

# HSME<sup>®</sup>





## Valves & Fittings

Catalog No. JIC-1  
January 2014



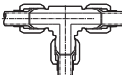


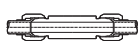
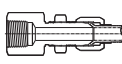

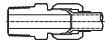


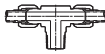

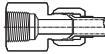


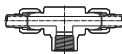

### H Series JIC Tube Fittings SAE J514 & ISO 8434-2




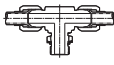















- Metric Tube OD: 3 mm to 50 mm
- Fractional Tube OD: 1/8 to 2 in
- Fitting Materials: Stainless Steel, Steel, and Brass

<p>Quality System Certificate</p>  <p>ISO 9001</p>	<p>HSE Management Certificates</p>  <p>ISO 14001 OHSAS18001</p>	<p>Nuclear Quality System Certificates</p>  <p>N NPT NS Kopic</p>	<p>Type Approval Certificates</p>  <p>DNV ABS Bureau Veritas GL KR KOREAN REGISTER</p>	<p>www.hsmecorp.com</p> <h1>HSME<sup>®</sup></h1> <p>since 1976</p> <p>Registered Trade Mark</p>
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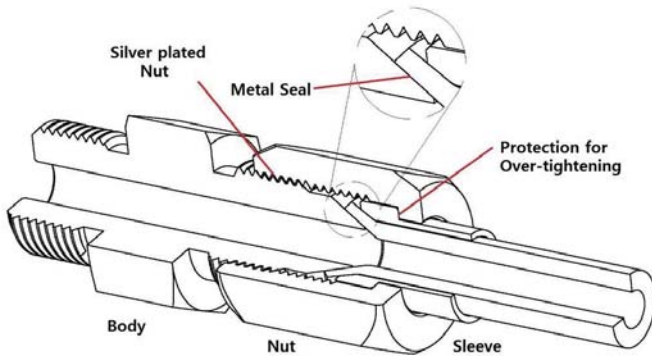
**Fluid Power Tube Fittings**

H Series JIC Tube Fittings are applicable to fluid power system where the power is transmitted and controlled through a fluid under pressure also applicable to general application where a fluid is conveyed under pressure.

H Series JIC Tube Fittings conform to the design requirements of SAE J514 and ISO 8434-2 standards that are derived from Air force and Navy 37° flared fitting standards. Hence AN fitting represents 37° flared JIC tube port in instrumentation industry.

**Standard Components**

H Series JIC Tube Fitting consists of three components: Body, Sleeve, and Nut.



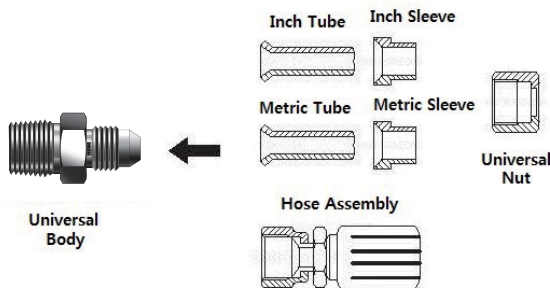
**Silver plated nut:** Stainless steel nuts are pre-lubricated with silver plating on threads that reduces assembly torque and eliminate thread galling.

**Over-tightening protection:** The design of sleeve prevents over-tightening the fitting's nut as well as isolates tube from nut, preventing tube from rotating during assembly.

**Metal seal:** provides sealing beyond the tube burst pressure.

**Versatility**

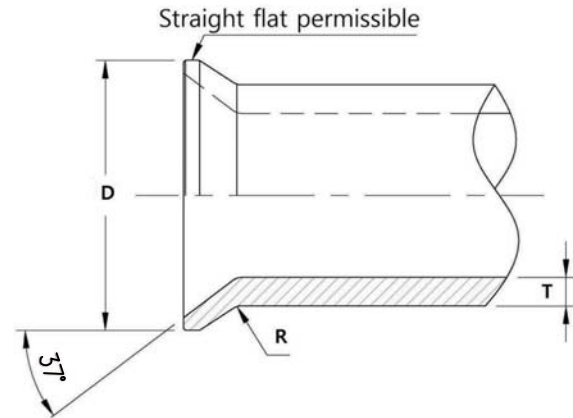
To build up a fluid power tubing system, 37° flared tubing is required.



H Series fittings accept either inch or metric tube or a hose assembly. Body and nut are universal parts that can be used with either inch or metric tube. The sleeve is only part to change corresponding to metric and inch tube OD.

The body without nut and sleeve is widely used as a hose adapter.

**37° flare for tube**



**Flared Tube End Dimensions** Unit: mm

Tube OD		T max		D	R
Metric	Inch	Metric	Inch	min-max	+/- 0.5
6	1/4	1.5	1.65	8.6-9.1	0.8
8	5/16	1.5	1.65	10.2-10.9	0.8
10	3/8	1.5	1.65	11.7-12.4	1
12	1/2	2	2.1	16.0-16.8	1.5
16	5/8	2.5	2.41	19.3-20.1	1.5
20	3/4	3	2.76	23.4-24.1	2
25	1	3	3.05	29.7-30.5	2.3
32	1 1/4	3	3.05	37.6-38.4	2.3
38	1 1/2	3	3.05	43.2-43.9	2.8
50	2	3.5	3.4	59.2-59.9	2.8

**Fitting Material Standards**

Standard fitting materials include stainless steel 316, carbon steel and brass.

Material	Body, Nut and Sleeve	Shaped Body
	Barstock	Forging
SS316	Type 316/ ASTM A276,A479	F316/ASTM A182
Carbon Steel	White Zinc Plated ASTM A108, S20C-S48C/JISG4051	White Zinc Plated ASTM A105 S20C-S48C/JISG4051
Brass	UNS C36000/ ASTM B16 C3604/JIS H3250	UNS C37700/ ASTM B283 C3771/JIS H3250

**Fitting Cleaning and Surface Protection**

Fittings are cleaned to remove surface contamination, loose particles, iron particles out of cutting tools, and oil from cutting fluid. Fittings are further processed for the surface protection to enhance corrosion-resistance.

Fitting Materials	Surface Protection
Stainless Steel	Passivation
Carbon Steel	White Zinc Plating
Brass	Acid Cleaning

## Pressure Ratings

Working pressure rating are capable of 4 to 1 minimum burst.

Tube OD		SAE J514, psig			ISO 8434-2, bar	
		1)	2)	3)	Steel & Stainless	Brass
Metric	Inch	Steel & Stainless Steel				
6	1/4	5000	5000	4500	350	200
8	5/16	5000	5000	4000	350	200
10	3/8	5000	4000	4000	250	160
12	1/2	4500	3000	4000	250	160
16	5/8	3500	3000	3000	200	125
20	3/4	3500	2500	3000	200	125
25	1	3000	2000	2500	160	100
32	1 1/4	2500	1150	2000	125	80
38	1 1/2	2000	1000	1500	100	63
50	2	1500	1000	1125	80	50

- 1) Unions and bulkheads
- 2) Fittings with pipe threads
- 3) Female swivels

## Temperature Ratings

- Stainless Steel: -60 to 200 °C
- Carbon Steel: -40 to 150 °C
- Brass: -45 to 175 °C

When combining seal material, the temperature rating of seal may become the limiting factor on the fitting's temperature rating.

## Elastomer Seal's Temperature Rating

Seal Material	Designator	Temperature Rating °C (°F)
NBR	BN	-23 to 120 (-9 to 248)
FKM	VT	-20 to 180 (-4 to 356)

NBR O-Ring seal is standard.

To order factory assembled fitting with an optional FKM O-Ring, insert the seal material designator in the fitting part number.  
Example: HOMR2T-02G-VT-SSA

To order fitting with standard NBR seal, the seal material designator is not required to add to the fitting part number.  
Example: HOMR2T-02G-SSA

## Fitting Assembly Torque

Tube OD		Torque Nm	
		Assembly Torque	Over Torque 1)
Metric	Inch	Steel & Stainless Steel	
6	1/4	15-16	24
8	5/16	19-21	31
10	3/8	24-28	42
12	1/2	49-53	80
16	5/8	77-85	114
20	3/4	107-119	160
25	1	147-154	214
32	1 1/4	172-181	271
38	1 1/2	215-226	339
50	2	332-350	497

The assembly of fittings with the connecting tubes shall be carried out without external loads.

### 1) Over Torque

Over torque causes deformation of 37° cone of the male end. Excessive deformation of the cone results in loss of clamping force, hence loss of seal.

## Designators

Tube OD Designator

Inch OD	1/8	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 1/2	2
Designator	2T	3T	4T	5T	6T	8T	10T	12T	14T	16T	20T	24T	32T

Metric OD	3mm	4mm	6mm	8mm	10mm	12mm	16mm	18mm	22mm	25mm	32mm	38mm	50mm
Designator	3M	4M	6M	8M	10M	12M	16M	18M	22M	25M	32M	38M	50M

Thread Designator and Standards

Designator	Thread Profile	Industrial Symbol	Standards
N	Tapered Pipe Thread	NPT	ANSI/ASME B1.20.1
R		BSPT, PT	ISO 7-1, DIN 2999, BS21(BSPT), JIS B0203 (PT)
G	Parallel Pipe Thread	BSPP, PF	ISO 228-1, BS 2779 (BSPP), JIS B0202 (PF)
U	Unified Thread	UNF, SAE	ASME B1.1

Pipe Thread Size Designator

Nominal Pipe Size, in.	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Size Designator	2	4	6	8	12	16	20	24	32
N	2N	4N	6N	8N	12N	16N	20N	24N	32N
R	2R	4R	6R	8R	12R	16R	20R	24R	32R
G	2G	4G	6G	8G	12G	16G	20G	24G	32G

Unified Thread Designator

Unified Thread, in.	Corresponding Inch Tube		Corresponding Metric Tube		37° cone of male end
	OD, in.	Designator	OD, mm	Designator	Designator
5/16-24	1/8	2T	3	3M	2T
3/8-24	3/16	3T	4	4M	3T
7/16-20	1/4	4T	6	6M	4T
1/2-20	5/16	5T	8	8M	5T
9/16-20	3/8	6T	10	10M	6T
3/4-16	1/2	8T	12	12M	8T
7/8-14	5/8	10T	16	16M	10T
1 1/16-12	3/4	12T	18,20	18M,20M	12T
1 3/16-12	7/8	14T	22	22M	14T
1 5/16-12	1	16T	25	25M	16T
1 5/8-12	1 1/4	20T	32	32M	20T
1 7/8-12	1 1/2	24T	38	38M	24T
2 1/2-12	2	32T	50	50M	32T

**Ordering Information**

To order, select part number, and add material designator to the part number.

Examples: HU-2T-**SSA**, HU-2T-**CWPA**, and HU-2T-**BA**.

To order fitting for metric tubing, select metric part number, and add material designator to the part number.

Examples: HU-**3M**-SSA, HU-**3M**-CWPA, and HU-**3M**-BA

To order fitting body without nut & sleeve, select part number, and add "body only" designator to the part number.

Examples: HU-2T-**SS**, HU-2T-**CWP**, and HU-2T-**B**.

Fitting Order Designator

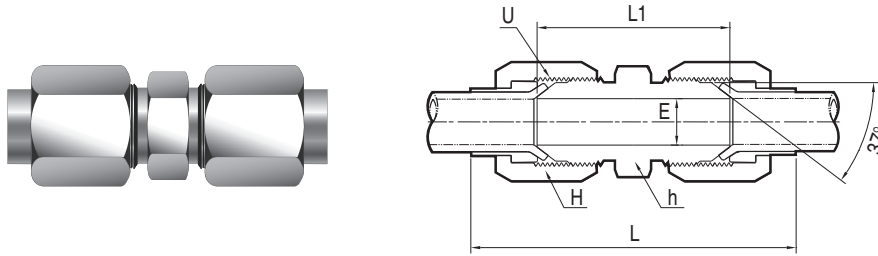
Fitting Material	Stainless Steel 316	Carbon Steel	Brass
	SS316	Standard White Zinc Plated	
Factory-assembled complete fitting Designator	SSA	CWPA	BA
Body Only Designator	SS	CWP	B

**Identification Marking**

- For SS316 fitting, HSME, Material Grade 316, and Pipe Thread Designator- N or R are marked on body. .
- For Carbon Steel and Brass fitting, HSME and Pipe Thread Designator- N or R are marked on body.

# HU

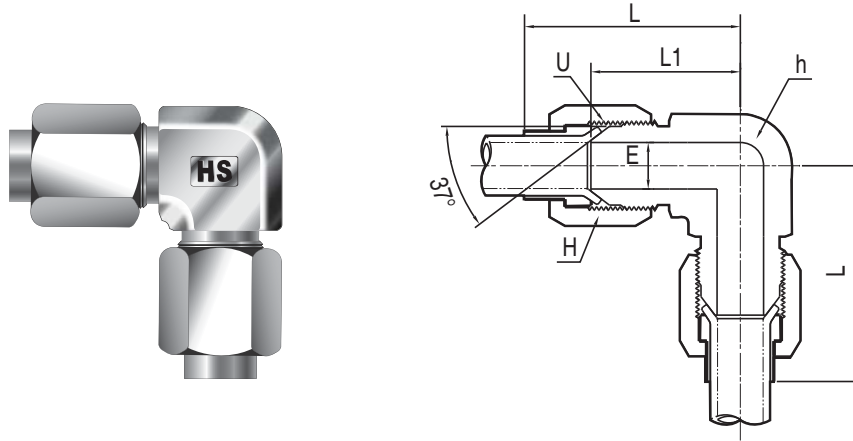
Union  
SAE J514(070101)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	h (HEX.)	H (HEX.)	E	L	L1
HU-2T	1/8	HU-3M	3M	5/16-24	11.0	9.5	1.6	45.3	29.7
HU-3T	3/16	HU-4M	4M	3/8-24	11.0	11.0	3.2	50.0	31.2
HU-4T	1/4	HU-6M	6M	7/16-20	12.0	14.2	4.4	53.0	34.8
HU-5T	5/16	HU-8M	8M	1/2-20	14.2	15.8	6.0	55.6	34.8
HU-6T	3/8	HU-10M	10M	9/16-18	16.0	17.4	7.5	59.6	35.8
HU-8T	1/2	HU-12M	12M	3/4-16	21.0	22.2	9.9	66.5	41.1
HU-10T	5/8	HU-16M	16M	7/8-14	23.8	25.4	12.3	81.0	47.8
HU-12T	3/4	HU-18M/-20M	18,20M	1 1/16-12	29.0	31.7	15.5	85.9	54.9
HU-14T	7/8	HU-22M	22M	1 3/16-12	32.0	34.9	18.0	91.3	56.1
HU-16T	1	HU-25M	25M	1 5/16-12	36.0	38.1	21.5	95.2	57.2
HU-20T	1-1/4	HU-32M	32M	1 5/8-12	46.0	50.8	27.5	98.7	61.7
HU-24T	1-1/2	HU-38M	38M	1 7/8-12	50.0	57.1	33.0	123.2	69.8
HU-32T	2	HU-50M	50M	2 1/2-12	66.7	73.0	45.0	141.4	86.4

# HL

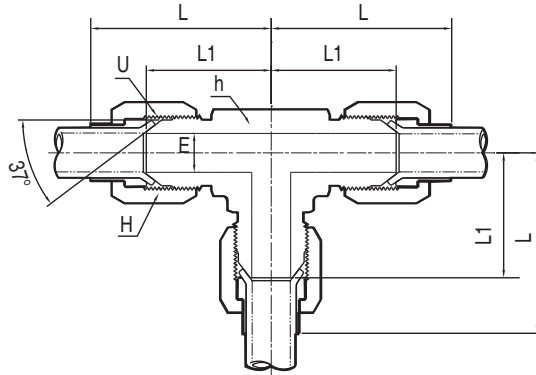
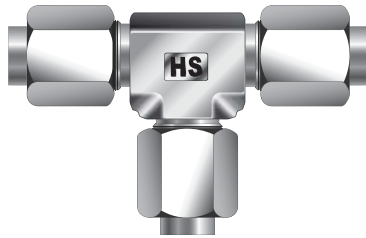
Union Elbow  
SAE J514(070201)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	h (HEX.)	H (HEX.)	L	L1
HL-2T	1/8	HL-3M	3M	5/16-24	1.6	11.1	9.5	27.4	19.6
HL-3T	3/16	HL-4M	4M	3/8-24	3.2	11.1	11.0	30.5	21.1
HL-4T	1/4	HL-6M	6M	7/16-20	4.4	11.1	14.2	31.7	22.6
HL-5T	5/16	HL-8M	8M	1/2-20	6.0	14.2	15.8	34.5	24.1
HL-6T	3/8	HL-10M	10M	9/16-18	7.5	14.2	17.4	38.8	26.9
HL-8T	1/2	HL-12M	12M	3/4-16	9.9	19.0	22.2	44.5	31.8
HL-10T	5/8	HL-16M	16M	7/8-14	12.3	22.2	25.4	53.4	36.8
HL-12T	3/4	HL-18M/-20M	18,20M	1 1/16-12	15.5	27.0	31.7	57.7	42.2
HL-14T	7/8	HL-22M	22M	1 3/16-12	18.0	33.3	34.9	63.3	45.7
HL-16T	1	HL-25M	25M	1 5/16-12	21.5	33.3	38.1	65.0	46.0
HL-20T	1-1/4	HL-32M	32M	1 5/8-12	37.5	41.3	50.8	70.8	52.3
HL-24T	1-1/2	HL-38M	38M	1 7/8-12	33.0	47.6	57.1	85.9	59.2
HL-32T	2	HL-50M	50M	2 1/2-12	45.0	63.5	73.0	105.2	77.7

**HT**

Union Tee  
SAE J514(070401)

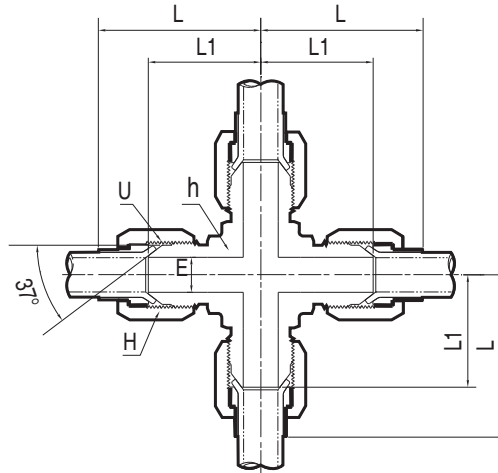
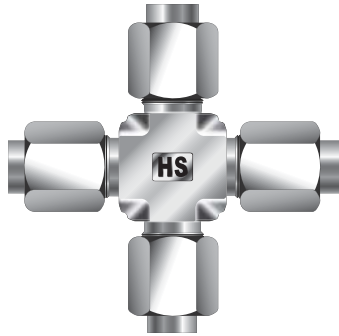


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	h (HEX.)	H (HEX.)	L	L1
HT-2T	1/8	HT-3M	3M	5/16-24	1.6	11.1	9.5	27.4	19.6
HT-3T	3/16	HT-4M	4M	3/8-24	3.2	11.1	11.0	30.5	21.1
HT-4T	1/4	HT-6M	6M	7/16-20	4.4	11.1	14.2	31.7	22.6
HT-5T	5/16	HT-8M	8M	1/2-20	6.0	14.2	15.8	34.5	24.1
HT-6T	3/8	HT-10M	10M	9/16-18	7.5	14.2	17.4	38.8	26.9
HT-8T	1/2	HT-12M	12M	3/4-16	9.9	19.0	22.2	44.5	31.8
HT-10T	5/8	HT-16M	16M	7/8-14	12.3	22.2	25.4	53.4	36.8
HT-12T	3/4	HT-18M/-20M	18,20M	1 1/16-12	15.5	27.0	31.7	57.7	42.2
HT-14T	7/8	HT-22M	22M	1 3/16-12	18.0	33.3	34.9	63.3	45.7
HT-16T	1	HT-25M	25M	1 5/16-12	21.5	34.9	38.1	65.0	46.0
HT-20T	1-1/4	HT-32M	32M	1 5/8-12	37.5	41.3	50.8	70.8	52.3
HT-24T	1-1/2	HT-38M	38M	1 7/8-12	33.0	47.6	57.1	85.9	59.2
HT-32T	2	HT-50M	50M	2 1/2-12	45.0	63.5	73.0	105.2	77.7



# HC

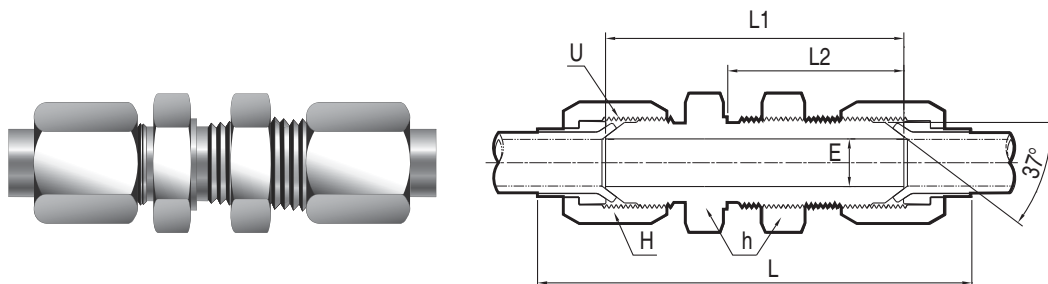
Union Cross  
SAE J514(070501)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	h (HEX.)	H (HEX.)	L	L1
HC-2T	1/8	HC-3M	3M	5/16-24	1.6	11.1	9.5	27.4	19.6
HC-3T	3/16	HC-4M	4M	3/8-24	3.2	11.1	11.0	30.5	21.1
HC-4T	1/4	HC-6M	6M	7/16-20	4.4	11.1	14.2	31.7	22.6
HC-5T	5/16	HC-8M	8M	1/2-20	6.0	14.2	15.8	34.5	24.1
HC-6T	3/8	HC-10M	10M	9/16-18	7.5	14.2	17.4	38.8	26.9
HC-8T	1/2	HC-12M	12M	3/4-16	9.9	19.0	22.2	44.5	31.8
HC-10T	5/8	HC-16M	16M	7/8-14	12.3	22.2	25.4	53.4	36.8
HC-12T	3/4	HC-18M/-20M	18,20M	1 1/16-12	15.5	27.0	31.7	57.7	42.2
HC-14T	7/8	HC-22M	22M	1 3/16-12	18.0	33.3	34.9	63.3	45.7
HC-16T	1	HC-25M	25M	1 5/16-12	21.5	34.9	38.1	65.0	46.0
HC-20T	1-1/4	HC-32M	32M	1 5/8-12	37.5	41.3	50.8	70.8	52.3
HC-24T	1-1/2	HC-38M	38M	1 7/8-12	33.0	47.6	57.1	85.9	59.2
HC-32T	2	HC-50M	50M	2 1/2-12	45.0	63.5	73.0	105.2	77.7

# HBU

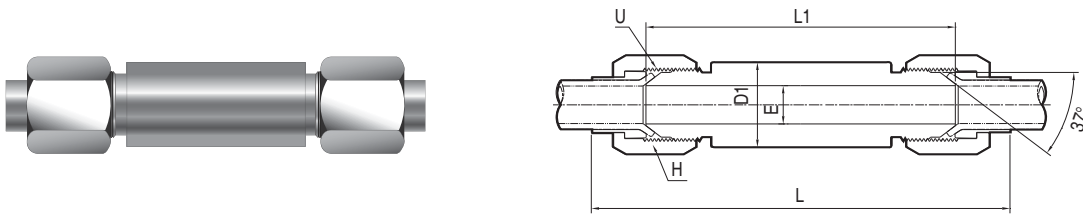
Bulkhead Union  
SAE J514(070601)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	h (HEX.)	H (HEX.)	L	L1	L2
HBU-2T	1/8	HBU-3M	3M	5/16-24	1.6	14.2	9.5	63.1	47.5	28.2
HBU-3T	3/16	HBU-4M	4M	3/8-24	3.2	15.8	11.0	67.1	48.3	28.2
HBU-4T	1/4	HBU-6M	6M	7/16-20	4.4	17.4	14.2	70.8	52.6	30.5
HBU-5T	5/16	HBU-8M	8M	1/2-20	6.0	19.0	15.8	73.4	52.6	30.5
HBU-6T	3/8	HBU-10M	10M	9/16-18	7.5	20.6	17.4	79.2	55.4	32.5
HBU-8T	1/2	HBU-12M	12M	3/4-16	9.9	25.4	22.2	87.4	62.0	36.6
HBU-10T	5/8	HBU-16M	16M	7/8-14	12.3	28.5	25.4	102.8	69.6	40.1
HBU-12T	3/4	HBU-18M/-20M	18,20M	1 1/16-12	15.5	34.9	31.7	109.5	78.5	44.4
HBU-14T	7/8	HBU-22M	22M	1 3/16-12	18.0	38.1	34.9	114.4	79.2	44.4
HBU-16T	1	HBU-25M	25M	1 5/16-12	21.5	41.2	38.1	117.8	79.8	44.4
HBU-20T	1-1/4	HBU-32M	32M	1 5/8-12	37.5	47.6	50.8	121.1	84.1	45.7
HBU-24T	1-1/2	HBU-38M	38M	1 7/8-12	33.0	53.9	57.1	142.8	89.4	46.0
HBU-32T	2	HBU-50M	50M	2 1/2-12	45.0	69.8	73.0	161.7	106.7	53.1

# HBUW

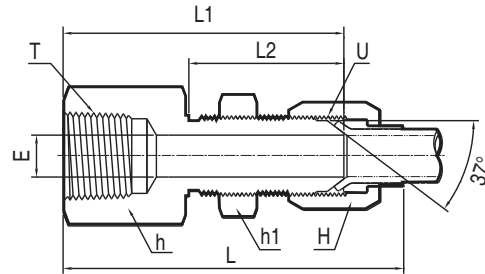
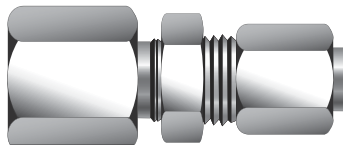
Weld Bulkhead Union



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	D1	H (HEX.)	L	L1
HBUW-2T	1/8	HBUW-3M	3M	5/16-24	1.6	11.0	9.5	85.6	70.0
HBUW-3T	3/16	HBUW-4M	4M	3/8-24	3.2	11.0	11.0	88.8	70.0
HBUW-4T	1/4	HBUW-6M	6M	7/16-20	4.4	14.0	14.2	98.2	80.0
HBUW-5T	5/16	HBUW-8M	8M	1/2-20	6.0	16.0	15.8	120.8	100.0
HBUW-6T	3/8	HBUW-10M	10M	9/16-18	7.5	17.0	17.4	123.8	100.0
HBUW-8T	1/2	HBUW-12M	12M	3/4-16	9.9	22.0	22.2	125.4	100.0
HBUW-10T	5/8	HBUW-16M	16M	7/8-14	12.3	25.0	25.4	143.2	110.0
HBUW-12T	3/4	HBUW-18M/-20M	18,20M	1 1/16-12	15.5	30.0	31.7	151.0	120.0
HBUW-14T	7/8	HBUW-22M	22M	1 3/16-12	18.0	32.0	34.9	165.2	130.0
HBUW-16T	1	HBUW-25M	25M	1 5/16-12	21.5	40.0	38.1	168.0	130.0
HBUW-20T	1-1/4	HBUW-32M	32M	1 5/8-12	27.5	46.0	50.8	177.0	140.0
HBUW-24T	1-1/2	HBUW-38M	38M	1 7/8-12	33.0	50.0	57.1	193.4	140.0
HBUW-32T	2	HBUW-50M	50M	2 1/2-12	45.0	70.0	73.0	205.0	150.0

# HBFC

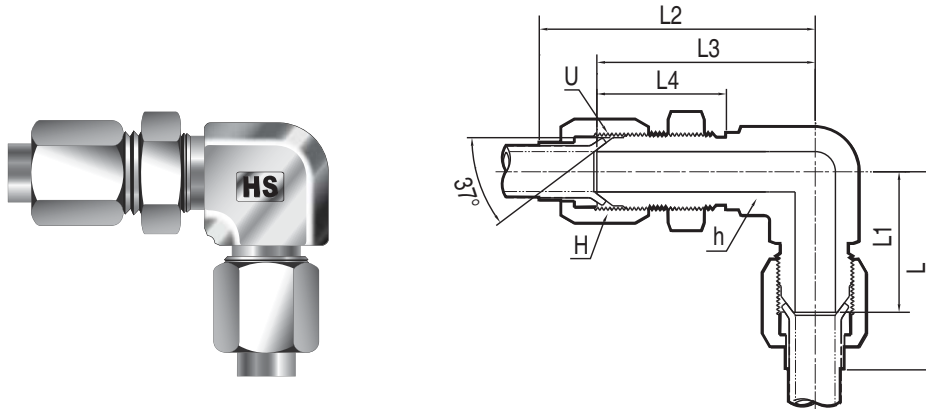
## Female Bulkhead Connector



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX.)	h1 (HEX.)	H (HEX.)	L	L1	L2
HBFC2T-2N	1/8	HBFC3M-1N	3M	5/16-24	1/8	1.6	14.2	14.2	9.5	49.0	41.2	28.2
HBFC3T-2N	3/16	HBFC4M-1N	4M	3/8-24	1/8	3.2	14.2	15.8	11.0	50.6	41.2	28.2
HBFC4T-2N	1/4	HBFC6M-1N	6M	7/16-20	1/8	4.4	14.2	17.4	14.2	52.6	43.5	30.5
HBFC5T-2N	5/16	HBFC8M-1N	8M	1/2-20	1/8	6.0	14.2	19.0	15.8	53.9	43.5	30.5
HBFC6T-4N	3/8	HBFC10M-2N	10M	9/16-18	1/4	7.5	19.0	20.6	17.4	62.5	50.5	32.5
HBFC8T-6N	1/2	HBFC12M-3N	12M	3/4-16	3/8	9.9	22.2	25.4	22.2	69.3	56.6	36.6
HBFC10T-8N	5/8	HBFC16M-4N	16M	7/8-14	1/2	12.3	29.0	28.5	25.4	82.7	66.1	40.1
HBFC12T-12N	3/4	HBFC18M/20M-6N	18,20M	1 1/16-12	3/4	15.5	34.9	34.9	31.7	86.0	71.4	44.4
HBFC14T-12N	7/8	HBFC22M-6N	22M	1 3/16-12	3/4	18.0	34.9	38.1	34.9	89.0	71.4	44.4
HBFC16T-16N	1	HBFC25M-8N	25M	1 5/16-12	1	21.5	41.2	41.2	38.1	94.4	75.4	44.4
HBFC20T-20N	1-1/4	HBFC32M-10N	32M	1 5/8-12	1-1/4	27.5	50.8	47.6	50.8	99.2	80.7	45.7
HBFC24T-24N	1-1/2	HBFC38M-12N	38M	1 7/8-12	1-1/2	33.0	60.0	53.9	57.1	107.7	81.0	46.0
HBFC32T-32N	2	HBFC50M-16N	50M	2 1/2-12	2	45.0	73.0	69.8	73.0	120.6	93.1	53.1

# HBL

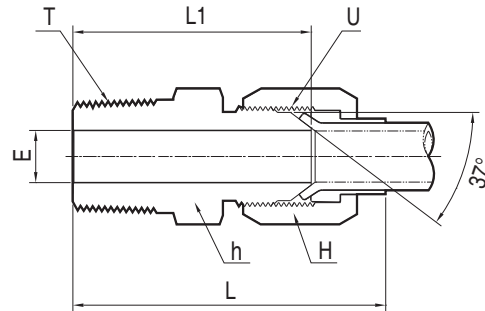
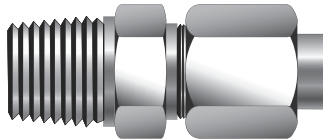
Bulkhead Union Elbow  
SAE J514(070701)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	h (HEX.)	H (HEX.)	L	L1	L2	L3	L4
HBL-2T	1/8	HBL-3M	3M	5/16-24	11.1	9.5	30.2	22.4	45.9	38.1	23.4
HBL-3T	3/16	HBL-4M	4M	3/8-24	11.1	11.0	33.3	23.9	47.5	38.1	23.4
HBL-4T	1/4	HBL-6M	6M	7/16-20	11.1	14.2	33.7	24.6	49.5	40.4	25.9
HBL-5T	5/16	HBL-8M	8M	1/2-20	14.3	15.8	37.3	26.9	54.1	43.7	25.9
HBL-6T	3/8	HBL-10M	10M	9/16-18	14.3	17.4	39.6	27.7	57.9	46.0	27.7
HBL-8T	1/2	HBL-12M	12M	3/4-16	19.0	22.2	47.2	34.5	66.3	53.6	31.8
HBL-10T	5/8	HBL-16M	16M	7/8-14	22.2	25.4	56.2	39.6	77.3	60.7	35.8
HBL-12T	3/4	HBL-18M/-20M	18,20M	1 1/16-12	27.0	31.7	60.7	45.2	83.1	67.6	39.6
HBL-14T	7/8	HBL-22M	22M	1 3/16-12	33.3	34.9	66.4	48.8	88.7	71.1	39.6
HBL-16T	1	HBL-25M	25M	1 5/16-12	33.3	38.1	68.3	49.3	90.1	71.1	39.6
HBL-20T	1-1/4	HBL-32M	32M	1 5/8-12	41.3	50.8	73.6	55.1	97.7	79.2	40.9
HBL-24T	1-1/2	HBL-38M	38M	1 7/8-12	47.6	57.1	86.1	59.4	113.6	86.9	41.1
HBL-32T	2	HBL-50M	50M	2 1/2-12	63.5	73.0	100.9	73.4	131.9	104.4	48.5

# HMC

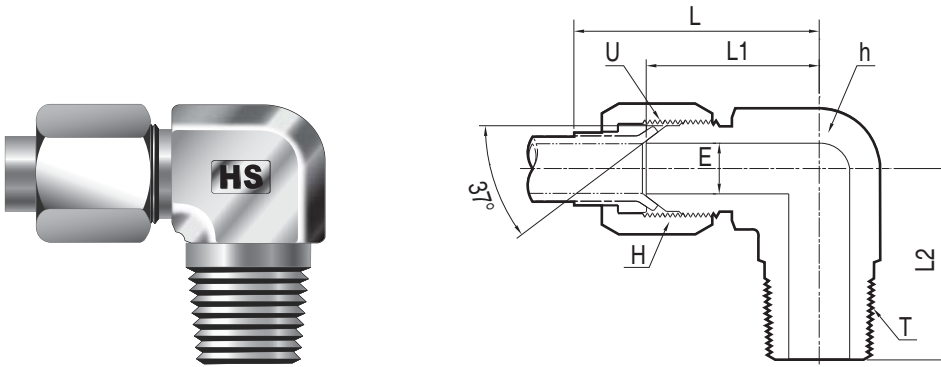
Male Connector  
SAE J514(070102)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX.)	H (HEX.)	L	L1
HMC2T-2N	1/8	HMC3M-2N	3M	5/16-24	1/8	1.6	11.1	9.5	36.0	28.2
HMC3T-2N	3/16	HMC4M-2N	4M	3/8-24	1/8	3.2	11.1	11.0	38.4	29.0
HMC4T-2N	1/4	HMC6M-2N	6M	7/16-20	1/8	4.4	12.7	14.2	40.1	31.0
HMC5T-2N	5/16	HMC8M-2N	8M	1/2-20	1/8	6.0	14.2	15.8	41.4	31.0
HMC6T-4N	3/8	HMC10M-4N	10M	9/16-18	1/4	7.5	15.8	17.4	48.2	36.3
HMC8T-6N	1/2	HMC12M-6N	12M	3/4-16	3/8	9.9	20.6	22.2	51.6	38.9
HMC10T-8N	5/8	HMC16M-8N	16M	7/8-14	1/2	12.3	20.6	25.4	64.6	48.0
HMC12T-12N	3/4	HMC18M/20M-12N	18,20M	1 1/16-12	3/4	15.5	28.5	31.7	67.8	52.3
HMC14T-12N	7/8	HMC22M-12N	22M	1 3/16-12	3/4	18.0	31.7	34.9	70.7	53.1
HMC16T-16N	1	HMC25M-16N	25M	1 5/16-12	1	21.5	34.9	38.1	77.4	58.4
HMC20T-20N	1-1/4	HMC32M-20N	32M	1 5/8-12	1-1/4	27.5	42.8	50.8	80.7	62.2
HMC24T-24N	1-1/2	HMC38M-24N	38M	1 7/8-12	1-1/2	33.0	50.8	57.1	94.8	68.1
HMC32T-32N	2	HMC50M-32N	50M	2 1/2-12	2	45.0	66.6	73.0	106.5	79.0

# HLM

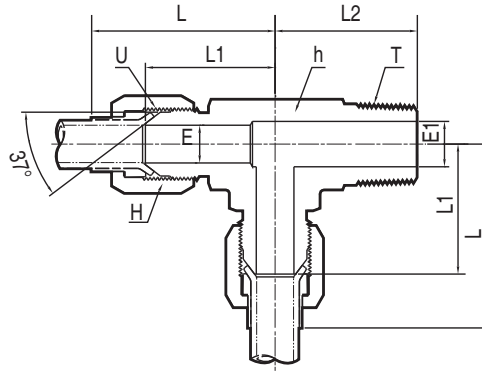
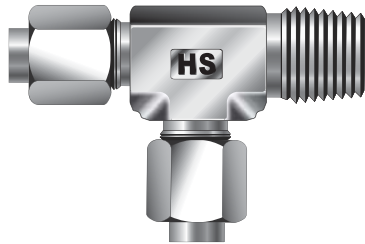
Male Elbow  
SAE J514(070202)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX)	H (HEX)	L	L1	L2
HLM2T-2N	1/8	HLM3M-2N	3M	5/16-24	1/8	1.6	11.1	9.5	27.4	19.6	18.3
HLM3T-2N	3/16	HLM4M-2N	4M	3/8-24	1/8	3.2	11.1	11.0	30.5	21.1	18.3
HLM4T-2N	1/4	HLM6M-2N	6M	7/16-20	1/8	4.4	11.1	14.2	31.7	22.6	19.8
HLM5T-2N	5/16	HLM8M-2N	8M	1/2-20	1/8	6.0	14.3	15.8	34.5	24.1	19.8
HLM6T-4N	3/8	HLM10M-4N	10M	9/16-18	1/4	7.5	14.3	17.4	38.8	26.9	27.7
HLM8T-6N	1/2	HLM12M-6N	12M	3/4-16	3/8	9.9	19.0	22.2	44.5	31.8	31.0
HLM10T-8N	5/8	HLM16M-8N	16M	7/8-14	1/2	12.3	22.2	25.4	53.4	36.8	37.3
HLM12T-12N	3/4	HLM18M/20M-12N	18,20M	1 1/16-12	3/4	15.5	27.0	31.7	57.7	42.2	40.4
HLM14T-12N	7/8	HLM22M-12N	22M	1 3/16-12	3/4	18.0	33.3	34.9	63.3	45.7	42.9
HLM16T-16N	1	HLM25M-16N	25M	1 5/16-12	1	21.5	33.3	38.1	65.0	46.0	50.0
HLM20T-20N	1-1/4	HLM32M-20N	32M	1 5/8-12	1-1/4	27.5	41.3	50.8	70.8	52.3	60.5
HLM24T-24N	1-1/2	HLM38M-24N	38M	1 7/8-12	1-1/2	33.0	47.6	57.1	85.9	59.2	67.1
HLM32T-32N	2	HLM50M-32N	50M	2 1/2-12	2	45.0	63.5	73.0	105.2	77.7	76.2

# HRTM

Male Run Tee  
SAE J514(070424)



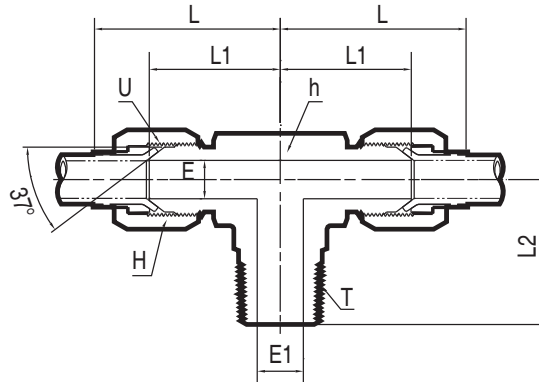
Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	E1	h (HEX.)	H (HEX.)	L	L1	L2
HRTM2T-2N	1/8	HRTM 3M-2N	3M	5/16-24	1/8	1.6	4.8	11.1	9.5	27.4	19.6	18.3
HRTM3T-2N	3/16	HRTM 4M-2N	4M	3/8-24	1/8	3.2	4.8	11.1	11.0	30.5	21.1	18.3
HRTM4T-2N	1/4	HRTM 6M-2N	6M	7/16-20	1/8	4.4	4.8	11.1	14.2	31.7	22.6	19.8
HRTM5T-2N	5/16	HRTM 8M-2N	8M	1/2-20	1/8	6.0	4.8	14.3	15.8	34.5	24.1	19.8
HRTM6T-4N	3/8	HRTM 10M-4N	10M	9/16-18	1/4	7.5	7.0	14.3	17.4	38.8	26.9	27.7
HRTM8T-6N	1/2	HRTM 12M-6N	12M	3/4-16	3/8	9.9	10.3	19.0	22.2	44.5	31.8	31.0
HRTM10T-8N	5/8	HRTM 16M-8N	16M	7/8-14	1/2	12.3	13.5	22.2	25.4	53.4	36.8	37.3
HRTM12T-12N	3/4	HRTM 18M/20M-12N	18,20M	1 1/16-12	3/4	15.5	18.0	27.0	31.7	57.7	42.2	40.4
HRTM14T-12N	7/8	HRTM 22M-12N	22M	1 3/16-12	3/4	18.0	18.0	33.3	34.9	63.3	45.7	42.9
HRTM16T-16N	1	HRTM 25M-12N	25M	1 5/16-12	1	21.5	23.8	33.3	38.1	65.0	46.0	50.0
HRTM20T-20N	1-1/4	HRTM 32M-20N	32M	1 5/8-12	1-1/4	27.5	31.7	41.3	50.8	70.8	52.3	60.5
HRTM24T-24N	1-1/2	HRTM 38M-24N	38M	1 7/8-12	1-1/2	33.0	38.0	47.6	57.1	85.9	59.2	67.1
HRTM32T-32N	2	HRTM 50M-32N	50M	2 1/2-12	2	45.0	49.0	63.5	73.0	105.2	77.7	76.2



# HBTM

Branch Tee

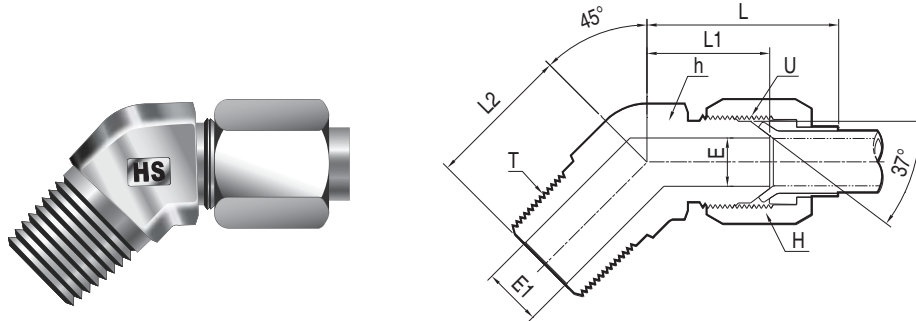
SAE J514(070425)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	E1	h (HEX)	H (HEX)	L	L1	L2
HBTM2T-2N	1/8	HBTM3M-2N	3M	5/16-24	1/8	1.6	4.8	11.1	9.5	27.4	19.6	18.3
HBTM3T-2N	3/16	HBTM4M-2N	4M	3/8-24	1/8	3.2	4.8	11.1	11.0	30.5	21.1	18.3
HBTM4T-2N	1/4	HBTM6M-2N	6M	7/16-20	1/8	4.4	4.8	11.1	14.2	31.7	22.6	19.8
HBTM5T-2N	5/16	HBTM8M-2N	8M	1/2-20	1/8	6.0	4.8	14.3	15.8	34.5	24.1	19.8
HBTM6T-4N	3/8	HBTM10M-4N	10M	9/16-18	1/4	7.5	7.0	14.3	17.4	38.8	26.9	27.7
HBTM08T-6N	1/2	HBTM12M-6N	12M	3/4-16	3/8	9.9	10.3	19.0	22.2	44.5	31.8	31.0
HBTM10T-8N	5/8	HBTM16M-8N	16M	7/8-14	1/2	12.3	13.5	22.2	25.4	53.4	36.8	37.3
HBTM12T-12N	3/4	HBTM18M/20M-12N	18M,20M	1 1/16-12	3/4	15.5	18.0	27.0	31.7	57.7	42.2	40.4
HBTM14T-12N	7/8	HBTM22M-12N	22M	1 3/16-12	3/4	18.0	18.0	33.3	34.9	63.3	45.7	42.9
HBTM16T-16N	1	HBTM25M-16N	25M	1 5/16-12	1	21.5	23.8	35.0	38.1	65.0	46.0	50.0
HBTM20T-20N	1-1/4	HBTM32M-20N	32M	1 5/8-12	1-1/4	37.5	31.7	41.3	50.8	70.8	52.3	60.5
HBTM24T-24N	1-1/2	HBTM38M-24N	38M	1 7/8-12	1-1/2	33.0	38.0	47.6	57.1	85.9	59.2	67.1
HBTM32T-32N	2	HBTM50M-32N	50M	2 1/2-12	2	45.0	49.0	63.5	73.0	105.2	77.7	76.2

**HLMB**

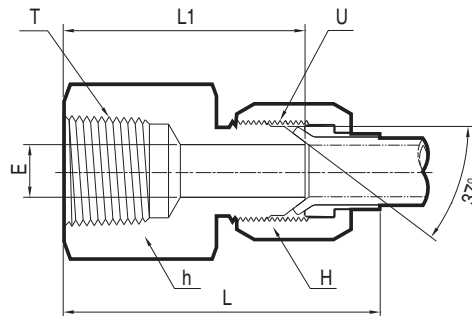
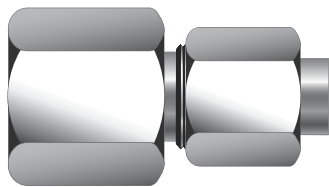
45° Male Elbow  
SAE J514(070302)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	E1	h (HEX.)	H (HEX.)	L	L1	L2
HLMB2T-2N	1/8	HLMB3M-2N	3M	5/16-24	1/8	1.6	1.6	11.1	9.5	25.3	17.5	13.2
HLMB3T-2N	3/16	HLMB4M-2N	4M	3/8-24	1/8	3.2	3.2	11.1	11.0	26.9	17.5	13.2
HLMB4T-2N	1/4	HLMB6M-2N	6M	7/16-20	1/8	4.4	4.4	11.1	14.2	27.4	18.3	16.3
HLMB5T-2N	5/16	HLMB8M-2N	8M	1/2-20	1/8	6.0	6.0	14.3	15.8	30.0	19.6	16.3
HLMB6T-4N	3/8	HLMB10M-4N	10M	9/16-18	1/4	7.5	7.5	14.3	17.4	33.0	21.1	21.8
HLMB08T-6N	1/2	HLMB12M-6N	12M	3/4-16	3/8	9.9	9.9	19.0	22.2	37.6	24.9	24.1
HLMB10T-8N	5/8	HLMB16M-8N	16M	7/8-14	1/2	12.3	12.3	22.2	25.4	44.8	28.2	29.7
HLMB12T-12N	3/4	HLMB18M/20M-12N	18M,20M	1 1/16-12	3/4	15.5	15.5	27.0	31.7	48.0	32.5	30.5
HLMB14T-12N	7/8	HLMB22M-12N	22M	1 3/16-12	3/4	18.0	18.0	33.3	34.9	54.4	36.8	33.0
HLMB16T-16N	1	HLMB25M-16N	25M	1 5/16-12	1	21.5	21.5	35.0	38.1	56.3	37.3	37.6
HLMB20T-20N	1-1/4	HLMB32M-20N	32M	1 5/8-12	1-1/4	37.5	37.5	41.3	50.8	58.9	40.4	42.4
HLMB24T-24N	1-1/2	HLMB38M-24N	38M	1 7/8-12	1-1/2	33.0	33.0	47.6	57.1	71.9	45.2	45.0
HLMB32T-32N	2	HLMB50M-32N	50M	2 1/2-12	2	45.0	45.0	63.5	73.0	83.9	56.4	53.6

# HFC

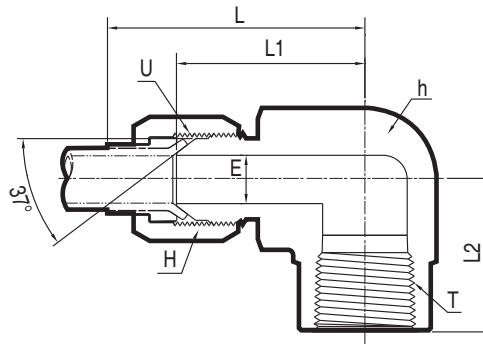
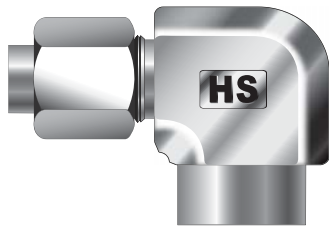
Female Connector  
SAE J514(070103)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX)	H (HEX)	L	L1
HFC2T-2N	1/8	HFC3M-2N	3M	5/16-24	1/8	1.6	14.2	9.5	36.2	28.4
HFC3T-2N	3/16	HFC4M-2N	4M	3/8-24	1/8	3.2	14.2	11.0	38.1	28.7
HFC4T-2N	1/4	HFC6M-2N	6M	7/16-20	1/8	4.4	14.2	14.2	39.3	30.2
HFC5T-2N	5/16	HFC8M-2N	8M	1/2-20	1/8	6.0	14.2	15.8	40.1	29.7
HFC6T-4N	3/8	HFC10M-4N	10M	9/16-18	1/4	7.5	19.0	17.4	47.5	35.6
HFC08T-6N	1/2	HFC12M-6N	12M	3/4-16	3/8	9.9	22.2	22.2	52.3	39.6
HFC10T-8N	5/8	HFC16M-8N	16M	7/8-14	1/2	12.3	28.5	25.4	64.6	48.0
HFC12T-12N	3/4	HFC18M/20M-12N	18M,20M	1 1/16-12	3/4	15.5	34.9	31.7	67.8	52.3
HFC14T-12N	7/8	HFC22M-12N	22M	1 3/16-12	3/4	18.0	34.9	34.9	69.9	52.3
HFC16T-16N	1	HFC25M-16N	25M	1 5/16-12	1	21.5	41.2	38.1	78.7	59.7
HFC20T-20N	1-1/4	HFC32M-20N	32M	1 5/8-12	1-1/4	37.5	50.8	50.8	81.7	63.2
HFC24T-24N	1-1/2	HFC38M-24N	38M	1 7/8-12	1-1/2	33.0	60.3	57.1	93.2	66.5
HFC32T-32N	2	HFC50M-32N	50M	2 1/2-12	2	45.0	73.0	73.0	102.9	75.4

**HLF**

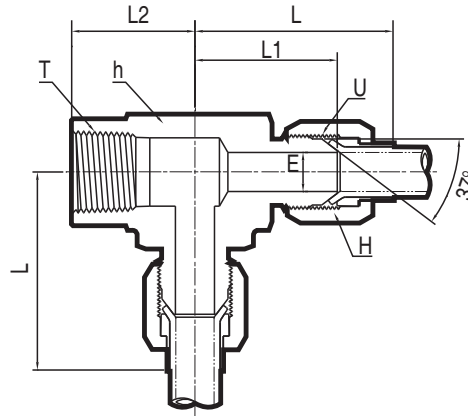
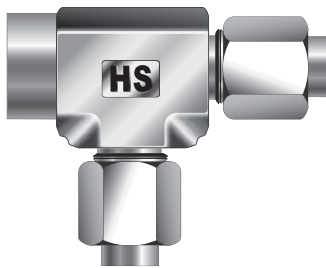
Female Elbow  
SAE J514(070203)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX.)	H (HEX.)	L	L1	L2
HLF2T-2N	1/8	HLF3M-2N	3M	5/16-24	1/8	1.6	14.3	9.5	33.2	25.4	16.8
HLF3T-2N	3/16	HLF4M-2N	4M	3/8-24	1/8	3.2	14.3	11.0	35.6	26.2	16.8
HLF4T-2N	1/4	HLF6M-2N	6M	7/16-20	1/8	4.4	14.3	14.2	36.5	27.4	16.8
HLF5T-2N	5/16	HLF8M-2N	8M	1/2-20	1/8	6.0	14.3	16.0	37.8	27.4	16.8
HLF6T-4N	3/8	HLF10M-4N	10M	9/16-18	1/4	7.5	19.0	17.4	43.1	31.2	22.4
HLF08T-6N	1/2	HLF12M-6N	12M	3/4-16	3/8	9.9	22.2	22.2	48.8	36.1	25.9
HLF10T-8N	5/8	HLF16M-8N	16M	7/8-14	1/2	12.3	27.0	25.4	58.3	41.7	31.2
HLF12T-12N	3/4	HLF18M/20M-12N	18M,20M	1 1/16-12	3/4	15.5	33.3	32.0	63.5	48.0	34.5
HLF14T-12N	7/8	HLF22M-12N	22M	1 3/16-12	3/4	18.0	33.3	35.0	64.8	47.2	36.1
HLF16T-16N	1	HLF25M-16N	25M	1 5/16-12	1	21.5	41.3	38.0	74.1	55.1	41.1
HLF20T-20N	1-1/4	HLF32M-20N	32M	1 5/8-12	1-1/4	37.5	47.6	50.8	77.7	59.2	43.2
HLF24T-24N	1-1/2	HLF38M-24N	38M	1 7/8-12	1-1/2	33.0	65.1	57.0	100.1	73.4	52.8
HLF32T-32N	2	HLF50M-32N	50M	2 1/2-12	2	45.0	71.4	73.0	111.3	83.8	60.7

# HRTF

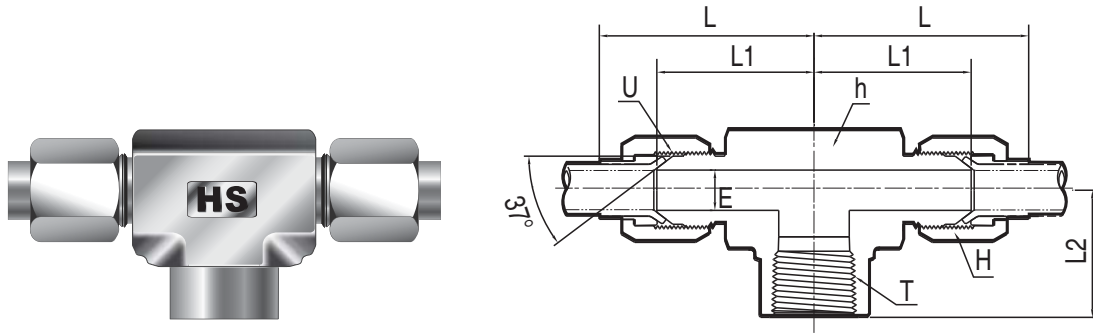
Female Run Tee  
SAE J514(070426)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX)	H (HEX)	L	L1	L2
HRTF2T-2N	1/8	HRTF3M-2N	3M	5/16-24	1/8	1.6	14.3	9.5	33.2	25.4	16.8
HRTF3T-2N	3/16	HRTF4M-2N	4M	3/8-24	1/8	3.2	14.3	11.0	35.6	26.2	16.8
HRTF4T-2N	1/4	HRTF6M-2N	6M	7/16-20	1/8	4.4	14.3	14.2	36.5	27.4	16.8
HRTF5T-2N	5/16	HRTF8M-2N	8M	1/2-20	1/8	6.0	14.3	16.0	37.8	27.4	16.8
HRTF6T-4N	3/8	HRTF10M-4N	10M	9/16-18	1/4	7.5	19.0	17.4	43.1	31.2	22.4
HRTF08T-6N	1/2	HRTF12M-6N	12M	3/4-16	3/8	9.9	22.2	22.2	48.8	36.1	25.9
HRTF10T-8N	5/8	HRTF16M-8N	16M	7/8-14	1/2	12.3	27.0	25.4	58.3	41.7	31.2
HRTF12T-12N	3/4	HRTF18M/20M-12N	18M,20M	1 1/16-12	3/4	15.5	33.3	32.0	63.5	48.0	34.5
HRTF14T-12N	7/8	HRTF22M-12N	22M	1 3/16-12	3/4	18.0	33.3	35.0	64.8	47.2	36.1
HRTF16T-16N	1	HRTF25M-16N	25M	1 5/16-12	1	21.5	41.3	38.0	74.1	55.1	41.1
HRTF20T-20N	1-1/4	HRTF32M-20N	32M	1 5/8-12	1-1/4	37.5	47.6	50.8	77.7	59.2	43.2
HRTF24T-24N	1-1/2	HRTF38M-24N	38M	1 7/8-12	1-1/2	33.0	65.1	57.0	100.1	73.4	52.8
HRTF32T-32N	2	HRTF50M-32N	50M	2 1/2-12	2	45.0	71.4	73.0	111.3	83.8	60.7

# HBTF

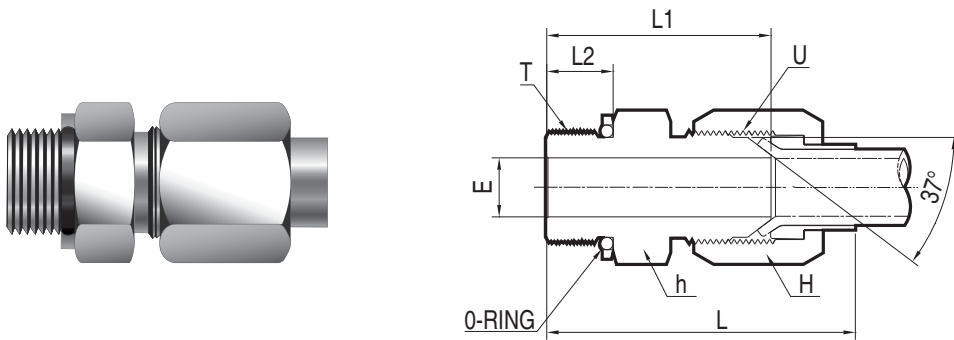
Female Branch Tee  
SAE J514(070427)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX.)	H (HEX.)	L	L1	L2
HBTF2T-2N	1/8	HBTF3M-2N	3M	5/16-24	1/8	1.6	14.3	9.5	33.2	25.4	16.8
HBTF3T-2N	3/16	HBTF4M-2N	4M	3/8-24	1/8	3.2	14.3	11.0	35.6	26.2	16.8
HBTF4T-2N	1/4	HBTF6M-2N	6M	7/16-20	1/8	4.4	14.3	14.2	36.5	27.4	16.8
HBTF5T-2N	5/16	HBTF8M-2N	8M	1/2-20	1/8	6.0	14.3	16.0	37.8	27.4	16.8
HBTF6T-N	3/8	HBTF10M-4N	10M	9/16-18	1/4	7.5	19.0	17.4	43.1	31.2	22.4
HBTF08T-6N	1/2	HBTF12M-6N	12M	3/4-16	3/8	9.9	22.2	22.2	48.8	36.1	25.9
HBTF10T-8N	5/8	HBTF16M-8N	16M	7/8-14	1/2	12.3	27.0	25.4	58.3	41.7	31.2
HBTF12T-12N	3/4	HBTF18M/20M-12N	18M,20M	1 1/16-12	3/4	15.5	33.3	32.0	63.5	48.0	34.5
HBTF14T-12N	7/8	HBTF22M-12N	22M	1 3/16-12	3/4	18.0	33.3	35.0	64.8	47.2	36.1
HBTF16T-16N	1	HBTF25M-16N	25M	1 5/16-12	1	21.5	41.3	38.0	74.1	55.1	41.1
HBTF20T-20N	1-1/4	HBTF32M-20N	32M	1 5/8-12	1-1/4	37.5	47.6	50.8	77.7	59.2	43.2
HBTF24T-24N	1-1/2	HBTF38M-24N	38M	1 7/8-12	1-1/2	33.0	65.1	57.0	100.1	73.4	52.8
HBTF32T-32N	2	HBTF50M-32N	50M	2 1/2-12	2	45.0	71.4	73.0	111.3	83.8	60.7

# HOMR

## O-Ring Seal Male Connector.(PF)

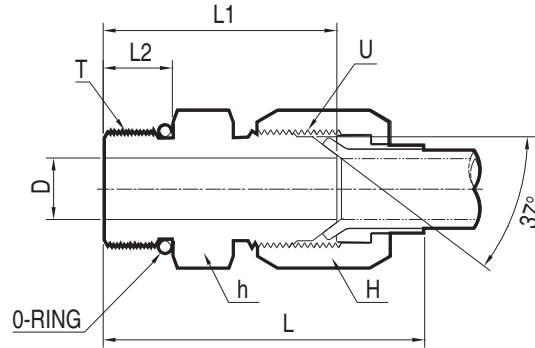
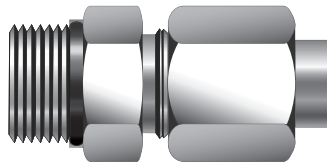


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (PF)	E	h (HEX)	H (HEX)	L	L1	L2
HOMR2T-2G	1/8	HOMR3M-2G	3M	5/16-24	1/8	1.6	11.1	9.5	35.3	27.5	8.0
HOMR3T-2G	3/16	HOMR4M-2G	4M	3/8-24	1/8	3.2	12.7	11.0	37.9	28.5	8.0
HOMR4T-2G	1/4	HOMR6M-2G	6M	7/16-20	1/8	4.4	14.2	14.2	39.3	30.2	8.0
HOMR5T-2G	5/16	HOMR8M-2G	8M	1/2-20	1/8	6.0	15.8	16.0	40.6	30.2	8.0
HOMR6T-4G	3/8	HOMR10M-4G	10M	9/16-18	1/4	7.5	17.4	17.4	46.9	35.0	12.0
HOMR8T-6G	1/2	HOMR12M-6G	12M	3/4-16	3/8	9.9	22.2	22.2	51.4	38.7	12.0
HOMR10T-8G	5/8	HOMR16M-8G	16M	7/8-14	1/2	12.3	25.4	25.4	61.1	44.5	14.0
HOMR12T-12G	3/4	HOMR18M/20M-12G	18M,20M	1 1/16-12	3/4	15.5	31.7	32.0	66.4	50.9	16.0
HOMR14T-12G	7/8	HOMR22M-12G	22M	1 3/16-12	3/4	18.0	34.9	35.0	69.0	51.4	16.0
HOMR16T-16G	1	HOMR25M-16G	25M	1 5/16-12	1	21.5	38.0	38.0	71.7	52.7	18.0
HOMR20T-20G	1-1/4	HOMR32M-20G	32M	1 5/8-12	1-1/4	37.5	42.8	50.8	78.5	60.0	20.0
HOMR24T-24G	1-1/2	HOMR38M-24G	38M	1 7/8-12	1-1/2	33.0	55.0	57.0	92.8	66.1	21.0
HOMR32T-32G	2	HOMR50M-32G	50M	2 1/2-12	2	45.0	70.0	73.0	108.0	80.5	25.0

NBR O-Ring is included in the fitting supply.

# HOM

O-Ring Seal Male Connector.(UNF)  
SAE J514(070120)



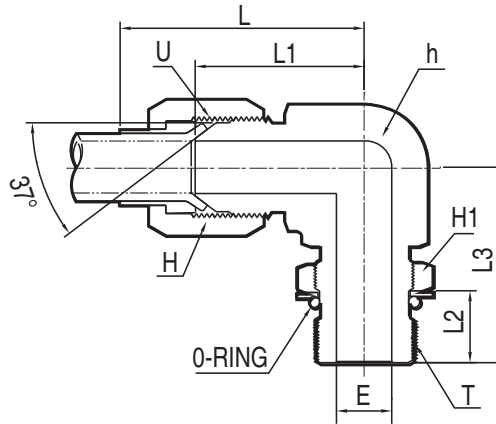
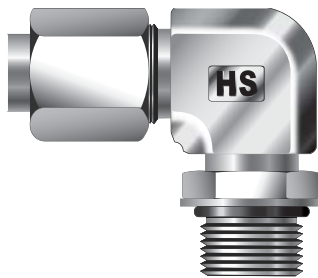
Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (UNF)	E	h (HEX.)	H (HEX.)	L	L1	L2
HOM2T-2U	1/8	HOM3M-2U	3M	5/16-24	5/16-24	1.6	11.1	9.5	34.7	26.9	7.5
HOM3T-3U	3/16	HOM4M-3U	4M	3/8-24	3/8-24	3.2	12.7	11.0	37.3	27.9	7.5
HOM4T-4U	1/4	HOM6M-4U	6M	7/16-20	7/16-20	4.4	14.2	14.2	40.3	31.2	9.1
HOM5T-5U	5/16	HOM8M-5U	8M	1/2-20	1/2-20	6.0	15.8	16.0	41.6	31.2	9.1
HOM6T-6U	3/8	HOM10M-6U	10M	9/16-18	9/16-18	7.5	17.4	17.4	44.9	33.0	9.9
HOM8T-8U	1/2	HOM12M-8U	12M	3/4-16	3/4-16	9.9	22.2	22.2	50.3	37.6	11.1
HOM10T-10U	5/8	HOM16M-10U	16M	7/8-14	7/8-14	12.3	25.4	25.4	59.8	43.2	12.7
HOM12T-12U	3/4	HOM18M/20M-12U	18M,20M	1 1/16-12	1 1/16-12	15.5	31.7	32.0	65.5	50.0	15.1
HOM14T-14U	7/8	HOM22M-14U	22M	1 3/16-12	1 3/16-12	18.0	34.9	35.0	68.1	50.5	15.1
HOM16T-16U	1	HOM25M-16U	25M	1 5/16-12	1 5/16-12	21.5	38.1	38.0	70.8	51.8	15.1
HOM20T-20U	1-1/4	HOM32M-20U	32M	1 5/8-12	1 5/8-12	37.5	47.6	50.8	73.6	55.1	15.1
HOM24T-24U	1-1/2	HOM38M-24U	38M	1 7/8-12	1 7/8-12	33.0	53.9	57.0	86.9	60.2	15.1
HOM32T-32U	2	HOM50M-32U	50M	2 1/2-12	2 1/2-12	45.0	69.8	73.0	98.1	70.6	15.1

NBR O-Ring is included in the fitting supply.



# HOLM

O-Ring Seal Male Elbow.(UNF)  
SAE J514(070220)

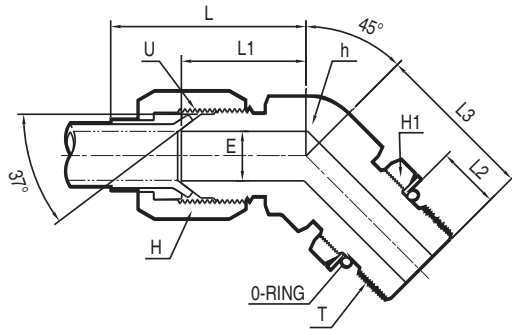
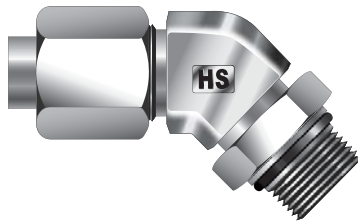


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (UNF)	E	h (HEX)	H (HEX)	H1 (HEX)	L	L1	L2	L3
HOLM2T-2U	1/8	HOLM3M-2U	3M	5/16-24	5/16-24	1.6	11.1	9.5	14.2	27.4	19.6	8.4	23.9
HOLM3T-3U	3/16	HOLM4M-3U	4M	3/8-24	3/8-24	3.2	11.1	11.0	15.8	30.5	21.1	8.4	23.9
HOLM4T-4U	1/4	HOLM6M-4U	6M	7/16-20	7/16-20	4.4	11.1	14.2	17.4	31.7	22.6	9.8	26.2
HOLM5T-5U	5/16	HOLM8M-5U	8M	1/2-20	1/2-20	6.0	14.3	16.0	19.0	34.5	24.1	9.8	28.7
HOLM6T-6U	3/8	HOLM10M-6U	10M	9/16-18	9/16-18	7.5	14.3	17.4	20.6	38.8	26.9	9.9	31.8
HOLM8T-8U	1/2	HOLM12M-8U	12M	3/4-16	3/4-16	9.9	19.0	22.2	25.4	44.5	31.8	11.0	36.8
HOLM10T-10U	5/8	HOLM16M-10U	16M	7/8-14	7/8-14	12.3	22.2	25.4	28.5	53.4	36.8	12.5	43.2
HOLM12T-12U	3/4	HOLM18M/20M-12U	18M,20M	1 1/16-12	1 1/16-12	15.5	27.0	32.0	34.9	57.7	42.2	16.5	49.3
HOLM14T-14U	7/8	HOLM22M-14U	22M	1 3/16-12	1 3/16-12	18.0	33.3	35.0	38.1	63.3	45.7	16.5	50.8
HOLM16T-16U	1	HOLM25M-16U	25M	1 5/16-12	1 5/16-12	21.5	33.3	38.0	41.2	65.0	46.0	16.5	52.1
HOLM20T-20U	1-1/4	HOLM32M-20U	32M	1 5/8-12	1 5/8-12	37.5	41.3	50.8	47.6	70.8	52.3	16.5	57.2
HOLM24T-24U	1-1/2	HOLM38M-24U	38M	1 7/8-12	1 7/8-12	33.0	47.6	57.0	53.9	85.9	59.2	16.5	60.7
HOLM32T-32U	2	HOLM50M-32U	50M	2 1/2-12	2 1/2-12	45.0	63.5	73.0	69.8	105.2	77.7	16.5	73.4

NBR O-Ring is included in the fitting supply.

# HOLMB

O-Ring Seal 45° Male Elbow.(UNF)  
SAE J514(070320)

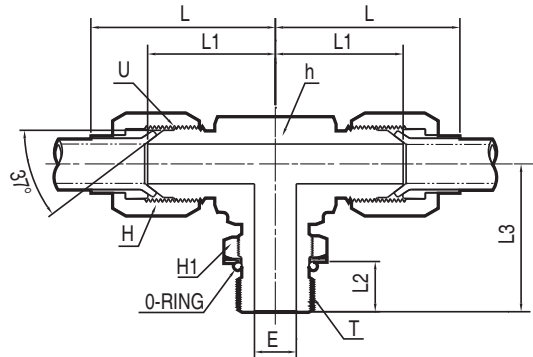
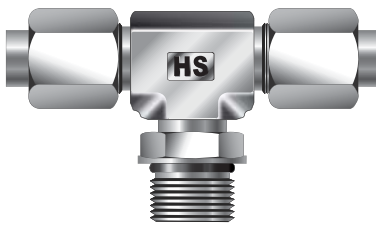


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (UNF)	E	h (HEX.)	H (HEX.)	H1 (HEX.)	L	L1	L2	L3
HOLMB2T-2U	1/8	HOLMB3M-2U	3M	5/16-24	5/16-24	1.6	11.1	9.5	14.2	25.3	17.5	8.4	23.9
HOLMB3T-3U	3/16	HOLMB4M-3U	4M	3/8-24	3/8-24	3.2	11.1	11.0	15.8	26.9	17.5	8.4	23.9
HOLMB4T-4U	1/4	HOLMB6M-4U	6M	7/16-20	7/16-20	4.4	11.1	14.2	17.4	27.4	18.3	9.8	23.9
HOLMB5T-5U	5/16	HOLMB8M-5U	8M	1/2-20	1/2-20	6.0	14.3	16.0	19.0	30.0	19.6	9.8	25.4
HOLMB6T-6U	3/8	HOLMB10M-6U	10M	9/16-18	9/16-18	7.5	14.3	17.4	20.6	33.0	21.1	9.9	28.4
HOLMB8T-8U	1/2	HOLMB12M-8U	12M	3/4-16	3/4-16	9.9	19.0	22.2	25.4	37.6	24.9	11.0	32.5
HOLMB10T-10U	5/8	HOLMB16M-10U	16M	7/8-14	7/8-14	12.3	22.2	25.4	28.5	44.8	28.2	12.5	36.6
HOLMB12T-12U	3/4	HOLMB18M/20M-12U	18M,20M	1 1/16-12	1 1/16-12	15.5	27.0	32.0	34.9	48.0	32.5	16.5	43.9
HOLMB14T-14U	7/8	HOLMB22M-14U	22M	1 3/16-12	1 3/16-12	18.0	33.3	35.0	38.1	54.4	36.8	16.5	45.7
HOLMB16T-16U	1	HOLMB25M-16U	25M	1 5/16-12	1 5/16-12	21.5	33.3	38.0	41.2	56.3	37.3	16.5	47.2
HOLMB20T-20U	1-1/4	HOLMB32M-20U	32M	1 5/8-12	1 5/8-12	37.5	41.3	50.8	47.6	58.9	40.4	16.5	48.5
HOLMB24T-24U	1-1/2	HOLMB38M-24U	38M	1 7/8-12	1 7/8-12	33.0	47.6	57.0	53.9	71.9	45.2	16.5	48.5
HOLMB32T-32U	2	HOLMB50M-32U	50M	2 1/2-12	2 1/2-12	45.0	63.5	73.0	69.8	83.9	56.4	16.5	47.2

NBR O-Ring is included in the fitting supply.

# HOBTM

O-Ring Seal Branch.(UNF)  
SAE J514(070429)

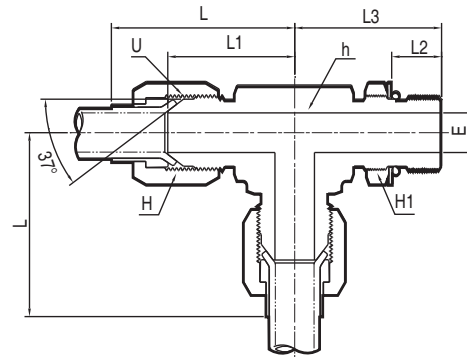
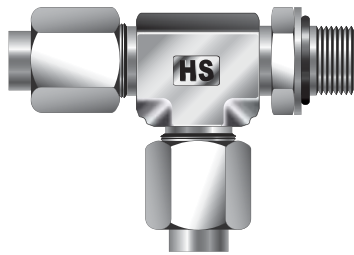


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (UNF)	E	h (HEX)	H (HEX)	H1 (HEX)	L	L1	L2	L3
HOBTM2T-2U	1/8	HOBTM3M-2U	3M	5/16-24	5/16-24	1.6	11.1	9.5	14.2	27.4	19.6	8.4	23.9
HOBTM3T-3U	3/16	HOBTM4M-3U	4M	3/8-24	3/8-24	3.2	11.1	11.0	15.8	30.5	21.1	8.4	23.9
HOBTM4T-4U	1/4	HOBTM6M-4U	6M	7/16-20	7/16-20	4.4	11.1	14.2	17.4	31.7	22.6	9.8	26.2
HOBTM5T-5U	5/16	HOBTM8M-5U	8M	1/2-20	1/2-20	6.0	14.3	16.0	19.0	34.5	24.1	9.8	28.7
HOBTM6T-6U	3/8	HOBTM10M-6U	10M	9/16-18	9/16-18	7.5	14.3	17.4	20.6	38.8	26.9	9.9	31.8
HOBTM8T-8U	1/2	HOBTM12M-8U	12M	3/4-16	3/4-16	9.9	19.0	22.2	25.4	44.5	31.8	11.0	36.8
HOBTM10T-10U	5/8	HOBTM16M-10U	16M	7/8-14	7/8-14	12.3	22.2	25.4	28.5	53.4	36.8	12.5	43.2
HOBTM12T-12U	3/4	HOBTM18M/20M-12U	18M,20M	1 1/16-12	1 1/16-12	15.5	27.0	32.0	34.9	57.7	42.2	16.5	49.3
HOBTM14T-14U	7/8	HOBTM22M-14U	22M	1 3/16-12	1 3/16-12	18.0	33.3	35.0	38.1	63.3	45.7	16.5	50.8
HOBTM16T-16U	1	HOBTM25M-16U	25M	1 5/16-12	1 5/16-12	21.5	33.3	38.0	41.2	65.0	46.0	16.5	52.1
HOBTM20T-20U	1-1/4	HOBTM32M-20U	32M	1 5/8-12	1 5/8-12	37.5	41.3	50.8	47.6	70.8	52.3	16.5	57.2
HOBTM24T-24U	1-1/2	HOBTM38M-24U	38M	1 7/8-12	1 7/8-12	33.0	47.6	57.0	53.9	85.9	59.2	16.5	60.7
HOBTM32T-32U	2	HOBTM50M-32U	50M	2 1/2-12	2 1/2-12	45.0	63.5	73.0	69.8	105.2	77.7	16.5	73.4

NBR O-Ring is included in the fitting supply.

# HORTM

O-Ring Seal Run Tee.(UNF)  
SAE J514(070428)

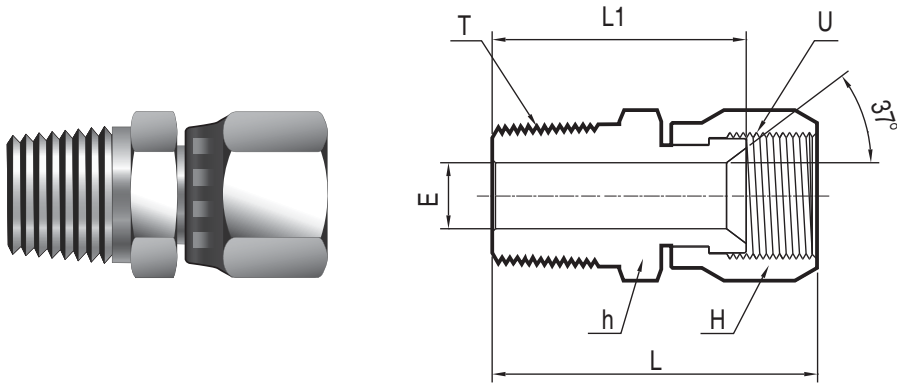


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (UNF)	E	h	H	H1	L	L1	L2	L3
HORTM2T-2U	1/8	HORTM3M-2U	3M	5/16-24	5/16-24	1.6	11.1	9.5	14.2	27.4	19.6	8.4	23.9
HORTM3T-3U	3/16	HORTM4M-3U	4M	3/8-24	3/8-24	3.2	11.1	11.0	15.8	30.5	21.1	8.4	23.9
HORTM4T-4U	1/4	HORTM6M-4U	6M	7/16-20	7/16-20	4.4	11.1	14.2	17.4	31.7	22.6	9.8	26.2
HORTM5T-5U	5/16	HORTM8M-5U	8M	1/2-20	1/2-20	6.0	14.3	16.0	19.0	34.5	24.1	9.8	28.7
HORTM6T-6U	3/8	HORTM10M-6U	10M	9/16-18	9/16-18	7.5	14.3	17.4	20.6	38.8	26.9	9.9	31.8
HORTM8T-8U	1/2	HORTM12M-8U	12M	3/4-16	3/4-16	9.9	19.0	22.2	25.4	44.5	31.8	11.0	36.8
HORTM10T-10U	5/8	HORTM16M-10U	16M	7/8-14	7/8-14	12.3	22.2	25.4	28.5	53.4	36.8	12.5	43.2
HORTM12T-12U	3/4	HORTM18M/20M-12U	18M,20M	1 1/16-12	1 1/16-12	15.5	27.0	32.0	34.9	57.7	42.2	16.5	49.3
HORTM14T-14U	7/8	HORTM22M-14U	22M	1 3/16-12	1 3/16-12	18.0	33.3	35.0	38.1	63.3	45.7	16.5	50.8
HORTM16T-16U	1	HORTM25M-16U	25M	1 5/16-12	1 5/16-12	21.5	33.3	38.0	41.2	65.0	46.0	16.5	52.1
HORTM20T-20U	1-1/4	HORTM32M-20U	32M	1 5/8-12	1 5/8-12	37.5	41.3	50.8	47.6	70.8	52.3	16.5	57.2
HORTM24T-24U	1-1/2	HORTM38M-24U	38M	1 7/8-12	1 7/8-12	33.0	47.6	57.0	53.9	85.9	59.2	16.5	60.7
HORTM32T-32U	2	HORTM50M-32U	50M	2 1/2-12	2 1/2-12	45.0	63.5	73.0	69.8	105.2	77.7	16.5	73.4

NBR O-Ring is included in the fitting supply.

# HSFMC

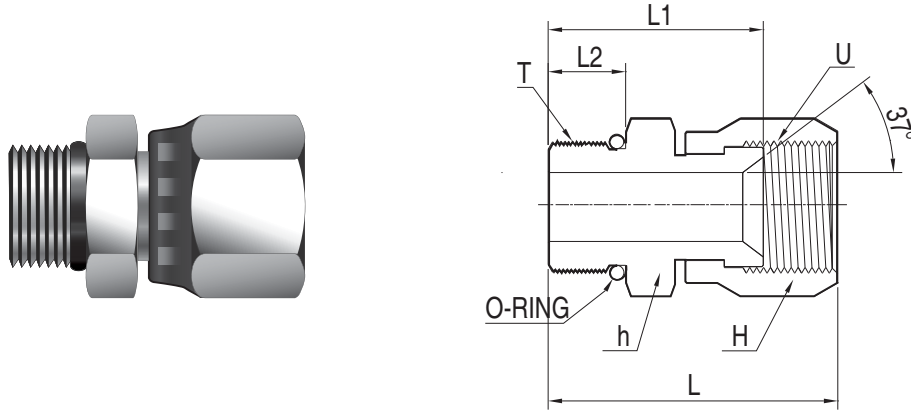
Swivel Connector.



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX)	H (HEX)	L	L1
HSFMC2T-2N	1/8	HSFMC3M-2N	3M	5/16-24	1/8	1.6	11.1	11.1	30.0	22.0
HSFMC3T-2N	3/16	HSFMC4M-2N	4M	3/8-24	1/8	3.2	11.1	12.7	32.0	23.5
HSFMC4T-2N	1/4	HSFMC6M-2N	6M	7/16-20	1/8	4.4	12.7	14.2	34.2	25.5
HSFMC5T-2N	5/16	HSFMC8M-2N	8M	1/2-20	1/8	6.0	14.2	16.0	35.0	25.5
HSFMC6T-4N	3/8	HSFMC10M-4N	10M	9/16-18	1/4	7.5	16.0	17.4	40.2	30.7
HSFMC8T-6N	1/2	HSFMC12M-6N	12M	3/4-16	3/8	9.9	21.0	22.2	42.7	32.0
HSFMC10T-8N	5/8	HSFMC16M-8N	16M	7/8-14	1/2	12.3	23.8	25.4	51.3	38.6
HSFMC12T-12N	3/4	HSFMC18M/20M-12N	18,20M	1 1/16-12	3/4	15.5	29.0	32.0	54.5	40.2
HSFMC14T-12N	7/8	HSFMC22M-12N	22M	1 3/16-12	3/4	18.0	32.0	35.0	56.0	41.2
HSFMC16T-16N	1	HSFMC25M-16N	25M	1 5/16-12	1	21.5	36.0	38.0	63.7	48.6
HSFMC20T-20N	1-1/4	HSFMC32M-20N	32M	1 5/8-12	1-1/4	37.5	46.0	50.8	68.9	53.0
HSFMC24T-24N	1-1/2	HSFMC38M-24N	38M	1 7/8-12	1-1/2	33.0	50.0	57.0	77.6	59.0
HSFMC32T-32N	2	HSFMC50M-32N	50M	2 1/2-12	2	45.0	66.7	73.0	92.9	69.1

# HSFOM

O-Ring Seal Swivel Connector(UNF)

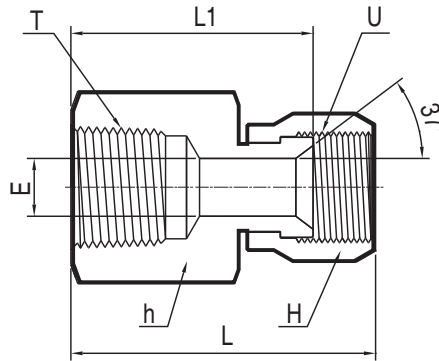
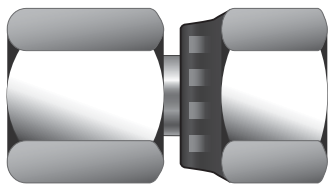


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (UNF)	h (HEX.)	H (HEX.)	L	L1	L2
HSFOM2T-2U	1/8	HSFOM3M-2U	3M	5/16-24	5/16-24	11.1	11.1	30.4	22.5	7.5
HSFOM3T-2U	3/16	HSFOM4M-2U	4M	3/8-24	3/8-24	12.7	12.7	31.0	22.7	7.5
HSFOM4T-4U	1/4	HSFOM6M-4U	6M	7/16-20	7/16-20	14.2	14.2	33.9	25.2	9.1
HSFOM5T-5U	5/16	HSFOM8M-5U	8M	1/2-20	1/2-20	15.8	15.8	35.7	26.2	9.1
HSFOM6T-6U	3/8	HSFOM10M-6U	10M	9/16-18	9/16-18	17.4	19.0	37.4	27.9	9.9
HSFOM8T-8U	1/2	HSFOM12M-8U	12M	3/4-16	3/4-16	22.2	22.2	41.6	30.9	11.1
HSFOM10T-10U	5/8	HSFOM16M-10U	16M	7/8-14	7/8-14	25.4	27.0	47.6	34.9	12.7
HSFOM12T-12U	3/4	HSFOM18M/20M-12U	18,20M	1 1/16-12	1 1/16-12	31.8	32.0	54.4	40.1	15.1
HSFOM14T-14U	7/8	HSFOM22M-14U	22M	1 3/16-12	1 3/16-12	34.9	34.9	55.6	40.9	15.1
HSFOM16T-16U	1	HSFOM25M-16U	25M	1 5/16-12	1 5/16-12	38.1	38.1	56.8	41.7	15.1
HSFOM20T-20U	1-1/4	HSFOM32M-20U	32M	1 5/8-12	1 5/8-12	47.6	50.8	63.2	47.3	15.1
HSFOM24T-24U	1-1/2	HSFOM38M-24U	38M	1 7/8-12	1 7/8-12	54.0	60.0	71.3	52.7	15.1
HSFOM32T-32U	2	HSFOM50M-32U	50M	2 1/2-12	2 1/2-12	70.0	73.0	72.5	58.7	15.1

NBR O-Ring is included in the fitting supply.

# HSFFC

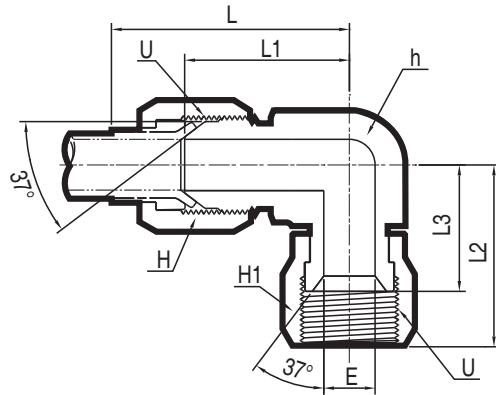
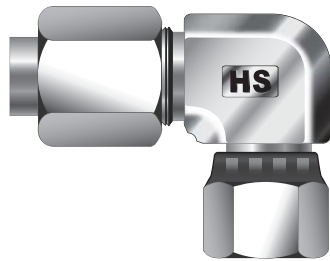
Swivel Female Connector.



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	T (NPT)	E	h (HEX)	H (HEX)	L	L1
HSFFC2T-2N	1/8	HSFFC3M-2N	3M	5/16-24	1/8	1.6	14.2	11.1	36.1	28.2
HSFFC3T-2N	3/16	HSFFC4M-2N	4M	3/8-24	1/8	3.2	14.2	12.7	37.3	29.0
HSFFC4T-2N	1/4	HSFFC6M-2N	6M	7/16-20	1/8	4.4	14.2	14.2	39.7	31.0
HSFFC5T-2N	5/16	HSFF08M-2N	8M	1/2-20	1/8	6.0	14.2	16.0	40.5	31.0
HSFFC6T-4N	3/8	HSFFC10M-4N	10M	9/16-18	1/4	7.5	19.0	17.4	45.8	36.3
HSFFC8T-6N	1/2	HSFFC12M-6N	12M	3/4-16	3/8	9.9	22.2	22.2	47.0	38.9
HSFFC10T-8N	5/8	HSFFC16M-8N	16M	7/8-14	1/2	12.3	29.0	25.4	51.6	48.0
HSFFC12T-12N	3/4	HSFFC18M/20M-12N	18,20M	1 1/16-12	3/4	15.5	35.0	32.0	66.6	52.3
HSFFC14T-12N	7/8	HSFFC22M-12N	22M	1 3/16-12	3/4	18.0	35.0	35.0	67.8	53.1
HSFFC16T-16N	1	HSFFC25M-16N	25M	1 5/16-12	1	21.5	41.0	38.0	73.5	58.4
HSFFC20T-20N	1-1/4	HSFFC32M-20N	32M	1 5/8-12	1-1/4	37.5	50.8	50.8	78.1	62.2
HSFFC24T-24N	1-1/2	HSFFC38M-24N	38M	1 7/8-12	1-1/2	33.0	60.0	57.0	86.7	68.1
HSFFC32T-32N	2	HSFFC50M-32N	50M	2 1/2-12	2	45.0	73.0	73.0	89.3	65.5

# HSL

Swivel Elbow.  
SAE J514(070221)

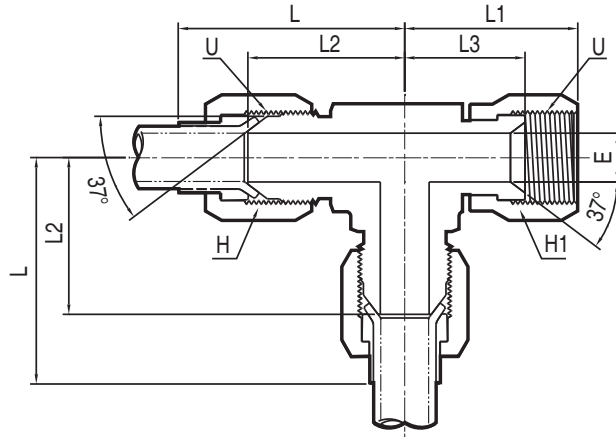
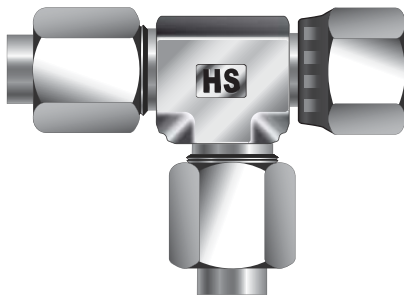


Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	h (HEX.)	H (HEX.)	H1 (HEX.)	L	L1	L2	L3
HSL-2T	1/8	FSL-3M	3M	5/16-24	1.6	11.1	9.5	11.1	27.4	19.6	24.6	16.7
HSL-3T	3/16	FSL-4M	4M	3/8-24	3.2	11.1	11.0	12.7	30.5	21.1	25.4	17.1
HSL-4T	1/4	FSL-6M	6M	7/16-20	4.4	11.1	14.2	14.2	31.7	22.6	25.4	16.7
HSL-5T	5/16	FSL-8M	8M	1/2-20	6.0	14.3	16.0	15.8	34.5	24.1	26.9	17.4
HSL-6T	3/8	FSL-10M	10M	9/16-18	7.5	14.3	17.4	17.4	38.8	26.9	31.8	22.3
HSL-8T	1/2	FSL-12M	12M	3/4-16	9.9	19.0	22.2	22.2	44.5	31.8	35.1	24.4
HSL-10T	5/8	FSL-16M	16M	7/8-14	12.3	22.2	25.4	25.4	53.4	36.8	41.1	28.4
HSL-12T	3/4	FSL-18M/-20M	18,20M	1 1/16-12	15.5	27.0	32.0	31.7	57.7	42.2	44.4	30.1
HSL-14T	7/8	FSL-22M	22M	1 3/16-12	18.0	33.3	35.0	34.9	63.3	45.7	45.2	30.5
HSL-16T	1	FSL-25M	25M	1 5/16-12	21.5	33.3	38.0	38.1	65.0	46.0	50.8	35.7
HSL-20T	1-1/4	FSL-32M	32M	1 5/8-12	37.5	41.3	50.8	50.8	70.8	52.3	58.7	42.8
HSL-24T	1-1/2	FSL-38M	38M	1 7/8-12	33.0	47.6	57.1	57.1	85.9	59.2	65.8	47.2
HSL-32T	2	FSL-50M	50M	2 1/2-12	45.0	63.5	73.0	69.8	105.2	77.7	85.9	62.1



# HSRT

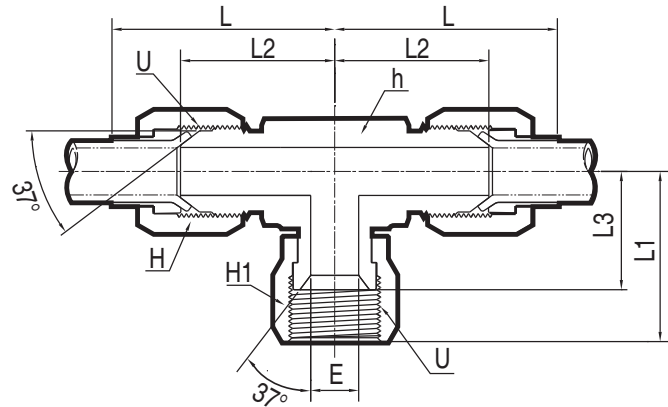
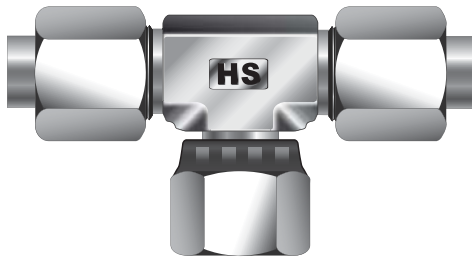
Swivel Run Tee.  
SAE J514(070432)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	h (HEX)	H (HEX)	H1 (HEX)	L	L1	L2	L3
HSRT-2T	1/8	HSRT-3M	3M	5/16-24	1.6	11.1	9.5	11.1	27.4	24.6	19.6	16.7
HSRT-3T	3/16	HSRT-4M	4M	3/8-24	3.2	11.1	11.0	12.7	30.5	25.4	21.1	17.1
HSRT-4T	1/4	HSRT-6M	6M	7/16-20	4.4	11.1	14.2	14.2	31.7	25.4	22.6	16.7
HSRT-5T	5/16	HSRT-8M	8M	1/2-20	6.0	14.3	16.0	15.8	34.5	26.9	24.1	17.4
HSRT-6T	3/8	HSRT-10M	10M	9/16-18	7.5	14.3	17.4	17.4	38.8	31.8	26.9	22.3
HSRT-8T	1/2	HSRT-12M	12M	3/4-16	9.9	19.0	22.2	22.2	44.5	35.1	31.8	24.4
HSRT-10T	5/8	HSRT-16M	16M	7/8-14	12.3	22.2	25.4	25.4	53.4	41.1	36.8	28.4
HSRT-12T	3/4	HSRT-18M/-20M	18,20M	1 1/16-12	15.5	27.0	32.0	31.7	57.7	44.4	42.2	30.1
HSRT-14T	7/8	HSRT-22M	22M	1 3/16-12	18.0	33.3	35.0	34.9	63.3	45.2	45.7	30.5
HSRT-16T	1	HSRT-25M	25M	1 5/16-12	21.5	33.3	38.0	38.1	65.0	50.8	46.0	35.7
HSRT-20T	1-1/4	HSRT-32M	32M	1 5/8-12	37.5	41.3	50.8	50.8	70.8	58.7	52.3	42.8
HSRT-24T	1-1/2	HSRT-38M	38M	1 7/8-12	33.0	47.6	57.1	57.0	85.9	65.8	59.2	47.2
HSRT-32T	2	HSRT-50M	50M	2 1/2-12	45.0	63.5	73.0	69.8	105.2	85.9	77.7	62.1

# HSBT

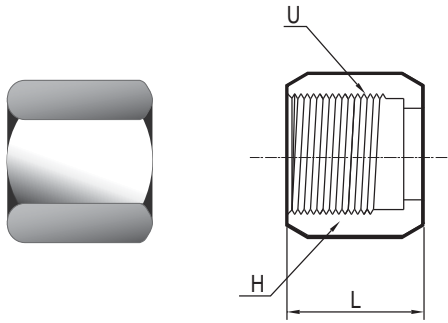
Swivel Branch Tee.  
SAE J514(070433)



Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	E	h (HEX.)	H (HEX.)	H1 (HEX.)	L	L1	L2	L3
HSBT-2T	1/8	HSBT-3M	3M	5/16-24	1.6	11.1	9.5	11.1	27.4	24.6	19.6	16.7
HSBT-3T	3/16	HSBT-4M	4M	3/8-24	3.2	11.1	11.0	12.7	30.5	25.4	21.1	17.1
HSBT-4T	1/4	HSBT-6M	6M	7/16-20	4.4	11.1	14.2	14.2	31.7	25.4	22.6	16.7
HSBT-5T	5/16	HSBT-8M	8M	1/2-20	6.0	14.3	16.0	15.8	34.5	26.9	24.1	17.4
HSBT-6T	3/8	HSBT-10M	10M	9/16-18	7.5	14.3	17.4	17.4	38.8	31.8	26.9	22.3
HSBT-8T	1/2	HSBT-12M	12M	3/4-16	9.9	19.0	22.2	22.2	44.5	35.1	31.8	24.4
HSBT-10T	5/8	HSBT-16M	16M	7/8-14	12.3	22.2	25.4	25.4	53.4	41.1	36.8	28.4
HSBT-12T	3/4	HSBT-18M/-20M	18,20M	1 1/16-12	15.5	27.0	32.0	31.7	57.7	44.4	42.2	30.1
HSBT-14T	7/8	HSBT-22M	22M	1 3/16-12	18.0	33.3	35.0	34.9	63.3	45.2	45.7	30.5
HSBT-16T	1	HSBT-25M	25M	1 5/16-12	21.5	33.3	38.0	38.1	65.0	50.8	46.0	35.7
HSBT-20T	1-1/4	HSBT-32M	32M	1 5/8-12	37.5	41.3	50.8	50.8	70.8	58.7	52.3	42.8
HSBT-24T	1-1/2	HSBT-38M	38M	1 7/8-12	33.0	47.6	57.1	57.0	85.9	65.8	59.2	47.2
HSBT-32T	2	HSBT-50M	50M	2 1/2-12	45.0	63.5	73.0	69.8	105.2	85.9	77.7	62.1

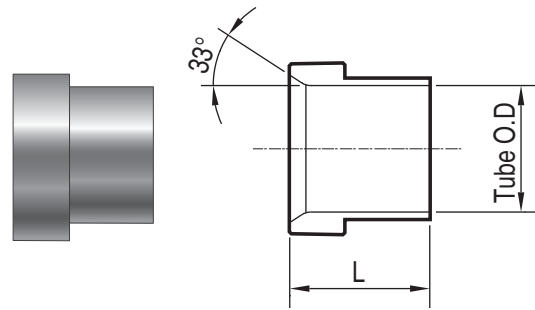
# HN

Nut  
SAE J514(070110)



# HS

Sleeve  
SAE J514(070115)

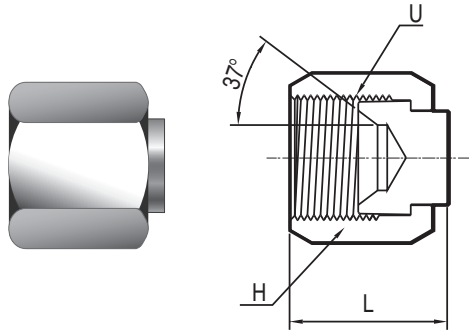


Part No.	Tube O.D. Inch	Part No.	U (UNF)	H (HEX)	L
HN-2T	1/8	HN-3M	5/16-24	9.5	14.0
HN-3T	3/16	HN-4M	3/8-24	11.1	15.5
HN-4T	1/4	HN-6M	7/16-20	14.2	15.8
HN-5T	5/16	HN-8M	1/2-20	15.8	17.3
HN-6T	3/8	HN-10M	9/16-18	17.4	18.5
HN-8T	1/2	HN-12M	3/4-16	22.2	21.6
HN-10T	5/8	HN-16M	7/8-14	25.4	24.9
HN-12T	3/4	HN-18M/-20M	1 1/16-12	31.7	26.2
HN-14T	7/8	HN-22M	1 3/16-12	34.9	27.7
HN-16T	1	HN-25M	1 5/16-12	38.1	28.7
HN-20T	1-1/4	HN-32M	1 5/8-12	50.8	31.2
HN-24T	1-1/2	HN-38M	1 7/8-12	57.1	36.1
HN-32T	2	HN-50M	2 1/2-12	73.0	44.5

Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	L
HS-2T	1/8	HS-3M	3M	8.6
HS-3T	3/16	HS-4M	4M	8.6
HS-4T	1/4	HS-6M	6M	10.4
HS-5T	5/16	HS-8M	8M	11.2
HS-6T	3/8	HS-10M	10M	12.7
HS-8T	1/2	HS-12M	12M	14.2
HS-10T	5/8	HS-16M	16M	16.8
HS-12T	3/4	HS-18M/-20M	18,20M	17.3
HS-14T	7/8	HS-22M	22M	19.3
HS-16T	1	HS-25M	25M	19.8
HS-20T	1-1/4	HS-32M	32M	23.1
HS-24T	1-1/2	HS-38M	38M	28.4
HS-32T	2	HS-50M	50M	30.2

**HP**

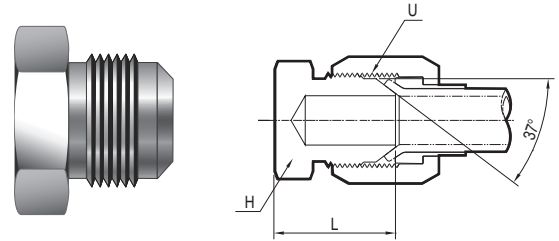
Plug  
SAE J514(070109)



Plug for an un-used fitting's tube port.

**HPC**

Plug Cap  
SAE J514(070112)



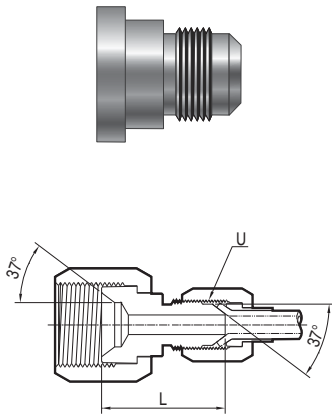
Cap for capping flared tube end

Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	H (HEX)	L
HP-2T	1/8	HP-3M	3M	5/16-24	11.1	17.8
HP-3T	3/16	HP-4M	4M	3/8-24	11.1	18.5
HP-4T	1/4	HP-6M	6M	7/16-20	12.7	20.3
HP-5T	5/16	HP-8M	8M	1/2-20	14.2	20.3
HP-6T	3/8	HP-10M	10M	9/16-18	15.8	21.3
HP-8T	1/2	HP-12M	12M	3/4-16	20.6	23.9
HP-10T	5/8	HP-16M	16M	7/8-14	20.6	27.9
HP-12T	3/4	HP-18M/-20M	18,20M	1 1/16-12	28.5	32.5
HP-14T	7/8	HP-22M	22M	1 3/16-12	31.7	33.3
HP-16T	1	HP-25M	25M	1 5/16-12	34.9	33.8
HP-20T	1-1/4	HP-32M	32M	1 5/8-12	42.8	36.8
HP-24T	1-1/2	HP-38M	38M	1 7/8-12	50.8	41.9
HP-32T	2	HP-50M	50M	2 1/2-12	66.6	52.1

Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	H (HEX)	L
HPC-2T	1/8	HPC-3M	3M	5/16-24	9.5	13.7
HPC-3T	3/16	HPC-4M	4M	3/8-24	11.1	15.2
HPC-4T	1/4	HPC-6M	6M	7/16-20	14.2	15.5
HPC-5T	5/16	HPC-8M	8M	1/2-20	15.8	17.0
HPC-6T	3/8	HPC-10M	10M	9/16-18	17.4	18.3
HPC-8T	1/2	HPC-12M	12M	3/4-16	22.2	21.3
HPC-10T	5/8	HPC-16M	16M	7/8-14	25.4	24.6
HPC-12T	3/4	HPC-18M/-20M	18,20M	1 1/16-12	31.7	25.9
HPC-14T	7/8	HPC-22M	22M	1 3/16-12	34.9	27.4
HPC-16T	1	HPC-25M	25M	1 5/16-12	38.1	28.4
HPC-20T	1-1/4	HPC-32M	32M	1 5/8-12	50.8	31.0
HPC-24T	1-1/2	HPC-38M	38M	1 7/8-12	57.1	35.8
HPC-32T	2	HPC-50M	50M	2 1/2-12	73.0	44.2

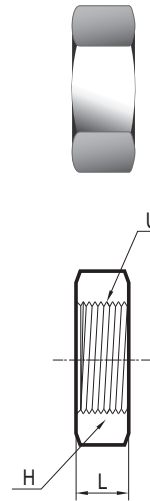
## HTER

Tube End Reducer  
SAE J514(070123)



## HLN

Bulkhead Lock Nut  
SAE J514(070118)



Part No.	Reducing Tube O.D.	U (UNF)	D	M
HTER6T-4T	3/8x1/4	7/16-20	4.4	24.6
HTER8T-4T	1/2x1/4	7/16-20	4.4	25.4
HTER8T-6T	1/2x3/8	9/16-18	7.5	25.4
HTER10T-4T	5/8x1/4	7/16-20	4.4	26.2
HTER10T-6T	5/8x3/8	9/16-18	7.5	26.2
HTER12T-4T	3/4x1/4	7/16-20	4.4	27.7
HTER12T-6T	3/4x3/8	9/16-18	7.5	27.7
HTER12T-8T	3/4x1/2	3/4-16	10.0	30.2
HTER16T-12T	1x3/4	1 1/16-12	15.5	37.3
HTER20T-12T	1 1/4x3/4	1 1/6-12	15.5	38.3
HTER20T-16T	1 1/4x1	1 5/16-12	21.5	40.3
HTER24T-20T	1 1/2x1 1/4	1 5/8-12	27.5	42.9

Part No.	Tube O.D. Inch	Part No.	Tube O.D. Metric	U (UNF)	H (HEX.)	L
HLN-2T	1/8	HLN-3M	3M	5/16-24	14.2	5.6
HLN-3T	3/16	HLN-4M	4M	3/8-24	15.8	5.6
HLN-4T	1/4	HLN-6M	6M	7/16-20	17.4	6.4
HLN-5T	5/16	HLN-8M	8M	1/2-20	19.0	6.4
HLN-6T	3/8	HLN-10M	10M	9/16-18	20.6	6.9
HLN-8T	1/2	HLN-12M	12M	3/4-16	25.4	7.9
HLN-10T	5/8	HLN-16M	16M	7/8-14	28.5	9.1
HLN-12T	3/4	HLN-18M/-20M	18,20M	1 1/16-12	34.9	10.4
HLN-14T	7/8	HLN-22M	22M	1 3/16-12	38.1	10.4
HLN-16T	1	HLN-25M	25M	1 5/16-12	41.2	10.4
HLN-20T	1-1/4	HLN-32M	32M	1 5/8-12	47.6	10.4
HLN-24T	1-1/2	HLN-38M	38M	1 7/8-12	53.9	10.4
HLN-32T	2	HLN-50M	50M	2 1/2-12	69.8	10.4



## H Series JIC Tube Fitting

### Note:

The information shown in this catalog is not for design purpose, but for reference only. The accuracy of information here is not the our company.

## Component Selection

The selection of component for any application or system design must be considered to ensure safe performance. Component function, material compatibility, component pressure and temperature rating, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. HSME Corporation accepts no liability for any improper selection, installation, operation or maintenance.

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