

3 PIECE TUBE ASSEMBLY **SAE37°FLARE**



STAINLESS STEEL HIGH PRESSURE 37°
TUBE FITTINGS 1/8" TO 2"



MEETS SAE STANDARD J514

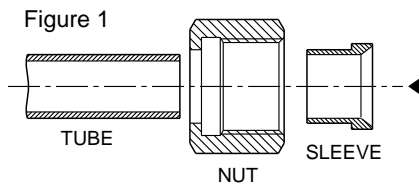


If required, see SAE Standard J514 for a complete list of dimensions.
 NPT Tapered Pipe Threads meet the requirements of ASME/ANSI B.1.20.1.

All 37° Flared tube fittings-3 piece tube assembly, can be used with metric tube by using a metric 37° sleeve, instead of an inch sleeve. Each dimension table shows which metric sleeve should be used for every size.

ASSEMBLY INSTRUCTIONS

1. Cut the tube to the proper length.
2. Slide the nut and sleeve onto the tube. (See Fig.1).
3. With a special flaring tool, form the flare to 37° dimension according to SAE STD. J533. (see page 2).
4. Screw the nut onto the body until finger tight.
5. From this position, tighten the nut with a wrench 1/4" turn in order to make a leakproof metal-to-metal connection.



TUBING DATA FOR 37° FLARE THREE-PIECE TUBE ASSEMBLY

In order to ensure maximum fitting reliability and performance, please take great care when selecting the tube for each application. Tubing should be a fully annealed, seamless and drawn, suitable for bending and flaring, according to standard ASTM-269, A.I.S.I. 316 or 304.

QUALITY

Lengths of finished tubing should be reasonably straight and have smooth ends, free from burrs. Tubing should be free from scale and injurious defects, and it should have a workmanlike finish. Surface imperfections such as handling marks, die marks, or shallow pits will not be considered injurious defects provided the imperfections are within the tolerances specified for diameter and wall thickness. The removal of such imperfections is not required. (Quality SAE J524).

TUBE HANDLING

Scratches on the tube might cause leaks. It is, therefore, important to handle the tube carefully to reduce the risk of leaks.

1. Tubes must not be dragged on the floor.
2. Tubes must not be dragged out of a tubing rack, especially in cases of large OD tubes.

TUBE CUTTING

Two different methods can be used to cut tubes:

1. Tube cutter
2. Hacksaw

Tube cutter

To attain a leakfree connection, the tubing must be cut squarely. A good quality tube cutter with the appropriate blade for the tubing material is recommended.

Do not try to reduce the time of cutting by taking deep cuts with each turn of the cutter.

The end of the tube must be deburred to avoid damage to the fitting and to ensure that the tube reaches the bottom of the fitting.

Hacksaw cutting

In order to cut the tube with a hacksaw and to attain square ends, the tube must be cut with guide blocks. This method of cutting requires deburring of the tube ends.

WARNING

Do not hold the tube in a vise in the place where it will be inserted into the fitting. The vise will leave a mark on the tube that may cause leaks and might cause ovality.

ASSEMBLY INSTRUCTIONS

Perform flaring according to SAE J533. See Fig. 2.
See Table 1 below for dimensions .

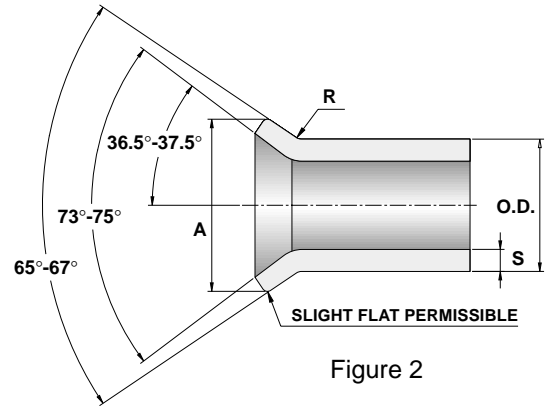


Figure 2

TABLE 1: FLARING

Nominal Tube O.D.	A				R		S	
	Single flare diameter				in	mm	in	mm
	in	mm	in	mm				
	Max	Min	Max	Min	±0.02	±0.5	Max	Min
1/8	0.20	0.18	5.08	4.58	0.03	0.8	0.035	0.88
3/16	0.28	0.26	7.11	6.61	0.03	0.8	0.035	0.88
1/4	0.36	0.34	9.14	8.64	0.03	0.8	0.065	1.65
5/16	0.43	0.40	10.92	10.16	0.03	0.8	0.065	1.65
3/8	0.49	0.46	12.44	11.69	0.04	1.0	0.065	1.65
1/2	0.66	0.63	16.76	16.01	0.06	1.5	0.083	2.1
5/8	0.79	0.76	20.06	19.31	0.06	1.5	0.095	2.41
3/4	0.95	0.92	24.13	23.37	0.08	2.0	0.109	2.76
7/8	1.07	1.04	27.17	26.42	0.08	2.0	0.109	2.76
1	1.20	1.17	30.48	29.72	0.09	2.3	0.12	3.04
1 1/8	1.38	1.35	35.05	34.29	0.09	2.3	0.12	3.04
1 1/4	1.51	1.48	38.35	37.60	0.09	2.3	0.12	3.04
1 1/2	1.73	1.70	43.94	43.18	0.11	2.8	0.12	3.04

DEBURRING PRIOR TO FLARING

To ensure satisfactory flares are produced, it may be necessary to deburr the tube end prior to flaring. It is usually necessary to break the inside corner smoothly before single flaring, and some non-ferrous tubing to eliminate is normally required to eliminate the cutoff burr which might otherwise create leakage paths across a substantial portion of the flare. It is acceptable to smoothly break the outside corner prior to single flaring, or both outside and inside corners prior to double flaring, on any tube material to minimize splitting.

Dimensions are for reference only, and are subject to change without notice.

TABLE 2: ALLOWABLE WORKING PRESSURE RATINGS (CAPABLE OF 4'' TO 1'' MIN. BURST)

Nom. SAE Dash Size	Nom. Tube O.D Inches	37° Flare Straight Thread	Nom. Pipe Size	SAE St.Threads Union and Bulkhead	Fittings with Pipe Threads
2	1/8	5/16" - 24	1/8"	5000	5000
3	3/16	3/8" - 24	1/8"	5000	5000
4	1/4	7/16" - 20	1/8"	5000	5000
5	5/16	1/2" - 20	1/8"	5000	5000
6	3/8	9/16" - 18	1/4"	5000	5000
8	1/2	3/4" - 16	3/8"	4500	4000
10	5/8	7/8" - 14	1/2"	3500	3000
12	3/4	1 1/16" - 12	3/4"	3500	3000
14	7/8	1 3/16" - 12	3/4"	3000	2500
16	1	1 5/16" - 12	1"	3000	2000
20	1 1/4	1 5/8" - 12	1 1/4"	2500	1150
24	1 1/2	1 7/8" - 12	1 1/2"	2000	1000
32	2	2 1/2" - 12	2"	1500	1000

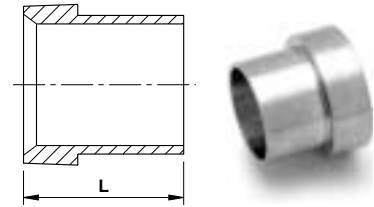
NOTE:

Since many factors influence the pressure at which a system will or will not perform satisfactorily, values shown in Table 2 should not be construed as guaranteed minimum.

37° FLARE - INDEX		
<p>SLEEVE..... 4 For 3 piece tube assembly S.A.E. 070115 740HF</p> 	<p>FEMALE CONNECTOR..... 9 S.A.E. 070103 746HF</p> 	<p>BULKHEAD UNION..... 15 S.A.E. 070601 774HFL</p> 
<p>NUT..... 4 For 3 piece tube assembly S.A.E. 070110 741HF</p> 	<p>MALE CONNECTOR..... 10 S.A.E. 070102 748HF</p> 	<p>BULKHEAD LOCK NUT..... 16 S.A.E. 070118 774HFLN</p> 
<p>REDUCING ADAPTOR..... 5 S.A.E. 070123 741HFL</p> 	<p>MALE CONNECTOR..... 11 S.A.E. 070120 748HOB</p> 	<p>FEMALE RUN TEE..... 17 S.A.E. 070426 771HFL</p> 
<p>UNION..... 6 S.A.E. 070101 742HF</p> 	<p>MALE ELBOW..... 12 S.A.E. 070202 749HF</p> 	<p>FEMALE BRANCH TEE..... 18 S.A.E. 070427 772HFL</p> 
<p>LARGE HEX UNION..... 6 S.A.E. 070119 742HFL</p> 	<p>FEMALE ELBOW..... 13 S.A.E. 070203 750HF</p> 	<p>CROSS..... 19 S.A.E. 070501 7102HFL</p> 
<p>UNION TEE..... 7 S.A.E. 070401 744HF</p> 	<p>MALE RUN TEE..... 14 S.A.E. 070424 751HF</p> 	<p>TUBE CAP..... 20 S.A.E. 070109 7639HF</p> 
<p>MALE BRANCH TEE..... 8 S.A.E. 070425 745HF</p> 	<p>UNION ELBOW..... 15 S.A.E. 070201 755HF</p> 	<p>PLUG..... 20 S.A.E. 070112 7640HF</p> 

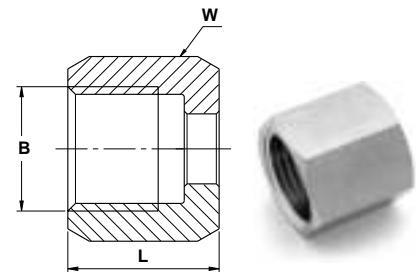
All 37° Flared tube fittings-3 piece tube assembly, can be used with metric tube by using a metric 37° sleeve, instead of an inch sleeve. Each dimension table shows which metric sleeve should be used for every size.

740 HF
SLEEVE FOR 3 PIECE TUBE ASSEMBLY
S.A.E. 070115



INCH SLEEVE				METRIC SLEEVE		
Ordering Information	Tube O.D.		L	Ordering Information	Tube O.D.	L
	in	mm	in		mm	mm
740HF SS 1/8"	1/8	0.34	8.6		-	-
740HF SS 3/16"	3/16	0.34	8.6		-	-
740HF SS 1/4"	1/4	0.41	10.4	740HF SS 6MM	6	10.4
740HF SS 5/16"	5/16	0.44	11.2	740HF SS 8MM	8	11.2
740HF SS 3/8"	3/8	0.50	12.7	740HF SS 10MM	10	12.7
740HF SS 1/2"	1/2	0.56	14.2	740HF SS 12MM	12	14.2
740HF SS 5/8"	5/8	0.66	16.8	740HF SS 16MM	16	16.8
740HF SS 3/4"	3/4	0.68	17.3	740HF SS 18MM	18	17.3
740HF SS 7/8"	7/8	0.76	19.3	740HF SS 20MM	20	19.3
740HF SS 1"	1	0.78	19.8	740HF SS 25MM	25	19.8
740HF SS 1 1/4"	1 1/4	0.91	23.1	740HF SS 32MM	32	23.1
740HF SS 1 1/2"	1 1/2	1.12	28.4	740HF SS 38MM	38	28.4
740HF SS 2"	2	1.19	30.2	Metric sleeves are used with standard nuts & bodies.		

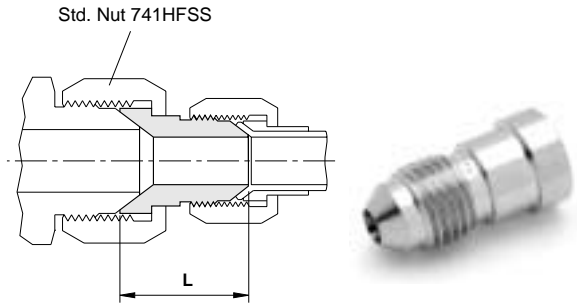
741 HF
NUT FOR 3 PIECE TUBE ASSEMBLY
S.A.E. 070110



Ordering Information	Tube O.D.		B UN	W	L	
	in	mm		Hex. Flat in	in	mm
741HF SS 1/8"	1/8	-	5/16 -24	3/8	0.54	13.7
741HF SS 3/16"	3/16	-	3/8 -24	7/16	0.60	15.2
741HF SS 1/4" / 6MM	1/4	6	7/16 -20	9/16	0.61	15.5
741HF SS 5/16" / 8MM	5/16	8	1/2 -20	5/8	0.67	17.0
741HF SS 3/8" / 10MM	3/8	10	9/16 -18	11/16	0.72	18.3
741HF SS 1/2" / 12MM	1/2	12	3/4 -16	7/8	0.84	21.3
741HF SS 5/8" / 16MM	5/8	16	7/8 -14	1	0.97	24.6
741HF SS 3/4" / 18MM	3/4	18	1 1/16 -12	1 1/4	1.02	25.9
741HF SS 7/8" / 20MM	7/8	20	1 3/16 -12	1 3/8	1.08	27.4
741HF SS 1" / 25MM	1	25	1 5/16 -12	1 1/2	1.12	28.4
741HF SS 1 1/4" / 32MM	1 1/4	32	1 5/8 -12	2	1.22	31.0
741HF SS 1 1/2" / 38MM	1 1/2	38	1 7/8 -12	2 1/4	1.41	35.8
741HF SS 2"	2	-	2 1/2 -12	2 7/8	1.74	44.2

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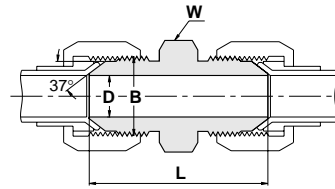
741 HFL
REDUCING ADAPTOR
S.A.E. 070123



TUBE (INCH)				
Ordering Information	Tube O.D.	B UN	L	
	in		in	mm
741HFL SS 3/8" X 1/4"	3/8 to 1/4	7/16 - 20	0.97	24.6
741HFL SS 1/2" X 1/4"	1/2 to 1/4	7/16 - 20	1.00	25.4
741HFL SS 1/2" X 3/8"	1/2 to 3/8	9/16 - 18	1.00	25.4
741HFL SS 5/8" X 1/4"	5/8 to 1/4	7/16 - 20	1.03	26.2
741HFL SS 5/8" X 3/8"	5/8 to 3/8	9/16 - 18	1.03	26.2
741HFL SS 5/8" X 1/2"	5/8 to 1/2	3/4 - 16	1.44	36.5
741HFL SS 3/4" X 1/4"	3/4 to 1/4	7/16 - 20	1.09	27.7
741HFL SS 3/4" X 3/8"	3/4 to 3/8	9/16 - 18	1.09	27.7
741HFL SS 3/4" X 1/2"	3/4 to 1/2	3/4 - 16	1.19	30.2
741HFL SS 3/4" X 5/8"	3/4 to 5/8	7/8 - 14	1.66	42.1
741HFL SS 7/8" X 3/8"	7/8 to 3/8	9/16 - 18	1.13	28.7
741HFL SS 7/8" X 5/8"	7/8 to 5/8	7/8 - 14	1.33	33.7
741HFL SS 7/8" X 3/4"	7/8 to 3/4	1 1/16 - 12	1.84	46.7
741HFL SS 1" X 3/4"	1 to 3/4	1 1/16 - 12	1.47	37.3
741HFL SS 1" X 7/8"	1 to 7/8	1 3/16 - 12	1.91	48.5
741HFL SS 1 1/4" X 3/4"	1 1/4 to 3/4	1 1/16 - 12	1.53	38.8
741HFL SS 1 1/4" X 1"	1 1/4 to 1	1 5/16 - 12	1.59	40.3
741HFL SS 1 1/2" X 1-1/4"	1 1/2 to 1 1/4	1 5/8 - 12	1.69	42.9
TUBE (MM)				
Ordering Information	Tube O.D.	B UN	L	
	mm		in	mm
741HFL SS 3/8" X 6MM	3/8 to 6	7/16 - 20	0.97	24.6
741HFL SS 1/2" X 6MM	1/2 to 6	7/16 - 20	1.00	25.4
741HFL SS 1/2" X 10MM	1/2 to 10	9/16 - 18	1.00	25.4
741HFL SS 5/8" X 6MM	5/8 to 6	7/16 - 20	1.03	26.2
741HFL SS 5/8" X 10MM	5/8 to 10	9/16 - 18	1.03	26.2
741HFL SS 5/8" X 12MM	5/8 to 12	3/4 - 16	1.44	36.5
741HFL SS 3/4" X 6MM	3/4 to 6	7/16 - 20	1.09	27.7
741HFL SS 3/4" X 10MM	3/4 to 10	9/16 - 18	1.09	27.7
741HFL SS 3/4" X 12MM	3/4 to 12	3/4 - 16	1.19	30.2
741HFL SS 3/4" X 16MM	3/4 to 16	7/8 - 14	1.66	42.1
741HFL SS 7/8" X 10MM	7/8 to 10	9/16 - 18	1.13	28.7
741HFL SS 7/8" X 16MM	7/8 to 16	7/8 - 14	1.33	33.7
741HFL SS 7/8" X 18MM	7/8 to 18	1 1/16 - 12	1.84	46.7
741HFL SS 1" X 18MM	1 to 18	1 1/16 - 12	1.47	37.3
741HFL SS 1" X 20MM	1 to 20	1 3/16 - 12	1.91	48.5
741HFL SS 1 1/4" X 18MM	1 1/4 to 18	1 1/16 - 12	1.53	38.8
741HFL SS 1 1/4" X 25MM	1 1/4 to 25	1 5/16 - 12	1.59	40.3
741HFL SS 1 1/2" X 32MM	1 1/2 to 32	1 5/8 - 12	1.69	42.9

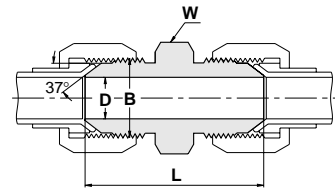
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742 HF
UNION
S.A.E. 070101



Ordering Information	TUBE O.D.		B UN	D		W Hex. Flat	L	
	in	mm		in	mm		in	in
742HF SS 1/8"	1/8	-	5/16 - 24	0.062	1.6	7/16	1.17	29.7
742HF SS 3/16"	3/16	-	3/8 - 24	0.125	3.2	7/16	1.23	31.2
742HF SS 1/4" / 6MM	1/4	6	7/16 - 20	0.172	4.4	1/2	1.37	34.8
742HF SS 5/16" / 8MM	5/16	8	1/2 - 20	0.234	6.0	9/16	1.37	34.8
742HF SS 3/8" / 10MM	3/8	10	9/16 - 18	0.297	7.5	5/8	1.41	35.8
742HF SS 1/2" / 12MM	1/2	12	3/4 - 16	0.391	9.9	13/16	1.62	41.1
742HF SS 5/8" / 16MM	5/8	16	7/8 - 14	0.484	12.3	15/16	1.88	47.8
742HF SS 3/4" / 18MM	3/4	18	1 1/16 - 12	0.609	15.5	1 1/8	2.16	54.9
742HF SS 7/8" / 20MM	7/8	20	1 3/16 - 12	0.719	18.3	1 1/4	2.21	56.1
742HF SS 1" / 25MM	1	25	1 5/16 - 12	0.844	21.5	1 3/8	2.25	57.2
742HF SS 1 1/4" / 32MM	1 1/4	32	1 5/8 - 12	1.078	27.5	1 11/16	2.43	61.7
742HF SS 1 1/2" / 38MM	1 1/2	38	1 7/8 - 12	1.312	33.0	2	2.75	69.8
742HF SS 2"	2	-	2 1/2 - 12	1.781	45.0	2 5/8	3.04	86.4

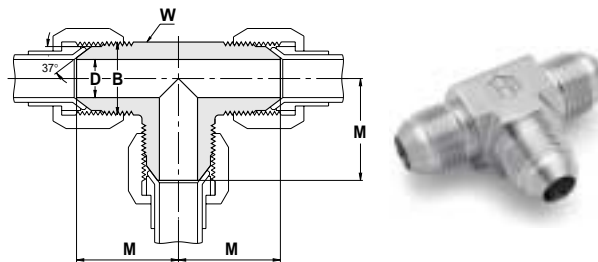
742 HFL
LARGE HEX UNION
S.A.E. 070119



Ordering Information	Tube O.D.		B UN	D		W Hex. Flat	L	
	in	mm		in	mm		in	in
742HFL SS 1/8"	1/8	-	5/16 - 24	0.062	1.6	9/16	1.17	29.7
742HFL SS 3/16"	3/16	-	3/8 - 24	0.125	3.2	5/8	1.23	31.2
742HFL SS 1/4" / 6MM	1/4	6	7/16 - 20	0.172	4.4	11/16	1.37	34.8
742HFL SS 5/16" / 8MM	5/16	8	1/2 - 20	0.234	6.0	3/4	1.37	34.8
742HFL SS 3/8" / 10MM	3/8	10	9/16 - 18	0.297	7.5	13/16	1.41	35.8
742HFL SS 1/2" / 12MM	1/2	12	3/4 - 16	0.391	9.9	1	1.62	41.1
742HFL SS 5/8" / 16MM	5/8	16	7/8 - 14	0.484	12.3	1 1/8	1.88	47.8
742HFL SS 3/4" / 18MM	3/4	18	1 1/16 - 12	0.609	15.5	1 3/8	2.16	54.9
742HFL SS 7/8" / 20MM	7/8	20	1 3/16 - 12	0.719	18.3	1 1/2	2.21	56.1
742HFL SS 1" / 25MM	1	25	1 5/16 - 12	0.844	21.5	1 5/8	2.25	57.2
742HFL SS 1 1/4" / 32MM	1 1/4	32	1 5/8 - 12	1.078	27.5	1 7/8	2.43	61.7
742HFL SS 1 1/2" / 38MM	1 1/2	38	1 7/8 - 12	1.312	33.0	2 1/8	2.75	69.8
742HFL SS 2"	2	-	2 1/2 - 12	1.781	45.0	2 3/4	3.04	86.4

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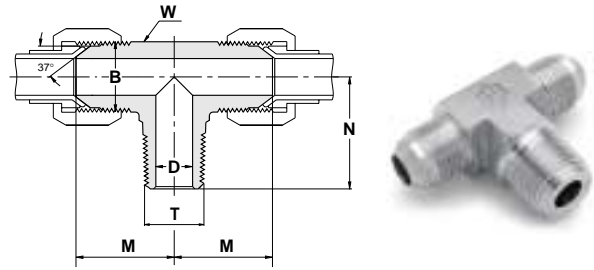
744 HF
UNION TEE
S.A.E. 070401



Ordering Information	Tube O.D.		B UN	D		W Wrench Flat	M	
	in	mm		in	mm		in	in
744HF SS 1/8"	1/8	-	5/16 - 24	0.062	1.6	7/16	0.77	19.6
744HF SS 3/16"	3/16	-	3/8 - 24	0.125	3.2	1/2	0.83	21.1
744HF SS 1/4" / 6MM	1/4	6	7/16 - 20	0.172	4.4	1/2	0.89	22.6
744HF SS 5/16" / 8MM	5/16	8	1/2 - 20	0.234	6.0	5/8	0.95	24.1
744HF SS 3/8" / 10MM	3/8	10	9/16 - 18	0.297	7.5	5/8	1.06	26.9
744HF SS 1/2" / 12MM	1/2	12	3/4 - 16	0.391	9.9	15/16	1.25	31.8
744HF SS 5/8" / 16MM	5/8	16	7/8 - 14	0.484	12.3	15/16	1.45	36.8
744HF SS 3/4" / 18MM	3/4	18	1 1/16 - 12	0.609	15.5	1 3/8	1.66	42.2
744HF SS 7/8" / 20MM	7/8	20	1 3/16 - 12	0.719	18.3	1 3/8	1.80	45.7
744HF SS 1" / 25MM	1	25	1 5/16 - 12	0.844	21.5	1 3/8	1.81	46.0
744HF SS 1 1/4" / 32MM	1 1/4	32	1 5/8 - 12	1.078	27.5	1 11/16	2.06	52.3
744HF SS 1 1/2" / 38MM	*1 1/2	38	1 7/8 - 12	1.312	33.0	*2	2.33	59.2
744HF SS 2"	*2	-	2 1/2 - 12	1.781	45.0	*2 5/8	3.06	77.7

* Not from forging
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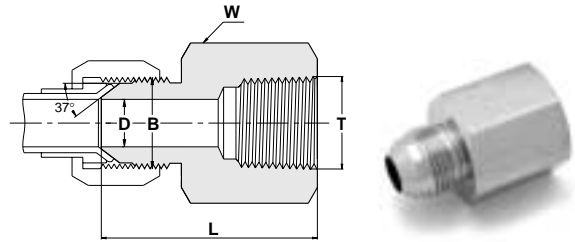
745 HF
 MALE BRANCH TEE
 S.A.E. 070425



Ordering Information	Tube O.D.		B UN	T NPT	D		W Wrench Flat	M		N	
	in	mm			in	mm		in	mm	in	mm
745HF SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	7/16	0.77	19.6	0.72	18.3
745HF SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	1/2	0.83	21.1	0.72	18.3
745HF SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	1/2	0.89	22.6	0.78	19.8
745HF SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	5/8	1.06	26.9	1.09	27.7
745HF SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.190	4.8	5/8	0.95	24.1	0.78	19.8
745HF SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	5/8	1.06	26.9	1.09	27.7
745HF SS 3/8" / 10MM X 1/8"	3/8	10	9/16 - 18	1/8 - 27	0.190	4.8	5/8	1.06	26.9	0.90	22.8
745HF SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.280	7.1	5/8	1.06	26.9	1.09	27.7
745HF SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	13/16	1.14	29.0	1.22	31.0
745HF SS 3/8" / 10MM X 1/2"	3/8	10	9/16 - 18	1/2 - 14	0.297	7.5	15/16	1.23	31.2	1.47	37.3
745HF SS 1/2" / 12MM X 1/4"	1/2	12	3/4 - 16	1/4 - 18	0.280	7.1	15/16	1.25	31.8	1.22	31.0
745HF SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.380	9.5	15/16	1.25	31.8	1.22	31.0
745HF SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	15/16	1.33	33.7	1.47	37.3
745HF SS 1/2" / 12MM X 3/4"	1/2	12	3/4 - 16	3/4 - 14	0.391	9.9	1 1/8	1.42	36.0	1.59	40.4
745HF SS 5/8" / 16MM X 3/8"	5/8	16	7/8 - 14	3/8 - 18	0.380	9.5	15/16	1.45	36.8	1.30	33.0
745HF SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.470	11.9	15/16	1.45	36.8	1.47	37.3
745HF SS 5/8" / 16MM X 3/4"	5/8	16	7/8 - 14	3/4 - 14	0.484	12.3	1 1/8	1.53	38.9	1.59	40.4
745HF SS 3/4" / 18MM X 1/2"	3/4	18	1 1/16 - 12	1/2 - 14	0.470	11.9	1 1/8	1.66	41.0	1.59	40.4
745HF SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 1/8	1.66	41.0	1.59	40.4
745HF SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.73	43.9	1.69	42.9
745HF SS 1" / 25MM X 3/4"	1	25	1 5/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.81	46.0	1.78	45.2
745HF SS 1" / 25 MM X 1"	1	25	1 5/16 - 12	1-11.5	0.844	21.5	1 3/8	1.81	46.0	1.97	50.0
745HF SS 1 1/4" / 32 MM X 1"	1 1/4	32	1 5/8 - 12	1-11.5	0.844	21.5	1 11/16	2.06	52.3	2.35	59.6
745HF SS 1 1/4" / 32 MM X 1 1/4"	1 1/4	32	1 5/8 - 12	1 1/4 -11.5	1.078	27.5	1 11/16	2.06	52.3	2.38	60.5
745HF SS *1 1/2" / 38 MM X 1 1/2"	*1 1/2	38	1 7/8 - 12	1 1/2 -11.5	1.312	33.0	*2	2.33	59.2	2.64	67.1
745HF SS *2" X 2"	*2	-	1 7/8 - 12	2-11.5	1.781	45.0	*2 5/8	3.06	77.7	3.00	76.2

* Not from forging
 ● Dimensions are for reference only, and are subject to change without notice.

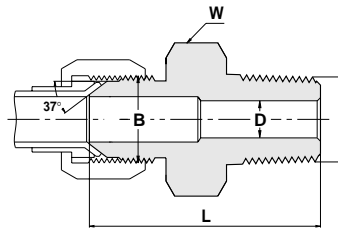
746 HF
 FEMALE CONNECTOR
 S.A.E. 070103



Ordering Information	Tube O.D.		B UN	T NPT	D		W Hex. Flat	L	
	in	mm			in	mm		in	mm
746HF SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	9/16	1.12	28.4
746HF SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	9/16	1.13	28.7
746HF SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	9/16	1.19	30.2
746HF SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	3/4	1.39	35.3
746HF SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.234	6.0	9/16	1.17	29.7
746HF SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	3/4	1.39	35.3
746HF SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.297	7.5	3/4	1.40	35.6
746HF SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	7/8	1.46	37.1
746HF SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.391	9.9	7/8	1.56	39.6
746HF SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	1 1/8	1.79	45.6
746HF SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.484	12.3	1 1/8	1.89	48.0
746HF SS 3/4" / 18MM X 1/2"	3/4	18	1 1/16 - 12	1/2 - 14	0.609	15.5	1 1/8	2.05	52.1
746HF SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 3/8	2.06	52.3
746HF SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 3/8	2.06	52.3
746HF SS 1" / 25MM X 1"	1	25	1 5/16 - 12	1 - 11.5	0.844	21.5	1 5/8	2.35	59.7
746HF SS 1 1/4" / 32MM X 1 1/4"	1 1/4	32	1 5/8 - 12	1 1/4 - 11.5	1.078	27.5	2	2.49	63.2
746HF SS 1 1/2" / 38MM X 1 1/2"	1 1/2	38	1 7/8 - 12	1 1/2 - 11.5	1.312	33.0	2 3/8	2.62	66.5
746HF SS 2" X 2"	2	-	2 1/2 - 12	2 - 11.5	1.781	45.0	2 7/8	2.97	75.4

● Dimensions are for reference only, and are subject to change without notice.

748 HF
 MALE CONNECTOR
 S.A.E. 070102



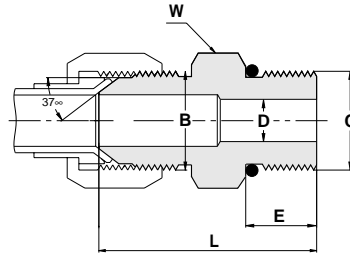
Ordering Information	Tube O.D.		B UN	T NPT	D		W Hex. Flat	L	
	in	mm			in	mm		in	in
748HF SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	7/16	1.11	28.2
748HF SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	7/16	1.14	29.0
748HF SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	1/2	1.22	31.0
748HF SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	9/16	1.42	36.0
748HF SS 1/4" / 6MM X 1/2"	1/4	6	7/16 - 20	1/2 - 14	0.172	4.4	7/8	1.68	42.7
748HF SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.190	4.8	9/16	1.22	31.0
748HF SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	9/16	1.42	36.1
748HF SS 3/8" / 10MM X 1/8"	3/8	10	9/16 - 18	1/8 - 27	0.190	4.8	5/8	1.25	31.8
748HF SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.280	7.1	5/8	1.43	36.3
748HF SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	3/4	1.43	36.3
748HF SS 3/8" / 10MM X 1/2"	3/8	10	9/16 - 18	1/2 - 14	0.297	7.5	7/8	1.69	42.5
748HF SS 1/2" / 12MM X 1/4"	1/2	12	3/4 - 16	1/4 - 18	0.280	7.1	13/16	1.53	38.9
748HF SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.380	9.5	13/16	1.53	38.9
748HF SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	7/8	1.79	45.4
748HF SS 1/2" / 12MM X 3/4"	1/2	12	3/4 - 16	3/4 - 14	0.391	9.9	1 1/8	1.85	47.0
748HF SS 5/8" / 16MM X 3/8"	5/8	16	7/8 - 14	3/8 - 18	0.380	9.5	15/16	1.70	43.1
748HF SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.484	11.9	15/16	1.89	48.0
748HF SS 5/8" / 16MM X 3/4"	5/8	16	7/8 - 14	3/4 - 14	0.470	12.3	1 1/8	1.95	49.5
748HF SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 1/8	2.06	52.3
748HF SS 3/4" / 18MM X 1"	3/4	18	1 1/16 - 12	1 - 11.5	0.609	15.5	1 3/8	2.25	57.1
748HF SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 1/4	2.09	53.1
748HF SS 1" / 25MM X 3/4"	1	25	1 5/16 - 12	3/4 - 14	0.719	18.3	1 3/8	2.11	53.5
748HF SS 1" / 25MM X 1"	1	25	1 5/16 - 12	1 - 11.5	0.844	21.5	1 3/8	2.30	58.4
748HF SS 1 1/4" / 32MM X 1"	1 1/4	32	1 5/8 - 12	1 - 11.5	0.844	21.5	1 11/16	2.42	61.5
748HF SS 1 1/4" / 32MM X 1 1/4"	1 1/4	32	1 5/8 - 12	1 1/4 - 11.5	1.078	27.5	1 11/16	2.45	62.2
748HF SS 1 1/2" / 38MM X 1 1/4"	1 1/2	38	1 7/8 - 12	1 1/4 - 11.5	1.312	33.0	2	2.68	68.1
748HF SS 1 1/2" / 38MM X 1 1/2"	1 1/2	38	1 7/8 - 12	1 1/2 - 11.5	1.312	33.0	2	2.68	68.1
748HF SS 2" X 2"	2	-	2 1/2 - 12	2 - 11.5	1.781	45.0	2 5/8	3.11	79.0

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748 HOB

MALE CONNECTOR

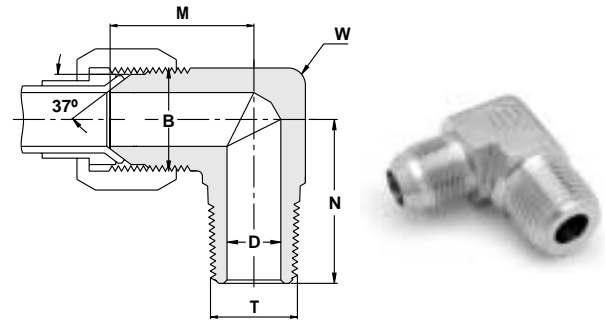
SAE straight thread boss connects flared tube ends to straight thread boss S.A.E. 070120



Ordering Information	Tube O.D.		B UN	C UN	D		W Hex. Flat in	E		L		O-Ring STD. Dash No.
	in	mm			in	mm		in	mm	in	mm	
748HOB SS 1/8" X 5/16"-24	1/8	-	5/16 - 24	5/16 - 24	0.062	1.6	7/16	0.3	7.5	1.06	26.9	-902
748HOB SS 3/16" X 3/8"-24	3/16	-	3/8 - 24	3/8 - 24	0.125	3.2	1/2	0.3	7.5	1.10	27.9	-903
748HOB SS 1/4" / 6MM X 7/16"-20	1/4	6	7/16 - 20	7/16 - 20	0.172	4.4	9/16	0.36	9.1	1.23	31.2	-904
748HOB SS 1/4" / 6MM X 1/2"-20	1/4	6	7/16 - 20	1/2 - 20	0.172	4.4	5/8	0.36	9.1	1.23	31.2	-905
748HOB SS 1/4" / 6MM X 9/16"-18	1/4	6	7/16 - 20	9/16 - 18	0.172	4.4	11/16	0.39	9.9	1.30	33.0	-906
748HOB SS 1/4" / 6MM X 3/4"-16	1/4	6	7/16 - 20	3/4 - 16	0.172	4.4	7/8	0.44	11.1	1.37	34.8	-908
748HOB SS 5/16" / 8MM X 1/2"-20	5/16	8	1/2 - 20	1/2 - 20	0.234	6.0	5/8	0.36	9.1	1.23	31.2	-905
748HOB SS 3/8" / 10MM X 9/16"-18	3/8	10	9/16 - 18	9/16 - 18	0.280	7.1	11/16	0.39	9.9	1.30	33.0	-906
748HOB SS 3/8" / 10MM X 3/4"-16	3/8	10	9/16 - 18	3/4 - 16	0.297	7.5	7/8	0.44	11.1	1.38	35.1	-908
748HOB SS 3/8" / 10MM X 7/8"-14	3/8	10	9/16 - 18	7/8 - 14	0.297	7.5	1	0.50	12.7	1.50	38.1	-910
748HOB SS 1/2" / 12MM X 3/4"-16	1/2	12	3/4 - 16	3/4 - 16	0.391	9.9	7/8	0.44	11.1	1.48	37.6	-908
748HOB SS 1/2" / 12MM X 9/16"-18	1/2	12	3/4 - 16	9/16 - 18	0.280	7.1	13/16	0.39	9.9	1.44	36.6	-906
748HOB SS 1/2" / 12MM X 7/8"-14	1/2	12	3/4 - 16	7/8 - 14	0.391	9.9	1	0.50	12.7	1.60	40.6	-910
748HOB SS 1/2" / 12MM X 1 1/16"-12	1/2	12	3/4 - 16	1 1/16 - 12	0.391	9.9	1 1/4	0.59	15.1	1.76	44.7	-912
748HOB SS 5/8" / 16MM X 7/8"-14	5/8	16	7/8 - 14	7/8 - 14	0.484	12.3	1	0.50	12.7	1.70	43.2	-910
748HOB SS 5/8" / 16MM X 3/4"-16	5/8	16	7/8 - 14	3/4 - 16	0.484	12.3	15/16	0.44	11.1	1.60	40.6	-908
748HOB SS 5/8" / 16MM X 1 1/16"-12	5/8	16	7/8 - 14	1 1/16 - 12	0.484	12.3	1 1/4	0.59	15.1	1.86	47.2	-912
748HOB SS 3/4" / 18MM X 1 1/16"-12	3/4	18	1 1/16 - 12	1 1/16 - 12	0.609	15.5	1 1/4	0.59	15.1	1.97	50.0	-912
748HOB SS 3/4" / 18MM X 3/4"-16	3/4	18	1 1/16 - 12	3/4 - 16	0.420	10.7	1 1/8	0.44	11.1	1.78	45.2	-908
748HOB SS 3/4" / 18MM X 7/8"-14	3/4	18	1 1/16 - 12	7/8 - 14	0.50	12.7	1 1/8	0.50	12.7	1.83	46.4	-910
748HOB SS 3/4" / 18MM X 1 5/16"-12	3/4	18	1 1/16 - 12	1 5/16 - 12	0.609	15.5	1 1/2	0.59	15.1	2.00	50.8	-916
748HOB SS 7/8" / 20MM X 1 3/16"-12	7/8	20	1 3/16 - 12	1 3/16 - 12	0.719	18.3	1 3/8	0.59	15.1	1.99	50.5	-914
748HOB SS 7/8" / 20MM X 1 5/16"-12	7/8	20	1 3/16 - 12	1 5/16 - 12	0.719	18.3	1 1/2	0.59	15.1	2.02	51.3	-916
748HOB SS 1" / 25MM X 1 1/16"-12	1	25	1 5/16 - 12	1 1/16 - 12	0.650	16.7	1 3/8	0.59	15.1	2.01	51.1	-912
748HOB SS 1" / 25MM X 1 3/16"-12	1	25	1 5/16 - 12	1 3/16 - 12	0.719	18.3	1 3/8	0.59	15.1	2.04	51.8	-914
748HOB SS 1" / 25MM X 1 5/16"-12	1	25	1 5/16 - 12	1 5/16 - 12	0.844	21.5	1 1/2	0.59	15.1	2.04	51.8	-916

● Dimensions are for reference only, and are subject to change without notice.

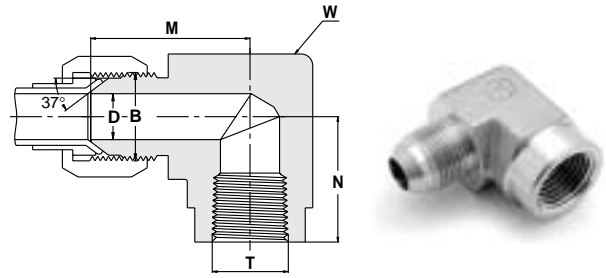
749 HF
MALE ELBOW
S.A.E. 070202



Ordering Information	Tube O.D.		B UN	T NPT	D		W Wrench Flat	M		N	
	in	mm			in	mm		in	in	mm	in
749HF SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	7/16	0.77	19.6	0.72	18.3
749HF SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	1/2	0.83	21.1	0.72	18.3
749HF SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	1/2	0.89	22.6	0.78	19.8
749HF SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	5/8	1.06	26.9	1.09	27.7
749HF SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.190	4.8	5/8	0.95	24.1	0.78	19.8
749HF SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	5/8	1.06	26.9	1.09	27.7
749HF SS 3/8" / 10MM X 1/8"	3/8	10	9/16 - 18	1/8 - 27	0.190	4.8	5/8	1.06	26.9	0.90	22.8
749HF SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.280	7.1	5/8	1.06	26.9	1.09	27.7
749HF SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	13/16	1.14	29.0	1.22	31.0
749HF SS 3/8" / 10MM X 1/2"	3/8	10	9/16 - 18	1/2 - 14	0.297	7.5	15/16	1.23	31.2	1.47	37.3
749HF SS 1/2" / 12MM X 1/4"	1/2	12	3/4 - 16	1/4 - 18	0.280	7.1	15/16	1.25	31.8	1.22	31.0
749HF SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.380	9.5	15/16	1.25	31.8	1.22	31.0
749HF SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	15/16	1.33	33.7	1.47	37.3
749HF SS 1/2" / 12MM X 3/4"	1/2	12	3/4 - 16	3/4 - 14	0.391	9.9	1 1/8	1.42	36.0	1.59	40.4
749HF SS 5/8" / 16MM X 3/8"	5/8	16	7/8 - 14	3/8 - 18	0.380	9.5	15/16	1.45	36.8	1.30	33.0
749HF SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.470	11.9	15/16	1.45	36.8	1.47	37.3
749HF SS 5/8" / 16MM X 3/4"	5/8	16	7/8 - 14	3/4 - 14	0.484	12.3	1 1/8	1.53	38.9	1.59	40.4
749HF SS 3/4" / 18MM X 1/2"	3/4	18	1 1/16 - 12	1/2 - 14	0.470	11.9	1 1/8	1.66	41.0	1.59	40.4
749HF SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 1/8	1.66	41.0	1.59	40.4
749HF SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.73	43.9	1.69	42.9
749HF SS 1" / 25MM X 3/4"	1	25	1 5/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.81	46.0	1.78	45.2
749HF SS 1" / 25MM X 1"	1	25	1 5/16 - 12	1-11.5	0.844	21.5	1 3/8	1.81	46.0	1.97	50.0
749HF SS 1 1/4" / 32MM X 1"	1 1/4	32	1 5/8 - 12	1-11.5	0.844	21.5	1 11/16	2.06	52.3	2.35	59.6
749HF SS 1 1/4" / 32MM X 1 1/4"	1 1/4	32	1 5/8 - 12	1 1/4 -11.5	1.078	27.5	1 11/16	2.06	52.3	2.38	60.5
749HF SS *1 1/2" / 38MM X 1 1/2"	*1 1/2	38	1 7/8 - 12	1 1/2 -11.5	1.312	33.0	2	2.33	59.2	2.64	67.1
749HF SS *2" X 2"	*2	-	2 1/2 - 12	2 -11.5	1.781	45.0	2 5/8	3.06	77.7	3.00	76.2

* Not from forging
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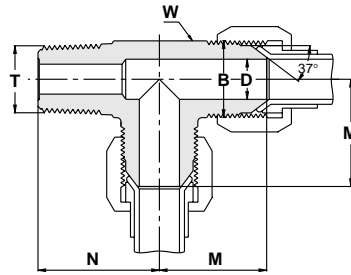
750 HF
FEMALE ELBOW
S.A.E. 070203



Ordering Information	Tube O.D.		B UN	T NPT	D		W Wrench Flat	M		N	
	in	mm			in	mm		in	mm	in	mm
750HF SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	5/8	1	25.4	0.66	16.8
750HF SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	5/8	1.03	26.2	0.66	16.8
750HF SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	5/8	1.08	27.4	0.66	16.8
750HF SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	13/16	1.22	30.9	0.88	22.4
750HF SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.234	6.0	5/8	1.08	27.4	0.66	16.8
750HF SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	13/16	1.22	30.9	0.88	22.4
750HF SS 3/8" / 10MM X 1/8"	3/8	10	9/16 - 18	1/8 - 27	0.297	7.5	5/8	1.06	26.9	0.66	16.8
750HF SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.297	7.5	13/16	1.23	31.2	0.88	22.4
750HF SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	15/16	1.31	33.2	1.02	25.9
750HF SS 1/2" / 12MM X 1/4"	1/2	12	3/4 - 16	1/4 - 18	0.391	9.9	13/16	1.25	31.6	0.88	22.4
750HF SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.391	9.9	15/16	1.42	36.1	1.02	25.9
750HF SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	1 1/8	1.42	36.1	1.23	31.2
750HF SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.484	12.3	1 1/8	1.64	41.5	1.23	31.2
750HF SS 3/4" / 18MM X 1/2"	3/4	18	1 1/16 - 12	1/2 - 14	0.609	15.5	1 3/8	1.66	42.1	1.23	31.2
750HF SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 3/8	1.89	48.0	1.36	34.5
750HF SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.86	47.2	1.42	36.1
750HF SS 1" / 25MM X 1"	1	25	1 5/16 - 12	1 - 11.5	0.844	21.5	1 5/8	2.17	55.1	1.62	41.1
750HF SS 1 1/4" / 32MM X 1 1/4"	1 1/4	32	1 5/8 - 12	1 1/4 - 11.5	1.078	27.5	2 1/8	2.33	59.2	1.70	43.2
750HF SS 1 1/2" / 38MM X 1 1/2"	1 1/2	38	1 7/8 - 12	1 1/2 - 11.5	1.312	33.0	2 3/8	2.89	73.4	2.08	52.8
750HF SS 2" X 2"	2	-	2 1/2 - 12	2 - 11.5	1.781	45.0	2 7/8	3.30	83.8	2.39	60.7

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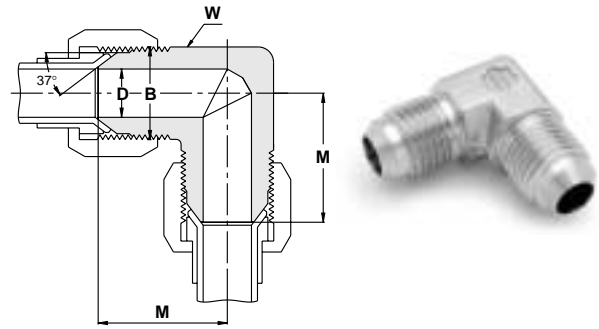
751 HF
MALE RUN TEE
S.A.E. 070424



Ordering Information	Tube O.D.		B UN	T NPT	D		W Wrench Flat	M		N	
	in	mm			in	mm		in	in	mm	in
751HF SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	7/16	0.77	19.6	0.72	18.3
751HF SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	1/2	0.83	21.1	0.72	18.3
751HF SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	1/2	0.89	22.6	0.78	19.8
751HF SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	5/8	1.06	26.9	1.09	27.7
751HF SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.190	4.8	5/8	0.95	24.1	0.78	19.8
751HF SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	5/8	1.06	26.9	1.09	27.7
751HF SS 3/8" / 10MM X 1/8"	3/8	10	9/16 - 18	1/8 - 27	0.190	4.8	5/8	1.06	26.9	0.90	22.8
751HF SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.280	7.1	5/8	1.06	26.9	1.09	27.7
751HF SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	13/16	1.14	29.0	1.22	31.0
751HF SS 3/8" / 10MM X 1/2"	3/8	10	9/16 - 18	1/2 - 14	0.297	7.5	15/16	1.23	31.2	1.47	37.3
751HF SS 1/2" / 12MM X 1/4"	1/2	12	3/4 - 16	1/4 - 18	0.280	7.1	15/16	1.25	31.8	1.22	31.0
751HF SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.380	9.5	15/16	1.25	31.8	1.22	31.0
751HF SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	15/16	1.33	33.7	1.47	37.3
751HF SS 1/2" / 12MM X 3/4"	1/2	12	3/4 - 16	3/4 - 14	0.391	9.9	1 1/8	1.42	36.0	1.59	40.4
751HF SS 5/8" / 16MM X 3/8"	5/8	16	7/8 - 14	3/8 - 18	0.380	9.5	15/16	1.45	36.8	1.30	33.0
751HF SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.470	11.9	15/16	1.45	36.8	1.47	37.3
751HF SS 5/8" / 16MM X 3/4"	5/8	16	7/8 - 14	3/4 - 14	0.484	12.3	1 1/8	1.53	38.9	1.59	40.4
751HF SS 3/4" / 18MM X 1/2"	3/4	18	1 1/16 - 12	1/2 - 14	0.470	11.9	1 1/8	1.66	41.0	1.59	40.4
751HF SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 1/8	1.66	41.0	1.59	40.4
751HF SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.73	43.9	1.69	42.9
751HF SS 1" / 25MM X 3/4"	1	25	1 5/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.81	46.0	1.78	45.2
751HF SS 1" / 25MM X 1"	1	25	1 5/16 - 12	1 - 11.5	0.844	21.5	1 3/8	1.81	46.0	1.97	50.0
751HF SS 1 1/4" / 32MM X 1"	1 1/4	32	1 5/8 - 12	1 - 11.5	0.844	21.5	1 11/16	2.06	52.3	2.35	59.6
751HF SS 1 1/4" / 32MM X 1 1/4"	1 1/4	32	1 5/8 - 12	1 1/4 - 11.5	1.078	27.5	1 11/16	2.06	52.3	2.38	60.5
751HF SS *1 1/2" / 38MM X 1 1/2"	*1 1/2	38	1 7/8 - 12	1 1/2 - 11.5	1.312	33.0	*2	2.33	59.2	2.64	67.1
751HF SS *2" X 2"	*2	-	2 1/2 - 12	2 - 11.5	1.781	45.0	*2 5/8	3.06	77.7	3.00	76.2

* Not from forging
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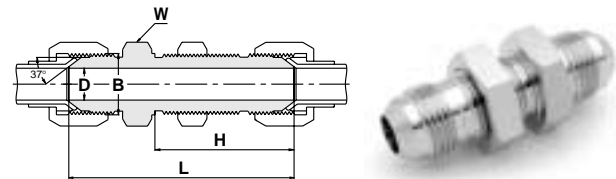
755 HF
UNION ELBOW
S.A.E. 070201



Ordering Information	Tube O.D.		B UN	D		W Wrench Flat	L	
	in	mm		in	mm		in	in
755HF SS 1/8"	1/8	-	5/16 - 24	0.062	1.6	7/16	0.77	19.6
755HF SS 3/16"	3/16	-	3/8 - 24	0.125	3.2	1/2	0.83	21.1
755HF SS 1/4" / 6MM	1/4	6	7/16 - 20	0.172	4.4	1/2	0.89	22.6
755HF SS 5/16" / 8MM	5/16	8	1/2 - 20	0.234	6.0	5/8	0.95	24.1
755HF SS 3/8" / 10MM	3/8	10	9/16 - 18	0.297	7.5	5/8	1.06	26.9
755HF SS 1/2" / 12MM	1/2	12	3/4 - 16	0.391	9.9	15/16	1.25	31.8
755HF SS 5/8" / 16MM	5/8	16	7/8 - 14	0.484	12.3	15/16	1.45	36.8
755HF SS 3/4" / 18MM	3/4	18	1 1/16 - 12	0.609	15.5	1 3/8	1.66	42.2
755HF SS 7/8" / 20MM	7/8	20	1 3/16 - 12	0.719	18.3	1 3/8	1.80	45.7
755HF SS 1" / 25MM	1	25	1 5/16 - 12	0.844	21.5	1 3/8	1.81	46.0
755HF SS 1-1/4" / 32MM	1 1/4	32	1 5/8 - 12	1.078	27.5	1 11/16	2.06	52.3
755HF SS 1-1/2" / 38MM	1 1/2	38	1 7/8 - 12	1.312	33.0	*2	2.33	59.2
755HF SS 2"	2	-	2 1/2 - 12	1.781	45.0	*2 5/8	3.06	77.7

* Not from forging

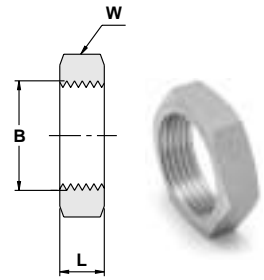
774 HFL
BULKHEAD UNION
S.A.E. 070601



Ordering Information	TUBE O.D.		B UN	D		W Hex. Flat	H		L	
	in	mm		in	mm		in	mm	in	mm
744HFL SS 3/16"	3/16	-	3/8 - 24	0.125	3.2	5/8	1.11	28.2	1.90	48.3
744HFL SS 1/4" / 6MM	1/4	6	7/16 - 20	0.172	4.4	11/16	1.20	30.5	2.07	52.6
744HFL SS 5/16" / 8MM	5/16	8	1/2 - 20	0.234	6.0	3/4	1.20	30.5	2.07	52.6
744HFL SS 3/8" / 10MM	3/8	10	9/16 - 18	0.297	7.5	13/16	1.28	32.5	2.18	55.4
744HFL SS 1/2" / 12MM	1/2	12	3/4 - 16	0.391	9.9	1	1.44	36.6	2.44	62.0
744HFL SS 5/8" / 16MM	5/8	16	7/8 - 14	0.484	12.3	1 1/8	1.58	40.1	2.74	69.6
744HFL SS 3/4" / 18MM	3/4	18	1 1/16 - 12	0.609	15.5	1 3/8	1.75	44.4	3.09	78.5
744HFL SS 7/8" / 20MM	7/8	20	1 3/16 - 12	0.719	18.3	1 1/2	1.75	44.4	3.12	79.2
744HFL SS 1" / 25MM	1	25	1 5/16 - 12	0.844	21.5	1 5/8	1.75	44.4	3.14	79.8
744HFL SS 1 1/4" / 32MM	1 1/4	32	1 5/8 - 12	1.078	27.5	1 7/8	1.80	45.7	3.31	84.1
744HFL SS 1 1/2" / 38MM	1 1/2	38	1 7/8 - 12	1.312	33.0	2 1/8	1.81	46.0	3.52	89.4
744HFL SS 2"	2	-	2 1/2 - 12	1.781	45.0	2 3/4	2.09	53.1	4.20	106.7

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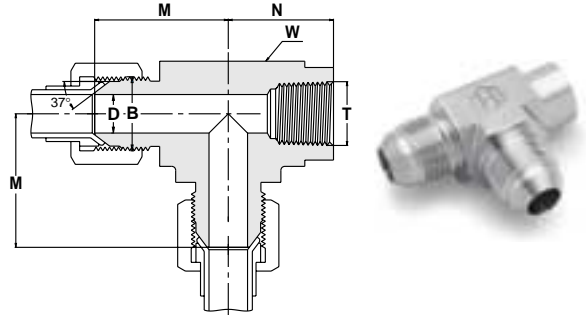
774 HFLN
 BULK HEAD LOCK NUT
 S.A.E. 070118



Ordering Information	Tube O.D.	B UNF	W Hex. Flat	L	
	in		in	in	mm
774HFLN SS 3/16"	3/16	3/8 - 24	5/8	0.22	5.6
774HFLN SS 1/4" / 6MM	1/4	7/16 - 20	11/16	0.25	6.4
774HFLN SS 5/16" / 8MM	5/16	1/2 - 20	3/4	0.25	6.4
774HFLN SS 3/8" / 10MM	3/8	9/16 - 18	13/16	0.27	6.9
774HFLN SS 1/2" / 12MM	1/2	3/4 - 16	1	0.31	7.9
774HFLN SS 5/8" / 16MM	5/8	7/8 - 14	1 1/8	0.36	9.1
774HFLN SS 3/4" / 18MM	3/4	1 1/16 - 12	1 3/8	0.41	10.4
774HFLN SS 7/8" / 20MM	7/8	1 3/16 - 12	1 1/2	0.41	10.4
774HFLN SS 1" / 25MM	1	1 5/16 - 12	1 5/8	0.41	10.4
774HFLN SS 1 1/4" / 32MM	1 1/4	1 5/8 - 12	1 7/8	0.41	10.4
774HFLN SS 1 1/2" / 38MM	1 1/2	1 7/8 - 12	2 1/8	0.41	10.4
774HFLN SS 2"	2	1 1/2 - 12	2 3/4	0.41	10.4

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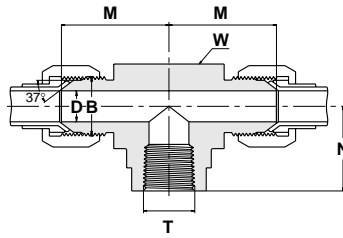
771 HFL
 FEMALE RUN TEE
 S.A.E. 070426



Ordering Information	TUBE O.D.		B UN	T NPT	D		W Wrench Flat	M		N	
	in	mm			in	mm		in	mm	in	mm
771HFL SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	5/8	1	25.4	0.66	16.8
771HFL SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	5/8	1.03	26.2	0.66	16.8
771HFL SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	5/8	1.08	27.4	0.66	16.8
771HFL SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	13/16	1.22	30.9	0.88	22.4
771HFL SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.234	6.0	5/8	1.08	27.4	0.66	16.8
771HFL SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	13/16	1.22	30.9	0.88	22.4
771HFL SS 3/8" / 10MM X 1/8"	3/8	10	9/16 - 18	1/8 - 27	0.297	7.5	5/8	1.06	26.9	0.66	16.8
771HFL SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.297	7.5	13/16	1.23	31.2	0.88	22.4
771HFL SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	15/16	1.31	33.2	1.02	25.9
771HFL SS 1/2" / 12MM X 1/4"	1/2	12	3/4 - 16	1/4 - 18	0.391	9.9	13/16	1.25	31.6	0.88	22.4
771HFL SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.391	9.9	15/16	1.42	36.1	1.02	25.9
771HFL SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	1 1/8	1.42	36.1	1.23	31.2
771HFL SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.484	12.3	1 1/8	1.64	41.5	1.23	31.2
771HFL SS 3/4" / 18MM X 1/2"	3/4	18	1 1/16 - 12	1/2 - 14	0.609	15.5	1 3/8	1.66	42.1	1.23	31.2
771HFL SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 3/8	1.89	48.0	1.36	34.5
771HFL SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.86	47.2	1.42	36.1
771HFL SS *1" / 25MM X 1"	*1	25	1 5/16 - 12	1 - 11.5	0.844	21.5	*1 5/8	2.17	55.1	1.62	41.1
771HFL SS *1 1/4" / 32MM X 1 1/4"	*1 1/4	32	1 5/8 - 12	1 1/4 - 11.5	1.078	27.5	*2 1/8	2.33	59.2	1.70	43.2
771HFL SS *1 1/2" / 38MM X 1 1/2"	*1 1/2	38	1 7/8 - 12	1 1/2 - 11.5	1.312	33.0	*2 3/8	2.89	73.4	2.08	52.8
771HFL SS *2" X 2"	*2	-	2 1/2 - 12	2 - 11.5	1.781	45.0	*2 7/8	3.30	83.8	2.39	60.7

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772 HFL
 FEMALE BRANCH TEE
 S.A.E. 070427

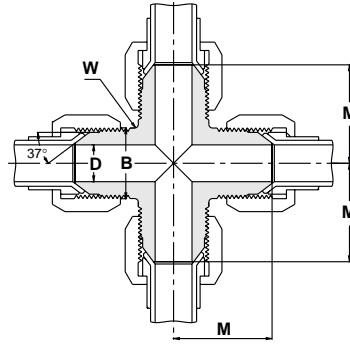


Ordering Information	Tube O.D.		B UN	T NPT	D		W Wrench Flat	M		N	
	in	mm			in	mm		in	in	mm	in
772HFL SS 1/8" X 1/8"	1/8	-	5/16 - 24	1/8 - 27	0.062	1.6	5/8	1	25.4	0.66	16.8
772HFL SS 3/16" X 1/8"	3/16	-	3/8 - 24	1/8 - 27	0.125	3.2	5/8	1.03	26.2	0.66	16.8
772HFL SS 1/4" / 6MM X 1/8"	1/4	6	7/16 - 20	1/8 - 27	0.172	4.4	5/8	1.08	27.4	0.66	16.8
772HFL SS 1/4" / 6MM X 1/4"	1/4	6	7/16 - 20	1/4 - 18	0.172	4.4	13/16	1.22	30.9	0.88	22.4
772HFL SS 5/16" / 8MM X 1/8"	5/16	8	1/2 - 20	1/8 - 27	0.234	6.0	5/8	1.08	27.4	0.66	16.8
772HFL SS 5/16" / 8MM X 1/4"	5/16	8	1/2 - 20	1/4 - 18	0.234	6.0	13/16	1.22	30.9	0.88	22.4
772HFL SS 3/8" / 10MM X 1/8"	3/8	10	9/16 - 18	1/8 - 27	0.297	7.5	5/8	1.06	26.9	0.66	16.8
772HFL SS 3/8" / 10MM X 1/4"	3/8	10	9/16 - 18	1/4 - 18	0.297	7.5	13/16	1.23	31.2	0.88	22.4
772HFL SS 3/8" / 10MM X 3/8"	3/8	10	9/16 - 18	3/8 - 18	0.297	7.5	15/16	1.31	33.2	1.02	25.9
772HFL SS 1/2" / 12MM X 1/4"	1/2	12	3/4 - 16	1/4 - 18	0.391	9.9	13/16	1.25	31.6	0.88	22.4
772HFL SS 1/2" / 12MM X 3/8"	1/2	12	3/4 - 16	3/8 - 18	0.391	9.9	15/16	1.42	36.1	1.02	25.9
772HFL SS 1/2" / 12MM X 1/2"	1/2	12	3/4 - 16	1/2 - 14	0.391	9.9	1 1/8	1.42	36.1	1.23	31.2
772HFL SS 5/8" / 16MM X 1/2"	5/8	16	7/8 - 14	1/2 - 14	0.484	12.3	1 1/8	1.64	41.5	1.23	31.2
772HFL SS 3/4" / 18MM X 1/2"	3/4	18	1 1/16 - 12	1/2 - 14	0.609	15.5	1 3/8	1.66	42.1	1.23	31.2
772HFL SS 3/4" / 18MM X 3/4"	3/4	18	1 1/16 - 12	3/4 - 14	0.609	15.5	1 3/8	1.89	48.0	1.36	34.5
772HFL SS 7/8" / 20MM X 3/4"	7/8	20	1 3/16 - 12	3/4 - 14	0.719	18.3	1 3/8	1.86	47.2	1.42	36.1
772HFL SS *1" / 25MM X 1"	*1	25	1 5/16 - 12	1 - 11.5	0.844	21.5	*1 5/8	2.17	55.1	1.62	41.1
772HFL SS *1 1/4" / 32MM X 1 1/4"	*1 1/4	32	1 5/8 - 12	1 1/4 - 11.5	1.078	27.5	*2 1/8	2.33	59.2	1.70	43.2
772HFL SS *1 1/2" / 38MM X 1 1/2"	*1 1/2	38	1 7/8 - 12	1 1/2 - 11.5	1.312	33.0	*2 3/8	2.89	73.4	2.08	52.8
772HFL SS *2" X 2"	*2	-	2 1/2 - 12	2 - 11.5	1.781	45.0	*2 7/8	3.30	83.8	2.39	60.7

* Not from forging
 ● Dimensions are for reference only, and are subject to change without notice.

SAE37°FLARE 3 PIECE TUBE ASSEMBLY

7102 HFL
CROSS
 S.A.E. 070501

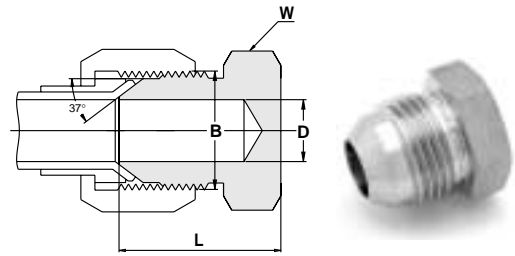


Ordering Information	Tube O.D.		B UN	D		W Wrench Flat	L	
	in	mm		in	mm		in	in
7102HFL SS 1/8"	1/8	-	5/16 - 24	0.062	1.6	7/16	0.77	19.6
7102HFL SS 3/16"	3/16	-	3/8 - 24	0.125	3.2	1/2	0.83	21.1
7102HFL SS 1/4" / 6MM	1/4	6	7/16 - 20	0.172	4.4	1/2	0.89	22.6
7102HFL SS 5/16" / 8MM	5/16	8	1/2 - 20	0.234	6.0	5/8	0.95	24.1
7102HFL SS 3/8" / 10MM	3/8	10	9/16 - 18	0.297	7.5	5/8	1.06	26.9
7102HFL SS 1/2" / 12MM	1/2	12	3/4 - 16	0.391	9.9	15/16	1.25	31.8
7102HFL SS 5/8" / 16MM	*5/8	16	7/8 - 14	0.484	12.3	*15/16	1.45	36.8
7102HFL SS 3/4" / 18MM	*3/4	18	1 1/16 - 12	0.609	15.5	*1 1/8	1.66	42.2
7102HFL SS 7/8" / 20MM	*7/8	20	1 3/16 - 12	0.719	18.3	*1 3/8	1.80	45.7
7102HFL SS 1" / 25MM	*1	25	1 5/16 - 12	0.844	21.5	*1 3/8	1.81	46.0
7102HFL SS 1 1/4" / 32MM	*1 1/4	32	1 5/8 - 12	1.078	27.5	*1 11/16	2.06	51.0
7102HFL SS 1 1/2" / 38MM	*1 1/2	38	1 7/8 - 12	1.312	33.0	*2	2.33	59.2
7102HFL SS 2"	*2	-	2 1/2 - 12	1.781	45.0	*2 5/8	3.06	77.7

* Not from forging

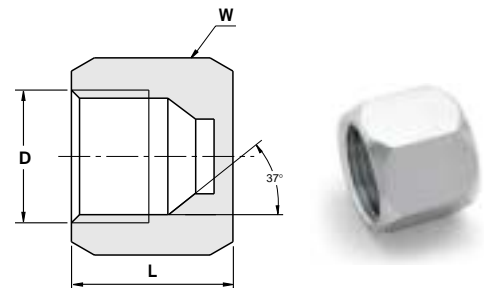
● Dimensions are for reference only, and are subject to change without notice.

7639 HF
TUBE CAP
S.A.E. 070109



Ordering Information	Tube O.D.		B UN	D		W Hex. Flat	L	
	in	mm		in	mm		in	in
7639HF SS 1/8"	1/8	-	5/16 - 24	0.062	1.6	7/16	0.70	17.8
7639HF SS 3/16"	3/16	-	3/8 - 24	0.125	3.2	7/16	0.73	18.5
7639HF SS 1/4" / 6MM	1/4	6	7/16 - 20	0.172	4.4	1/2	0.80	20.3
7639HF SS 5/16" / 8MM	5/16	8	1/2 - 20	0.234	6.0	9/16	0.80	20.3
7639HF SS 3/8" / 10MM	3/8	10	9/16 - 18	0.297	7.5	5/8	0.84	21.3
7639HF SS 1/2" / 12MM	1/2	12	3/4 - 16	0.391	9.9	13/16	0.94	23.9
7639HF SS 5/8" / 16MM	5/8	16	7/8 - 14	0.484	12.3	15/16	1.10	27.9
7639HF SS 3/4" / 18MM	3/4	18	1 1/16 - 12	0.609	15.5	1-1/8	1.28	32.5
7639HF SS 7/8" / 20MM	7/8	20	1 3/16 - 12	0.719	18.3	1-1/4	1.31	33.3
7639HF SS 1" / 25MM	1	25	1 5/16 - 12	0.844	21.5	1-3/8	1.33	33.8
7639HF SS 1 1/4" / 32MM	1 1/4	32	1 5/8 - 12	1.078	27.5	1 11/16	1.45	36.8
7639HF SS 1 1/2" / 38MM	1 1/2	38	1 7/8 - 12	1.312	33.0	2	1.65	41.9
7639HF SS 2"	2	-	2 1/2 - 12	1.781	45.0	2 5/8	2.05	52.1

7640 HF
PLUG
S.A.E. 070112



Ordering Information	TUBE O.D.	B UN	W Hex. Flat	L	
	in		in	in	mm
7640HF SS 1/8"	1/8	5/16 - 24	3/8	0.550	12.7
7640HF SS 3/16"	3/16	3/8 - 24	7/16	0.562	14.3
7640HF SS 1/4" / 6MM	1/4	7/16 - 20	9/16	0.594	15.1
7640HF SS 5/16" / 8MM	5/16	1/2 - 20	5/8	0.609	15.5
7640HF SS 3/8" / 10MM	3/8	9/16 - 18	11/16	0.625	15.9
7640HF SS 1/2" / 12MM	1/2	3/4 - 16	7/8	0.750	19.0
7640HF SS 5/8" / 16MM	5/8	7/8 - 14	1	0.844	21.4
7640HF SS 3/4" / 18MM	3/4	1 1/16 - 12	1 1/4	0.906	23.0
7640HF SS 7/8" / 20MM	7/8	1 3/16 - 12	1 3/8	0.969	24.6
7640HF SS 1" / 25MM	1	1 5/16 - 12	1 1/2	1.016	25.8
7640HF SS 1 1/4" / 32MM	1 1/4	1 5/8 - 12	2	1.062	27.0
7640HF SS 1 1/2" / 38MM	1 1/2	1 7/8 - 12	2 1/4	1.188	30.2
7640HF SS 2"	2	1 1/2 - 12	2 7/8	1.438	36.5

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