECTION for assembly instructions and torque values for pipe fittings with o-rings straight threads.



SAE 140138

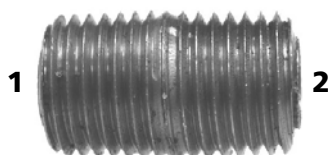
PIPE COUPLING



Part #	Female Pipe 1	Female Pipe 2
910-02-02S	1/8	1/8
910-04-02S	1/4	1/8
910-04-04S	1/4	1/4
910-06-02S	3/8	1/8
910-06-04S	3/8	1/4
910-06-06S	3/8	3/8
910-08-04S	1/2	1/4
910-08-06S	1/2	3/8
910-08-08S	1/2	1/2
910-12-06S	3/4	3/8
910-12-08S	3/4	1/2
910-12-12S	3/4	3/4
910-16-08S	1	1/2
910-16-12S	1	3/4
910-16-16S	1	1
910-20-12S	1-1/4	3/4
910-20-16S	1-1/4	1
910-20-20S	1-1/4	1-1/4
910-24-24S	1-1/2	1-1/2
910-32-32S	2	2

Also available in Stainless Steel

CLOSE NIPPLE



Part #	Male Pipe 1 & 2	Length (Inches)
02-X-CLOSEXH	1/8	3/4
04-X-CLOSEXH	1/4	7/8
06-X-CLOSEXH	3/8	1
08-X-CLOSEXH	1/2	1-1/8
12-X-CLOSEXH	3/4	1-3/8
16-X-CLOSEXH	1	1-1/2
20-X-CLOSEXH	1-1/4	1-5/8
24-X-CLOSEXH	1-1/2	1-3/4

Also available in Stainless Steel

LONG PIPE NIPPLE



Part #	Male Pipe 1 & 2	Length (Inches)
02-X-1.5XH	1/8	1-1/2
02-X-2XH	1/8	2
02-X-3XH	1/8	3
04-X-2XH	1/4	2
04-X-2.5XH	1/4	2-1/2
04-X-3XH	1/4	3
04-X-4XH	1/4	4
04-X-6XH	1/4	6
06-X-2XH	3/8	2
06-X-2.5XH	3/8	2-1/2
06-X-3XH	3/8	3
06-X-4XH	3/8	4
06-X-6XH	3/8	6
06-X-7XH	3/8	7
08-X-2.5XH	1/2	2-1/2
08-X-3XH	1/2	3
08-X-4XH	1/2	4
08-X-6XH	1/2	6
12-X-3XH	3/4	3
12-X-4XH	3/4	4

Other lengths available

Send DFBurnham all your high volume quotes!



HEX PIPE NIPPLE

SAE 140137

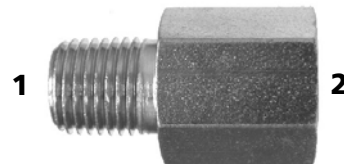


Part #	Male Pipe 1	Male Pipe 2
911-02-1/16S	1/8	1/16
911-02-02S	1/8	1/8
911-02-04S	1/8	1/4
911-04-02S	1/4	1/8
911-04-04S	1/4	1/4
911-06-02S	3/8	1/8
911-06-04S	3/8	1/4
911-06-06S	3/8	3/8
911-08-04S	1/2	1/4
911-08-06S	1/2	3/8
911-08-08S	1/2	1/2
911-12-06S	3/4	3/8
911-12-08S	3/4	1/2
911-12-12S	3/4	3/4
911-16-06S	1	3/8
911-16-08S	1	1/2
911-16-12S	1	3/4
911-16-16S	1	1
911-20-08S	1-1/4	1/2
911-20-12S	1-1/4	3/4
911-20-16S	1-1/4	1
911-20-20S	1-1/4	1-1/4
911-24-12S	1-1/2	3/4
911-24-16S	1-1/2	1
911-24-20S	1-1/2	1-1/4
911-24-24S	1-1/2	1-1/2
911-32-20S	2	1-1/4
911-32-24S	2	1-1/2
911-32-32S	2	2

*Also available in Stainless Steel
More sizes and lengths available*

EXPANDING PIPE ADAPTER

SAE 140139



Part #	Male Pipe 1	Female Pipe 2
909-1/16-02S	1/16	1/8
909-02-02S	1/8	1/8
909-02-04S	1/8	1/4
909-02-06S	1/8	3/8
909-02-08S	1/8	1/2
909-04-04S	1/4	1/4
909-04-06S	1/4	3/8
909-04-08S	1/4	1/2
909-04-12S	1/4	3/4
909-06-06S	3/8	3/8
909-06-08S	3/8	1/2
909-06-12S	3/8	3/4
909-08-08S	1/2	1/2
909-08-12S	1/2	3/4
909-08-16S	1/2	1
909-12-12S	3/4	3/4
909-12-16S	3/4	1
909-12-20S	3/4	1-1/4
909-16-16S	1	1
909-16-20S	1	1-1/4
909-16-24S	1	1-1/2
909-20-20S	1-1/4	1-1/4
909-20-24S	1-1/4	1-1/2
909-24-24S	1-1/2	1-1/2
909-24-32S	1-1/2	2

*Also available in Stainless Steel
More sizes and lengths available*

HEX REDUCER BUSHING



Part #	Male Pipe	Female Pipe
912-02-1/16S	1/8	1/16
912-04-02S	1/4	1/8
912-06-02S	3/8	1/8
912-06-04S	3/8	1/4
912-08-02S	1/2	1/8
912-08-04S	1/2	1/4
912-08-06S	1/2	3/8
912-12-02S	3/4	1/8
912-12-04S	3/4	1/4
912-12-06S	3/4	3/8
912-12-08S	3/4	1/2
912-16-04S	1	1/4
912-16-06S	1	3/8
912-16-08S	1	1/2
912-16-12S	1	3/4
912-20-04S	1-1/4	1/4
912-20-06S	1-1/4	3/8
912-20-16S	1-1/4	1/2
912-20-12S	1-1/4	3/4
912-20-16S	1-1/4	1
912-24-06S	1-1/2	3/8
912-24-08S	1-1/2	1/2
912-24-12S	1-1/2	3/4
912-24-16S	1-1/2	1
912-24-20S	1-1/2	1-1/4
912-32-08S	2	1/2
912-32-12S	2	3/4
912-32-16S	2	1
912-32-20S	2	1-1/4
912-32-24S	2	1-1/2
912-40-32S	2-1/2	2

*Also available in Stainless Steel
Also available in short pattern*

HEX HEAD PLUG



Part #	Male Pipe
932-1/16P	1/16
932-02P	1/8
932-04P	1/4
932-06P	3/8
932-08P	1/2
932-12P	3/4
932-16P	1
932-20P	1-1/4
932-24P	1-1/2
932-32P	2

Also available in Stainless Steel

HOLLOW HEX PLUG

SAE 130109



Part #	Male Pipe
932-1/16S	1/16
932-02S	1/8
932-04S	1/4
932-06S	3/8
932-08S	1/2
932-12S	3/4
932-16S	1
932-20S	1-1/4
932-24S	1-1/2
932-32S	2

Also available in Stainless Steel

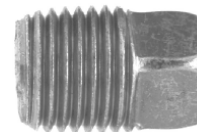
**FLUSH HOLLOW HEX PLUG
W/ 7/8 TAPER**



Part #	Male Pipe
932-1/16F	1/16
932-02F	1/8
932-04F	1/4
932-06F	3/8
932-08F	1/2
932-12F	3/4
932-16F	1
932-20F	1-1/4
932-24F	1-1/2
932-32F	2

SQUARE HEAD PLUG

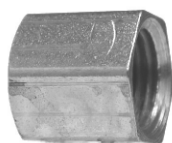
SAE 130109A



Part #	Male Pipe
932-02SH	1/8
932-04SH	1/4
932-06SH	3/8
932-08SH	1/2
932-12SH	3/4
932-16SH	1
932-20SH	1-1/4
932-24SH	1-1/2
932-32SH	2



PIPE CAP



Part #	Female Pipe
5406-C-2	1/8
5406-C-4	1/4
5406-C-6	3/8
5406-C-8	1/2
5406-C-12	3/4
5406-C-16	1

Also available in Stainless Steel

MALE ELBOW

SAE 140237



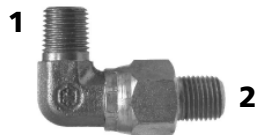
Part #	Male Pipe 1	Male Pipe 2
920-02-02S	1/8	1/8
920-04-02S	1/4	1/8
920-04-04S	1/4	1/4
920-06-04S	3/8	1/4
920-06-06S	3/8	3/8
920-08-04S	1/2	1/4
920-08-06S	1/2	3/8
920-08-08S	1/2	1/2
920-12-06S*	3/4	3/8
920-12-08S	3/4	1/2
920-12-12S	3/4	3/4
920-16-12S	1	3/4
920-16-16S	1	1
920-20-16S*	1-1/4	1
920-20-20S	1-1/4	1-1/4
920-24-24S	1-1/2	1-1/2
920-32-32S	2	2

**Braze-on Style*

Also available in Stainless Steel

More sizes available

MALE ELBOW SWIVEL



Swivel for
installation
purpose only

Part #	Male Pipe 1	Male Pipe 2
5700-S-4-4	1/4	1/4
5700-S-6-6	3/8	3/8
5700-S-8-8	1/2	1/2
5700-S-12-12	3/4	3/4

45° MALE ELBOW



Part #	Male Pipe 1	Male Pipe 2
5501-2-2	184	1/8
5501-4-4	1/4	1/4
5501-6-6	3/8	3/8
5501-8	1/2	1/2
5501-12-12	3/4	3/4
5501-16-16	1	1
5501-20-20	1-1/4	1-1/4

90° STREET ELBOW

SAE 140239



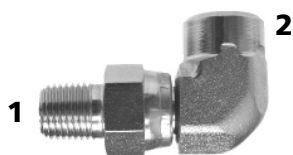
Part #	Male Pipe 1	Male Pipe 2
914-02-02S	1/8	1/8
914-02-04S	1/8	1/4
914-02-06S*	1/8	3/8
914-04-02S	1/4	1/8
914-04-04S	1/4	1/4
914-04-06S	1/4	3/8
914-04-08S*	1/4	1/2
914-06-02S	3/8	1/8
914-06-04S	3/8	1/4
914-06-06S	3/8	3/8
914-06-08S	3/8	1/2
914-08-04S	1/2	1/4
914-08-06S	1/2	3/8
914-08-08S	1/2	1/2
914-08-12S	1/2	3/4
914-12-08S	3/4	1/2
914-12-12S	3/4	3/4
914-12-16S*	3/4	1
914-16-12S	1	3/4
914-16-16S	1	1
914-16-20S*	1	1-1/4
914-20-16S	1-1/4	1
914-20-20S	1-1/4	1-1/4
914-24-24S	1-1/2	1-1/2
914-32-32S	2	2

**Braze-on Style*

Also available in Stainless Steel

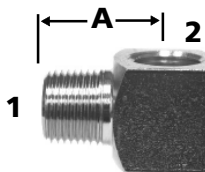
More sizes and lengths available

STREET ELBOW SWIVEL



Part #	Male Pipe 1	Female Pipe 2
914MS-04-04S	1/4	1/4
914MS-06-06S	3/8	3/8
914MS-08-08S	1/2	1/2
914MS-12-12S	3/4	3/4

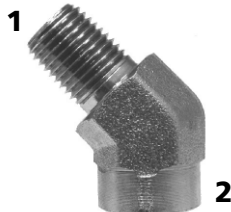
SHORT BODY STREET ELBOW



Part #	Male Pipe	Female Pipe	A
914-02-02DSS	1/8	1/8	7/8"
914-02-02DS	1/8	1/8	1"
914-02-02DL	1/8	1/8	1-1/8"
914-04-02DS	1/4	1/8	
914-04-04DS	1/4	1/4	
914-06-06DS	3/8	3/8	
914-08-08DS	1/2	1/2	
914-1/16-2DS	1/16	1/8	
914-4-28-2DS	1/4 28	1/8	

45° STREET ELBOW

SAE 140339



Part #	Male Pipe 1	Female Pipe 2
915-02-02S	1/8	1/8
915-04-04S	1/4	1/4
915-06-06S	3/8	3/8
915-08-08S	1/2	1/2
915-12-12S	3/4	3/4
915-16-16S	1	1
915-20-20S	1-1/4	1-1/4
915-24-24S	1-1/2	1-1/2
915-32-32S	2	2

More sizes available

Also available in Stainless Steel

FEMALE ELBOW

SAE 140238

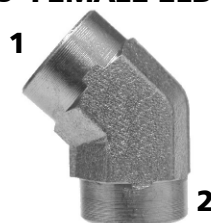


Part #	Male Pipe 1	Female Pipe 2
916-02-02S	1/8	1/8
916-04-02S	1/4	1/8
916-04-04S	1/4	1/4
916-06-04S	3/8	1/4
916-06-06S	3/8	3/8
916-08-04S	1/2	1/4
916-08-06S	1/2	3/8
916-08-08S	1/2	1/2
916-12-06S	3/4	3/8
916-12-08S	3/4	1/2
916-12-12S	3/4	3/4
916-16-12S	1	3/4
916-16-16S	1	1
916-20-16S	1-1/4	1
916-20-20S	1-1/4	1-1/4
916-24-24S	1-1/2	1-1/2
916-32-32S	2	2

*Also available in Stainless Steel
More sizes and lengths available*

45° FEMALE ELBOW

SAE 140338



Part #	Male Pipe 1	Female Pipe 2
925-02-02S	1/8	1/8
925-04-04S	1/4	1/4
925-06-06S	3/8	3/8
925-08-08S	1/2	1/2
925-12-12S	3/4	3/4
925-16-16S	1	1
925-20-20S	1-1/4	1-1/4

More sizes available

More than 50% of the people in the world have
never made or received a telephone call.



MALE PIPE TEE



Part #	Male Pipe 1 & 2	Female Pipe 3
926-02-02S	1/8	1/8
926-04-04S	1/4	1/4
926-06-06S	3/8	3/8
926-08-08S	1/2	1/2
926-12-12S	3/4	3/4
926-16-16S	1	1
926-20-20S	1-1/4	1-1/4

Also available in Stainless Steel

FEMALE BRANCH PIPE TEE

SAE 140427

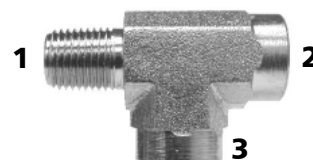


Part #	Male Pipe 1 & 2	Female Pipe 3
5601-2-2	1/8	1/8
5601-4-4	1/4	1/4
5601-6-6	3/8	3/8
5601-8	1/2	1/2
5601-12	3/4	3/4
5601-16	1	1
5601-20	1-1/4	1-1/4
5601-24	1-1/2	1-1/2

Also available in Stainless Steel

STREET TEE

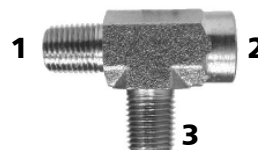
SAE 140424



Part #	Male Pipe 1	Female Pipe 2 & 3
921-02-02S	1/8	1/8
921-04-04S	1/4	1/4
921-06-06S	3/8	3/8
921-08-08S	1/2	1/2
921-12-12S	3/4	3/4
921-16-16S	1	1
921-20-20S	1-1/4	1-1/4
921-24-24S	1-1/2	1-1/2
921-32-32S	2	2

Also available in Stainless Steel

FEMALE RUN PIPE TEE



Part #	Male Pipe 1 & 3	Female Pipe 2
923-02-02S	1/8	1/8
923-04-04S	1/4	1/4
923-06-06S	3/8	3/8
923-08-08S	1/2	1/2
923-12-12S	3/4	3/4
923-16-16S	1	1
923-20-20S	1-1/4	1-1/4
923-24-24S	1-1/2	1-1/2
923-32-32S	2	2

Also available in Stainless Steel

MALE BRANCH TEE



Part #	Male Pipe 1 & 3	Female Pipe 2
922-02-02S	1/8	1/8
922-04-04S	1/4	1/4
922-06-06S	3/8	3/8
922-08-08S	1/2	1/2
922-12-12S	3/4	3/4
922-16-16S	1	1
922-20-20S	1-1/4	1-1/4
922-24-24S	1-1/2	1-1/2
922-32-32S	2	2

Also available in Stainless Steel

FEMALE PIPE TEE

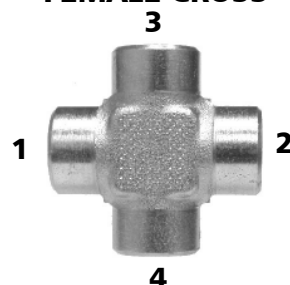
SAE 140438



Part #	Female Pipe
917-02S	1/8
917-04S	1/4
917-06S	3/8
917-08S	1/2
917-12S	3/4
917-16S	1
917-20S	1-1/4
917-24S	1-1/2
917-32S	2

*More Sizes available
Also available in Stainless Steel*

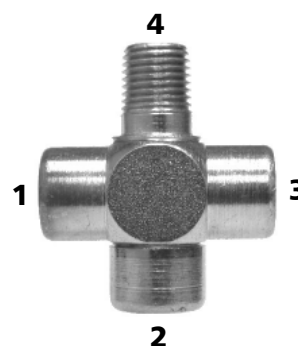
FEMALE CROSS



Part #	Female Pipe 1 & 3	Female Pipe 2
918-02S	1/8	1/8
918-04S	1/4	1/4
918-06S	3/8	3/8
918-08S	1/2	1/2
918-12S	3/4	3/4
918-16S	1	1
918-20S	1-1/4	1-1/4
918-24S	1-1/2	1-1/2
918-32S	2	2

Also available in Stainless Steel

CROSS



Part #	Thread Size 1,2,3, & 4
5655-4-4-4-4	1/4-18
5655-6-6-6-6	3/8-18
5655-8-8-8-8	1/2-14
5655-12-12-12-12	3/4-14