



# DS HYDRAULICS

ISO 9001:2015

(Quality Management System)

DIN 2353

JIC FITTINGS 37°

ORFS FITTINGS

TWINFERRULE FITTINGS

OLIVE TYPE FITTINGS

BALL VALVE

FLANGE

HOSE PIPE & FITTINGS

ADAPTOR AND NIPPLE

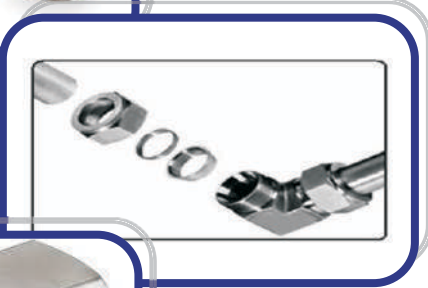
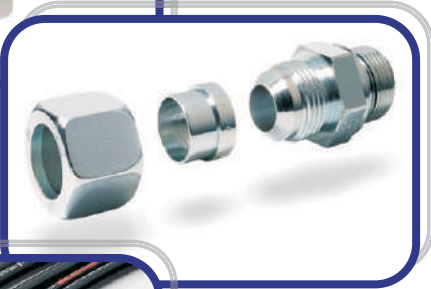
TUBE CLAMP

WASHER

O-RINGS

NON RETURN VALVE

MINIMISE COUPLING





# Certificate of Registration

This is to certify that the  
Quality Management System of

**D. S. HYDRAULICS**

74, DSIDC SHED, OKHLA INDUSTRIAL AREA PHASE-1,  
NEW DELHI-110020, INDIA

Has been independently assessed and is  
Compliance with the requirements of:

**ISO 9001:2015**

**(QUALITY MANAGEMENT SYSTEM)**

For the following scope of activities:

**MANUFACTURER OF HYDRAULIC FITTINGS, VALVES & ACCESSORIES**

Certificate Number: QMS247251429

Date of Registration	: 14/05/2024
1st Surveillance Due	: 14/05/2025
2nd Surveillance Due	: 14/05/2026
Certificate Expiry	: 13/05/2027

Validity to this Certificate can be verified at [www.ukgcassessment.com](http://www.ukgcassessment.com)



Authorised Signatory

**UKGC ASSESSMENT PVT. LTD.**

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Validity of the certificate is subject to successful completion of surveillance audit on or before of due date (in case surveillance audit is not allowed to be conducted; this certificate shall be suspended/cancelled).

Certificate

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JIC-2 Way Ball Valve



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## GENERAL INFORMATION



DSH Bite-Lok Flareless Bite Type Tube Fittings are designed according to DIN 2353 and manufactured under rigid quality control procedure approved to ISO 9001:2008 and tested according to extensive testing procedure BS4368 part IV which ensures leak free connection of tubes and components in fluid systems.

DSH manufacture the Tube Fittings in accordance with the following standard

Bite-Lok TUBE FITTINGS : DIN 2353  
TUBE CONNECTION SIDE : DIN 3861 and ISO 8434

### MALE STUD AND PORT TAPPING FOR

METRIC AND BSP THREADS : DIN 3852 part 1 and 2  
NPT THREAD : ANSI / ASME B1.20.1  
UN/UN F THREAD : SAE J514  
METRIC THREAD WITH O-RING SEAL : ISO 6149 and DIN 3852 part 3  
SWIVEL NUTS AND WELD FITTINGS : DIN 3865  
TECHNICAL TERMS FOR TUBE FITTINGS : DIN 3859

### MATERIAL :

DSH Fittings are available as standard in material stainless steel, brass & steel

### HEAT TRACEABILITY :

DSH stainless steel Tube Fittings are heat code traceable back to the original mill heat from which it was made.

### PRESSURE RATING :

DSH Tube Fittings are suitable for use at the following nominal pressure.

SERIES	TUBE OD	NOMINAL PRESSURE
L (Light)	6-15mm	250 bar
	18-22mm	160 bar
	28-42mm	100 bar
S (Heavy)	6-14mm	630 bar
	16-25mm	400 bar
	30-38mm	250 bar

### Notes :

Since many factors influence the pressure at which a system will or will not perform satisfactorily. Detail as shown above are only for guidance and not rigid.

### TEMPERATURE RATING :

STAINLESS STEEL : upto 400C  
CAUTION : For higher temperatures, reduction in pressures should be taken into account

### FOR SEAL MATERIAL :

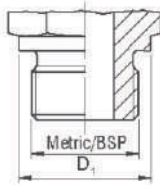
BUNA-N : -35C to 100C  
FPM (VITON) : -25C to 200C

# STUDS AND PORT FORMS

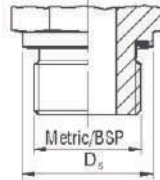


METRIC ISO THREAD : DIN 3852, PART 1  
 BSP THREAD : DIN 3852, PART 2

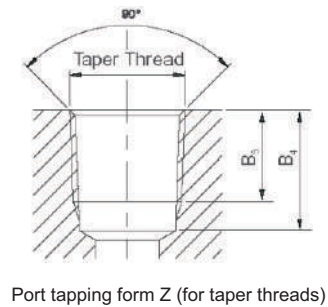
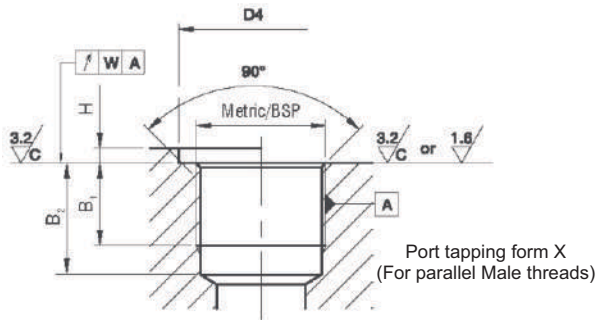
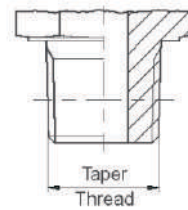
Male Stud form B  
 sealing by cutting face



Male Stud form E  
 Sealing with ED seal



Male Stud form C  
 Sealing by taper thread



PARALLEL THREAD METRIC	D <sub>1</sub>	D <sub>4</sub> <sup>+0.4</sup>	D <sub>5</sub>	H <sub>max</sub>	B <sub>1 min</sub>	B <sub>2 min</sub>	W
M 10 x1	14	15	14	1	8	13.5	0.1
M 12 x 1.5	17	18	17	1.5	12	18.5	0.1
M 14 x 1.5	19	20	19	1.5	12	18.5	0.1
M 16 x 1.5	21	22	21.9	1.5	12	18.5	0.1
M 18 x 1.5	23	24	23.9	2	12	18.5	0.1
M 20 x 1.5	25	26	25.9	2	14	20.5	0.1
M 22 x 1.5	27	28	27	2.5	14	20.5	0.1
M 26 x 1.5	31	32	31.9	2.5	16	22.5	0.2
M 27 x 2	32	33	32	2.5	16	24	0.2
M 33 x2	39	40	39.9	2.5	18	26	0.2
M 42 x2	49	50	49.9	2.5	20	28	0.2
M 48 x2	55	56	55	2.5	22	30	0.2

PARALLEL THREAD METRIC	D <sub>1</sub>	D <sub>4</sub> <sup>+0.4</sup>	D <sub>5</sub>	H <sub>max</sub>	B <sub>1 min</sub>	B <sub>2 min</sub>	W
G 1/8	14	15	14	1	8	13	0.1
G 1/4	18	19	18.9	1.5	12	18.5	0.1
G 3/8	22	23	22	2	12	18.5	0.1
G 1/2	26	27	26.9	2.5	14	22	0.1
G 3/4	32	33	32	2.5	16	24	0.2
G 1	39	40	39.9	2.5	18	27	0.2
G 1-1/4	49	50	49.9	2.5	20	29	0.2
G 1-1/2	55	56	55	2.5	22	31	0.2

For female threads, A does not apply.

## TAPER THREAD METRIC

TAPER THREAD METRIC	B <sub>3 min</sub>	B <sub>4 min</sub>
10 x 1	5.5	10
12 x 1.5	8.5	13.5
14 x 1.5	8.5	13.5
16 x 1.5	8.5	13.5
18 x 1.5	8.5	13.5
20 x 1.5	10.5	15.5
22 x 1.5	10.5	15.5

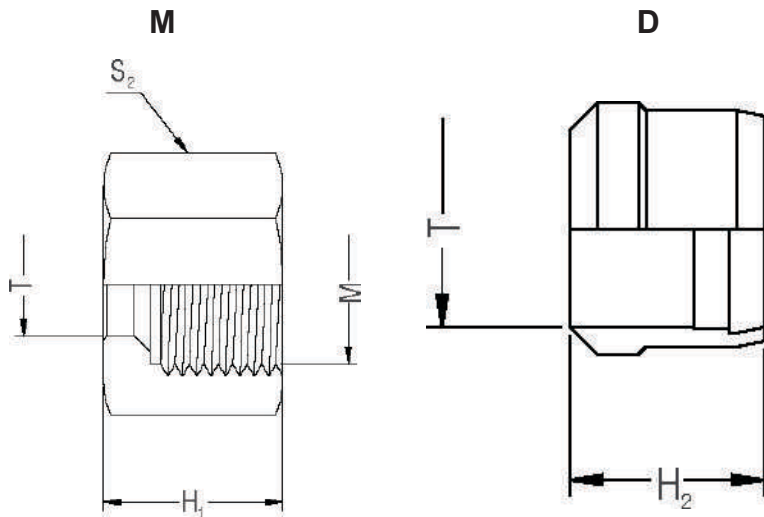
## TAPER THREAD BSPT

TAPER THREAD BSPT	B <sub>3 min</sub>	B <sub>4 min</sub>
R 1/8	5.5	9.5
R 1/4	8.5	13.5
R 3/8	8.5	13.5
R 1/2	10.5	16.5

For Effective Sealing of all taper pipe threads we recommend to use PTFE tape.

Instructions : Clean both male and female taper threads. Two wraps of PTFE tape are suggested in the direction of male tapered thread spiral for proper make up.

# D&M - CUTTING RING AND NUT

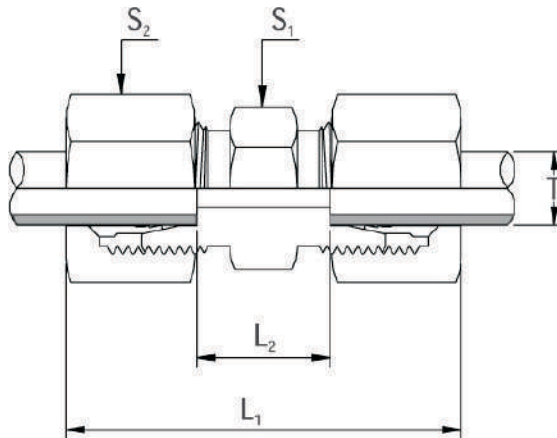


Order Code Suffixes			
Material	Code	Part No.	Part No.
Brass	BR	BRD06	BRM06L
SS304	S4	S4D06	S4M06L
SS316	S6	S6D06	S6M06L

Series	Tube O.D.T	M Metric	S <sub>2</sub> A/F	H <sub>1</sub>	H <sub>2</sub>	Part No.	Part No.	Bar
L Light	6	M 12x1.5	14	14.5	9	D06	M06L	NP 250
	8	M 14x1.5	17	14.5	9	D08	M08L	
	10	M 16x1.5	19	15.5	10	D10	M10L	
	12	M 18x1.5	22	15.5	10	D12	M12L	
	15	M 22x1.5	27	17	10	D15	M15L	
	18	M 26x1.5	32	18	10	D18	M18L	NP 160
	22	M 30x2	36	20	10.5	D22	M22L	
	28	M 36x2	41	21	10.5	D28	M28L	NP 100
	35	M 45x2	50	24	13	D35	M35L	
	42	M 52x2	60	24	13.5	D42	M42L	
S Heavy	6	M 14x1.5	17	16.5	9	D06	M06S	NP 630
	8	M 16x1.5	19	16.5	9	D08	M08S	
	10	M 18x1.5	22	17.5	10	D10	M10S	
	12	M 20x1.5	24	17.5	10	D12	M12S	
	14	M 22x1.5	27	20.5	10	D14	M14S	
	16	M 24x1.5	30	20.5	10.5	D16	M16S	NP 400
	20	M 30x2	36	24	12.5	D20	M20S	
	25	M 36x2	46	27	12.5	D25	M25S	
	30	M 42x2	50	29	13	D30	M30S	NP 250
	38	M 52x2	60	32.5	13.5	D38	M38S	



# G - UNION

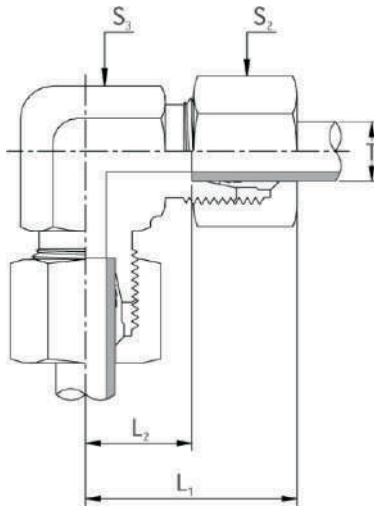


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRG06L
SS304	S4	S4G06L
SS316	S6	S6G06L

Series	Tube O.D T	L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	Part No.	Bar
L Light	6	39	10	12	14	<b>G06L</b>	NP 250
	8	40	11	14	17	<b>G08L</b>	
	10	42	13	17	19	<b>G10L</b>	
	12	43	14	19	22	<b>G12L</b>	
	15	46	16	24	27	<b>G15L</b>	
	18	48	16	27	32	<b>G18L</b>	NP 160
	22	52	20	32	36	<b>G22L</b>	
	28	54	21	41	41	<b>G28L</b>	NP 100
	35	63	20	46	50	<b>G35L</b>	
42	66	21	55	60	<b>G42L</b>		
S Heavy	6	45	16	14	17	<b>G06S</b>	NP 630
	8	47	18	17	19	<b>G08S</b>	
	10	49	17	19	22	<b>G10S</b>	
	12	51	19	22	24	<b>G12S</b>	
	14	57	22	24	27	<b>G14S</b>	
	16	57	21	27	30	<b>G16S</b>	NP 400
	20	66	23	32	36	<b>G20S</b>	
	25	74	26	41	46	<b>G25S</b>	
	30	80	27	46	50	<b>G30S</b>	NP 250
	38	90	29	55	60	<b>G38S</b>	

• Dimension L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# W - UNION ELBOW

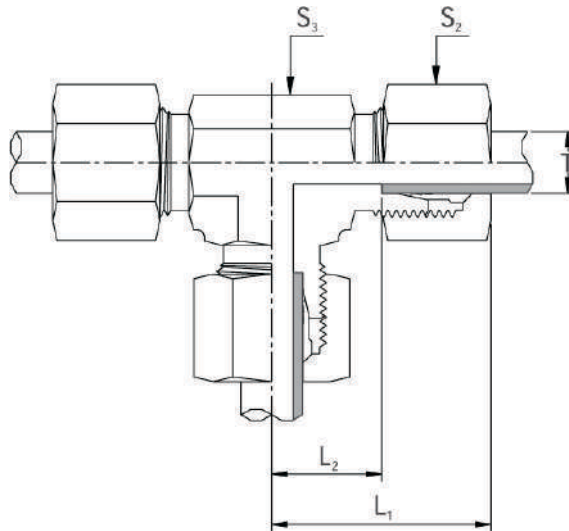


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRW06L
SS304	S4	S4W06L
SS316	S6	S6W06L

Series	Tube O.D T	L <sub>1</sub>	L <sub>2</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
L Light	6	27	12	14	12	W06L	NP 250
	8	29	14	17	12	W08L	
	10	30	15	19	14	W10L	
	12	32	17	22	17	W12L	
	15	36	21	27	19	W15L	
	18	40	23.5	32	24	W18L	NP 160
	22	44	27.5	36	27	W22L	NP 100
	28	47	30.5	41	36	W28L	
	35	56	34.5	50	41	W35L	
	42	63	40	60	50	W42L	
S Heavy	6	31	16	17	12	W06S	NP 630
	8	32	17	19	14	W08S	
	10	34	17.5	22	17	W10S	
	12	38	21.5	24	17	W12S	
	14	40	22	27	19	W14S	
	16	43	24.5	30	24	W16S	NP 400
	20	48	26.5	36	27	W20S	
	25	54	30	46	36	W25S	
	30	62	35.5	50	41	W30S	NP 250
	38	72	41	60	50	W38S	

• Dimension L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# T - UNION TEE

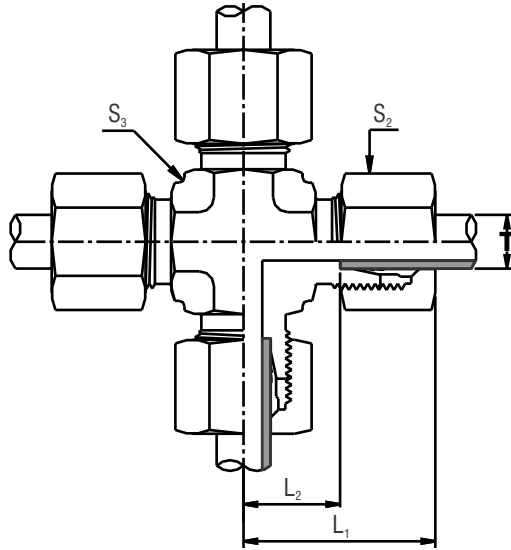


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRT06L
SS304	S4	S4T06L
SS316	S6	S6T06L

Series	Tube O.D T	L <sub>1</sub>	L <sub>2</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
L Light	6	27	12	14	12	<b>T06L</b>	NP 250
	8	29	14	17	12	<b>T08L</b>	
	10	30	15	19	14	<b>T10L</b>	
	12	32	17	22	17	<b>T12L</b>	
	15	36	21	27	19	<b>T15L</b>	
	18	40	23.5	32	24	<b>T18L</b>	NP 160
	22	44	27.5	36	27	<b>T22L</b>	NP 100
	28	47	30.5	41	36	<b>T28L</b>	
	35	56	34.5	50	41	<b>T35L</b>	
	42	63	40	60	50	<b>T42L</b>	
S Heavy	6	31	16	17	12	<b>T06S</b>	NP 630
	8	32	17	19	14	<b>T08S</b>	
	10	34	17.5	22	17	<b>T10S</b>	
	12	38	21.5	24	17	<b>T12S</b>	
	14	40	22	27	19	<b>T14S</b>	
	16	43	24.5	30	24	<b>T16S</b>	NP 400
	20	48	26.5	36	27	<b>T20S</b>	
	25	54	30	46	36	<b>T25S</b>	
	30	62	35.5	50	41	<b>T30S</b>	NP 250
	38	72	41	60	50	<b>T38S</b>	

• Dimension L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# K - EQUAL CROSS



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRK06L
SS304	S4	S4K06L
SS316	S6	S6K06L

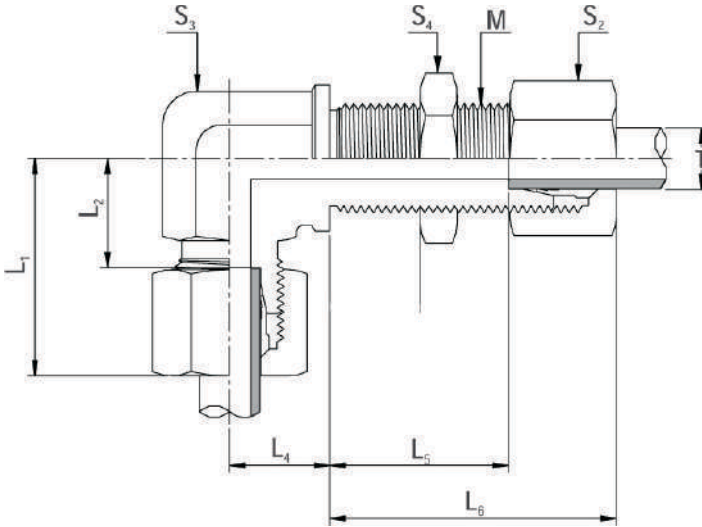
Series	Tube O.D T	L <sub>1</sub>	L <sub>2</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
L Light	6	27	12	14	12	K06L	NP 250
	8	29	14	17	12	K08L	
	10	30	15	19	14	K10L	
	12	32	17	22	17	K12L	
	15	36	21	27	19	K15L	NP 160
	18	40	23.5	32	24	K18L	
	22	44	27.5	36	27	K22L	
	28	47	30.5	41	36	K28L	
	35	56	34.5	50	41	K35L	
42	63	40.0	60	50	K42L	NP 100	
S Heavy	6	31	16	17	12	K06S	NP 630
	8	32	17	19	14	K08S	
	10	34	17.5	22	17	K10S	
	12	38	21.5	24	19	K12S	
	14	40	22.0	27	19	K14S	NP 400
	16	43	24.5	30	24	K16S	
	20	48	26.5	36	27	K20S	
	25	54	30.0	46	36	K25S	
	30	62	35.5	50	41	K30S	
	38	72	41.0	60	50	K38S	

Dimensions are for reference only and are subject to change without Notice



# WSV - BULKHEAD ELBOW

DSH

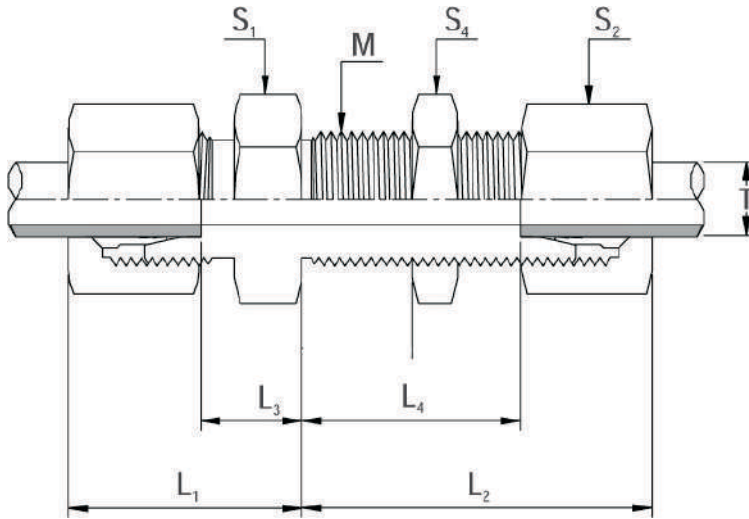


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRWSV06L
SS304	S4	S4WSV06L
SS316	S6	S6WSV06L

Series	Tube O.D T	M	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	Part No.	Bar
L Light	6	M 12x1.5	27	12	14	27	42	14	12	17	WSV06L	NP 250
	8	M 14x1.5	29	14	17	27	42	17	12	19	WSV08L	
	10	M 16x1.5	30	15	18	28	43	19	14	22	WSV10L	
	12	M 18x1.5	32	17	20	29	44	22	17	24	WSV12L	
	15	M 22x1.5	36	21	23	31	46	27	19	30	WSV15L	
	18	M 26x1.5	40	23.5	24	32.5	49	32	24	36	WSV18L	NP 160
	22	M 30x2	44	27.5	30	34.5	51	36	27	41	WSV22L	
	28	M 36x2	47	30.5	34	35.5	52	41	36	46	WSV28L	NP 100
	35	M 45x2	56	34.5	39	36.5	58	50	41	55	WSV35L	
	42	M 52x2	63	40	43	36	59	60	50	65	WSV42L	
S Heavy	6	M 14x1.5	31	16	17	29	44	17	12	19	WSV06S	NP 630
	8	M 16x1.5	32	17	18	29	44	19	14	22	WSV08S	
	10	M 18x1.5	34	17.5	20	29.5	46	22	17	24	WSV10S	
	12	M 20x1.5	38	21.5	21	30.5	47	24	17	27	WSV12S	
	14	M 22x1.5	40	22	23	32	50	27	19	30	WSV14S	
	16	M 24x1.5	43	24.5	24	31.5	50	30	24	32	WSV16S	NP 400
	20	M 30x2	48	26.5	30	33.5	55	36	27	41	WSV20S	
	25	M 36x2	54	30	34	35	59	46	36	46	WSV25S	
	30	M 42x2	62	35.5	39	37.5	64	50	41	50	WSV30S	NP 250
	38	M 52x2	72	41	43	37	68	60	50	65	WSV38S	

Dimensions L<sub>1</sub> & L<sub>6</sub> is approximate length with tightened nut.

# SV - BULKHEAD UNION



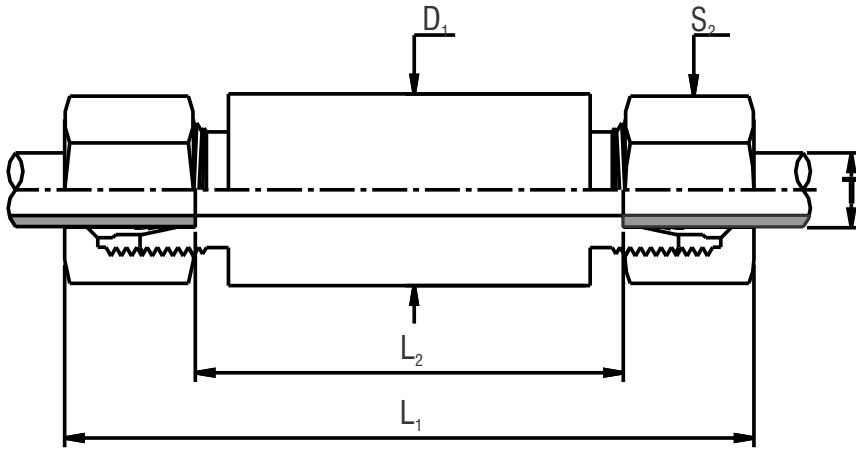
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRSV06L
SS304	S4	S4SV06L
SS316	S6	S6SV06L

Series	Tube O.D T	M	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>4</sub>	Part No.	Bar
L Light	6	M 12x1.5	22	42	7	27	17	14	17	SV06L	NP 250
	8	M 14x1.5	23	42	8	27	19	17	19	SV08L	
	10	M 16x1.5	25	43	10	28	22	19	22	SV10L	
	12	M 18x1.5	25	44	10	29	24	22	24	SV12L	
	15	M 22x1.5	27	46	12	31	27	27	30	SV15L	
	18	M 26x1.5	30	49	13.5	32.5	32	32	36	SV18L	NP 160
	22	M 30x2	33	51	16.5	34.5	36	36	41	SV22L	NP 100
	28	M 36x2	35	52	18.5	35.5	41	41	46	SV28L	
	35	M 45x2	40	58	18.5	36.5	50	50	55	SV35L	
	42	M 52x2	42	59	19	36	65	60	65	SV42L	
S Heavy	6	M 14x1.5	27	44	12	29	19	17	19	SV06S	NP 630
	8	M 16x1.5	28	44	13	29	22	19	22	SV08S	
	10	M 18x1.5	31	46	14.5	29.5	24	22	24	SV10S	
	12	M 20x1.5	31	47	14.5	30.5	27	24	27	SV12S	
	14	M 22x1.5	35	50	17	32	30	27	30	SV14S	
	16	M 24x1.5	35	50	16.5	31.5	32	30	32	SV16S	NP 400
	20	M 30x2	39	55	17.5	33.5	41	36	41	SV20S	
	25	M 36x2	44	59	20	35	46	46	46	SV25S	
	30	M 42x2	48	64	21.5	37.5	50	50	50	SV30S	NP 250
	38	M 52x2	53	68	22	37	65	60	65	SV38S	

Dimensions L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# ESV - WELD BULKHEAD CONNECTOR

DSH

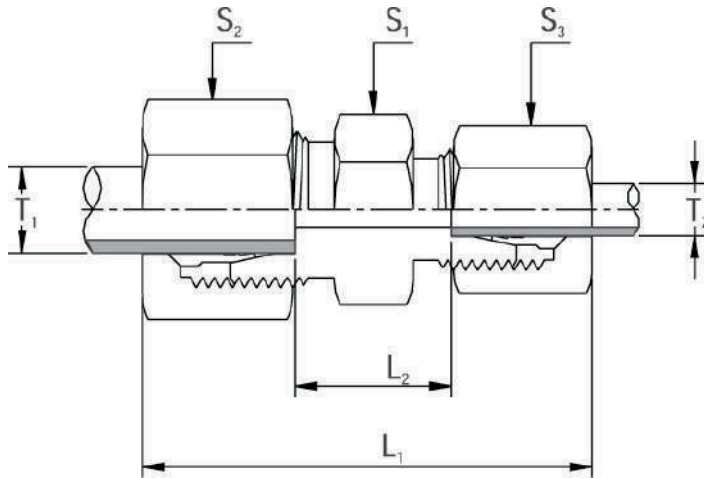


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRESV06L
SS304	S4	S4ESV06L
SS316	S6	S6ESV06L

Series	Tube O.D T	$D_1$	$L_1$	$L_2$	$S_2$	Part No.	Bar
L Light	6	18	85	56	14	<b>ESV06L</b>	NP 250
	8	20	85	56	17	<b>ESV08L</b>	
	10	22	87	58	19	<b>ESV10L</b>	
	12	25	87	58	22	<b>ESV12L</b>	
	15	28	100	70	27	<b>ESV15L</b>	NP 160
	18	32	101	69	32	<b>ESV18L</b>	
	22	36	105	73	36	<b>ESV22L</b>	
	28	40	106	73	41	<b>ESV28L</b>	NP 100
	35	50	114	71	50	<b>ESV35L</b>	
	42	60	115	70	60	<b>ESV42L</b>	
S Heavy	6	20	89	60	17	<b>ESV06S</b>	NP 630
	8	22	89	60	19	<b>ESV08S</b>	
	10	25	91	59	22	<b>ESV10S</b>	
	12	28	91	59	24	<b>ESV12S</b>	
	14	30	107	72	27	<b>ESV14S</b>	NP 400
	16	35	107	71	30	<b>ESV16S</b>	
	20	38	114	71	36	<b>ESV20S</b>	
	25	45	120	72	46	<b>ESV25S</b>	NP 250
	30	50	126	73	50	<b>ESV30S</b>	
	38	60	133	72	60	<b>ESV38S</b>	

# GR - STRAIGHT REDUCER

DSH

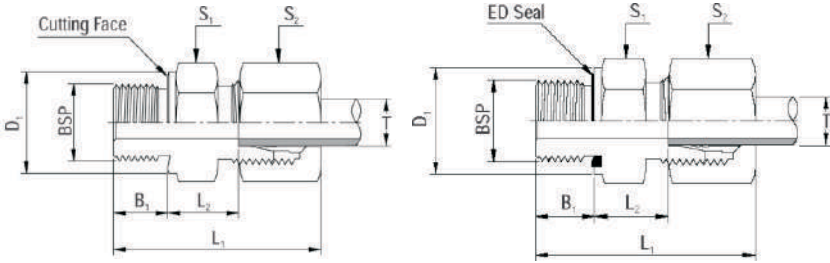


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRGR0806L
SS304	S4	S4GR0806L
SS316	S6	S6GR0806L

Series	Tube O.D		L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar	
	T <sub>1</sub>	T <sub>2</sub>								
L Light	8	6	40	11	14	17	14	GR0806L	NP 250	
	10	6	41	12	17	19	14	GR1006L		
	10	8	41	12	17	19	17	GR1008L		
	12	6	42	13	19	22	14	GR1206L		
	12	8	42	13	19	22	17	GR1208L		
	12	10	43	14	19	22	19	GR1210L		
	15	10	45	15	24	27	19	GR1510L		
	15	12	45	15	24	27	22	GR1512L	NP 160	
	18	10	46	15.5	27	32	19	GR1810L		
	18	12	46	15.5	27	32	22	GR1812L		
	18	15	48	16.5	27	32	27	GR1815L		
	22	12	48	17.5	32	36	22	GR2212L		
	22	15	50	18.5	32	36	27	GR2215L	NP 100	
	22	18	50	18	32	36	32	GR2218L		
28	18	52	19	41	41	32	GR2818L			
28	22	54	21	41	41	36	GR2822L	NP 100		
35	22	59	21	46	50	36	GR3522L			
35	28	59	21	46	50	41	GR3528L	NP 630		
S Heavy	8	6	47	18	17	19	17		GR0806S	
	10	6	48	17.5	19	22	17		GR1006S	
	10	8	48	17.5	19	22	19		GR1008S	
	12	6	50	19.5	22	24	17		GR1206S	
	12	8	50	19.5	22	24	19		GR1208S	
	12	10	51	19	22	24	22		GR1210S	
	14	10	54	20.5	24	27	22		GR1410S	
	14	12	54	20.5	24	27	24		GR1412S	
	16	12	54	20	27	30	24		GR1612S	NP 400
	16	14	57	21.5	27	30	27		GR1416S	
	20	10	60	22	32	36	22		GR2010S	
	20	12	60	22	32	36	24		GR2012S	
	20	16	63	23	32	36	30		GR2016S	
	25	16	68	25.5	41	46	30		GR2516S	
	25	20	71	25.5	41	46	36		GR2520S	NP 250
	30	20	74	26	46	50	36	GR3020S		
30	25	77	26.5	46	50	46	GR3025S			
38	30	87	29.5	55	60	50	GR3830S			

Dimensions L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# GE - MALE STUD COUPLING LIGHT DUTY

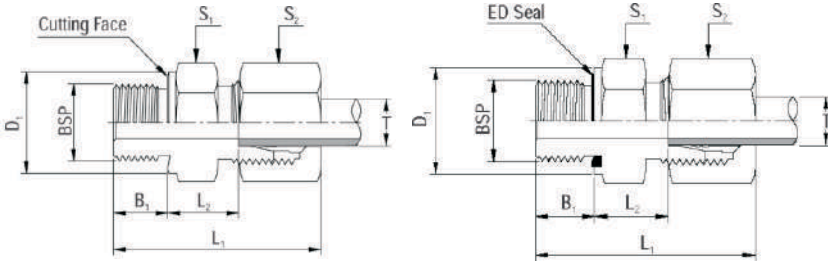


Order Code Suffixes			
Material	Code	Part No.	Part No.
Brass	BR	BRGE06Lx1/8	BRGE06Lx1/8ED
SS304	S4	S4GE06Lx1/8	S4GE06Lx1/8ED
SS316	S6	S6GE06Lx1/8	S6GE06Lx1/8ED

Series	Tube O.D T	Male Stud Thread BSP	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	Part No.	Bar	Part No.
L Light	6	1/8	8	14	31	8.5	14	14	GE06Lx1/8	NP 250	GE06Lx1/8ED
	6	1/4	12	18	37	10.0	19	14	GE06Lx1/4		GE06Lx1/4ED
	6	3/8	12	22	38	11.5	22	14	GE06Lx3/8		GE06Lx3/8ED
	6	1/2	14	26	41	12.0	27	14	GE06Lx1/2		GE06Lx1/2ED
	8	1/8	8	14	31	8.5	14	17	GE08Lx1/8		GE08Lx1/8ED
	8	1/4	12	18	37	10.0	19	17	GE08Lx1/4		GE08Lx1/4ED
	8	3/8	12	22	38	11.5	22	17	GE08Lx3/8		GE08Lx3/8ED
	8	1/2	14	26	41	12.0	27	17	GE08Lx1/2		GE08Lx1/2ED
	10	1/8	8	14	33	10.5	17	19	GE10Lx1/8		GE10Lx1/8ED
	10	1/4	12	18	38	11.0	19	19	GE10Lx1/4		GE10Lx1/4ED
	10	3/8	12	22	39	12.5	22	19	GE10Lx3/8		GE10Lx3/8ED
	10	1/2	14	26	42	13.0	27	19	GE10Lx1/2		GE10Lx1/2ED
	12	1/4	12	18	39	12.0	19	22	GE12Lx1/4		GE12Lx1/4ED
	12	3/8	12	22	39	13.0	22	22	GE12Lx3/8		GE12Lx3/8ED
	12	1/2	14	26	42	14.0	27	22	GE12Lx1/2		GE12Lx1/2ED
	12	3/4	16	32	45	13.5	32	22	GE12Lx3/4		GE12Lx3/4ED
	15	3/8	12	22	41	14.0	24	27	GE15Lx3/8		GE15Lx3/8ED
	15	1/2	14	26	43	15.0	27	27	GE15Lx1/2		GE15Lx1/2ED
	15	3/4	16	32	46	14.0	32	27	GE15Lx3/4		GE15Lx3/4ED
	18	3/8	12	22	41.5	14.5	27	32	GE18Lx3/8		GE18Lx3/8ED
18	1/2	14	26	45	14.5	27	32	GE18Lx1/2	GE18Lx1/2ED		
18	3/4	16	32	46	16.5	32	32	GE18Lx3/4	GE18Lx3/4ED		
22	1/2	14	26	47	16.5	32	36	GE22Lx1/2	GE22Lx1/2ED		
22	3/4	16	32	49	17.5	32	36	GE22Lx3/4	GE22Lx3/4ED		
22	1	18	39	51.5	17.5	41	36	GE22Lx1	GE22Lx1ED		
28	3/4	16	32	50	17.5	41	41	GE28Lx3/4	GE28Lx3/4ED		
28	1	18	39	52	18.3	41	41	GE28Lx1	GE28Lx1ED		
28	1-1/4	20	50	55	17.5	50	41	GE28Lx1-1/4	GE28Lx1-1/4ED		
35	1	18	39	57	17.5	46	50	GE35Lx1	GE35Lx1ED		
35	1-1/4	20	49	59	19.5	50	50	GE35Lx1-1/4	GE35Lx1-1/4ED		
35	1-1/2	22	55	63	19.0	55	50	GE35Lx1-1/2	GE35Lx1-1/2ED		
42	1	18	39	60	19.0	55	60	GE42Lx1	GE42Lx1ED		
42	1-1/4	20	49	62	19.0	55	60	GE42Lx1-1/4	GE42Lx1-1/4ED		
42	1-1/2	22	55	64	19.0	55	60	GE42Lx1-1/2	GE42Lx1-1/2ED		
										NP 160	
											NP 100

Dimensions L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# GE - MALE STUD COUPLING LIGHT DUTY



Order Code Suffixes			
Material	Code	Part No.	Part No.
Brass	BR	BRGE06Sx1/8	BRGE06Sx1/8ED
SS304	S4	S4GE06Sx1/8	S4GE06Sx1/8ED
SS316	S6	S6GE06Sx1/8	S6GE06Sx1/8ED

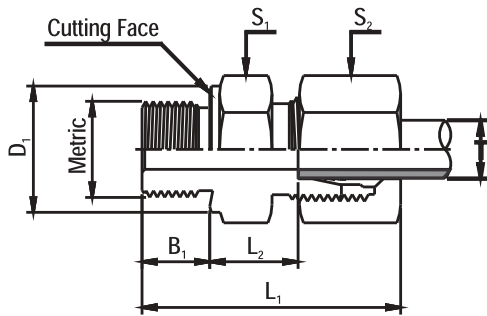
Series	Tube O.D T	Male Stud Thread BSP	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	Part No.	Bar	Part No.
S Heavy	6	1/8	8	14	35	12.5	14	17	GE06Sx1/8	NP 630	GE06Sx1/8ED
	6	1/8	12	18	40	13.0	19	17	GE06Sx1/4		GE06Sx1/4ED
	6	3/8	12	22	42	15.5	22	17	GE06Sx3/8		GE06Sx3/8ED
	6	1/2	14	26	47	18.0	27	17	GE06Sx1/2		GE06Sx1/2ED
	8	1/4	12	18	42	15.0	19	19	GE08Sx1/4		GE08Sx1/4ED
	8	3/8	12	22	42	15.5	22	19	GE08Sx3/8		GE08Sx3/8ED
	8	1/2	14	26	47	18.0	27	19	GE08Sx1/2		GE08Sx1/2ED
	10	1/4	12	18	43	14.5	19	22	GE10Sx1/4		GE10Sx1/4ED
	10	3/8	12	22	43	15.0	22	22	GE10Sx3/8		GE10Sx3/8ED
	10	1/2	14	26	48	17.5	27	22	GE10Sx1/2		GE10Sx1/2ED
	12	1/4	12	18	45	16.5	22	24	GE12Sx1/4		GE12Sx1/4ED
	12	3/8	12	22	45	17.0	22	24	GE12Sx3/8		GE12Sx3/8ED
	12	1/2	14	26	48	17.5	27	24	GE12Sx1/2		GE12Sx1/2ED
	14	3/8	12	22	48	18.5	24	27	GE14Sx3/8		GE14Sx3/8ED
	14	1/2	14	26	51	19.0	27	27	GE14Sx1/2		GE14Sx1/2ED
	16	3/8	12	22	48	18.0	27	30	GE16Sx3/8		GE16Sx3/8ED
	16	1/2	14	26	51	18.5	27	30	GE16Sx1/2		GE16Sx1/2ED
	16	3/4	16	32	55	20.5	32	30	GE16Sx3/4		GE16Sx3/4ED
	20	1/2	14	26	56	20.5	32	36	GE20Sx1/2	GE20Sx1/2ED	
	20	3/4	16	32	58	20.5	32	36	GE20Sx3/4	GE20Sx3/4ED	
	20	1	18	39	62	22.5	41	36	GE20Sx1	GE20Sx1ED	
	20	1-1/4	20	49	64	22.5	50	36	GE20Sx1-1/4	GE20Sx1-1/4ED	
	25	3/4	16	32	63	23.0	41	46	GE25Sx3/4	GE25Sx3/4ED	
	25	1	18	39	65	23.0	41	46	GE25Sx1	GE25Sx1ED	
	25	1-1/4	20	49	67	23.0	50	46	GE25Sx1-1/4	GE25Sx1-1/4ED	
	30	1	18	39	68	23.0	46	50	GE30Sx1	GE30Sx1ED	
	30	1-1/4	20	49	70	23.0	50	50	GE30Sx1-1/4	GE30Sx1-1/4ED	
	38	1-1/4	20	49	79	26.0	55	60	GE38Sx1-1/4	GE38Sx1-1/4ED	
38	1-1/2	22	55	79	26.0	55	60	GE38Sx1-1/2	GE38Sx1-1/2ED		

Dimensions L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.



# GE MALE STUD COUPLING METRIC

DSH

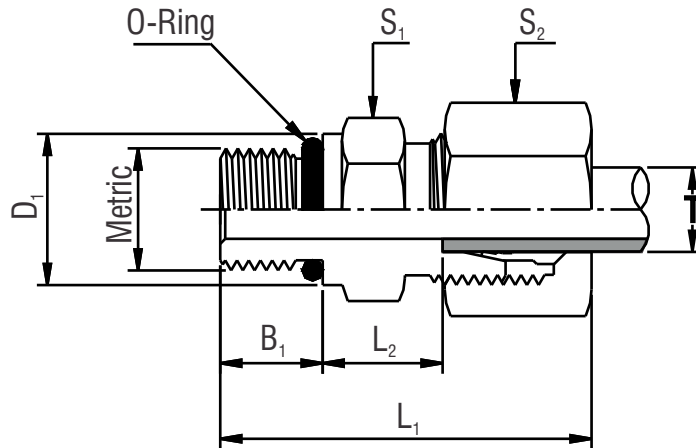


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRGE06LxM10
SS304	S4	S4GE06LxM10
SS316	S6	S6GE06LxM10

SERIES	TUBE O. D. T	THREAD METRIC	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
<b>L Light</b>	06	M10x1.0	8	14	31	8.5	14	14	GE06LxM10	NP 315
	08	M12x1.5	12	17	37	10.0	17	17	GE08LxM12	
	10	M10x1.0	8	14	33	10.5	17	19	GE10LxM10	
	10	M12x1.5	12	17	38	11.0	17	19	GE10LxM12	
	10	M14x1.5	12	19	38	11.0	19	19	GE10LxM14	
	10	M16x1.5	12	21	39	12.0	22	19	GE10LxM16	
	10	M18x1.5	12	23	39	12.5	24	19	GE10LxM18	
	10	M22x1.5	14	27	43	14.0	27	19	GE10LxM22	
	12	M 14x1.5	12	19	38	11.0	19	22	GE12LxM14	
	12	M 16x1.5	12	21	39	12.5	22	22	GE12LxM16	
	12	M 18x1.5	12	23	39	12.5	24	22	GE12LxM18	
	12	M 22x1.5	14	27	43	14.0	27	22	GE12LxM22	
	15	M 16x1.5	12	21	40	13.0	24	27	GE15LxM16	NP 250
	15	M18x1.5	12	23	41	13.5	24	27	GE15LxM18	
	15	M 22x1.5	14	27	44	15.0	27	27	GE15LxM22	
	18	M 18x1.5	12	23	42	14.0	27	32	GE18LxM18	
	18	M 22x1.5	14	27	45	14.5	27	32	GE18LxM22	NP 160
	22	M22x1.5	14	27	47	16.5	32	36	GE22LxM22	
22	M26x1.5	16	31	49	16.5	32	36	GE22LxM26		
28	M33x2.0	18	39	52	17.5	41	41	GE28LxM33		
35	M 42x2.0	20	49	59	17.5	50	50	GE35LxM42	NP 400	
42	M 48x2.0	22	55	64	19.0	55	60	GE42LxM48		
06	M 12x1.5	12	17	40	13	17	17	GE06SxM12		
06	M 14x1.5	12	19	42	15	19	17	GE06SxM14		
08	M 14x1.5	12	19	42	15	19	19	GE08SxM14	NP 400	
10	M 16x1.5	12	21	43	15	22	22	GE10SxM16		
12	M 14x1.5	12	19	45	16.5	22	24	GE12SxM14		
12	M 18x1.5	12	23	45	17	24	24	GE12SxM18		
12	M 22x1.5	14	27	48	17.5	27	24	GE12SxM22		
14	M20x1.5	14	25	51	19.0	27	27	GE14SxM20		
16	M18x1.5	12	23	48	18.0	27	30	GE16SxM18		
16	M22x1.5	14	27	51	18.5	27	30	GE16SxM22		
20	M 27x2.0	16	32	58	20.5	32	36	GE20SxM27	NP 250	
25	M 33x2.0	18	39	65	23.0	41	46	GE25SxM33		
30	M 42x2.0	20	49	70	23.5	50	50	GE30SxM42		NP 160
38	M 48x2.0	22	55	79	26.0	55	60	GE38SxM48		

# GEO-MALE STUD COUPLING METRIC

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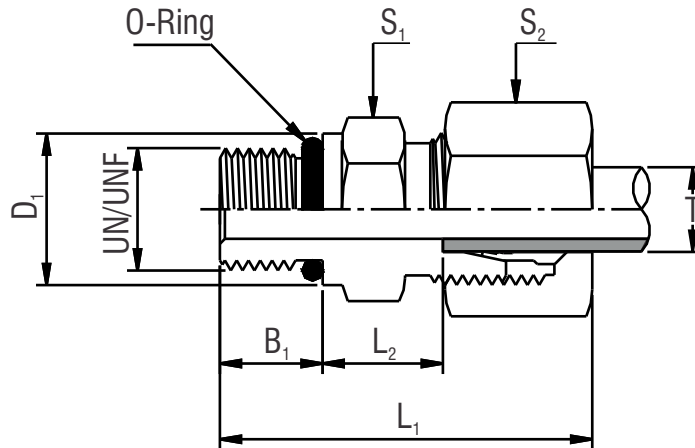


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRGEO06LXM10
SS304	S4	S4GEO06LXM10
SS316	S6	S6GEO06LXM10

Series	Tube O.D T	THREAD METRIC	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	O-RING	Part No.	Bar
L Light	6	M 10 x 1	10	12.9	33	8.5	14	14	8.2 x 1.5	GEO06LxM10	NP 250
	8	M 12 x 1.5	11.5	16.9	36.5	10	17	17	9.4 x 2.1	GEO08LxM12	
	10	M 14 x 1.5	11.5	18.9	37.5	11	19	19	11.4 x 2.1	GEO10LxM14	
	12	M 16 x 1.5	13	20.9	40	12	22	22	13.4 x 2.1	GEO12LxM16	
	15	M 18 x 1.5	14.5	22.9	43.5	13.5	24	27	15.4 x 2.1	GEO15LxM18	
	18	M 22 x 1.5	15.5	26.9	45.5	14	27	32	19.4 x 2.1	GEO18LxM22	
	22	M 26 x 1.5	16	30.9	48	16	32	36	22.7 x 2.8	GEO22LxM26	
	28	M 33 x 2	19	37.9	53	17.5	41	41	29.7 x 2.8	GEO28LxM33	
		35	M 42 x 2	19.5	47.9	58.5	17.5	50	50	38.7 x 2.8	GEO35LxM42
S Heavy	6	M 12 x 1.5	11.5	16.9	38.5	12	17	17	9.4 x 2.1	GEO06SxM12	NP 630
	8	M 14 x 1.5	11.5	18.9	38.5	12	19	19	11.4 x 2.1	GEO08SxM14	
	10	M 16 x 1.5	13	20.9	42	12.5	22	22	13.4 x 2.1	GEO10SxM16	
	12	M 18 x 1.5	14.5	22.9	43.5	13	24	24	15.4 x 2.1	GEO12SxM18	
	16	M 22 x 1.5	15.5	26.9	48.5	15	27	30	19.4 x 2.1	GEO16SxM22	NP 400
	20	M 27 x 2	19	31.9	56	15	32	36	23.7 x 2.8	GEO20SxM27	
	25	M 33 x 2	19	37.9	60	17	41	46	29.7 x 2.8	GEO25SxM33	
	30	M 42 x 2	19.5	47.9	64.5	18.5	50	50	38.7 x 2.8	GEO30SxM42	

# GEO-MALE STUD COUPLING UNF

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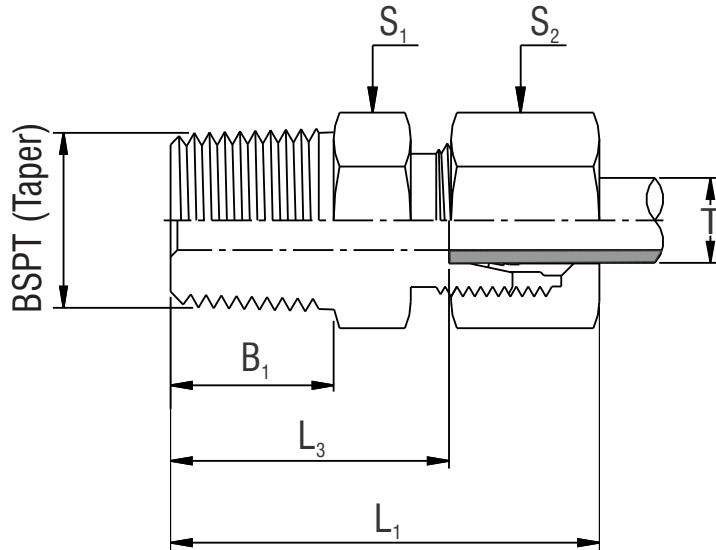


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRGEO08Lx7/16-20 UNF
SS304	S4	S4GEO08Lx7/16-20 UNF
SS316	S6	S6GEO08Lx7/16-20 UNF

SERIES	TUBE O. D. T	THREAD UNF	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	O-RING	PART NO.	BAR
L Light	8	7/16-20	9	14.4	34	10	17	17	8.92 x 1.83	GEO08Lx7/16-20 UNF	NP 250
	10	7/16-20	10	14.4	36	11	17	19	8.92 x 1.83	GEO10Lx7/16-20 UNF	
	12	9/16-18	10	17.6	36	11	19	22	11.9 x 1.98	GEO12Lx9/16-18 UNF	
	12	3/4-16	11	22.3	39	13	24	22	16.36 x 2.20	GEO12Lx3/4-16 UNF	
	12	7/8-14	12.7	25.5	41.7	14.3	27	22	19.18 x 2.46	GEO12Lx7/8-14 UNF	
	15	3/4-16	11	22.3	40	14	24	27	16.36 x 2.20	GEO15Lx3/4-16 UNF	
	18	3/4-16	11	22.3	42	14.5	27	32	16.36 x 2.20	GEO18Lx3/4-16 UNF	NP 160
	18	7/8-14	12.7	25.5	43.7	14.8	27	32	19.18 x 2.46	GEO18Lx7/8-14 UNF	
	22	7/8-14	12.7	25.5	45.7	16.8	32	36	19.18 x 2.46	GEO22Lx7/8-14 UNF	
	22	1-1/16-12	15	31.9	48	16.5	32	36	23.47 x 2.95	GEO22Lx1-1/16-12 UNF	
	22	1-5/16-12	15	38.2	49	17.5	41	36	29.74 x 2.95	GEO22Lx1-5/16-12 UNF	NP 100
	28	1-1/16-12	15	31.9	49	17.5	41	41	23.47 x 2.95	GEO28Lx1-5/16-12 UNF	
	28	1-5/16-12	15	38.2	49	17.5	41	41	29.74 x 2.95	GEO28Lx1-5/16-12 UNF	
	35	1-5/16-12	15	38.2	54	17.5	46	50	29.74 x 2.95	GEO35Lx1-5/16-12 UNF	
35	1-5/8-12	15	47.7	54	17.5	50	50	37.46 x 3	GEO35Lx1-5/8-12 UNF		
42	1-5/8-12	15	47.7	57	19	55	60	37.46 x 3	GEO42Lx1-5/8-12 UNF	S Heavy	
8	7/16-20	9	16.0	39	15	17	19	8.92 x 1.83	GEO08Sx7/16-20 UNF		NP 630
10	9/16-18	10	17.6	41	14.5	19	22	11.9 x 1.98	GEO10Sx9/16-18 UNF		
12	9/16-18	10	17.6	41	14.5	22	24	11.9 x 1.98	GEO12Sx9/16-18 UNF		
12	3/4-16	11	22.3	45	17.5	24	24	16.36 x 2.20	GEO12Sx3/4-16 UNF		
16	3/4-16	11	22.3	45	15.5	24	30	16.36 x 2.20	GEO16Sx3/4-16 UNF		NP 400
16	7/8-14	12.7	25.5	49.7	18.8	27	30	19.18 x 2.46	GEO16Sx7/8-14 UNF		
20	3/4-16	11	22.3	53	20.5	32	36	16.36 x 2.20	GEO20Sx3/4-16 UNF		
20	7/8-14	12.7	25.5	54.7	20.8	32	36	19.18 x 2.46	GEO20Sx7/8-14 UNF		
20	1-1/16-12	15	31.9	57	20.5	32	36	23.47 x 2.95	GEO20Sx1-1/16-12 UNF		
25	1-1/16-12	15	31.9	62	23.0	36	46	23.47 x 2.95	GEO25Sx1-1/16-12 UNF		
25	1-5/16-12	15	38.2	62	23.0	41	46	29.74 x 2.95	GEO25Sx1-5/16-12 UNF		NP 250
30	1-5/16-12	15	38.2	65	23.5	46	50	29.74 x 2.95	GEO30Sx1-5/16-12 UNF		
30	1-5/8-12	15	47.7	65	23.5	50	50	37.46 x 3	GEO30Sx1-5/8-12 UNF		
38	1-5/8-12	15	47.7	72	26.0	55	60	37.46 x 3	GEO38Sx1-5/8-12 UNF		

# GE - MALE STUD COUPLING BSPT

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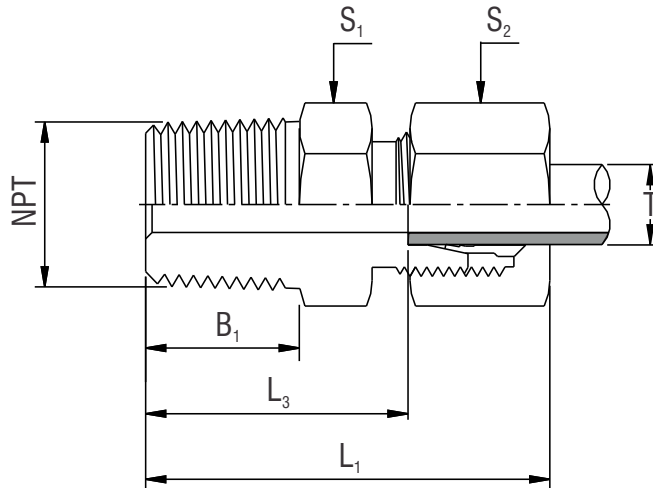


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRGE06Lx1/8 BSPT
SS304	S4	S4GE06Lx1/8 BSPT
SS316	S6	S6GE06Lx1/8 BSPT

SERIES	TUBE O. D. T	THREAD BSPT	B <sub>1</sub>	L <sub>1</sub>	L <sub>3</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
L Light	6	1/8	8	30	15.0	12	14	GE06Lx1/8 BSPT	NP 250
	6	1/4	12	35	20.0	17	14	GE06Lx1/4 BSPT	
	8	1/8	8	31	16.0	17	17	GE08Lx1/8 BSPT	
	8	1/4	12	35	20.0	17	17	GE08Lx1/4 BSPT	
	10	1/4	12	36	21.0	17	19	GE10Lx1/4 BSPT	
	12	1/4	12	37	22.0	19	22	GE12Lx1/4 BSPT	
	12	3/8	12	37	22.0	19	22	GE12Lx3/8 BSPT	
	12	1/2	14	39	24.0	24	22	GE12Lx1/2 BSPT	
	15	3/8	12	38	23.0	24	27	GE15Lx3/8 BSPT	
15	1/2	14	40	25.0	24	27	GE15Lx1/2 BSPT		
S Heavy	18	1/2	14	42	25.5	27	32	GE18Lx1/2 BSPT	NP 160
	22	3/4	16	46	29.5	32	36	GE22Lx3/4 BSPT	
	28	1	18	49	32.5	41	41	GE28Lx1 BSPT	NP 100
	35	1-1/4	20	56	34.5	46	50	GE35Lx1-1/4 BSPT	
	42	1-1/2	22	61	38.0	55	62	GE42Lx1-1/2 BSPT	

# GE - MALE STUD COUPLING NPT

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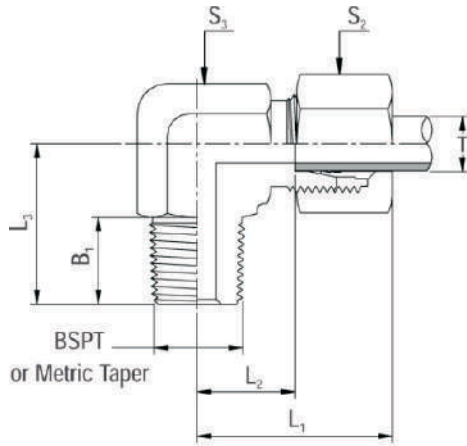


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRGE06Lx1/8 NPT
SS304	S4	S4GE06Lx1/8 NPT
SS316	S6	S6GE06Lx1/8 NPT

SERIES	TUBE O. D. T	THREAD NPT	B <sub>1</sub>	L <sub>1</sub>	L <sub>3</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
L Light	6	1/8	9.7	32	17	12	14	GE06Lx1/8 NPT	NP 250
	6	1/4	14.3	38	23	17	14	GE06Lx1/4 NPT	
	8	1/4	14.3	38	23	17	17	GE08Lx1/4 NPT	
	10	1/4	14.3	39	24	17	19	GE10Lx1/4 NPT	
	10	3/8	14.3	40	25	19	19	GE10Lx3/8 NPT	
	12	1/4	14.3	40	25	19	22	GE12Lx1/4 NPT	
	12	3/8	14.3	40	25	19	22	GE12Lx3/8 NPT	
	12	1/2	19.0	45	30	22	22	GE12Lx1/2 NPT	
	15	1/2	19.0	46	31	24	27	GE15Lx1/2 NPT	
	18	1/2	19.0	48	31.5	27	32	GE18Lx1/2 NPT	
	22	3/4	19.0	50	33.5	32	36	GE22Lx3/4 NPT	
	28	1	24.0	56	39.5	41	41	GE28Lx1 NPT	NP 100
	35	1-1/4	25.0	62	40.5	46	50	GE35Lx1-1/4 NPT	
42	1-1/2	26.0	65	42	55	60	GE42Lx1-1/2 NPT		
S Heavy	6	1/4	14.3	43	28	17	17	GE06Sx1/4 NPT	NP 630
	8	1/4	14.3	43	28	17	19	GE08Sx1/4 NPT	
	10	1/4	14.3	44	27.5	19	22	GE10Sx1/4 NPT	
	10	3/8	14.3	44	27.5	19	22	GE10Sx3/8 NPT	
	12	1/4	14.3	46	29.5	22	24	GE12Sx1/4 NPT	
	12	3/8	14.3	46	29.5	22	24	GE12Sx3/8 NPT	
	12	1/2	19.0	51	34.5	22	24	GE12Sx1/2 NPT	
	14	1/2	19.0	54	36	24	27	GE14Sx1/2 NPT	
	16	1/2	19.0	54	35.5	27	30	GE16Sx1/2 NPT	NP 400
	20	3/4	19.0	59	37.5	32	36	GE20Sx3/4 NPT	
	25	1	24.0	69	45	41	46	GE25Sx1 NPT	NP 250
	30	1-1/4	25.0	73	46.5	46	50	GE30Sx1-1/4 NPT	
38	1-1/2	26.0	80	49	55	60	GE38Sx1-1/2 NPT		

# WE - MALE STUD ELBOW BSPT

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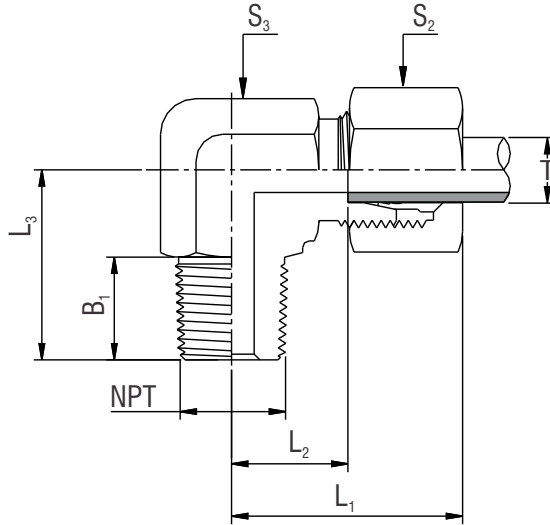
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRWE06Lx1/8
SS304	S4	S4WE06Lx1/8
SS316	S6	S6WE06LX1/8

Series	Tube O.D T	Male Stud Thread BSP	B <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
	6	1/8	8	27	12	20	14	12	<b>WE06Lx1/8</b>	NP 250
	8	1/4	12	29	14	26	17	12	<b>WE08Lx1/4</b>	
	10	1/4	12	30	15	27	19	14	<b>WE10Lx1/4</b>	
	12	3/8	12	32	17	28	22	17	<b>WE12Lx3/8</b>	
	15	1/2	14	36	21	34	27	19	<b>WE15Lx1/2</b>	
	18	1/2	14	40	23.5	36	32	24	<b>WE18Lx1/2</b>	NP 160
	6	1/4	12	31	16	26	17	12	<b>WE06Sx1/4</b>	NP 630
	8	1/4	12	32	17	27	19	14	<b>WE08Sx1/4</b>	
	10	3/8	12	34	17.5	28	22	17	<b>WE10Sx3/8</b>	
	12	3/8	12	38	21.5	28	24	17	<b>WE12Sx3/8</b>	
	14	1/2	14	40	22	32	27	19	<b>WE14Sx1/2</b>	
	16	1/2	14	43	24.5	32	30	24	<b>WE16Sx1/2</b>	NP 400

Dimensions L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# WE - MALE STUD ELBOW NPT

DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRWE06Lx1/8 NPT
SS304	S4	S4WE06Lx1/8 NPT
SS316	S6	S6WE06Lx1/8 NPT

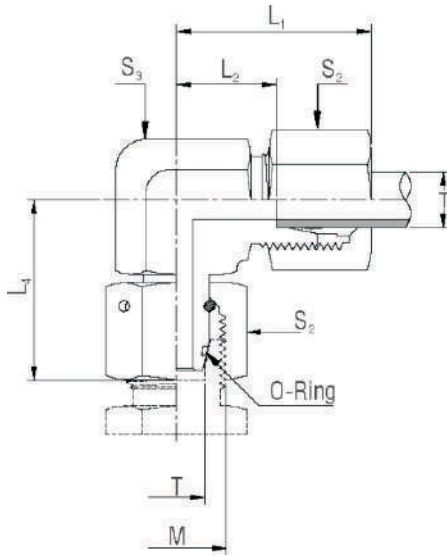
SERIES	TUBE O. D. T	THREAD NPT	B <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S <sub>2</sub>	S <sub>3</sub>	PART NO.	BAR
L Light	6	1/8	9.7	27	12	20	14	12	WE06Lx1/8 NPT	NP 250
	8	1/4	14.3	29	14	26	17	12	WE08Lx1/4 NPT	
	10	1/4	14.3	30	15	27	19	14	WE10Lx1/4 NPT	
	12	3/8	14.3	32	17	28	22	17	WE12Lx3/8 NPT	
	15	1/2	19.0	36	21	34	27	19	WE15Lx1/2 NPT	NP 160
	18	1/2	19.0	40	23.5	36	32	24	WE18Lx1/2 NPT	
	22	3/4	19.0	44	27.5	42	36	27	WE22Lx3/4 NPT	
	28	1	24.0	47	30.5	48	41	36	WE28Lx1/8 NPT	NP 100
	35	1-1/4	25.0	56	34.5	54	50	41	WE35Lx1-1/4 NPT	
42	1-1/2	26.0	63	40	61	60	50	WE42Lx1-1/2 NPT		
S Heavy	6	1/4	14.3	31	16	26	17	12	WE06Sx1/4 NPT	NP 630
	8	1/4	14.3	32	17	27	19	14	WE08Sx1/4 NPT	
	10	3/8	14.3	34	17.5	28	22	17	WE10Sx3/8 NPT	
	12	3/8	14.3	38	21.5	28/	24	17	WE12Sx3/8 NPT	
	14	1/2	19.0	40	2	34	27	19	WE14Sx1/2 NPT	NP 400
	16	1/2	19.0	43	24.5	36	30	24	WE16Sx1/2 NPT	
	20	3/4	19.0	48	26.5	42	36	27	WE20Sx3/4 NPT	
	25	1	24.0	54	30	48	46	36	WE25Sx1 NPT	NP 250
	30	1-1/4	25.0	62	35.5	54	50	41	WE30Sx1-1/4 NPT	
38	1-1/2	26.0	72	41	61	60	50	WE38Sx1-1/2 NPT		

Dimensions are for reference only and are subject to change without Notice



# EW - SWIVEL ELBOW

DSH



## Order Code Suffixes

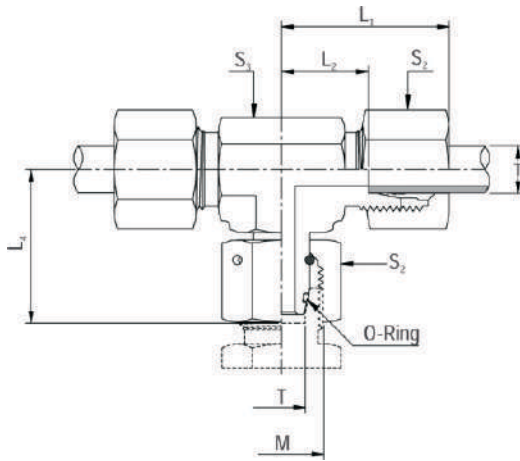
Material	Code	Part No.
Brass	BR	BREW06L
SS304	S4	S4EW06L
SS316	S6	S6EW06L

Series	Tube O.D T	M	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
L Light	6	M12x1.5	27	12	26	14	12	<b>EW06L</b>	NP 250
	8	M14x1.5	29	14	27.5	17	12	<b>EW08L</b>	
	10	M16x1.5	30	15	29	19	14	<b>EW10L</b>	
	12	M18x1.5	32	17	29.5	22	17	<b>EW12L</b>	
	15	M22x1.5	36	21	32.5	27	19	<b>EW15L</b>	
	18	M26x1.5	40	23.5	35.5	32	24	<b>EW18L</b>	NP 160
	22	M30x2	44	27.5	38.5	36	27	<b>EW22L</b>	
	28	M36x2	47	30.5	41.5	41	36	<b>EW28L</b>	NP 100
	35	M45x2	56	34.5	51	50	41	<b>EW35L</b>	
	42	M52x2	63	40	56	60	50	<b>EW42L</b>	
S Heavy	6	M14x1.5	31	16	27	17	12	<b>EW06S</b>	NP 630
	8	M16x1.5	32	17	27.5	19	14	<b>EW08S</b>	
	10	M18x1.5	34	17.5	30	22	17	<b>EW10S</b>	
	12	M20x1.5	38	21.5	31	24	17	<b>EW12S</b>	
	14	M22x1.5	40	22	35	27	19	<b>EW14S</b>	
	16	M24x1.5	43	24.5	36.5	30	24	<b>EW16S</b>	NP 400
	20	M30x2	48	26.5	44.5	36	27	<b>EW20S</b>	
	25	M36x2	54	30	50	46	36	<b>EW25S</b>	
	30	M42x2	62	35.5	55	50	41	<b>EW30S</b>	NP 250
	38	M52x2	72	41	63	60	50	<b>EW38S</b>	

O-Ring : Buna-N is Standard.

# EW - SWIVEL BRANCH TEE

DSH



## Order Code Suffixes

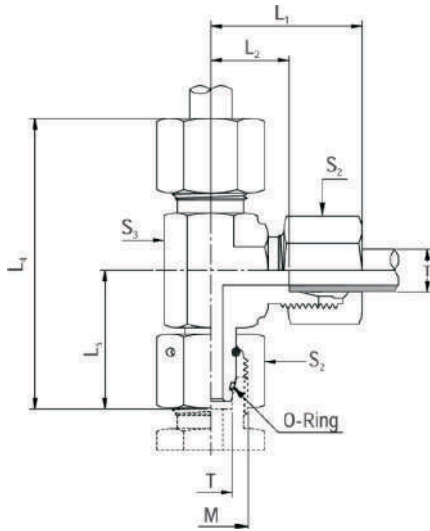
Material	Code	Part No.
Brass	BR	BRET06L
SS304	S4	S4ET06L
SS316	S6	S6ET06L

Series	Tube O.D T	M	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
L Light	6	M12x1.5	27	12	26	14	12	<b>ET06L</b>	NP 250
	8	M14x1.5	29	14	27.5	17	12	<b>ET08L</b>	
	10	M16x1.5	30	15	29	19	14	<b>ET10L</b>	
	12	M18x1.5	32	17	29.5	22	17	<b>ET12L</b>	
	15	M22x1.5	36	21	32.5	27	19	<b>ET15L</b>	
	18	M26x1.5	40	23.5	35.5	32	24	<b>ET18L</b>	NP 160
	22	M30x2	44	27.5	38.5	36	27	<b>ET22L</b>	NP 100
	28	M36x2	47	30.5	41.5	41	36	<b>ET28L</b>	
	35	M45x2	56	34.5	51	50	41	<b>ET35L</b>	
	42	M52x2	63	40	56	60	50	<b>ET42L</b>	
S Heavy	6	M14x1.5	31	16	27	17	12	<b>ET06S</b>	NP 630
	8	M16x1.5	32	17	27.5	19	14	<b>ET08S</b>	
	10	M18x1.5	34	17.5	30	22	17	<b>ET10S</b>	
	12	M20x1.5	38	21.5	31	24	17	<b>ET12S</b>	
	14	M22x1.5	40	22	35	27	19	<b>ET14S</b>	
	16	M24x1.5	43	24.5	36.5	30	24	<b>ET16S</b>	NP 400
	20	M30x2	48	26.5	44.5	36	27	<b>ET20S</b>	
	25	M36x2	54	30	50	46	36	<b>ET25S</b>	
	30	M42x2	62	35.5	55	50	41	<b>ET30S</b>	NP 250
	38	M52x2	72	41	63	60	50	<b>ET38S</b>	

O-Ring : Buna-N is Standard.

# EL - SWIVEL RUN TEE

DSH



## Order Code Suffixes

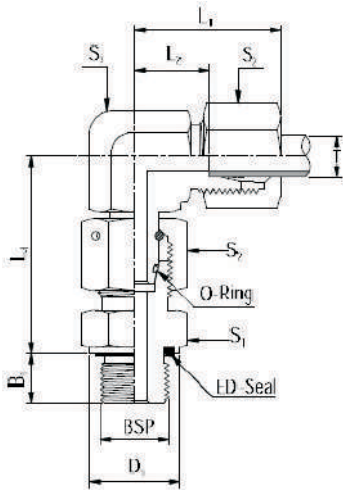
Material	Code	Part No.
Brass	BR	BREL06L
SS304	S4	S4EL06L
SS316	S6	S6EL06L

Series	Tube O.D T	M	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
L Light	6	M12x1.5	27	12	26	14	12	<b>EL06L</b>	NP 250
	8	M14x1.5	29	14	27.5	17	12	<b>EL08L</b>	
	10	M16x1.5	30	15	29	19	14	<b>EL10L</b>	
	12	M18x1.5	32	17	29.5	22	17	<b>EL12L</b>	
	15	M22x1.5	36	21	32.5	27	19	<b>EL15L</b>	
	18	M26x1.5	40	23.5	35.5	32	24	<b>EL18L</b>	NP 160
	22	M30x2	44	27.5	38.5	36	27	<b>EL22L</b>	
	28	M36x2	47	30.5	41.5	41	36	<b>EL28L</b>	NP 100
	35	M45x2	56	34.5	51	50	41	<b>EL35L</b>	
	42	M52x2	63	40	56	60	50	<b>EL42L</b>	
S Heavy	6	M14x1.5	31	16	27	17	12	<b>EL06S</b>	NP 630
	8	M16x1.5	32	17	27.5	19	14	<b>EL08S</b>	
	10	M18x1.5	34	17.5	30	22	17	<b>EL10S</b>	
	12	M20x1.5	38	21.5	31	24	17	<b>EL12S</b>	
	14	M22x1.5	40	22	35	27	19	<b>EL14S</b>	
	16	M24x1.5	43	24.5	36.5	30	24	<b>EL16S</b>	NP 400
	20	M30x2	48	26.5	44.5	36	27	<b>EL20S</b>	
	25	M36x2	54	30	50	46	36	<b>EL25S</b>	
	30	M42x2	62	35.5	55	50	41	<b>EL30S</b>	NP 250
	38	M52x2	72	41	63	60	50	<b>EL38S</b>	

O-Ring : Buna-N is Standard.

# EWGE - ADJUSTABLE ELBOW WITH CONNECTOR

DSH

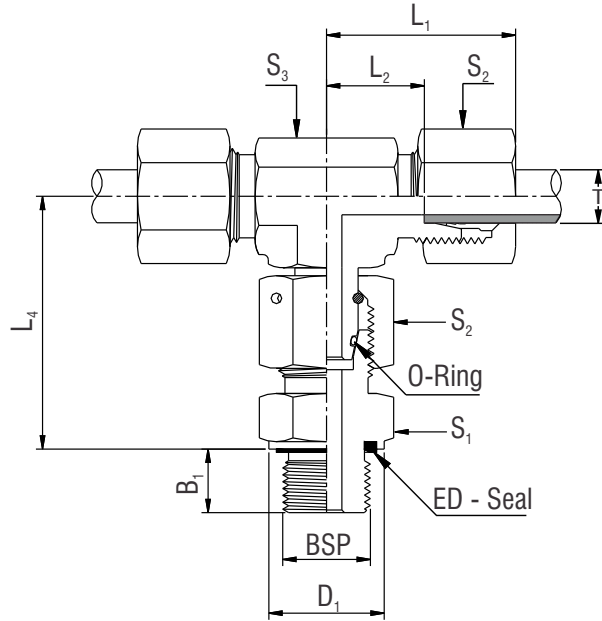


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BREWGE06Lx1/8ED
SS304	S4	S4EWGE06Lx1/8ED
SS316	S6	S6EWGE06Lx1/8ED

Tube O.D T	BSP	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
6	1/8	8	14	27	12	34.5	14	14	12	<b>EWGE06Lx1/8ED</b>	NP 315
8	1/4	12	19	29	14	37.5	19	17	12	<b>EWGE08Lx1/4ED</b>	
10	1/4	12	19	30	15	40	19	19	14	<b>EWGE10Lx1/4ED</b>	
12	3/8	12	22	32	17	42	22	22	17	<b>EWGE12Lx3/8ED</b>	
15	1/2	14	27	36	21	46.5	27	27	19	<b>EWGE15Lx1/2ED</b>	
18	1/2	14	27	40	23.5	50	27	32	24	<b>EWGE18Lx1/2ED</b>	NP 160
22	3/4	16	32	44	27.5	55	32	36	27	<b>EWGE22Lx3/4ED</b>	
28	1	18	40	47	30.5	59	41	41	36	<b>EWGE28Lx1ED</b>	NP 100
35	1-1/4	20	50	56	34.5	68.5	50	50	41	<b>EWGE30Lx1-1/4ED</b>	
42	1-1/2	22	55	63	40	75	55	60	50	<b>EWGE38Lx1-1/2ED</b>	
6	1/4	12	19	31	16	40	19	17	12	<b>EWGE06Lx1/4ED</b>	NP 630
8	1/4	12	19	32	17	42.5	19	19	14	<b>EWGE08Sx1/4ED</b>	
10	3/8	12	22	34	17.5	48	22	22	17	<b>EWGE10Sx3/8ED</b>	
12	3/8	12	22	38	21.5	48	22	24	18	<b>EWGE12Sx3/8ED</b>	
14	1/2	14	27	40	22	54	27	27	19	<b>EWGE14Sx1/2ED</b>	
16	1/2	14	27	43	24.5	55	27	30	24	<b>EWGE16Sx1/2ED</b>	NP 400
20	3/4	16	32	48	26.5	65	32	36	27	<b>EWGE20Sx3/4ED</b>	
25	1	18	40	54	30	73	41	46	36	<b>EWGE25Sx1ED</b>	
30	1/8	20	50	62	35.5	78.5	50	50	41	<b>EWGE30Sx1-1/4ED</b>	NP 250
38	1-1/2	22	55	72	41	89	55	60	50	<b>EWGE38Sx1-1/2ED</b>	

# ETGE - ADJUSTABLE BRANCH TEE WITH CONNECTOR

DSH



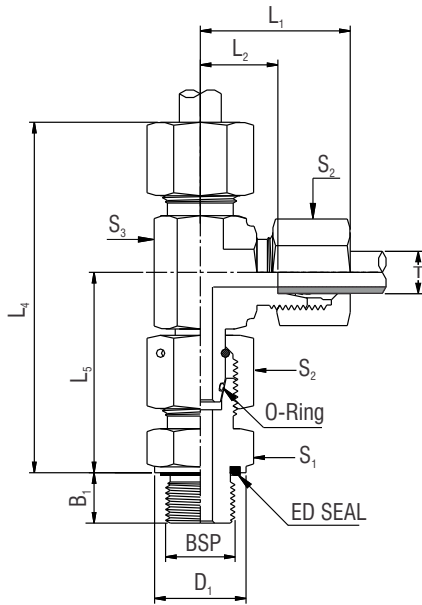
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRETGE06Lx1/8 ED
SS304	S4	S4ETGE06Lx1/8 ED
SS316	S6	S6ETGE06Lx1/8 ED

SERIES	TUBE O. D. T	BSP	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	PART NO.	BAR
L Light	6	1/8	8	14	27	12	34.5	14	14	12	ETGE06Lx1/8 ED	NP 250
	8	1/4	12	19	29	14	37.5	19	17	12	ETGE08Lx1/4 ED	
	10	1/4	12	19	30	15	40	19	19	14	ETGE10Lx1/4 ED	
	12	3/8	12	22	32	17	42	22	22	17	ETGE12Lx3/8 ED	
	15	1/2	14	27	36	21	46.5	27	27	19	ETGE15Lx1/2 ED	NP 160
	18	1/2	14	27	40	23.5	50	27	32	24	ETGE18Lx1/2 ED	
	22	3/4	16	32	44	27.5	55	32	36	27	ETGE22Lx3/4 ED	
	28	1	18	40	47	30.5	59	41	41	36	ETGE28Lx1 ED	NP 100
	35	1-1/4	20	50	56	34.5	68.5	50	50	41	ETGE35Lx1-1/4 ED	
42	1-1/2	22	55	63	40	75	55	60	50	ETGE42Lx1-1/2 ED		
S Heavy	6	1/4	12	19	31	16	40	19	17	12	ETGE06Sx1/4 ED	NP 630
	8	1/4	12	19	32	17	42.5	19	19	14	ETGE08Sx1/4 ED	
	10	3/8	12	22	34	17.5	45	22	22	17	ETGE10Sx3/8 ED	
	12	3/8	12	22	38	21.5	48	22	24	19	ETGE12Sx3/8 ED	
	14	1/2	14	27	40	22	54	27	27	19	ETGE14Sx1/2 ED	NP 400
	16	1/2	14	27	43	24.5	55	27	30	24	ETGE16Sx1/2 ED	
	20	3/4	16	32	48	26.5	65	32	36	27	ETGE20Sx3/4 ED	
	25	1	18	40	54	30	73	41	46	36	ETGE25Sx1 ED	
	30	1-1/4	20	50	62	35.5	78.5	50	50	41	ETGE30Sx1-1/4 ED	
38	1-1/2	22	55	72	41	89	55	60	50	ETGE38Lx1-1/2 ED	NP 250	

Dimensions are for reference only and are subject to change without Notice

# ELGE - ADJUSTABLE RUN TEE WITH CONNECTOR - ED SEAL

DSH

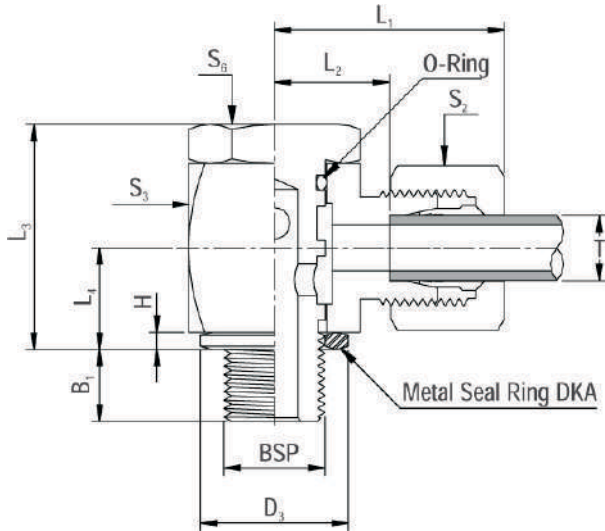


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRELGE06Lx1/8 ED
SS304	S4	S4ELGE06Lx1/8 ED
SS316	S6	S6ELGE06Lx1/8 ED

SERIES	TUBE O. D. T	BSP	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>4</sub>	L <sub>5</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	PART NO.	BAR
<b>L Light</b>	6	1/8	8	14	27	12	61	34.5	14	14	12	ELGE06Lx1/8 ED	NP 250
	8	1/4	12	19	29	14	66	37.5	19	17	12	ELGE08Lx1/4 ED	
	10	1/4	12	19	30	15	70	40	19	19	14	ELGE10Lx1/4 ED	
	12	3/8	12	22	32	17	74	42	22	22	17	ELGE12Lx3/8 ED	
	15	1/2	14	27	36	21	82	46.5	27	27	19	ELGE15Lx1/2 ED	
	18	1/2	14	27	40	23.5	90	50	27	32	24	ELGE18Lx1/2 ED	NP 160
	22	3/4	16	32	44	27.5	99	55	32	36	27	ELGE22Lx3/4 ED	
	28	1	18	41	47	30.5	106	59	41	41	36	ELGE28L1 ED	NP 100
	35	1-1/4	20	50	56	34.5	125	68.5	50	50	41	ELGE35Lx1-1/4 ED	
	42	1-1/2	22	55	63	40	138	75	55	60	50	ELGE42Lx1-1/2 ED	
<b>S Heavy</b>	6	1/4	12	19	31	16	71	40	19	17	12	ELGE06Sx1/4 ED	NP 630
	8	1/4	12	19	32	17	74	42.5	19	19	14	ELGE08Sx1/4 ED	
	10	3/8	12	22	34	17.5	79	45	22	22	17	ELGE10Sx3/8 ED	
	12	3/8	12	22	38	21.5	86	48	22	24	19	ELGE12Sx3/8 ED	
	14	1/2	14	27	40	22	94	54	27	27	19	ELGE14Sx1/2 ED	
	16	1/2	14	27	43	24.5	98	55	27	30	24	ELGE16Sx1/2 ED	NP 400
	20	3/4	16	32	48	26.5	113	65	32	36	27	ELGE20Sx3/4 ED	
	25	1	18	40	54	30	127	73	41	46	36	ELGE25Sx1 ED	NP 250
	30	1-1/4	20	50	62	35.5	141	78.5	50	50	41	ELGE30Sx1-1/4 ED	
	38	1-1/2	22	55	72	41	161	89	55	60	50	ELGE38Sx1-1/2 ED	

Dimensions are for reference only and are subject to change without Notice

# WH - HIGH PRESSURE BANJO FITTING



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRWH06Lx1/8
SS304	S4	S4WH06Lx1/8
SS316	S6	S6WH06Lx1/8L

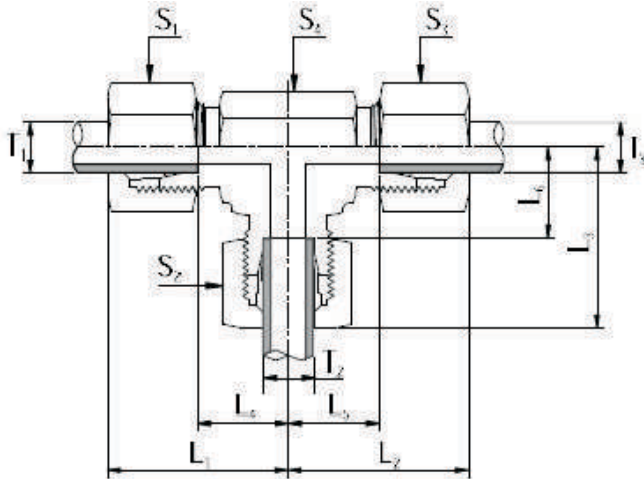
Series	Tube O.D T	Male Stud Thread BSP	$B_1$	$D_3$	$L_1$	$L_2$	$L_3$	$L_4$	$S_2$	$S_3$	$S_6$	Part No.	Bar
L Light	6	1/8	8	14	27	12	24	10.5	14	17	17	WH06Lx1/8	NP 250
	8	1/4	12	18	29	14.5	30	14	17	22	19	WH08Lx1/4	
	10	1/4	12	18	30	15.5	30	14	19	22	19	WH10Lx1/4	
	12	3/8	12	22	33	18	36	16.5	22	27	24	WH12Lx3/8	
	15	1/2	14	26	37	21.5	45	21.5	27	32	30	WH15Lx1/2	
	18	1/2	14	26	37	21	45	21.5	32	32	30	WH18Lx1/2	NP 160
	22	3/4	16	32	44	27.5	53	24	36	41	36	WH22Lx3/4	
	28	1	18	39	49	32	66	30.5	41	50	46	WH28Lx1	NP 100
	35	1-1/4	20	49	58	36	76	35.5	50	60	55	WH35Lx1-1/4	
42	1-1/2	22	55	63	40.5	87	40.5	60	70	60	WH42Lx1-1/2		
S Heavy	6	1/4	12	18	31	16.5	30	14	17	22	19	WH06Sx1/4	NP 630
	8	1/4	12	18	31	16.5	30	14	19	22	19	WH08Sx1/4	
	10	3/8	12	22	35	18.5	36	16.5	22	27	24	WH10Sx3/8	
	12	3/8	12	22	35	18.5	36	16.5	24	27	24	WH12Sx3/8	
	14	1/2	14	26	40	22.5	45	21.5	27	32	30	WH14Sx1/2	
	16	1/2	14	26	40	22	45	21.5	30	32	30	WH16Sx1/2	NP 400
	20	3/4	16	32	48	26.5	53	24	36	41	36	WH20Sx3/4	
	25	1	18	39	56	31.5	66	30.5	46	50	46	WH25Sx1	
	30	1/8	20	49	64	37	76	34.5	50	60	55	WH30Sx1-1/4	NP 250
	38	1-1/2	22	55	72	41.5	87	40.5	60	70	60	WH38Sx1-1/2	

O-Ring : Buna-N is Standard.



# TR - REDUCER TEE

DSH



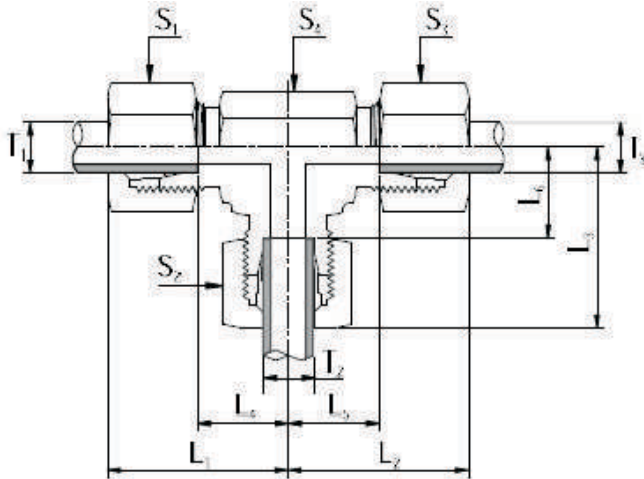
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTR06x08x06L
SS304	S4	S4TR06x08x06L
SS316	S6	S6TR06x08x06L

Tube O.D			L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	Part No.	Bar
T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>												
6	8	6	29	29	29	14	14	14	14	17	14	14	TR06x08x06L	NP 250
8	6	8	29	29	29	14	14	14	17	14	17	14	TR08x06x08L	
6	10	6	30	30	30	15	15	15	14	19	14	14	TR06x10x06L	
8	10	8	30	30	30	15	15	15	17	19	17	14	TR08x10x08L	
10	6	10	30	30	30	15	15	15	19	14	19	14	TR10x06x10L	
10	8	10	30	30	30	15	15	15	19	17	19	14	TR10x08x10L	
10	10	6	30	30	30	15	15	15	19	19	14	14	TR10x10x06L	
8	12	8	32	32	32	17	17	17	17	22	17	17	TR08x12x08L	
12	6	12	32	32	32	17	17	17	22	14	22	17	TR12x06x12L	
12	8	8	32	32	32	17	17	17	22	17	17	17	TR12x08x08L	
12	8	12	32	32	32	17	17	17	22	17	22	17	TR12x08x12L	
12	10	10	32	32	32	17	17	17	22	19	19	17	TR12x10x10L	
12	10	12	32	32	32	17	17	17	22	19	22	17	TR12x10x12L	
12	12	10	32	32	32	17	17	17	22	22	19	17	TR12x12x10L	
10	15	10	36	36	36	21	21	21	19	27	19	19	TR10x15x10L	
12	15	12	36	36	36	21	21	21	22	27	22	19	TR12x15x12L	
15	6	15	36	36	36	21	21	21	27	14	27	19	TR15x06x15L	
15	10	15	36	36	36	21	21	21	27	19	27	19	TR15x10x15L	
15	12	12	36	36	36	21	21	21	27	22	22	19	TR15x12x12L	
15	12	15	36	36	36	21	21	21	27	22	27	19	TR15x12x15L	
15	15	12	36	36	36	21	21	21	27	27	22	24	TR15x15x12L	
12	18	12	39	39	40	24	24	23.5	22	32	22	24	TR12x18x12L	
18	10	10	40	39	39	23.5	24	24	32	19	19	24	TR18x10x10L	
18	10	18	40	40	39	23.5	23.5	24	32	19	32	24	TR18x10x18L	
18	12	18	40	40	39	23.5	23.5	24	32	22	32	24	TR18x12x18L	
18	15	18	40	40	39	23.5	23.5	24	32	27	32	24	TR18x15x18L	
18	18	10	40	39	40	23.5	24	23.5	32	32	19	27	TR18x18x10L	
22	10	22	44	44	43	27.5	27.5	28	36	19	36	27	TR22x10x22L	
22	12	22	44	44	43	27.5	27.5	28	36	22	36	27	TR22x12x22L	
22	15	15	44	43	43	27.5	28	28	36	27	27	27	TR22x15x15L	
22	15	22	44	44	44	27.5	27.5	28	36	27	36	27	TR22x15x22L	
22	18	18	44	44	44	27.5	27.5	27.5	36	32	32	27	TR22x18x18L	
22	18	22	44	44	44	27.5	27.5	27.5	36	32	36	27	TR22x18x22L	
22	22	18	44	44	44	27.5	27.5	27.5	36	36	32	27	TR22x22x18L	

Dimensions L<sub>1</sub>, L<sub>2</sub> & L<sub>3</sub> is approximate length with tightened nut.

# TR - REDUCER TEE

DSH



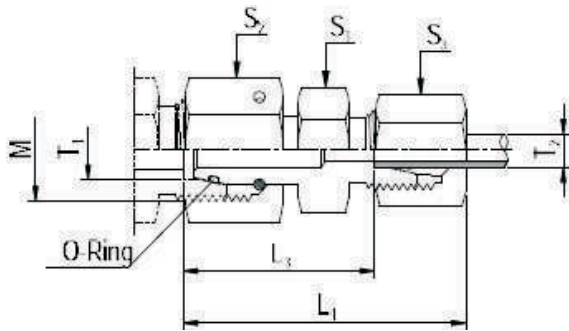
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTR10x06x10S
SS304	S4	S4TR10x06x10S
SS316	S6	S6TR10x06x10S

Tube O.D			L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	L <sub>6</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	S <sub>4</sub>	Part No.	Bar
T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>												
28	10	28	47	47	46	30.5	30.5	31	41	19	41	36	TR28x10x28L	NP 100
28	12	28	47	47	46	30.5	30.5	31	41	22	41	36	TR28x12x28L	
28	15	28	47	47	46	30.5	30.5	31	41	27	41	36	TR28x15x28L	
28	18	28	47	47	47	30.5	30.5	30.5	41	32	41	36	TR28x18x28L	
28	22	22	47	47	47	30.5	30.5	30.5	41	36	36	36	TR28x12x22L	
28	22	28	47	47	47	30.5	30.5	30.5	41	36	41	36	TR28x22x28L	
10	6	10	34	34	33	17.5	17.5	18	22	17	22	17	TR10x06x10S	NP 630
12	8	8	38	37	37	21.5	22	22	24	19	19	17	TR12x08x08S	
12	8	12	38	38	37	21.5	21.5	22	24	19	24	17	TR12x08x12S	
12	10	12	38	38	38	21.5	21.5	21.5	24	22	24	17	TR12x10x12S	NP 400
12	16	12	42	42	43	25.5	25.5	24.5	24	30	24	24	TR12x16x12S	
16	6	16	43	43	41	24.5	24.5	26	30	17	30	24	TR16x06x16S	
16	8	16	43	43	41	24.5	24.5	26	30	19	30	24	TR16x08x16S	
16	10	16	43	43	42	24.5	24.5	25.5	30	22	30	24	TR16x10x16S	
16	12	16	43	43	42	24.5	24.5	25.5	30	24	30	24	TR16x12x16S	
16	20	16	47	47	48	28.5	28.5	26.5	30	36	30	27	TR16x20x16S	
20	10	20	48	48	46	26.5	26.5	29.5	36	22	36	27	TR20x10x20S	
20	12	20	48	48	46	26.5	26.5	28.5	36	24	36	27	TR20x12x20S	
20	16	20	48	48	47	26.5	26.5	30	36	30	36	27	TR20x16x20S	
20	25	20	53	53	54	31.5	31.5	33.5	36	46	36	36	TR20x25x20S	
25	16	25	54	54	52	30	30	31.5	46	30	46	36	TR25x16x25S	
25	20	25	54	54	53	30	30	35.5	46	36	46	36	TR25x20x25S	
25	30	25	61	61	62	37	37		46	50	46	41	TR25x30x25S	

Dimensions L<sub>1</sub>, L<sub>2</sub> & L<sub>3</sub> is approximate length with tightened nut.

# RED - SWIVEL TUBE REDUCER

DSH



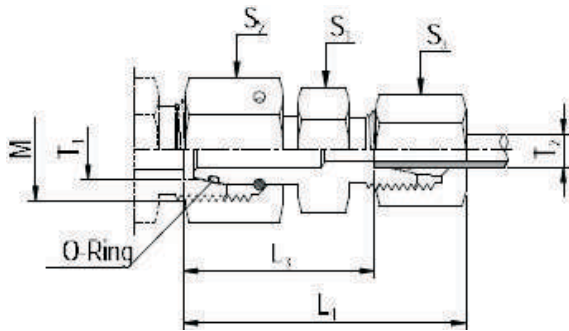
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRRED08x06L
SS304	S4	S4RED08x06L
SS316	S6	S6RED08x06L

Tube O.D		L <sub>1</sub>	L <sub>3</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
T <sub>1</sub>	T <sub>2</sub>							
8	6	38	23.5	12	17	14	RED08x06L	NP 250
10	6	40	25	14	19	14	RED10x06L	
10	8	40	25	14	19	17	RED10x08L	
12	6	40	25	17	22	14	RED12x06L	
12	8	40	25	17	22	17	RED12x08L	
12	10	41	26	17	22	19	RED12x10L	
15	6	43	28.5	19	27	14	RED15x06L	
15	8	43	28.5	19	27	17	RED15x08L	
15	10	44	29.5	19	27	19	RED15x10L	
15	12	44	29.5	19	27	22	RED15x12L	
18	6	43	28	24	32	14	RED18x06L	
18	8	43	28	24	32	17	RED18x08L	
18	10	44	29	24	32	19	RED18x10L	
18	12	44	29	24	32	22	RED18x12L	
18	15	45	30	24	32	27	RED18x15L	
22	6	47	32	27	36	14	RED22x06L	NP 160
22	8	47	32	27	36	17	RED22x08L	
22	10	48	33	27	36	19	RED22x10L	
22	12	48	33	27	36	22	RED22x12L	
22	15	49	34	27	36	27	RED22x15L	
22	18	50	33.5	27	36	32	RED22x18L	
28	6	49	34	32	41	14	RED28x06L	
28	8	49	34	32	41	17	RED28x08L	
28	10	50	35	32	41	19	RED28x10L	
28	12	50	35	32	41	22	RED28x12L	
28	15	51	36.5	32	41	27	RED28x15L	
28	18	52	35.5	32	41	32	RED28x18L	
28	22	54	37.5	32	41	36	RED28x22L	
35	6	52	37	41	50	14	RED35x06L	NP 100
35	8	52	37	41	50	17	RED35x08L	
35	10	53	38	41	50	19	RED35x10L	
35	12	53	38	41	50	22	RED35x12L	
35	15	54	39	41	50	27	RED35x15L	
35	18	55	38.5	41	50	32	RED35x18L	
35	22	57	40.5	41	50	36	RED35x22L	
35	28	57	40.5	41	50	41	RED35x28L	
42	6	55	40.5	50	60	14	RED42x06L	
42	8	55	40.5	50	60	17	RED42x08L	
42	10	56	41.5	50	60	19	RED42x10L	
42	12	56	41.5	50	60	22	RED42x12L	
42	15	58	42.5	50	60	27	RED42x15L	
42	18	58	42	50	60	32	RED42x18L	
42	22	60	44	50	60	36	RED42x22L	
42	28	61	44	50	60	41	RED42x28L	
42	35	65	43	50	60	50	RED42x35L	

Dimensions L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# RED - SWIVEL TUBE REDUCER

DSH



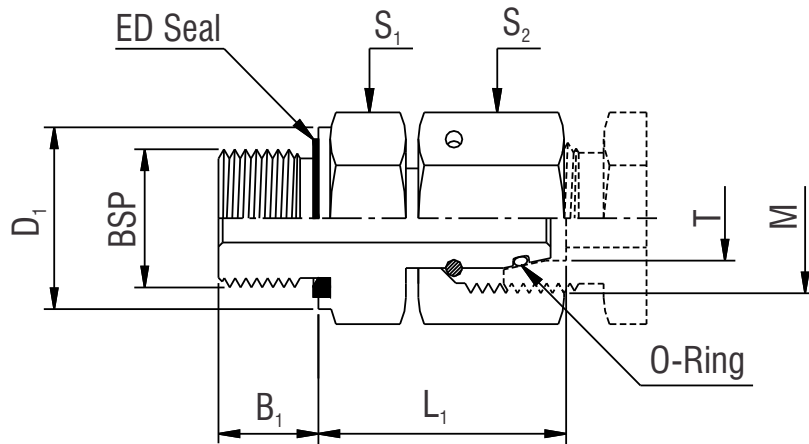
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRRED08x06S
SS304	S4	S4RED08x06S
SS316	S6	S6RED08x06S

Tube O.D		L <sub>1</sub>	L <sub>3</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	Part No.	Bar
T <sub>1</sub>	T <sub>2</sub>							
8	6	42	27	14	19	17	RED08x06S	NP 630
10	6	42	27.5	17	22	17	RED10x06S	
10	8	42	27.5	17	22	19	RED10x08S	
12	6	44	29	17	24	17	RED12x06S	
12	8	44	29	17	24	19	RED12x08S	
12	10	46	29.5	19	24	22	RED12x10S	
14	6	46	31.5	19	27	17	RED14x06S	
14	8	46	31.5	19	27	19	RED14x08S	
14	10	47	31	19	27	22	RED14x10S	
14	12	47	31	22	27	24	RED14x12S	
16	6	47	32	22	30	17	RED16x06S	
16	8	47	32	22	30	19	RED16x08S	
16	10	48	31.5	22	30	22	RED16x10S	
16	12	48	31.5	22	30	24	RED16x12S	
16	14	51	33	24	30	27	RED16x14S	
20	6	51	36	27	36	17	RED20x06S	NP 400
20	8	51	36	27	36	19	RED20x08S	
20	10	52	35.5	27	36	22	RED20x10S	
20	12	52	35.5	27	36	24	RED20x12S	
20	14	55	37	27	36	27	RED20x14S	
20	16	55	36.5	27	36	30	RED20x16S	
25	6	53	38.5	32	46	17	RED25x06S	
25	8	53	38.5	32	46	19	RED25x08S	
25	10	54	38	32	46	22	RED25x10S	
25	12	54	38	32	46	24	RED25x12S	
25	14	57	39.5	32	46	27	RED25x14S	
25	16	57	39	32	46	30	RED25x16S	
25	20	61	39	32	46	36	RED25x20S	
30	6	59	44	41	50	17	RED30x06S	
30	8	59	44	41	50	19	RED30x08S	
30	10	60	43.5	41	50	22	RED30x10S	
30	12	60	43.5	41	50	24	RED30x12S	
30	14	63	45	41	50	27	RED30x14S	
30	16	63	44.5	41	50	30	RED30x16S	
30	20	66	44.5	41	50	36	RED30x20S	
30	25	69	45.5	41	50	46	RED30x25S	
38	6	62	47.5	50	60	17	RED38x06S	
38	8	62	47.5	50	60	19	RED38x08S	
38	10	63	47	50	60	22	RED38x10S	
38	12	63	47	50	60	24	RED38x12S	
38	14	66	48.5	50	60	27	RED38x14S	
38	16	66	48	50	60	30	RED38x16S	
38	20	70	48	50	60	36	RED38x20S	
38	25	73	48.5	50	60	46	RED38x25S	
38	30	76	49	50	60	50	RED38x30S	

Dimensions L<sub>1</sub> & L<sub>2</sub> is approximate length with tightened nut.

# EGE - SWIVEL MALE STUD COUPLING - ED SEAL

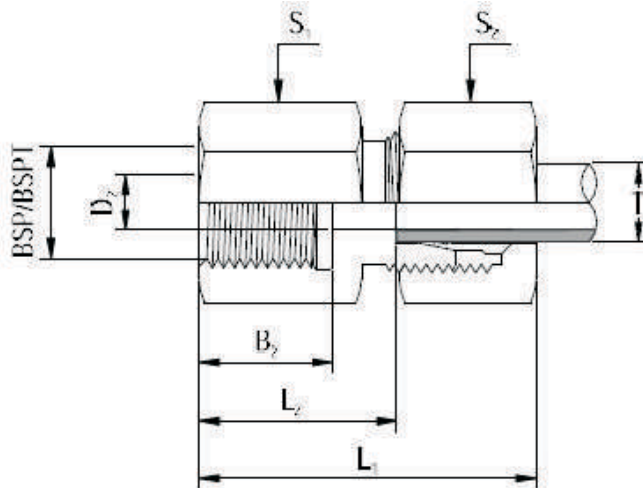
DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BREGE06Lx1/8 ED
SS304	S4	S4EGE06Lx1/8 ED
SS316	S6	S6EGE06Lx1/8 ED

SERIES	TUBE O. D. T	BSP	M	B <sub>1</sub>	D <sub>1</sub>	L <sub>1</sub>	S <sub>1</sub>	S <sub>2</sub>	O-RING	PART NO.	BAR
<b>L Light</b>	6	1/8	M12x1.5	8	14	24.5	14	14	4 x 1.5	EGE06Lx1/8 ED	NP 250
	8	1/4	M14x1.5	12	19	29.5	19	17	6 x 1.5	EGE08Lx1/4 ED	
	10	1/4	M16x1.5	12	19	27.5	19	19	7 x 1.5	EGE10Lx1/4 ED	
	12	3/8	M18x1.5	12	22	34	22	22	9 x 1.5	EGE12Lx3/8 ED	
	15	1/2	M22x1.5	14	27	32	27	27	12 x 2	EGE15Lx1/2 ED	
	18	1/2	M26x1.5	14	27	31.5	27	32	15 x 2	EGE18Lx1/2 ED	NP 160
	22	3/4	M30x2	16	32	32.5	32	36	20 x 2	EGE22Lx3/4 ED	NP 100
	28	1	M36x2	18	41	35	41	41	26 x 2	EGE28Lx1 ED	
	35	1-1/4	M45x2	20	50	42.5	50	50	32 x 2.5	EGE35Lx1-1/4 ED	
	42	1-1/2	M52x2	22	55	46.5	55	60	38 x 2.5	EGE42Lx1-1/2 ED	
<b>S Heavy</b>	6	1/4	M14x1.5	12	19	27	19	17	4 x 1.5	EGE06Sx1/4 ED	NP 630
	8	1/4	M16x1.5	12	19	29.5	19	19	6 x 1.5	EGE08Sx1/4 ED	
	10	3/8	M18x1.5	12	22	32	22	22	7.5 x 1.5	EGE10Sx3/8 ED	
	12	3/8	M20x1.5	12	22	34	24	24	9 x 1.5	EGE12Sx3/8 ED	
	14	1/2	M22x1.5	14	27	36.5	27	27	10 x 2	EGE14Sx1/2 ED	
	16	1/2	M24x1.5	14	27	37	27	30	12 x 2	EGE16Sx1/2 ED	NP 400
	20	3/4	M30x2	16	32	43	32	36	16.3 x 2.4	EGE20Sx3/4 ED	
	25	1	M36x2	18	40	48	41	46	20.3 x 2.4	EGE25Sx1 ED	
	30	1-1/4	M42x2	20	50	51	50	50	25.3 x 2.4	EGE30Sx1-1/4 ED	
	38	1-1/2	M52x2	22	55	60	55	60	33.3 x 2.4	EGE38Sx1-1/2 ED	

# GAI - FEMALE STUD COUPLING



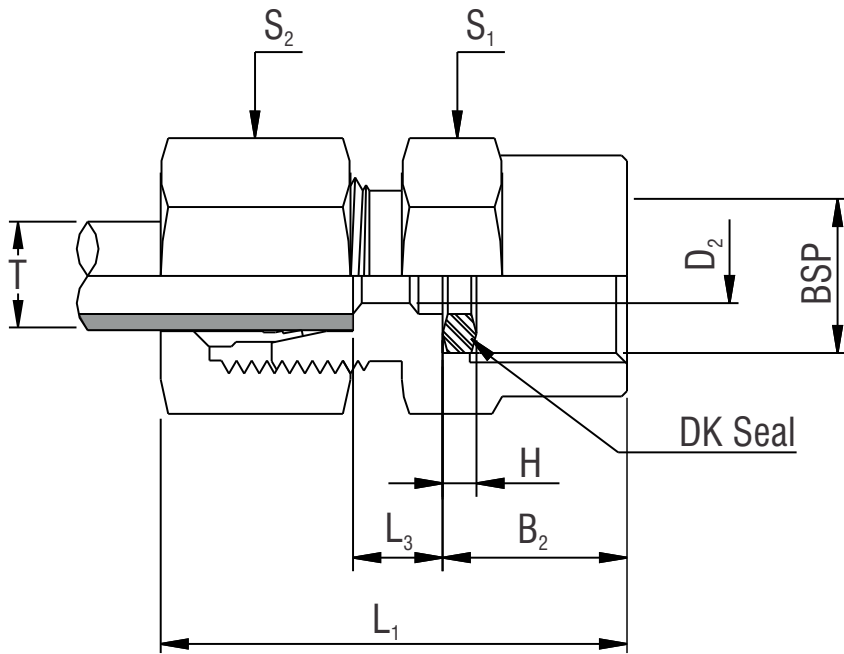
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRGAI06Lx1/8
SS304	S4	S4GAI06Lx1/8
SS316	S6	S6GAI06Lx1/8

Tube O.D T	Female Thread BSP	$B_1$	$D_2$	$L_1$	$L_2$	$S_1$	$S_2$	Part No.	Bar
6	1/8	12	4	34	19	14	14	<b>GAI06Lx1/8</b>	NP 315
8	1/4	17	6	39	24	19	17	<b>GAI08Lx1/4</b>	
10	1/4	17	8	40	25	19	19	<b>GAI10Lx1/4</b>	
12	3/8	17	10	41	26	24	22	<b>GAI12Lx3/8</b>	
12	1/2	20	10	45	30	27	22	<b>GAI12Lx1/2</b>	
15	1/2	20	12	46	31	27	27	<b>GAI15Lx1/2</b>	
18	1/2	20	15	47	30.5	27	32	<b>GAI18Lx1/2</b>	
22	3/4	22	19	52	35.5	36	36	<b>GAI22Lx3/4</b>	NP 160
28	1	24.5	24	55	38	41	41	<b>GAI28Lx1</b>	
35	1-1/4	26.5	30	63	41	55	50	<b>GAI35Lx1-1/4</b>	
42	1-1/2	28.5	36	65	42.5	60	60	<b>GAI42Lx1-1/2</b>	NP 630
6	1/4	17	4	41	26	19	17	<b>GAI06Sx1/4</b>	
8	1/4	17	5	41	26	19	19	<b>GAI08Sx1/4</b>	
10	3/8	17	7	43	26.5	24	22	<b>GAI10Sx3/8</b>	
12	3/8	17	8	43	26.5	24	24	<b>GAI12Sx3/8</b>	
14	1/2	20	10	50	32	30	27	<b>GAI14Sx1/2</b>	NP 400
16	1/2	20	12	50	31.5	30	30	<b>GAI16Sx1/2</b>	
20	3/4	22	16	56	34.5	36	36	<b>GAI20Sx3/4</b>	
25	1	24.5	20	62	37.5	41	46	<b>GAI25Sx1</b>	
30	1-1/4	26.5	25	69	42	55	50	<b>GAI38Sx1-1/4</b>	
38	1-1/2	28.5	32	74	43.5	60	60	<b>GAI38Sx1-1/2</b>	NP 315

Dimensions  $L_1$  is approximate length with tightened nut.

# MAV - PRESSURE GAUGE - ADAPTER

DSH



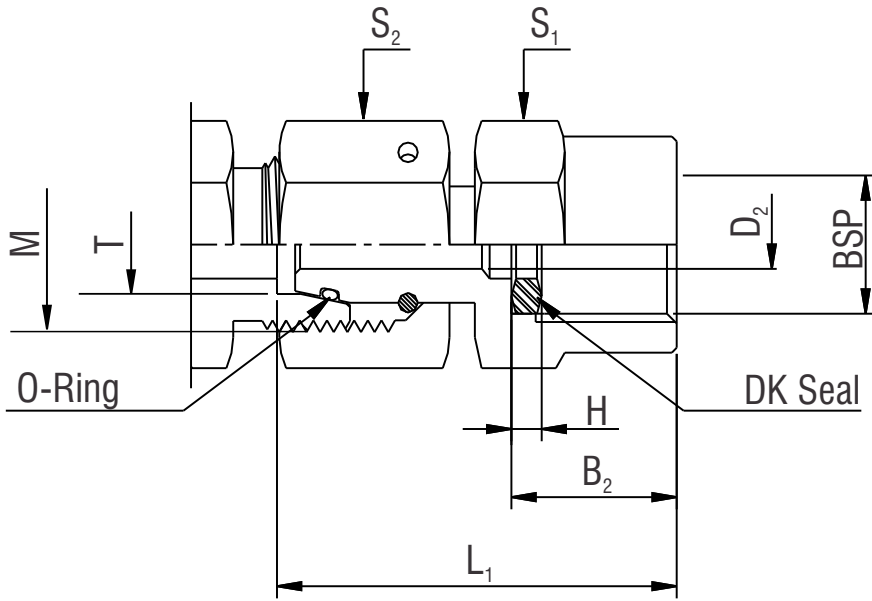
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRMAV06Lx1/4
SS304	S4	S4MAV06Lx1/4
SS316	S6	S6MAV06Lx1/4

SERIES	TUBE O. D. T	BSP	B <sub>2</sub>	D <sub>2</sub>	H	L <sub>1</sub>	L <sub>3</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
<b>L Light</b>	6	1/4	14.5	2.5	4.5	37	7.5	19	14	MAV06Lx1/4	NP 250
	8	1/4	14.5	5.5	4.5	37	7.5	19	17	MAV08Lx1/4	
	10	1/4	14.5	5.5	4.5	38	8.5	19	19	MAV10Lx1/4	
	12	1/4	14.5	5.5	4.5	38	8.5	19	22	MAV12Lx1/4	
<b>S Heavy</b>	6	1/2	20	3.5	5	46	11	27	14	MAV06Sx1/2	NP 630
	8	1/2	20	3.5	5	46	11	27	17	MAV08Sx1/2	
	10	1/2	20	7.0	5	47	10.5	27	19	MAV10Sx1/2	
	12	1/2	20	7.0	5	47	10.5	27	22	MAV12Sx1/2	



# MAVE - SWIVEL PRESSURE GAUGE ADAPTER

DSH

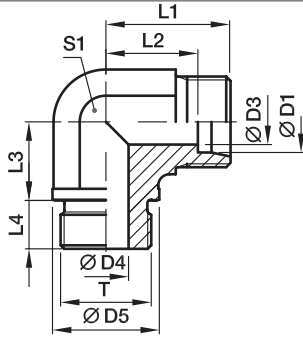


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRMAVE06Lx1/4
SS304	S4	S4MAVE06Lx1/4
SS316	S6	S6MAVE06Lx1/4

SERIES	TUBE O. D. T	BSP	M	B <sub>2</sub>	D <sub>2</sub>	H	L <sub>1</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
<b>L Light</b>	6	1/4	M 12 x 1.5	14.5	2.5	4.5	35.5	19	14	MAVE06Lx1/4	NP 250
	8	1/4	M 14 x 1.5	14.5	4	4.5	35.5	19	17	MAVE08Lx1/4	
	10	1/4	M 16 x 1.5	14.5	5.5	4.5	36	19	19	MAVE10Lx1/4	
	12	1/4	M 18 x 1.5	14.5	5.5	4.5	36	19	22	MAVE12Lx1/4	
<b>S Heavy</b>	6	1/4	M 14 x 1.5	14.5	2.5	4.5	35.5	19	17	MAVE06Sx1/4	NP 630
	8	1/4	M 16 x 1.5	14.5	4	4.5	35.5	19	19	MAVE08Sx1/4	
	10	1/4	M 18 x 1.5	14.5	6	4.5	36	19	22	MAVE10Sx1/4	
	12	1/4	M 20 x 1.5	14.5	7	4.5	39	19	24	MAVE12Sx1/4	
	6	1/2	M 14 x 1.5	20	2.5	5	42.5	27	17	MAVE06Sx1/2	
	8	1/2	M 16 x 1.5	20	4	5	43	27	19	MAVE08Sx1/2	
	10	1/2	M 18 x 1.5	20	6	5	43.5	27	22	MAVE10Sx1/2	
	12	1/2	M 20 x 1.5	20	7	5	45	27	24	MAVE12Sx1/2	

# PEP - MALE STUD ELBOW

DSH



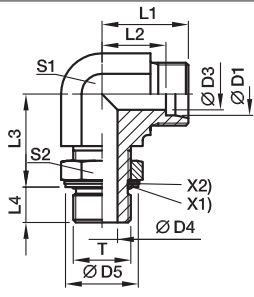
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRPEP22Lx3/4
SS304	S4	S4PEP22Lx3/4
SS316	S6	S6PEP22Lx3/4

SERIES	D <sub>1</sub>	T	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
<b>L</b> Light	22	G 3/4 A	19	18	32	35	27.5	26	16	44	27	36	PEP22Lx3/4	NP 160
	28	G 1 A	24	23	39	38	30.5	30	18	47	36	41	PEP28Lx1	
	35	G 1 1/4 A	30	30	49	45	34.5	34	20	56	41	50	PEP35Lx1-1/4	
	42	G 1 1/2 A	36	36	55	51	40.0	39	22	63	50	60	PEP42Lx1-1/2	
<b>S</b> Heavy	20	G 3/4 A	16	16	32	37	26.5	26	16	48	27	36	PEP20Sx3/4	NP 400
	25	G 1 A	20	20	39	42	30.0	30	18	54	36	46	PEP25Sx1	NP 250
	30	G 1 1/4 A	25	25	49	49	35.5	34	20	62	41	50	PEP30Sx1-1/4	NP 160
	38	G 1 1/2 A	32	32	55	57	41.0	39	22	72	50	60	PEP38Sx1-1/2	

Dimensions are for reference only and are subject to change without Notice

# WEE-ADJUSTABLE LOCKNUT ELBOW

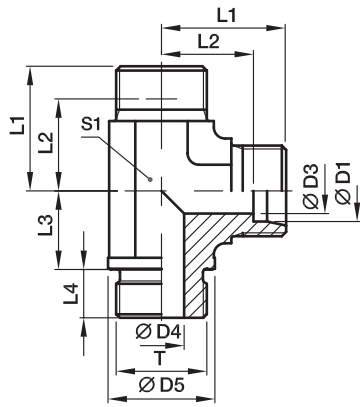
DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRWEE06Lx1/8
SS304	S4	S4WEE06Lx1/8
SS316	S6	S6WEE06Lx1/8

SERIES	D <sub>1</sub>	T	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	D <sub>6</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	S <sub>1</sub>	S <sub>2</sub>	S <sub>3</sub>	PART NO.	BAR		
<b>L</b> Light	06	G 1/8A	4.0	4.5	15	15.0	21	14.0	19	7.0	29	14	14	14	WEE06Lx1/8	NP 315		
	08	G 1/4A	6.0	7.5	20	20.0	23	16.0	23	9.0	31	14	19	17	WEE08Lx1/4			
	10	G 1/4A	8.0	7.5	20	20.0	24	17.0	25	9.0	32	19	19	19	WEE10Lx1/4			
	<b>S</b> Heavy	12	G 3/8A	10.0	10.0	23	23.5	26	19.0	28	9.0	34	19	22	22	WEE12Lx3/8	NP 250	
		15	G 1/2A	12.0	12.5	28	28.5	28	21.0	30	13.0	36	22	27	27	WEE15Lx1/2		
		18	G 1/2A	15.0	12.5	28	28.5	31	24.0	36	13.0	40	27	27	32	WEE18Lx1/2		
		<b>S</b> Heavy	22	G 3/4A	19.0	15.5	33	34.5	35	28.0	36	13.0	44	30	36	36	WEE22Lx3/4	NP 160
			28	G 1 A	24.0	21.5	41	43.5	38	31.0	44	15.0	47	36	41	41	WEE28Lx1	
35			G 1 1/4A	30.0	27.5	51	52.5	48	38.0	50	15.0	59	50	50	50	WEE35Lx1-1/4		
<b>S</b> Heavy	42		G 1 1/2A	36.0	33.0	56	60.0	49	38.0	52	15.0	61	50	55	60	WEE42Lx1-1/2	NP 160	
	06		G 1/4A	4.0	7.5	20	20.0	22	15.0	23	9.0	30	14	19	17	WEE06Sx1/4		
	08		G 1/4A	5.0	7.5	20	20.0	24	17.0	27	9.0	32	19	19	19	WEE08Sx1/4		
	10		G 3/8A	7.0	10.0	23	23.5	25	18.0	29	9.0	34	19	22	22	WEE10Sx3/8		
<b>S</b> Heavy	12	G 3/8A	8.0	10.0	23	23.5	29	22.0	29	9.0	38	22	22	24	WEE12Sx3/8	NP 250		
	16	G 1/2A	12.0	12.5	28	28.5	33	25.0	36	13.0	43	27	27	30	WEE16Sx1/2			
	20	G 3/4A	16.0	15.5	33	34.5	38	28.0	39	12.0	49	30	36	36	WEE20Sx3/4			
	<b>S</b> Heavy	25	G 1 A	20.0	21.5	41	43.5	42	30.0	44	14.0	54	36	41	46	WEE25Sx1	NP 160	
		30	G 1 1/4A	25.0	27.5	51	52.5	49	36.0	49	15.0	62	50	50	50	WEE30S1-1/4		
	<b>S</b> Heavy	38	G 1 1/2A	32.0	33.0	56	60.0	50	34.0	55	15.0	65	50	55	60	WEE38Sx1-1/2		

# LE - MALE STUD RUN TEE BSP

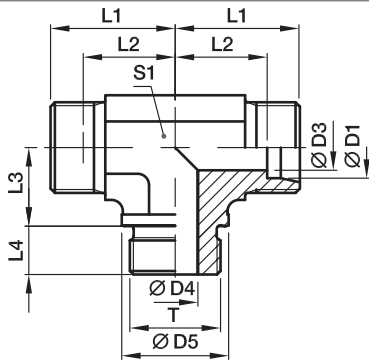


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRLE22Lx3/4
SS304	S4	S4LE22Lx3/4
SS316	S6	S6LE22Lx3/4

SERIES	D <sub>1</sub>	T	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
<b>L</b> Light	22	G3/4 A	19	18	32	35	27.5	26	16	44	27	36	LE22Lx3/4	NP 160
	28	G 1 A	24	23	39	38	30.5	30	18	47	36	41	LE28Lx1	
	35	G 1 1/4 A	30	30	49	45	34.5	34	20	56	41	50	LE35Lx1-1/4	
	42	G 1 1/2 A	36	36	55	51	40.0	39	22	63	50	60	LE42Lx1-1/2	
<b>S</b> Heavy	20	G 3/4 A	16	16	32	37	26.5	26	16	48	27	36	LE20Sx3/4	NP 400
	25	G 1 A	20	20	39	42	30.0	30	18	54	36	46	LE25Sx1	NP 250
	30	G 1 1/4 A	25	25	49	49	35.5	34	20	62	41	50	LE30Sx1-1/4	NP 160
	38	G 1 1/2 A	32	32	55	57	41.0	39	22	72	50	60	LE38Sx1-1/2	

Dimensions are for reference only and are subject to change without Notice

# TE - MALE STUD BRANCH TEE

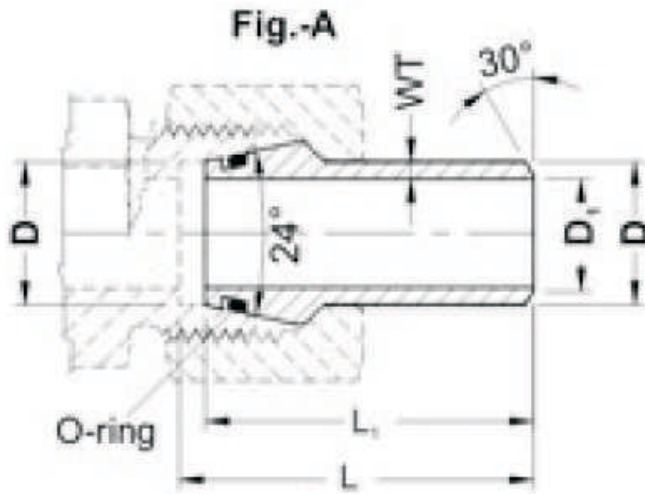


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTE22Lx3/4
SS304	S4	S4TE22Lx3/4
SS316	S6	S6TE22Lx3/4

SERIES	D <sub>1</sub>	T	D <sub>3</sub>	D <sub>4</sub>	D <sub>5</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
<b>L</b> Light	22	G 3/4 A	19	18	32	35	27.5	26	16	44	27	36	TE22Lx3/4	NP 160
	28	G 1 A	24	23	39	38	30.5	30	18	47	36	41	TE28Lx1	
	35	G 1 1/4 A	30	30	49	45	34.5	34	20	56	41	50	TE35Lx1-1/4	
	42	G 1 1/2 A	36	36	55	51	40.0	39	22	63	50	60	TE42Lx1-1/2	
<b>S</b> Heavy	20	G 3/4 A	16	16	32	37	26.5	26	16	48	27	36	TE20Sx3/4	NP 400
	25	G 1 A	20	20	39	42	30.0	30	18	54	36	46	TE25Sx1	NP 250
	30	G 1 1/4 A	25	25	49	49	35.5	34	20	62	41	50	TE30Sx1-1/4	NP 160
	38	G 1 1/4 A	32	32	55	57	41.0	39	22	72	50	60	TE38Sx1-1/2	

Dimensions are for reference only and are subject to change without Notice

# SKA - WELD NIPPLE



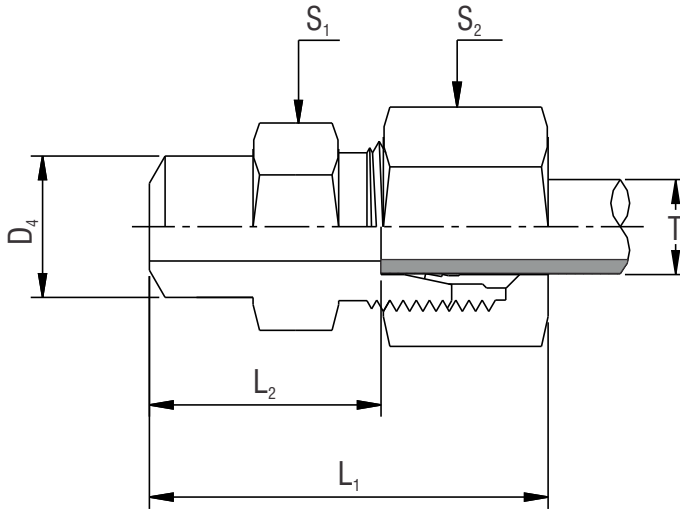
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRSKA06x1.5
SS304	S4	S4SKA06x1.5
SS316	S6	S6SKA06x1.5

Series	Tube O.D D	Steel Tube O.D x WT	L	L <sub>1</sub>	D <sub>1</sub>	Part No.	Bar
L Light	6	6x1.5	31.5	31	3	<b>SKA06x1.5</b>	NP 528
	8	8x2	31.5	31	4	<b>SKA08x2</b>	NP 528
	10	10x2	33.5	32.5	6	<b>SKA10x2</b>	NP 460
	12	12x2.5	33.5	32.5	7	<b>SKA12x2.5</b>	NP 476
	15	15x2.5	34.5	34	10	<b>SKA15x2.5</b>	NP 393
	18	18x2.5	36.5	35.5	13	<b>SKA18x2.5</b>	NP 335
	22	22x2.5	39.5	38.5	17	<b>SKA22x2.5</b>	NP 280
	28	28x4	42.5	41.5	22	<b>SKA28x3</b>	NP 265
	35	35x4	49.5	47.5	27	<b>SKA35x4</b>	NP 281
S Heavy	42	42x4	50	47.5	34	<b>SKA42x4</b>	NP 238
	14	14x3	39.5	38.5	8	<b>SKA14x3</b>	NP 487
	16	16x3	40.5	39	10	<b>SKA16x3</b>	NP 435
	20	20x4	47	45	12	<b>SKA20x5</b>	NP 460
	25	25x5	53	49.5	15	<b>SKA25x5</b>	NP 460
	30	30x6	57	52	18	<b>SKA30x6</b>	NP 460
	38	38x7	64	56.5	24	<b>SKA38x7</b>	NP 460

O-Ring : Buna-N is Standard.

# AS - BUTT WELD CONNECTOR

DSH

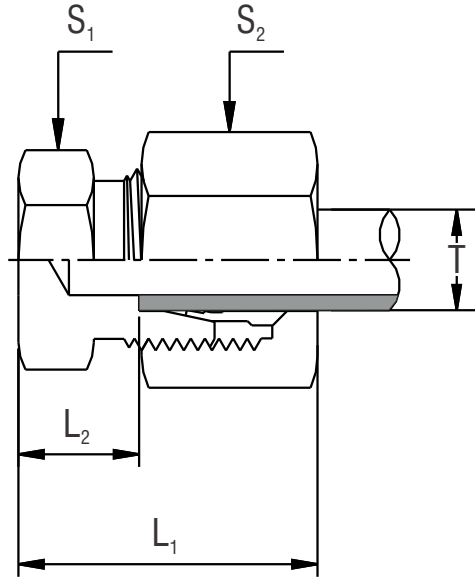


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRAS06L
SS304	S4	S4AS06L
SS316	S6	S6AS06L

SERIES	TUBE O. D. T	$D_4$	$L_1$	$L_2$	$S_1$	$S_2$	PART NO.	BAR
L Light	6	10	29	14	12	14	AS06L	NP 250
	8	12	31	16	14	17	AS08L	
	10	14	33	18	17	19	AS10L	
	12	16	33	18	19	22	AS12L	
	15	19	37	22	22	27	AS15L	
	18	22	40	23.5	27	32	AS18L	NP 160
	22	27	45	28.5	32	36	AS22L	NP 100
	28	32	47	30.5	41	41	AS28L	
	35	40	54	32.5	46	50	AS35L	
42	46	58	35	55	60	AS42L		
S Heavy	6	11	34	19	14	17	AS06S	NP 630
	8	13	36	21	17	19	AS08S	
	10	15	39	22.5	19	22	AS10S	
	12	17	41	24.5	22	24	AS12S	
	14	19	45	27	24	27	AS14S	
	16	21	45	26.5	27	30	AS16S	NP 400
	20	26	51	29.5	32	36	AS20S	
	25	31	56	32	41	46	AS25S	
	30	36	62	35.5	46	50	AS30S	
38	44	69	38	55	60	AS38S	NP 250	

# ROV BLANKING ENDS FOR TUBE

DSH

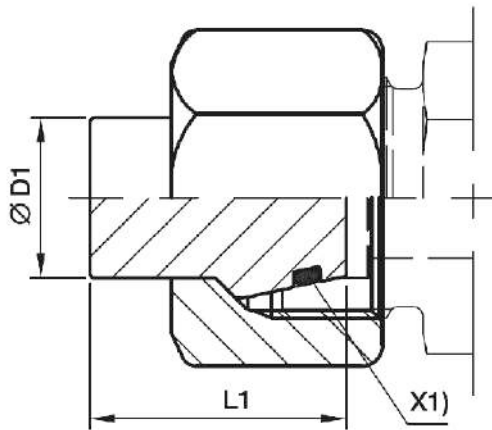


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRROV06L
SS304	S4	S4ROV06L
SS316	S6	S6ROV06L

SERIES	TUBE O.D. T	L <sub>1</sub>	L <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	PART NO.	BAR
L Light	6	22	7	12	14	ROV06L	NP 250
	8	23	8	14	17	ROV08L	
	10	24	9	17	19	ROV10L	
	12	25	10	19	22	ROV12L	
	15	26	11	24	27	ROV15L	
	18	28	11.5	27	32	ROV18L	NP 160
	22	30	13.5	32	36	ROV22L	NP 100
	28	31	14.5	41	41	ROV28L	
	35	36	14.5	46	50	ROV35L	
	42	39	16	55	60	ROV42L	
S Heavy	6	26	11	14	17	ROV06S	NP 630
	8	28	13	17	19	ROV08S	
	10	29	12.5	19	22	ROV10S	
	12	31	14.5	22	24	ROV12S	
	14	34	16	24	27	ROV14S	
	16	34	15.5	27	30	ROV16S	NP 400
	20	39	17.5	32	36	ROV20S	
	25	44	20	41	46	ROV25S	
	30	47	20.5	46	50	ROV30S	NP 250
	38	54	23	55	60	ROV38S	

# VKAM-BLANKING PLUG WITH NUT FOR CONE

DSH



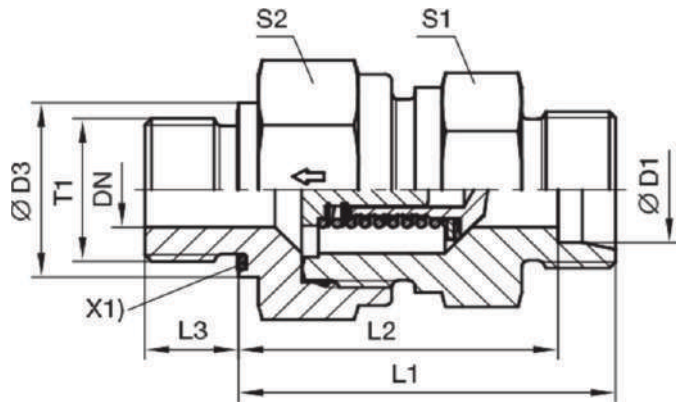
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRVKAM06L
SS304	S4	S4VKAM06L
SS316	S6	S6VKAM06L

SERIES	TUBE O. D. D <sub>1</sub>	L <sub>1</sub>	PART NO.	BAR	
L Light	06	18.5	VKAM06L	NP 500	
	08	18.5	VKAM08L		
	10	20.0	VKAM10L		
	L Light	12	20.5	VKAM12L	NP 400
		15	20.5	VKAM15L	
		18	22.5	VKAM18L	
		22	25.0	VKAM22L	
	S Heavy	28	25.5	VKAM28L	NP 250
		35	30.0	VKAM35L	
		42	30.0	VKAM42L	
06		18.5	VKAM06S	NP 800	
08		18.5	VKAM08S		
10		20.0	VKAM10S		
S Heavy		12	20.5	VKAM12S	NP 630
		14	22.5	VKAM14S	
		16	23.5	VKAM16S	
		20	28.5	VKAM20S	
	S Heavy	25	29.0	VKAM25S	NP 420
		30	30.5	VKAM30S	
		38	33.0	VKAM38S	



# RHZ - NON RETURNABLE VALVE

DSH

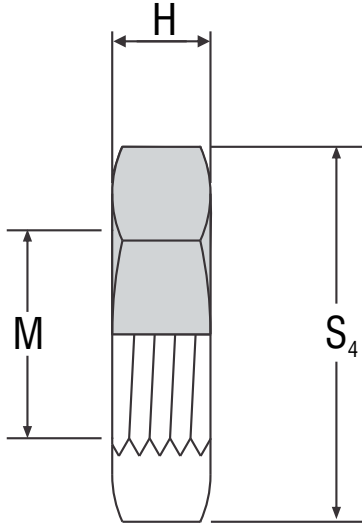


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRRHZ06Lx1/8ED
SS304	S4	S4RHZ06Lx1/8ED
SS 316	S6	S6RHZ06Lx1/8ED

SERIES	D1	T1	DN	D3	L1	L2	L3	S1	S2	PART NO.	BAR
L Light	06	G 1/8 A	3.5	14	33.5	26.5	8	17	17	RHZ06Lx1/8ED	NP 400
	08	G 1/4 A	5.5	19	35.5	28.5	12	19	19	RHZ08Lx1/4ED	
	10	G 1/4 A	7.5	19	46.0	38.5	12	22	24	RHZ10Lx1/4ED	
	12	G 3/8 A	9.5	22	48.0	40.5	12	27	30	RHZ12Lx3/8ED	
	15	G 1/2 A	11.0	27	50.0	42.5	14	27	32	RHZ15Lx1/2ED	
	18	G 1/2 A	14.0	27	56.0	48.0	14	36	41	RHZ18Lx1/2ED	
	22	G 3/4 A	18.0	32	64.0	56.0	16	41	46	RHZ22Lx3/4ED	NP 250
	28	G 1 A	23.0	40	72.0	64.0	18	50	55	RHZ28Lx1ED	
	35	G 1 1/4 A	29.0	50	81.0	70.0	20	60	65	RHZ35Lx1-1/4ED	
42	G 1 1/2 A	29.0	5	82.0	70.5	22	65	70	RHZ42Lx1-1/2ED		
S Heavy	06	G 1/4 A	3.5	19	38.5	31.5	12	19	19	RHZ06Sx1/4ED	NP 420
	08	G 1/4 A	3.5	19	38.5	31.5	12	19	19	RHZ08Sx1/4ED	
	10	G 3/8 A	5.5	22	45.5	38.0	12	22	24	RHZ10Sx3/8ED	
	12	G 3/8 A	7.5	22	48.5	41.0	12	24	27	RHZ12Sx3/8ED	
	14	G 1/2 A	9.5	27	52.0	43.5	14	27	32	RHZ14Sx1/2ED	
	16	G1/2A	11.0	27	55.0	46.0	14	32	36	RHZ16Sx1/2ED	
	20	G3/4A	15.0	32	61.0	50.0	16	41	50	RHZ20Sx3/4ED	
	25	G1A	19.0	40	67.0	54.5	18	50	55	RHZ25Sx1ED	
	30	G11/4A	24.0	50	78.0	64.0	20	55	60	RHZ30Sx11/4ED	NP 250
38	G 11/2 A	29.0	55	88.0	71.5	22	65	70	RHZ38Sx11/2ED		

# LNM - LOCK NUT

DSH

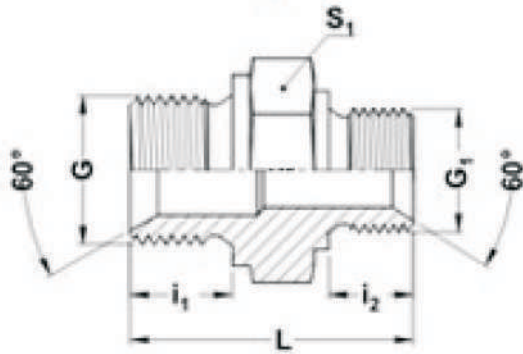


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRLNMM12x1.5
SS304	S4	S4LNMM12x1.5
SS316	S6	S6LNMM12x1.5

SERIES / TUBE O.D.		M	L	S <sub>4</sub>	PART NO.
L	S				
6	-	M12x1.5	6	17	LNMM12x1.5
8	6	M14x1.5	6	19	LNMM14x1.5
10	8	M16x1.5	6	22	LNMM16x1.5
12	10	M18x1.5	6	24	LNMM18x1.5
-	12	M20x1.5	6	27	LNMM20x1.5
15	14	M22x1.5	7	30	LNMM22x1.5
-	16	M24x1.5	7	32	LNMM24x1.5
18	-	M26x1.5	8	36	LNMM26x1.5
22	20	M30x2	8	41	LNMM30x2
28	25	M36x2	9	46	LNMM36x2
-	30	M42x2	9	50	LNMM42x2
35	-	M45x2	9	55	LNMM45x2
42	38	M52x2	10	65	LNMM52x2

# HA - HOSE ADAPTOR

DSH

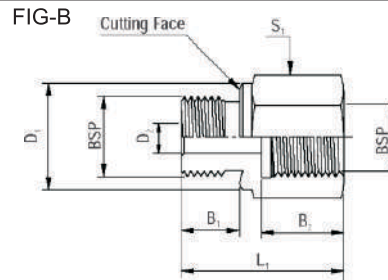
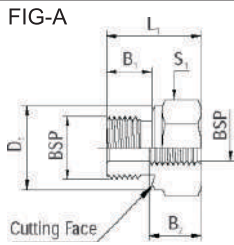


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRHA1/8x1/8
SS304	S4	S4HA1/8x1/8
SS316	S6	S6HA1/8x1/8

G BSP	G <sub>1</sub> BSP	i	i <sub>1</sub>	L	S <sub>1</sub> A/F	Part No.	Bar
1/8	1/8	8	8	23.5	14	<b>HA1/8x1/8</b>	NP 350
1/4	1/8	11	8	28	19	<b>HA1/4x1/8</b>	
1/4	1/4	11	11	31.5	19	<b>HA1/4x1/4</b>	
3/8	1/4	12	11	33	22	<b>HA3/8x1/4</b>	
3/8	3/8	12	12	35	22	<b>HA3/8x3/8</b>	
1/2	1/4	14	11	37	27	<b>HA1/2x1/4</b>	NP 200
1/2	3/8	14	12	38	27	<b>HA1/2x3/8</b>	
1/2	1/2	14	14	41	27	<b>HA1/2x1/2</b>	
3/4	1/4	16	11	39	32	<b>HA3/4x1/4</b>	
3/4	3/8	16	12	41	32	<b>HA3/4x3/8</b>	
3/4	1/2	16	14	43	32	<b>HA3/4x1/2</b>	
3/4	3/4	16	16	45	32	<b>HA3/4x3/4</b>	NP 120
1	1/2	19	14	47	41	<b>HA1x1/2</b>	
1	3/4	19	16	49	41	<b>HA1x3/4</b>	
1	1	19	19	52	41	<b>HA1X1</b>	NP 105
1-1/4	3/4	20	16	57.5	50	<b>HA1-1/4x3/4</b>	
1-1/4	1	20	19	60.5	50	<b>HA1-1/4x1</b>	
1-1/4	1-1/4	20	20	61.5	50	<b>HA1-1/4x1-1/4</b>	
1-1/2	1	23	19	64.5	55	<b>HA1-1/2x1</b>	
1-1/2	1-1/4	23	20	65.5	55	<b>HA1-1/2x1-1/4</b>	
1-1/2	1-1/2	23	23	67.5	55	<b>HA1-1/2x1-1/2</b>	NP 70
2	1-1/2	25	23	73	70	<b>HA2x1-1/2</b>	
2	1	25	25	76.5	70	<b>HA2X2</b>	

# RI - REDUCING THREAD ADAPTORS

DSH

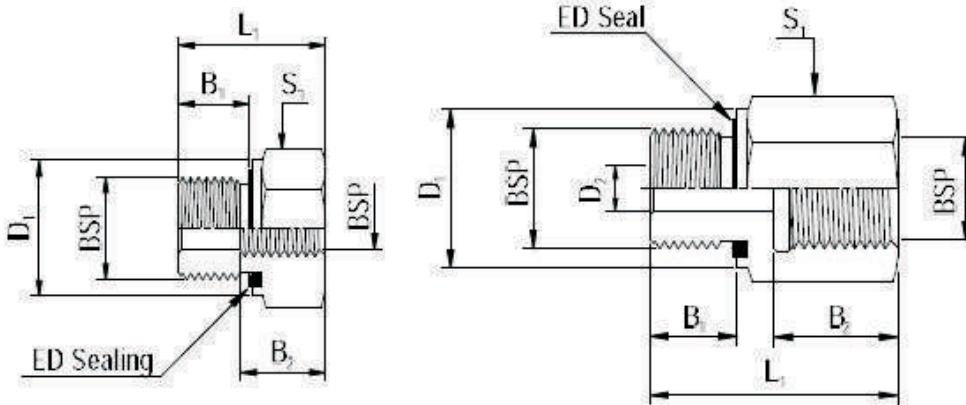


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRR1/8x1/4
SS304	S4	S4R1/8x1/4
SS316	S6	S6R1/8x1/4

Male Stud Thread BSP	Female Stud Thread BSP	B <sub>1</sub>	B <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	S <sub>1</sub>	Fig.	Part No.	Bar
1/8	1/4	8	17	14	4	31	19	B	RI1/8x1/4	NP 400
1/8	3/8	8	17	14	4	32	24	B	RI1/8x3/8	
1/4	1/8	12	12	19	5	28	19	B	RI1/4x1/8	
1/4	3/8	12	17	19	5	36	24	B	RI1/4x3/4	
1/4	1/2	12	20	19	5	40	30	B	RI1/4x1/2	
1/4	3/4	12	22	19	5	43	36	B	RI1/4x3/4	
3/8	1/8	12	8	22	-	23	22	A	RI3/8x1/8	
3/8	1/4	12	17	22	8	36	22	B	RI3/8x1/4	
3/8	1/2	12	20	22	8	41	30	B	RI3/8x1/2	
3/8	3/4	12	22	22	8	44	36	B	RI3/8x3/4	NP 315
1/2	1/8	14	8	27	-	24	27	A	RI1/2x1/8	NP 400
1/2	1/4	14	12	27	-	24	27	A	RI1/2x1/4	
1/2	3/8	14	17	27	12	37	27	B	RI1/2x3/8	
1/2	3/4	14	22	27	12	46	36	B	RI1/2x3/4	NP 315
1/2	1	14	24.5	27	12	49	41	B	RI1/2x1	
1/2	1-1/4	14	26.5	27	12	53	55	B	RI1/2x1-1/4	
3/4	1/4	16	12	32	-	26	32	A	RI3/4x1/4	
3/4	3/8	16	12	32	-	26	32	A	RI3/4x3/8	
3/4	1/2	16	20	32	16	41	32	B	RI3/4x1/2	
3/4	1	16	24.5	32	16	51	41	B	RI3/4x1	
3/4	1-1/4	16	26.5	32	16	55	55	B	RI3/4x1-1/4	
3/4	1-1/2	16	28.5	32	16	57	60	B	RI3/4x1-1/2	
1	1/4	18	12	40	-	29	41	A	RI1x1/4	NP 315
1	3/8	18	12	40	-	29	41	A	RI1x3/8	
1	1/2	18	14	40	-	29	41	A	RI1x1/2	
1	3/4	18	22	40	20	47	41	B	RI1x3/4	
1	1-1/4	18	26.5	40	20	57	55	B	RI1x1-1/4	
1	1-1/2	18	28.5	40	20	59	60	B	RI1x1-1/2	
1-1/4	1/2	20	14	50	-	32	50	A	RI1-1/4x1/2	
1-1/4	3/4	20	16	50	-	32	50	A	RI1-1/4x3/4	
1-1/4	1	20	24.5	50	25	52	50	B	RI1-1/4x1	NP 250
1-1/4	1-1/2	20	28.5	50	25	60	60	B	RI1-1/4x1-1/2	
1-1/2	1/2	22	14	55	-	36	55	A	RI1-1/2x1/2	
1-1/2	3/4	22	16	55	-	36	55	A	RI1-1/2x3/4	
1-1/2	1	22	18	55	-	36	55	A	RI1-1/2x1	
1-1/2	1-1/4	22	26.5	55	32	58	55	B	RI1-1/2x1-1/4	

# RI - REDUCING THREAD ADAPTOR WITH ED SEAL

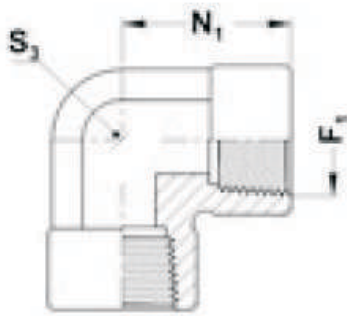
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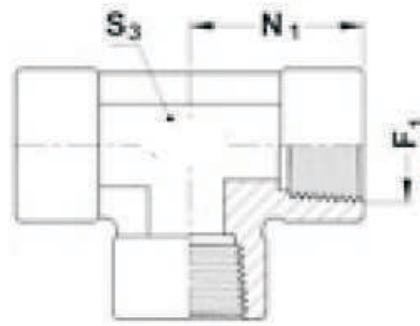
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRR11/8x1/4ED
SS304	S4	S4RI1/8x1/4ED
SS316	S6	S6RI1/8x1/4ED

Male Stud Thread BSP	Female Thread BSP	B <sub>1</sub>	B <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	L <sub>1</sub>	S <sub>1</sub>	Fig.	Part No.	Bar
1/8	1/4	8	17	14	4	31	19	B	RI1/8x1/4ED	NP 630
1/8	3/8	8	17	14	4	32	24	B	RI1/8x3/8ED	
1/4	1/8	12	12	19	5	28	19	B	RI1/4x1/8ED	
1/4	3/8	12	17	19	5	36	24	B	RI1/4x3/4ED	
1/4	1/2	12	20	19	5	40	30	B	RI1/4x1/2ED	
1/4	3/4	12	22	19	5	43	36	B	RI1/4x3/4ED	
3/8	1/8	12	8	22	-	23	22	A	RI3/8x1/8ED	
3/8	1/4	12	17	22	8	36	22	B	RI3/8x1/4ED	
3/8	1/2	12	20	22	8	41	30	B	RI3/8x1/2ED	
3/8	3/4	12	22	22	8	44	36	B	RI3/8x3/4ED	NP 400
1/2	1/8	14	8	27	-	24	27	A	RI1/2x1/8ED	NP 630
1/2	1/4	14	12	27	-	24	27	A	RI1/2x1/4ED	
1/2	3/8	14	17	27	12	37	27	B	RI1/2x3/8ED	NP 400
1/2	3/4	14	22	27	12	46	36	B	RI1/2x3/4ED	
1/2	1	14	24.5	27	12	49	41	B	RI1/2x1ED	
1/2	1-1/4	14	26.5	27	12	53	55	B	RI1/2x1-1/4ED	
3/4	1/4	16	12	32	-	26	32	A	RI3/4x1/4ED	
3/4	3/8	16	12	32	-	26	32	A	RI3/4x3/8ED	
3/4	1/2	16	20	32	16	41	32	B	RI3/4x1/2ED	
3/4	1	16	24.5	32	16	51	41	B	RI3/4x1ED	
3/4	1-1/4	16	26.5	32	16	55	55	B	RI3/4x1-1/4ED	NP 315
3/4	1-1/2	16	28.5	32	16	57	60	B	RI3/4x1-1/2ED	
1	1/4	18	12	40	-	29	41	A	RI1x1/4ED	NP 400
1	3/8	18	12	40	-	29	41	A	RI1x3/8ED	
1	1/2	18	14	40	-	29	41	A	RI1x1/2ED	
1	3/4	18	22	40	20	47	41	B	RI1x3/4ED	
1	1-1/4	18	26.5	40	20	57	55	B	RI1x1-1/4ED	
1	1-1/2	18	28.5	40	20	59	60	B	RI1x1-1/2ED	
1-1/4	1/2	20	14	50	-	32	50	A	RI1-1/4x1/2ED	NP 400
1-1/4	3/4	20	16	50	-	32	50	A	RI1-1/4x3/4ED	
1-1/4	1	20	24.5	50	25	52	50	B	RI1-1/4x1ED	
1-1/4	1-1/2	20	28.5	50	25	60	60	B	RI1-1/4x1-1/2ED	NP 315
1-1/2	1/2	22	14	55	-	36	55	A	RI1-1/2x1/2ED	
1-1/2	3/4	22	16	55	-	36	55	A	RI1-1/2x3/4ED	
1-1/2	1	22	18	55	-	36	55	A	RI1-1/2x1ED	
1-1/2	1-1/4	22	26.5	55	32	58	55	B	RI1-1/2x1-1/4ED	

Order Code Suffixes			
Material	Code	Part No.	Part No.
Brass	BR	BRFEN1/8	BRFTN1/8
SS304	S4	S4FEN1/8	S4FTN1/8
SS316	S6	S6FEN1/8	S6FTN1/8



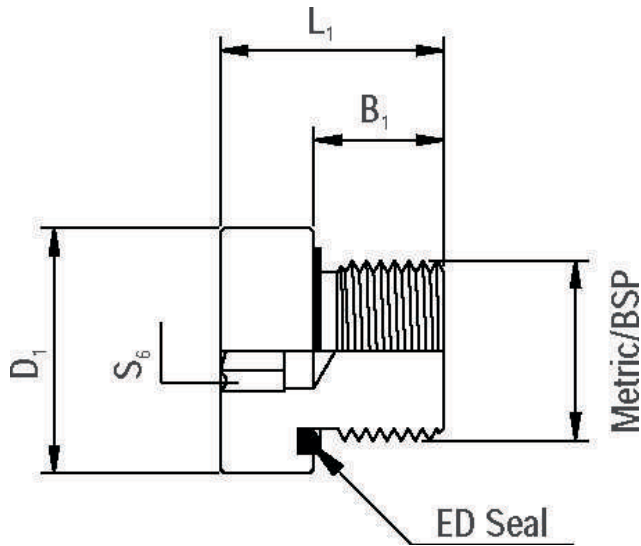
SAE 140238



SAE 140438

F <sub>1</sub> NPT	L <sub>1</sub>	S <sub>3</sub> A/F	Part No.	Part No.	Bar
1/8	17	14	FEN1/8	FTN1/8	NP 350
1/4	22	19	FEN1/4	FTN1/4	
3/8	26	22	FEN3/8	FTN3/8	NP 315
1/2	31	27	FEN1/2	FTN1/2	NP 210
3/4	34.5	33	FEN3/4	FTN3/4	
1	34.5	41	FEN1	FTN1	NP 120
1-1/4	34.5	48	FEN1-1/4	FTN1-1/4	NP 105
1-1/2	34.5	64	FEN1-1/2	FTN1-1/2	

# VSTI - BLANKING PLUGS FOR PORT PARALLEL



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRVSTI1/8ED
SS304	S4	S4VSTI1/8ED
SS316	S6	S6VSTI1/8ED

Thread Metric	Thread BSP	$B_1$	$D_1$	$L_1$	$S_6$	Part No. in Metric	Part No. in BSP	Bar
M10x1	1/8	8	14	12	5	VSTI-M10ED	<b>VSTI1/8ED</b>	NP 400
M12x1.5	-	12	17	17	6	VSTI-M12ED	-	
M14x1.5	1/4	12	19	17	6	VSTI-M14ED	<b>VSTI1/4ED</b>	
M16x1.5	3/8	12	22	17	8	VSTI-M16ED	<b>VSTI3/8ED</b>	
M18x1.5	-	12	24	17	8	VSTI-M18ED	-	
M20x1.5	-	14	26	19	10	VSTI-M20ED	-	
M22x1.5	1/2	14	27	19	10	VSTI-M22ED	<b>VSTI1/2ED</b>	
M26x1.5	-	16	32	21	12	VSTI-M26ED	-	
M27x2	3/4	16	32	21	12	VSTI-M27ED	<b>VSTI3/4ED</b>	
M33x2	1	16	40	22.5	17	VSTI-M33ED	<b>VSTI1ED</b>	
M42x2	1-1/4	16	50	22.5	22	VSTI-M42ED	<b>VSTI1-1/4ED</b>	NP 250
M48x2	1-1/2	16	55	22.5	24	VSTI-M48ED	<b>VSTI1-1/2ED</b>	

ED Seal : Buna-N is Standard.



# JIC 37° FITTINGS INDEX

**JIC-Nut**



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**JIC-FERRULE**



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**JIC-Union**



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**JIC-Equal Elbow**



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**JIC-37° Equal TEE**



Page No. **B5**

**JIC-37° Equal Cross**



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**JIC-37° Bulkhead Union**



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**JIC-37° Bulkhead Elbow**



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**JIC-37° Male Stud Coupling BSP**



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**JIC-37° Male Stud Coupling NPT**



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**JIC-37° Male Stud Coupling UNF**



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**JIC-37° Male Stud Elbow NPT**



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**JIC-37° 45° Male Stud Elbow NPT**



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**JIC-Swivel Nut Elbow**



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**JIC-45° Swivel Nut Elbow**



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**JIC-Swivel Nut Branch TEE**



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**JIC-Swivel NUT Run TEE**



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**JIC-Swivel Male Stud Coupling**



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**JIC-37° Swivel Connector NPT**



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**JIC-37° Female Connector NPT**



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# JIC 37° FITTINGS INDEX

**JIC-37° Male Stud  
Branch TEE NPT**



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**JIC-37° Male Stud  
Run TEE NPT**



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**JIC-37° Female Stud  
Branch TEE NPT**



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**JIC-37° Female Elbow  
Connector NPT**



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**JIC-37° Female Run  
TEE NPT**



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**JIC-37° Male Stud  
Elbow**



Page No. **B26**

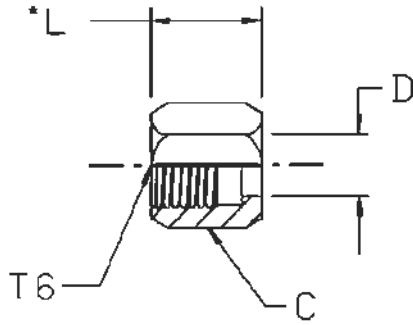
**JIC-37° Female Bulkhead  
Connector NPT**



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# JICM - NUT

DSH



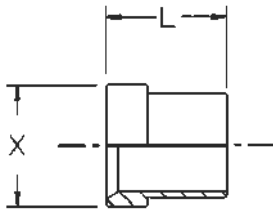
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICM06MM
SS304	S4	S4JICM06MM
SS316	S6	S6JICM06MM

Tube 1 O.D.		Thread UN/UNF-2A	C	D	L	PART NO.
mm	In.	T6	mm	mm	mm	
6	1/4	7/16-20	14	8	15.5	JICM06MM
8	5/16	1/2-20	17	10	17	JICM08MM
10	3/8	9/16-18	19	11	18	JICM10MM
12	1/2	3/4-16	22	14.5	21	JICM12MM
14, 15, 16	5/8	7/8-14	27	18	24.5	JICM7/8-14
18, 20	3/4	1-1/16-12	32	22	26	JICM1-1/16
25	1	1-5/16-12	41	28	28	JICM1-5/16
28, 30, 32	1-1/4	1-5/8-12	50	34	33	JICM1-5/8
35, 38	1-1/2	1-7/8-12	60	41	38	JICM1-7/8
42		2-1/4-12	65	48	40	JICM2-1/4

Dimensions are for reference only and are subject to change without Notice

# JICD - FERRULE

DSH

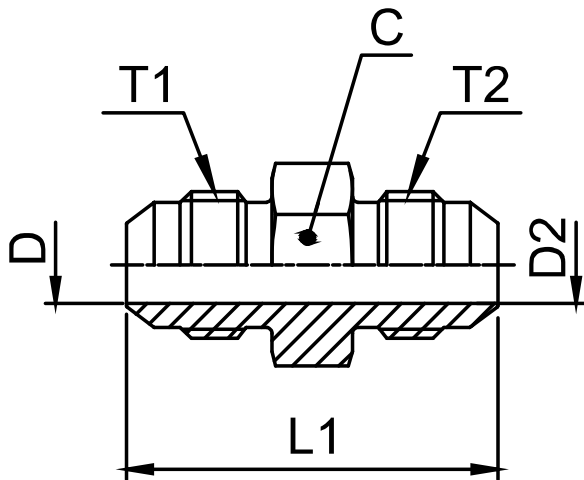


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICD06MM
SS304	S4	S4JICD06MM
SS316	S6	S6JICD06MM

TUBE OD	DIMENSIONS IN INCH		PART NO.
	L	X	
mm	mm	mm	
6	10	9.5	JICD06MM
8	11	11	JICD08MM
10	12.5	12.5	JICD10MM
12	14	17	JICD12MM
14	17	20	JICD14MM
15	17	20	JICD15MM
16	17	20	JICD16MM
18	17.5	24.5	JICD18MM
20	17.5	24.5	JICD20MM
22	19	28	JICD22MM
25	20	31	JICD25MM
28	23	39	JICD28MM
30	23	39	JICD30MM
32	23	39	JICD32MM
35	28.5	45	JICD35MM
38	28.5	45	JICD38MM
42	29	55	JICD42MM

TUBE OD	DIMENSIONS IN INCH		PART NO.
	L	X	
in.	mm	mm	
1/4	10.5	10	JICD1/4
5/16	11	11.5	JICD5/16
3/8	12.5	13	JICD3/8
1/2	14	17	JICD1/2
5/8	17	20	JICD5/8
3/4	17	24.5	JICD3/4
1	20	31	JICD1
1-1/4	23	39	JICD1-1/4
1-1/2	28	45	JICD1-1/2
2	30	61	JICD2

# JICG - UNION



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICG7/16
SS304	S4	S4JICG7/16
SS316	S6	S6JICG7/16

Tube 1 O.D.		Tube 2 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C	D	D2	L1	PART NO.	BAR
mm	In.	mm	In.	T1	T2	mm	mm	mm	mm		
6	1/4	6	1/4	7/16-20	7/16-20	14	4.5	4.5	35	JICG7/16	NP 500
8	5/16	8	5/16	1/2-20	1/2-20	14	6	6	35	JICG1/2	NP 420
10	3/8	10	3/8	9/16-18	9/16-18	17	7.5	7.5	36	JICG9/16	
12	1/2	12	1/2	3/4-16	3/4-16	19	9.9	9.9	41	JICG3/4	
14,15,16	5/8	14,15,16	5/8	7/8-14	7/8-14	24	12	12	48	JICG7/8	NP 350
18,20	3/4	18,20	3/4	1-1/16-12	1-1/16-12	27	15.5	15.5	55	JICG1-1/16	
22	7/8	22	7/8	1-3/16-12	1-3/16-12	32	18	18	56	JICG1-3/16	
25	1	25	1	1-5/16-12	1-5/16-12	36	21.5	21.5	57	JICG1-5/16	NP 280
28,30, 32	1-1/4	28,30, 32	1-1/4	1-5/8-12	1-5/8-12	46	27.5	27.5	62	JICG1-5/8	
35,38	1-1/4	35,38	1-1/2	1-7/8-12	1-7/8-12	50	33	33	70	JICG1-7/8	
42	2	42	2	2-1/4-12	2-1/4-12	60	39	39	71.5	JICG2-1/4	NP 140
				2-1/2-12	2-1/2-12	67	45	45	86.5	JICG2-1/2	

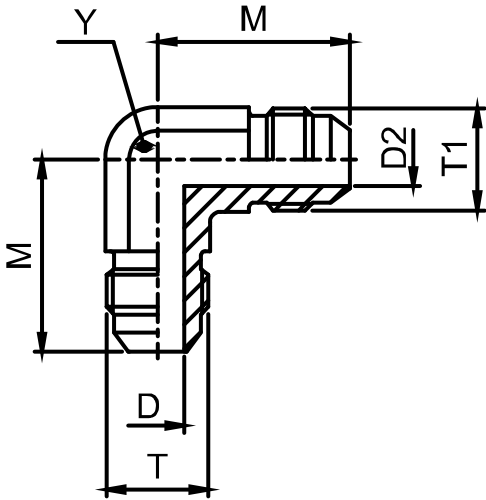
# JICGR - REDUCER UNION



Tube 1 O.D.		Tube 2 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C	D	D2	L1	PART NO.	BAR
mm	In.	mm	In.	T1	T2	mm	mm	mm	mm		
8	5/16	6	1/4	1/2-20	7/16-20	14	6	4.5	35	JICGR7/16x1/2	NP 420
10	3/8	6	1/4	9/16-18	7/16-20	17	7.5	4.5	35.5	JICGR7/16x9/16	
10	3/8	8	5/16	9/16-18	1/2-20	17	7.5	6	36	JICGR1/2x9/16	
12	1/2	6	1/4	3/4-16	7/16-20	20.6	9.9	4.5	38.5	JICGR7/16x3/4	
12	1/2	10	3/8	3/4-16	9/16-18	20.6	9.9	7.5	38.5	JICGR9/16x3/4	
14,15,16	5/8	10	3/8	7/8-14	9/16-18	24	12.3	7.5	43	JICGR9/16x7/8	NP 350
14,15,16	5/8	12	1/2	7/8-14	3/4-16	23.8	12.3	9.9	45	JICGR3/4x7/8	
18,20	3/4	12	1/2	1-1/16-12	3/4-16	28.5	15.5	9.9	49.5	JICGR3/4x1-1/16	
20	3/4	14,15,16	5/8	1-1/16-12	7/8-14	27	15.5	12.3	52	JICGR7/8x1-1/16	NP 280
25	1	20	3/4	1-5/16-12	1-1/16-12	36	21.5	15.5	56	JICGR1-1/16x1-5/16	
28,30, 32	1-1/4	18,20	3/4	1-5/8-12	1-1/16-12	46	27.5	15.5	59.5	JICGR1-1/16x1-5/8	
28,30, 32	1-1/4	25	1	1-5/8-12	1-5/16-12	46	27.5	21.5	60.5	JIGR1-5/16x1-5/8	

Dimensions are for reference only and are subject to change without Notice

# JICW - EQUAL ELBOW



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICW7/16
SS304	S4	S4JICW7/16
SS316	S6	S6JICW7/16

Tube 1 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	D	D2	M	M1	Y	PART NO.	BAR
mm	In.	T	T1	mm	mm	mm	mm	mm		
6	1/4	7/16-20	7/16-20	4.4	4.4	22.5	22.5	11	JICW7/16	NP 500
8	5/16	1/2-20	1/2-20	6	6	24	24	13	JICW1/2	NP 420
10	3/8	9/16-18	9/16-18	7.5	7.5	27	27	14	JICW9/16	
12	1/2	3/4-16	3/4-16	9.9	7.5	32	29	19	JICW3/4	
14,15,16	5/8	7/8-14	7/8-14	12.3	12.3	37	37	22	JICW7/8	NP 350
18,20	3/4	1-1/16-12	1-1/16-12	15.5	15.5	42	42	27	JICW1-1/16	
22	7/8	1-3/16-12	1-3/16-12	18.3	18.3	45.5	45.5	30	JICW1-3/16	
22,25	1	1-5/16-12	1-5/16-12	21.5	21.5	46	46	33	JICW1-5/16	NP 280
28,30, 32	1-1/4	1-5/8-12	1-5/8-12	27.5	27.5	52	52	41	JICW1-5/8	
35,38	1-1/2	1-7/8-12	1-7/8-12	33	33	59	59	48	JICW1-7/8	NP 210
42	1-3/4	2-1/4-12	2-1/4-12	39	39	74	74	63	JICW2-1/4	NP 140
42	2	2-1/2-12	2-1/2-12	45	45	78	78	64	JICW2-1/2	

# JICWR - UNEQUAL ELBOW

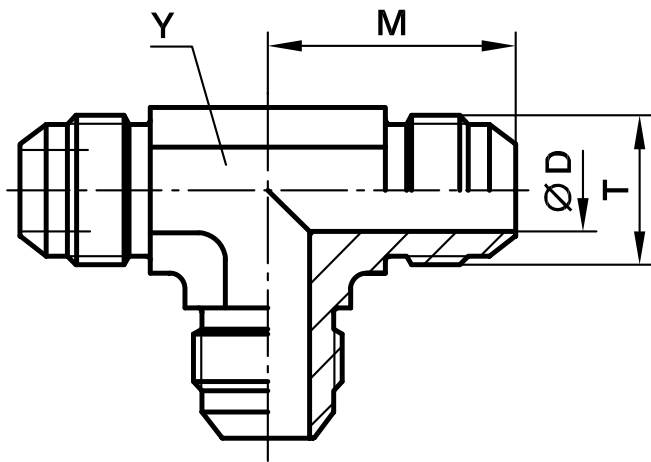


Tube 1 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	D	D2	M	M1	Y	PART NO.	BAR
mm	In.	T	T1	mm	mm	mm	mm	mm		
10	3/8	9/16-18	7/16-20	7.5	4.4	27	27	14	JICWR9/16x7/16	NP 420
12	1/2	3/4-16	3/8-24	9.9	9.9	32	32	19	JICWR3/4x3/4	
14,15,16	5/8	7/8-14	3/4-16	12.3	9.9	37	34	22	JICWR7/8x3/4	NP 350
18,20	3/4	1-1/16-12	3/4-16	15.5	9.9	42	36	27	JICWR1-1/16x3/4	
18,20	3/4	1-1/16-12	7/8-14	15.5	12.3	42	39	27	JICWR1-1/16x7/8	
22,25	1	1-5/16-12	1-1/16-12	21.5	15.5	46	45	33	JICWR1-5/16x1-1/16	NP 280

Dimensions are for reference only and are subject to change without Notice

# JICT - 37° FLARE EQUAL TEE

DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICT7/16
SS304	S4	S4JICT7/16
SS316	S6	S6JICT7/16

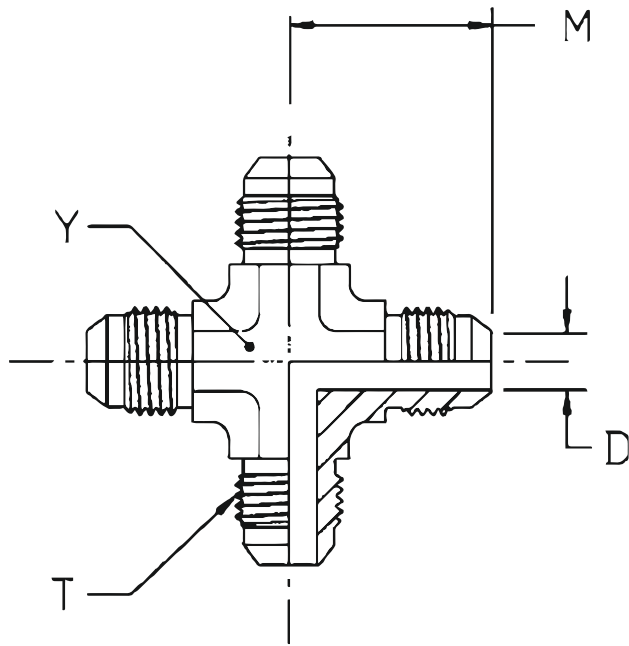
Tube O.D.		Thread UN/UNF-2A T	D mm	M mm	Y mm	PART NO.	BAR
mm	In.						
6	1/4	7/16-20	4.4	22.5	11	JICT7/16	NP 500
8	5/16	1/2-20	6	24	13	JICT1/2	NP 420
10	3/8	9/16-18	7.5	27	14	JICT9/16	
12	1/2	3/4-16	9.9	32	19	JICT3/4	
14,15,16	5/8	7/8-14	12.3	27	22	JICT7/8	NP 350
18,20	3/4	1-1/16-12	15.5	42	27	JICT1-1/16	
22	7/8	1-3/16-12	18	45.8	33	JICT1-3/16	NP 280
25	1	1-5/16-12	21.5	46	33	JICT1-5/16	
28,30,32	1-1/4	1-5/8-12	27.5	52	41	JICT1-5/8	
35,38	1-1/2	1-7/8-12	33	59	48	JICT1-7/8	NP 210
42	1-3/4	2-1/4-12	39	74.5	63	JICT2-1/4	NP 140
42	2	2-1/2-12	45	78	63.5	JICT2-1/2	

Dimensions are for reference only and are subject to change without Notice



# JICK - 37° FLARE EQUAL CROSS

DSH

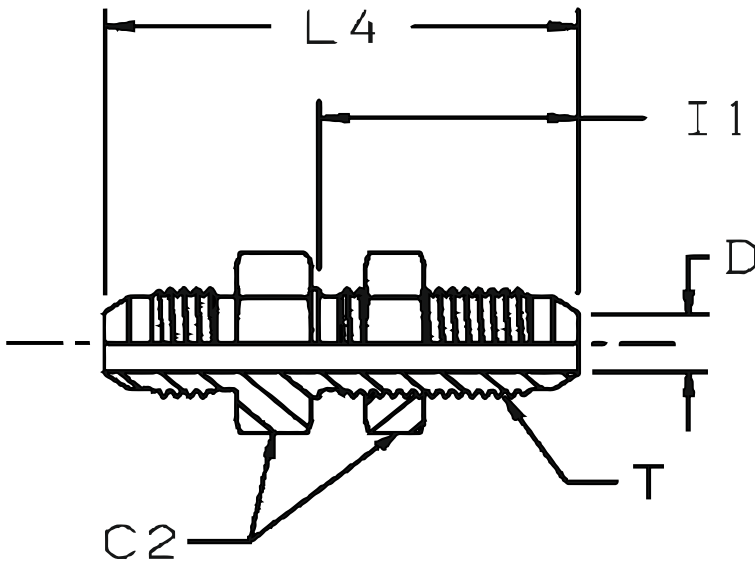


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICK7/16
SS304	S4	S4JICK7/16
SS316	S6	S6JICK7/16

Tube O.D.		Thread UN/UNF-2A	D	M	Y	PART NO.	BAR
mm	In.	T	mm	mm	mm		
6	1/4	7/16-20	4.4	22.5	11	JICK7/16	NP 500
8	5/16	1/2-20	6	24	14	JICK1/2	NP 420
10	3/8	9/16-18	7.5	27	14	JICK9/16	
12	1/2	3/4-16	9.9	31.8	19	JICK3/4	
14,15,16	5/8	7/8-14	12	37	22	JICK7/8	NP 350
18,20	3/4	1-1/16-12	15.5	42	27	JICK1-1/16	
25	1	1-5/16-12	21.5	46	33	JICK1-5/16	NP 280

Dimensions are for reference only and are subject to change without Notice

# JICSV - 37° FLARE BULKHEAD UNION



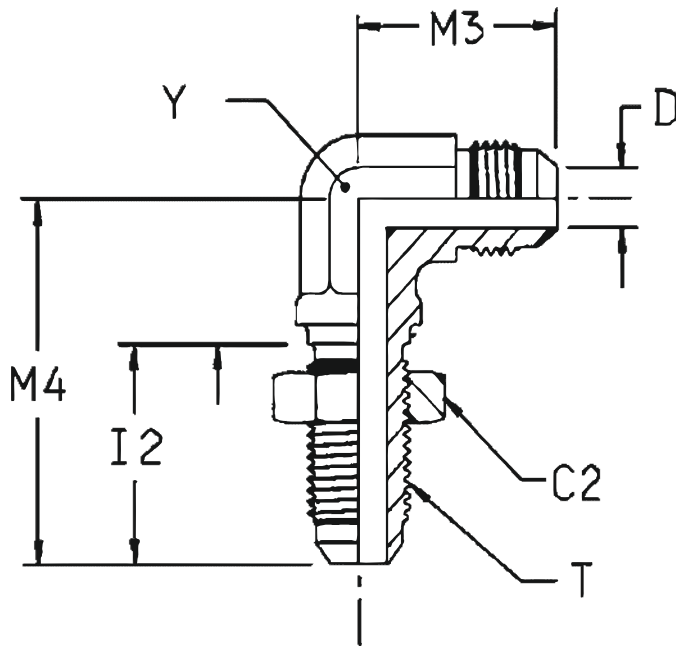
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICSV7/16
SS304	S4	S4JICSV7/16
SS316	S6	S6JICSV7/16

Tube O.D.		Thread UN/UNF-2A	C2	D	I1	L4	PART NO.	BAR
mm	In.	T	mm	mm	mm	mm		
6	1/4	7/16-20	17	4.4	30.5	52.5	JICSV7/16	NP 500
8	5/16	1/2-20	19	6	30.5	52.5	JICSV1/2	NP 420
10	3/8	9/16-18	22	7.5	32.5	55.5	JICSV9/16	
12	1/2	3/4-16	24	9.9	36.5	62	JICSV3/4	
14,15,16	5/8	7/8-14	30	12.3	40	70	JICSV7/8	NP 350
18,20	3/4	1-1/16-12	36	15.5	44.5	78.5	JICSV1-1/16	
22	7/8	1-3/16-12	38	18.3	44.5	79.3	JICSV1-3/16	NP 280
25	1	1-5/16-12	41	21.5	44.5	80	JICSV1-5/16	
28,30,32	1-1/4	1-5/8-12	50	27.5	46	84	JICSV1-5/8	
35,38	1-1/2	1-7/8-12	55	33	46	89.5	JICSV1-7/8	NP 210

Dimensions are for reference only and are subject to change without Notice

# JICWSV - 37° FLARE BULKHEAD ELBOW

DSH

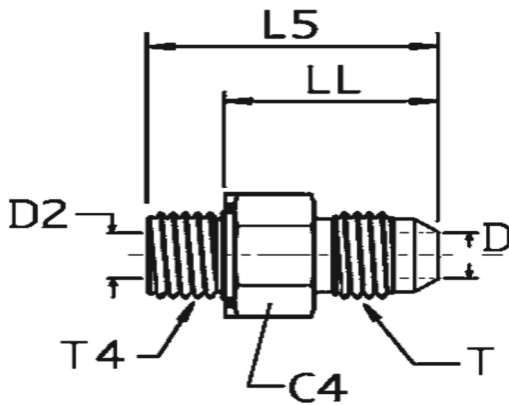


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICWSV7/16
SS304	S4	S4JICWSV7/16
SS316	S6	S6JICWSV7/16

Tube O.D.		Thread UN/UNF-2A	C2	D	I2	M3	M4	Y	PART NO.	BAR
mm	In.	T	mm	mm	mm	mm	mm	mm		
6	1/4	7/16-20	17.5	4.4	23	25	40	11	JICSV7/16	NP 500
8	5/16	1/2-20	19	6	26	27	44	14	JICSV1/2	NP 420
10	3/8	9/16-18	22	7.5	28	28	46	14	JICSV9/16	
12	1/2	3/4-16	24	9.9	32	34.5	54	19	JICSV3/4	
14,15,16	5/8	7/8-14	30	12	35	40	61	22	JICSV7/8	NP 350
18,20	3/4	1-1/16-12	36	15.5	40	45	68	27	JICSV1-1/16	
22	7/8	1-3/16-12	38	18.3	40	49	71	33	JICSV1-3/16	NP 280
25	1	1-5/16-12	41	21.5	40	49	71	33	JICSV1-5/16	
28,30,32	1-1/4	1-5/8-12	47.6	27.4	41	55	79	41	JICSV1-5/8	

Dimensions are for reference only and are subject to change without Notice

# JICGE - 37° FLARE MALE STUD COUPLING BSP



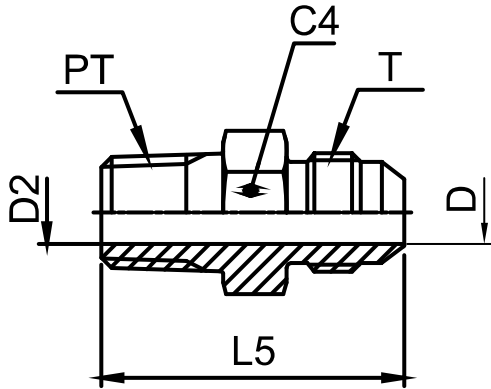
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICGE7/16x1/8
SS304	S4	S4JICGE7/16x1/8
SS316	S6	S6JICGE7/16x1/8

Tube O.D.		Thread BSP	Thread UN/UNF-2A	C4	D	D2	L5	LL	PART NO.	BAR
mm	In.	T4	T	mm	mm	mm	mm	mm		
6	1/4	1/8-28	7/16-20	17	4.4	4.4	28	21	JICGE7/16x1/8	NP 350
6	1/4	1/4-19	7/16-20	19	4.4	4.4	32	21	JICGE7/16x1/4	
6	1/4	3/8-19	7/16-20	22	4.4	4.4	33	22	JICGE7/16x3/8	
8	5/16	1/8-28	1/2-20	17	6	4.4	28	21	JICGE1/2x1/8	
8	5/16	1/4-19	1/2-20	19	6	6	32	21	JICGE1/2x1/4	
8	5/16	3/8-18	1/2-20	22	6	6	33	22	JICGE1/2x3/8	
10	3/8	1/8-28	9/16-18	17	7.5	4.4	29	21	JICGE9/16x1/8	
10	3/8	1/4-19	9/16-18	19	7.5	6	32.5	22	JICGE9/16x1/4	
10	3/8	3/8-19	9/16-18	22	7.5	7.5	33	22	JICGE9/16x3/8	
10	3/8	1/2-14	9/16-18	30	7.5	7.5	38	23.5	JICGE9/16x1/2	
10	3/8	3/4-14	9/16-18	36	7.5	7.5	39.5	25	JICGE9/16x3/4	NP 280
12	1/2	1/4-19	3/4-16	19	9.9	6	41	24	JICGE3/4x1/4	NP 350
12	1/2	3/8-19	3/4-16	22	9.9	9.9	36	25	JICGE3/4x3/8	
12	1/2	1/2-14	3/4-16	30	9.9	9.9	41	27	JICGE3/4x1/2	
12	1/2	3/4-14	3/4-16	36	9.9	9.9	42	28.5	JICGE3/4x3/4	NP 280
14,15,16	5/8	1/2-14	7/8-14	30	12.3	12.3	43	28.5	JICGE7/8x1/2	NP 350
14,15,16	5/8	3/4-14	7/8-14	36	12.3	12.3	45	30.5	JICGE7/8x3/4	NP 280
18,20	3/4	3/4-14	1-1/16-12	36	15.5	15.5	47.5	33	JICGE1-1/16x3/4	
18,20	3/4	1-11	1-1/16-12	46	15.5	15.5	52.5	34	JICGE1-1/16x1	
25	1	3/4-14	1-5/16-12	36	21.5	15.5	48.5	34	JICGE1-5/16x3/4	
25	1	1-11	1-5/16-12	46	21.5	21.5	53.5	35	JICGE1-5/16x1	
25	1	1-1/4-11	1-5/16-12	50	27.5	27.5	56	37.5	JICGE1-5/16x1-1/4	NP 250
28,30,32	1-1/4	1-11	1-5/8-12	46	27.5	15.5	51	37	JICGE1-5/8x1	NP 280
28,30,32	1-1/4	1-1/4-11	1-5/8-12	50	27.5	27.5	56	37.5	JICGE1-5/8x1-1/4	
35,38	1-1/2	1-1/4-11	1-7/8-12	55	33	27.5	60.5	42	JICGE1-7/8x1-1/4	NP 210
35,38	1-1/2	1-1/2-11	1-7/8-12	55	33	33	61	42.5	JICGE1-7/8x1-1/2	
28,30,32	1-1/4	1-1/2-11	1-5/8-12	50	27.5	27.5	57	38.5	JICGE1-5/8x1-1/2	
42	1-1/2	1-1/2-11	2-1/4	60	39	33	67.5	49	JICGE2-1/4x1-1/2	NP 140

Dimensions are for reference only and are subject to change without Notice

# JICGE - 37° FLARE MALE STUD COUPLING NPT

DSH



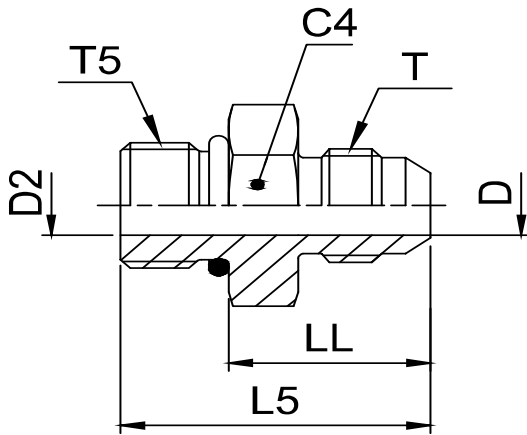
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICGE7/16x1/8NPT
SS304	S4	S4JICGE7/16x1/8NPT
SS316	S6	S6JICGE7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	C4	D	D2	L5	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	13	4.4	4.4	31	JICGE7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	14	4.4	4.4	36	JICGE7/16x1/4NPT	
6	1/4	3/8-18	7/16-20	19	4.4	4.4	36.5	JICGE7/16x3/8NPT	
8	5/16	1/8-27	1/2-20	14	6	5	31	JICGE1/2x1/8NPT	
8	5/16	1/4-18	1/2-20	14	6	6	36	JICGE1/2x1/4NPT	
8	5/16	3/8-18	1/2-20	19	6	6	36	JICGE1/2x3/8NPT	
10	3/8	1/4-18	9/16-18	17	7.5	7.5	36.5	JICGE9/16x1/4NPT	
10	3/8	3/8-18	9/16-18	19	7.5	7.5	36.5	JICGE9/16x3/8NPT	
10	3/8	1/2-14	9/16-18	22	7.5	7.5	43	JICGE9/16x1/2NPT	
12	1/2	1/4-18	3/4-16	19	9.9	7	39	JICGE3/4x1/4NPT	
12	1/2	3/8-18	3/4-16	19	9.9	9.9	39	JICGE3/4x3/8NPT	
12	1/2	1/2-14	3/4-16	22	9.9	9.9	45.5	JICGE3/4x1/2NPT	
12	1/2	3/4-14	3/4-16	27	9.9	9.9	47	JICGE3/4x3/4NPT	NP 380
14,15,16	5/8	1/2-14	7/8-14	24	12.3	12.3	48	JICGE7/8x1/2NPT	NP 350
14,15,16	5/8	3/4-14	7/8-14	27	12.3	12.3	49.5	JICGE7/8x3/4NPT	
18,20	3/4	3/4-14	1-1/16-12	27	15.5	15.5	53	JICGE1-1/16x3/4NPT	NP 310
18,20	3/4	1-11.5	1-1/16-12	35	15.5	15.5	57	JICGE1-1/16x1NPT	
22	7/8	3/4-14	1-3/16-12	31.7	18.3	18.3	53	JICGE1-3/16x3/4NPT	NP 280
25	1	3/4-14	1-5/16-12	36	21.5	18	53.5	JICGE1-5/16x3/4NPT	
25	1	1-11.5	1-5/16-12	36	21.5	21.5	58.5	JICGE1-5/16x1NPT	
25	1	1-1/4-11.5	1-5/16-12	47.6	21.4	21.4	54	JICGE1-5/16x1-1/4NPT	
28,30,32	1-1/4	1-11.5	1-5/8-12	43	27.5	23.8	61.5	JICGE1-5/8x1NPT	NP 280
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	46	27.5	32	62	JICGE1-5/8x1-1/4NPT	NP 210
35,38	1-1/2	1-1/4-11.5	1-7/8-12	51	33.3	31.7	67.5	JICGE1-7/8x1-1/4NPT	NP 210
35,38	1-1/2	1-1/2-11.5	1-7/8-12	50	33	38	68	JICGE1-7/8x1-1/2NPT	
35,38	1-1/2	2-11.5	1-7/8-12	66.7	33.3	33.3	72.5	JICGE1-7/8x2NPT	NP 140
	2	1-1/2-11.5	2-1/2-12	66.7	45.2	38	78	JICGE2-1/2x1-1/2NPT	
	2	2-11.5	2-1/2-12	66.7	45.2	45.2	79	JICGE2-1/2x2NPT	

Dimensions are for reference only and are subject to change without Notice

# JICGEU - 37° FLARE MALE STUD COUPLING UNF

DSH



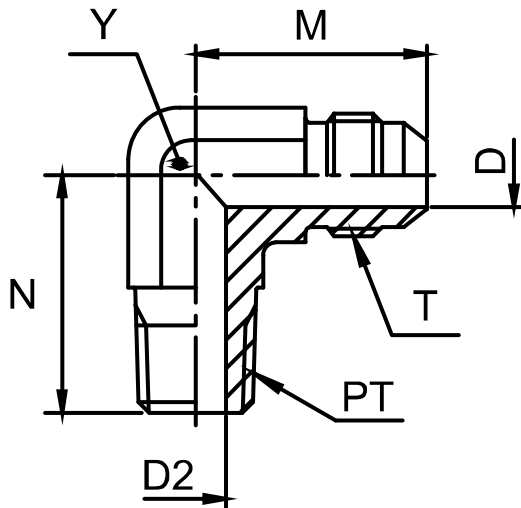
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICGEU7/16x7/16-20UNF
SS304	S4	S4JICGEU7/16x7/16-20UNF
SS316	S6	S6JICGEU7/16x7/16-20UNF

Tube O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C4	D	D2	L5	LL	PART NO.	BAR
mm	In.	T5	T	mm	mm	mm	mm	mm		
6	1/4	7/16-20	7/16-20	14.3	4.4	4.4	31	22	JICGEU7/16x7/16-20UNF	NP 500
6	1/4	3/8-24	7/16-20	14.3	4.4	3	30	23	JICGEU7/16x3/8-20UNF	
6	1/4	1/2-20	7/16-20	16	4.4	4.4	31	22	JICGEU7/16x1/2-20UNF	
6	1/4	9/16-18	7/16-20	17	4.4	4.4	33	23	JICGEU7/16x9/16-20UNF	NP 420
8	5/16	1/2-20	1/2-20	17	6	6	31	22	JICGEU1/2x1/2-20UNF	
8	5/16	7/16-20	1/2-20	14	6	4.5	31	22	JICGEU1/2x7/16-20UNF	
8	5/16	9/16-18	1/2-20	17.5	6	6	33	23	JICGEU1/2x9/16-20UNF	
10	3/8	9/16-18	9/16-18	17	7.5	7.5	33	23	JICGEU9/16x9/16-18UNF	
10	3/8	7/16-20	9/16-18	16	7.5	4.4	32	23	JICGEU9/16x7/16-18UNF	
10	3/8	1/2-20	9/16-18	16	7.5	6	32	23	JICGEU9/16x1/2-18UNF	
10	3/8	3/4-16	9/16-18	22	7.5	7.5	35	24	JICGEU9/16x3/4-18UNF	
12	1/2	3/4-16	3/4-16	22	9.9	9.9	38	27	JICGEU3/4x3/4-16UNF	
12	1/2	7/16-20	3/4-16	20.5	9.9	4.4	38	29	JICGEU3/4x7/16-16UNF	
12	1/2	7/8-14	3/4-16	27	9.9	9.9	41	28	JICGEU3/4x7/8-16UNF	NP 350
12	1/2	1-1/16-12	3/4-16	32	9.9	9.9	45	30	JICGEU3/4x1-1/16-16UNF	
14,15,16	5/8	7/8-14	7/8-14	27	12.3	12.3	43	30.5	JICGEU7/8x7/8-14UNF	
14,15,16	5/8	3/4-16	7/8-14	24	12.3	9.9	42	30.5	JICGEU7/8x3/4-14UNF	
14,15,16	5/8	1-1/16-12	7/8-14	32	12.3	12.3	47	32	JICGEU7/8x1-1/16-14UNF	
18,20	3/4	1-1/16-12	1-1/16-12	32	15.5	15.5	50	35	JICGEU1-1/16x1-1/16-12UNF	
18,20	3/4	3/4-16	1-1/16-12	28.6	15.5	9.9	49	38	JICGEU1-1/16x3/4-12UNF	NP 310
18,20	3/4	1-5/16-12	1-1/16-12	38	15.5	21.5	50.5	35.5	JICGEU1-1/16x1-5/16-12UNF	
18,20	3/4	1-5/8-12	1-1/16-12	47.6	15.5	15.5	53	38	JICGEU1-1/16x1-5/8-12UNF	
22	7/8	1-3/16-12	1-3/16-12	35	18.2	18.2	51	36	JICGEU1-3/16x1-3/16-12UNF	NP 280
25	1	1-5/16-12	1-5/16-12	41	21.5	21.5	52	36.5	JICGEU1-5/16x1-5/16-12UNF	
25	1	3/4-16	1-5/16-12	35	21.4	9.9	45	34	JICGEU1-5/16x3/4-12UNF	

Dimensions are for reference only and are subject to change without Notice

# JICWE - 37° FLARE MALE STUD ELBOW NPT

DSH



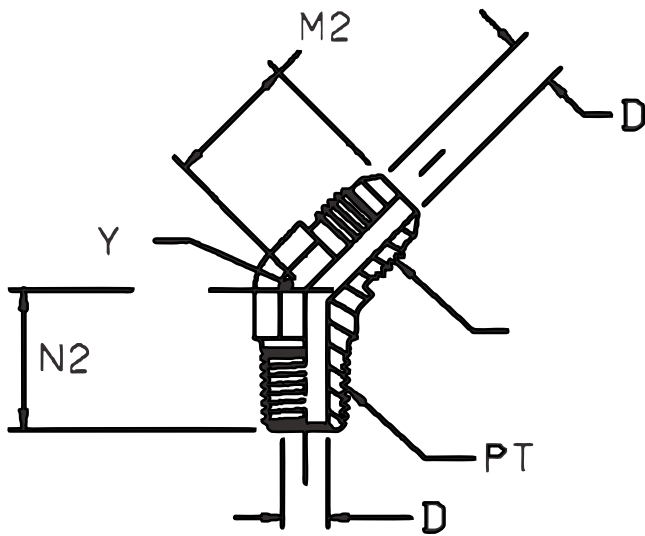
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICWE7/16x1/8NPT
SS304	S4	S4JICWE7/16x1/8NPT
SS316	S6	S6JICWE7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	D	D2	M	N	Y	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	4.4	5	23	20	11	JICWE7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	4.4	7	27	28	14	JICWE7/16x1/4NPT	
6	1/4	3/8-18	7/16-20	4.4	10.3	28	31	19	JICWE7/16x3/8NPT	
6	1/4	1/2-14	7/16-20	4.4	13.5	31	37	22	JICWE7/16x1/2NPT	
8	5/16	1/8-27	1/2-20	6	4.8	24	20	14	JICWE1/2x1/8NPT	
8	5/16	1/4-18	1/2-20	6	7.15	27	28	14	JICWE1/2x1/4NPT	
8	5/16	3/8-18	1/2-20	6	10.3	29	31	19	JICWE1/2x3/8NPT	
10	3/8	1/8-27	9/16-18	7.5	4.8	27	23	14	JICWE9/16x1/8NPT	
10	3/8	1/4-18	9/16-18	7.5	7	27	28	14	JICWE9/16x1/4NPT	
10	3/8	3/8-18	9/16-18	7.5	10	29	31	19	JICWE9/16x3/8NPT	
10	3/8	1/2-14	9/16-18	7.5	13.5	31	37	22	JICWE9/16x1/2NPT	
12	1/2	1/4-18	3/4-16	9.9	7	32	31	19	JICWE3/4x1/4NPT	
12	1/2	3/8-18	3/4-16	9.9	10	32	31	19	JICWE3/4x3/8NPT	
12	1/2	1/2-14	3/4-16	9.9	13.5	34	37	22	JICWE3/4x1/2NPT	
12	1/2	3/4-14	3/4-16	9.9	18.3	36	40	27	JICWE3/4x3/4NPT	NP 280
14,15,16	5/8	1/2-14	7/8-14	12.3	13.5	37	37	22	JICWE7/8x1/2NPT	NP 350
14,15,16	5/8	3/4-14	7/8-14	12.3	18	39	40	27	JICWE7/8x3/4NPT	NP 280
18,20	3/4	3/4-14	1-1/16-12	15.5	18.3	42	40	27	JICWE1-1/16x3/4NPT	NP 210
18,20	3/4	1-11.5	1-1/16-12	15.5	23.8	45	50	33	JICWE1-1/16x1NPT	NP 280
22	7/8	3/4-14	1-3/16-12	18.3	18.3	46	48	33.4	JICWE1-3/16x3/4NPT	NP 210
25	1	1-11.5	1-5/16-12	21.5	23.8	46	50	33.4	JICWE1-5/16x1NPT	NP 170
25	1	1-1/4-11.5	1-5/16-12	21.5	31.8	51	61	41	JICWE1-5/16x1-1/4NPT	NP 170
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	27.4	31.8	52	61	41	JICWE1-5/8x1-1/4NPT	NP 170
28,30,32	1-1/4	1-1/2-11.5	1-5/8-12	27.4	38	56	67	48	JICWE1-5/8x1-1/2NPT	NP 140
35,38	1-1/2	1-1/4-11.5	1-7/8-12	33.3	31.8	59	57	48	JICWE1-7/8x1-1/4NPT	NP 140
35,38	1-1/2	1-1/2-11.5	1-7/8-12	33.3	38	59	67	48	JICWE1-7/8x1-1/2NPT	NP 140
35,38	2	2-11.5	2-1/2-12	45.2	49.2	78	76	64	JICWE2-1/2x2NPT	NP 140
35,38	2	1-1/2-11.5	2-1/2-12	45.2	38	78	75	64	JICWE2-1/2x1-1/2NPT	NP 140

Dimensions are for reference only and are subject to change without Notice



# JICWE - 37° FLARE 45° MALE STUD ELBOW NPT



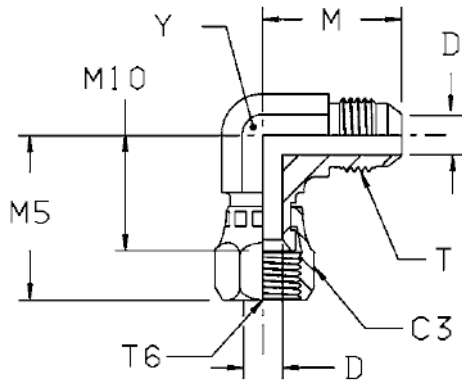
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICWE45°7/16x1/8NPT
SS304	S4	S4JICWE45°7/16x1/8NPT
SS316	S6	S6JICWE45°7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	D	D2	M2	N2	Y	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	4.4	4.8	23	20	11	JICWE45°7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	4.4	7	27	28	14	JICWE45°7/16x1/4NPT	
6	1/4	3/8-18	9/16-18	4.4	10.3	28	31	19	JICWE45°7/16x3/8NPT	
8	5/16	1/8-27	1/2-20	6	4.8	24	20	14	JICWE45°1/2x1/8NPT	
8	5/16	1/4-18	1/2-20	6	7	27	28	14	JICWE45°1/2x1/4NPT	
10	3/8	1/8-27	9/16-18	7.5	4.7	27	23	14	JICWE45°9/16x1/8NPT	
10	3/8	1/4-18	9/16-18	7.5	7	27	28	14	JICWE45°9/16x1/4NPT	
10	3/8	3/8-18	9/16-18	7.5	10.3	29	31	19	JICWE45°9/16x3/8NPT	
10	3/8	1/2-14	9/16-18	7.5	13.5	31	37	22	JICWE45°9/16x1/2NPT	
12	1/2	3/8-18	3/4-16	9.9	7	32	31	19	JICWE45°3/4x1/4NPT	
12	1/2	1/4-18	3/4-16	9.9	10	32	31	19	JICWE45°3/4x3/8NPT	
12	1/2	1/2-14	3/4-16	9.9	13.5	34	37	22	JICWE45°3/4x1/2NPT	
12	1/2	3/4-14	3/4-16	9.9	18.3	36	40	27	JICWE45°3/4x3/4NPT	NP 280
14,15,16	5/8	1/2-14	7/8-14	12.3	13.5	37	37	22	JICWE45°7/8x1/2NPT	NP 350
14,15,16	5/8	3/4-14	7/8-14	12.3	18	39	40	27	JICWE45°7/8x3/4NPT	NP 280
18,20	3/4	3/4-14	1-1/16-12	15.5	18.3	42	40	27	JICWE45°1-1/16x3/4NPT	NP 210
18,20	3/4	1-11.5	1-1/16-12	15.5	23.8	45	50	33	JICWE45°1-1/16x1NPT	NP 210
25	1	3/4-14	1-5/16-12	21.4	31.8	51	61	41	JICWE45°5/16x1-1/4NPT	NP 170
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	27.4	31.8	52	61	41	JICWE45°1-5/8x1-1/4NPT	
35,38	1-1/2	1-1/2-11.5	1-7/8-12	33.3	38	45	45	47.6	JICWE45°1-5/8x1-1/2NPT	NP 210
35,38	2	2-11.5	2-1/2-12	45	49	56	54	63.5	JICWE45°1-5/8x2NPT	NP 210

Dimensions are for reference only and are subject to change without Notice

# JICEW - SWIVEL NUT ELBOW

DSH



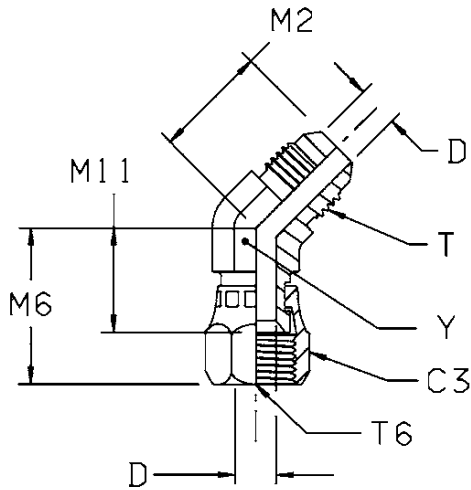
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICEW7/16-20
SS304	S4	S4JICEW7/16-20
SS316	S6	S6JICEW7/16-20

Tube 1 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C3	D	M	M5	M10	Y	PART NO.	BAR
mm	In.	T6	T6	mm	mm	mm	mm	mm	mm		
6	1/4	7/16-20	7/16-20	14	4.4	23	25	17	11	JICEW7/16	NP 500
8	5/16	1/2-20	1/2-20	17	6	24	25	17	13	JICEW1/2	NP 420
10	3/8	9/16-18	9/16-18	19	7.5	27	27	22	14	JICEW9/16	NP 350
12	1/2	3/4-16	3/4-16	22	9.9	32	34	24	19	JICEW3/4	NP 350
14, 15, 16	5/8	7/8-14	7/8-14	27	12	37	40	28	22	JICEW7/8	NP 350
18, 20	3/4	1-1/16-12	1-1/16-12	32	15.5	42	42	30	27	JICEW1-1/16	NP 350
22	7/8	1-3/16-12	1-3/16-12	35	18.3	46	45	34	33	JICEW1-3/16	NP 250
25	1	1-5/16-12	1-5/16-12	38	21.5	46	52	37	33	JICEW1-5/16	NP 250
28, 30, 32	1-1/4	1-5/8-12	1-5/8-12	50	27.5	52	59	43	41	JICEW1-5/8	NP 250
35, 38	1-1/2	1-7/8-12	1-7/8-12	57	33	59	67	47	48	JICEW1-7/8	NP 170
	2	2-1/2-12	2-1/2-12	73	45	78	87	62	64	JICEW2-1/2	NP 110

Dimensions are for reference only and are subject to change without Notice

# JICEW45\* - SWIVEL NUT ELBOW

DSH



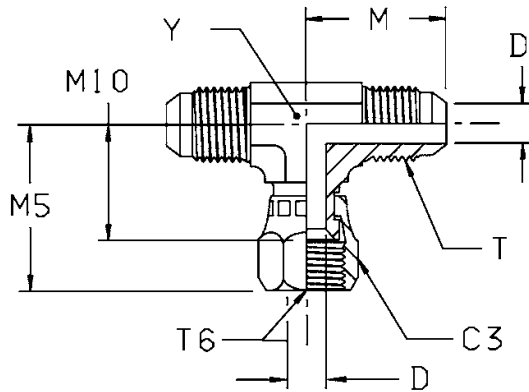
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICEW45°7/16-20
SS304	S4	S4JICEW45°7/16-20
SS316	S6	S6JICEW45°7/16-20

Tube 1 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C3	D	M2	M6	M11	Y	PART NO.	BAR
mm	In.	T6	T6	mm	mm	mm	mm	mm	mm		
6	1/4	7/16-20	7/16-20	14.3	4.4	18	24	15	11	JICEW45°7/16	NP 500
8	5/16	1/2-20	1/2-20	16	6	20	26	16	14	JICEW45°1/2	NP 420
10	3/8	9/16-18	9/16-18	19	7.5	21	29	19	14	JICEW45°9/16	NP 350
12	1/2	3/4-16	3/4-16	22	9.9	25	33	22	19	JICEW45°3/4	NP 350
14, 15, 16	5/8	7/8-14	7/8-14	27	12.3	28	37	24	22	JICEW45°7/8	NP 350
18, 20	3/4	1-1/16-12	1-1/16-12	32	15.5	33	38	24	27	JICEW45°1-1/16	NP 350
22	7/8	1-3/16-12	1-3/16-12	35	18.2	37	43	28	30	JICEW45°1-3/16	NP 250
25	1	1-5/16-12	1-5/16-12	38	21.4	37	46	30	33.3	JICEW45°1-5/16	NP 250
28, 30, 32	1-1/4	1-5/8-12	1-5/8-12	50.8	27.3	40	53	36	41	JICEW45°1-5/8	NP 250
35, 38	1-1/2	1-7/8-12	1-7/8-12	57	33.3	45	58	39	48	JICEW45°1-7/8	NP 170
	2	2-1/2-12	2-1/2-12	73	45.2	56	73	50	66	JICEW45°2-1/2	NP 110

Dimensions are for reference only and are subject to change without Notice

# JICET - SWIVEL NUT BRANCH TEE

DSH



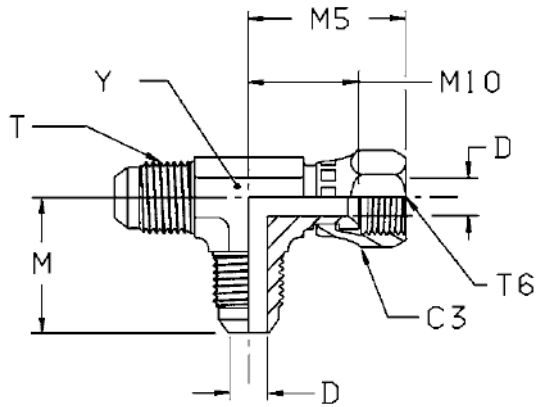
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICET7/16-20
SS304	S4	S4JICET7/16-20
SS316	S6	S6JICET7/16-20

Tube 1 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C3	D	M	M5	M10	Y	PART NO.	BAR
mm	In.	T6	T6	mm	mm	mm	mm	mm	mm		
6	1/4	7/16-20	7/16-20	14.3	4.4	23	26	17	11	JICET7/16	NP 500
8	5/16	1/2-20	1/2-20	17	6	24	27	17	13	JICET1/2	NP 420
10	3/8	9/16-18	9/16-18	19	7.5	27	32	22	14	JICET9/16	NP 350
12	1/2	3/4-16	3/4-16	22	9.9	32	35	24	19	JICET3/4	NP 350
14, 15, 16	5/8	7/8-14	7/8-14	27	12.3	37	41	28	22	JICET7/8	NP 350
18, 20	3/4	1-1/16-12	1-1/16-12	32	15.5	42	43	30	27	JICET1-1/16	NP 350
25	1	1-5/16-12	1-5/16-12	38	21.5	46	52	36	33	JICET1-5/16	NP 250
28, 30, 32	1-1/4	1-5/8-12	1-5/8-12	50.8	27.3	52	60	43	41	JICET1-5/8	NP 250
35, 38	1-1/2	1-7/8-12	1-7/8-12	57	33.3	59	68	49	47.7	JICET1-7/8	NP 170

Dimensions are for reference only and are subject to change without Notice

# JICEL - SWIVEL NUT RUN TEE

DSH



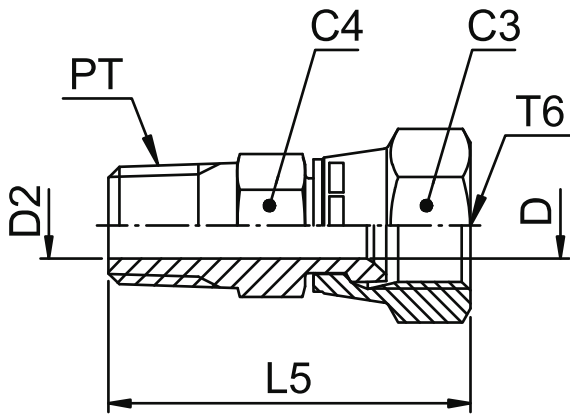
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICEL7/16-20
SS304	S4	S4JICEL7/16-20
SS316	S6	S6JICEL7/16-20

Tube 1 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C3	D	M	M5	M10	Y	PART NO.	BAR
mm	In.	T6	T6	mm	mm	mm	mm	mm	mm		
6	1/4	7/16-20	7/16-20	14	4.4	23	26	17	11	JICEL7/16	NP 500
8	5/16	1/2-20	1/2-20	17	6	24	26	17	13	JICEL1/2	NP 420
10	3/8	9/16-18	9/16-18	19	7.5	27	32	22	14	JICEL9/16	NP 350
12	1/2	3/4-16	3/4-16	22	9.9	32	35	24	19	JICEL3/4	NP 350
14, 15, 16	5/8	7/8-14	7/8-14	27	12.3	37	41	28	22	JICEL7/8	NP 350
18, 20	3/4	1-1/16-12	1-1/16-12	32	15.5	42	43	30	27	JICEL1-1/16	NP 350
22	7/8	1-3/16-12	1-3/16-12	35	18.2	46	46	49	34	JICEL1-3/16	NP 250
25	1	1-5/16-12	1-5/16-12	38	21.5	46	51	36	33	JICEL1-5/16	NP 250
28, 30, 32	1-1/4	1-5/8-12	1-5/8-12	50.8	27.4	52	60	43	41	JICEL1-5/8	NP 250
35, 38	1-1/2	1-7/8-12	1-7/8-12	57	33.3	59	66	47	47.7	JICEL1-7/8	NP 170

Dimensions are for reference only and are subject to change without Notice

# JICEGE - SWIVEL MALE STUD COUPLING

DSH



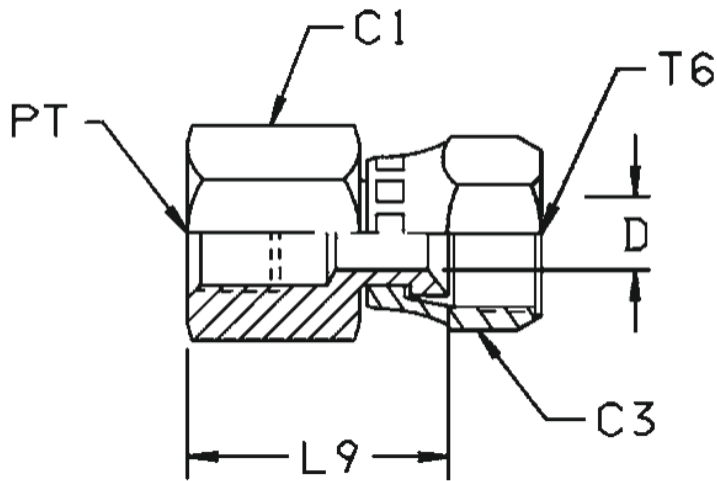
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICEGE7/16x1/8
SS304	S4	S4JICEGE7/16x1/8
SS316	S6	S6JICEGE7/16x1/8

Tube 1 O.D.		Thread UN/UNF-2A	Thread UN/UNF-2A	C4	C3	D	D2	L5	PART NO.	BAR
mm	In.	T6	T6	mm	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	14.3	14.3	4.4	4.4	31	JICEGE7/16x1/8	NP 420
6	1/4	1/4-18	7/16-20	14.3	14.3	4.4	4.4	39	JICEGE7/16x1/4	NP 420
8	5/16	1/8-27	1/2-20	14	17	6	5	35	JICEGE1/2x1/8	NP 420
8	5/16	1/4-18	1/2-20	16	16	6	6	40	JICEGE1/2x1/4	NP 420
10	3/8	1/4-18	9/16-18	17.5	17.5	7.1	7.1	40	JICEGE9/16x1/4	NP 350
10	3/8	3/8-18	9/16-18	19	17.5	7.5	7.5	43	JICEGE9/16x3/8	NP 350
12	1/2	3/8-18	3/4-16	22.2	22.2	9.9	9.9	44	JICEGE3/4x3/8	NP 350
12	1/2	1/4-18	3/4-16	19	22	9.9	7	44	JICEGE3/4x1/4	NP 350
12	1/2	1/2-14	3/4-16	22.2	22.2	9.9	9.9	49	JICEGE3/4x1/2	NP 350
14, 15, 16	5/8	1/2-14	7/8-14	25.4	25.4	12.3	12.3	52	JICEGE7/8x1/2	NP 350
14, 15, 16	5/8	3/8-18	7/8-14	25.4	25.4	10.3	10.3	47	JICEGE7/8x3/8	NP 350
18, 20	3/4	3/4-14	1-1/16-12	31.8	31.8	15.5	15.5	55	JICEGE1-1/16x3/4	NP 350
18, 20	3/4	1/2-14	1-1/16-12	31.8	31.8	15.5	13.5	55	JICEGE1-1/16x1/2	NP 350
25	1	1-11.5	1-5/16-12	38	38.3	21.4	21.4	64	JICEGE1-5/16x1	NP 250
25	1	3/4-14	1-5/16-12	38	38.3	21.4	18.3	59	JICEGE1-5/16x3/4	NP 250
28, 30, 32	1-1/4	1-1/4-11.5	1-5/8-12	50.8	50.8	27.4	27.4	70	JICEGE1-5/8x1-1/4	NP 210
35, 38	1-1/2	1-1/2-11.5	1-7/8-12	57.2	57.2	33.3	33.3	77	JICEGE1-7/8x1-1/2	NP 170

Dimensions are for reference only and are subject to change without Notice

# JICSGAI - 37° FLARE SWIVEL CONNECTOR NPT

DSH



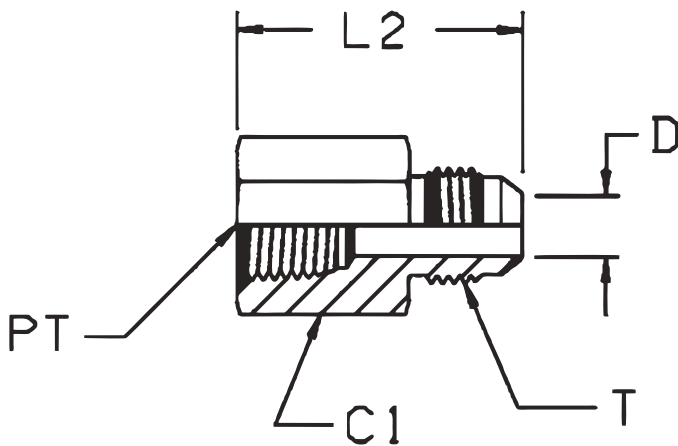
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICSGAI7/16x1/8NPT
SS304	S4	S4JICSGAI7/16x1/8NPT
SS316	S6	S6JICSGAI7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	C1	C3	D	L9	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	14.3	14.3	4.4	23	JICSGAI7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	19	14.3	4.4	27	JICSGAI7/16x1/4NPT	
10	3/8	1/4-18	9/16-18	19	17.5	7.5	27	JICSGAI9/16x1/4NPT	NP 350
10	3/8	3/8-18	9/16-18	22.2	17.5	7.5	29	JICSGAI9/16x3/8NPT	
12	1/2	3/8-18	3/4-16	22.2	22.2	9.9	31	JICSGAI3/4x3/8NPT	
12	1/2	1/2-14	3/4-16	28.6	22.2	9.9	38	JICSGAI3/4x1/2NPT	
14,15,16	5/8	1/2-14	7/8-14	28.6	25.4	12.3	37	JICSGAI7/8x1/2NPT	NP 280
18,20	3/4	3/4-14	1-1/16-12	35	31.6	15.5	38	JICSGAI1-1/16x3/4NPT	
25	1	1-11.5	1-5/16-12	41.3	38	21.4	47	JICSGAI1-5/16x1NPT	NP 210
28,30,32	1-1/4	1-1/4-11.5	1-5/8-16	51	50.8	27.4	55	JICSGAI1-5/8x1-1/4NPT	NP 170
35,38	1-1/2	1-1/2-11.5	1-7/8-12	60.3	57.2	33.3	57	JICSGAI1-7/8x1-1/2NPT	NP 140

Dimensions are for reference only and are subject to change without Notice

# JICGAI - 37° FLARE FEMALE CONNECTOR NPT

DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICGAI5/16x1/8NPT
SS304	S4	S4JICGAI5/16x1/8NPT
SS316	S6	S6JICGAI5/16x1/8NPT

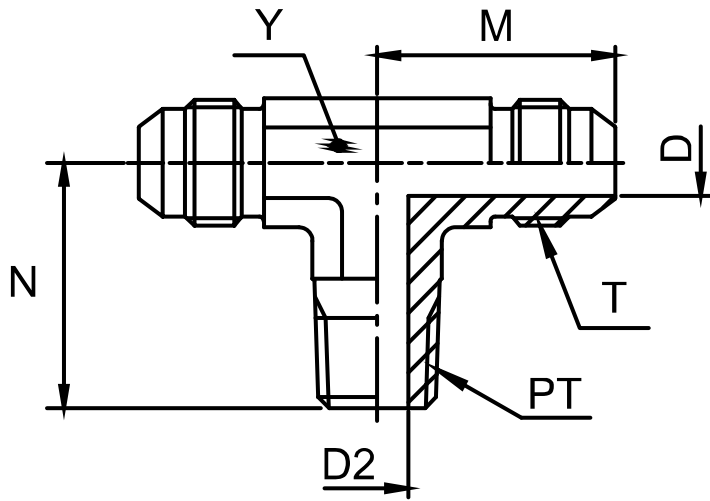
Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	C1	D	L2	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm		
6	1/4	1/8-27	7/16-20	14.3	4.4	30	JICGAI7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	19	4.4	35	JICGAI7/16x1/4NPT	
8	5/16	1/8-27	1/2-20	14.3	6	30	JICGAI1/2x1/8NPT	
8	5/16	1/4-18	1/2-20	19	6	35.5	JICGAI1/2x1/4NPT	
10	3/8	1/4-18	9/16-18	19	7.5	36	JICGAI9/16x1/4NPT	
10	3/8	3/8-18	9/16-18	22.3	7.5	37	JICGAI9/16x3/8NPT	
10	3/8	1/2-14	9/16-18	22.3	7.5	43	JICGAI9/16x1/2NPT	NP 350
12	1/2	1/4-18	3/4-16	22.6	9.9	36	JICGAI3/4x1/4NPT	NP 420
12	1/2	3/8-18	3/4-16	22.3	9.9	40	JICGAI3/4x3/8NPT	
12	1/2	1/2-14	3/4.16	28.6	9.9	46	JICGAI3/4x1/2NPT	NP 350
12	1/2	3/4-14	3/4.16	35	9.9	47	JICGAI3/4x3/4NPT	NP 280
14,15,16	5/8	1/2-14	7/8-14	28.6	12.3	48	JICGAI7/8x1/2NPT	NP 350
14,15,16	5/8	3/4-14	7/8-14	35	12.3	50	JICGAI7/8x3/4NPT	NP 280
18,20	3/4	1/2-14	1-1/16-12	28.6	15.5	52	JICGAI1-1/16x1/2NPT	NP 350
18,20	3/4	3/4-14	1-1/16-12	35	15.5	52	JICGAI1-1/16x3/4NPT	NP 280
25	1	1-11.5	1-5/16-12	41.3	21.4	60	JICGAI1-5/16x1NPT	NP 210
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	51	27.4	63	JICGAI1-5/8x1-1/4NPT	NP 170
35,38	1-1/2	1-1/2-11.5	1-7/8-12	60.3	33.3	67	JICGAI1-7/8x1-1/2NPT	NP 140

Dimensions are for reference only and are subject to change without Notice



# JICBTTN - 37° FLARE MALE STUD BRANCH TEE NPT

DSH

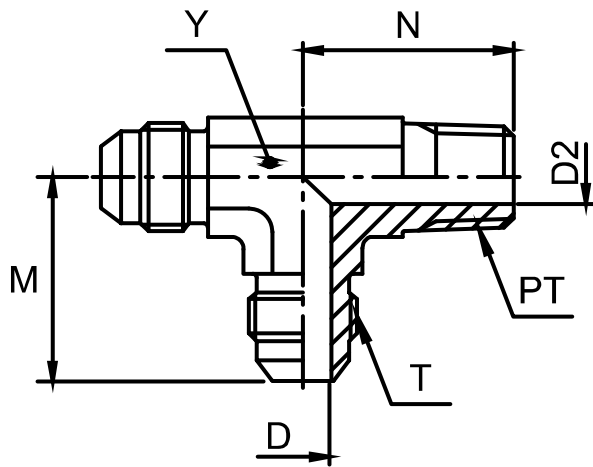


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICBTTN7/16x1/8NPT
SS304	S4	S4JICBTTN7/16x1/8NPT
SS316	S6	S6JICBTTN7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	D	D2	M	N	Y	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	4.4	4.7	23	20	11	JICBTTN7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	4.4	7	27	28	14	JICBTTN7/16x1/4NPT	
8	5/16	1/8-27	1/2-20	6	4.7	25	21	14	JICBTTN1/2x1/8NPT	
10	3/8	1/4-18	9/16-18	7.5	7	27	28	14	JICBTTN9/16x1/4NPT	
10	3/8	3/8-18	9/16-18	7.5	10.3	29	31	19	JICBTTN9/16x3/8NPT	
12	1/2	3/8-18	3/4-16	9.9	10.3	32	31	19	JICBTTN3/4x3/8NPT	
12	1/2	1/2-14	3/4-16	9.9	13.5	34	37	22	JICBTTN3/4x1/2NPT	
14,15,16	5/8	1/2-14	7/8-14	12.3	13.5	37	37	22	JICBTTN7/8x1/2NPT	NP 350
18,20	3/4	3/4-14	1-1/16-12	18	18.3	42	40	27	JICBTTN1-1/16x3/4NPT	NP 280
22	7/8	3/4-14	1-3/16-12	18.3	18.3	46	43	33.3	JICBTTN1-3/16x3/4NPT	
25	1	1-11.5	1-5/16-12	21.4	23.8	46	50	33.3	JICBTTN1-5/16x1NPT	NP 210
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	27.4	31.8	52	60	41	JICBTTN1-5/8x1-1/4NPT	NP 170
35,38	1-1/2	1-1/4-11.5	1-7/8-12	33.3	38	59	67	47.6	JICBTTN1-7/8x1-1/4NPT	

Dimensions are for reference only and are subject to change without Notice

# JICRTTN - 37° FLARE MALE STUD RUN TEE NPT



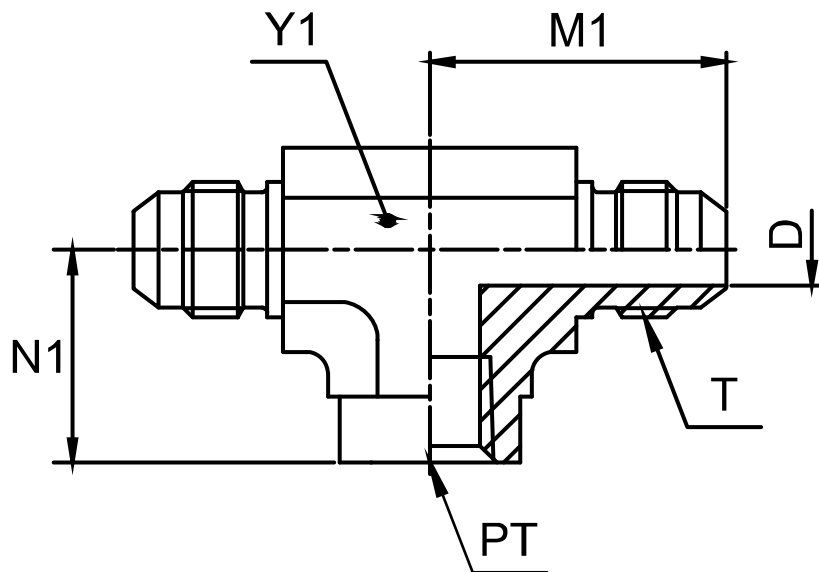
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICRTTN7/16x1/8NPT
SS304	S4	S4JICRTTN7/16x1/8NPT
SS316	S6	S6JICRTTN7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	D	D2	M	N	Y	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	4.4	4.7	23	20	11	JICRTTN7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	4.4	7	27	28	14	JICRTTN7/16x1/4NPT	
8	5/16	1/8-27	1/2-20	6	4.7	24	20	14	JICRTTN1/2x1/8NPT	
10	3/8	1/4-18	9/16-18	7.5	7	27	28	14	JICRTTN9/16x1/4NPT	
10	3/8	3/8-18	9/16-18	7.5	10.3	29	31	19	JICRTTN9/16x3/8NPT	
12	1/2	3/8-18	3/4-16	9.9	10.3	32	31	19	JICRTTN3/4x3/8NPT	
12	1/2	1/2-14	3/4-16	9.9	13.5	34	37	22	JICRTTN3/4x1/2NPT	
14,15,16	5/8	1/2-14	7/8-14	12.3	13.5	37	37	22	JICRTTN7/8x1/2NPT	NP 350
18,20	3/4	3/4-14	1-1/16-12	15.5	18.3	42	40	27	JICRTTN1-1/16x3/4NPT	NP 280
22	7/8	3/4-14	1-3/16-12	18.3	18.3	46	43	33.3	JICRTTN1-3/16x3/4NPT	
25	1	1-11.5	1-5/16-12	21.4	23.8	46	50	33.3	JICRTTN1-5/16x1NPT	NP 210
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	27.4	31.8	52	60	41	JICRTTN1-5/8x1-1/4NPT	NP 170
35,38	1-1/2	1-1/4-11.5	1-7/8-12	33.3	38	59	67	47.6	JICRTTN1-7/8x1-1/4NPT	

Dimensions are for reference only and are subject to change without Notice

# JICMFBTN - 37° FLARE FEMALE BRANCH TEE NPT

DSH



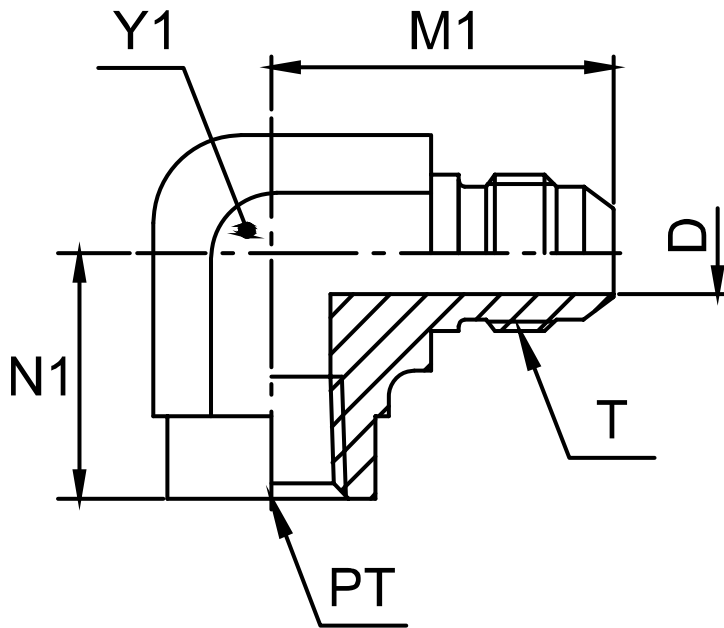
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICMFBTNT7/16x1/8NPT
SS304	S4	S4JICMFBTN7/16x1/8NPT
SS316	S6	S6JICMFBTN7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	D	M1	N1	Y1	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	4.4	27	17	14	JICMFBTN7/16x1/8NPT	NP 350
8	5/16	1/8-27	1/2-20	6	27	17	14	JICMFBTN1/2x1/8NPT	
10	3/8	1/4-18	9/16-18	7.5	32	22	19	JICMFBTN9/16x1/4NPT	
12	1/2	3/8-18	3/4-16	9.9	36	26	22	JICMFBTN3/4x3/8NPT	NP 310
14,15,16	5/8	1/2-14	7/8-14	12.3	42	32	27	JICMFBTN7/8x1/2NPT	NP 210
18,20	3/4	3/4-14	1-1/16-12	15.5	48	35	33.3	JICMFBTN1-1/16x3/4NPT	
25	1	1-11.5	1-5/16-12	21.4	55	41	41	JICMFBTN1-5/16x1NPT	NP 125
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	27.4	59	43	47.7	JICMFBTN1-5/8x1-1/4NPT	NP 100
35,38	1-1/2	1-1/2-11.5	1-7/8-12	33.3	73	53	64	JICMFBTN1-7/8x1-1/2NPT	

Dimensions are for reference only and are subject to change without Notice

# JICMFEN - 37° FLARE FEMALE ELBOW CONNECTOR NPT

DSH



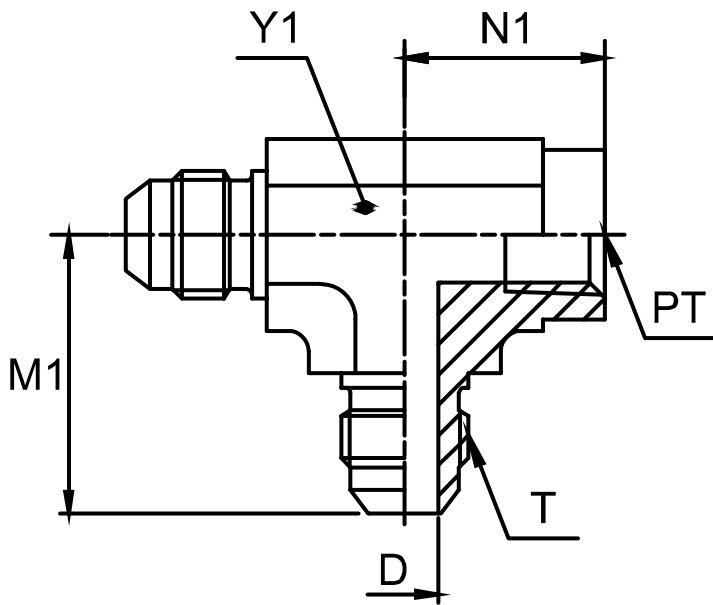
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICMFEN7/16x1/8NPT
SS304	S4	S4JICMFEN7/16x1/8NPT
SS316	S6	S6JICMFEN7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	D	M1	N1	Y1	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	4.4	27	17	14	JICMFEN7/16x1/8NPT	NP 350
6	1/4	1/4-18	7/16-20	4.4	31	22	19	JICMFEN7/16x1/4NPT	
8	5/16	1/8-27	1/2-20	6	27	17	14	JICMFEN1/2x1/8NPT	
8	5/16	1/4-18	1/2.20	6	31	22	19	JICMFEN1/2x1/4NPT	
10	3/8	1/8-27	9/16-18	7.5	31	17	14	JICMFEN9/16x1/8NPT	
10	3/8	1/4-18	9/16-18	7.5	31	22	19	JICMFEN9/16x1/4NPT	
10	3/8	3/8-18	9/16-18	7.5	33	26	22	JICMFEN9/16x3/8NPT	NP 310
12	1/2	1/4-18	3/4-16	9.9	36	26	19	JICMFEN3/4x1/4NPT	NP 350
12	1/2	3/8-18	3/4-16	9.9	36	26	22	JICMFEN3/4x3/8NPT	NP 310
12	1/2	1/2-14	3/4-16	9.9	39	31	27	JICMFEN3/4x1/2NPT	NP 210
14,15,16	5/8	1/2-14	7/8-14	12.3	42	31	27	JICMFEN7/8x1/2NPT	
18,20	3/4	1/2-14	1-1/16-12	15.5	48	34	27	JICMFEN1-1/16x1/2NPT	
18,20	3/4	3/4-14	1-1/16-12	15.5	48	35	33.3	JICMFEN1-1/16x3/4NPT	NP 125
22	7/8	3/4-14	1-3/16-12	18.3	47	36	33.3	JICMFEN1-3/16x3/4NPT	
25	1	1-11.5	1-5/16-12	21.4	55	41	41	JICMFEN1-5/16x1NPT	
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	27.4	59	43	47.7	JICMFEN1-5/8x1-1/4NPT	NP 100
35,38	1-1/2	1-1/2-11.5	1-7/8-12	33.3	73	53	64	JICMFEN1-7/8x1-1/2NPT	

Dimensions are for reference only and are subject to change without Notice

# JICMFRTN - 37° FLARE FEMALE RUN TEE NPT

DSH



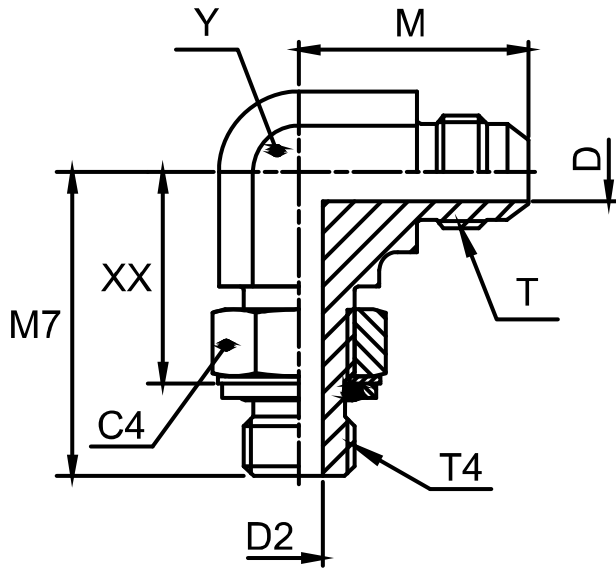
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICMFRTN7/16x1/8NPT
SS304	S4	S4JICMFRTN7/16x1/8NPT
SS316	S6	S6JICMFRTN7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	D	M1	N1	Y1	PART NO.	BAR
mm	In.	PT	T	mm	mm	mm	mm		
6	1/4	1/8-27	7/16-20	4.4	27	17	14	JICMFRTN7/16x1/8NPT	NP 350
10	3/8	1/4-18	9/16-18	7.5	32	22	19	JICMFRTN9/16x1/4NPT	
12	1/2	3/8-18	3/4-16	9.9	36	26	22	JICMFRTN3/4x3/8NPT	NP 310
14,15,16	5/8	1/2-14	7/8-14	12.3	42	32	27	JICMFRTN7/8x1/2NPT	NP 210
18,20	3/4	3/4-14	1-1/16-12	15.5	48	35	33.3	JICMFRTN1-1/16x3/4NPT	
22	7/8	3/4-14	1-3/16-12	18.3	47	36	33.3	JICMFRTN1-3/16x3/4NPT	
25	1	1-11.5	1-5/16-12	21.4	55	41	41	JICMFRTN1-5/16x1NPT	NP 125
28,30,32	1-1/4	1-1/4-11.5	1-5/8-12	27.4	59	43	47.7	JICMFRTN1-5/8x1-1/4NPT	NP 100

Dimensions are for reference only and are subject to change without Notice

# JICWEE - 37° FLARE MALE STUD ELBOW

DSH

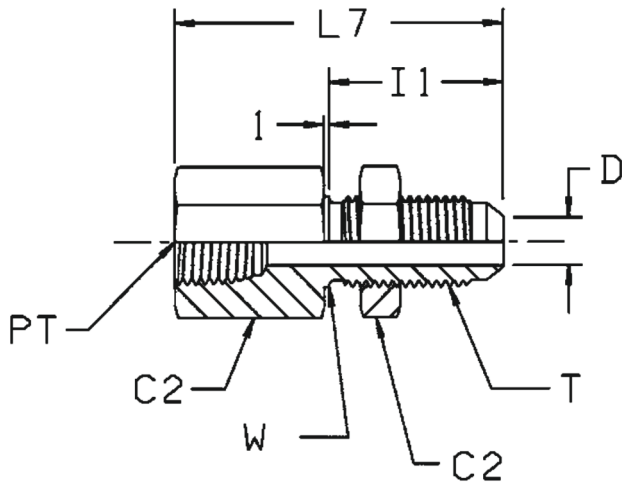


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICWEE7/16x1/8
SS304	S4	S4JICWEE7/16x1/8
SS316	S6	S6JICWEE7/16x1/8

Tube O.D.		Thread BSP	Thread UN/UNF-2A	C4	D	D2	M	M7	XX	Y	PART NO.	BAR
mm	In.	T4	T	mm	mm	mm	mm	mm	mm	mm		
6	1/4	1/8-28	7/16-20	14	4.4	4.4	23	27	19	11	JICWEE7/16x1/8	NP 250
6	1/4	1/4-19	7/16-20	19	4.4	7.5	27	32	21	14	JICWEE7/16x1/4	
6	1/4	3/8-19	7/16-20	22	4.4	9.9	29	37	26	19	JICWEE7/16x3/8	
8	5/16	1/8-28	1/2-20	14	6	4.4	24	27	19	13	JICWEE1/2x1/8	
8	5/16	1/4-19	1/2-20	19	6	7.5	27	32	21	14	JICWEE1/2x1/4	
8	5/16	3/8-18	1/2-20	22	6	9.9	29	37	26	19	JICWEE1/2x3/8	
10	3/8	1/4-19	9/16-18	19	7.5	7.5	27	32	21	14	JICWEE9/16x1/4	
10	3/8	1/8-28	9/16-18	14	7.5	4.4	27	28	19	14	JICWEE9/16x1/8	
10	3/8	3/8-19	9/16-18	22	7.5	9.9	29	37	26	19	JICWEE9/16x3/8	
10	3/8	1/2-14	9/16-18	27	7.5	12.3	31	43	29	22	JICWEE9/16x1/2	
12	1/2	1/4-19	3/4-16	19	9.9	7.5	32	37	26	19	JICWEE3/4x1/4	
12	1/2	3/8-19	3/4-16	22	9.9	9.9	32	37	27	19	JICWEE3/4x3/8	
12	1/2	1/2-14	3/4-16	27	9.9	12.3	34	43	29	22	JICWEE3/4x1/2	
12	1/2	3/4-14	3/4-16	36	9.9	15.5	36	50	35	27	JICWEE3/4x3/4	
14,15,16	5/8	1/2-14	7/8-14	27	12.3	12.3	37	43	29	22	JICWEE7/8x1/2	
14,15,16	5/8	3/4-14	7/8-14	36	12.3	15.5	39	50	35	27	JICWEE7/8x3/4	
18,20	3/4	3/4-14	1-1/16-12	36	15.5	15.5	42	50	35	27	JICWEE1-1/16x3/4	
18,20	3/4	1-11	1-1/16-12	41	15.5	21.5	45	52	35	33	JICWEE1-1/16x1	
25	1	3/4-14	1-5/16-12	36	21.5	15.5	46	47	33	33	JICWEE1-5/16x3/4	
25	1	1-11	1-5/16-12	41	21.5	21.5	46	52	36	33	JICWEE1-5/16x1	
28,30,32	1-1/4	1-11	1-5/8-12	41	27.5	27.5	52	57	41	41	JICWEE1-5/8x1	NP 250
28,30,32	1-1/4	1-1/4-11	1-5/8-12	50	21.5	27.5	52	57	41	41	JICWEE1-5/8x1-1/4	NP 210
35,38	1-1/2	1-1/4-11	1-7/8-12	55	33	27.5	59	61	45	48	JICWEE1-7/8x1-1/4	NP 210
35,38	1-1/2	1-1/2-11	1-7/8-12	50	33	33	59	61	45	48	JICWEE1-7/8x1-1/2	NP 140

Dimensions are for reference only and are subject to change without Notice

# JICBHNGAI - 37° FLARE FEMALE BULKHEAD CONNECTOR NPT



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRJICBHNGAI7/16x1/8NPT
SS304	S4	S4JICBHNGAI7/16x1/8NPT
SS316	S6	S6JICBHNGAI7/16x1/8NPT

Tube O.D.		Thread NPT/NPTF	Thread UN/UNF-2A	C4	D	I1	L7	W	PART NO.	BAR
mm	In.	T4	T	mm	mm	mm	mm	mm		
6	1/4	1/8-28	7/16-20	17.5	4.4	31	47	11	JICBHNGAI7/16x1/8NPT	NP 420
6	1/4	1/4-18	7/16-20	19	4.4	31	54	11	JICBHNGAI7/16x1/4NPT	
10	3/8	1/4-18	9/16-18	20.6	7.5	33	54	14	JICBHNGAI9/16x1/4NPT	
12	1/2	3/8-18	3/4-16	25.4	9.9	37	59	19	JICBHNGAI3/4x3/8NPT	
14,15,16	5/8	1/2-14	7/8-14	28.6	12.3	41	69	22	JICBHNGAI7/8x1/2NPT	NP 350
18,20	3/4	3/4-14	1-1/16-12	35	15.5	45	75	27	JICBHNGAI1-1/16x3/4NPT	NP 280
25	1	1-11.5	1-5/16-12	41.3	21.4	45	81	33	JICBHNGAI1-5/16x1NPT	NP 210

Dimensions are for reference only and are subject to change without Notice

# TWIN FERRULE FITTINGS INDEX

**Nut**



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**Back Ferrule**



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**Front Ferrule**



Page No. **C7**

**Union**



Page No. **C8**

**Union Elbow**



Page No. **C9**

**Union Elbow (MM)**



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**Union TEE**



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**Equal Cross**



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**Bulkhead Union**



Page No. **C13**

**Straight Reducer**



Page No. **C14**

**Reducer Union**



Page No. **C15**

**Male Stud Coupling  
NPT**



Page No. **C16**

**Male Stud Coupling  
NPT**



Page No. **C17**

**Male Stud Coupling  
BSPT**



Page No. **C18**

**Male Stud Coupling  
BSPT**



Page No. **C19**

**Male Stud Coupling  
With ED Seal**



Page No. **C20**

**Male Stud Coupling  
With ED Seal (MM)**



Page No. **C20**

**Male Stud Coupling  
(OD)**



Page No. **C21**

**Male Stud Coupling  
Part A (MM)**



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**Male Stud Coupling  
Part B (MM)**



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# TWIN FERRULE FITTINGS INDEX

**Male Stud Coupling  
UNF**



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**Male Stud Elbow  
NPT**



Page No. **C25**

**Male Stud Elbow  
NPT**



Page No. **C26**

**Male Stud Elbow  
BSPT**



Page No. **C27**

**Male Stud Elbow  
BSPT**



Page No. **C28**

**Reducer**



Page No. **C29**

**Reducer**



Page No. **C30**

**Female Connector  
BSPP**



Page No. **C31**

**Female Connector  
BSPP**



Page No. **C32**

**Female Connector  
NPT**



Page No. **C33**

**Female Connector  
NPT**



Page No. **C34**

**Male Branch TEE  
NPT**



Page No. **C35**

**Male Run TEE  
NPT**



Page No. **C36**

**Adjustable Male  
Stud Elbow BSP**



Page No. **C37**

**Adjustable Male  
Stud Elbow BSP**



Page No. **C38**

**Adjustable Male  
Stud Elbow UNF**



Page No. **C39**

**Thermocouple Male  
Coupling NPT**



Page No. **C40**

**Blanking Plug With  
Nut For Cone**



Page No. **C41**

**Bulkhead Male  
Coupling**



Page No. **C42**

**Blanking Ends  
For Tube**



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# TWIN FERRULE FITTINGS INDEX

**Bulkhead Female Connector NPT**



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**Socket Weld Union**



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**Socket Weld Elbow**



Page No. **C46**

**Male Pipe Weld Connector**



Page No. **C47**

**Male Pipe Weld Connector (MM)**



Page No. **C48**

**Bulkhead Lock Nut**



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# GENERAL INFORMATION



DS Hydraulics DSH Tube fittings have been carefully designed and manufactured with continuous research and development backing to very stringent tolerances under rigid Quality Control procedures approved to ISO 9001-2000 quality management systems to provide zero leak, Torque free seal in instrumentation and process tubing.

DS Hydraulics DSH Tube fittings ensure maximum safety and reliability due to Tests carried out such as High pressure, impulsive, vibration, vacuum, temperature, pull out and burst pressure.

## MATERIAL

DS Hydraulics DSH Tube fittings are available as standard stainless steel 316. The raw materials used confirm to chemical requirements listed in specification below,

BAR STOCK	FORGING
ASME - SA -479,	ASME-SA-182 316
TYPE 316 - SS	BS970 316-S31
BS970 316 - S31	DIN 4401
DIN 4401	
ASTMA276, TYPE 316	

## HEAT TRACEABILITY

Stainless steel 316 Tube fittings are heat code traceable back to the original mill heat from which it was made.

## PRESSURE RATING

DS Hydraulics DSH Tube fitting are rated for working pressure higher than the tubing recommended in tubing date table as shown below. However, tubing should not be used above its maximum allowed working pressure.

## TUBING SELECTIONS

Stainless steel 304 and 316 fully annealed seamless tubing according to standard ASTM A213 or ASTM A269 or equivalent, are suitable for use with Fine-Lok™/Well-Lok™ tube fittings.

The tubing should be compatible with the process fluid, pressure and temperature.

For good performance of TF Lok tube fitting, the tubing should be reasonably round, free from nicks, scratches, the surface finish should be good and tube ends are squarely cut and must be free from burrs.

The hardness of tubing as desired is 80Rb; the maximum allowed by ASTM is 90Rb.

## Data Sheet 1 : TUBING DATA TABLES FOR FRACTIONAL SIZE

Tubing O.D.	ALLOWABLE WORKING PRESSURE (PSI)							
	WALL THICKNESS IN INCH							
	.028	.035	.049	.065	.083	.095	.109	.120
1/8	8600	10900						
3/16	5500	7000	10300					
1/4	4000	5100	7500	10300				
5/16		4100	5900	8100				
3/8		3300	4800	6600				
1/2		2600	3700	5100	6700			
5/8			3000	4000	5200	6100		
3/4			2400	3300	4300	5000	5800	
7/8			2100	2800	3600	4200	4900	
1				2400	3200	3700	4200	4700

# Data Sheet 2 : TUBING DATA TABLES FOR METRIC SIZE.



ALLOWABLE WORKING PRESSURE IN BAR													
Tubing O.D.	WALL THICKNESS IN MILLIMETER												
	0.5	0.6	0.7	0.8	1.0	1.2	1.5	1.6	1.8	2.0	2.2	2.5	3.0
3	497	607	718	828	1032								
6			331	386	497	607	774	912					
8			208	280	359	440	558	607					
10				221	280	342	440	473					
12				182	231	280	359	386	440	497			
14					195	237	302	324	369	416	463	535	654
16					169	205	361	280	319	358	398	460	564
18					150	181	230	246	280	314	349	403	496
22					121	147	185	199	225	252	280	322	394
25					108	128	162	173	196	220	244	280	342

**Note :** Working pressure (psig) for seamless tubing. Multiply pressure rating by 0.80 for single welded tubing. Multiply pressure rating by 0.85 for double welded tubing.

## Data Sheet 3 : FACTORS USED TO DETERMINE ALLOWABLE PRESSURE AT HIGHER TEMPERATURES.

°F	°C	A.I.S.I. 316
200	93	1
400	204	0.96
600	316	0.85
800	427	0.79
1000	538	0.76
1200	649	0.37

For Example : The allowable pressure for type SS316, Size 1/4"OD x 0.035 wall at 600° F(316° C) would be equivalent to 5100 psi x 0.85 = 4335 psi.

## GAS SERVICE

Extra care must be taken while selecting tubing for gas application, In order to achieve a gas-tight seal, ferrules in instruments fittings must seal any minor surface imperfections.

The thick walled tubing helps the ferrules to overcome minor surface imperfections.

DSH recommends the following minimum wall thickness of tubing for gas application.

## Data Sheet 4 : GAS APPLICATION TUBING

Tube OD (Inches)	Nominal Minimum Wall Thickness (Inches)
1/8"	0.028"
3/16"	0.028"
1/4"	0.028"
5/16"	0.035"
3/8"	0.035"
1/2"	0.049"
5/8"	0.065"
3/4"	0.065"
7/8"	0.083"
1"	0.083"

Tube OD (Metric)	Nominal Minimum Wall Thickness (Metric)
3 mm	0.8 mm
6 mm	0.8 mm
8 mm	1.0 mm
10 mm	1.0 mm
12 mm	1.0 mm
14 mm	1.2 mm
16 mm	1.5 mm
18 mm	1.5 mm
20 mm	1.8 mm
22 mm	2.0 mm
25 mm	2.2 mm

# PIPE END NPT AND ISO PRESSURE RATINGS



Fitting that has both tube and pipe thread ends can have different pressure ratings. The pipe end pressure ratings chart given below for SS316 shows the pressure ratings for male and female pipe thread ends.

Working pressure is calculated on ANSI code for pressure piping B31.3 basis.

**Data Sheet 3 :**

NPT/BSPT PIPE SIZE	WORKING PRESSURE IN PSIG			
	MALE THREAD		FEMALE THREAD	
	Straight Fittings	Forge Fitting	Straight Fittings	Forge Fitting
1/8"	9100	9100	6400	5500
1/4"	7500	7500	6600	5600
3/8"	7200	7200	5300	5000
1/2"	6600	5800	5200	4500
3/4"	6400	6400	4300	3500
1"	4600	4600	4500	3900

## SAE Pressure Ratings for SS316

**Data Sheet 6 :** Pressure ratings are from SAE J1926/3

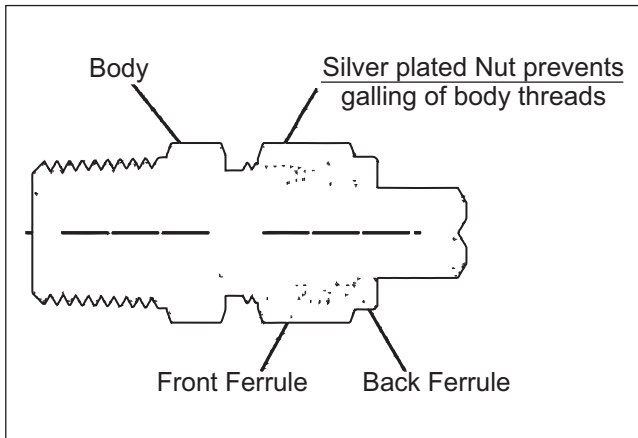
SAE THREAD	Non Positionable	Positionable
	PSIG	PSIG
5/16-24	4568	4568
7/16-20	4568	4568
1/2-20	4568	4568
9/16-18	4568	3626
3/4-16	4568	3626
7/8-14	3626	2900
1 <sup>1</sup> / <sub>16</sub> -12	3626	2900
1 <sup>3</sup> / <sub>16</sub> -12	2900	2320
1 <sup>5</sup> / <sub>16</sub> -12	2900	2320

# Assembling of TF LOK Tube Fitting

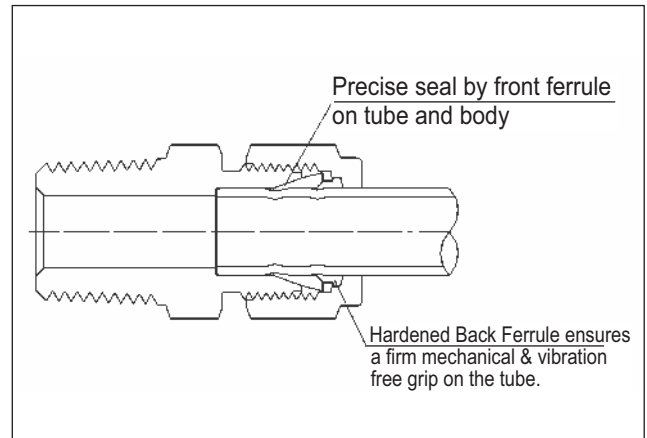


TF Lok Tube Fitting consist of four precision component such as Nut, Back Ferrule, Front Ferrule and Body.

## Fractional TF Lok Tube Fittings

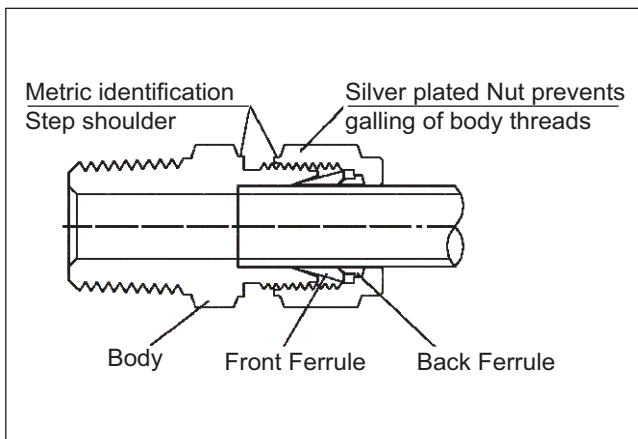


Finger tight TF Lok Fractional Tube Fittings.

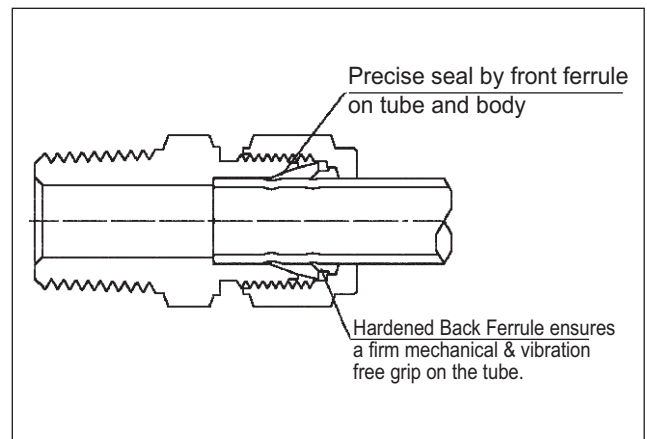


Assembled TF Lok Fractional Tube Fittings after tightening the Nut 1/4 turn from the finger tight position.

## Metric TF Lok Tube Fittings



Finger tight TF Lok Metric Tube Fittings.

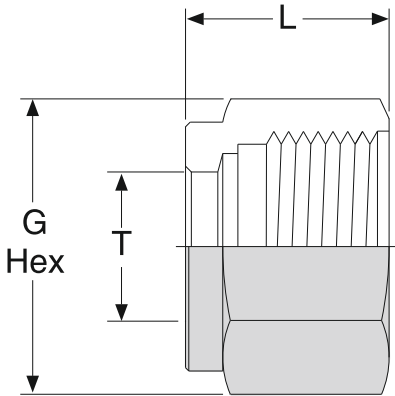


Assembled TF Lok Metric Tube Fittings after tightening the Nut 1/4 turn from the finger tight position.

### Gaugeability :

DS Hydraulics DSH Tube Fittings are manufactured to very stringent tolerances to meet the Gaugeability to check the gap between Nut and Body Hex, this allows easy inspection for sufficient tightening of the Nut before a system is pressurized, which ensures maximum safety and reliability.

# S4TFM - TWIN FERRULE NUT

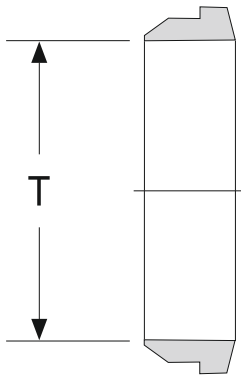


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFM1/4OD
SS304	S4	S4TFM1/4OD
SS316	S6	S6TFM1/4OD

TUBE OD	DIMENSIONS IN INCH		PART NO.
	T	G	
1/4	9/16	0.50	S4TFM1/4OD
5/16	5/8	0.53	S4TFM5/16OD
3/8	11/16	0.56	S4TFM3/8OD
1/2	7/8	0.69	S4TFM1/2OD
5/8	1	0.69	S4TFM5/8OD
3/4	1 1/8	0.69	S4TFM3/4OD
7/8	1 1/4	0.69	S4TFM7/8OD
1	1 1/2	0.81	S4TFM1OD

TUBE OD	DIMENSIONS IN MM		PART NO.
	T	G	
6	14	12.7	S4TFM06MM
8	16	13.5	S4TFM08MM
10	19	15.1	S4TFM10MM
12	22	17.4	S4TFM12MM
14	25	17.4	S4TFM14MM
15	25	17.4	S4TFM15MM
16	25	17.4	S4TFM16MM
18	30	17.4	S4TFM18MM
20	32	17.4	S4TFM20MM
22	32	17.4	S4TFM22MM
25	38	20.6	S4TFM25MM

# S4TFBF - TWIN FERRULE BACK FERRULE



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFBF1/4OD
SS304	S4	S4TFBF1/4OD
SS316	S6	S6TFBF1/4OD

**TUBE OD  
(INCH)**

**PART NO.**

1/4

S4TFBF1/4OD

5/16

S4TFBF5/16OD

3/8

S4TFBF3/8OD

1/2

S4TFBF1/2OD

5/8

S4TFBF5/8OD

3/4

S4TFBF3/4OD

7/8

S4TFBF7/8OD

1

S4TFBF1OD

**TUBE OD  
(MM)**

**PART NO.**

6

S4TFBF06MM

8

S4TFBF08MM

10

S4TFBF10MM

12

S4TFBF12MM

14

S4TFBF14MM

15

S4TFBF15MM

16

S4TFBF16MM

18

S4TFBF18MM

20

S4TFBF20MM

22

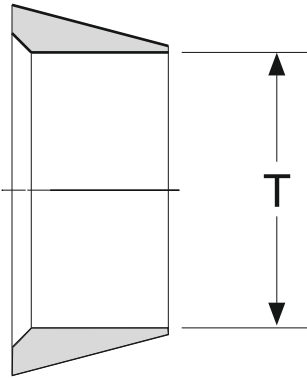
S4TFBF22MM

25

S4TFBF25MM



# S4TFFF - TWIN FERRULE FRONT FERRULE

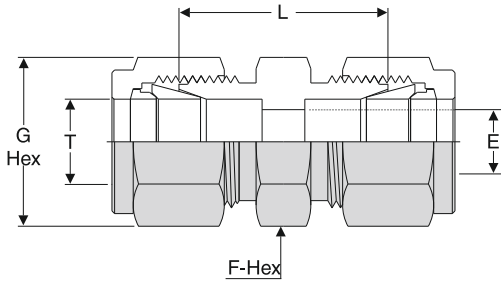


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFFF1/4OD
SS304	S4	S4TFFF1/4OD
SS316	S6	S6TFFF1/4OD

TUBE OD (INCH)	PART NO.
1/4	S4TFFF1/4OD
5/16	S4TFFF5/16OD
3/8	S4TFFF3/8OD
1/2	S4TFFF1/2OD
5/8	S4TFFF5/8OD
3/4	S4TFFF3/4OD
7/8	S4TFFF7/8OD
1	S4TFFF1OD

TUBE OD (MM)	PART NO.
6	S4TFFF06MM
8	S4TFFF08MM
10	S4TFFF10MM
12	S4TFFF12MM
14	S4TFFF14MM
15	S4TFFF15MM
16	S4TFFF16MM
18	S4TFFF18MM
20	S4TFFF20MM
22	S4TFFF22MM
25	S4TFFF25MM

# S4TFG - TWIN FERRULE UNION

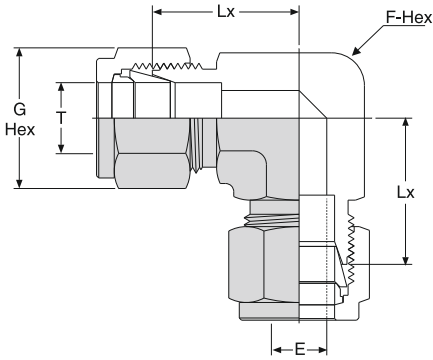


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFG1/4OD
SS304	S4	S4TFG1/4OD
SS316	S6	S6TFG1/4OD

TUBE OD	DIMENSIONS IN INCH					PART NO.
	T	E	F	G	L	
1/4	0.19	1/2	9/16	1.03	S4TFG1/4OD	
5/16	0.25	9/16	5/8	1.11	S4TFG5/16OD	
3/8	0.28	5/8	11/16	1.19	S4TFG3/8OD	
1/2	0.41	13/16	7/8	1.22	S4TFG1/2OD	
5/8	0.50	15/16	1	1.25	S4TFG5/8OD	
3/4	0.62	1 1/16	1 1/8	1.31	S4TFG3/4OD	
7/8	0.72	1 3/16	1 1/4	1.37	S4TFG7/8OD	
1	0.88	1 3/8	1 1/2	1.59	S4TFG1OD	

TUBE OD	DIMENSIONS IN MM					PART NO.
	T	E	F	G	L	
6	4.8	14	14	26.2	S4TFG06MM	
8	6.4	16	16	28.2	S4TFG08MM	
10	7.9	18	19	31.0	S4TFG10MM	
12	9.5	22	22	31.0	S4TFG12MM	
14	11.1	24	25	31.8	S4TFG14MM	
15	11.9	24	25	31.8	S4TFG15MM	
16	12.7	24	25	31.8	S4TFG16MM	
18	15.1	27	30	33.3	S4TFG18MM	
20	15.9	30	32	34.8	S4TFG20MM	
22	18.3	30	32	34.8	S4TFG22MM	
25	21.8	35	38	40.4	S4TFG25MM	

# S4TFW - TWIN FERRULE UNION ELBOW

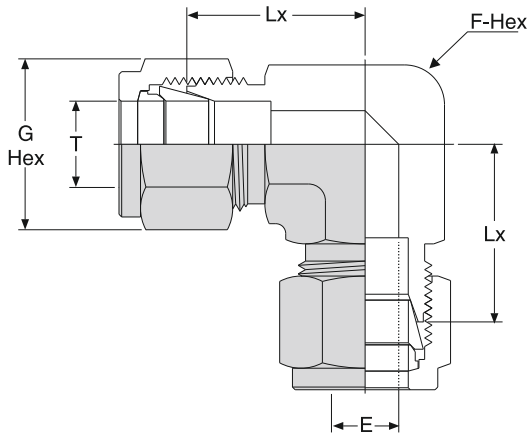


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFW1/4OD
SS304	S4	S4TFW1/4OD
SS316	S6	S6TFW1/4OD

TUBE OD	DIMENSIONS IN INCH					PART NO.
	T	E	F	G	Lx	
1/4	0.19	1/2	9/16	0.77	S4TFW1/4OD	
5/16	0.25	9/16	5/8	0.84	S4TFW5/16OD	
3/8	0.28	5/8	11/16	0.91	S4TFW3/8OD	
1/2	0.41	13/16	7/8	1.02	S4TFW1/2OD	
5/8	0.50	15/16	1	1.10	S4TFW5/8OD	
3/4	0.62	1 1/16	1 1/8	1.17	S4TFW3/4OD	
7/8	0.72	1 3/8	1 1/4	1.36	S4TFW7/8OD	
1	0.88	1 3/8	1 1/2	1.45	S4TFW1OD	

Dimensions are for reference only and are subject to change without Notice

# S4TFW - TWIN FERRULE UNION ELBOW

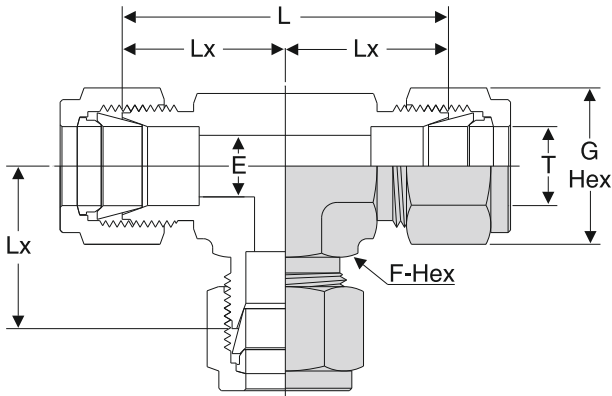


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFW06MM
SS304	S4	S4TFW06MM
SS316	S6	S6TFW06MM

TUBE OD	DIMENSIONS IN MM / INCH					PART NO.
	T	E	F	G	Lx	
6	4.8	1/2	14	19.6	S4TFW06MM	
8	6.4	9/16	16	21.3	S4TFW08MM	
10	7.9	11/16	19	23.9	S4TFW10MM	
12	9.5	13/16	22	25.9	S4TFW12MM	
14	11.1	15/16	25	27.9	S4TFW14MM	
15	11.9	15/16	25	27.9	S4TFW15MM	
16	12.7	15/16	25	27.9	S4TFW16MM	
18	15.1	1 1/16	30	29.7	S4TFW18MM	
20	15.9	1 3/8	32	34.5	S4TFW20MM	
22	18.3	1 3/8	32	34.5	S4TFW22MM	
25	21.8	1 3/8	38	36.8	S4TFW25MM	

Dimensions are for reference only and are subject to change without Notice

# S4TFT - TWIN FERRULE UNION TEE



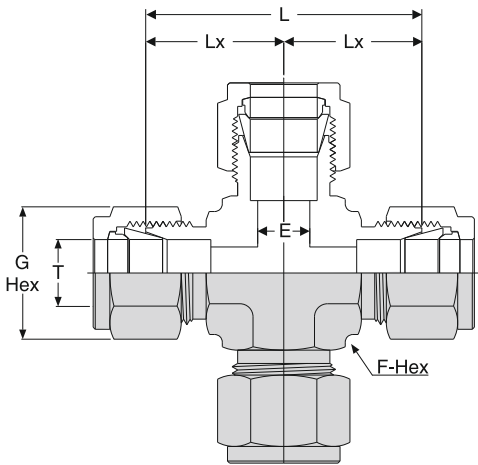
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFT1/4OD
SS304	S4	S4TFT1/4OD
SS316	S6	S6TFT1/4OD

TUBE OD	DIMENSIONS IN INCH					PART NO.
	T	E	F	G	L	
1/4	0.19	1/2	9/16	1.54	0.77	S4TFT1/4OD
5/16	0.25	5/8	5/8	1.76	0.88	S4TFT5/16OD
3/8	0.28	5/8	11/16	1.82	0.91	S4TFT3/8OD
1/2	0.41	13/16	7/8	2.04	1.02	S4TFT1/2OD
5/8	0.50	1	1	2.26	1.13	S4TFT5/8OD
3/4	0.62	1 1/16	1 1/8	2.34	1.17	S4TFT3/4OD
7/8	0.72	1 3/8	1 1/4	2.72	1.36	S4TFT7/8OD
1	0.88	1 3/8	1 1/2	2.90	1.45	S4TFT1OD

TUBE OD	DIMENSIONS IN MM / INCH					PART NO.
	T	E	F	G	L	
6	4.8	1/2	14	39.1	19.6	S4TFT06MM
8	6.4	5/8	16	44.7	22.4	S4TFT08MM
10	7.9	11/16	19	47.8	23.9	S4TFT10MM
12	9.5	13/16	22	51.8	25.9	S4TFT12MM
14	11.1	1	25	57.4	28.7	S4TFT14MM
15	11.9	1	25	57.4	28.7	S4TFT15MM
16	12.7	1	25	57.4	28.7	S4TFT16MM
18	15.1	1 1/16	30	59.4	29.7	S4TFT18MM
20	15.9	1 3/8	32	69.1	34.5	S4TFT20MM
22	18.3	1 3/8	32	69.1	34.5	S4TFT22MM
25	21.8	1 3/8	38	73.1	36.8	S4TFT25MM

Dimensions are for reference only and are subject to change without Notice

# S4TFK - TWIN FERRULE EQUAL CROSS

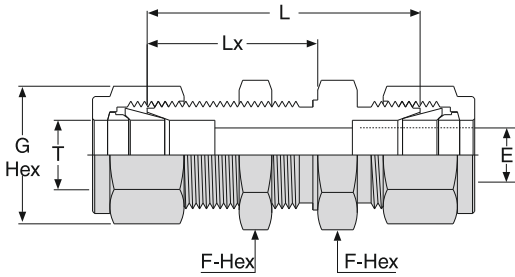


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFK1/4OD
SS304	S4	S4TFK1/4OD
SS316	S6	S6TFK1/4OD

TUBE OD	DIMENSIONS IN INCH					PART NO.
	T	E	F	G	L	
1/4	0.19	1/2	9/16	1.54	0.77	S4TFK1/4OD
5/16	0.25	5/8	5/8	1.76	0.88	S4TFK5/16OD
3/8	0.28	5/8	11/16	1.82	0.91	S4TFK3/8OD
1/2	0.41	13/16	7/8	2.04	1.02	S4TFK1/2OD
3/4	0.62	1 1/16	1 1/8	2.34	1.17	S4TFK3/4OD
1	0.88	1 3/8	1 1/2	2.90	1.45	S4TFK1OD

Dimensions are for reference only and are subject to change without Notice

# S4TFSV - TWIN FERRULE BULKHEAD UNION

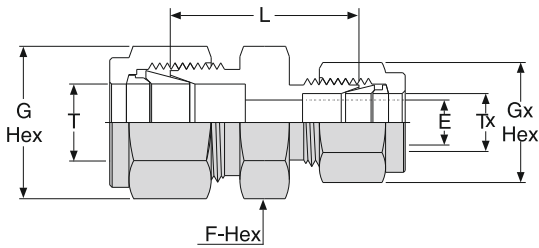


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFSV1/4OD
SS304	S4	S4TFSV1/4OD
SS316	S6	S6TFSV1/4OD

TUBE OD	DIMENSIONS IN INCH					Panel Hole Size	Panel Thickness Max.	PART NO.
	T	E	F	G	L			
1/4	0.19	5/8	9/16	1.69	1.03	29/64	0.40	S4TFSV1/4OD
5/16	0.25	11/16	5/8	1.81	1.12	33/64	0.44	S4TFSV5/16OD
3/8	0.28	3/4	11/16	1.87	1.16	37/64	0.44	S4TFSV3/8OD
1/2	0.41	15/16	7/8	2.00	1.25	49/64	0.50	S4TFSV1/2OD
5/8	0.50	1 1/16	1	2.06	1.28	57/64	0.50	S4TFSV5/8OD
3/4	0.63	1 3/16	1 1/8	2.31	1.47	1 1/64	0.66	S4TFSV3/4OD
1	0.88	1 5/8	1 1/2	2.81	1.78	1 21/64	0.75	S4TFSV1OD

TUBE OD	DIMENSIONS IN MM					Panel Hole Size	Panel Thickness Max.	PART NO.
	T	E	F	G	L			
6	4.8	16	14	42.9	26.2	11.5	10.2	S4TFSV06MM
8	6.4	18	16	46.0	28.6	13.1	11.2	S4TFSV08MM
10	7.9	22	19	48.5	29.4	16.3	11.2	S4TFSV10MM
12	9.5	24	22	50.8	31.8	19.5	12.7	S4TFSV12MM
14	11.1	27	25	52.3	32.5	22.5	12.7	S4TFSV14MM
15	11.9	27	25	52.3	32.5	22.8	12.7	S4TFSV15MM
16	12.7	27	25	52.3	32.5	22.8	12.7	S4TFSV16MM
18	15.1	30	30	58.7	37.3	26.0	16.8	S4TFSV18MM
20	15.9	35	32	64.3	42.9	29.0	19.0	S4TFSV20MM
25	21.8	40	38	71.4	42.2	33.8	24.0	S4TFSV25MM

# S4TFGR - TWIN FERRULE STRAIGHT REDUCER



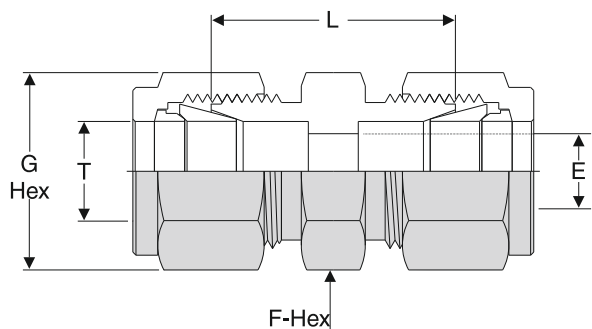
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGR5/16ODx1/4OD
SS304	S4	S4TFGR5/16ODx1/4OD
SS316	S6	S6TFGR5/16ODx1/4OD

TUBE OD	TUBE OD	DIMENSIONS IN INCH					PART NO.
		T	Tx	E	F	G	
5/16	1/4	0.19	9/16	5/8	9/16	1.08	S4TFGR5/16ODx1/4OD
3/8	1/4	0.19	5/8	11/16	9/16	1.12	S4TFGR3/8ODx1/4OD
3/8	5/16	0.25	5/8	11/16	5/8	1.16	S4TFGR3/8ODx5/16OD
1/2	1/4	0.19	13/16	7/8	9/16	1.16	S4TFGR1/2ODx1/4OD
1/2	3/8	0.28	13/16	7/8	11/16	1.22	S4TFGR1/2ODx3/8OD
5/8	3/8	0.28	15/16	1	11/16	1.25	S4TFGR5/8ODx3/8OD
5/8	1/2	0.41	15/16	1	7/8	1.25	S4TFGR5/8ODx1/2OD
3/4	1/4	0.19	1 1/16	1 1/8	9/16	1.25	S4TFGR3/4ODx1/4OD
3/4	3/8	0.28	1 1/16	1 1/8	11/16	1.31	S4TFGR3/4ODx3/8OD
3/4	1/2	0.41	1 1/16	1 1/8	7/8	1.31	S4TFGR3/4ODx1/2OD
3/4	5/8	0.50	1 1/16	1 1/8	1	1.31	S4TFGR3/4ODx5/8OD
1	1/2	0.41	1 3/8	1 1/2	7/8	1.50	S4TFGR1ODx1/2OD
1	3/4	0.62	1 3/8	1 1/2	1 1/8	1.50	S4TFGR1ODx3/4OD

TUBE OD	TUBE OD	DIMENSIONS IN MM					PART NO.
		T	Tx	E	F	G	
8	6	4.8	16.0	16.0	14.0	27.4	S4TFGR08MMx06MM
10	6	4.8	18.0	19.0	14.0	29.5	S4TFGR10MMx06MM
10	8	6.4	18.0	19.0	16.0	30.0	S4TFGR10MMx08MM
12	6	4.8	22.0	22.0	14.0	29.5	S4TFGR12MMx06MM
12	8	6.4	22.0	22.0	16.0	30.2	S4TFGR12MMx08MM
12	10	7.9	22.0	22.0	19.0	31.0	S4TFGR12MMx10MM
16	10	7.9	24.0	25.0	19.0	31.8	S4TFGR16MMx10MM
16	12	9.5	24.0	25.0	22.0	31.8	S4TFGR16MMx12MM
18	12	9.5	27	30.0	22.0	33.3	S4TFGR18MMx12MM
25	18	15.1	35	38.0	30.0	38.6	S4TFGR25MMx18MM
25	20	15.9	35	38.0	32.0	39.9	S4TFGR25MMx20MM



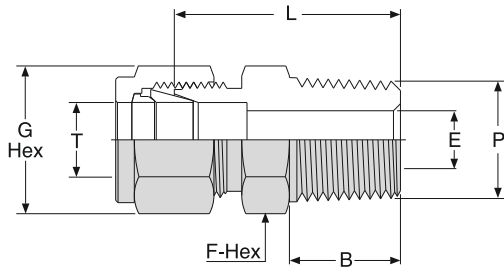
# S4TFGR - TWIN FERRULE REDUCER UNION



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGR06MMx1/4OD
SS304	S4	S4TFGR06MMx1/4OD
SS316	S6	S6TFGR06MMx1/4OD

TUBE OD (MM)	TUBE OD (INCH)	DIMENSIONS IN INCH / MM					PART NO.
		T	Tx	E	F	G	
6	1/4	4.8	14	14	9/16	26.2	S4TFGR06MMx1/4OD
6	5/16	4.8	14	14	5/8	27.4	S4TFGR06MMx5/16OD
8	1/4	4.8	16	16	9/16	27.4	S4TFGR08MMx1/4OD
8	3/8	6.4	16	16	11/16	29.5	S4TFGR08MMx3/8OD
10	1/4	4.8	18	19	9/16	29.5	S4TFGR10MMx1/4OD
10	5/16	6.4	18	19	5/8	30.0	S4TFGR10MMx5/16OD
10	3/8	7.1	18	19	11/16	31.0	S4TFGR10MMx3/8OD
12	5/16	6.4	22	22	5/8	30.2	S4TFGR12MMx5/16OD
12	3/8	7.1	22	22	11/16	31.0	S4TFGR12MMx3/8OD
12	1/2	9.5	22	22	7/8	31.0	S4TFGR12MMx1/2OD
15	1/2	10.3	24	25	7/8	31.8	S4TFGR15MMx1/2OD
16	5/8	12.7	24	25	1	31.8	S4TFGR16MMx5/8OD
18	3/4	15.1	27	30	1 1/8	33.3	S4TFGR18MMx3/4OD
20	1/2	10.3	30	32	7/8	34.8	S4TFGR20MMx1/2OD
20	1	15.9	35	32	1 1/2	40.4	S4TFGR20MMx1OD
25	1	21.8	35	38	1 1/2	40.4	S4TFGR25MMx1OD

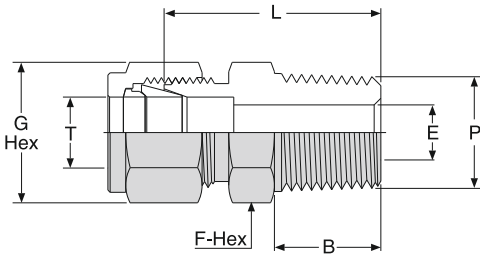
# S4TFGE - TWIN FERRULE MALE STUD COUPLING NPT



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE1/8ODx1/8NPT
SS304	S4	S4TFGE1/8ODx1/8NPT
SS316	S6	S6TFGE1/8ODx1/8NPT

TUBE OD	NPT THREAD	DIMENSIONS IN INCH					PART NO.
		T	P	B	E	F	
1/8	1/8	0.38	0.09	7/16	7/16	0.94	S4TFGE1/8ODx1/8NPT
1/8	1/4	0.56	0.09	9/16	7/16	1.14	S4TFGE1/8ODx1/4NPT
3/16	1/8	0.38	0.12	7/16	1/2	0.97	S4TFGE3/16ODx1/8NPT
3/16	1/4	0.56	0.12	9/16	1/2	1.17	S4TFGE3/16ODx1/4NPT
1/4	1/8	0.38	0.19	1/2	9/16	1.00	S4TFGE1/4ODx1/8NPT
1/4	1/4	0.56	0.19	9/16	9/16	1.20	S4TFGE1/4ODx1/4NPT
1/4	3/8	0.56	0.19	11/16	9/16	1.22	S4TFGE1/4ODx3/8NPT
1/4	1/2	0.75	0.19	7/8	9/16	1.47	S4TFGE1/4ODx1/2NPT
5/16	1/8	0.38	0.19	9/16	5/8	1.05	S4TFGE5/16ODx1/8NPT
5/16	1/4	0.56	0.25	9/16	5/8	1.23	S4TFGE5/16ODx1/4NPT
5/16	3/8	0.56	0.25	11/16	5/8	1.25	S4TFGE5/16ODx3/8NPT
3/8	1/4	0.56	0.28	5/8	11/16	1.28	S4TFGE3/8ODx1/4NPT
3/8	3/8	0.56	0.28	11/16	11/16	1.28	S4TFGE3/8ODx3/8NPT
3/8	1/2	0.75	0.28	7/8	11/16	1.53	S4TFGE3/8ODx1/2NPT
1/2	1/4	0.56	0.28	13/16	7/8	1.31	S4TFGE1/2ODx3/8NPT
1/2	3/8	0.56	0.38	13/16	7/8	1.31	S4TFGE1/2ODx1/2NPT
1/2	1/2	0.75	0.41	7/8	7/8	1.53	S4TFGE1/2ODx3/4NPT
1/2	3/4	0.75	0.41	1 1/8	7/8	1.59	S4TFGE5/8ODx1/2NPT
5/8	1/2	0.75	0.47	15/16	1	1.53	S4TFGE5/8ODx3/4NPT
5/8	3/4	0.75	0.50	1 1/8	1	1.59	S4TFGE3/4ODx1/2NPT
3/4	1/2	0.75	0.47	1 1/16	1 1/8	1.59	S4TFGE3/4ODx3/4NPT
3/4	3/4	0.75	0.62	1 1/8	1 1/8	1.59	S4TFGE3/4ODx1NPT
3/4	1	0.94	0.62	1 3/8	1 1/8	1.85	S4TFGE7/8ODx3/4NPT
7/8	3/4	0.75	0.62	1 3/16	1 1/4	1.59	S4TFGE7/8ODx1NPT
7/8	1	0.94	0.72	1 3/8	1 1/4	1.85	S4TFGE1ODx1/2NPT
1	1/2	0.75	0.47	1 3/8	1 1/2	1.78	S4TFGE1ODx3/4NPT
1	3/4	0.75	0.62	1 3/8	1 1/2	1.78	S4TFGE1ODx1NPT
1	1	0.94	0.88	1 3/8	1 1/2	1.97	

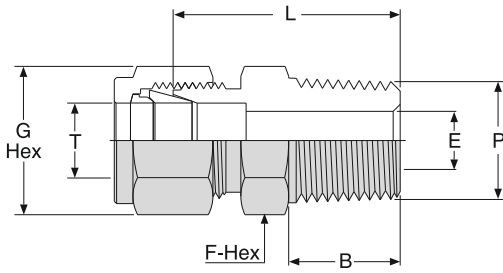
# S4TFGE - TWIN FERRULE MALE STUD COUPLING NPT



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE04MMx1/8NPT
SS304	S4	S4TFGE04MMx1/8NPT
SS316	S6	S6TFGE04MMx1/8NPT

TUBE OD	NPT THREAD	DIMENSIONS IN MM					PART NO.
		T	P	B	E	F	
4	1/8	9.7	2.4	12.0	12.0	24.6	S4TFGE04MMx1/8NPT
4	1/4	14.3	2.4	14.0	12.0	29.7	S4TFGE04MMx1/4NPT
6	1/8	9.7	4.8	14.0	14.0	25.4	S4TFGE06MMx1/8NPT
6	1/4	14.3	4.8	14.0	14.0	30.5	S4TFGE06MMx1/4NPT
6	3/8	14.3	4.8	18.0	14.0	31.0	S4TFGE06MMx3/8NPT
8	1/8	9.7	4.8	14.0	16.0	26.7	S4TFGE08MMx1/8NPT
8	1/4	14.3	6.4	14.0	16.0	31.2	S4TFGE08MMx1/4NPT
8	3/8	14.3	6.4	18.0	16.0	31.8	S4TFGE08MMx3/8NPT
8	1/2	19.0	6.4	22.0	16.0	38.1	S4TFGE08MMx1/2NPT
10	1/8	9.7	4.8	18.0	19.0	28.7	S4TFGE10MMx1/8NPT
10	1/4	14.3	7.9	18.0	19.0	33.3	S4TFGE10MMx1/4NPT
10	3/8	14.3	7.9	18.0	19.0	33.3	S4TFGE10MMx3/8NPT
10	1/2	19.0	7.9	22.0	19.0	38.9	S4TFGE10MMx1/2NPT
12	1/4	14.3	7.1	22.0	22.0	33.3	S4TFGE12MMx1/4NPT
12	3/8	14.3	9.5	22.0	22.0	33.3	S4TFGE12MMx3/8NPT
12	1/2	19.0	9.5	22.0	22.0	38.9	S4TFGE12MMx1/2NPT
12	3/4	19.0	9.5	28.0	22.0	40.4	S4TFGE12MMx3/4NPT
14	1/2	19.0	11.1	24.0	25.0	38.9	S4TFGE14MMx1/2NPT
15	1/2	19.0	11.9	24.0	25.0	38.9	S4TFGE15MMx1/2NPT
16	1/2	19.0	11.9	24.0	25.0	38.9	S4TFGE16MMx1/2NPT
16	3/4	19.0	12.7	28.0	25.0	40.4	S4TFGE16MMx3/4NPT
18	1/2	19.0	11.9	27.0	30.0	40.4	S4TFGE18MMx1/2NPT
18	3/4	19.0	15.1	28.0	30.0	40.4	S4TFGE18MMx3/4NPT
20	1/2	19.0	11.9	30.0	32.0	42.2	S4TFGE20MMx1/2NPT
20	3/4	19.0	15.9	30.0	32.0	42.2	S4TFGE20MMx3/4NPT
22	3/4	19.0	15.9	30.0	32.0	42.2	S4TFGE22MMx3/4NPT
25	3/4	19.0	15.9	35.0	38.0	45.2	S4TFGE25MMx3/4NPT
25	1	23.9	21.8	35.0	38.0	50.0	S4TFGE25MMx1NPT

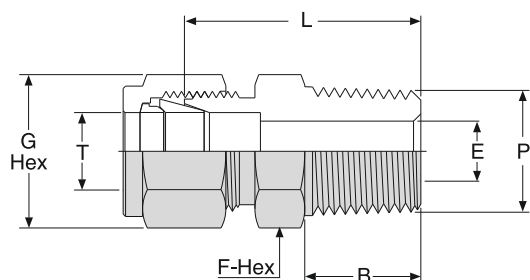
## S4TFGE - TWIN FERRULE MALE STUD COUPLING BSPT



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE1/8ODx1/8BSPT
SS304	S4	S4TFGE1/8ODx1/8BSPT
SS316	S6	S6TFGE1/8ODx1/8BSPT

TUBE OD	BSPT THREAD	DIMENSIONS IN INCH					PART NO.
		T	P	B	E	F	
1/8	1/8	0.38	0.09	7/16	7/16	0.94	S4TFGE1/8ODx1/8BSPT
1/8	1/4	0.56	0.09	9/16	7/16	1.14	S4TFGE1/8ODx1/4BSPT
1/4	1/8	0.38	0.19	1/2	9/16	1.00	S4TFGE1/4ODx1/8BSPT
1/4	1/4	0.56	0.19	9/16	9/16	1.20	S4TFGE1/4ODx1/4BSPT
1/4	3/8	0.56	0.19	11/16	9/16	1.22	S4TFGE1/4ODx3/8BSPT
1/4	1/2	0.75	0.19	7/8	9/16	1.47	S4TFGE1/4ODx1/2BSPT
5/16	1/8	0.38	0.19	9/16	5/8	1.05	S4TFGE5/16ODx1/8BSPT
5/16	1/4	0.56	0.25	9/16	5/8	1.23	S4TFGE5/16ODx1/4BSPT
3/8	1/8	0.38	0.19	5/8	11/16	1.10	S4TFGE3/8ODx1/8BSPT
3/8	1/4	0.56	0.28	5/8	11/16	1.28	S4TFGE3/8ODx1/4BSPT
3/8	3/8	0.56	0.28	11/16	11/16	1.28	S4TFGE3/8ODx3/8BSPT
3/8	1/2	0.75	0.28	7/8	11/16	1.53	S4TFGE3/8ODx1/2BSPT
1/2	1/4	0.56	0.28	13/16	7/8	1.31	S4TFGE1/2ODx1/4BSPT
1/2	3/8	0.56	0.38	13/16	7/8	1.31	S4TFGE1/2ODx3/8BSPT
1/2	1/2	0.75	0.41	7/8	7/8	1.53	S4TFGE1/2ODx1/2BSPT
1/2	3/4	0.75	0.41	1 1/8	7/8	1.59	S4TFGE1/2ODx3/4BSPT
3/4	3/4	0.75	0.62	1 1/8	1 1/8	1.59	S4TFGE3/4ODx3/4BSPT
1	1	0.94	0.88	1 3/8	1 1/2	1.97	S4TFGE1ODx1BSPT

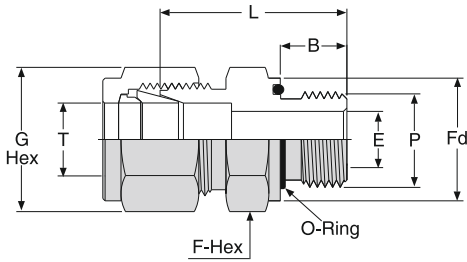
# S4TFGE - TWIN FERRULE MALE STUD COUPLING BSPT



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE04MMx1/8BSPT
SS304	S4	S4TFGE04MMx1/8BSPT
SS316	S6	S6TFGE04MMx1/8BSPT

TUBE OD	BSPT MALE THREAD	DIMENSIONS IN MM					PART NO.
		T	P	B	E	F	
4	1/8	9.7	2.4	12.0	12.0	24.6	S4TFGE04MMx1/8BSPT
4	1/4	14.3	2.4	14.0	12.0	29.7	S4TFGE04MMx1/4BSPT
6	1/8	9.7	4.8	14.0	14.0	25.4	S4TFGE06MMx1/8BSPT
6	1/4	14.3	4.8	14.0	14.0	30.5	S4TFGE06MMx1/4BSPT
6	3/8	14.3	4.8	18.0	14.0	31.0	S4TFGE06MMx3/8BSPT
8	1/8	9.7	4.8	14.0	16.0	26.7	S4TFGE08MMx1/8BSPT
8	1/4	14.3	6.4	14.0	16.0	31.2	S4TFGE08MMx1/4BSPT
8	3/8	14.3	6.4	18.0	16.0	31.8	S4TFGE08MMx3/8BSPT
8	1/2	19.0	6.4	22.0	16.0	38.1	S4TFGE08MMx1/2BSPT
10	1/8	9.7	4.8	18.0	19.0	28.7	S4TFGE10MMx1/8BSPT
10	1/4	14.3	7.9	18.0	19.0	33.3	S4TFGE10MMx1/4BSPT
10	3/8	14.3	7.9	18.0	19.0	33.3	S4TFGE10MMx3/8BSPT
10	1/2	19.0	7.9	22.0	19.0	38.9	S4TFGE10MMx1/2BSPT
12	1/4	14.3	7.1	22.0	22.0	33.3	S4TFGE12MMx1/4BSPT
12	3/8	14.3	9.5	22.0	22.0	33.3	S4TFGE12MMx3/8BSPT
12	1/2	19.0	9.5	22.0	22.0	38.9	S4TFGE12MMx1/2BSPT
12	3/4	19.0	9.5	27.0	22.0	40.4	S4TFGE12MMx3/4BSPT
15	1/2	19.0	11.9	24.0	25.0	38.9	S4TFGE15MMx1/2BSPT
16	1/2	19.0	11.9	24.0	25.0	38.9	S4TFGE16MMx1/2BSPT
16	3/4	19.0	12.7	28.0	25.0	40.4	S4TFGE16MMx3/4BSPT
18	1/2	19.0	11.9	27.0	30.0	40.4	S4TFGE18MMx1/2BSPT
18	3/4	19.0	15.1	28.0	30.0	40.4	S4TFGE18MMx3/4BSPT
20	1/2	19.0	11.9	30.0	32.0	42.2	S4TFGE20MMx1/2BSPT
20	3/4	19.0	15.9	30.0	32.0	42.2	S4TFGE20MMx3/4BSPT
22	3/4	19.0	15.9	30.0	32.0	42.2	S4TFGE22MMx3/4BSPT
25	3/4	19.0	15.9	35.0	38.0	45.2	S4TFGE25MMx3/4BSPT
25	1	23.9	21.8	35.0	38.0	50.0	S4TFGE25MMx1BSPT

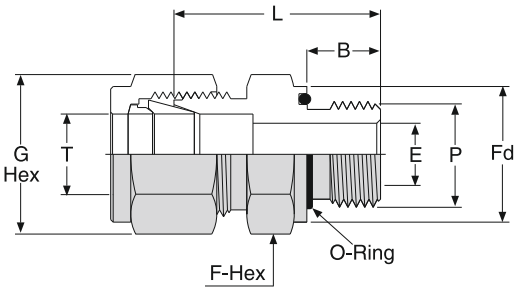
# S4TFGE - ED - TWIN FERRULE MALE STUD COUPLING WITH ED SEAL



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE1/4ODx1/4ED
SS304	S4	S4TFGE1/4ODx1/4ED
SS316	S6	S6TFGE1/4ODx1/4ED

TUBE OD	BSPP MALE THREAD	DIMENSIONS IN INCH						PART NO.		
		T	P	B	E	F	Fd		G	L
1/4	1/4			0.47	0.19	3/4	0.74	9/16	1.19	S4TFGE1/4ODx1/4ED
1/4	1/2			0.55	0.19	1 1/16	1.04	9/16	1.38	S4TFGE1/4ODx1/2ED
3/8	3/8			0.47	0.28	7/8	0.86	11/16	1.31	S4TFGE3/8ODx3/8ED
1/2	1/4			0.47	0.25	13/16	0.74	7/8	1.31	S4TFGE1/2ODx1/4ED
1/2	3/8			0.47	0.31	7/8	0.86	7/8	1.31	S4TFGE1/2ODx3/8ED
1/2	1/2			0.55	0.41	1 1/16	1.04	7/8	1.47	S4TFGE1/2ODx1/2ED
3/4	3/4			0.63	0.63	1 5/16	1.25	1 1/8	1.59	S4TFGE3/4ODx3/4ED

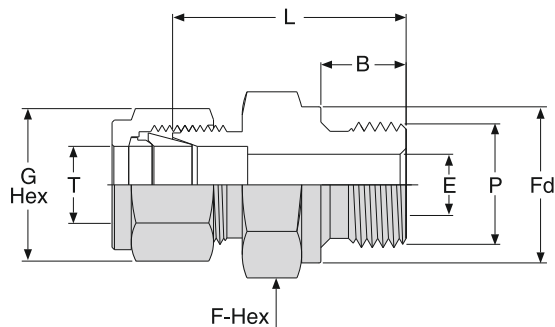
# S4TFGE - ED - TWIN FERRULE MALE STUD COUPLING WITH ED SEAL



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE06MMx1/8ED
SS304	S4	S4TFGE06MMx1/8ED
SS316	S6	S6TFGE06MMx1/8ED

TUBE OD	BSPP MALE THREAD	DIMENSIONS IN MM						PART NO.		
		T	P	B	E	F	Fd		G	L
6	1/8			7.9	4.0	14.0	13.7	14.0	25.0	S4TFGE06MMx1/8ED
6	1/4			11.9	4.8	19.0	18.8	14.0	30.7	S4TFGE06MMx1/4ED
6	3/8			11.9	4.8	22.0	21.8	14.0	32.0	S4TFGE06MMx3/8ED
6	1/2			14.0	4.8	27.0	26.4	14.0	37.0	S4TFGE06MMx1/2ED
10	1/4			11.9	5.9	19.0	18.8	19.0	32.3	S4TFGE10MMx1/4ED
10	3/8			11.9	7.9	22.0	21.8	19.0	38.1	S4TFGE10MMx3/8ED
10	1/2			14.0	7.9	27.0	26.4	19.0	38.4	S4TFGE10MMx1/2ED
12	1/4			11.9	5.9	22.0	18.8	22.0	33.0	S4TFGE12MMx1/4ED
12	3/8			11.9	7.9	22.0	21.8	22.0	33.5	S4TFGE12MMx3/8ED
12	1/2			14.0	9.5	27.0	26.4	22.0	38.4	S4TFGE12MMx1/2ED

# S4TFGE/A - TWIN FERRULE MALE STUD COUPLING

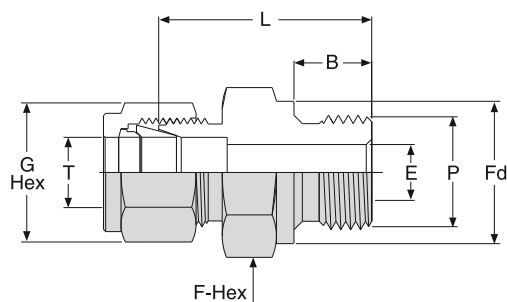


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE/A/8ODx1/8
SS304	S4	S4TFGE/A/8ODx1/8
SS316	S6	S6TFGE/A/8ODx1/8

TUBE OD	BSPP MALE THREAD	DIMENSIONS IN INCH						PART NO.
		T	P	B	E	F	Fd	
1/8	1/8	0.28	0.09	9/16	0.54	7/16	0.92	S4TFGE/A/1/8ODx1/8
1/8	1/4	0.44	0.09	3/4	0.71	7/16	1.13	S4TFGE/A/1/8ODx1/4
1/8	3/8	0.44	0.09	7/8	0.86	7/16	1.17	S4TFGE/A/1/8ODx3/8
1/4	1/8	0.28	0.16	9/16	0.54	9/16	0.98	S4TFGE/A/1/4ODx1/8
1/4	1/4	0.44	0.19	3/4	0.71	9/16	1.19	S4TFGE/A/1/4ODx1/4
1/4	3/8	0.44	0.19	7/8	0.86	9/16	1.24	S4TFGE/A/1/4ODx3/8
1/4	1/2	0.56	0.19	1 1/16	1.02	9/16	1.47	S4TFGE/A/1/4ODx1/2
3/8	1/4	0.44	0.23	3/4	0.71	11/16	1.25	S4TFGE/A/3/8ODx1/4
3/8	3/8	0.44	0.28	7/8	0.86	11/16	1.30	S4TFGE/A/3/8ODx3/8
3/8	1/2	0.56	0.28	1 1/16	1.02	11/16	1.53	S4TFGE/A/3/8ODx1/2
1/2	1/4	0.44	0.23	13/16	0.71	7/8	1.28	S4TFGE/A/1/2ODx1/4
1/2	3/8	0.44	0.31	7/8	0.86	7/8	1.30	S4TFGE/A/1/2ODx3/8
1/2	1/2	0.56	0.41	1 1/16	1.02	7/8	1.53	S4TFGE/A/1/2ODx1/2
3/4	1/2	0.56	0.47	1 1/16	1.02	1 1/8	1.53	S4TFGE/A/3/4ODx1/2
3/4	3/4	0.62	0.62	1 5/16	1.26	1 1/8	1.68	S4TFGE/A/3/4ODx3/4
1	1/2	0.56	0.47	1 3/8	1.02	1 1/2	1.72	S4TFGE/A/1ODx1/2
1	1	0.72	0.78	1 5/8	1.54	1 1/2	1.88	S4TFGE/A/1ODx1



# S4TFGE/A - TWIN FERRULE MALE STUD COUPLING

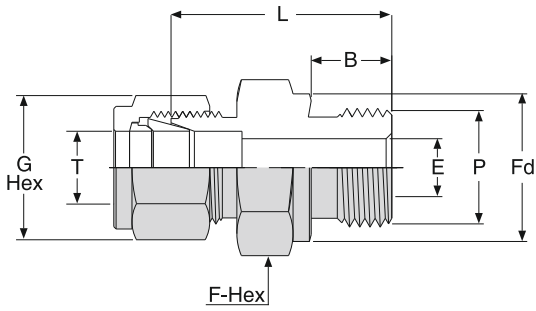


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE/A04MMx1/8
SS304	S4	S4TFGE/A04MMx1/8
SS316	S6	S6TFGE/A04MMx1/8

TUBE OD	BSPP MALE THREAD	DIMENSIONS IN MM						PART NO.
		T	P	B	E	F	Fd	
4	1/8	7.1	2.4	14.0	18.0	12.0	24.1	S4TFGE/A04MMx1/8
6	1/8	7.1	4.0	14.0	13.8	14.0	24.9	S4TFGE/A06MMx1/8
6	1/4	11.2	4.8	19.0	13.8	14.0	30.2	S4TFGE/A06MMx1/4
6	3/8	11.2	4.8	22.0	18.0	14.0	31.5	S4TFGE/A06MMx3/8
6	1/2	14.2	4.8	27.0	21.8	14.0	37.3	S4TFGE/A06MMx1/2
8	1/8	7.1	4.0	14.0	26.0	16.0	25.7	S4TFGE/A08MMx1/8
8	1/4	11.2	6.4	19.0	13.8	16.0	31.0	S4TFGE/A08MMx1/4
8	3/8	11.2	6.4	22.0	18.0	16.0	32.3	S4TFGE/A08MMx3/8
8	1/2	14.2	6.4	27.0	21.8	16.0	38.1	S4TFGE/A08MMx1/2
10	1/4	11.2	5.9	19.0	26.0	19.0	31.8	S4TFGE/A10MMx1/4
10	3/8	11.2	7.9	22.0	18.0	19.0	33.0	S4TFGE/A10MMx3/8
10	1/2	14.2	7.9	27.0	21.8	19.0	38.9	S4TFGE/A10MMx1/2
12	1/4	11.2	5.9	22.0	26.0	22.0	32.5	S4TFGE/A12MMx1/4
12	3/8	11.2	7.9	22.0	18.0	22.0	33.0	S4TFGE/A12MMx3/8
12	1/2	14.2	9.5	27.0	21.8	22.0	38.9	S4TFGE/A12MMx1/2
12	3/4	15.7	9.5	35.0	26.0	22.0	42.7	S4TFGE/A12MMx3/4
16	3/8	11.2	7.9	24.0	32.0	25.0	33.8	S4TFGE/A16MMx3/8
16	1/2	14.2	11.9	27.0	21.8	25.0	38.9	S4TFGE/A16MMx1/2
18	1/2	14.2	11.9	27.0	26.0	30.0	38.9	S4TFGE/A18MMx1/2
18	3/4	15.7	15.1	35.0	26.0	30.0	42.7	S4TFGE/A18MMx3/4
20	1/2	14.2	11.9	27.0	21.0	32.0	40.4	S4TFGE/A20MMx1/2
20	3/4	15.7	15.9	35.0	26.0	32.0	42.7	S4TFGE/A20MMx3/4
22	3/4	15.7	15.9	35.0	32.0	32.0	42.7	S4TFGE/A22MMx3/4
22	1	18.3	18.3	41.0	32.0	32.0	45.2	S4TFGE/A22MMx1
25	3/4	15.7	15.9	35.0	39.0	38.0	45.2	S4TFGE/A25MMx3/4
25	1	18.3	19.8	41.0	32.0	38.0	47.8	S4TFGE/A25MMx1



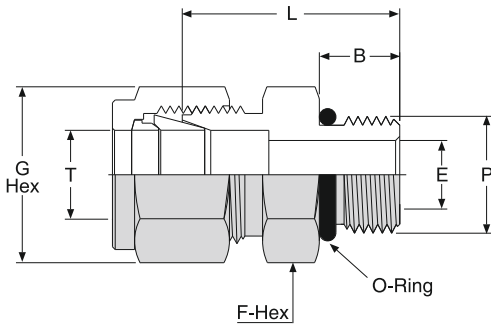
# S4TFGE/B-TWIN FERRULE MALE STUD COUPLING



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGE/B04MMx1/8
SS304	S4	S4TFGE/B04MMx1/8
SS316	S6	S6TFGE/B04MMx1/8

TUBE OD	BSPP MALE THREAD	DIMENSIONS IN MM						PART NO.
		T	P	B	E	F	Fd	
4	1/8	7.1	2.4	14.0	13.8	12.0	24.1	S4TFGE/B04MMx1/8
6	1/8	7.1	4.0	14.0	13.8	14.0	24.9	S4TFGE/B06MMx1/8
6	1/4	11.2	4.8	19.0	18.0	14.0	30.2	S4TFGE/B06MMx1/4
6	3/8	11.2	4.8	22.0	21.8	14.0	31.5	S4TFGE/B06MMx3/8
6	1/2	14.2	4.8	27.0	26.0	14.0	37.3	S4TFGE/B06MMx1/2
8	1/8	7.1	4.0	16.0	13.8	16.0	25.7	S4TFGE/B08MMx1/8
8	1/4	11.2	6.4	19.0	18.0	16.0	31.0	S4TFGE/B08MMx1/4
8	3/8	11.2	6.4	22.0	21.8	16.0	32.3	S4TFGE/B08MMx3/8
8	1/2	14.2	6.4	27.0	26.0	16.0	38.1	S4TFGE/B08MMx1/2
10	1/4	11.2	5.9	19.0	18.0	19.0	31.8	S4TFGE/B10MMx1/4
10	3/8	11.2	7.9	22.0	21.8	19.0	33.0	S4TFGE/B10MMx3/8
10	1/2	14.2	7.9	27.0	26.0	19.0	38.9	S4TFGE/B10MMx1/2
12	1/4	11.2	5.9	22.0	18.0	22.0	32.5	S4TFGE/B12MMx1/4
12	3/8	11.2	7.9	22.0	21.8	22.0	33.0	S4TFGE/B12MMx3/8
12	1/2	14.2	9.5	27.0	26.0	22.0	38.9	S4TFGE/B12MMx1/2
12	3/4	15.7	9.5	35.0	32.0	22.0	42.7	S4TFGE/B12MMx3/4
15	1/2	14.2	11.9	27.0	26.0	25.0	38.9	S4TFGE/B15MMx1/2
16	3/8	11.2	7.9	24.0	21.8	25.0	33.8	S4TFGE/B16MMx3/8
16	1/2	14.2	11.9	27.0	26.0	25.0	38.9	S4TFGE/B16MMx1/2
18	1/2	14.2	11.9	27.0	26.0	30.0	38.9	S4TFGE/B18MMx1/2
18	3/4	15.7	15.1	35.0	32.0	30.0	42.7	S4TFGE/B18MMx3/4
20	1/2	14.2	11.9	30.0	26.0	32.0	40.4	S4TFGE/B20MMx1/2
20	3/4	15.7	15.9	35.0	32.0	32.0	42.7	S4TFGE/B20MMx3/4
22	3/4	15.7	15.9	35.0	32.0	32.0	42.7	S4TFGE/B22MMx3/4
22	1	18.3	18.3	41.0	39.0	32.0	45.2	S4TFGE/B22MMx1
25	3/4	15.7	15.9	35.0	32.0	38.0	45.2	S4TFGE/B25MMx3/4
25	1	18.3	19.8	41.0	39.0	38.0	47.8	S4TFGE/B25MMx1
28	1	18.3	19.8	41.0	39.0	46.0	49.3	S4TFGE/B28MMx1

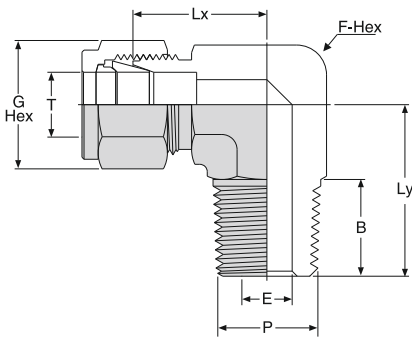
# S4TFGE - TWIN FERRULE MALE STUD COUPLING UNF



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGEU1/8ODx5/16-24UNF
SS304	S4	S4TFGEU1/8ODx5/16-24UNF
SS316	S6	S6TFGEU1/8ODx5/16-24UNF

TUBE OD	UNF THREAD	DIMENSIONS IN INCH					PART NO.
		T	P	B	E	F	
1/8	5/16-24	0.30	0.09	7/16	7/16	0.92	S4TFGEU1/8ODx5/16-24UNF
1/8	7/16-20	0.36	0.09	9/16	7/16	0.98	S4TFGEU1/8ODx7/16-20UNF
1/8	9/16-18	0.39	0.09	11/16	7/16	1.05	S4TFGEU1/8ODx9/16-18UNF
1/4	7/16-20	0.36	0.19	9/16	9/16	1.05	S4TFGEU1/4ODx7/16-20UNF
1/4	9/16-18	0.39	0.19	11/16	9/16	1.11	S4TFGEU1/4ODx9/16-18UNF
1/4	3/4-16	0.44	0.19	7/8	9/16	1.19	S4TFGEU1/4ODx3/4-16UNF
1/4	7/8-14	0.50	0.19	1	9/16	1.31	S4TFGEU1/4ODx7/8-14UNF
5/16	1/2-20	0.36	0.25	5/8	5/8	1.08	S4TFGEU5/16ODx1/2-20UNF
3/8	7/16-20	0.36	0.20	5/8	11/16	1.11	S4TFGEU3/8ODx7/16-20UNF
3/8	9/16-18	0.39	0.28	11/16	11/16	1.17	S4TFGEU3/8ODx9/16-18UNF
3/8	3/4-16	0.44	0.28	7/8	11/16	1.25	S4TFGEU3/8ODx3/4-16UNF
3/8	7/8-14	0.50	0.28	1	11/16	1.37	S4TFGEU3/8ODx7/8-14UNF
1/2	9/16-18	0.39	0.28	13/16	7/8	1.14	S4TFGEU1/2ODx9/16-18UNF
1/2	3/4-16	0.44	0.41	7/8	7/8	1.25	S4TFGEU1/2ODx3/4-16UNF
1/2	7/8-14	0.50	0.41	1	7/8	1.37	S4TFGEU1/2ODx7/8-14UNF
1/2	1 1/16-12	0.59	0.41	1 1/4	7/8	1.53	S4TFGEU1/2ODx1-1/16-12UNF
5/8	3/4-16	0.44	0.42	15/16	1	1.25	S4TFGEU5/8ODx3/4-16UNF
5/8	7/8-14	0.50	0.50	1	1	1.38	S4TFGEU5/8ODx7/8-14UNF
3/4	3/4-16	0.44	0.42	1 1/16	1 1/8	1.41	S4TFGEU3/4ODx3/4-16UNF
3/4	1 1/16-12	0.59	0.62	1 1/4	1 1/8	1.53	S4TFGEU3/4ODx1-1/16-12UNF
7/8	1 3/16-12	0.59	0.72	1 3/8	1 1/4	1.53	S4TFGEU7/8ODx1-3/16-12UNF
1	1 1/16-12	0.59	0.66	1 3/8	1 1/2	1.62	S4TFGEU1ODx1-1/16-12UNF
1	1 5/16-12	0.59	0.88	1 1/2	1 1/2	1.66	S4TFGEU1ODx1-5/16-12UNF

# S4TFWE - TWIN FERRULE MALE STUD ELBOW NPT

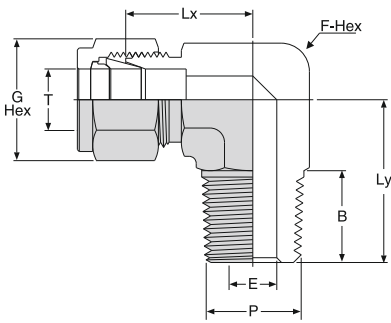


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWE1/8ODx1/8NPT
SS304	S4	S4TFWE1/8ODx1/8NPT
SS316	S6	S6TFWE1/8ODx1/8NPT

TUBE OD	NPT MALE THREAD	DIMENSIONS IN INCH						PART NO.
		T	P	B	E	F	G	
1/8	1/8	0.38	0.09	7/16	7/16	0.67	0.70	S4TFWE1/8ODx1/8NPT
1/8	1/4	0.56	0.09	9/16	7/16	0.71	0.92	S4TFWE1/8ODx1/4NPT
3/16	1/8	0.38	0.12	1/2	1/2	0.74	0.74	S4TFWE3/16ODx1/8NPT
3/16	1/4	0.56	0.12	9/16	1/2	0.74	0.92	S4TFWE3/16ODx1/4NPT
1/4	1/8	0.38	0.19	1/2	9/16	0.77	0.74	S4TFWE1/4ODx1/8NPT
1/4	1/4	0.56	0.19	9/16	9/16	0.77	0.92	S4TFWE1/4ODx1/4NPT
1/4	3/8	0.56	0.19	11/16	9/16	0.88	1.03	S4TFWE1/4ODx3/8NPT
1/4	1/2	0.75	0.19	7/8	9/16	0.96	1.30	S4TFWE1/4ODx1/2NPT
5/16	1/8	0.38	0.19	9/16	5/8	0.84	0.78	S4TFWE5/16ODx1/8NPT
5/16	1/4	0.56	0.25	9/16	5/8	0.84	0.96	S4TFWE5/16ODx1/4NPT
5/16	3/8	0.56	0.25	11/16	5/8	0.91	1.03	S4TFWE5/16ODx3/8NPT
3/8	1/8	0.38	0.19	5/8	11/16	0.91	0.82	S4TFWE3/8ODx1/8NPT
3/8	1/4	0.56	0.28	5/8	11/16	0.91	1.00	S4TFWE3/8ODx1/4NPT
3/8	3/8	0.56	0.28	11/16	11/16	0.94	1.03	S4TFWE3/8ODx3/8NPT
3/8	1/2	0.75	0.28	7/8	11/16	1.02	1.30	S4TFWE3/8ODx1/2NPT
3/8	3/4	0.75	0.28	1 1/8	11/16	1.17	1.45	S4TFWE3/8ODx3/4NPT
1/2	1/4	0.56	0.28	13/16	7/8	1.02	1.11	S4TFWE1/2ODx1/4NPT
1/2	3/8	0.56	0.38	13/16	7/8	1.02	1.11	S4TFWE1/2ODx3/8NPT
1/2	1/2	0.75	0.41	7/8	7/8	1.02	1.30	S4TFWE1/2ODx1/2NPT
1/2	3/4	0.75	0.41	1 1/8	7/8	1.17	1.45	S4TFWE1/2ODx3/4NPT
5/8	3/8	0.56	0.38	15/16	1	1.10	1.19	S4TFWE5/8ODx3/8NPT
5/8	1/2	0.75	0.47	15/16	1	1.10	1.38	S4TFWE5/8ODx1/2NPT
5/8	3/4	0.75	0.50	1 1/8	1	1.17	1.45	S4TFWE5/8ODx3/4NPT
3/4	1/2	0.75	0.47	1 1/16	1 1/8	1.17	1.45	S4TFWE3/4ODx1/2NPT
3/4	3/4	0.75	0.62	1 1/8	1 1/8	1.17	1.45	S4TFWE3/4ODx3/4NPT
7/8	3/4	0.75	0.62	1 3/8	1 1/4	1.36	1.64	S4TFWE7/8ODx3/4NPT
1	3/4	0.75	0.62	1 3/8	1 1/2	1.45	1.64	S4TFWE1ODx3/4NPT
1	1	0.94	0.88	1 3/8	1 1/2	1.45	1.83	S4TFWE1ODx1NPT

Dimensions are for reference only and are subject to change without Notice

# S4TFWE - TWIN FERRULE MALE STUD ELBOW NPT

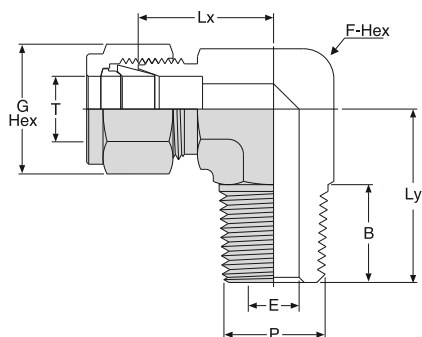


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWE04MMx1/8NPT
SS304	S4	S4TFWE04MMx1/8NPT
SS316	S6	S6TFWE04MMx1/8NPT

TUBE OD	NPT MALE THREAD	DIMENSIONS IN MM						PART NO.
		T	P	B	E	F	G	
4	1/8	9.7	2.4	1/2	12.0	18.8	18.8	S4TFWE04MMx1/8NPT
4	1/4	14.3	2.4	9/16	12.0	18.8	23.4	S4TFWE04MMx1/4NPT
6	1/8	9.7	4.8	1/2	14.0	19.6	18.8	S4TFWE06MMx1/8NPT
6	1/4	14.3	4.8	9/16	14.0	19.6	23.4	S4TFWE06MMx1/4NPT
6	3/8	14.3	4.8	11/16	14.0	22.4	26.2	S4TFWE06MMx3/8NPT
6	1/2	19.0	4.8	7/8	14.0	24.4	33.0	S4TFWE06MMx1/2NPT
8	1/8	9.7	4.8	9/16	16.0	21.3	19.8	S4TFWE08MMx1/8NPT
8	1/4	14.3	6.4	9/16	16.0	21.3	24.4	S4TFWE08MMx1/4NPT
8	3/8	14.3	6.4	11/16	16.0	23.1	26.2	S4TFWE08MMx3/8NPT
8	1/2	19.0	6.4	7/8	16.0	25.1	33.0	S4TFWE08MMx1/2NPT
10	1/4	14.3	7.5	11/16	19.0	23.9	26.2	S4TFWE10MMx1/4NPT
10	3/8	14.3	7.9	11/16	19.0	23.9	26.2	S4TFWE10MMx3/8NPT
10	1/2	19.0	7.9	7/8	19.0	25.9	33.0	S4TFWE10MMx1/2NPT
12	1/4	14.3	7.1	13/16	22.0	25.9	28.2	S4TFWE12MMx1/4NPT
12	3/8	14.3	9.5	13/16	22.0	25.9	28.2	S4TFWE12MMx3/8NPT
12	1/2	19.0	9.5	7/8	22.0	25.9	33.0	S4TFWE12MMx1/2NPT
12	3/4	19.0	9.5	1 1/8	22.0	29.7	36.8	S4TFWE12MMx3/4NPT
15	1/2	19.0	11.9	15/16	25.0	27.9	35.1	S4TFWE15MMx1/2NPT
16	3/8	14.3	9.5	15/16	25.0	27.9	30.2	S4TFWE16MMx3/8NPT
16	1/2	19.0	11.9	15/16	25.0	27.9	35.1	S4TFWE16MMx1/2NPT
16	3/4	19.0	12.7	1 1/8	25.0	29.7	36.8	S4TFWE16MMx3/4NPT
18	1/2	19.0	11.9	1 1/16	30.0	29.7	36.8	S4TFWE18MMx1/2NPT
18	3/4	19.0	15.1	1 1/8	30.0	29.7	36.8	S4TFWE18MMx3/4NPT
20	1/2	19.0	11.9	1 1/4	32.0	34.5	41.7	S4TFWE20MMx1/2NPT
20	3/4	19.0	15.9	1 1/4	32.0	34.5	41.7	S4TFWE20MMx3/4NPT
22	3/4	19.0	15.9	1 1/4	32.0	34.5	41.7	S4TFWE22MMx3/4NPT
22	1	23.9	18.3	1 3/8	32.0	34.5	46.5	S4TFWE22MMx1NPT
25	3/4	19.0	15.9	1 3/8	38.0	36.8	41.7	S4TFWE25MMx3/4NPT
25	1	23.9	21.8	1 3/8	38.0	36.8	46.5	S4TFWE25MMx1NPT

Dimensions are for reference only and are subject to change without Notice

# S4TFWE - TWIN FERRULE MALE STUD ELBOW BSPT

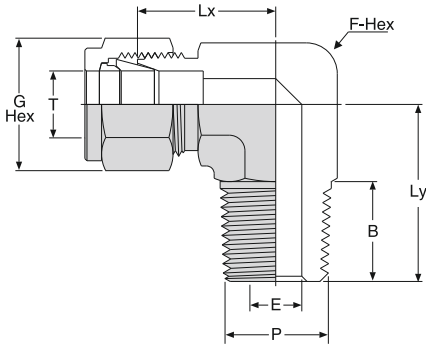


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWE1/4ODx1/8BSPT
SS304	S4	S4TFWE1/4ODx1/8BSPT
SS316	S6	S6TFWE1/4ODx1/8BSPT

TUBE OD	BSPT MALE THREAD	DIMENSIONS IN INCH						PART NO.
		T	P	B	E	F	G	
1/4	1/8	0.38	0.19	1/2	9/16	0.77	0.74	S4TFWE1/4ODx1/8BSPT
1/4	1/4	0.56	0.19	9/16	9/16	0.77	0.92	S4TFWE1/4ODx1/4BSPT
1/4	3/8	0.56	0.19	11/16	9/16	0.88	1.03	S4TFWE1/4ODx3/8BSPT
1/4	1/2	0.75	0.19	7/8	9/16	0.96	1.30	S4TFWE1/4ODx1/2BSPT
5/16	1/4	0.56	0.25	9/16	5/8	0.84	0.96	S4TFWE5/16ODx1/4BSPT
3/8	1/4	0.56	0.28	5/8	11/16	0.91	1.00	S4TFWE3/8ODx1/4BSPT
3/8	3/8	0.56	0.28	11/16	11/16	0.94	1.03	S4TFWE3/8ODx3/8BSPT

Dimensions are for reference only and are subject to change without Notice

# S4TFWE - TWIN FERRULE MALE STUD ELBOW BSPT

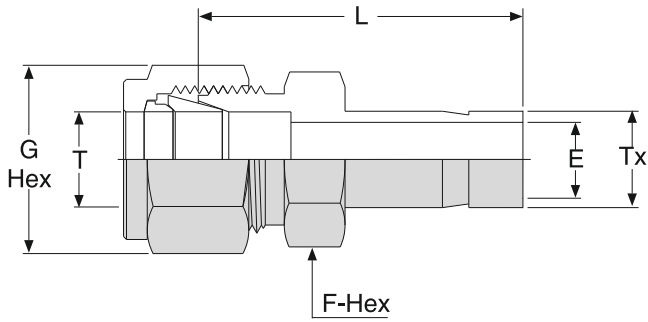


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWE04MMx1/8BSPT
SS304	S4	S4TFWE04MMx1/8BSPT
SS316	S6	S6TFWE04MMx1/8BSPT

TUBE OD	BSPT MALE THREAD	DIMENSIONS IN MM						PART NO.
		T	P	B	E	F	G	
4	1/8	9.7	2.4	1/2	12.0	18.8	18.8	S4TFWE04MMx1/8BSPT
4	1/4	14.3	2.4	9/16	12.0	18.8	23.4	S4TFWE04MMx1/4BSPT
6	1/8	9.7	4.8	1/2	14.0	19.6	18.8	S4TFWE06MMx1/8BSPT
6	1/4	14.3	4.8	9/16	14.0	19.6	23.4	S4TFWE06MMx1/4BSPT
6	3/8	14.3	4.8	11/16	14.0	22.4	26.2	S4TFWE06MMx3/8BSPT
6	1/2	19.0	4.8	7/8	14.0	24.4	33.0	S4TFWE06MMx1/2BSPT
8	1/8	9.7	4.8	9/16	16.0	21.3	19.8	S4TFWE08MMx1/8BSPT
8	1/4	14.3	6.4	9/16	16.0	21.3	24.4	S4TFWE08MMx1/4BSPT
8	3/8	14.3	6.4	11/16	16.0	23.1	26.2	S4TFWE08MMx3/8BSPT
8	1/2	19.0	6.4	7/8	16.0	25.1	33.0	S4TFWE08MMx1/2BSPT
10	1/4	14.3	7.1	11/16	19.0	23.9	26.2	S4TFWE10MMx1/4BSPT
10	3/8	14.3	7.9	11/16	19.0	23.9	26.2	S4TFWE10MMx3/8BSPT
10	1/2	19.0	7.9	7/8	19.0	25.9	33.0	S4TFWE10MMx1/2BSPT
12	1/4	14.3	7.1	13/16	22.0	25.9	28.2	S4TFWE12MMx1/4BSPT
12	3/8	14.3	9.5	13/16	22.0	25.9	28.2	S4TFWE12MMx3/8BSPT
12	1/2	19.0	9.5	7/8	22.0	25.9	33.0	S4TFWE12MMx1/2BSPT
12	3/4	19.0	9.5	1 1/8	22.0	29.7	36.8	S4TFWE12MMx3/4BSPT
16	3/8	14.3	9.5	15/16	25.0	27.9	30.2	S4TFWE16MMx3/8BSPT
16	1/2	19.0	11.9	15/16	25.0	27.9	35.1	S4TFWE16MMx1/2BSPT
18	1/2	19.0	11.9	1 1/16	30.0	29.7	36.8	S4TFWE18MMx1/2BSPT
18	3/4	19.0	15.1	1 1/8	30.0	29.7	36.8	S4TFWE18MMx3/4BSPT
20	1/2	19.0	11.9	1 1/4	32.0	34.5	41.7	S4TFWE20MMx1/2BSPT
20	3/4	19.0	15.9	1 1/4	32.0	34.5	41.7	S4TFWE20MMx3/4BSPT
22	3/4	19.0	15.9	1 1/4	32.0	34.5	41.7	S4TFWE22MMx3/4BSPT
22	1	23.9	18.3	1 3/8	32.0	34.5	46.5	S4TFWE22MMx1BSPT
25	3/4	19.0	15.9	1 3/8	38.0	36.8	41.7	S4TFWE25MMx3/4BSPT
25	1	23.9	21.8	1 3/8	38.0	36.8	46.5	S4TFWE25MMx1BSPT

Dimensions are for reference only and are subject to change without Notice

# S4TFRED - TWIN FERRULE REDUCER

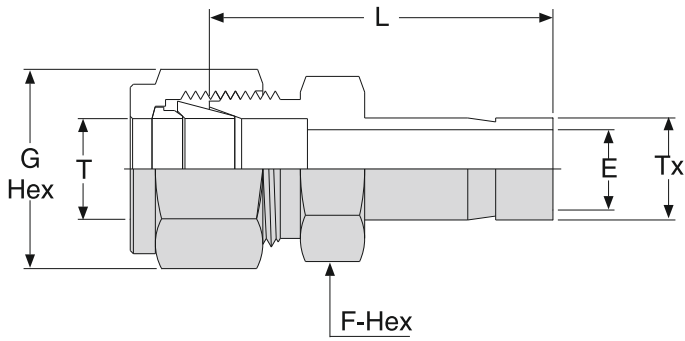


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFRED1/4x1/8OD
SS304	S4	S4TFRED1/4x1/8OD
SS316	S6	S6TFRED1/4x1/8OD

TUBE OD	TUBE OD	DIMENSIONS IN INCH				PART NO.
		T	Tx	E	F	
1/4	1/8	0.08	1/2	9/16	1.16	S4TFRED1/4x1/8OD
1/4	3/16	0.12	1/2	9/16	1.19	S4TFRED1/4x3/16OD
1/4	1/4	0.19	1/2	9/16	1.25	S4TFRED1/4x1/4OD
1/4	5/16	0.19	1/2	9/16	1.28	S4TFRED1/4x5/16OD
1/4	3/8	0.19	1/2	9/16	1.31	S4TFRED1/4x3/8OD
1/4	1/2	0.19	9/16	9/16	1.53	S4TFRED1/4x1/2OD
1/4	5/8	0.19	11/16	9/16	1.60	S4TFRED1/4x5/8OD
1/4	3/4	0.19	13/16	9/16	1.59	S4TFRED1/4x3/4OD
5/16	3/8	0.25	9/16	5/8	1.36	S4TFRED5/16x3/8OD
5/16	1/2	0.25	9/16	5/8	1.58	S4TFRED5/16x1/2OD
3/8	1/4	0.19	5/8	11/16	1.34	S4TFRED3/8x1/4OD
3/8	3/8	0.28	5/8	11/16	1.41	S4TFRED3/8x3/8OD
3/8	1/2	0.28	5/8	11/16	1.62	S4TFRED3/8x1/2OD
3/8	5/8	0.28	11/16	11/16	1.69	S4TFRED3/8x5/8OD
3/8	3/4	0.28	13/16	11/16	1.69	S4TFRED3/8x3/4OD
1/2	1/4	0.19	13/16	7/8	1.37	S4TFRED1/2x1/4OD
1/2	3/8	0.28	13/16	7/8	1.44	S4TFRED1/2x3/8OD
1/2	1/2	0.39	13/16	7/8	1.66	S4TFRED1/2x1/2OD
1/2	5/8	0.41	13/16	7/8	1.72	S4TFRED1/2x5/8OD
1/2	3/4	0.41	13/16	7/8	1.72	S4TFRED1/2x3/4OD
1/2	1	0.41	1 1/16	7/8	1.97	S4TFRED1/2x1OD
5/8	3/4	0.50	15/16	1	1.75	S4TFRED5/8x3/4OD
5/8	7/8	0.50	15/16	1	1.81	S4TFRED5/8x7/8OD
5/8	1	0.50	1 1/16	1	2.00	S4TFRED5/8x1OD
3/4	1/2	0.39	1 1/16	1 1/8	1.75	S4TFRED3/4x1/2OD
3/4	1	0.62	1 1/16	1 1/8	2.06	S4TFRED3/4x1OD



# S4TFRED - TWIN FERRULE REDUCER

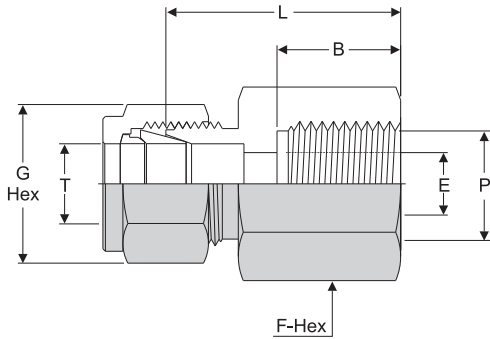


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFRED06MMx08MM
SS304	S4	S4TFRED06MMx08MM
SS316	S6	S6TFRED06MMx08MM

TUBE OD	TUBE OD	DIMENSIONS IN MM				PART NO.
		T	Tx	E	F	
6	8	4.8	14	14	32.5	S4TFRED06MMx08MM
6	10	4.8	14	14	33.3	S4TFRED06MMx10MM
6	12	4.8	14	14	38.9	S4TFRED06MMx12MM
6	18	4.8	22	14	42.2	S4TFRED06MMx18MM
8	6	4.6	16	16	32.8	S4TFRED08MMx06MM
8	10	6.4	16	16	34.5	S4TFRED08MMx10MM
8	12	6.4	16	16	40.1	S4TFRED08MMx12MM
10	6	4.6	18	19	34.8	S4TFRED10MMx06MM
10	8	6.4	18	19	35.8	S4TFRED10MMx08MM
10	12	7.9	18	19	42.2	S4TFRED10MMx12MM
10	15	7.9	18	19	43.7	S4TFRED10MMx15MM
10	18	7.9	22	19	43.7	S4TFRED10MMx18MM
12	6	4.6	22	22	34.8	S4TFRED12MMx06MM
12	8	6.4	22	22	35.8	S4TFRED12MMx08MM
12	10	7.7	22	22	36.6	S4TFRED12MMx10MM
12	16	9.5	22	22	43.7	S4TFRED12MMx16MM
12	18	9.5	22	22	43.7	S4TFRED12MMx18MM
12	20	9.5	22	22	46.0	S4TFRED12MMx20MM
12	22	9.5	24	22	46.0	S4TFRED12MMx22MM
12	25	9.5	27	22	52.3	S4TFRED12MMx25MM
16	12	9.1	24	25	42.9	S4TFRED16MMx12MM
18	12	9.1	27	30	44.5	S4TFRED18MMx12MM
18	16	12.7	27	30	46.0	S4TFRED18MMx16MM
18	20	15.1	27	30	47.5	S4TFRED18MMx20MM
18	22	15.1	27	30	47.5	S4TFRED18MMx22MM
18	25	15.1	27	30	52.3	S4TFRED18MMx25MM
20	16	12.7	30	32	47.8	S4TFRED20MMx16MM
20	18	13.9	30	32	47.8	S4TFRED20MMx18MM
20	22	15.8	30	32	49.3	S4TFRED20MMx22MM
20	25	15.8	30	32	54.1	S4TFRED20MMx25MM
22	18	13.9	30	32	47.8	S4TFRED22MMx18MM
22	20	15.1	30	32	49.3	S4TFRED22MMx20MM
22	25	18.3	30	32	54.1	S4TFRED22MMx25MM
25	18	13.9	35	38	50.8	S4TFRED25MMx18MM
25	20	15.1	35	38	52.3	S4TFRED25MMx20MM



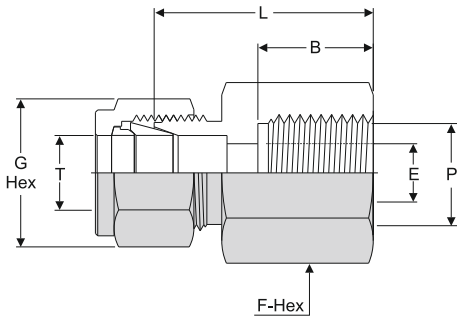
# S4TFGAI - TWIN FERRULE FEMALE CONNECTOR BSPP



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGAI1/4ODx1/4
SS304	S4	S4TFGAI1/4ODx1/4
SS316	S6	S6TFGAI1/4ODx1/4

TUBE OD	BSPP FEMALE THREAD	DIMENSIONS IN INCH					PART NO.
		T	P	B	E	F	
1/4	1/4	0.51	0.19	3/4	9/16	1.19	S4TFGAI1/4ODx1/4
1/4	3/8	0.56	0.19	7/8	9/16	1.19	S4TFGAI1/4ODx3/8
1/4	1/2	0.74	0.19	1 1/16	9/16	1.42	S4TFGAI1/4ODx1/2
3/8	1/4	0.51	0.22	3/4	11/16	1.25	S4TFGAI3/8ODx1/4
3/8	3/8	0.56	0.26	7/8	11/16	1.23	S4TFGAI3/8ODx3/8
3/8	1/2	0.74	0.28	1 1/16	11/16	1.36	S4TFGAI3/8ODx1/2
1/2	3/8	0.56	0.26	7/8	7/8	1.35	S4TFGAI1/2ODx3/8
1/2	1/2	0.74	0.28	1 1/16	7/8	1.50	S4TFGAI1/2ODx1/2

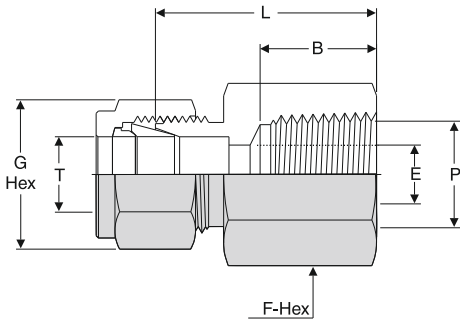
# S4TFGAI - TWIN FERRULE FEMALE CONNECTOR BSPP



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGAI06MMx1/4
SS304	S4	S4TFGAI06MMx1/4
SS316	S6	S6TFGAI06MMx1/4

TUBE OD	BSPP FEMALE THREAD	DIMENSIONS IN MM					PART NO.
		T	P	B	E	F	
6	1/4	12.9	4.8	19	14	30.2	S4TFGAI06MMx1/4
6	3/8	14.1	4.8	22	14	30.2	S4TFGAI06MMx3/8
6	1/2	18.9	4.8	27	14	36.1	S4TFGAI06MMx1/2
8	1/4	12.9	5.5	19	16	31.0	S4TFGAI08MMx1/4
8	3/8	14.1	6.5	22	16	33.3	S4TFGAI08MMx3/8
8	1/2	18.9	7.0	27	16	36.5	S4TFGAI08MMx1/2
10	1/4	12.9	5.5	19	19	31.8	S4TFGAI10MMx1/4
10	3/8	14.1	6.5	22	19	31.2	S4TFGAI10MMx3/8
10	1/2	18.9	7.0	27	19	34.5	S4TFGAI10MMx1/2
12	1/4	12.9	5.5	22	22	31.8	S4TFGAI12MMx1/4
12	3/8	14.1	6.5	22	22	34.3	S4TFGAI12MMx3/8
12	1/2	18.9	7.0	27	22	38.1	S4TFGAI12MMx1/2
20	1/2	18.9	7.0	30	32	44.2	S4TFGAI20MMx1/2
22	1/2	18.9	7.0	30	32	44.2	S4TFGAI22MMx1/2

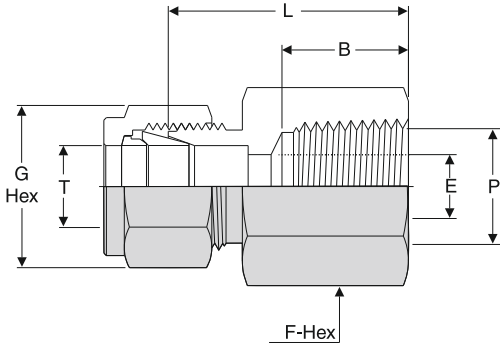
# S4TFGAI - TWIN FERRULE FEMALE CONNECTOR



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGAI1/4ODx1/8NPT
SS304	S4	S4TFGAI1/4ODx1/8NPT
SS316	S6	S6TFGAI1/4ODx1/8NPT

TUBE OD	NPT FEMALE THREAD	DIMENSIONS IN INCH					PART NO.
		T	P	B	E	F	
1/4	1/8	0.39	0.19	9/16	9/16	0.94	S4TFGAI1/4ODx1/8NPT
1/4	1/4	0.59	0.19	3/4	9/16	1.12	S4TFGAI1/4ODx1/4NPT
1/4	3/8	0.59	0.19	7/8	9/16	1.19	S4TFGAI1/4ODx3/8NPT
1/4	1/2	0.78	0.19	1 1/16	9/16	1.38	S4TFGAI1/4ODx1/2NPT
3/8	1/8	0.41	0.28	5/8	11/16	1.00	S4TFGAI3/8ODx1/8NPT
3/8	1/4	0.59	0.28	3/4	11/16	1.19	S4TFGAI3/8ODx1/4NPT
3/8	3/8	0.59	0.28	7/8	11/16	1.25	S4TFGAI3/8ODx3/8NPT
3/8	1/2	0.78	0.28	1 1/16	11/16	1.44	S4TFGAI3/8ODx1/2NPT
3/8	3/4	0.81	0.28	1 5/16	11/16	1.59	S4TFGAI3/8ODx3/4NPT
1/2	1/4	0.59	0.41	13/16	7/8	1.19	S4TFGAI1/2ODx1/4NPT
1/2	3/8	0.59	0.41	7/8	7/8	1.25	S4TFGAI1/2ODx3/8NPT
1/2	1/2	0.78	0.41	1 1/16	7/8	1.44	S4TFGAI1/2ODx1/2NPT
1/2	3/4	0.81	0.41	1 5/16	7/8	1.50	S4TFGAI1/2ODx3/4NPT
5/8	3/8	0.59	0.50	15/16	1	1.25	S4TFGAI5/8ODx3/8NPT
5/8	1/2	0.78	0.50	1 1/16	1	1.44	S4TFGAI5/8ODx1/2NPT
5/8	3/4	0.81	0.50	1 5/16	1	1.50	S4TFGAI5/8ODx3/4NPT
3/4	1/2	0.78	0.62	1 1/16	1 1/8	1.44	S4TFGAI3/4ODx1/2NPT
3/4	3/4	0.81	0.62	1 5/16	1 1/8	1.50	S4TFGAI3/4ODx3/4NPT
7/8	3/4	0.81	0.72	1 5/16	1 1/4	1.56	S4TFGAI7/8ODx3/4NPT
1	3/4	0.81	0.88	1 3/8	1 1/2	1.62	S4TFGAI1ODx3/4NPT
1	1	1.00	0.88	1 5/8	1 1/2	1.97	S4TFGAI1ODx1NPT

# S4TFGAI - TWIN FERRULE FEMALE CONNECTOR

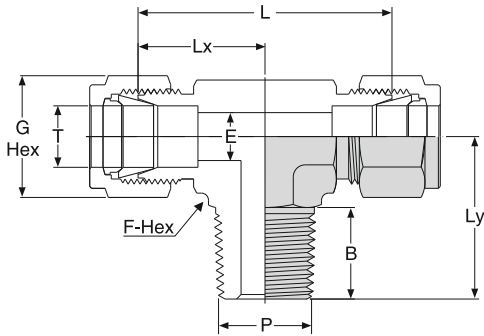


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFGAI06MMx1/8NPT
SS304	S4	S4TFGAI06MMx1/8NPT
SS316	S6	S6TFGAI06MMx1/8NPT

TUBE OD	NPT FEMALE THREAD	DIMENSIONS IN MM					PART NO.
		T	P	B	E	F	
6	1/8	10.4	4.8	14	14	23.9	S4TFGAI06MMx1/8NPT
6	1/4	15.0	4.8	19	14	28.4	S4TFGAI06MMx1/4NPT
6	3/8	15.0	4.8	22	14	30.2	S4TFGAI06MMx3/8NPT
6	1/2	19.8	4.8	27	14	35.1	S4TFGAI06MMx1/2NPT
8	1/8	10.4	6.4	15	16	24.6	S4TFGAI08MMx1/8NPT
8	1/4	15.0	6.4	19	16	29.5	S4TFGAI08MMx1/4NPT
8	3/8	15.0	6.4	22	16	31.0	S4TFGAI08MMx3/8NPT
8	1/2	19.8	6.4	27	16	35.8	S4TFGAI08MMx1/2NPT
10	1/4	15.0	7.9	19	19	30.2	S4TFGAI10MMx1/4NPT
10	3/8	15.0	7.9	22	19	31.8	S4TFGAI10MMx3/8NPT
10	1/2	19.8	7.9	27	19	36.6	S4TFGAI10MMx1/2NPT
12	1/4	15.0	9.5	22	22	30.2	S4TFGAI12MMx1/4NPT
12	3/8	15.0	9.5	22	22	31.8	S4TFGAI12MMx3/8NPT
12	1/2	19.8	9.5	27	22	36.6	S4TFGAI12MMx1/2NPT
15	1/2	19.8	11.9	27	25	36.6	S4TFGAI15MMx1/2NPT
16	1/2	19.8	12.7	27	25	36.8	S4TFGAI16MMx1/2NPT
20	1/2	19.8	15.9	30	32	37.8	S4TFGAI20MMx1/2NPT
20	3/4	20.6	15.9	35	32	39.6	S4TFGAI20MMx3/4NPT
22	3/4	20.6	18.3	35	32	39.6	S4TFGAI22MMx3/4NPT
22	1	25.4	18.3	41	32	47.8	S4TFGAI22MMx1NPT
25	3/4	20.6	21.8	35	38	41.1	S4TFGAI25MMx3/4NPT
25	1	25.4	21.8	41	38	50.0	S4TFGAI25MMx1NPT

# S4TFBTTN - TWIN FERRULE MALE BRANCH TEE

DSH



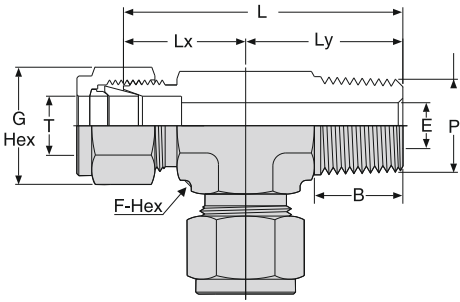
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFBTTN1/4ODx1/8NPT
SS304	S4	S4TFBTTN1/4ODx1/8NPT
SS316	S6	S6TFBTTN1/4ODx1/8NPT

TUBE OD	NPT MALE THREAD	DIMENSIONS IN INCH							PART NO.
		T	P	B	E	F	G	L	
1/4	1/8	0.38	0.19	1/2	9/16	1.54	0.77	0.74	S4TFBTTN1/4ODx1/8NPT
1/4	1/4	0.56	0.19	9/16	9/16	1.54	0.77	0.92	S4TFBTTN1/4ODx1/4NPT
3/8	1/4	0.56	0.28	5/8	11/16	1.82	0.91	1.00	S4TFBTTN3/8ODx1/4NPT
3/8	3/8	0.56	0.28	13/16	11/16	2.04	1.02	1.11	S4TFBTTN3/8ODx3/8NPT
1/2	3/8	0.56	0.38	13/16	7/8	2.04	1.02	1.11	S4TFBTTN1/2ODx3/8NPT
1/2	1/2	0.75	0.41	7/8	7/8	2.04	1.02	1.30	S4TFBTTN1/2ODx1/2NPT
5/8	1/2	0.75	0.47	1	1	2.26	1.13	1.41	S4TFBTTN5/8ODx1/2NPT
3/4	3/4	0.75	0.62	1 1/8	1 1/8	2.34	1.17	1.45	S4TFBTTN3/4ODx3/4NPT

TUBE OD	NPT MALE THREAD	DIMENSIONS IN MM							PART NO.
		T	P	B	E	F	G	L	
6	1/8	9.7	4.8	1/2	14	39.1	19.6	18.8	S4TFBTTN06MMx1/8NPT
6	1/4	14.2	4.8	9/16	14	39.1	19.6	23.4	S4TFBTTN06MMx1/4NPT
8	1/8	9.7	4.8	9/16	16	44.7	22.4	20.8	S4TFBTTN08MMx1/8NPT
8	1/4	14.2	6.4	9/16	16	44.7	22.4	25.4	S4TFBTTN08MMx1/4NPT
10	1/4	14.2	7.1	13/16	19	51.8	25.9	28.2	S4TFBTTN10MMx1/4NPT
12	1/4	14.2	7.1	13/16	22	51.8	25.9	28.2	S4TFBTTN12MMx1/4NPT
12	3/8	14.2	9.5	13/16	22	51.8	25.9	28.2	S4TFBTTN12MMx3/8NPT
12	1/2	19.0	9.5	7/8	22	51.8	25.9	33.0	S4TFBTTN12MMx1/2NPT
16	1/2	19.0	11.9	1	25	57.4	28.7	35.8	S4TFBTTN16MMx1/2NPT

Dimensions are for reference only and are subject to change without Notice

# S4TFRRTN - TWIN FERRULE MALE RUN TEE



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFRRTN1/4ODx1/8NPT
SS304	S4	S4TFRRTN1/4ODx1/8NPT
SS316	S6	S6TFRRTN1/4ODx1/8NPT

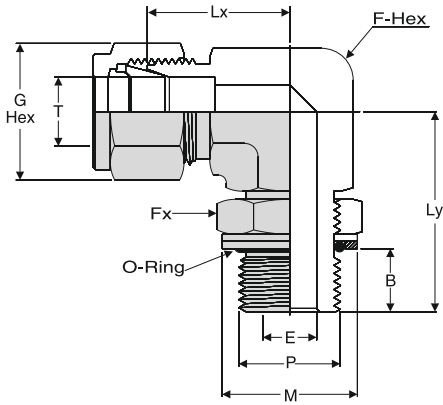
TUBE OD	NPT MALE THREAD	DIMENSIONS IN INCH							PART NO.
		T	P	B	E	F	G	L	
1/4	1/8	0.38	0.19	1/2	9/16	1.51	0.77	0.74	S4TFRRTN1/4ODx1/8NPT
1/4	1/4	0.56	0.19	9/16	9/16	1.69	0.77	0.92	S4TFRRTN1/4ODx1/4NPT
3/8	1/4	0.56	0.28	5/8	11/16	1.91	0.91	1.00	S4TFRRTN3/8ODx1/4NPT
3/8	3/8	0.56	0.28	13/16	11/16	2.13	1.02	1.11	S4TFRRTN3/8ODx3/8NPT
1/2	3/8	0.56	0.38	13/16	7/8	2.13	1.02	1.11	S4TFRRTN1/2ODx3/8NPT
1/2	1/2	0.75	0.41	7/8	7/8	2.32	1.02	1.30	S4TFRRTN1/2ODx1/2NPT
5/8	1/2	0.75	0.47	15/16	1	2.48	1.10	1.38	S4TFRRTN5/8ODx1/2NPT
3/4	3/4	0.75	0.62	1 1/16	1 1/8	2.62	1.17	1.45	S4TFRRTN3/4ODx3/4NPT

TUBE OD	NPT MALE THREAD	DIMENSIONS IN MM							PART NO.
		T	P	B	E	F	G	L	
6	1/8	9.7	4.8	1/2	14	38.4	19.6	18.0	S4TFRRTN06MMx1/8NPT
6	1/4	14.2	4.8	9/16	14	42.9	19.6	23.4	S4TFRRTN06MMx1/4NPT
8	1/4	14.2	6.4	9/16	16	47.8	22.4	25.4	S4TFRRTN08MMx1/4NPT
12	1/4	14.2	7.1	13/16	22	54.1	25.9	28.2	S4TFRRTN12MMx1/4NPT
12	3/8	14.2	9.5	13/16	22	54.1	25.9	28.2	S4TFRRTN12MMx3/8NPT
12	1/2	19.0	9.5	7/8	22	58.9	25.9	33.0	S4TFRRTN12MMx1/2NPT
16	1/2	19.0	11.9	15/16	25	63.0	27.9	35.0	S4TFRRTN16MMx1/2NPT

Dimensions are for reference only and are subject to change without Notice

# S4TFWEE - TWIN FERRULE ADJUSTABLE MALE STUD ELBOW

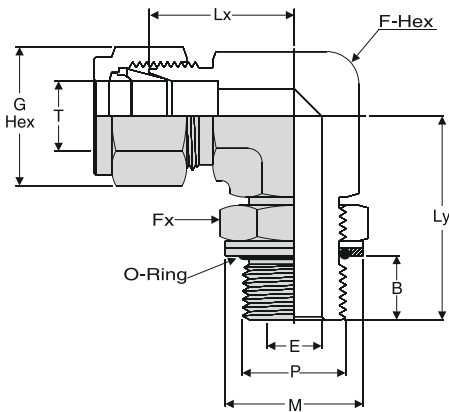
DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWEE1/4ODx1/8
SS304	S4	S4TFWEE1/4ODx1/8
SS316	S6	S6TFWEE1/4ODx1/8

TUBE OD	BSPP MALE THREAD	DIMENSIONS IN INCH								PART NO.
		T	P	B	E	F	Fx	G	Lx	
1/4	1/8	0.32	0.16	1/2	9/16	9/16	0.77	1.04	0.68	S4TFWEE1/4ODx1/8
1/4	1/4	0.36	0.19	5/8	3/4	9/16	0.85	1.27	0.90	S4TFWEE1/4ODx1/4
3/8	1/4	0.36	0.23	5/8	3/4	11/16	0.91	1.27	0.90	S4TFWEE3/8ODx1/4
3/8	3/8	0.37	0.28	13/16	7/8	11/16	1.02	1.46	1.04	S4TFWEE3/8ODx3/8
1/2	1/4	0.36	0.23	13/16	3/4	7/8	1.02	1.38	0.90	S4TFWEE1/2ODx1/4
1/2	3/8	0.37	0.31	13/16	7/8	7/8	1.02	1.46	1.04	S4TFWEE1/2ODx3/8
1/2	1/2	0.51	0.41	15/16	1 1/16	7/8	1.10	1.71	1.26	S4TFWEE1/2ODx1/2
5/8	1/2	0.51	0.47	15/16	1 1/16	1	1.10	1.71	1.26	S4TFWEE5/8ODx1/2
3/4	1/2	0.51	0.47	1 1/16	1 1/16	1 1/8	1.17	1.78	1.26	S4TFWEE3/4ODx1/2
3/4	3/4	0.51	0.62	1 1/16	1 3/8	1 1/8	1.17	1.92	1.62	S4TFWEE3/4ODx3/8
1	3/4	0.51	0.62	1 3/8	1 3/8	1 1/2	1.45	2.10	1.62	S4TFWEE1ODx3/4
1	1	0.55	0.78	1 3/8	1 5/8	1 1/2	1.45	2.11	1.91	S4TFWEE1ODx1

# S4TFWEE - TWIN FERRULE ADJUSTABLE MALE STUD ELBOW



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWEE06MMx1/8
SS304	S4	S4TFWEE06MMx1/8
SS316	S6	S6TFWEE06MMx1/8

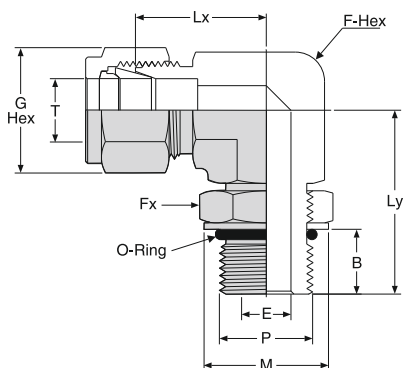
TUBE OD	BSPP MALE THREAD	DIMENSIONS IN MM								PART NO.
		T	P	B	E	F	Fx	G	Lx	
6	1/8	8.1	4.0	1/2	9/16	14	19.6	26.4	17.3	S4TFWEE06MMx1/8
6	1/4	9.1	4.8	5/8	3/4	14	21.6	32.3	22.9	S4TFWEE06MMx1/4
8	1/8	8.1	4.0	9/16	9/16	16	21.3	27.4	17.3	S4TFWEE08MMx1/8
8	1/4	9.1	5.9	5/8	3/4	16	22.4	32.2	22.9	S4TFWEE08MMx1/4
10	1/4	9.1	5.9	13/16	3/4	19	25.9	35.0	22.9	S4TFWEE10MMx1/4
10	3/8	9.4	7.9	13/16	7/8	19	25.9	37.1	26.4	S4TFWEE10MMx3/8
12	1/4	9.1	5.9	13/16	3/4	22	25.9	35.0	22.9	S4TFWEE12MMx1/4
12	3/8	9.4	7.9	13/16	7/8	22	25.9	37.1	26.4	S4TFWEE12MMx3/8
12	1/2	13.0	9.5	15/16	1 1/16	22	27.9	43.4	32.0	S4TFWEE12MMx1/2
12	3/4	13.0	9.5	1 1/16	1 3/8	22	29.7	48.8	41.1	S4TFWEE12MMx3/4

Dimensions are for reference only and are subject to change without Notice



# S4TFWEE - TWIN FERRULE ADJUSTABLE MALE STUD ELBOW-UNF

DSH



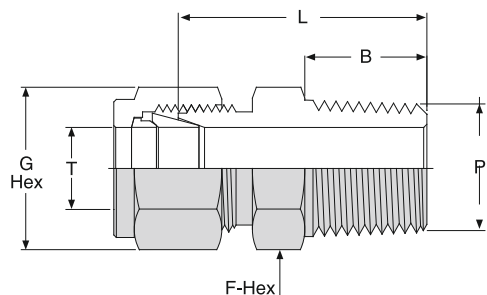
Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWEE1/4ODx7/16-20UNF
SS304	S4	S4TFWEE1/4ODx7/16-20UNF
SS316	S6	S6TFWEE1/4ODx7/16-20UNF

TUBE OD	SAE/MS STRAIGHT THREAD	DIMENSIONS IN INCH								PART NO.
		T	P	B	E	F	Fx	G	Lx	
1/4	7/16x20	0.39	0.19	1/2	9/16	9/16	0.83	1.12	0.65	S4TFWEE1/4ODx7/16-20UNF
1/4	9/16x18	0.44	0.19	5/8	11/16	9/16	0.91	1.27	0.79	S4TFWEE1/4ODx9/16-18UNF
5/16	1/2x20	0.39	0.23	9/16	5/8	5/8	0.90	1.16	0.72	S4TFWEE5/16ODx1/2-20UNF
3/8	9/16x18	0.44	0.28	5/8	11/16	11/16	0.97	1.27	0.79	S4TFWEE3/8ODx9/16-18UNF
3/8	3/4x16	0.50	0.28	13/16	7/8	11/16	1.08	1.49	1.01	S4TFWEE3/8ODx3/4-16UNF
1/2	3/4x16	0.50	0.41	13/16	7/8	7/8	1.08	1.49	1.01	S4TFWEE1/2ODx3/4-16UNF
5/8	7/8x14	0.56	0.50	15/16	1	1	1.16	1.71	1.16	S4TFWEE5/8ODx7/8-14UNF
3/4	1 1/16x12	0.66	0.62	1 1/16	1 1/4	1 1/8	1.23	1.92	1.44	S4TFWEE3/4ODx1-1/16-12UNF
7/8	1 3/16x12	0.66	0.72	1 3/16	1 3/8	1 1/4	1.30	1.99	1.59	S4TFWEE7/8ODx1-3/16-12UNF
1	1 5/16x12	0.66	0.88	1 3/8	1 1/2	1 1/2	1.51	2.11	1.73	S4TFWEE1ODx1-5/16-12UNF

Dimensions are for reference only and are subject to change without Notice

# S4TFTC - TWIN FERRULE THERMOCOUPLE MALE COUPLING

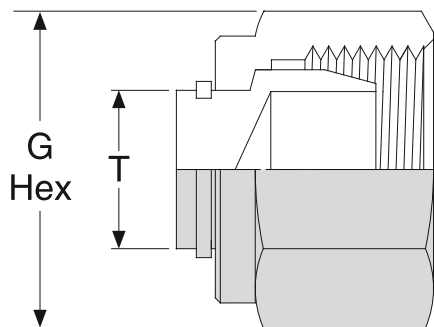
DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFTC1/8ODx1/8NPT
SS304	S4	S4TFTC1/8ODx1/8NPT
SS316	S6	S6TFTC1/8ODx1/8NPT

TUBE OD	NPT MALE THREAD	DIMENSIONS IN INCH				PART NO.
		T	P	B	F	
1/8	1/8	0.38	7/16	7/16	0.94	S4TFTC1/8ODx1/8NPT
1/8	1/4	0.56	9/16	7/16	1.14	S4TFTC1/8ODx1/4NPT
3/16	1/8	0.38	7/16	1/2	0.97	S4TFTC3/16ODx1/8NPT
3/16	1/4	0.56	9/16	1/2	1.17	S4TFTC3/16ODx1/4NPT
1/4	1/8	0.38	1/2	9/16	1.00	S4TFTC1/4ODx1/8NPT
1/4	1/4	0.56	9/16	9/16	1.20	S4TFTC1/4ODx1/4NPT
1/4	3/8	0.56	11/16	9/16	1.22	S4TFTC1/4ODx3/8NPT
1/4	1/2	0.75	7/8	9/16	1.47	S4TFTC1/4ODx1/2NPT
5/16	1/4	0.56	9/16	5/8	1.23	S4TFTC5/16ODx1/4NPT
3/8	1/4	0.56	5/8	11/16	1.28	S4TFTC3/8ODx1/4NPT
3/8	3/8	0.56	11/16	11/16	1.28	S4TFTC3/8ODx3/8NPT
3/8	1/2	0.75	7/8	11/16	1.53	S4TFTC3/8ODx1/2NPT
3/8	3/4	0.75	1 1/16	11/16	1.59	S4TFTC3/8ODx3/4NPT
1/2	1/2	0.75	7/8	7/8	1.53	S4TFTC1/2ODx1/2NPT
1/2	3/4	0.75	1 1/8	7/8	1.59	S4TFTC1/2ODx3/4NPT
5/8	3/4	0.75	1 1/8	1	1.59	S4TFTC5/8ODx3/4NPT
3/4	3/4	0.75	1 1/8	1 1/8	1.59	S4TFTC3/4ODx3/4NPT
1	1	0.94	1 3/8	1 1/2	1.97	S4TFTC1ODx1NPT

# S4TFVKA - TWIN FERRULE BLANKIN PLUG WITH NUT FOR CONE

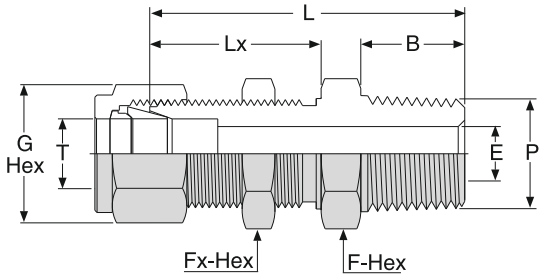


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFVKA1/4OD
SS304	S4	S4TFVKA1/4OD
SS316	S6	S6TFVKA1/4OD

TUBE OD	DIMENSIONS IN INCH	PART NO.
T	G	
1/4	9/16	S4TFVKA1/4OD
5/16	5/8	S4TFVKA5/16OD
3/8	11/16	S4TFVKA3/8OD
1/2	7/8	S4TFVKA1/2OD
5/8	1	S4TFVKA5/8OD
3/4	1 1/8	S4TFVKA3/4OD
7/8	1 1/4	S4TFVKA7/8OD
1	1 1/2	S4TFVKA1OD

TUBE OD	DIMENSIONS IN MM	PART NO.
T	G	
6	14	S4TFVKA06MM
8	16	S4TFVKA08MM
10	19	S4TFVKA10MM
12	22	S4TFVKA12MM
14	25	S4TFVKA14MM
15	25	S4TFVKA15MM
16	25	S4TFVKA16MM
18	30	S4TFVKA18MM
20	32	S4TFVKA20MM
22	32	S4TFVKA22MM
25	38	S4TFVKA25MM

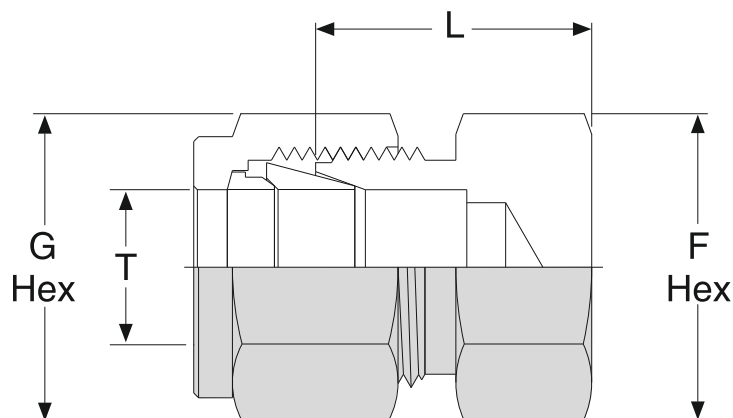
# S4TFSV - TWIN FERRULE BULKHEAD MALE COUPLING



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFSV06MMx1/8NPT
SS304	S4	S4TFSV06MMx1/8NPT
SS316	S6	S6TFSV06MMx1/8NPT

TUBE OD	NPT MALE THREAD	DIMENSIONS IN MM							Panel Hole Size	Panel Thickness Max.	PART NO.
		B	E	F	Fx	G	L	Lx			
6	1/8	9.7	4.8	16.0	16.0	14.0	42.1	26.2	11.5	10.2	S4TFSV06MMx1/8NPT
6	1/4	14.2	4.8	16.0	16.0	14.0	46.0	26.2	11.5	10.2	S4TFSV06MMx1/4NPT
8	1/8	9.7	4.8	18.0	18.0	16.0	44.8	28.5	13.1	11.2	S4TFSV08MMx1/8NPT
8	1/4	14.2	6.4	18.0	18.0	16.0	50.0	28.5	13.1	11.2	S4TFSV08MMx1/4NPT
10	1/4	14.2	7.1	22.0	22.0	19.0	50.8	29.4	16.3	11.2	S4TFSV10MMx1/4NPT
10	3/8	14.2	7.9	22.0	22.0	19.0	50.8	29.4	16.3	11.2	S4TFSV10MMx3/8NPT
10	1/2	19.0	7.9	22.0	22.0	19.0	55.5	29.4	16.3	11.2	S4TFSV10MMx1/2NPT
12	1/4	14.2	7.1	24.0	24.0	22.0	53.2	31.8	19.5	12.7	S4TFSV12MMx1/4NPT
12	3/8	14.2	9.5	24.0	24.0	22.0	54.4	31.8	19.5	12.7	S4TFSV12MMx3/8NPT
12	1/2	19.0	9.5	24.0	24.0	22.0	57.4	31.8	19.5	12.7	S4TFSV12MMx1/2NPT

# S4TFROV - TWIN FERRULE BLANKING ENDS FOR TUBE

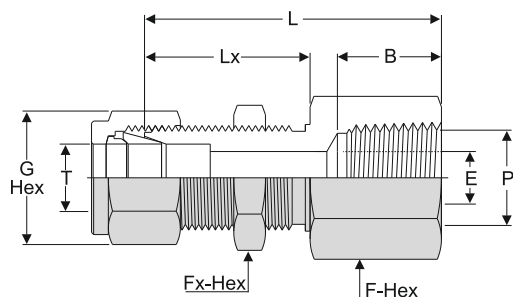


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFROV1/4OD
SS304	S4	S4TFROV1/4OD
SS316	S6	S6TFROV1/4OD

TUBE OD	DIMENSIONS IN INCH				PART NO.
	T	F	G	L	
1/4	1/2	9/16	0.63	S4TFROV1/4OD	
5/16	9/16	5/8	0.67	S4TFROV5/16OD	
3/8	5/8	11/16	0.72	S4TFROV3/8OD	
1/2	13/16	7/8	0.75	S4TFROV1/2OD	
5/8	15/16	1	0.78	S4TFROV5/8OD	
3/4	1 1/16	1 1/8	0.84	S4TFROV3/4OD	
7/8	1 3/16	1 1/4	0.94	S4TFROV7/8OD	
1	1 3/8	1 1/2	1.03	S4TFROV1OD	

TUBE OD	DIMENSIONS IN MM				PART NO.
	T	F	G	L	
6	14	14	15.7	S4TFROV06MM	
8	16	16	17.0	S4TFROV08MM	
10	18	19	19.0	S4TFROV10MM	
12	22	22	19.0	S4TFROV12MM	
14	24	25	19.8	S4TFROV14MM	
15	24	25	19.8	S4TFROV15MM	
16	24	25	19.8	S4TFROV16MM	
18	27	30	21.3	S4TFROV18MM	
20	30	32	23.9	S4TFROV20MM	
22	30	32	23.9	S4TFROV22MM	
25	35	38	26.2	S4TFROV25MM	

# S4TFBHGAI - TWIN FERRULE BULKHEAD FEMALE CONNECTOR NPT

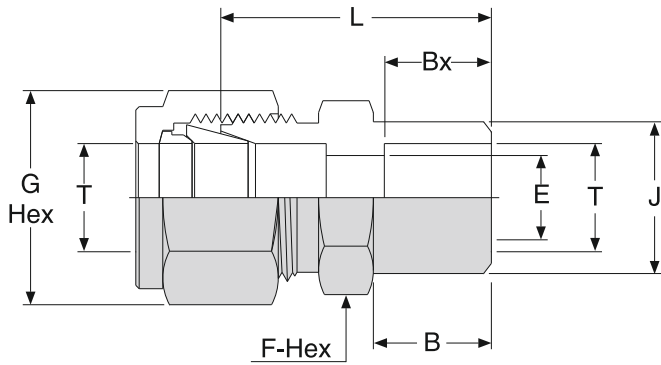


Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFBHGAI1/4ODx1/8NPT
SS304	S4	S4TFBHGAI1/4ODx1/8NPT
SS316	S6	S6TFBHGAI1/4ODx1/8NPT

TUBE OD	NPT FEMALE THREAD	DIMENSIONS IN INCH							Panel Hole Size	Panel Thickness Max	PART NO.
		T	P	B	E	F	Fx	G			
1/4	1/8	0.41	0.19	5/8	5/8	9/16	1.56	1.02	29/64	0.40	S4TFBHGAI1/4ODx1/8NPT
1/4	1/4	0.59	0.19	3/4	3/4	9/16	1.75	1.02	29/64	0.40	S4TFBHGAI1/4ODx1/4NPT
3/8	1/4	0.59	0.28	3/4	3/4	11/16	1.88	1.15	37/64	0.44	S4TFBHGAI3/8ODx1/4NPT
1/2	3/8	0.59	0.41	15/16	15/16	7/8	2.03	1.25	49/64	0.50	S4TFBHGAI1/2ODx3/8NPT
1/2	1/2	0.78	0.41	1 1/16	15/16	7/8	2.22	1.25	49/64	0.50	S4TFBHGAI1/2ODx1/2NPT
5/8	1/2	0.78	0.50	1 1/16	1 1/16	1	2.25	1.28	57/64	0.50	S4TFBHGAI5/8ODx1/2NPT
3/4	3/4	0.81	0.62	1 3/8	1 3/16	1 1/8	2.50	1.47	1 1/64	0.66	S4TFBHGAI3/4ODx3/4NPT
7/8	3/4	0.81	0.72	1 3/8	1 3/8	1 1/4	2.78	1.69	1 9/64	0.66	S4TFBHGAI7/8ODx3/4NPT
1	1	1	0.88	1 5/8	1 5/8	1 1/2	3.19	1.78	1 21/64	0.75	S4TFBHGAI1ODx1NPT

TUBE OD	NPT FEMALE THREAD	DIMENSIONS IN MM							Panel Hole Size	Panel Thickness Max	PART NO.
		T	P	B	E	F	Fx	G			
6	1/8	10.4	4.8	16.0	16.0	14	39.7	26.2	11.5	10.2	S4TFBHGAI06MMx1/8NPT
6	1/4	15.0	4.8	19.0	16.0	14	44.5	26.2	11.5	10.2	S4TFBHGAI06MMx1/4NPT
8	1/8	10.4	6.4	18.0	18.0	16	42.1	28.5	13.1	11.2	S4TFBHGAI08MMx1/8NPT
10	1/4	15.0	7.1	19.0	19.0	19	47.6	29.4	16.3	11.2	S4TFBHGAI10MMx1/4NPT
12	3/8	15.0	10.4	25.0	24.0	22	50.8	31.8	19.5	12.7	S4TFBHGAI12MMx3/8NPT
12	1/2	19.8	10.4	27.0	24.0	22	56.3	31.8	19.5	12.7	S4TFBHGAI12MMx1/2NPT

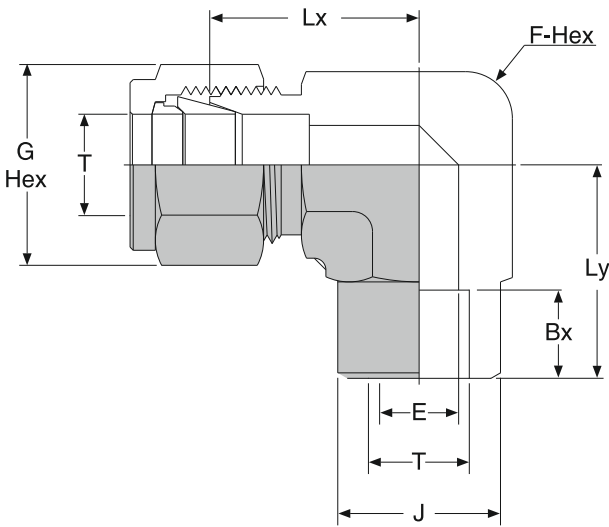
# S4TFSWG - TWIN FERRULE SOCKET WELD UNION



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFSWG1/8OD
SS304	S4	S4TFSWG1/8OD
SS316	S6	S6TFSWG1/8OD

TUBE OD	DIMENSIONS IN INCH							PART NO.
	T	B	Bx	E	F	G	L	
1/8	0.34	0.25	0.09	7/16	7/16	0.88	0.31	S4TFSWG1/8OD
1/4	0.41	0.31	0.19	1/2	9/16	1.03	0.44	S4TFSWG1/4OD
3/8	0.47	0.38	0.28	5/8	11/16	1.19	0.62	S4TFSWG3/8OD
1/2	0.47	0.50	0.41	13/16	7/8	1.22	0.75	S4TFSWG1/2OD
3/4	0.47	0.56	0.62	1 1/16	1 1/8	1.31	1.05	S4TFSWG3/4OD
1	0.56	0.75	0.88	1 3/8	1 1/2	1.59	1.31	S4TFSWG1OD

# S4TFSWW - TWIN FERRULE SOCKET WELD ELBOW



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFSWW1/4OD
SS304	S4	S4TFSWW1/4OD
SS316	S6	S6TFSWW1/4OD

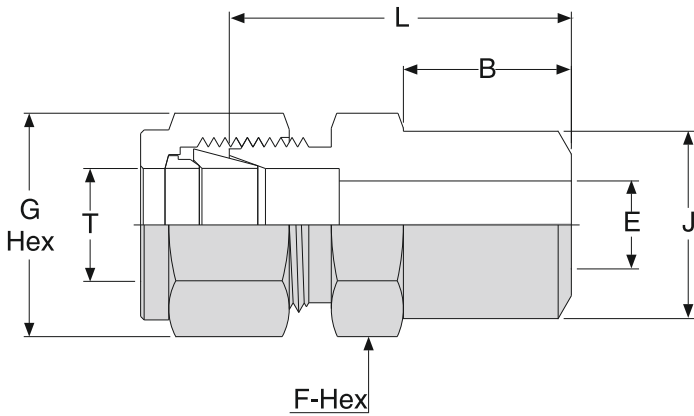
TUBE OD	DIMENSIONS IN INCH							PART NO.
	T	Bx	E	F	G	Lx	Ly	
1/4	0.31	0.19	1/2	9/16	0.77	0.77	0.50	S4TFSWW1/4OD
3/8	0.38	0.28	5/8	11/16	0.91	0.91	0.62	S4TFSWW3/8OD
1/2	0.50	0.41	13/16	7/8	1.02	1.02	0.81	S4TFSWW1/2OD
3/4	0.56	0.62	1 1/16	1 1/8	1.17	1.17	1.06	S4TFSWW3/4OD
1	0.75	0.88	1 3/8	1 1/2	1.45	1.45	1.38	S4TFSWW1OD

Dimensions are for reference only and are subject to change without Notice



# S4TFWC - TWIN FERRULE MALE PIPE WELD CONNECTOR

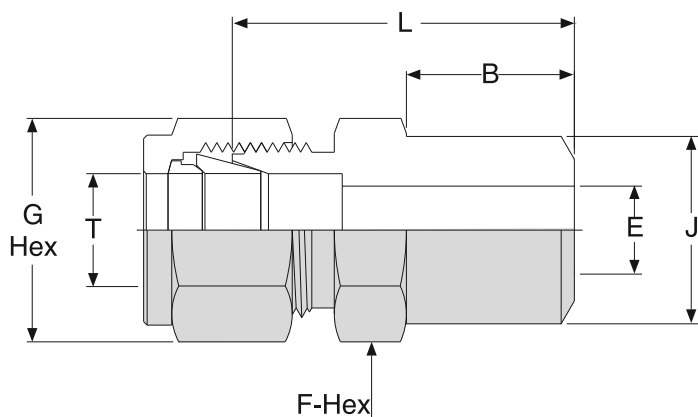
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Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWC1/4x1/8OD
SS304	S4	S4TFWC1/4x1/8OD
SS316	S6	S6TFWC1/4x1/8OD

TUBE OD	MALE PIPE WELD SIZE	DIMENSIONS IN INCH						PART NO.
		B	E	F	G	L	J	
1/4	1/8	0.38	0.19	1/2	9/16	1.00	0.405	S4TFWC1/4x1/8OD
1/4	1/4	0.56	0.19	9/16	9/16	1.20	0.540	S4TFWC1/4x1/4OD
5/16	1/8	0.38	0.20	9/16	5/8	1.05	0.405	S4TFWC5/16x1/8OD
5/16	1/4	0.56	0.25	9/16	5/8	1.23	0.540	S4TFWC5/16x1/4OD
3/8	1/4	0.56	0.28	5/8	11/16	1.28	0.540	S4TFWC3/8x1/4OD
3/8	3/8	0.56	0.28	11/16	11/16	1.28	0.675	S4TFWC3/8x3/8OD
3/8	1/2	0.75	0.28	7/8	11/16	1.53	0.840	S4TFWC3/8x1/2OD
3/8	3/4	0.75	0.28	1 1/16	11/16	1.59	1.050	S4TFWC3/8x3/4OD
1/2	3/8	0.56	0.41	13/16	7/8	1.31	0.675	S4TFWC1/2x3/8OD
1/2	1/2	0.75	0.41	7/8	7/8	1.53	0.840	S4TFWC1/2x1/2OD
1/2	3/4	0.75	0.41	1 1/16	7/8	1.59	1.050	S4TFWC1/2x3/4OD
5/8	1/2	0.75	0.50	15/16	1	1.53	0.840	S4TFWC5/8x1/2OD
3/4	3/4	0.75	0.62	1 1/16	1 1/8	1.59	1.050	S4TFWC3/4x3/4OD
1	1	0.94	0.88	1 3/8	1 1/2	1.97	1.315	S4TFWC1x1OD

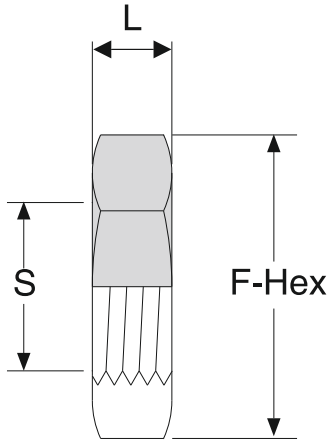
# S4TFWC - TWIN FERRULE MALE PIPE WELD CONNECTOR



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRTFWC06MMx1/8OD
SS304	S4	S4TFWC06MMx1/8OD
SS316	S6	S6TFWC06MMx1/8OD

TUBE OD	MALE PIPE WELD	DIMENSIONS IN MM						PART NO.
		T	SIZE	B	E	F	G	
6	1/8	9.7	4.8	14	14	25.4	10.3	S4TFWC06MMx1/8OD
6	1/4	14.2	4.8	14	14	30.5	13.7	S4TFWC06MMx1/4OD
8	1/8	9.7	5.1	16	16	26.7	10.3	S4TFWC08MMx1/8OD
8	1/4	14.2	6.4	16	16	31.2	13.7	S4TFWC08MMx1/4OD
8	1/2	19.0	6.4	22	16	38.1	21.3	S4TFWC08MMx1/2OD
10	1/4	14.2	7.1	18	19	33.3	13.7	S4TFWC10MMx1/4OD
10	3/8	14.2	7.9	18	19	33.3	17.1	S4TFWC10MMx3/8OD
10	1/2	19.0	7.9	22	19	38.9	21.3	S4TFWC10MMx1/2OD
12	1/4	14.2	7.1	22	22	33.3	13.7	S4TFWC12MMx1/4OD
12	3/8	14.2	9.5	22	22	33.3	17.1	S4TFWC12MMx3/8OD
12	1/2	19.0	9.5	22	22	38.9	21.3	S4TFWC12MMx1/2OD
14	3/8	14.2	10.3	24	25	34.0	17.1	S4TFWC14MMx3/8OD
15	1/2	19.0	11.9	24	25	38.9	21.3	S4TFWC15MMx1/2OD
16	1/2	19.0	12.7	24	25	38.9	21.3	S4TFWC16MMx1/2OD
18	1/2	19.0	13.5	27	30	40.4	21.3	S4TFWC18MMx1/2OD

# S4LNU - BULKHEAD LOCK NUT



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRLNU1/4OD
SS304	S4	S4LNU1/4OD
SS316	S6	S6LNU1/4OD

TUBE OD SIZE	S STRAIGHT THREAD	F INCH	L INCH	PART NO.
1/4	7/16-20	5/8	0.22	S4LNU1/4OD
5/16	1/2-20	11/16	0.23	S4LNU5/16OD
3/8	9/16-20	3/4	0.25	S4LNU3/8OD
1/2	3/4-20	15/16	0.28	S4LNU1/2OD
5/8	7/8-20	1 1/16	0.31	S4LNU5/8OD
3/4	1-20	1 3/16	0.34	S4LNU3/4OD
7/8	1 1/8-20	1 3/8	0.38	S4LNU7/8OD
1	1 5/16-20	1 5/8	0.38	S4LNU1OD

TUBE OD SIZE	S STRAIGHT THREAD	F MM	L MM	PART NO.
6	7/16-20	16	5.6	S4LNU06MM
8	1/2-20	18	5.6	S4LNU08MM
10	5/8-20	22	6.4	S4LNU10MM
12	3/4-20	24	7.1	S4LNU12MM
14	7/8-20	27	7.9	S4LNU14MM
15	7/8-20	27	7.9	S4LNU15MM
16	7/8-20	27	7.9	S4LNU16MM
18	1-20	30	8.6	S4LNU18MM
20	1 1/8-20	32	9.7	S4LNU20MM
25	1 5/16-20	40	9.7	S4LNU25MM

# FLANGES FITTINGS INDEX

**Split Flanges**



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**Socket Weld Flange With O Ring**



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**Intergrated Socketweld Flange Flat Face**



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**Intergrated Butt weld Flange With O Ring**



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**Intergrated Butt weld Flange With Flat Face**



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**Intergrated Blind Flange With O Ring**



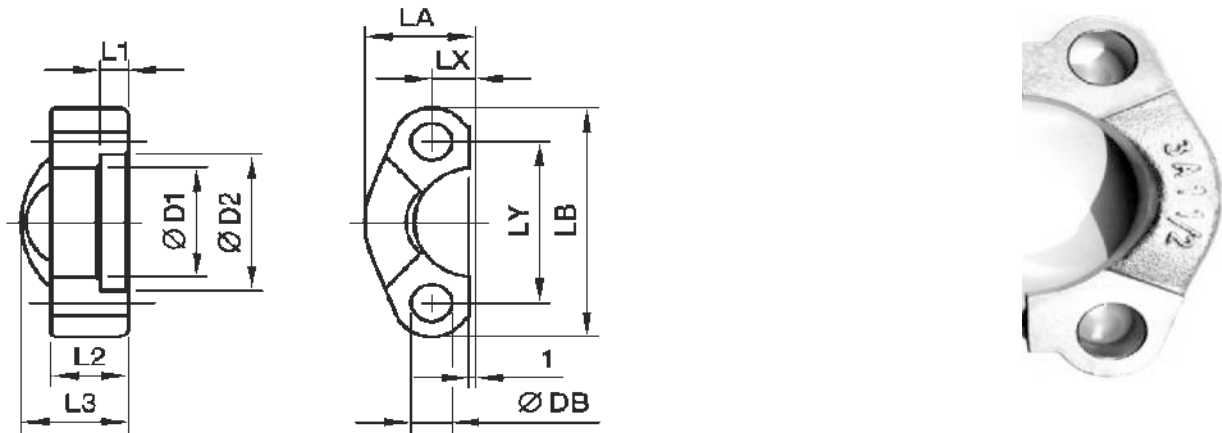
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**Intergrated Blind Flange With Flat Face**



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ISO 6162 - SAE SPLIT FLANGES



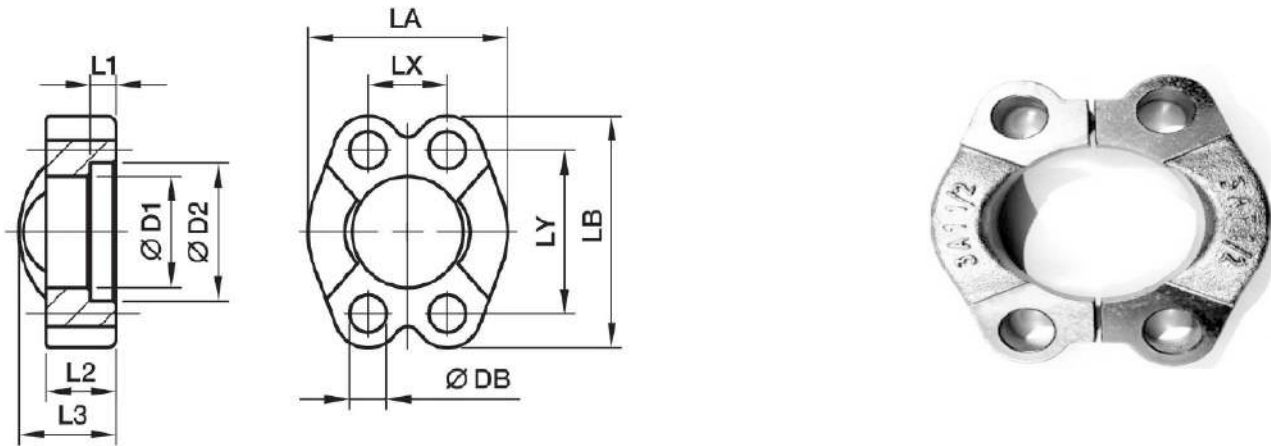
3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)	(DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	BOLT	Weight	Part No.
1/2"	13	24.26	30.96	6.22	13.00	19.00	22.80	54.00	8.74	38.10	8.50	M 8X25	0.08	SF1/2"-3000
3/4"	19	32.13	38.89	6.22	14.00	22.00	25.90	65.00	11.13	47.63	10.50	M 10X30	0.09	SF3/4"-3000
1"	25	38.48	45.24	7.49	16.00	24.00	29.20	70.00	13.08	52.37	10.50	M 10X30	0.11	SF1"-3000
1 1/4"	32	43.69	51.59	7.49	16.00	22.00	36.30	79.00	15.08	58.72	12.00	M 10X30	0.15	SF1-1/4"-3000
1 1/2"	38	50.80	61.09	7.49	16.00	25.00	41.10	94.00	17.86	69.85	13.50	M 12X35	0.23	SF1-1/2"-3000
2"	51	62.74	72.24	9.02	16.00	26.00	48.20	102.00	21.44	77.77	13.50	M 12X35	0.25	SF2"-3000
2 1/2"	64	74.93	84.94	9.02	19.00	38.00	54.10	114.00	25.40	88.90	13.50	M 12X40	0.37	SF2-1/2"-3000
3"	76	90.93	102.39	9.02	22.00	41.00	65.30	135.00	30.96	106.38	17.00	M 16X50	0.65	SF3"-3000
3 1/2"	89	102.40	115.10	10.72	22.00	28.00	68.60	152.00	34.95	120.70	17.00	M 16X50	0.75	SF3-1/2"-3000
4"	102	115.06	127.79	10.72	25.00	35.00	76.00	162.00	38.88	130.18	17.00	M 16X50	0.83	SF4"-3000
5"	127	140.50	153.20	10.72	28.00	41.00	90.00	184.00	46.00	152.40	17.00	M 16X50	1.25	SF5"-3000

6000 PSI High Pressure Series (According to ISO 6162-2)

1/2"	13	24.64	32.54	7.24	16.00	22.00	23.60	56.00	9.12	40.49	8.50	M 8X30	0.08	SF1/2"-6000
3/4"	19	32.51	42.06	8.26	19.00	28.00	30.00	71.00	11.91	50.80	10.50	M 10X35	0.175	SF3/4"-6000
1"	25	38.86	48.41	9.02	24.00	33.00	34.80	81.00	13.89	57.17	12.50	M 12X45	0.265	SF3/4"-6000
1 1/4"	32	44.45	54.76	9.78	27.00	38.00	38.60	95.00	15.88	66.68	14.50	M 14X45	0.405	SF1-1/4"-6000
1 1/2"	38	51.56	64.29	12.07	30.00	43.00	47.50	113.00	18.26	79.38	16.80	M 16X55	0.675	SF1-1/2"-6000
2"	51	67.56	80.16	12.07	37.00	52.00	56.90	133.00	22.23	96.82	21.00	M 20X55	1.05	SF2"-6000
2 1/2"	64	90.00	108.90	20.50	45.00	45.00	75.10	180.00	29.40	123.80	26.00	M 24X75	2.05	SF2-1/2"-6000
3"	76	115.00	132.50	25.50	55.00	55.00	99.10	215.00	35.70	152.40	31.00	M 30X90	4.3	SF3"-6000

ISO 6162 - SAE Mono Flanges



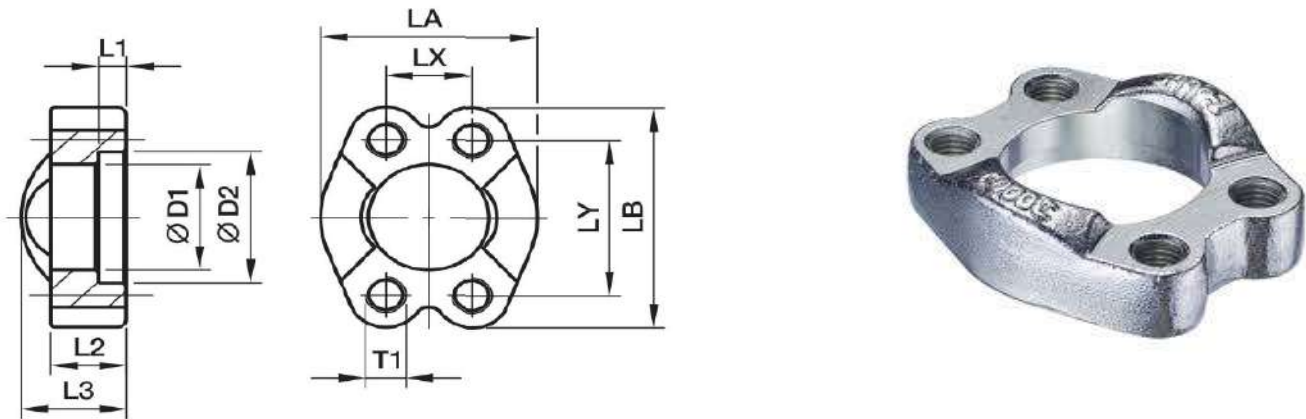
3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)	(DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	BOLT	Weight	Part No.
1/2"	13	24.26	30.96	6.22	13.00	19.00	45.60	54.00	17.48	38.10	8.50	M 8X25	0.15	MF1/2-3000
3/4"	19	32.13	38.89	6.22	14.00	22.00	51.80	65.00	22.23	47.63	10.50	M 10X30	0.17	MF3/4-3000
1"	25	38.48	45.24	7.49	16.00	24.00	58.40	70.00	26.19	52.37	10.50	M 10X30	0.22	MF1-3000
1 1/4"	32	43.69	51.59	7.49	16.00	22.00	72.60	79.00	30.18	58.72	12.00	M 10X30	0.3	MF1-1/4-3000
1 1/2"	38	50.80	61.09	7.49	16.00	25.00	82.20	94.00	35.71	69.85	13.50	M 12X35	0.45	MF1-1/2-3000
2"	51	62.74	72.24	9.02	16.00	26.00	96.40	102.00	42.88	77.77	13.50	M 12X35	0.5	MF2-3000
2 1/2"	64	74.93	84.94	9.02	19.00	38.00	108.20	114.00	50.80	88.90	13.50	M 12X40	0.74	MF2-1/2-3000
3"	76	90.93	102.39	9.02	22.00	41.00	130.60	135.00	61.93	106.38	17.00	M 16X50	1.3	MF3-3000
3 1/2"	89	102.40	115.10	10.72	22.00	28.00	140.00	152.00	69.90	120.70	17.00	M 16X50	1.5	MF3-1/2-3000
4"	102	115.06	127.79	10.72	25.00	35.00	152.00	162.00	77.77	130.18	17.00	M 16X50	1.65	MF4-3000
5"	127	140.46	153.20	10.72	28.00	41.00	180.00	184.00	92.08	152.40	17.00	M 16X50	2.5	MF5-3000

6000 PSI High Pressure Series (According to ISO 6162-2)

1/2"	13	24.64	32.54	7.24	16.00	22.00	47.20	56.00	18.24	40.49	8.50	M 8X30	0.16	MF1/2-6000
3/4"	19	32.51	42.06	8.26	19.00	28.00	60.00	71.00	23.80	50.80	10.50	M 10X35	0.35	MF3/4-6000
1"	25	38.86	48.41	9.02	24.00	33.00	69.90	81.00	27.76	57.15	12.50	M 12X45	0.53	MF1-6000
1 1/4"	32	44.45	54.76	9.78	27.00	38.00	77.20	95.00	31.75	66.68	14.50	M 14X45	0.8	MF1-1/4-6000
1 1/2"	38	51.56	64.29	12.07	30.00	43.00	95.00	113.00	36.50	79.38	16.80	M 16X55	1.35	MF1-1/2-6000
2"	51	67.56	80.16	12.07	37.00	52.00	113.80	133.00	44.45	96.82	21.00	M 20X55	2.1	MF2-6000
2 1/2"	64	90.00	108.90	20.50	45.00	45.00	150.20	180.00	58.80	123.80	26.00	M 24X75	4.1	MF2-1/2-6000
3"	76	115.00	132.50	25.50	55.00	55.00	198.16	215.00	71.60	152.40	31.00	M 30X90	8.6	MF3-6000

# ISO 6162 - SAE Mono Metric Tapped Flanges



## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

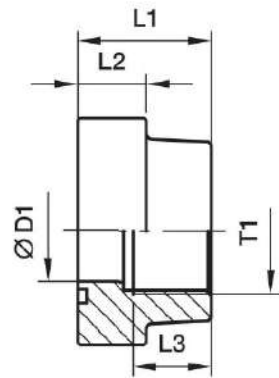
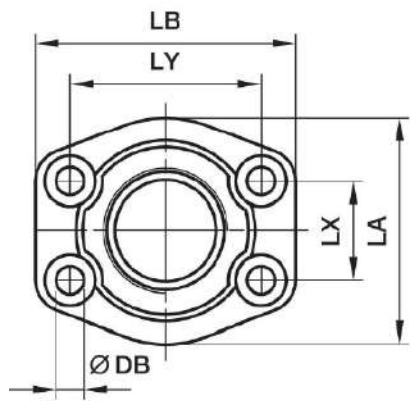
SAE (IN)	(DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	BOLT	Weight	Part No.
1/2"	13	24.26	30.96	6.22	13.00	19.00	45.60	54.00	17.48	38.10	M 8	M 8X25	0.15	MMTF1/2-3000
3/4"	19	32.13	38.89	6.22	14.00	22.00	51.80	65.00	22.23	47.63	M 10	M 10X30	0.17	MMTF3/4-3000
1"	25	38.48	45.24	7.49	16.00	24.00	58.40	70.00	26.19	52.37	M 10	M 10X30	0.22	MMTF1-3000
1 1/4"	32	43.69	51.59	7.49	16.00	22.00	72.60	79.00	30.18	58.72	M 10	M 10X30	0.3	MMTF1-1/4-3000
1 1/2"	38	50.80	61.09	7.49	16.00	25.00	82.20	94.00	35.71	69.85	M 12	M 12X35	0.45	MMTF1-1/2-3000
2"	51	62.74	72.24	9.02	16.00	26.00	96.40	102.00	42.88	77.77	M 12	M 12X35	0.5	MMTF2-3000
2 1/2"	64	74.93	84.94	9.02	19.00	38.00	108.20	114.00	50.80	88.90	M 12	M 12X40	0.74	MMTF2-1/2-3000
3"	76	90.93	102.39	9.02	22.00	41.00	130.60	135.00	61.93	106.38	M 16	M 16X50	1.3	MMTF3-3000
3 1/2"	89	102.40	115.10	10.72	22.00	28.00	140.00	152.00	69.90	120.70	M 16	M 16X50	1.5	MMTF3-1/2-3000
4"	102	115.06	127.79	10.72	25.00	35.00	152.00	162.00	77.77	130.18	M 16	M 16X50	1.65	MMTF4-3000
5"	127	140.46	153.20	10.72	28.00	41.00	180.00	184.00	92.08	152.40	M 16	M 16X50	2.5	MMTF5-3000

## 6000 PSI High Pressure Series (According to ISO 6162-2)

1/2"	13	24.64	32.54	7.24	16.00	22.00	47.20	56.00	18.24	40.49	M 8	M 8X30	0.16	MMTF1/2-6000
3/4"	19	32.51	42.06	8.26	19.00	28.00	60.00	71.00	23.80	50.80	M 10	M 10X35	0.35	MMTF3/4-6000
1"	25	38.86	48.41	9.02	24.00	33.00	69.90	81.00	27.76	57.15	M 12	M 12X45	0.53	MMTF1-6000
1 1/4"	32	44.45	54.76	9.78	27.00	38.00	77.20	95.00	31.75	66.68	M 14	M 14X45	0.8	MMTF1-1/4-6000
1 1/2"	38	51.56	64.29	12.07	30.00	43.00	95.00	113.00	36.50	79.38	M 16	M 16X55	1.35	MMTF1-1/2-6000
2"	51	67.56	80.16	12.07	37.00	52.00	113.80	133.00	44.45	96.82	M 20	M 20X55	2.1	MMTF2-6000
2 1/2"	64	90.00	108.90	20.50	45.00	45.00	150.20	180.00	58.80	123.80	M 24	M 24X75	4.1	MMTF2-1/2-6000
3"	76	115.00	132.50	25.50	55.00	55.00	198.16	215.00	71.60	152.40	M 30	M 30X90	8.6	MMTF3-6000



ISO 6162 - Threaded Flange With O Ring



3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)T1	ISO (DN)	D1	L1	L2	L3	LA	LB	LX	LY	DB	BOLT	Weight	Part NO.
½"	13	13.00	36.00	16.00	18.00	47.00	57.00	17.50	38.10	8.70	M 8X30	0.250	TFO1/2-3000
¾"	19	19.00	36.00	18.00	18.00	50.00	67.00	22.30	47.60	10.50	M 10X35	0.370	TFO3/4-3000
1"	25	25.00	38.00	18.00	18.00	54.00	72.00	26.20	52.40	10.50	M 10X35	0.450	TFO1-3000
1¼"	32	31.00	41.00	21.00	20.00	68.00	82.00	30.20	58.70	10.60	M 10X40	0.660	TFO1-1/4-3000
1½"	38	38.00	44.00	25.00	22.00	79.00	96.00	35.70	69.90	13.50	M 12X45	1.050	TFO1-1/2-3000
2"	51	47.00	45.00	25.50	24.00	88.00	102.00	42.90	77.80	13.50	M 12X45	1.170	TFO2-3000
2½"	64	63.00	50.00	26.00	28.00	101.00	115.00	50.80	88.90	13.50	M 12X45	1.590	TFO2-1/2-3000
3"	76	70.00	50.00	27.50	28.00	124.00	137.00	61.90	106.40	17.00	M 16X50	2.280	TFO3-3000
4"	102	99.00	48.00	27.00	34.00	146.00	162.00	77.80	130.20	17.50	M 16X50	2.780	TFO4-3000

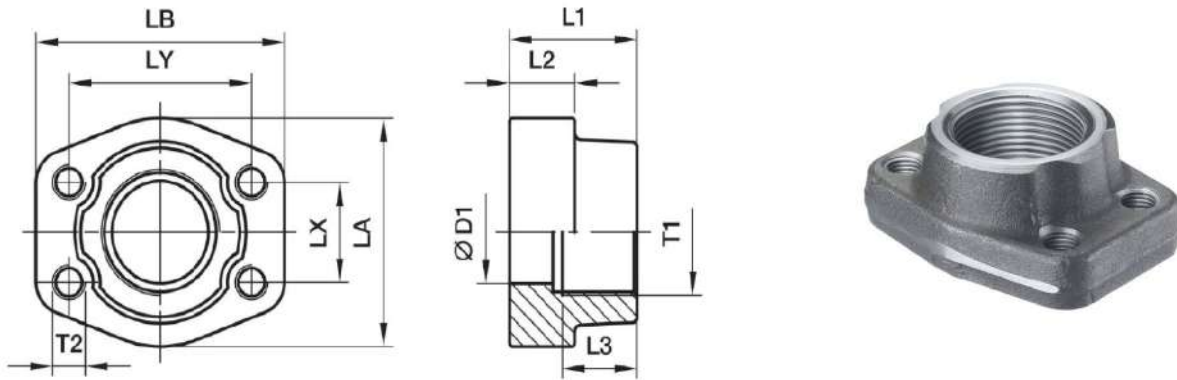
6000 PSI High Pressure Series (According to ISO 6162-2)

½"	13	13.00	36.00	16.50	19.00	47.00	57.00	18.20	40.50	8.70	M 8X30	0.290	TFO1/2-6000
¾"	19	18.00	36.00	20.00	20.00	54.00	72.00	23.80	50.80	10.50	M 10X35	0.500	TFO3/4-6000
1"	25	22.00	44.00	24.00	22.00	68.00	82.00	27.80	57.20	13.00	M 12X45	0.760	TFO1-6000
1¼"	32	32.00	44.00	27.50	22.00	79.00	95.00	31.80	66.60	15.00	M 14X45	1.200	TFO1-1/4-6000
1½"	38	38.00	51.00	31.00	24.00	88.00	108.00	36.50	79.30	17.00	M 16X55	1.650	TFO1-1/2-6000
2"	51	51.00	70.00	37.00	35.00	118.00	137.00	44.50	96.80	21.00	M 20X70	2.450	TFO2-6000
2½"	63	63.00	80.00	45.00	32.00	150.00	166.00	58.70	123.80	25.00	M 24X90	7.900	TFO2-1/2-6000
3"	73	73.00	90.00	55.00	40.00	178.00	208.00	71.40	152.40	32.00	M 30X110	14.500	TFO3-6000



# ISO 6162 - Threaded Flange With Flat Face

DSH



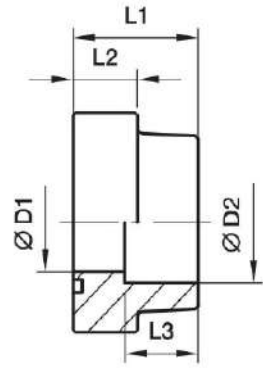
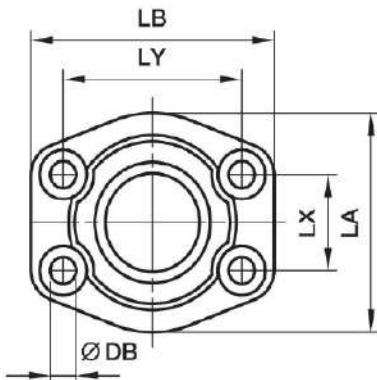
## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)T1	ISO (DN)	D1	L1	L2	L3	LA	LB	LX	LY	T2	BOLT	Weight	Part NO.
1/2"	13	13.00	36.00	16.00	18.00	47.00	57.00	17.50	38.10	M 8	M 8X30	0.250	TFF1/2-3000
3/4"	19	19.00	36.00	18.00	18.00	50.00	67.00	22.30	47.60	M 10	M 10X35	0.370	TFF3/4-3000
1"	25	25.00	38.00	18.00	18.00	54.00	72.00	26.20	52.40	M 10	M 10X35	0.450	TFF1-3000
1 1/4"	32	31.00	41.00	21.00	20.00	68.00	82.00	30.20	58.70	M 10	M 10X40	0.660	TFF1-1/4-3000
1 1/2"	38	38.00	44.00	25.00	22.00	79.00	96.00	35.70	69.90	M 12	M 12X45	1.050	TFF1-1/2-3000
2"	51	47.00	45.00	25.50	24.00	88.00	102.00	42.90	77.80	M 12	M 12X45	1.170	TFF2-3000
2 1/2"	64	63.00	50.00	26.00	28.00	101.00	115.00	50.80	88.90	M 12	M 12X45	1.590	TFF2-1/2-3000
3"	76	70.00	50.00	27.50	28.00	124.00	137.00	61.90	106.40	M 16	M 16X50	2.280	TFF3-3000
4"	102	99.00	48.00	27.00	34.00	146.00	162.00	77.80	130.20	M 16	M 16X50	2.780	TFF4-3000

## 6000 PSI High Pressure Series (According to ISO 6162-2)

1/2"	13	13.00	36.00	16.50	19.00	47.00	57.00	18.20	40.50	M 8	M 8X30	0.290	TFF1/2-6000
3/4"	19	18.00	36.00	20.00	20.00	54.00	72.00	23.80	50.80	M 10	M 10X35	0.500	TFF3/4-6000
1"	25	22.00	44.00	24.00	22.00	68.00	82.00	27.80	57.20	M 12	M 12X45	0.760	TFF1-6000
1 1/4"	32	32.00	44.00	27.50	22.00	79.00	95.00	31.80	66.60	M 14	M 14X45	1.200	TFF1-1/4-6000
1 1/2"	38	38.00	51.00	31.00	24.00	88.00	108.00	36.50	79.30	M 16	M 16X55	1.650	TFF1-1/2-6000
2"	51	51.00	70.00	37.00	35.00	118.00	137.00	44.50	96.80	M 20	M 20X70	2.450	TFF2-6000
2 1/2"	63	63.00	80.00	45.00	32.00	150.00	166.00	58.70	123.80	M 24	M 24X90	7.900	TFF2-1/2-6000
3"	73	73.00	90.00	55.00	40.00	178.00	208.00	71.40	152.40	M 30	M 30X110	14.500	TFF3-6000

# ISO 6162 - Socket Weld Flange With O Ring



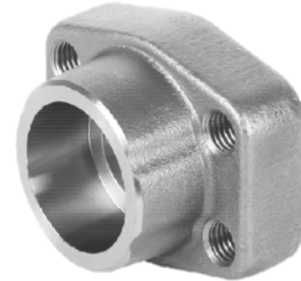
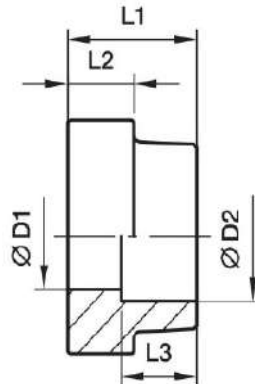
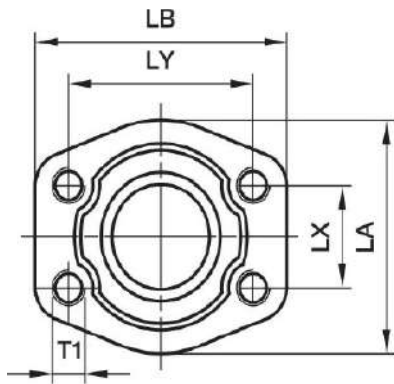
## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)	ISO (DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	BOLT	Weight	Part NO.
1/2"	13	13	22.00	36.00	16.00	18.00	47.00	57.00	17.50	38.10	8.70	M 8X30	0.250	SWFO1/2-3000
3/4"	19	19	28.00	36.00	18.00	18.00	50.00	67.00	22.30	47.60	10.50	M 10X35	0.370	SWFO3/4-3000
1"	25	25	35.00	38.00	18.00	18.00	54.00	72.00	26.20	52.40	10.50	M 10X35	0.450	SWFO1-3000
1 1/4"	32	31	43.00	41.00	21.00	20.00	68.00	82.00	30.20	58.70	10.60	M 10X40	0.660	SWFO1-1/4-3000
1 1/2"	38	38	51.00	44.00	25.00	22.00	79.00	96.00	35.70	69.90	13.50	M 12X45	1.050	SWFO1-1/2-3000
2"	51	47	61.00	45.00	25.50	24.00	88.00	102.00	42.90	77.80	13.50	M 12X45	1.170	SWFO2-3000
2 1/2"	64	63	73.00	50.00	26.00	28.00	101.00	115.00	50.80	88.90	13.50	M 12X45	1.590	SWFO2-1/2-3000
3"	76	70	90.00	50.00	27.50	28.00	124.00	137.00	61.90	106.40	17.00	M 16X50	2.280	SWFO3-3000
4"	102	99	115.50	50.00	27.00	28.00	146.00	162.00	77.80	130.20	17.00	M 16X50	2.730	SWFO4-3000

## 6000 PSI High Pressure Series (According to ISO 6162-2)

1/2"	13	13	22.00	36.00	16.50	19.00	47.00	57.00	18.20	40.50	8.70	M 8X30	0.290	SWFO1/2-6000
3/4"	19	18	28.00	36.00	20.00	20.00	54.00	72.00	23.80	50.80	10.50	M 10X35	0.500	SWFO3/4-6000
1"	25	22	35.00	44.00	24.00	22.00	68.00	82.00	27.80	57.20	13.00	M 12X45	0.760	SWFO1-6000
1 1/4"	32	32	42.80	44.00	27.50	22.00	79.00	95.00	31.80	66.60	15.00	M 14X45	1.200	SWFO1-1/4-6000
1 1/2"	38	38	48.60	51.00	31.00	24.00	88.00	108.00	36.50	79.30	17.00	M 16X55	1.650	SWFO1-1/2-6000
2"	51	51	61.00	70.00	37.00	33.00	118.00	137.00	44.50	96.80	21.00	M 20X70	2.450	SWFO2-6000
2 1/2"	64	63	76.60	75.00	45.00	28.00	150.00	166.00	58.70	123.80	25.00	M 24X90	7.900	SWFO2-1/2-6000
3"	76	73	90.50	90.00	55.00	30.00	178.00	208.00	71.40	152.40	32.00	M 30X110	14.500	SWFO3-6000

# ISO 6162 - Integrated Socketweld Flange Flat Face



## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

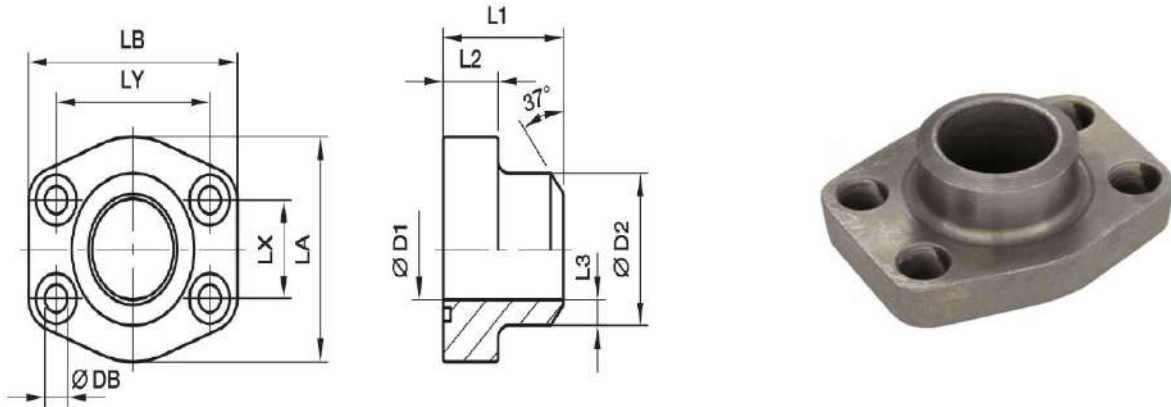
SAE (IN)	ISO (DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	T1	BOLT	Weight	Part NO.
1/2"	13	13	22.00	36.00	16.00	18.00	47.00	57.00	17.50	38.10	M 8	M 8X30	0.250	SWFF1/2-3000
3/4"	19	19	28.00	36.00	18.00	18.00	50.00	67.00	22.30	47.60	M 10	M 10X35	0.370	SWFF3/4-3000
1"	25	25	35.00	38.00	18.00	18.00	54.00	72.00	26.20	52.40	M 10	M 10X35	0.450	SWFF1-3000
1 1/4"	32	31	43.00	41.00	21.00	20.00	68.00	82.00	30.20	58.70	M 10	M 10X40	0.660	SWFF1-1/4-3000
1 1/2"	38	38	51.00	44.00	25.00	22.00	79.00	96.00	35.70	69.90	M 12	M 12X45	1.050	SWFF1-1/2-3000
2"	51	47	61.00	45.00	25.50	24.00	88.00	102.00	42.90	77.80	M 12	M 12X45	1.170	SWFF2-3000
2 1/2"	64	63	73.00	50.00	26.00	28.00	101.00	115.00	50.80	88.90	M 12	M 12X45	1.590	SWFF2-1/2-3000
3"	76	70	90.00	50.00	27.50	28.00	124.00	137.00	61.90	106.40	M 16	M 16X50	2.280	SWFF3-3000
4"	102	99	115.50	50.00	27.00	28.00	146.00	162.00	77.80	130.20	M 16	M 16X50	2.730	SWFF4-3000

## 6000 PSI High Pressure Series (According to ISO 6162-2)

1/2"	13	13	22.00	36.00	16.50	19.00	47.00	57.00	18.20	40.50	M 8	M 8X30	0.290	SWFF1/2-6000
3/4"	19	18	28.00	36.00	20.00	20.00	54.00	72.00	23.80	50.80	M 10	M 10X35	0.500	SWFF3/4-6000
1"	25	22	35.00	44.00	24.00	22.00	68.00	82.00	27.80	57.20	M 12	M 12X45	0.760	SWFF1-6000
1 1/4"	32	32	42.80	44.00	27.50	22.00	79.00	95.00	31.80	66.60	M 14	M 14X45	1.200	SWFF1-1/4-6000
1 1/2"	38	38	48.60	51.00	31.00	24.00	88.00	108.00	36.50	79.30	M 16	M 16X55	1.650	SWFF1-1/2-6000
2"	51	51	61.00	70.00	37.00	33.00	118.00	137.00	44.50	96.80	M 20	M 20X70	2.450	SWFF2-6000
2 1/2"	64	63	76.60	75.00	45.00	28.00	150.00	166.00	58.70	123.80	M 24	M 24X90	7.900	SWFF2-1/2-6000
3"	76	73	90.50	90.00	55.00	30.00	178.00	208.00	71.40	152.40	M 30	M 30X110	14.500	SWFF3-6000

# ISO 6162 - Integrated Butt weld Flange With O Ring

DSH



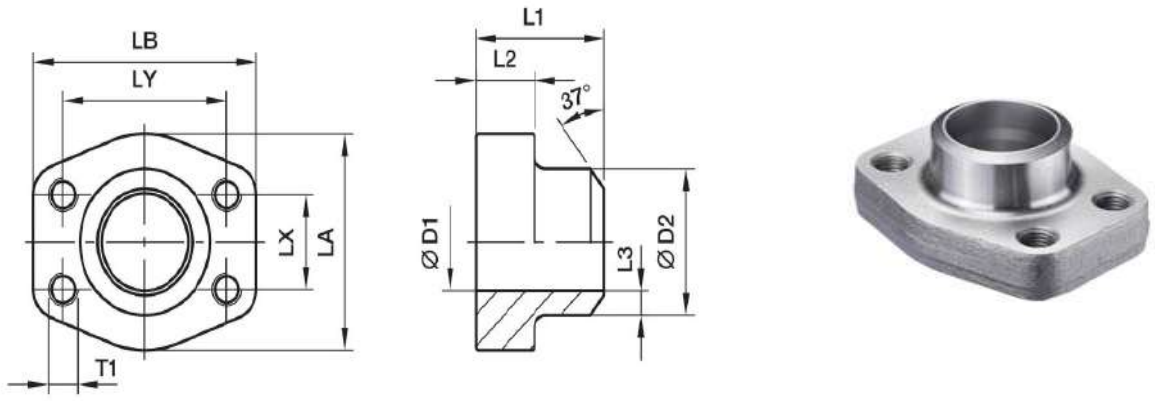
## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)	ISO (DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	DB	BOLT	Weight	Part NO.
½"	13	<b>13</b>	21.60	36.00	16.00	4.30	47.00	57.00	17.50	38.10	8.70	M 8X30	0.25	BWFO1/2-3000
¾"	19	<b>19</b>	27.20	36.00	18.00	4.10	50.00	67.00	22.30	47.60	10.50	M 10X35	0.37	BWFO3/4-3000
1"	25	<b>25</b>	34.00	38.00	18.00	4.50	54.00	72.00	26.20	52.40	10.50	M 10X35	0.45	BWFO1-3000
1¼"	32	<b>32</b>	42.80	41.00	21.00	5.40	68.00	82.00	30.20	58.70	10.50	M 10X40	0.66	BWFO1-1/4-3000
1½"	38	<b>38</b>	48.60	44.00	25.00	5.30	79.00	96.00	35.70	69.90	13.50	M 12X45	1.05	BWFO1-1/2-3000
2"	51	<b>51</b>	61.00	45.00	25.50	5.00	88.00	102.00	42.90	77.80	13.50	M 12X45	1.17	BWFO2-3000
2½"	64	<b>63</b>	76.60	50.00	26.00	6.80	101.00	115.00	50.80	88.90	13.50	M 12X45	1.59	BWFO2-1/2-3000
3"	76	<b>71</b>	90.00	50.00	27.50	9.50	127.00	137.00	61.90	106.40	17.00	M 16X50	2.28	BWFO3-3000
4"	102	<b>99</b>	115.00	50.00	27.00	8.00	146.00	162.00	77.80	130.20	17.00	M 16X50	2.69	BWFO4-3000

## 6000 PSI High Pressure Series (According to ISO 6162-2)

½"	13	<b>13</b>	21.60	36.00	16.50	4.30	47.00	57.00	18.20	40.50	8.70	M 8X30	0.29	BWFO1/2-6000
¾"	19	<b>19</b>	28.00	36.00	19.50	4.50	54.00	72.00	23.80	50.80	10.50	M 10X35	0.5	BWFO3/4-6000
1"	25	<b>25</b>	34.00	44.00	24.50	4.50	68.00	82.00	27.80	57.20	13.00	M 12X45	0.76	BWFO1-6000
1¼"	32	<b>29</b>	42.80	44.00	27.50	6.90	79.00	95.00	31.80	66.60	15.00	M 14X45	1.2	BWFO1-1/4-6000
1½"	38	<b>32</b>	48.30	51.00	31.00	8.15	88.00	108.00	36.50	79.30	17.00	M 16X55	1.65	BWFO1-1/2-6000
2"	51	<b>43</b>	61.00	70.00	37.00	9.00	118.00	137.00	44.50	96.80	21.00	M 20X70	2.45	BWFO2-6000
2½"	64	<b>50</b>	76.60	75.00	45.00	13.00	150.00	166.00	58.70	123.80	25.00	M 24X90	7.900	BWFO2-1/2-6000
3"	76	<b>58</b>	90.00	90.00	55.00	16.00	178.00	208.00	71.40	152.40	32.00	M 30X110	14.500	BWFO3-6000

# ISO 6162 - Integrated Butt Weld Flange With Flat Face



## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

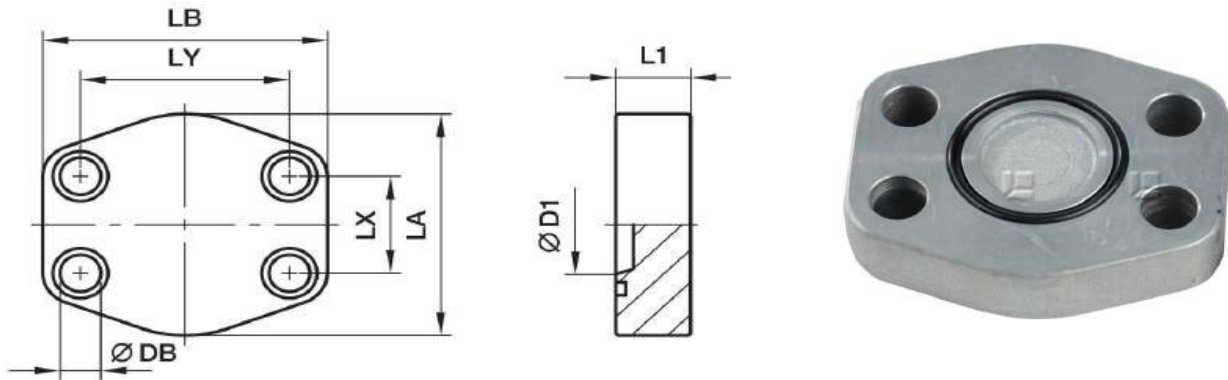
SAE (IN)	ISO (DN)	D1	D2	L1	L2	L3	LA	LB	LX	LY	T1	BOLT	Weight	Part NO.
1/2"	13	13	21.60	36.00	16.00	4.30	47.00	57.00	17.50	38.10	M 8	M 8X30	0.25	BWFF1/2-3000
3/4"	19	19	27.20	36.00	18.00	4.10	50.00	67.00	22.30	47.60	M 10	M 10X35	0.37	BWFF3/4-3000
1"	25	25	34.00	38.00	18.00	4.50	54.00	72.00	26.20	52.40	M 10	M 10X35	0.45	BWFF1-3000
1 1/4"	32	32	42.80	41.00	21.00	5.40	68.00	82.00	30.20	58.70	M 10	M 10X40	0.66	BWFF1-1/4-3000
1 1/2"	38	38	48.60	44.00	25.00	5.30	79.00	96.00	35.70	69.90	M 12	M 12X45	1.05	BWFF1-1/2-3000
2"	51	51	61.00	45.00	25.50	5.00	88.00	102.00	42.90	77.80	M 12	M 12X45	1.17	BWFF2-3000
2 1/2"	64	63	76.60	50.00	26.00	6.80	101.00	115.00	50.80	88.90	M 12	M 12X45	1.59	BWFF2-1/2-3000
3"	76	71	90.00	50.00	27.50	9.50	127.00	137.00	61.90	106.40	M 16	M 16X50	2.28	BWFF3-3000
4"	102	99	115.00	50.00	27.00	8.00	146.00	162.00	77.80	130.20	M 16	M 16X50	2.69	BWFF4-3000

## 6000 PSI High Pressure Series (According to ISO 6162-2)

1/2"	13	13	21.60	36.00	16.50	4.30	47.00	57.00	18.20	40.50	M 8	M 8X30	0.29	TFF1/2-6000
3/4"	19	19	28.00	36.00	19.50	4.50	54.00	72.00	23.80	50.80	M 10	M 10X35	0.5	TFF3/4-6000
1"	25	25	34.00	44.00	24.50	4.50	68.00	82.00	27.80	57.20	M 12	M 12X45	0.76	TFF1-6000
1 1/4"	32	29	42.80	44.00	27.50	6.90	79.00	95.00	31.80	66.60	M 14	M 14X45	1.2	TFF1-1/4-6000
1 1/2"	38	32	48.30	51.00	31.00	8.15	88.00	108.00	36.50	79.30	M 16	M 16X55	1.65	TFF1-1/2-6000
2"	51	43	61.00	70.00	37.00	9.00	118.00	137.00	44.50	96.80	M 20	M 20X70	2.45	TFF2-6000
2 1/2"	64	50	76.60	75.00	45.00	13.00	150.00	166.00	58.70	123.80	M 24	M 24X90	7.900	TFF2-1/2-6000
3"	76	58	90.00	90.00	55.00	16.00	178.00	208.00	71.40	152.40	M 30	M 30X110	14.500	TFF3-6000

# ISO 6162 - Integrated Blind Flange With O Ring

DSH



## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)	ISO (DN)	L1	LA	LB	LX	LY	DB	BOLT	Weight	Part NO.
½"	13	16.00	47.00	57.00	17.50	38.10	8.80	M 8X30	0.3	BLFO1/2-3000
¾"	19	18.00	50.00	67.00	22.30	47.60	10.50	M 10X35	0.37	BLFO3/4-3000
1"	25	19.00	54.00	72.00	26.20	52.40	10.50	M 10X35	0.54	BLFO1-3000
1¼"	32	18.00	68.00	82.00	30.20	58.70	10.50	M 10X40	0.9	BLFO1-1/4-3000
1½"	38	20.00	79.00	96.00	35.70	69.90	13.50	M 12X45	1.03	BLFO1-1/2-3000
2"	51	20.00	88.00	102.00	42.90	77.80	13.50	M 12X45	1.3	BLFO2-3000
2½"	64	20.00	101.00	115.00	50.80	88.90	13.50	M 12X45	1.45	BLFO2-1/2-3000
3"	76	24.00	127.00	137.00	61.90	106.40	17.00	M 16X50	2.72	BLFO3-3000
4"	102	27.00	146.00	162.00	77.80	130.20	17.00	M16X50	3.1	BLFO4-3000

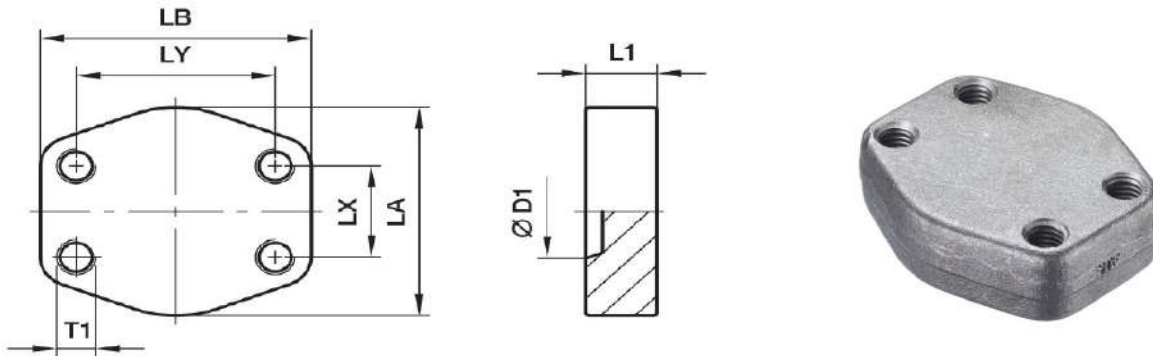
## 6000 PSI High Pressure Series (According to ISO 6162-2)

½"	13	16.00	47.00	57.00	18.20	40.50	8.80	M 8X30	0.3	BLFO1/2-6000
¾"	19	19.00	54.00	72.00	23.80	50.80	10.50	M 10X35	0.44	BLFO3/4-6000
1"	25	24.00	68.00	82.00	27.80	57.20	13.00	M 12X45	0.73	BLFO1-6000
1¼"	32	27.00	79.00	95.00	31.80	66.60	15.00	M 14X45	0.85	BLFO1-1/4-6000
1½"	38	30.00	88.00	108.00	36.50	79.30	17.00	M 16X55	1.61	BLFO1-1/2-6000
2"	51	36.00	118.00	137.00	44.50	96.80	21.00	M 20X70	3.31	BLFO2-6000
2½"	64	45.00	150.00	166.00	58.70	123.80	25.00	M 24X90	4.5	BLFO2-1/2-6000
3"	76	55.00	178.00	208.00	71.40	152.40	32.00	M 30X110	5.3	BLFO3-6000



# ISO 6162 - Integrated Blind Flange With Flat Face

DSH



## 3000 PSI Standard Pressure Series (According to ISO 6162-1)

SAE (IN)	ISO (DN)	L1	LA	LB	LX	LY	T1	BOLT	Weight	Part NO.
½"	13	16.00	47.00	57.00	17.50	38.10	M8	M 8X30	0.30	BLFF1/2-3000
¾"	19	18.00	50.00	67.00	22.30	47.60	M10	M 10X35	0.37	BLFF3/4-3000
1"	25	19.00	54.00	72.00	26.20	52.40	M10	M 10X35	0.54	BLFF1-3000
1¼"	32	18.00	68.00	82.00	30.20	58.70	M10	M 10X40	0.90	BLFF1-1/4-3000
1½"	38	20.00	79.00	96.00	35.70	69.90	M12	M 12X45	1.03	BLFF1-1/2-3000
2"	51	20.00	88.00	102.00	42.90	77.80	M12	M 12X45	1.30	BLFF2-3000
2½"	64	20.00	101.00	115.00	50.80	88.90	M12	M 12X45	1.45	BLFF2-1/2-3000
3"	76	24.00	127.00	137.00	61.90	106.40	M16	M 16X50	2.72	BLFF3-3000
4"	102	27.00	146.00	162.00	77.80	130.20	M16	M 16X50	3.10	BLFF4-3000

## 6000 PSI High Pressure Series (According to ISO 6162-2)

½"	13	16.00	47.00	57.00	18.20	40.50	M8	M 8X30	0.30	BLFF1/2-6000
¾"	19	19.00	54.00	72.00	23.80	50.80	M10	M 10X35	0.44	BLFF3/4-6000
1"	25	24.00	68.00	82.00	27.80	57.20	M12	M 12X45	0.73	BLFF1-6000
1¼"	32	27.00	79.00	95.00	31.80	66.60	M12	M 14X45	0.85	BLFF1-1/4-6000
1½"	38	30.00	88.00	108.00	36.50	79.30	M16	M 16X55	1.61	BLFF1-1/2-6000
2"	51	36.00	118.00	137.00	44.50	96.80	M20	M 20X70	3.31	BLFF2-6000
2½"	64	45.00	150.00	166.00	58.70	123.80	M24	M 24X90	4.50	BLFF2-1/2-6000
3"	76	55.00	178.00	208.00	71.40	152.40	M30	M 30X110	5.30	BLFF3-6000

# CLAMPS FITTINGS INDEX

**Heavy Series  
Clamps**



Page No. E1

**Light Series  
Clamps**



Page No. E2

# SEAMLESS TUBE FITTINGS INDEX

**Seamless Steel  
Tubes**



Page No. F1

**Seamless Stainless  
Steel Tubes**



Page No. F2

**Seamless Stainless  
Steel Tubes**

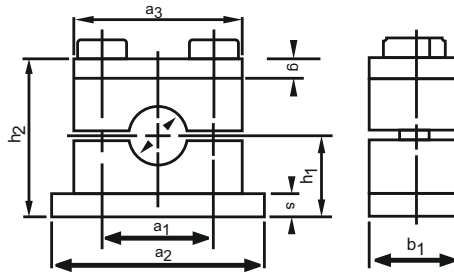


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# HEAVY SERIES CLAMPS

DSH

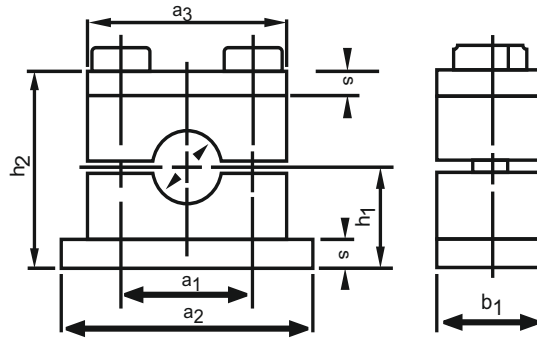


JAWS MATERIAL CODE  
 Poly Propylene - PP  
 Poly Amide - PA  
 Aluminium - AL

PIPE O. D.	A <sub>3</sub>	A <sub>1</sub>	H <sub>2</sub>	G	B <sub>1</sub>	A <sub>2</sub>	S	BOLT SIZE	PART NO.								
6	55	33	48	0.6 MIN	30	70	8	M10x45	PCH06MM								
6.4									PCH1/4OD								
8									PCH08MM								
9.5									PCH3/8OD								
10									PCH10MM								
12									PCH12MM								
12.7									PCH1/2OD								
13.5									PCH1/4NB								
14									PCH14MM								
15									PCH15MM								
16									PCH16MM								
17.2									PCH3/8NB								
18									PCH18MM								
19									70	45	64	0.6 MIN	30	85	8	M10x60	PCH3/4OD
20	PCH20MM																
21.3	PCH1/2NB																
22	PCH22MM																
25	PCH25MM																
26.9	PCH3/4NB																
28	PCH28MM																
30	PCH30MM																
32	85	60	76	0.6 MIN	30	100	8	M10x70									PCH1-1/4OD
33.7																	PCH1"NB
35									PCH35MM								
38									PCH38MM								
42									PCH42MM								
42.3									PCH1-1/4NB								
48.3	115	90	117	2 MIN	45	140	10	M12x100	PCH1-1/2NB								
50.8									PCH2"OD								
60.3									PCH2"NB								
63.5									PCH63.5MM								
65									PCH65MM								
70									PCH70MM								
73									152	122	140	2 MIN	60	180	10	M16x130	PCH73MM
76.1																	PCH2-1/2NB
88.9																	PCH3"NB
102																	PCH4"OD
114	206	168	197	2 MIN	80	226	15	M20x190	PCH4"NB								
127									PCH127MM								
133									PCH133MM								
141									PCH5"NB								
152									251	205	230	3 MIN	91	270	15	M24x225	PCH152MM
168	PCH6"NB																

# LIGHT SERIES CLAMPS

DSH



JAWS MATERIAL CODE  
 Poly Propylene - PP  
 Poly Amide - PA  
 Aluminium - AL

PIPE O. D.	A <sub>2</sub>	A <sub>3</sub>	A <sub>1</sub>	T	H <sub>2</sub>	BOLT SIZE	PART NO.
4	43	37	20	3	33	M6x30	PCL04MM
6							PCL06MM
6.4							PCL1/4OD
8							PCL08MM
9.5							PCL3/8OD
10							PCL10MM
12							PCL12MM
12.7	48	42	26	3	39	M6x35	PCL1/2OD
13.5							PCL1/4NB
14							PCL14MM
15							PCL15MM
16							PCL16MM
17.2							PCL3/8NB
18							PCL18MM
19	56	50	33	3	42	M6x40	PCL3/4OD
20							PCL20MM
21.3							PCL1/2NB
22							PCL22MM
25							PCL25MM
26.9	65	59	40	3	48	M6x45	PCL3/4NB
28							PCL28MM
30							PCL30MM
32	77	71	52	3	64	M6x60	PCL1-1/4OD
33.7							PCL1"NB
35							PCL35MM
38							PCL38MM
40							PCL40MM
42							PCL42MM
44.5	92	86	66	3	72	M6x70	PCL44.5MM
48.3							PCL1-1/2NB
50.8							PCL2"OD

# SEAMLESS STEEL TUBES

DSH

## General Recommendations for Tubes

**Steel Type**            **St 37.4**

Tensile Strength    340 N/mm<sup>2</sup>

Yield point            235 N/mm<sup>2</sup>

Condition              Seamless, Cold drawn, normal annealed as per DIN 2391C, Part 2

**Seamless Steel Tubes Material : St. 37.4**

**Tolerances DIN 2391, part 1**

TUBE O.D. (mm)	Tolerance	Wall Thickness (mm)	Tube I.D (mm)	Design Pressure (bar)		Burst Pressure (bar)	Weight kg / m	Part No.
				DIN2413 I Static	DIN 2413 III Dynamic			
4	±0.08	0.50	3.0	313	273	1160	0.047	ST4x0.5
4		0.75	2.5	470	391	1820	0.063	ST4x0.75
4		1.00	2.0	627	500	2700	0.074	ST4x1
5	±0.08	1.00	3.0	501	416	2120	0.099	ST5x1
6	±0.08	0.75	4.5	333	288	1150	0.103	ST6x0.75
6		1.00	4.0	444	372	1650	0.123	ST6x1
6		1.50	3.0	666	526	2550	0.166	ST6x1.5
6		2.00	2.0	692	662	>3500	0.197	ST6x2
6		2.50	1.0	757	725	>3501	0.208	ST6x2.5
8	±0.08	1.00	6.0	333	288	1175	0.222	ST8x1
8		1.50	5.0	499	412	1925	0.240	ST8x1.5
8		2.00	4.0	666	526	2500	0.296	ST8x2
8		2.50	3.0	658	630	2650	0.339	ST8x2.5
10	±0.08	1.00	8.0	282	248	900	0.222	ST10x1
10		1.50	7.0	423	357	1450	0.314	ST10x1.5
10		2.00	6.0	564	458	2025	0.395	ST10x2
10		2.50	5.0	705	551	2675	0.462	ST10x2.5
10		3.00	4.0	666	638	>3500	0.518	ST10x3
12	±0.08	1.00	10.0	235	209	750	0.271	ST12x1
12		1.50	9.0	353	303	1150	0.388	ST12x1.5
12		2.00	8.0	470	391	1600	0.493	ST12x2
12		2.50	7.0	588	474	2025	0.586	ST12x2.5
12		3.00	6.0	705	551	2600	0.666	ST12x3
12		3.50	5.0	651	624	-----	0.734	ST12x3.5
14	±0.08	1.50	11.0	302	264	975	0.462	ST14x1.5
14		2.00	10.0	403	342	1325	0.592	ST14x2
14		2.50	9.0	504	415	1650	0.709	ST14x2.5
14		3.00	8.0	604	485	2200	0.814	ST14x3
14		3.50	7.0	705	551	2625	0.906	ST14x3.5
15	±0.08	1.00	13.0	188	170	575	0.345	ST15x1
15		1.50	12.0	282	248	950	0.499	ST15x1.5
15		2.00	11.0	376	321	1275	0.641	ST15x2
15		3.00	9.0	564	458	2000	0.888	ST15x3
16	±0.08	1.50	13.0	264	233	850	0.536	ST16x1.5
16		2.00	12.0	353	303	1175	0.691	ST16x2
16		2.50	11.0	441	370	1500	0.832	ST16x2.5
16		3.00	10.0	529	433	1850	0.962	ST16x3
18	±0.08	1.00	16.0	157	143	450	0.419	ST18x1
18		1.50	15.0	235	209	700	0.610	ST18x1.5
18		2.00	14.0	313	273	975	0.789	ST18x2
18		2.50	13.0	392	333	1300	0.956	ST18x2.5
18		3.00	12.0	470	391	1575	1.111	ST18x3

# SEAMLESS STEEL TUBES



Seamless Steel Tubes (continued) Material : St. 37.4

Tolerances DIN 2391, part 1

TUBE O.D. (mm)	Tolerance	Wall Thickness (mm)	Tube I.D. (mm)	Design Pressure (bar)		Burst Pressure (bar)	Weight kg / m	Part No.
				DIN2413 I Static	DIN 2413 III Dynamic			
20	±0.08	1.50	17	212	190	675	0.648	ST20x1.5
20		2.00	16	282	248	900	0.888	ST20x2
20		2.50	15	353	303	1100	1.079	ST20x2.5
20		3.00	14	423	357	1400	1.258	ST20x3
20		3.50	13	494	408	1650	1.424	ST20x3.5
20		4.00	12	564	458	2000	1.578	ST20x4
22	±0.08	1.50	19	192	173	550	0.758	ST22x1.5
22		2.00	18	256	227	775	0.986	ST22x2
22		2.50	17	320	278	1025	1.202	ST22x2.5
22		3.00	16	385	328	1175	1.406	ST22x3
25	±0.08	2.00	21	226	201	725	1.134	ST25x2
25		2.50	20	282	248	850	1.387	ST25x2.5
25		3.00	19	338	292	1025	1.628	ST25x3
25		4.00	17	451	378	1500	2.072	ST25x4
25		4.50	16	508	418	1625	2.275	ST25x4.5
28	±0.08	1.50	25	151	138	425	0.98	ST28x1.5
28		2.00	24	201	181	600	1.282	ST28x2
28		2.50	23	252	223	750	1.572	ST28x2.5
28		3.00	22	302	264	900	1.85	ST28x3
30	±0.08	2.00	26	188	170	575	1.381	ST30x2
30		2.50	25	235	209	725	1.695	ST30x2.5
30		3.00	24	282	248	850	1.998	ST30x3
30		4.00	22	376	321	1175	2.565	ST30x4
30		5.00	20	470	391	1600	3.083	ST30x5
35	±0.15	2.00	31	161	147	450	1.628	ST35x2
35		2.50	30	201	181	600	2.004	ST35x2.5
35		3.00	29	242	215	700	2.367	ST35x3
35		4.00	27	322	280	960	3.058	ST35x4
38	±0.15	2.00	33	186	168	550	2.189	ST38x2
38		3.00	32	223	199	675	2.589	ST38x3
38		4.00	30	297	260	900	3.354	ST38x4
38		5.00	28	371	318	1150	4.069	ST38x5
38		6.00	26	445	373	1425	4.735	ST38x6
38		7.00	24	519	427	1700	5.325	ST38x7
42	±0.2	2.00	38	134	123	375	1.973	ST42x2
42		3.00	36	201	181	575	2.885	ST42x3
42		4.00	34	269	237	850	3.749	ST42x4
50	±0.2	6.00	38	338	292	----	6.511	ST50x6
65	±0.3	8.00	49	347	299	----	11.246	ST65x8

# SEAMLESS STAINLESS STEEL TUBES

DSH

## Seamless Stainless Steel Tubes Material No. SS-316

### Stainless Steel SS-316

Tensile Strength 500 N/mm<sup>2</sup>

Yield point 245 N/mm<sup>2</sup>

Condition Seamless, Cold drawn, free of scale as per DIN 17458 tab.6

### Tolerances DIN 2391, part 1

TUBE O.D. (mm)	Tolerance	Wall Thickness (mm)	Tube I.D. (mm)	1.4571 Design Pressure (bar) DIN 2413-1 Static	1.4571 Design Pressure (bar) DIN 2413-1 Dynamic	1.4571 Burst Pressure (bar)	Weight kg / m	Part No.
4	±0.08	1.0	2.0	735	539		0.075	S6ST4x1
6	±0.08	1.0	4.0	490	383	1850	0.125	S6ST6x1
6		1.5	3.0	735	539	2900	0.169	S6ST6x1.5
8	±0.08	1.0	6.0	638	297	1300	0.175	S6ST8x1
8		1.5	5.0	551	424	2050	0.244	S6ST8x1.5
10	±0.08	1.0	8.0	294	242	950	0.225	S6ST10x1
10		1.5	7.0	441	349	1750	0.319	S6ST10x1.5
10		2.0	6.0	588	447	2400	0.401	S6ST10x2
12	±0.08	1.0	10.0	245	205	850	0.275	S6ST12x1
12		1.5	9.0	368	297	1400	0.394	S6ST12x1.5
12		2.0	8.0	490	383	1900	0.501	S6ST12x2
14	±0.08	1.5	11.0	315	258	1200	0.469	S6ST14x1.5
14		2.0	10.0	420	334	1550	0.601	S6ST14x2
14		2.5	9.0	525	406	2100	0.720	S6ST14x2.5
15	±0.08	1.0	13.0	196	166	675	0.351	S6ST15x1
15		1.5	12.0	294	242	1100	0.507	S6ST15x1.5
15		2.0	11.0	392	314	1400	0.651	S6ST15x2
16	±0.08	1.5	13.0	276	228	950	0.545	S6ST16x1.5
16		2.0	12.0	368	297	1300	0.701	S6ST16x2
16		2.5	11.0	459	362	1850	0.845	S6ST16x2.5
16		3.0	10.0	551	424	2400	0.977	S6ST16x3
18	±0.08	1.5	15.0	245	205	800	0.620	S6ST18x1.5
18		2.0	14.0	327	267	1150	0.801	S6ST18x2
20	±0.08	2.0	16.0	294	242	1050	0.901	S6ST20x2
20		2.5	15.0	368	297	1400	1.095	S6ST20x2.5
20		3.0	14.0	441	349	1800	1.277	S6ST20x3
22	±0.08	1.5	19.0	200	170	650	0.770	S6ST22x1.5
22		2.0	18.0	267	222	900	1.002	S6ST22x2
25	±0.08	2.5	20.0	294	242	1050	1.408	S6ST25x2.5
25		3.0	19.0	353	286	1275	1.653	S6ST25x3
28	±0.08	1.5	25.0	158	135	550	0.995	S6ST28x1.5
28		2.0	24.0	210	177	700	1.302	S6ST28x2
30	±0.08	2.5	25.0	245	205	850	1.722	S6ST30x2.5
30		3.0	24.0	294	242	1150	2.028	S6ST30x3
30		4.0	22.0	392	314	1500	2.605	S6ST30x4
35	±0.15	2.0	31.0	168	143	550	1.653	S6ST35x2
38	±0.15	4.0	30.0	309	254	1150	3.405	S6ST38x4
42	±0.20	2.0	38.0	140	121	475	2.003	S6ST42x2
42		3.0	36.0	210	177	750	2.930	S6ST42x3

## 2 WAY BALL VALVE FITTINGS INDEX

JIC-2 Way Ball Valve



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JIC-2 Way Ball Valve



Page No. G2

## OTHER FITTINGS INDEX

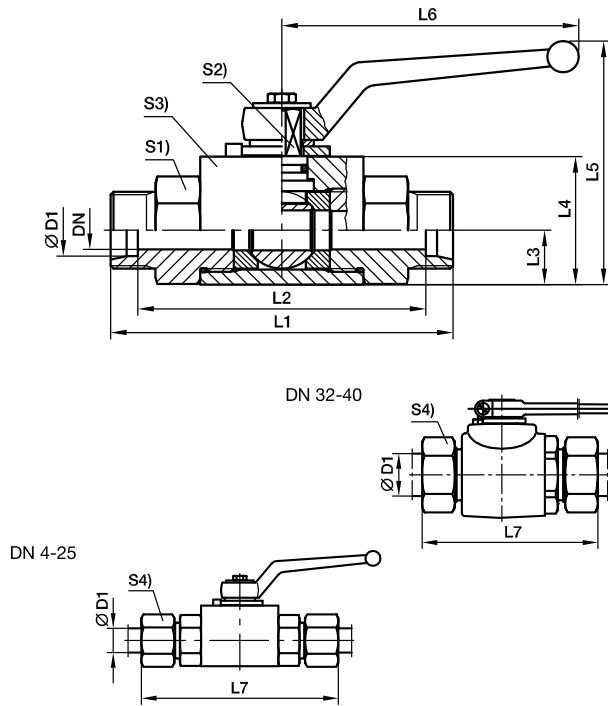
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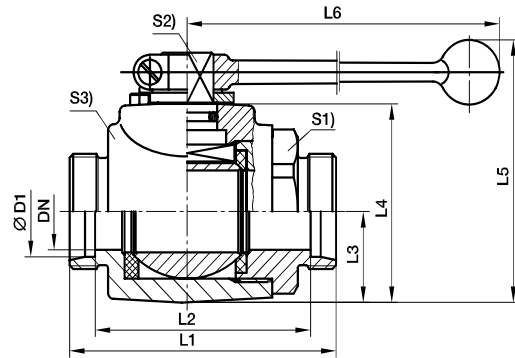
Page No. H1

# BV - 2-WAY BALL VALVE

DSH



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRBV06L
SS304	S4	S4BV06L
SS316	S6	S6BV06L



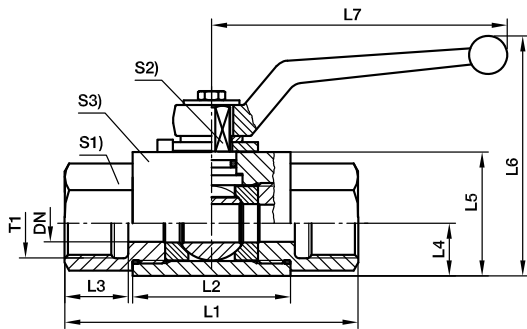
Series	D1	DN	L1	L2	L3	L4	L5	L6	L7	S1	S2	S3	S4	PART NO.	BAR
L <sup>3</sup> )	06	4	67	53	10.0	25	55.0	76	82	19	7	20	14	BV06L	500
	08	6	67	53	10.0	25	55.0	76	82	19	7	20	17	BV08L	500
	10	8	75	61	14.5	35	68.0	100	90	24	8	30	19	BV10L	500
	12	10	75	61	14.5	35	68.0	100	90	24	8	30	22	BV12L	500
	15	12	83	69	17.0	40	92.0	113	99	30	10	35	27	BV15L	500
	18	16	82	67	20.0	45	105.0	113	99	36	11	45	32	BV18L	400
	22	20	99	84	24.0	55	113.0	187	116	41	14	45	36	BV22L	400
	28	25	108	93	26.0	60	118.0	187	126	50	14	55	41	BV28L	400
	35	25	116	95	26.0	60	118.0	187	138	50	14	55	50	BV35L	400
	35	32	121	100	36.5	80	180.5	320	143	60	17	73	50	BV35L	315
	42	25	121	99	26.0	60	118.0	187	144	55	14	55	60	BV42L	400
	42	40	118	96	42.5	90	190.5	320	141	70	17	85	60	BV42L	315
S <sup>4</sup> )	08	4	73	59	10.0	25	55.0	76	88	19	7	20	19	BV08S	500
	10	6	73	58	10.0	25	55.0	76	90	19	7	20	22	BV10S	500
	12	8	77	62	14.5	35	68.0	100	94	24	8	30	24	BV12S	500
	14	10	81	65	14.5	35	68.0	100	100	24	8	30	27	BV14S	500
	16	12	87	70	17.0	40	92.0	113	106	30	10	35	30	BV16S	500
	20	16	90	69	20.0	45	105.0	113	112	36	11	45	36	BV20S	400
	25	20	107	83	24.0	55	113.0	187	131	41	14	45	46	BV25S	400
	30	25	120	93	26.0	60	118.0	187	146	50	14	55	50	BV30S	400
	38	25	134	102	26.0	60	118.0	187	163	55	14	55	60	BV38S	400
	38	32	127	95	36.5	80	180.5	320	156	60	17	73	60	BV38S	315

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# BV - 2-WAY BALL VALVE

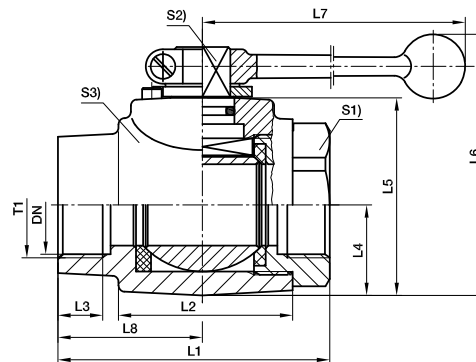
DSH

DN 4-25



Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRBVF1/8
SS304	S4	S4BVF1/8
SS316	S6	S6BVF1/8

DN 32-40



T1	DN	L1	L2	L3	L4	L5	L6	L7	L8	S1	S2	S3	PART NO.	BAR
G 1/8	4	69	36.0	12.0	10.0	25	55.0	76	-	19	7	20	BVF1/8	500
G 1/4	6	69	36.0	12.0	10.0	25	55.0	76	-	19	7	20	BVF1/4	500
G 3/8	10	73	45.0	14.0	14.5	35	68.0	100	-	24	8	30	BVF3/8	500
G 1/2	12	82	51.0	15.0	17.0	40	92.0	112	-	30	10	35	BVF1/2	500
G 5/8	16	88	50.0	18.0	20.0	45	105.0	166	-	36	11	45	BVF5/8	400
G 3/4	20	93	60.0	18.0	24.0	55	113.0	187	-	41	14	45	BVF3/4	400
G 1	25	113	70.0	20.0	26.0	60	118.0	187	-	50	14	55	BVF1	400
G 1 1/4	32	110	70.0	20.0	36.5	80	180.5	320	58.5	60	17	73	BVF1-1/4	315
G 1 1/4	25	134	70.0	20.0	26.0	60	118.0	187	-	50	14	55	BVF1-1/4	400
G 1 1/2	40	114	75.0	22.0	42.5	90	190.5	320	57.0	70	17	85	BVF1-1/2	315
G 1 1/2	25	139	70.0	22.0	26.0	60	118.0	187	-	55	14	55	BVF1-1/2	400
G 2	50	129	91.5	27.5	49.5	104	180.0	320	65.0	85	17	99	BVF2	400

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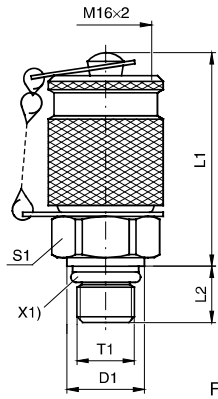


Fig. A

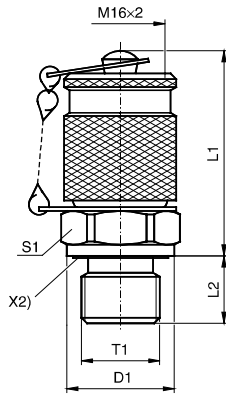


Fig. B

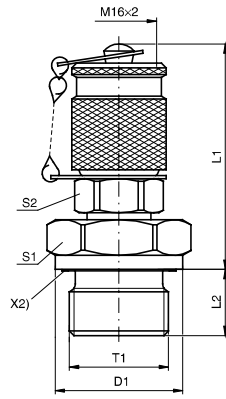


Fig. C

Order Code Suffixes		
Material	Code	Part No.
Brass	BR	BRMMC3/8x10R
SS304	S4	S4MMC3/8x10R
SS316	S6	S6MMC3/8x10R

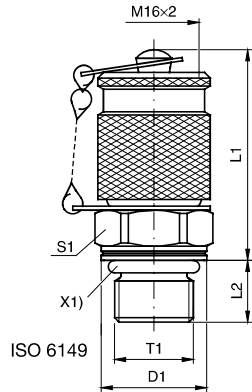


Fig. F

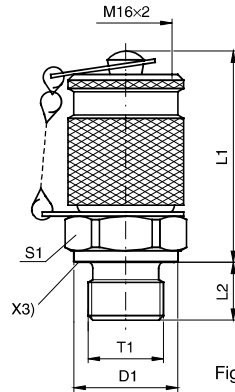


Fig. D

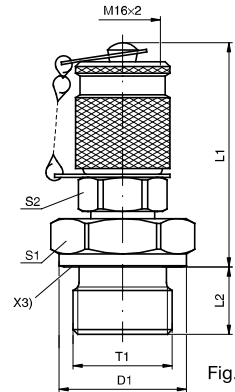


Fig. E

X1) O-ring  
X2) Eolastic sealing  
X3) Cutting face

T1	D1	L1	L2	S1	S2	Fig.	Weight g/1 piece	PART NO.	BAR
M 08x1.0	9.5	38.5	7.5	17		A	66	MMC3/8X10R	250
M 10x1.0	11.5	37.0	7.5	17		A	70	MMC3/10X10R	630
M 14x1.5	18.8	39.5	11.5	19		F	79	MMC3/14X1.5ISO	
M 10x1.0	14.0	40.0	8.0	17		D	67	MMC3/10X1	400
M 12x1.5	17.0	38.0	12.0	17		D	74	MMC3/12X1.5	
M 14x1.5	19.0	39.0	12.0	19		D	78	MMC3/14X1.5	
M 16x1.5	21.0	40.0	12.0	22		D	90	MMC3/16X1.5	
G 1/8	14.0	37.5	8.0	17		D	70	MMC3/1/8	
G 1/4	18.0	39.0	12.0	19		D	77	MMC3/1/4	
G 3/8	22.0	40.5	12.0	22		D	91	MMC3/3/8	630
G 1/2	26.0	46.0	14.0	27	17	E	137	MMC3/1/2	
G 1/8	14.0	37.5	8.0	17		B	72	MMC3/1/8ED	
G 1/4	19.0	39.0	12.0	19		B	76	MMC3/1/4ED	400
G 3/8	22.0	40.5	12.0	22		B	93	MMC3/3/8ED	
M 10x1.0	14.0	40.0	8.0	17		B	71	MMC3/10X1ED	630
M 12x1.5	17.0	38.0	12.0	17		B	72	MMC3/12X1.5ED	400
M 14x1.5	19.0	39.0	12.0	19		B	77	MMC3/14X1.5ED	400
G 1/2	27.0	46.0	14.0	27	17	C	135	MMC3/1/2ED	

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