

LET-LOK® INDEX

BACK FERRULE
760 LB



10

FRONT FERRULE
760 LF



10

TUBE INSERT
760 LI



11

NUT
761 L



11

UNION
762 L



12

REDUCING UNION
763 L



13

UNION TEE
764 L



15

REDUCING TEE
764 LR



16

UNION ELBOW
765 L



18

REDUCING UNION ELBOW
765 LR



19

FEMALE CONNECTOR
766 L



20

FEMALE CONNECTOR
766 LR



22

FEMALE CONNECTOR
766 LG



24

REDUCER
767 LT



25

PORT CONNECTOR
767 LP



28

REDUCING PORT CONNECTOR
767 LM



29

MALE CONNECTOR
768 L



30

MALE CONNECTOR
768 LR



33

MALE CONNECTOR
768 LG



35

MALE CONNECTOR
768 LOK



37

MALE CONNECTOR
768 LOB



38

MALE CONNECTOR
768 LOP



40

MALE CONNECTOR
768 LO



40

MALE PIPE WELD CONNECTOR
768 LN



41

TUBE SOCKET WELD UNION
768 LW



42

SANITARY FLANGE
768 LSFSS



43

TRI CLAMPE FITTINGS
768 LTC



43

MALE ELBOW
769 L



44

MALE ELBOW
769 LR



46

MALE ELBOW POS
769 LOB



48

MALE ELBOW POS
769 LG



50

MALE ELBOW POS
769 LOB 45°



51

MALE ELBOW POS °45
769 LG 45°



52

MALE PIPE WELD ELBOW
769 LN



52

TUBE SOCKET WELD ELBOW
769 LW



56

REDUCING ELBOW
769 LT



53

FEMALE ELBOW
770 L



54

MALE RUN TEE
771 L



55

MALE RUN TEE POS
771 LOB



56

MALE RUN TEE POS
771 LG



56

FEMALE RUN TEE
771 LF



57

MALE BRANCH TEE
772 L



58

MALE BRANCH TEE POS
772 LOB



59

MALE BRANCH TEE POS
772 LG



64

FEMALE BRANCH TEE
772 LF



61

BULKHEAD UNION
774 L



62

BULKHEAD FEMALE CONNECTOR
774 LF



63

BULKHEAD REDUCER
774 LT



63

BULKHEAD MALE CONNECTOR
774 LM

64



BULKHEAD REDUCING UNION
775 L

65



BULKHEAD RETAINER
774 LSS

66



UNION CROSS
7102 L

67



CAP
7108 L

68



PLUG
7121 L

69



PLUG WITH LANYARD
7121 LANYARD

70



FEMALE ADAPTER TUBE TO PIPE
739 LF

71



MALE ADAPTER TUBE TO PIPE
739 LM

73



MALE ADAPTER TUBE TO PIPE
739 LMR

75



MALE ADAPTER TUBE TO PIPE
739 LMG

76



WELD ADAPTER TUBE TO PIPE
739 LN

77



SOCKET WRLD ADAPTER
739 LW

77



MALE ADAPTER
739 LMOB

78



LET-LOK® TO AN ADAPTER
761 LFL

79



LET-LOK® TO AN UNION
762 LFL

79



MALE ADAPTER TUBE TO AN
739 LTFL

79



MALE ADAPTER TUBE TO AN
739 LTFL

80



PARALLEL THREADS SEALING

81



MALE NUT
961 L

83



UNION
962 L

83



REDUCING UNION
963 L

83



UNION TEE
964 L

83



MALE CONNECTOR
768 LC

84



ALLOY 400 NICKEL COPPER ALLOY 400/405 CONNECTORS

85

ALLOY C-276 CONNECTORS

87

SUPER DUPLEX 2507 CONNECTORS

89

ALLOY 825 CONNECTORS

91

ALLOY 254 CONNECTORS

93

UNION DIELECTRIC 762 L DIELECTRIC

95



ACCESSORIES
Preassembly tool, Tube holders, Stop collar

97

LET-LOK® MATERIAL DESCRIPTION

EXAMPLE:

768L

MATERIAL DESCRIPTION

SS - Stainless Steel 316

B - Brass

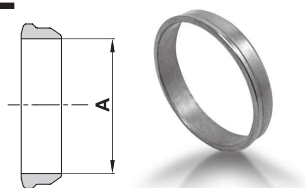
1/4

X

1/4

All orders should include material description and ordering information (see product table).

760 LB BACK FERRULE



METRIC

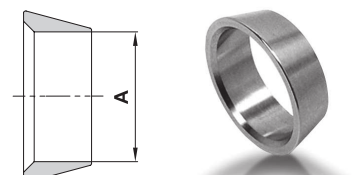
Ordering Information	A Tube O.D.
	mm
760LB _ 2	2
760LB _ 3	3
760LB _ 4	4
760LB _ 6	6
760LB _ 8	8
760LB _ 10	10
760LB _ 12	12
760LB _ 14	14
760LB _ 15	15
760LB _ 16	16
760LB _ 18	18
760LB _ 20	20
760LB _ 22	22
760LB _ 25	25
760LB _ 38 *	38
760LB _ 50 *	50

INCH

Ordering Information	A Tube O.D.	
	inch	mm
760LB _ 1/16	1/16	1.58
760LB _ 1/8	1/8	3.17
760LB _ 3/16	3/16	4.76
760LB _ 1/4	1/4	6.35
760LB _ 5/16	5/16	7.93
760LB _ 3/8	3/8	9.52
760LB _ 1/2	1/2	12.70
760LB _ 5/8	5/8	15.87
760LB _ 3/4	3/4	19.05
760LB _ 7/8	7/8	22.22
760LB _ 1	1	25.40
760LB _ 1 1/4 *	1 1/4	31.75
* 760LB _ 1 1/2	1 1/2	38.10
760LB _ 2 *	2	50.80

*Without Ferrule bar.

760 LF FRONT FERRULE



METRIC

Ordering Information	A Tube O.D.
	mm
760LF _ 2	2
760LF _ 3	3
760LF _ 4	4
760LF _ 6	6
760LF _ 8	8
760LF _ 10	10
760LF _ 12	12
760LF _ 14	14
760LF _ 15	15
760LF _ 16	16
760LF _ 18	18
760LF _ 20	20
760LF _ 22	22
760LF _ 25	25
760LF _ 38 *	38
760LF _ 50 *	50

INCH

Ordering Information	A Tube O.D.	
	inch	mm
760LF _ 1/16	1/16	1.58
760LF _ 1/8	1/8	3.17
760LF _ 3/16	3/16	4.76
760LF _ 1/4	1/4	6.35
760LF _ 5/16	5/16	7.93
760LF _ 3/8	3/8	9.52
760LF _ 1/2	1/2	12.70
760LF _ 5/8	5/8	15.87
760LF _ 3/4	3/4	19.05
760LF _ 7/8	7/8	22.22
760LF _ 1	1	25.40
760LF _ 1 1/4 *	1 1/4	31.75
* 760LF _ 1 1/2	1 1/2	38.10
760LF _ 2 *	2	50.80

*Without Ferrule bar.



FERRULE SETS

All LET-LOK® Ferrules are available as sets. Ferrule sets simplify stocking and assembly. Ferrule sets prevent damage of single ferrules during shipping.

The back and front ferrules are arranged as pairs in the set; ready for easy assembly.



FERRULE & NUT SETS

All LET-LOK® Ferrules and nuts are available as sets. Ferrule sets simplify stocking and assembly. Ferrule sets prevent damage of single ferrules during shipping.

The front + back ferrule and nut are arranged and ready for easy assembly.

Ordering Information for Ferrule Sets / Ferrule and nut Sets

EXAMPLE:

760

LS

SS

1/4

LS = Ferrule Sets
LNS = Ferrule and nuts sets

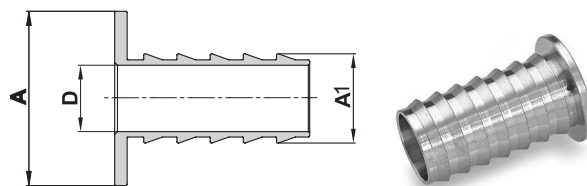
SS = Stainless Steel 316
B = Brass
T = PTFE

Tube O.D.
The O.D. size is always the first to be described

Ferrules Material

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

760 LI TUBE INSERT



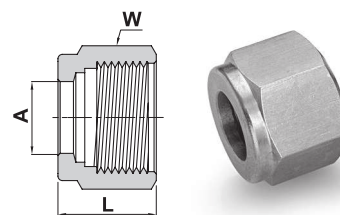
METRIC

Ordering Information	A Tube O.D.	A1 Tube I.D.	D
	mm	mm	mm
760LI _ 6 X 4	6	4	2.8
760LI _ 8 X 6	8	6	4.4
760LI _ 10 X 8	10	8	6.4
760LI _ 12 X 8	12	8	6.4
760LI _ 12 X 10	12	10	8.3

INCH

Ordering Information	A Tube O.D.		A1 Tube I.D.		D	
	inch	mm	inch	mm	inch	mm
760LI _ 3/16 X 1/8	3/16	4.76	1/8	3.17	.09	2.30
760LI _ 1/4 X 1/8	1/4	6.35	1/8	3.17	.09	2.30
760LI _ 1/4 X 0.17	1/4	6.35	.17	4.32	.11	2.70
760LI _ 1/4 X 3/16	1/4	6.35	3/16	4.76	.12	3.10
760LI _ 5/16 X 1/8	5/16	7.93	1/8	3.17	.09	2.30
760LI _ 5/16 X 3/16	5/16	7.93	3/16	4.76	.12	3.00
760LI _ 5/16 X 1/4	5/16	7.93	1/4	6.35	.18	4.65
760LI _ 3/8 X 3/16	3/8	9.52	3/16	4.76	.12	3.10
760LI _ 3/8 X 1/4	3/8	9.52	1/4	6.35	.18	4.65
760LI _ 1/2 X 1/4	1/2	12.70	1/4	6.35	.18	4.65
760LI _ 1/2 X 3/8	1/2	12.70	3/8	9.52	.31	7.80
760LI _ 5/8 X 3/8	5/8	15.87	3/8	9.52	.31	7.80
760LI _ 5/8 X 1/2	5/8	15.87	1/2	12.70	.44	11.10
760LI _ 3/4 X 1/2	3/4	19.05	1/2	12.70	.44	11.10
760LI _ 3/4 X 5/8	3/4	19.05	5/8	15.87	.56	14.20
760LI _ 1 X 3/4	1	25.40	3/4	19.05	.69	17.50

761 L NUT



METRIC

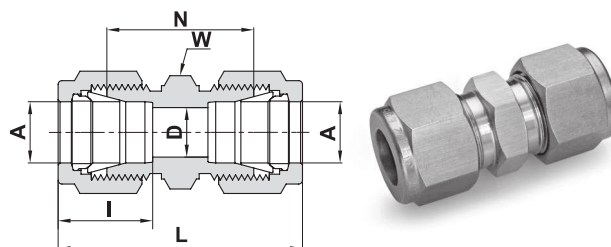
Ordering Information	A Tube O.D.	W Hex. Flat	L
	mm	mm	mm
761L _ 2	2	12	11.9
761L _ 3	3	12	11.9
761L _ 4	4	12	11.9
761L _ 6	6	14	12.7
761L _ 8	8	16	13.5
761L _ 10	10	19	15.1
761L _ 12	12	22	17.4
761L _ 14	14	25	17.4
761L _ 15	15	25	17.4
761L _ 16	16	25	17.4
761L _ 18	18	30	17.4
761L _ 20	20	32	17.4
761L _ 22	22	32	17.4
761L _ 25	25	38	20.6
761L _ 38	38	60	40.6
761L _ 50	50	inch 3	54.0

INCH

Ordering Information	A Tube O.D.		W Hex. Flat	L	
	inch	mm	inch	inch	mm
761L _ 1/16	1/16	1.58	5/16	.31	7.87
761L _ 1/8	1/8	3.17	7/16	.47	11.93
761L _ 3/16	3/16	4.76	1/2	.47	11.93
761L _ 1/4	1/4	6.35	9/16	.50	12.70
761L _ 5/16	5/16	7.93	5/8	.53	13.46
761L _ 3/8	3/8	9.52	11/16	.56	14.22
761L _ 1/2	1/2	12.70	7/8	.69	17.52
761L _ 5/8	5/8	15.87	1	.69	17.52
761L _ 3/4	3/4	19.05	1 1/8	.69	17.52
761L _ 7/8	7/8	22.22	1 1/4	.69	17.52
761L _ 1	1	25.40	1 1/2	.81	20.57
761L _ 1 1/4	1 1/4	31.75	1 7/8	1.25	31.75
761L _ 1 1/2	1 1/2	38.10	2 1/4	1.50	38.10
761L _ 2	2	50.80	3	2.06	52.32

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

762 L UNION



TUBE (METRIC) TO TUBE (METRIC)

Ordering Information	A Tube O.D.		D		W Hex. Flat		N		L		I	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
762L _ 2	2		1.7		12		22.4		35.6		12.9	
762L _ 3	3		2.4		12		22.1		35.3		12.9	
762L _ 4	4		2.4		12		24.1		37.3		13.7	
762L _ 6	6		4.8		14		26.2		41.0		15.3	
762L _ 8	8		6.4		15		28.2		43.2		16.2	
762L _ 10	10		7.9		18		31.0		46.2		17.2	
762L _ 12	12		9.5		22		31.0		51.2		22.8	
762L _ 14	14		11.1		24		31.8		52.0		24.4	
762L _ 15	15		11.9		24		31.8		52.0		24.4	
762L _ 16	16		12.7		24		31.8		52.0		24.4	
762L _ 18	18		15.1		27		33.3		53.5		24.4	
762L _ 20	20		15.9		30		34.8		55.0		26.0	
762L _ 22	22		18.3		30		34.8		55.0		26.0	
762L _ 25	25		21.8		35		40.4		65.0		31.3	
762L _ 30	30*		26.2		46		49.5		92.7		39.6	
762L _ 32	32*		28.6		46		51.3		97.3		42	
762L _ 38	38*		33.7		55		58.4		114.0		49.4	
762L _ 50	*50		45.2		3 inch		71.7		146.0		65.0	

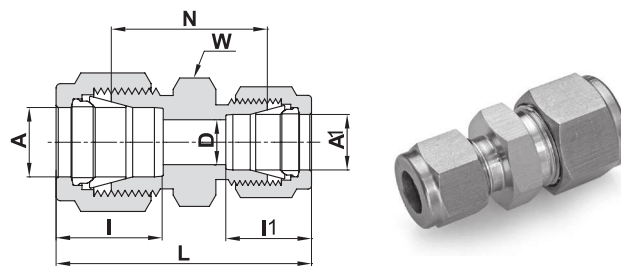
TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Hex. Flat	N		L		I	
	inch	mm	inch	mm		inch	mm	inch	mm	inch	mm
762L _ 1/16	1/16	1.58	.05	1.27	5/16	.69	17.52	.99	25.14	.34	8.6
762L _ 1/8	1/8	3.17	.09	2.28	7/16	.88	22.35	1.40	35.56	.50	12.7
762L _ 3/16	3/16	4.76	.12	3.04	7/16	.95	24.13	1.47	37.33	.54	13.7
762L _ 1/4	1/4	6.35	.19	4.82	1/2	1.03	26.16	1.61	40.89	.60	15.2
762L _ 5/16	5/16	7.93	.25	6.35	9/16	1.11	28.19	1.69	42.92	.64	16.2
762L _ 3/8	3/8	9.52	.28	7.11	5/8	1.19	30.22	1.77	44.95	.66	16.8
762L _ 1/2	1/2	12.70	.41	10.41	13/16	1.22	30.98	2.02	51.30	.90	22.9
762L _ 5/8	5/8	15.87	.50	12.70	15/16	1.25	31.75	2.05	52.07	.96	24.4
762L _ 3/4	3/4	19.05	.62	15.75	1 1/16	1.31	33.27	2.11	53.59	.96	24.4
762L _ 7/8	7/8	22.22	.72	18.28	1 3/16	1.37	34.80	2.17	55.11	1.02	25.9
762L _ 1	1	25.40	.88	22.35	1 3/8	1.59	40.38	2.55	64.77	1.23	31.2
762L _ 1 1/4	*1 1/4	31.75	1.09	27.70	1 3/4	1.89	48.00	3.63	92.20	1.62	41.2
762L _ 1 1/2	*1 1/2	38.10	1.34	34.00	2 1/8	2.11	53.60	4.25	107.95	1.97	50.0
762L _ 2	*2	50.80	1.81	45.97	2 3/4	2.94	74.67	5.88	149.35	2.66	67.6

* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

763 L REDUCING UNION



TUBE (METRIC) TO TUBE (METRIC)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I	I1
	mm	mm	mm	mm	mm	mm	mm	mm
763L _ 3 X 2	3	2	1.7	12	22.1	35.3	12.9	12.9
763L _ 6 X 2	6	2	1.7	14	24.6	38.6	15.3	12.9
763L _ 6 X 3	6	3	2.4	14	24.6	38.6	15.3	12.9
763L _ 6 X 4	6	4	2.4	14	25.4	39.4	15.3	13.7
763L _ 8 X 6	8	6	4.8	15	27.4	42.3	16.2	15.3
763L _ 10 X 6	10	6	4.8	18	29.5	44.5	17.2	15.3
763L _ 10 X 8	10	8	6.4	18	30.0	45.1	17.2	16.2
763L _ 12 X 6	12	6	4.8	22	29.5	47.0	22.8	15.3
763L _ 12 X 8	12	8	6.4	22	30.2	47.8	22.8	16.2
763L _ 12 X 10	12	10	7.9	22	31.0	48.7	22.8	17.2
763L _ 16 X 10	16	10	7.9	24	31.8	49.5	24.4	17.2
763L _ 16 X 12	16	12	9.5	24	31.8	52.0	24.4	22.8
763L _ 18 X 12	18	12	9.5	27	33.3	53.5	24.4	22.8
763L _ 25 X 18	25	18	15.1	35	38.6	61.0	31.3	24.4
763L _ 25 X 20	25	20	15.9	35	39.9	62.3	31.3	26.0
763L _ 30X18	30*	18	15.1	46	43.7	75.4	39.6	24.4
763L _ 30X20	30*	20	15.9	46	43.7	75.4	39.6	26
763L _ 30X25	30*	25	21.8	46	46.2	80.1	39.6	31.3
763L _ 32X18	32*	18	15.1	46	44.7	77.8	42	24.4
763L _ 32X20	32*	20	15.9	46	44.7	77.8	42	26
763L _ 32X25	32*	25	21.8	46	47	82.3	42	31.3
763L _ 38X30	38*	30*	26.2	55	55.8	105	49.4	39.6
763L _ 38 X 20	38*	20	15.9	55	49.8	87.5	49.4	26.0
763L _ 38 X 25	38*	25	21.8	55	55.5	95.4	49.4	31.3

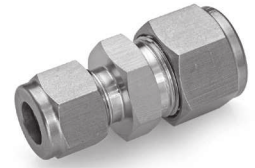
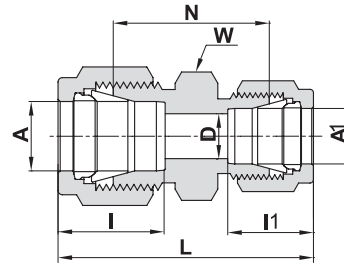
TUBE (METRIC) TO TUBE (INCH)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I	I1
	mm	inch	mm	mm	mm	mm	mm	mm
763L _ 2 X 1/4	2	1/4	1.7	14	24.6	38.6	12.9	15.2
763L _ 3 X 1/8	3	1/8	2.4	12	22.1	35.2	12.9	12.7
763L _ 4 X 1/8	4	1/8	2.4	12	23.4	36.5	13.7	12.7
763L _ 4 X 1/4	4	1/4	2.4	14	25.4	39.4	13.7	15.2
763L _ 6 X 1/8	6	1/8	2.4	14	24.6	38.5	15.3	12.7
763L _ 6 X 1/4	6	1/4	4.8	14	26.2	41.0	15.3	15.2
763L _ 6 X 5/16	6	5/16	4.8	14	27.4	42.3	15.3	16.2
763L _ 8 X 1/8	8	1/8	2.4	15	25.7	39.8	16.2	12.7
763L _ 8 X 1/4	8	1/4	4.8	15	27.4	42.3	16.2	15.2
763L _ 8 X 3/8	8	3/8	6.4	16	29.5	44.3	16.2	16.8
763L _ 10 X 1/8	10	1/8	2.4	18	27.7	41.8	17.2	12.7

* Including low friction paste, see page 97 "D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice. Cont'd next page

763 L

REDUCING UNION (Cont'd)



TUBE (METRIC) TO TUBE (INCH)

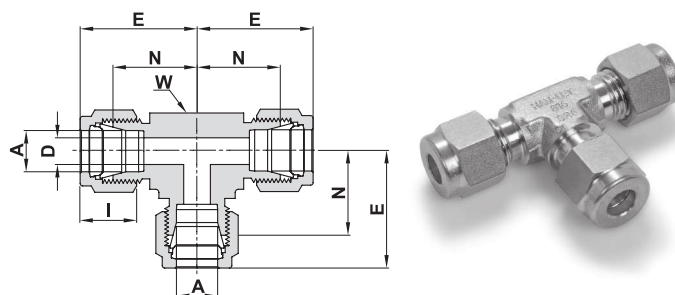
Ordering Information	A Tube O.D.	A1 Tube O.D.	D		W Hex. Flat	N	L	I	I1
	mm	inch	mm	mm	mm	mm	mm	mm	mm
763L _ 10 X 1/4	10	1/4	4.8	18	29.5	44.5	17.2	15.2	
763L _ 10 X 5/16	10	5/16	6.4	18	30.0	45.1	17.2	16.2	
763L _ 10 X 3/8	10	3/8	7.1	18	31.0	45.9	17.2	16.8	
763L _ 12 X 5/16	12	5/16	6.4	22	30.2	47.8	22.8	16.2	
763L _ 12 X 3/8	12	3/8	7.1	22	31.0	48.4	22.8	16.8	
763L _ 12 X 1/2	12	1/2	9.5	22	31.0	51.2	22.8	22.9	
763L _ 15 X 1/2	15	1/2	10.3	24	31.8	52.0	24.4	22.9	
763L _ 16 X 5/8	16	5/8	12.7	24	31.8	52.0	24.4	24.4	
763L _ 18 X 3/4	18	3/4	15.1	27	33.3	53.5	24.4	24.4	

* Including low friction paste, see page 97 "D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.

TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		D		W Hex. Flat	N		L		I		I1	
	inch	mm	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm
763L _ 1/8 X 1/16	1/8	3.17	1/16	1.58	.05	1.27	7/16	.81	20.57	1.22	30.98	.50	12.7	.34	8.6
763L _ 3/16 X 1/16	3/16	4.76	1/16	1.58	.05	1.27	7/16	.86	21.84	1.27	32.26	.54	13.7	.34	8.6
763L _ 3/16 X 1/8	3/16	4.76	1/8	3.17	.09	2.28	7/16	.92	23.36	1.44	36.57	.54	13.7	.50	12.7
763L _ 1/4 X 1/16	1/4	6.35	1/16	1.58	.05	1.27	1/2	.91	23.11	1.35	34.29	.60	15.2	.34	8.6
763L _ 1/4 X 1/8	1/4	6.35	1/8	3.17	.09	2.28	1/2	.97	24.63	1.52	38.60	.60	15.2	.50	12.7
763L _ 1/4 X 3/16	1/4	6.35	3/16	4.76	.12	3.04	1/2	1.00	25.40	1.55	37.37	.60	15.2	.54	13.7
763L _ 5/16 X 1/8	5/16	7.93	1/8	3.17	.09	2.28	9/16	1.01	25.65	1.56	39.62	.64	16.2	.50	12.7
763L _ 5/16 X 1/4	5/16	7.93	1/4	6.35	.19	4.82	9/16	1.08	27.43	1.66	42.16	.64	16.2	.60	15.2
763L _ 3/8 X 1/16	3/8	9.52	1/16	1.58	.05	1.27	5/8	1.00	25.40	1.44	36.58	.66	16.8	.34	8.6
763L _ 3/8 X 1/8	3/8	9.52	1/8	3.17	.09	2.28	5/8	1.06	26.92	1.61	40.89	.66	16.8	.50	12.7
763L _ 3/8 X 1/4	3/8	9.52	1/4	6.35	.19	4.82	5/8	1.12	28.44	1.70	43.18	.66	16.8	.60	15.2
763L _ 3/8 X 5/16	3/8	9.52	5/16	7.93	.25	6.35	5/8	1.16	29.46	1.74	44.19	.66	16.8	.64	16.2
763L _ 1/2 X 1/8	1/2	12.70	1/8	3.17	.09	2.28	13/16	1.12	28.44	1.78	45.21	.90	22.9	.50	12.7
763L _ 1/2 X 1/4	1/2	12.70	1/4	6.35	.19	4.82	13/16	1.16	29.46	1.85	46.99	.90	22.9	.60	15.2
763L _ 1/2 X 3/8	1/2	12.70	3/8	9.52	.28	7.11	13/16	1.22	30.98	1.91	48.51	.90	22.9	.66	16.8
763L _ 5/8 X 3/8	5/8	15.87	3/8	9.52	.28	7.11	15/16	1.25	31.75	1.94	49.27	.96	24.4	.66	16.8
763L _ 5/8 X 1/2	5/8	15.87	1/2	12.70	.41	10.41	15/16	1.25	31.75	2.05	52.07	.96	24.4	.90	22.9
763L _ 3/4 X 1/4	3/4	19.05	1/4	6.35	.19	4.82	1 1/16	1.25	31.75	1.94	49.28	.96	24.4	.60	15.2
763L _ 3/4 X 3/8	3/4	19.05	3/8	9.52	.28	7.11	1 1/16	1.31	33.27	2.00	50.80	.96	24.4	.66	16.8
763L _ 3/4 X 1/2	3/4	19.05	1/2	12.70	.41	10.41	1 1/16	1.31	33.27	2.11	53.59	.96	24.4	.90	22.9
763L _ 3/4 X 5/8	3/4	19.05	5/8	15.87	.50	12.70	1 1/16	1.31	33.27	2.11	53.59	.96	24.4	.96	24.4
763L _ 1 X 1/2	1	25.4	1/2	12.70	.41	10.41	1 3/8	1.50	38.10	2.38	60.45	1.23	31.2	.90	22.9
763L _ 1 X 3/4	1	25.4	3/4	19.05	.62	15.75	1 3/8	1.50	38.10	2.38	60.45	1.23	31.2	.96	24.4

764 L UNION TEE



ALL TUBE (METRIC)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		I	
	mm		mm		inch	mm	mm		mm		mm	
764L _ 2	2		1.7		3/8	9.5	15.7		22.3		12.9	
764L _ 3	3		2.4		3/8	9.5	15.7		22.3		12.9	
764L _ 4	4		2.4		1/2	12.7	18.8		25.4		13.7	
764L _ 6	6		4.8		1/2	12.7	19.6		27.0		15.3	
764L _ 8	8		6.4		5/8	15.9	22.4		29.9		16.2	
764L _ 10	10		7.9		11/16	17.5	23.9		31.5		17.2	
764L _ 12	12		9.5		13/16	20.6	25.9		36.0		22.8	
764L _ 14	14		11.1		15/16	23.8	28.7		38.8		24.4	
764L _ 15	15		11.9		15/16	23.8	28.7		38.8		24.4	
764L _ 16	16		12.7		15/16	23.8	28.7		38.8		24.4	
764L _ 18	18		15.1		1 1/16	27.0	29.7		39.8		24.4	
764L _ 20	20		15.9		1 3/8	34.9	34.5		44.6		26.0	
764L _ 22	22		18.3		1 3/8	34.9	34.5		44.6		26.0	
764L _ 30	*30		26.2		-	46	48.3		69.9		39.6	
764L _ 32	*32		28.6		-	46	49.3		72.3		42	
764L _ 25	25		21.8		1 3/8	34.9	36.8		49.1		31.3	
764L _ 38	*38		33.7		-	55.0	56.4		84.0		49.4	
764L _ 50	*50		45.2		2 3/4	69.9	68.9		106.0		65.0	

ALL TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		I	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
764L _ 1/16	1/16	1.58	.05	1.27	3/8	9.5	.55	14.00	.70	17.80	.34	8.6
764L _ 1/8	1/8	3.17	.09	2.28	3/8	9.5	.62	15.74	.88	22.35	.50	12.7
764L _ 3/16	3/16	4.76	.12	3.04	1/2	12.7	.70	17.80	.96	24.40	.54	13.7
764L _ 1/4	1/4	6.35	.19	4.82	1/2	12.7	.77	19.55	1.06	26.90	.60	15.2
764L _ 5/16	5/16	7.93	.25	6.35	5/8	15.9	.88	22.35	1.17	29.71	.64	16.2
764L _ 3/8	3/8	9.52	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	.66	16.8
764L _ 1/2	1/2	12.70	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.06	.90	22.9
764L _ 5/8	5/8	15.87	.50	12.70	15/16	23.8	1.13	28.70	1.53	38.90	.96	24.4
764L _ 3/4	3/4	19.05	.62	15.74	1 1/16	27.0	1.17	29.70	1.57	39.90	.96	24.4
764L _ 7/8	7/8	22.22	.72	18.29	1 3/8	34.9	1.36	34.54	1.76	44.70	1.02	25.9
764L _ 1	1	25.40	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.00	1.23	31.2
764L _ 1 1/4	*1 1/4	31.75	1.09	27.7	1 11/16	42.9	1.75	44.50	2.62	66.55	1.62	41.2
764L _ 1 1/2	*1 1/2	38.10	1.34	34.0	2	50.8	2.00	50.80	3.07	77.98	1.97	50.0
764L _ 2	*2	50.80	1.81	45.97	2 3/4	69.9	2.75	69.85	4.22	107.19	2.66	67.6

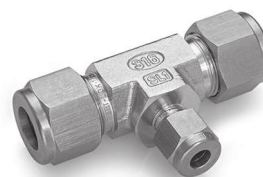
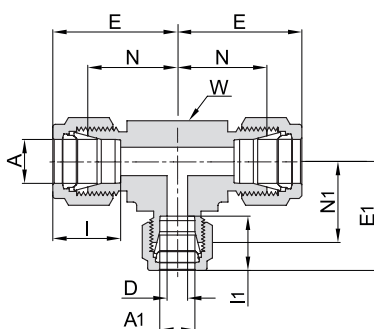
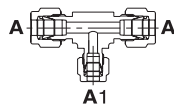
* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

764 LR REDUCING TEE

HOW TO ORDER

764LR $\frac{3}{8}$ X $\frac{3}{8}$ X $\frac{1}{4}$



ALL TUBE (METRIC)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	inch	mm	mm	mm	mm	mm
764LR_8MMX8MMX6MM	8		6		29.9		29.8		16.2		15.3		4.8		5/8	15.9	22.4		22.4	
764LR_10MMX10MMX6MM	10		6		31.5		31.3		17.2		15.3		4.8		11/16	17.5	23.9		23.9	
764LR_12MMX12MMX6MM	12		6		36.0		31.8		22.8		15.3		4.8		13/16	20.6	25.9		24.4	
764LR_12MMX12MMX10MM	12		10		36.0		33.5		22.8		17.2		7.9		13/16	20.6	25.9		25.9	
764LR_14MMX14MMX10MM	14		10		38.8		36.3		24.4		17.2		7.9		15/16	23.8	28.7		28.7	
764LR_18MMX18MMX12MM	18		12		39.8		39.8		24.4		22.8		9.5		1 1/16	27.0	29.7		29.7	
764LR_50MMX50MMX38MM	*50		*38		106.0		96.2		65.0		49.4		33.7		2 3/4	69.9	68.9		68.6	

ALL TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
764LR_1/4 X 1/4 X 1/8	1/4	6.35	1/8	3.17	1.06	26.9	1.03	26.2	.60	15.2	.50	12.7	.09	2.28	1/2	12.7	.77	19.6	.77	19.6
764LR_3/8 X 3/8 X 1/4	3/8	9.52	1/4	6.35	1.20	30.5	1.14	29.0	.66	16.8	.60	15.2	.19	4.82	5/8	15.9	.91	23.1	.85	21.6
764LR_1/2 X 1/2 X 1/4	1/2	12.70	1/4	6.35	1.42	36.1	1.25	31.8	.90	22.9	.60	15.2	.19	4.82	13/16	20.6	1.02	25.9	.96	24.4
764LR_1/2 X 1/2 X 3/8	1/2	12.70	3/8	9.52	1.42	36.1	1.31	33.3	.90	22.9	.66	16.8	.28	7.11	13/16	20.6	1.02	25.9	1.02	25.9
764LR_5/8 X 5/8 X 3/8	5/8	15.88	3/8	9.52	1.53	38.9	1.42	36.1	.96	24.4	.66	16.8	.28	7.11	15/16	23.8	1.13	28.7	1.13	28.7
764LR_3/4 X 3/4 X 1/4	3/4	19.05	1/4	6.35	1.57	39.9	1.46	37.1	.96	24.4	.60	15.2	.19	4.82	1 1/16	27.0	1.17	29.7	1.17	29.7
764LR_3/4 X 3/4 X 3/8	3/4	19.05	3/8	9.52	1.57	39.9	1.46	37.1	.96	24.4	.66	16.8	.28	7.11	1 1/16	27.0	1.17	29.7	1.17	29.7
764LR_3/4 X 3/4 X 1/2	3/4	19.05	1/2	12.70	1.57	39.9	1.57	39.9	.96	24.4	.90	22.9	.41	10.41	1 1/16	27.0	1.17	29.7	1.17	29.7
764LR_1 X 1 X 3/8	1	25.4	3/8	9.52	1.93	49.0	1.65	41.9	1.23	31.2	.66	16.8	.28	7.11	1 3/8	34.9	1.45	36.8	1.36	34.5
764LR_1 X 1 X 1/2	1	25.4	1/2	12.70	1.93	49.0	1.76	44.7	1.23	31.2	.90	22.9	.41	10.41	1 3/8	34.9	1.45	36.8	1.36	34.5
764LR_1 X 1 X 3/4	1	25.4	3/4	19.05	1.93	49.0	1.76	44.7	1.23	31.2	0.96	24.4	.62	15.75	1 3/8	34.9	1.45	36.8	1.36	34.5
764LR_1 1/4 X 1 1/4 X 1	*1 1/4	31.75	1	25.40	2.67	67.8	2.17	55.1	1.62	41.2	1.23	31.2	.88	22.35	1 11/16	42.9	1.75	44.5	1.69	42.9
764LR_1 1/2 X 1 1/2 X 1	*1 1/2	38.10	1	25.40	3.10	78.7	2.36	59.9	1.97	50.0	1.23	31.2	.88	22.35	2	50.8	2.00	50.8	1.88	47.8

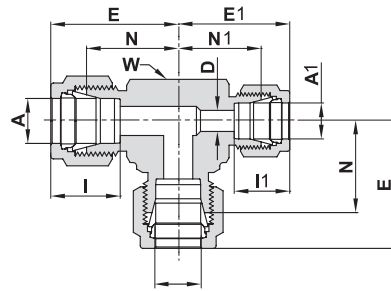
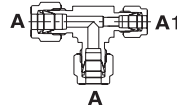
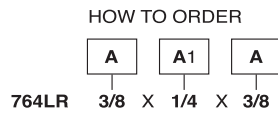
* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

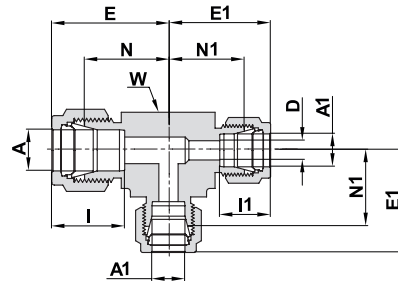
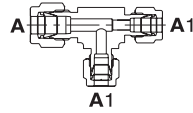
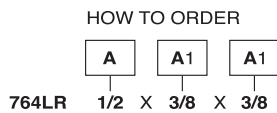
764 LR

REDUCING TEE (Cont'd)



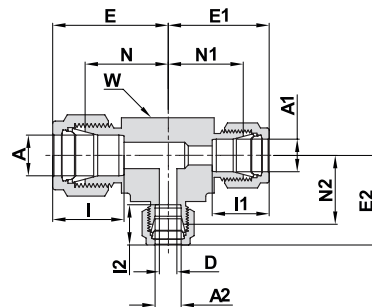
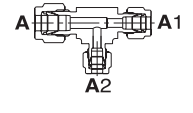
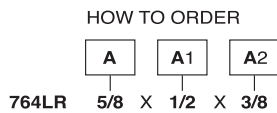
ALL TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
764LR _ 1/4 X 1/8 X 1/4	1/4	6.35	1/8	3.17	1.06	26.9	1.03	26.2	.60	15.2	.50	12.7	.09	2.28	1/2	12.7	.77	19.6	.77	19.6
764LR _ 3/8 X 1/4 X 3/8	3/8	9.25	1/4	6.35	1.20	30.5	1.14	29.0	.66	16.8	.60	15.2	.19	4.82	5/8	15.9	.91	23.1	.85	21.6
764LR _ 1/2 X 1/4 X 1/2	1/2	12.7	1/4	6.35	1.42	36.1	1.31	33.3	.90	22.9	.60	15.2	.19	4.82	13/16	20.6	1.02	25.9	1.02	25.9
764LR _ 1/2 X 3/8 X 1/2	1/2	12.7	3/8	9.52	1.42	36.1	1.31	33.3	.90	22.9	.66	16.8	.28	7.11	13/16	20.6	1.02	25.9	1.02	25.9
764LR _ 3/4 X 3/8 X 3/4	3/4	19.05	3/8	9.52	1.57	39.9	1.46	37.1	.96	24.4	.66	16.8	.28	7.11	1 1/16	27.0	1.17	29.7	1.17	29.7



ALL TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
764LR _ 1/2 X 3/8 X 3/8	1/2	12.70	3/8	9.52	1.42	36.1	1.31	33.3	.90	22.9	.66	16.8	.28	7.1	13/16	20.6	1.02	25.9	1.02	25.9
764LR _ 5/8 X 3/8 X 3/8	5/8	15.87	3/8	9.52	1.53	38.9	1.42	36.1	.96	24.4	.66	16.8	.28	7.1	15/16	23.8	1.13	28.7	1.13	28.7
764LR _ 3/4 X 3/8 X 3/8	3/4	19.05	3/8	9.52	1.57	39.9	1.46	37.1	.96	24.4	.66	16.8	.28	7.1	1 1/16	27.0	1.17	29.7	1.17	29.7

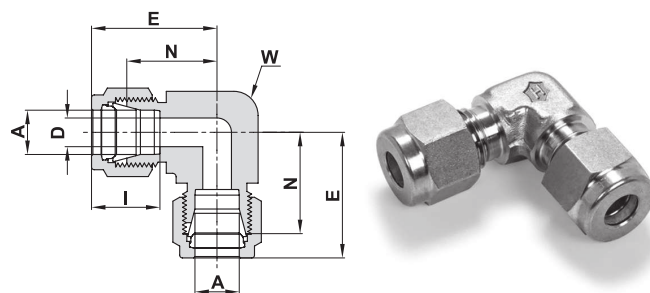


ALL TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		A2 Tube O.D.		E		E1		E2		I		I1		I2		D		W Wrench Flat		N		N1&N2	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
764LR _ 5/8 X 1/2 X 3/8	5/8	15.87	1/2	12.70	3/8	9.52	1.53	38.9	1.53	38.9	1.42	36.1	.96	24.4	.90	22.9	.66	16.8	.28	7.11	15/16	23.8	1.13	28.7	1.13	28.7
764LR _ 3/4 X 1/2 X 3/8	3/4	19.05	1/2	12.70	3/8	9.52	1.57	39.9	1.57	39.9	1.46	37.1	.96	24.4	.90	22.9	.66	16.8	.28	7.11	1 1/16	27.0	1.17	29.7	1.17	29.7
764LR _ 1 X 3/4 X 3/8	1	25.40	3/4	19.05	3/8	9.52	1.93	49.0	1.76	44.7	1.65	41.9	1.23	31.2	.96	24.4	.66	16.8	.28	7.11	1 3/8	34.9	1.45	36.8	1.36	34.5

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

765 L UNION ELBOW



TUBE (METRIC) TO TUBE (METRIC)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		I	
	mm		mm		inch	mm	mm		mm		mm	
765L _ 3	3		2.4		3/8	9.5	15.7		22.3		12.9	
765L _ 4	4		2.4		1/2	12.7	18.8		25.4		13.7	
765L _ 6	6		4.8		1/2	12.7	19.6		27.0		15.3	
765L _ 8	8		6.4		9/16	14.3	21.3		28.8		16.2	
765L _ 10	10		7.9		11/16	17.5	23.9		31.5		17.2	
765L _ 12	12		9.5		13/16	20.6	25.9		36.0		22.8	
765L _ 14	14		11.1		15/16	23.8	27.9		38.0		24.4	
765L _ 15	15		11.9		15/16	23.8	27.9		38.0		24.4	
765L _ 16	16		12.7		15/16	23.8	27.9		38.0		24.4	
765L _ 18	18		15.1		1 1/16	27.0	29.7		39.8		24.4	
765L _ 20	20		15.9		1 3/8	34.9	34.5		44.6		26.0	
765L _ 22	22		18.3		1 3/8	34.9	34.5		44.6		26.0	
765L _ 25	25		21.8		1 3/8	34.9	36.8		49.1		31.3	
765L _ 38	*38		33.7		-	55.0	56.4		84.0		49.4	
765L _ 50	*50		45.2		2 3/4	69.9	68.9		106.0		65.0	

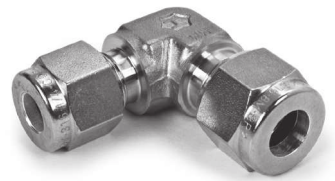
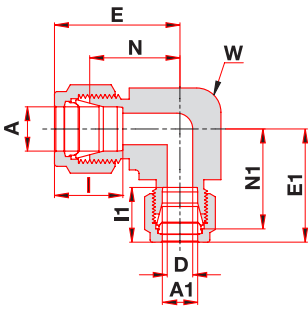
TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		I	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
765L _ 1/16	1/16	1.58	.05	1.27	3/8	9.5	.55	14.00	.70	17.80	.34	.86
765L _ 1/8	1/8	3.17	.09	2.28	3/8	9.5	.62	15.74	.88	22.35	.50	12.7
765L _ 3/16	3/16	4.76	.12	3.04	1/2	12.7	.74	18.80	1.00	25.40	.54	13.7
765L _ 1/4	1/4	6.35	.19	4.82	1/2	12.7	.77	19.55	1.06	26.92	.60	15.2
765L _ 5/16	5/16	7.93	.25	6.35	9/16	14.3	.84	21.33	1.13	28.70	.64	16.2
765L _ 3/8	3/8	9.52	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	.66	16.8
765L _ 1/2	1/2	12.70	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.06	.90	22.9
765L _ 5/8	5/8	15.87	.50	12.70	15/16	23.8	1.10	27.94	1.50	38.10	.96	24.4
765L _ 3/4	3/4	19.05	.62	15.74	1 1/16	27.0	1.17	29.70	1.57	39.90	.96	24.4
765L _ 7/8	7/8	22.22	.72	18.29	1 3/8	34.9	1.36	34.54	1.76	44.70	1.02	25.9
765L _ 1	1	25.40	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.00	1.23	31.2
765L _ 1 1/4	*1 1/4	31.75	1.09	27.70	1 11/16	42.9	1.75	44.50	2.62	66.55	1.62	41.2
765L _ 1 1/2	*1 1/2	38.10	1.34	34.00	2	50.8	2.00	50.80	3.07	77.98	1.97	50.0
765L _ 2	*2	50.80	1.81	45.97	2 3/4	69.9	2.75	69.85	4.22	107.19	2.66	67.6

* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

765 LR
REDUCING UNION ELBOW



TUBE (METRIC) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	mm		inch		mm		mm		mm		mm		mm		in	mm	mm		mm	
765LR _ 6 X 1/4	6		1/4		27.0		26.9		15.3		15.2		4.8		1/2	12.7		19.6		19.6
765LR _ 8 X 1/4	8		1/4		28.8		28.7		16.2		15.2		4.8		9/16	14.3		21.3		21.3

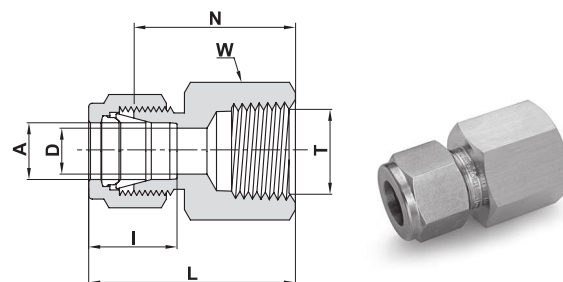
TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		E		E1		I		I1		D		W Wrench Flat		N		N1	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
765LR _ 3/8 X 1/4	3/8	9.52	1/4	6.35	1.20	30.48	1.20	30.48	.66	16.8	.60	15.2	19.	4.82	5/8	15.9	.91	23.11	.91	23.11
765LR _ 5/8 X 3/8	5/8	15.87	3/8	9.52	1.50	38.10	1.39	35.31	.96	24.4	.66	16.8	.28	7.11	15/16	23.8	1.10	27.94	1.10	27.94

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

766 L

FEMALE CONNECTOR



TUBE (METRIC) TO FEMALE NPT THREAD

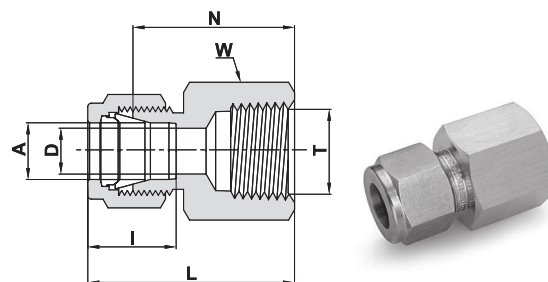
Ordering Information	A Tube O.D	T (NPT)	D	W Hex. Flat	N	L	I
	mm	inch	mm	mm	mm	mm	mm
766L _ 3 X 1/8	3	1/8	2.4	14	22.1	28.7	12.9
766L _ 3 X 1/4	3	1/4	2.4	19	26.9	33.5	12.9
766L _ 4 X 1/8	4	1/8	2.4	14	23.1	29.7	13.7
766L _ 6 X 1/8	6	1/8	4.8	14	23.9	31.3	15.3
766L _ 6 X 1/4	6	1/4	4.8	19	28.4	35.8	15.3
766L _ 6 X 3/8	6	3/8	4.8	22	30.2	37.6	15.3
766L _ 6 X 1/2	6	1/2	4.8	27	35.1	42.5	15.3
766L _ 8 X 1/8	8	1/8	6.4	15	24.6	32.1	16.2
766L _ 8 X 1/4	8	1/4	6.4	19	29.5	37.0	16.2
766L _ 8 X 3/8	8	3/8	6.4	22	31.0	38.5	16.2
766L _ 8 X 1/2	8	1/2	6.4	27	35.8	43.3	16.2
766L _ 10 X 1/4	10	1/4	7.9	19	30.2	37.8	17.2
766L _ 10 X 3/8	10	3/8	7.9	22	31.8	39.4	17.2
766L _ 10 X 1/2	10	1/2	7.9	27	36.6	44.2	17.2
766L _ 12 X 1/4	12	1/4	9.5	22	30.2	40.3	22.8
766L _ 12 X 3/8	12	3/8	9.5	22	31.8	41.9	22.8
766L _ 12 X 1/2	12	1/2	9.5	27	36.6	46.7	22.8
766L _ 15 X 1/2	15	1/2	11.9	27	36.6	46.7	24.4
766L _ 16 X 1/2	16	1/2	12.7	27	36.8	46.9	24.4
766L _ 20 X 1/2	20	1/2	15.9	30	37.8	47.9	26.0
766L _ 20 X 3/4	20	3/4	15.9	35	39.6	49.7	26.0
766L _ 22 X 3/4	22	3/4	18.3	35	39.6	49.7	26.0
766L _ 22 X 1	22	1	18.3	41	47.8	57.9	26.0
766L _ 25 X 3/4	25	3/4	21.8	35	41.1	53.4	31.3
766L _ 25 X 1	25	1	21.8	41	50.0	62.3	31.3

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

766 L

FEMALE CONNECTOR (Cont'd)



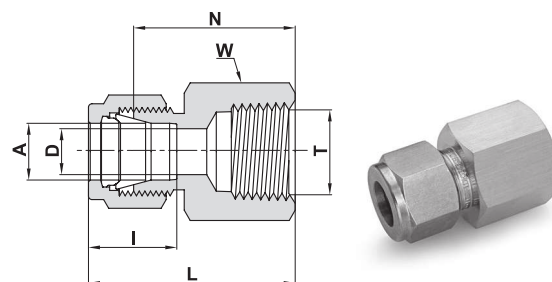
TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex Flat	N		L		I	
	inch	mm		inch	mm		inch	mm	inch	mm	inch	mm
766L _ 1/16 X 1/16	1/16	1.58	1/16	.05	1.27	7/16	.78	19.81	.93	23.62	.34	8.6
766L _ 1/16 X 1/8	1/16	1.58	1/8	.05	1.27	9/16	.81	20.57	.96	24.38	.34	8.6
766L _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	9/16	.87	22.10	1.13	28.70	.50	12.7
766L _ 1/8 X 1/4	1/8	3.17	1/4	.09	2.28	3/4	1.06	26.92	1.32	33.52	.50	12.7
766L _ 3/16 X 1/8	3/16	4.76	1/8	.12	3.04	9/16	.91	23.11	1.17	29.71	.54	13.7
766L _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	9/16	.94	23.87	1.23	31.24	.60	15.2
766L _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	3/4	1.12	28.44	1.41	35.81	.60	15.2
766L _ 1/4 X 3/8	1/4	6.35	3/8	.19	4.82	7/8	1.19	30.22	1.48	37.59	.60	15.2
766L _ 1/4 X 1/2	1/4	6.35	1/2	.19	4.82	1 1/16	1.38	35.00	1.67	42.42	.60	15.2
766L _ 5/16 X 1/8	5/16	7.93	1/8	.25	6.35	9/16	.97	24.63	1.26	32.00	.64	16.2
766L _ 5/16 X 1/4	5/16	7.93	1/4	.25	6.35	3/4	1.16	29.46	1.45	36.83	.64	16.2
766L _ 3/8 X 1/8	3/8	9.52	1/8	.28	7.11	5/8	1.00	25.40	1.29	32.76	.66	16.8
766L _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	3/4	1.19	30.22	1.48	37.59	.66	16.8
766L _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	7/8	1.25	31.75	1.54	39.11	.66	16.8
766L _ 3/8 X 1/2	3/8	9.52	1/2	.28	7.11	1 1/16	1.44	36.57	1.73	43.94	.66	16.8
766L _ 3/8 X 3/4	3/8	9.52	3/4	.28	7.11	1 5/16	1.59	40.40	1.88	47.75	.66	16.8
766L _ 1/2 X 1/4	1/2	12.70	1/4	.41	10.41	13/16	1.19	30.22	1.59	40.38	.90	22.9
766L _ 1/2 X 3/8	1/2	12.70	3/8	.41	10.41	7/8	1.25	31.75	1.65	41.91	.90	22.9
766L _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	1 1/16	1.44	36.57	1.84	46.73	.90	22.9
766L _ 1/2 X 3/4	1/2	12.70	3/4	.41	10.41	1 5/16	1.50	38.10	1.90	48.26	.90	22.9
766L _ 5/8 X 3/8	5/8	15.87	3/8	.50	12.70	15/16	1.25	31.75	1.65	41.91	.96	24.4
766L _ 5/8 X 1/2	5/8	15.87	1/2	.50	12.70	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
766L _ 5/8 X 3/4	5/8	15.87	3/4	.50	12.70	1 5/16	1.50	38.10	1.90	48.26	.96	24.4
766L _ 3/4 X 1/2	3/4	19.05	1/2	.62	15.75	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
766L _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.75	1 5/16	1.50	38.10	1.90	48.26	.96	24.4
766L _ 7/8 X 3/4	7/8	22.22	3/4	.72	18.28	1 5/16	1.56	39.62	1.96	49.78	1.02	25.9
766L _ 1 X 3/4	1	25.40	3/4	.88	22.35	1 3/8	1.62	41.14	2.10	53.34	1.23	31.2
766L _ 1 X 1	1	25.40	1	.88	22.35	1 5/8	1.97	50.03	2.45	62.23	1.23	31.2
766L _ 1 1/4 X 1 1/4	*1 1/4	31.75	1 1/4	1.09	27.70	2 1/4	2.07	52.59	2.94	74.68	1.62	41.2
766L _ 1 1/2 X 1 1/2	*1 1/2	38.10	1 1/2	1.34	34.00	2 3/8	2.21	56.13	3.28	83.31	1.97	50.0
766L _ 2 X 2	*2	50.80	2	1.81	45.97	2 7/8	2.53	64.26	4.00	101.60	2.66	67.6

* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

766 LR FEMALE CONNECTOR



TUBE (METRIC) TO FEMALE ISO TAPERED THREAD

Ordering Information	A Tube O.D	T (ISO)	D	W Hex. Flat	N	L	I
	mm	inch	mm	mm	mm	mm	mm
766LR _ 3 X 1/8	3	R-1/8	2.4	14	22.1	28.7	12.9
766LR _ 6 X 1/8	6	R-1/8	4.8	14	23.9	31.3	15.3
766LR _ 6 X 1/4	6	R-1/4	4.8	19	28.4	35.8	15.3
766LR _ 6 X 3/8	6	R-3/8	4.8	22	30.2	37.6	15.3
766LR _ 6 X 1/2	6	R-1/2	4.8	27	35.1	42.5	15.3
766LR _ 8 X 1/8	8	R-1/8	6.4	15	24.6	32.1	16.2
766LR _ 8 X 1/4	8	R-1/4	6.4	19	29.5	37.0	16.2
766LR _ 8 X 3/8	8	R-3/8	6.4	22	31.0	38.5	16.2
766LR _ 8 X 1/2	8	R-1/2	6.4	27	35.8	43.3	16.2
766LR _ 10 X 1/8	10	R-1/8	7.9	18	25.4	33.0	17.2
766LR _ 10 X 1/4	10	R-1/4	7.9	19	30.2	37.8	17.2
766LR _ 10 X 3/8	10	R-3/8	7.9	22	31.8	39.4	17.2
766LR _ 10 X 1/2	10	R-1/2	7.9	27	36.6	44.2	17.2
766LR _ 12 X 1/8	12	R-1/8	8.3	22	25.4	35.5	22.8
766LR _ 12 X 1/4	12	R-1/4	9.5	22	30.2	40.3	22.8
766LR _ 12 X 3/8	12	R-3/8	9.5	22	31.8	41.9	22.8
766LR _ 12 X 1/2	12	R-1/2	9.5	27	36.6	46.7	22.8
766LR _ 12 X 3/4	12	R-3/4	9.5	35	38.9	49.0	22.8
766LR _ 15 X 3/8	15	R-3/8	11.9	24	31.8	41.9	24.4
766LR _ 15 X 1/2	15	R-1/2	11.9	27	36.6	46.7	24.4
766LR _ 20 X 1/2	20	R-1/2	15.9	30	37.8	47.9	26.0
766LR _ 20 X 3/4	20	R-3/4	15.9	35	39.6	49.7	26.0
766LR _ 22 X 3/4	22	R-3/4	18.3	35	39.6	49.7	26.0
766LR _ 22 X 1	22	R-1	18.3	41	47.8	57.9	26.0
766LR _ 25 X 3/4	25	R-3/4	21.8	35	41.1	53.4	31.3
766LR _ 25 X 1	25	R-1	21.8	41	50.0	62.3	31.3

Reference Specifications:

DIN -2999
BS -21
JIS -B0203
ISO -7/1-BSP-T

Designation:

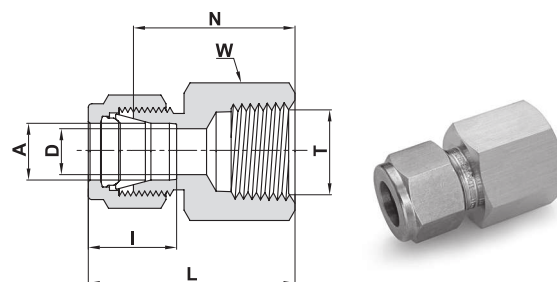
Marking LR on Hex.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

766 LR

FEMALE CONNECTOR (Cont'd)



TUBE (INCH) TO FEMALE ISO TAPERED THREAD

Ordering Information	A Tube O.D		T (ISO)	D		W Hex Flat	N		L		I	
	inch	mm		inch	mm		inch	mm	inch	mm	inch	mm
766LR _ 1/16 X 1/16	1/16	1.58	R-1/16	.05	1.27	7/16	.78	19.81	.93	23.62	.34	8.6
766LR _ 1/16 X 1/8	1/16	1.58	R-1/8	.05	1.27	9/16	.81	20.57	.96	24.38	.34	8.6
766LR _ 1/8 X 1/8	1/8	3.17	R-1/8	.09	2.28	9/16	.87	22.10	1.13	28.70	.50	12.7
766LR _ 1/8 X 1/4	1/8	3.17	R-1/4	.09	2.28	3/4	1.06	26.92	1.32	33.52	.50	12.7
766LR _ 3/16 X 1/8	3/16	4.76	R-1/8	.12	3.04	9/16	.91	23.11	1.17	29.71	.54	13.7
766LR _ 1/4 X 1/8	1/4	6.35	R-1/8	.19	4.82	9/16	.94	23.87	1.23	31.24	.60	15.2
766LR _ 1/4 X 1/4	1/4	6.35	R-1/4	.19	4.82	3/4	1.12	28.44	1.41	35.81	.60	15.2
766LR _ 1/4 X 3/8	1/4	6.35	R-3/8	.19	4.82	7/8	1.19	30.22	1.48	37.59	.60	15.2
766LR _ 1/4 X 1/2	1/4	6.35	R-1/2	.19	4.82	1 1/16	1.38	35.00	1.67	42.42	.60	15.2
766LR _ 5/16 X 1/4	5/16	7.93	R-1/4	.25	6.35	3/4	1.16	29.46	1.45	36.83	.64	16.2
766LR _ 3/8 X 1/8	3/8	9.52	R-1/8	.28	7.11	5/8	1.00	25.40	1.29	32.76	.66	16.8
766LR _ 3/8 X 1/4	3/8	9.52	R-1/4	.28	7.11	3/4	1.19	30.22	1.48	37.59	.66	16.8
766LR _ 3/8 X 3/8	3/8	9.52	R-3/8	.28	7.11	7/8	1.25	31.75	1.54	39.11	.66	16.8
766LR _ 3/8 X 1/2	3/8	9.52	R-1/2	.28	7.11	1 1/16	1.44	36.57	1.73	43.94	.66	16.8
766LR _ 1/2 X 1/4	1/2	12.70	R-1/4	.41	10.41	13/16	1.19	30.20	1.59	40.38	.90	22.9
766LR _ 1/2 X 3/8	1/2	12.70	R-3/8	.41	10.41	7/8	1.25	31.75	1.65	41.91	.90	22.9
766LR _ 1/2 X 1/2	1/2	12.70	R-1/2	.41	10.41	1 1/16	1.44	36.57	1.84	46.73	.90	22.9
766LR _ 5/8 X 1/2	5/8	15.87	R-1/2	.50	12.70	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
766LR _ 3/4 X 1/2	3/4	19.05	R-1/2	.62	15.75	1 1/16	1.44	36.57	1.84	46.73	.96	24.4
766LR _ 3/4 X 3/4	3/4	19.05	R-3/4	.62	15.75	1 5/16	1.50	38.10	1.90	48.26	.96	24.4
766LR _ 1 X 3/4	1	25.40	R-3/4	.88	22.35	1 3/8	1.62	41.14	2.10	53.34	1.23	31.2
766LR _ 1 X 1	1	25.40	R-1	.88	22.35	1 5/8	1.97	50.03	2.45	62.23	1.23	31.2

Reference Specifications:

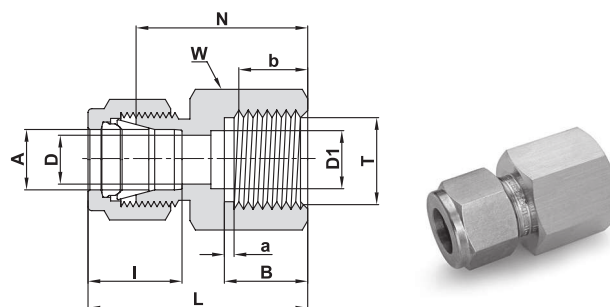
DIN -2999
BS -21
JIS -B0203
ISO -7/1-BSP-T

Designation:

Marking LR on Hex.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

766 LG FEMALE CONNECTOR



TUBE (METRIC) TO FEMALE ISO PARALLEL THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		D1		W Hex. Flat	B		b Min		a Min		N		L		I	
	mm	inch		mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
766LG _ 3 X 1/4	3		G-1/4	2.4		5.5		19	13.0		9.5		1.6		28.7		35.3		12.9	
766LG _ 6 X 1/8	6		G-1/8	4.0		4.0		14	10.0		7.0		1.6		25.0		32.4		15.3	
766LG _ 6 X 1/4	6		G-1/4	4.8		5.5		19	13.0		9.5		1.6		30.2		37.6		15.3	
766LG _ 6 X 3/8	6		G-3/8	4.8		6.5		24	14.1		10.0		1.6		30.2		37.6		15.3	
766LG _ 6 X 1/2	6		G-1/2	4.8		7.0		27	19.0		15.0		1.6		36.1		43.5		15.3	
766LG _ 8 X 1/4	8		G-1/4	5.5		5.5		19	13.0		9.5		1.6		31.0		38.5		16.2	
766LG _ 8 X 3/8	8		G-3/8	6.4		6.4		24	14.1		10.0		1.6		28.7		36.2		16.2	
766LG _ 8 X 1/2	8		G-1/2	7.0		7.0		27	19.0		15.0		1.6		33.5		41.0		16.2	
766LG _ 10 X 1/4	10		G-1/4	5.5		5.5		19	13.0		9.5		1.6		31.8		39.4		17.2	
766LG _ 10 X 3/8	10		G-3/8	6.5		6.5		24	14.1		10.0		1.6		31.2		38.8		17.2	
766LG _ 10 X 1/2	10		G-1/2	7.0		7.0		27	19.0		15.0		1.6		34.5		42.1		17.2	
766LG _ 12 X 1/4	12		G-1/4	5.5		5.5		22	13.0		9.5		1.6		31.8		41.9		22.8	
766LG _ 12 X 3/8	12		G-3/8	6.5		6.5		24	14.1		10.0		1.6		34.3		44.4		22.8	
766LG _ 12 X 1/2	12		G-1/2	7.0		7.0		27	19.0		15.0		1.6		38.1		48.2		22.8	
766LG _ 20 X 1/2	20		G-1/2	7.0		7.0		30	19.0		15.0		1.6		44.2		54.3		26.0	
766LG _ 22 X 1/2	22		G-1/2	7.0		7.0		30	19.0		15.0		1.6		44.2		54.3		26.0	

TUBE (INCH) TO FEMALE ISO PARALLEL THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		D1		W Hex. Flat	B		b Min		a Min		N		L		I	
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
766LG _ 1/8 X 1/4	1/8	3.17	G-1/4	.09	2.3	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.13	28.7	1.39	35.3	.50	12.7
766LG _ 1/4 X 1/8	1/4	6.35	G-1/8	.16	4.0	.16	4.0	9/16	.40	10.0	.28	7.0	.06	1.6	.98	25.0	1.27	32.4	.60	15.2
766LG _ 1/4 X 1/4	1/4	6.35	G-1/4	.19	4.8	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.19	30.2	1.48	37.6	.60	15.2
766LG _ 1/4 X 3/8	1/4	6.35	G-3/8	.19	4.8	.26	6.5	15/16	.56	14.1	.39	10.0	.06	1.6	1.19	30.2	1.48	37.6	.60	15.2
766LG _ 1/4 X 1/2	1/4	6.35	G-1/2	.19	4.8	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.42	36.1	1.71	43.4	.60	15.2
766LG _ 5/16 X 1/4	5/16	7.93	G-1/4	.22	5.5	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.22	31.0	1.51	38.4	.64	16.2
766LG _ 5/16 X 1/2	5/16	7.93	G-1/2	.28	7.0	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.32	33.5	1.61	40.9	.64	16.2
766LG _ 3/8 X 1/4	3/8	9.52	G-1/4	.22	5.5	.22	5.5	3/4	.51	13.0	.37	9.5	.06	1.6	1.25	31.8	1.54	39.1	.66	16.8
766LG _ 3/8 X 3/8	3/8	9.52	G-3/8	.26	6.6	.26	6.6	15/16	.56	14.1	.39	10.0	.06	1.6	1.23	31.2	1.52	38.6	.66	16.8
766LG _ 3/8 X 1/2	3/8	9.52	G-1/2	.28	7.0	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.36	34.5	1.65	41.9	.66	16.8
766LG _ 1/2 X 3/8	1/2	12.7	G-3/8	.26	6.5	.26	6.5	15/16	.56	14.1	.39	10.0	.06	1.6	1.35	34.3	1.75	44.5	.90	22.9
766LG _ 1/2 X 1/2	1/2	12.7	G-1/2	.28	7.0	.28	7.0	1 1/16	.74	19.0	.59	15.0	.06	1.6	1.50	38.1	1.90	48.2	.90	22.9

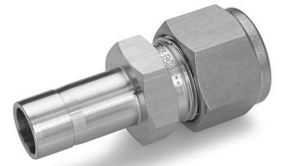
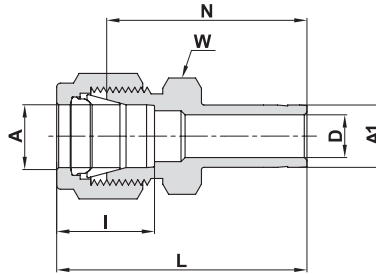
Reference Specifications:
DIN -ISO 228/1
BS -2779
JIS -B0202
ISO -228/1-BSP-P

For Parallel Threads Sealing, see page 81

Designation:
Marking LG on Hex.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

767 LT REDUCER



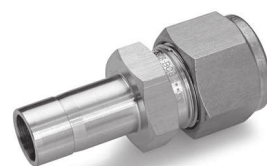
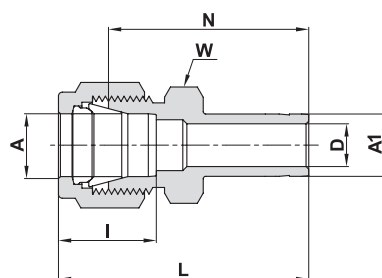
TUBE (METRIC) TO STUB (METRIC)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I
	mm	mm	mm	mm	mm	mm	mm
767LT _ 2 X 3	2	3	1.7	12	26.9	33.5	12.9
767LT _ 3 X 4	3	4	2.2	12	28.4	35.0	12.9
767LT _ 3 X 6	3	6	2.4	12	29.5	36.1	12.9
767LT _ 3 X 10	3	10	2.4	14	31.8	38.4	12.9
767LT _ 4 X 6	4	6	2.4	12	30.5	37.1	13.7
767LT _ 6 X 3	6	3	2.1	14	29.5	36.9	15.3
767LT _ 6 X 8	6	8	4.8	14	32.5	39.9	15.3
767LT _ 6 X 10	6	10	4.8	14	33.3	40.7	15.3
767LT _ 6 X 12	6	12	4.8	14	38.9	46.3	15.3
767LT _ 6 X 18	6	18	4.8	22	42.2	49.6	15.3
767LT _ 8 X 6	8	6	4.0	15	32.8	40.3	16.2
767LT _ 8 X 10	8	10	6.4	15	34.5	42.0	16.2
767LT _ 8 X 12	8	12	6.4	15	40.1	47.6	16.2
767LT _ 10 X 6	10	6	4.0	18	34.8	42.4	17.2
767LT _ 10 X 8	10	8	5.6	18	35.8	43.4	17.2
767LT _ 10 X 12	10	12	7.9	18	42.2	49.8	17.2
767LT _ 10 X 15	10	15	7.9	18	43.7	51.3	17.2
767LT _ 10 X 18	10	18	7.9	22	43.7	51.3	17.2
767LT _ 12 X 6	12	6	4.0	22	34.8	44.9	22.8
767LT _ 12 X 8	12	8	5.6	22	35.8	45.9	22.8
767LT _ 12 X 10	12	10	7.1	22	36.6	46.7	22.8
767LT _ 12 X 16	12	16	9.5	22	43.7	53.8	22.8
767LT _ 12 X 18	12	18	9.5	22	43.7	53.8	22.8
767LT _ 12 X 20	12	20	9.5	22	46.0	56.1	22.8
767LT _ 12 X 22	12	22	9.5	24	46.0	56.1	22.8
767LT _ 12 X 25	12	25	9.5	27	52.3	62.4	22.8
767LT _ 16 X 12	16	12	8.8	24	42.9	53.0	24.4
767LT _ 18 X 12	18	12	8.8	27	44.5	54.6	24.4
767LT _ 18 X 16	18	16	12.7	27	46.0	56.1	24.4
767LT _ 18 X 20	18	20	15.1	27	47.5	57.6	24.4
767LT _ 18 X 22	18	22	15.1	27	47.5	57.6	24.4
767LT _ 18 X 25	18	25	15.1	27	52.3	62.4	24.4
767LT _ 20 X 16	20	16	12.7	30	47.8	57.9	26.0
767LT _ 20 X 18	20	18	13.9	30	47.8	57.9	26.0
767LT _ 20 X 22	20	22	15.9	30	49.3	59.4	26.0
767LT _ 20 X 25	20	25	15.9	30	54.1	64.2	26.0
767LT _ 22 X 18	22	18	13.9	30	47.8	57.9	26.0
767LT _ 22 X 20	22	20	15.1	30	49.3	59.4	26.0
767LT _ 22 X 25	22	25	18.3	30	54.1	64.2	26.0
767LT _ 25 X 18	25	18	13.9	35	50.8	63.1	31.3
767LT _ 25 X 20	25	20	15.1	35	52.3	64.6	31.3

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

767 LT REDUCER (Cont'd)

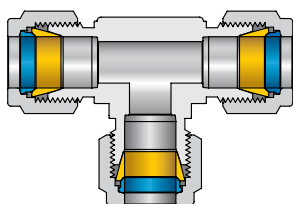


TUBE (METRIC) TO STUB (INCH)

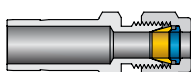
Ordering Information	A Tube O.D.	A1 Tube O.D.	D	W Hex. Flat	N	L	I
	mm	inch	mm	mm	mm	mm	mm
767LT _ 2 X 1/8	2	1/8	2.0	12	26.9	33.5	12.9
767LT _ 3 X 1/8	3	1/8	2.0	12	26.9	33.5	12.9
767LT _ 3 X 1/4	3	1/4	2.4	12	29.5	36.1	12.9
767LT _ 4 X 1/4	4	1/4	2.4	12	30.5	37.1	13.7
767LT _ 6 X 1/8	6	1/8	2.2	14	29.5	36.9	15.3
767LT _ 6 X 5/16	6	5/16	4.8	14	32.5	39.9	15.3
767LT _ 6 X 3/8	6	3/8	4.8	14	33.3	40.7	15.3
767LT _ 6 X 1/2	6	1/2	4.8	14	38.9	46.3	15.3
767LT _ 8 X 3/8	8	3/8	6.4	15	34.5	42.0	16.2
767LT _ 8 X 1/2	8	1/2	6.4	15	40.1	47.6	16.2
767LT _ 10 X 3/8	10	3/8	6.8	18	36.6	44.2	17.2
767LT _ 10 X 1/2	10	1/2	7.9	18	42.2	49.8	17.2
767LT _ 12 X 1/2	12	1/2	9.4	22	42.2	52.3	22.8
767LT _ 12 X 3/4	12	3/4	9.4	22	43.7	53.8	22.8
767LT _ 18 X 3/4	18	3/4	15.0	27	46.0	56.1	24.4
767LT _ 18 X 1	18	1	15.1	27	52.3	62.4	24.4
767LT _ 25 X 1	25	1	20.3	35	57.2	69.5	31.3

HEAT EXCHANGER TEE; INFORMATION

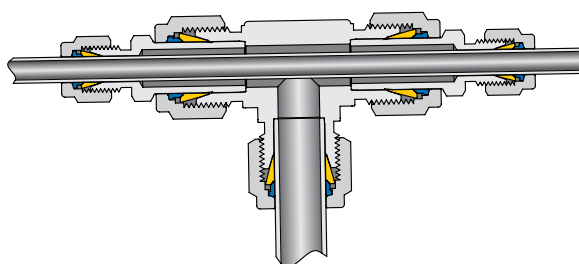
UNION TEE - 764 L



REDUCER - 767 LT

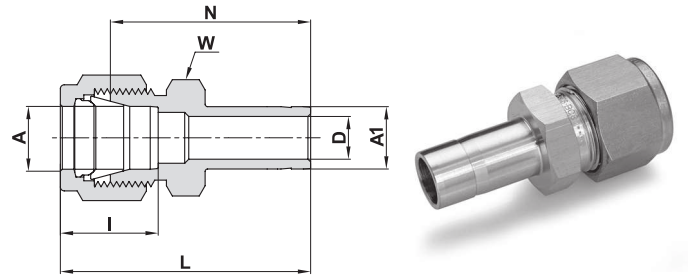


Heat exchanger tee made with
Let-Lok® tube fittings:



"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

767 LT REDUCER (Cont'd)



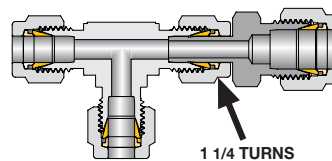
TUBE (INCH) TO STUB (INCH)

Ordering Information	A .Tube O.D		A1 .Tube O.D		D		W Hex Flat	N		L		I	
	inch	mm	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm
767LT _ 1/16 X 1/8	1/16	1.58	1/8	3.17	.05	1.27	5/16	1.00	25.40	1.15	29.21	.34	8.6
767LT _ 1/16 X 1/4	1/16	1.58	1/4	6.35	.05	1.27	5/16	1.09	27.68	1.24	31.50	.34	8.6
767LT _ 1/8 X 1/16	1/8	3.17	1/16	1.58	.03	.76	7/16	.88	22.35	1.14	28.96	.50	12.7
767LT _ 1/8 X 1/8	1/8	3.17	1/8	3.17	.08	2.03	7/16	1.06	26.92	1.32	33.52	.50	12.7
767LT _ 1/8 X 3/16	1/8	3.17	3/16	4.76	.09	2.28	7/16	1.09	27.68	1.35	34.29	.50	12.7
767LT _ 1/8 X 1/4	1/8	3.17	1/4	6.35	.09	2.28	7/16	1.16	29.46	1.42	36.06	.50	12.7
767LT _ 1/8 X 3/8	1/8	3.17	3/8	9.52	.09	2.28	7/16	1.22	30.98	1.48	37.59	.50	12.7
767LT _ 1/8 X 1/2	1/8	3.17	1/2	12.70	.09	2.28	9/16	1.48	37.59	1.74	44.20	.50	12.7
767LT _ 3/16 X 1/8	3/16	4.76	1/8	3.17	.08	2.03	7/16	1.11	28.19	1.37	34.80	.54	13.7
767LT _ 3/16 X 1/4	3/16	4.76	1/4	6.35	.12	3.04	7/16	1.20	30.48	1.46	37.08	.54	13.7
767LT _ 1/4 X 1/8	1/4	6.35	1/8	3.17	.08	2.03	1/2	1.16	29.46	1.45	36.83	.60	15.2
767LT _ 1/4 X 3/16	1/4	6.35	3/16	4.76	.12	3.04	1/2	1.19	30.22	1.48	37.59	.60	15.2
767LT _ 1/4 X 1/4	1/4	6.35	1/4	6.35	.17	4.20	1/2	1.25	31.75	1.54	39.11	.60	15.2
767LT _ 1/4 X 5/16	1/4	6.35	5/16	7.93	.19	4.82	1/2	1.28	32.51	1.57	39.87	.60	15.2
767LT _ 1/4 X 3/8	1/4	6.35	3/8	9.52	.19	4.82	1/2	1.31	33.27	1.60	40.64	.60	15.2
767LT _ 1/4 X 1/2	1/4	6.35	1/2	12.70	.19	4.82	9/16	1.53	38.86	1.82	46.22	.60	15.2
767LT _ 1/4 X 5/8	1/4	6.35	5/8	15.87	.19	4.82	11/16	1.60	40.64	1.89	48.00	.60	15.2
767LT _ 1/4 X 3/4	1/4	6.35	3/4	19.05	.19	4.82	13/16	1.59	40.39	1.88	47.75	.60	15.2
767LT _ 5/16 X 3/8	5/16	7.93	3/8	9.52	.25	6.35	9/16	1.36	34.54	1.65	41.91	.64	16.2
767LT _ 5/16 X 1/2	5/16	7.93	1/2	12.70	.25	6.35	9/16	1.58	40.13	1.87	47.49	.64	16.2
767LT _ 3/8 X 1/4	3/8	9.52	1/4	6.35	.17	4.20	5/8	1.34	34.03	1.63	41.40	.66	16.8
767LT _ 3/8 X 3/8	3/8	9.52	3/8	9.52	.27	6.85	5/8	1.41	35.81	1.70	43.18	.66	16.8
767LT _ 3/8 X 1/2	3/8	9.52	1/2	12.70	.28	7.11	5/8	1.62	41.14	1.91	48.51	.66	16.8
767LT _ 3/8 X 5/8	3/8	9.52	5/8	15.87	.28	7.11	11/16	1.69	42.92	1.98	50.29	.66	16.8
767LT _ 3/8 X 3/4	3/8	9.52	3/4	19.05	.28	7.11	13/16	1.69	42.92	1.98	50.29	.66	16.8
767LT _ 1/2 X 1/4	1/2	12.70	1/4	6.35	.17	4.20	13/16	1.37	34.80	1.77	44.96	.90	22.9
767LT _ 1/2 X 3/8	1/2	12.70	3/8	9.52	.27	6.85	13/16	1.44	36.58	1.84	46.74	.90	22.9
767LT _ 1/2 X 1/2	1/2	12.70	1/2	12.70	.37	9.40	13/16	1.66	42.16	2.06	52.32	.90	22.9
767LT _ 1/2 X 5/8	1/2	12.70	5/8	15.87	.41	10.41	13/16	1.72	43.68	2.12	53.84	.90	22.9
767LT _ 1/2 X 3/4	1/2	12.70	3/4	19.05	.41	10.41	13/16	1.72	43.68	2.12	53.84	.90	22.9
767LT _ 1/2 X 1	1/2	12.70	1	25.40	.41	10.41	1 1/16	1.97	50.03	2.37	60.19	.90	22.9
767LT _ 5/8 X 3/4	5/8	15.87	3/4	19.05	.50	12.70	15/16	1.75	44.45	2.15	54.61	.96	24.4
767LT _ 5/8 X 7/8	5/8	15.87	7/8	22.22	.50	12.70	15/16	1.81	45.97	2.21	56.13	.96	24.4
767LT _ 5/8 X 1	5/8	15.87	1	25.40	.50	12.70	1 1/16	2.00	50.80	2.40	60.96	.96	24.4
767LT _ 3/4 X 1/2	3/4	19.05	1/2	12.70	.37	9.40	1 1/16	1.75	44.45	2.15	54.61	.96	24.4
767LT _ 3/4 X 1	3/4	19.05	1	25.40	.62	15.75	1 1/16	2.06	52.32	2.46	62.48	.96	24.4
767LT _ 1 X 1 1/4	1	25.40	*1 1/4	31.75	.88	22.35	1 3/8	2.69	68.33	3.17	80.52	1.23	31.2
767LT _ 1 X 1 1/2	1	25.40	*1 1/2	38.10	.88	22.35	1 5/8	3.03	76.96	3.51	89.15	1.23	31.2
767LT _ 1 1/4 X 1 1/2	1 1/4	31.75	*1 1/2	38.10	1.09	27.7	1 3/4	3.23	82.00	4.10	104.1	1.62	41.2

ASSEMBLY INSTRUCTIONS: Reducer tube to stub 767 LT

*Supplied assembled on tube stub end (A1) nut+front & back ferrule. Tighten the nut on the body 1/2 a turn with a wrench. Low friction paste, see page 97.

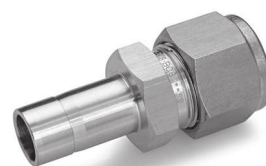
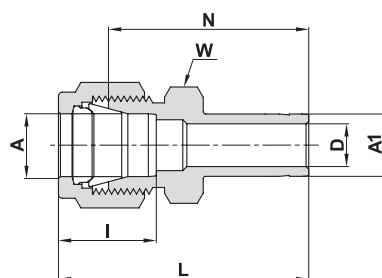
"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.



HAM-LET LEADING BY INNOVATION



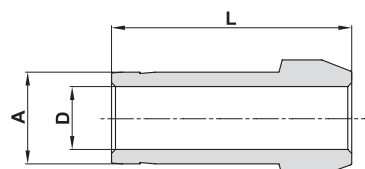
767 LT REDUCER (Cont'd)



TUBE (INCH) TO STUB (METRIC)

Ordering Information	A Tube O.D.		A1 Tube O.D.	D		W Hex. Flat	N		L		I	
	inch	mm	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm
767LT _ 1/8 X 6	1/8	3.17	6	.09	2.30	7/16	1.16	29.46	1.42	36.06	.50	12.7
767LT _ 1/4 X 6	1/4	6.35	6	.16	4.00	1/2	1.25	31.75	1.54	39.11	.60	15.2
767LT _ 3/8 X 8	3/8	9.52	8	.22	5.60	5/8	1.42	36.06	1.71	43.43	.66	16.8
767LT _ 3/8 X 12	3/8	9.52	12	.28	7.11	5/8	1.62	41.15	1.91	48.51	.66	16.8

767 LP PORT CONNECTOR



CONNECTS TWO LET-LOK® PORTS (METRIC)

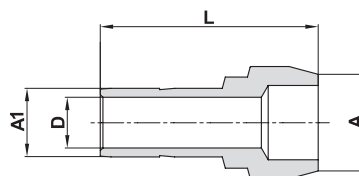
Ordering Information	A Tube O.D.	D	L
	mm	mm	mm
767LP _ 3	3	2.1	22.2
767LP _ 6	6	4.0	25.0
767LP _ 8	8	5.6	25.9
767LP _ 10	10	7.1	27.1
767LP _ 12	12	8.8	36.2
767LP _ 16	16	12.7	37.4
767LP _ 18	18	13.9	37.4
767LP _ 38	38*	31.6	81.9
767LP _ 50	*50	42.8	114.0

CONNECTS TWO LET-LOK® PORTS (INCH)

Ordering Information	A Tube O.D.		D		L	
	inch	mm	inch	mm	inch	mm
767LP _ 1/16	1/16	1.58	.03	0.75	.54	13.7
767LP _ 1/8	1/8	3.17	.08	2.03	.88	22.4
767LP _ 1/4	1/4	6.35	.17	4.20	.98	24.9
767LP _ 5/16	5/16	7.93	.24	6.00	1.02	25.9
767LP _ 3/8	3/8	9.52	.27	6.85	1.03	26.2
767LP _ 1/2	1/2	12.70	.37	9.40	1.41	35.8
767LP _ 3/4	3/4	19.05	.59	15.00	1.47	37.3
767LP _ 1	1	25.40	.80	20.30	1.90	48.1
767LP _ 1 1/4	*1 1/4	31.75	1.02	26.00	2.72	69.1
767LP _ 1 1/2	*1 1/2	38.10	1.25	31.60	3.31	84.1
767LP _ 2	*2	50.80	1.72	43.67	4.56	115.8

Assembly Instructions for 767LP - See next page

767 LM REDUCING PORT CONNECTOR



CONNECTS TWO LET-LOK® PORTS (METRIC)

Ordering Information	A Tube O.D.	A1 Tube O.D.	D	L
	mm	mm	mm	mm
767LM _ 6 X 3	6	3	2.1	22.9
767LM _ 8 X 6	8	6	4.0	24.7
767LM _ 10 X 6	10	6	4.0	25.8
767LM _ 10 X 8	10	8	5.6	26.1
767LM _ 12 X 6	12	6	4.0	29.1
767LM _ 12 X 8	12	8	5.6	29.8
767LM _ 12 X 10	12	10	7.1	30.6
767LM _ 16 X 12	16	12	8.8	37.5
767LM _ 38 X 25	*38	25	19.8	65.8

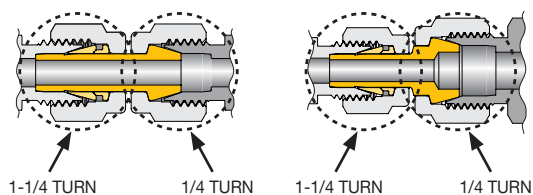
CONNECTS TWO LET-LOK® PORTS (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		D		L	
	inch	mm	inch	mm	inch	mm	inch	mm
767LM _ 1/8 X 1/16	1/8	3.17	1/16	1.58	.03	0.75	.68	17.3
767LM _ 1/4 X 1/16	1/4	6.35	1/16	1.58	.03	0.75	.71	18.0
767LM _ 1/4 X 1/8	1/4	6.35	1/8	3.17	.08	2.03	.89	22.6
767LM _ 3/8 X 1/8	3/8	9.52	1/8	3.17	.08	2.03	.91	23.2
767LM _ 3/8 X 1/4	3/8	9.52	1/4	6.35	.17	4.20	.98	24.9
767LM _ 1/2 X 1/4	1/2	12.70	1/4	6.35	.17	4.20	1.15	29.2
767LM _ 1/2 X 3/8	1/2	12.70	3/8	9.52	.28	7.10	1.20	30.5
767LM _ 3/4 X 1/2	3/4	19.05	1/2	12.70	.39	9.90	1.49	37.9

Assembly Instructions for:

Reducer Port Connector 767

1/4 turn of the nut is required for all sizes.

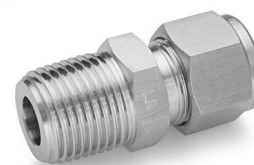
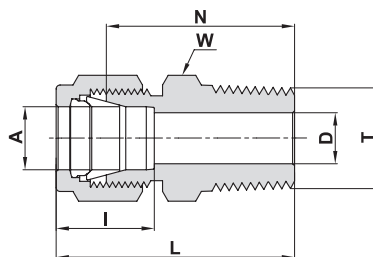


* Supplied assembled with Nuts and Ferrules. Low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 L

MALE CONNECTOR

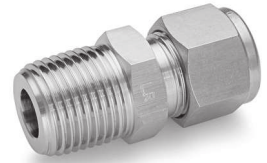
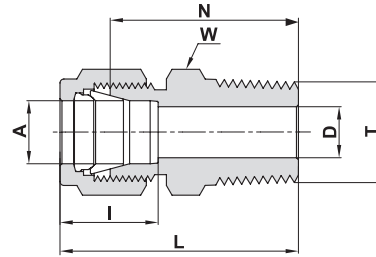


TUBE (METRIC) MALE NPT THREAD

Ordering Information	A Tube O.D.	T (NPT)	D	W Hex. Flat	N	L	I
	mm	inch	mm	mm	mm	mm	mm
768L _ 2 X 1/8	2	1/8	1.7	12	23.9	30.5	12.9
768L _ 3 X 1/8	3	1/8	2.4	12	23.9	30.5	12.9
768L _ 3 X 1/4	3	1/4	2.4	14	29.0	35.6	12.9
768L _ 4 X 1/8	4	1/8	2.4	12	24.6	31.2	13.7
768L _ 4 X 1/4	4	1/4	2.4	14	29.7	36.3	13.7
768L _ 6 X 1/8	6	1/8	4.8	14	25.4	32.8	15.3
768L _ 6 X 1/4	6	1/4	4.8	14	30.5	37.9	15.3
768L _ 6 X 3/8	6	3/8	4.8	18	31.0	38.4	15.3
768L _ 6 X 1/2	6	1/2	4.8	22	37.3	44.7	15.3
768L _ 8 X 1/8	8	1/8	4.8	15	26.7	34.2	16.2
768L _ 8 X 1/4	8	1/4	6.4	15	31.2	38.7	16.2
768L _ 8 X 3/8	8	3/8	6.4	18	31.8	39.3	16.2
768L _ 8 X 1/2	8	1/2	6.4	22	38.1	45.6	16.2
768L _ 10 X 1/8	10	1/8	4.8	18	28.7	36.3	17.2
768L _ 10 X 1/4	10	1/4	7.9	18	33.3	40.9	17.2
768L _ 10 X 3/8	10	3/8	7.9	18	33.3	40.9	17.2
768L _ 10 X 1/2	10	1/2	7.9	22	38.9	46.5	17.2
768L _ 10 X 3/4	10	3/4	7.9	27	40.4	48.0	17.2
768L _ 12 X 1/8	12	1/8	4.8	22	28.7	38.8	22.8
768L _ 12 X 1/4	12	1/4	7.1	22	33.3	43.4	22.8
768L _ 12 X 3/8	12	3/8	9.5	22	33.3	43.4	22.8
768L _ 12 X 1/2	12	1/2	9.5	22	38.9	49.0	22.8
768L _ 12 X 3/4	12	3/4	9.5	27	40.4	50.5	22.8
768L _ 14 X 1/4	14	1/4	7.1	24	34.0	44.1	24.4
768L _ 14 X 3/8	14	3/8	9.5	24	34.0	44.1	24.4
768L _ 14 X 1/2	14	1/2	11.1	24	38.9	49.0	24.4
768L _ 15 X 1/2	15	1/2	11.9	24	38.9	49.0	24.4
768L _ 16 X 3/8	16	3/8	9.5	24	34.0	44.1	24.4
768L _ 16 X 1/2	16	1/2	11.9	24	38.9	49.0	24.4
768L _ 16 X 3/4	16	3/4	12.7	27	40.4	50.5	24.4
768L _ 18 X 1/2	18	1/2	11.9	27	40.4	50.5	24.4
768L _ 18 X 3/4	18	3/4	15.1	27	40.4	50.5	24.4
768L _ 20 X 1/2	20	1/2	11.9	30	42.2	52.3	26.0
768L _ 20 X 3/4	20	3/4	15.9	30	42.2	52.3	26.0
768L _ 22 X 3/4	22	3/4	15.9	30	42.2	52.3	26.0
768L _ 22 X 1	22	1	18.3	35	47.0	57.1	26.0
768L _ 25 X 1/2	25	1/2	11.9	35	45.2	57.5	31.3
768L _ 25 X 3/4	25	3/4	15.9	35	45.2	57.5	31.3
768L _ 25 X 1	25	1	21.8	35	50.0	62.3	31.3
768L _ 30 X 1 1/4	*30	1 1/4	26.2	46	55.6	77.2	39.6
768L _ 32 X 1 1/4	*32	1 1/4	28.6	46	56.6	79.6	42
768L _ 38 X 1 1/2	*38	1 1/2	33.7	55	64.0	91.6	49.4
768L _ 50 X 2"	*50	2	45.2	3 inch	76.2	113.3	65.0

* Supplied assembled with Nuts and Ferrules. For low friction paste, see page 97

Cont'd next page

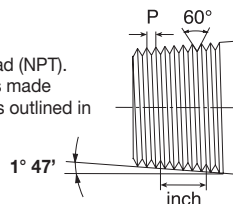
768 L**MALE CONNECTOR** (Cont'd)**TUBE (INCH) MALE NPT THREAD**

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L		I	
	inch	mm		inch	mm		inch	mm	inch	mm	inch	mm
768L _ 1/16 X 1/16	1/16	1.58	1/16	.05	1.27	5/16	.79	20.10	.94	23.88	.34	8.6
768L _ 1/16 X 1/8	1/16	1.58	1/8	.05	1.27	7/16	.88	22.35	1.03	26.10	.34	8.6
768L _ 1/16 X 1/4	1/16	1.58	1/4	.05	1.27	9/16	1.07	27.17	1.22	30.98	.34	8.6
768L _ 1/8 X 1/16	1/8	3.17	1/16	.09	2.28	7/16	.91	23.11	1.17	29.71	.50	12.7
768L _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	7/16	.94	23.90	1.20	30.48	.50	12.7
768L _ 1/8 X 1/4	1/8	3.17	1/4	.09	2.28	9/16	1.14	28.95	1.40	35.56	.50	12.7
768L _ 1/8 X 3/8	1/8	3.17	3/8	.09	2.28	11/16	1.15	29.21	1.41	35.81	.50	12.7
768L _ 1/8 X 1/2	1/8	3.17	1/2	.09	2.28	7/8	1.40	35.56	1.66	42.16	.50	12.7
768L _ 3/16 X 1/8	3/16	4.76	1/8	.12	3.04	7/16	.97	24.63	1.23	31.24	.54	13.7
768L _ 3/16 X 1/4	3/16	4.76	1/4	.12	3.04	9/16	1.17	29.72	1.43	36.32	.54	13.7
768L _ 1/4 X 1/16	1/4	6.35	1/16	.12	3.04	1/2	1.00	25.40	1.29	32.76	.60	15.2
768L _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	1/2	1.00	25.40	1.29	32.76	.60	15.2
768L _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	9/16	1.20	30.50	1.49	37.85	.60	15.2
768L _ 1/4 X 3/8	1/4	6.35	3/8	.19	4.82	11/16	1.22	30.98	1.51	38.35	.60	15.2
768L _ 1/4 X 1/2	1/4	6.35	1/2	.19	4.82	7/8	1.47	37.34	1.76	44.70	.60	15.2
768L _ 1/4 X 3/4	1/4	6.35	3/4	.19	4.82	1 1/16	1.53	38.86	1.82	46.22	.60	15.2
768L _ 5/16 X 1/8	5/16	7.93	1/8	.19	4.82	9/16	1.05	26.67	1.34	34.03	.64	16.2
768L _ 5/16 X 1/4	5/16	7.93	1/4	.25	6.35	9/16	1.23	31.24	1.52	38.60	.64	16.2
768L _ 5/16 X 3/8	5/16	7.93	3/8	.25	6.35	11/16	1.25	31.75	1.54	39.11	.64	16.2
768L _ 3/8 X 1/8	3/8	9.52	1/8	.19	4.82	5/8	1.10	27.90	1.39	35.30	.66	16.8
768L _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	5/8	1.28	32.51	1.57	39.87	.66	16.8
768L _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	11/16	1.28	32.51	1.57	39.87	.66	16.8
768L _ 3/8 X 1/2	3/8	9.52	1/2	.28	7.11	7/8	1.53	38.90	1.82	46.23	.66	16.8
768L _ 3/8 X 3/4	3/8	9.52	3/4	.28	7.11	1 1/16	1.59	40.38	1.88	47.75	.66	16.8
768L _ 3/8 X 1	3/8	9.52	1	.28	7.11	1 3/8	1.85	46.99	2.14	54.35	.66	16.8
768L _ 1/2 X 1/8	1/2	12.70	1/8	.19	4.82	13/16	1.13	28.70	1.53	38.86	.90	22.9
768L _ 1/2 X 1/4	1/2	12.70	1/4	.28	7.11	13/16	1.31	33.27	1.71	43.43	.90	22.9
768L _ 1/2 X 3/8	1/2	12.70	3/8	.38	9.65	13/16	1.31	33.27	1.71	43.43	.90	22.9
768L _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	7/8	1.53	38.90	1.93	49.02	.90	22.9
768L _ 1/2 X 3/4	1/2	12.70	3/4	.41	10.41	1 1/16	1.59	40.38	1.99	50.54	.90	22.9
768L _ 1/2 X 1	1/2	12.70	1	.41	10.41	1 3/8	1.85	47.00	2.25	57.15	.90	22.9

Reference Specifications:

- 60° Thread angle
- Pitch measured in inches
- Truncation of root and crest is flat
- Taper angle 1° 47'

American Standard Pipe Thread (NPT).
NPT (National Pipe Tapered) is made according to the specifications outlined in ANSI B1.20.1.



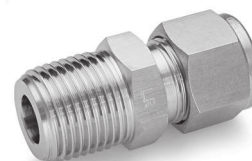
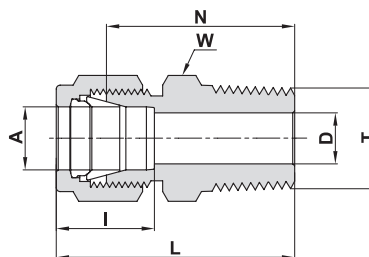
Thermoelement (see Page 32)

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

768 L

MALE CONNECTOR (Cont'd)



TUBE (INCH) MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L		I	
	inch	mm		inch	mm		inch	mm	inch	mm	inch	mm
768L _ 5/8 X 1/4	5/8	15.87	1/4	.28	7.11	15/16	1.34	34.03	1.74	44.19	.96	24.4
768L _ 5/8 X 3/8	5/8	15.87	3/8	.38	9.65	15/16	1.34	34.03	1.74	44.19	.96	24.4
768L _ 5/8 X 1/2	5/8	15.87	1/2	.47	11.90	15/16	1.53	38.86	1.93	49.02	.96	24.4
768L _ 5/8 X 3/4	5/8	15.87	3/4	.50	12.70	1 1/16	1.59	40.38	1.99	50.54	.96	24.4
768L _ 3/4 X 3/8	3/4	19.05	3/8	.38	9.50	1 1/16	1.38	35.05	1.78	45.21	.96	24.4
768L _ 3/4 X 1/2	3/4	19.05	1/2	.47	11.90	1 1/16	1.59	40.38	1.99	50.54	.96	24.4
768L _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.75	1 1/16	1.59	40.38	1.99	50.54	.96	24.4
768L _ 3/4 X 1	3/4	19.05	1	.62	15.75	1 3/8	1.85	47.00	2.25	57.15	.96	24.4
768L _ 7/8 X 1/2	7/8	22.22	1/2	.47	11.90	1 3/16	1.59	40.38	1.99	50.54	1.02	25.9
768L _ 7/8 X 3/4	7/8	22.22	3/4	.62	15.75	1 3/16	1.59	40.38	1.99	50.54	1.02	25.9
768L _ 7/8 X 1	7/8	22.22	1	.72	18.28	1 3/8	1.85	46.99	2.25	57.15	1.02	25.9
768L _ 1 X 1/2	1	25.40	1/2	.47	11.90	1 3/8	1.78	45.21	2.26	57.40	1.23	31.2
768L _ 1 X 3/4	1	25.40	3/4	.62	15.75	1 3/8	1.78	45.21	2.26	57.40	1.23	31.2
768L _ 1 X 1	1	25.40	1	.88	22.35	1 3/8	1.97	50.03	2.45	62.23	1.23	31.2
768L _ 1 1/4 X 1	*1 1/4	31.75	1	.86	21.80	1 3/4	2.17	55.12	3.04	77.22	1.62	41.2
768L _ 1 1/4 X 1 1/4	*1 1/4	31.75	1 1/4	1.09	27.70	1 3/4	2.17	55.12	3.04	77.22	1.62	41.2
768L _ 1 1/2 X 1 1/2	*1 1/2	38.10	1 1/2	1.34	34.00	2 1/8	2.43	61.72	3.50	88.90	1.97	50.0
768L _ 2 X 2	*2	50.80	2	1.81	45.97	2 3/4	3.00	76.20	4.47	113.54	2.66	67.6

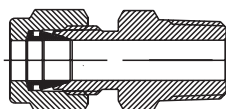
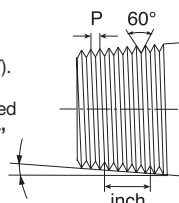
* Including low friction paste, See page 97

Reference Specifications:

- 60° Thread angle
- Pitch measured in inches
- Truncation of root and crest is flat
- Taper angle 1° 47'

American Standard Pipe Thread (NPT).
NPT (National Pipe Tapered) is made according to the specifications outlined in ANSI B1.20.1.

1° 47'



Thermoelement

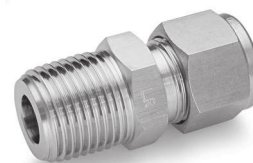
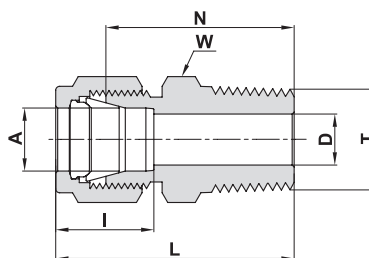
For ordering: use the catalog number of the selected fitting and add the suffix TC.
Example: 768L SS 1/4 x 1/4 TC

TERMOCOUPLE LET-LOK TUBE FITTINGS

Tubing O.D.	Pressure rating factor
2 mm to 12 mm, 1/8" to 1/2"	0.75 x pressure rating shown in table 1 (see page 9)
14 mm to 18 mm, 5/8" to 3/4"	0.50 x pressure rating shown in table 1 (see page 9)
20 mm to 25 mm, 7/8" to 1"	0.25 x pressure rating shown in table 1 (see page 9)

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 LR MALE CONNECTOR



TUBE (METRIC) ISO TAPERED THREAD

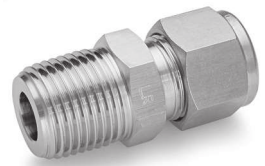
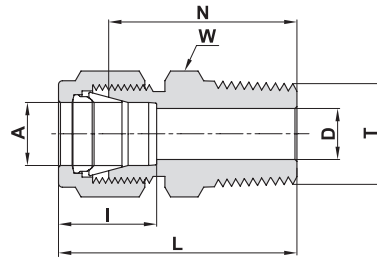
Ordering Information	A Tube O.D.	T (ISO)	D	W Hex. Flat	N	L	I
	mm	inch	mm	mm	mm	mm	mm
768LR _ 2 X 1/8	2	R-1/8	1.7	12	23.9	30.5	12.9
768LR _ 3 X 1/8	3	R-1/8	2.4	12	23.9	30.5	12.9
768LR _ 3 X 1/4	3	R-1/4	2.4	14	29.0	35.6	12.9
768LR _ 4 X 1/8	4	R-1/8	2.4	12	24.6	31.2	13.7
768LR _ 4 X 1/4	4	R-1/4	2.4	14	29.7	36.3	13.7
768LR _ 6 X 1/8	6	R-1/8	4.8	14	25.4	32.8	15.3
768LR _ 6 X 1/4	6	R-1/4	4.8	14	30.5	37.9	15.3
768LR _ 6 X 3/8	6	R-3/8	4.8	18	31.0	38.4	15.3
768LR _ 6 X 1/2	6	R-1/2	4.8	22	37.3	44.7	15.3
768LR _ 8 X 1/8	8	R-1/8	4.8	15	26.7	34.2	16.2
768LR _ 8 X 1/4	8	R-1/4	6.4	15	31.2	38.7	16.2
768LR _ 8 X 3/8	8	R-3/8	6.4	18	31.8	39.2	16.2
768LR _ 8 X 1/2	8	R-1/2	6.4	22	38.1	45.6	16.2
768LR _ 10 X 1/8	10	R-1/8	4.8	18	28.7	36.3	17.2
768LR _ 10 X 1/4	10	R-1/4	7.9	18	33.3	40.9	17.2
768LR _ 10 X 3/8	10	R-3/8	7.9	18	33.3	40.9	17.2
768LR _ 10 X 1/2	10	R-1/2	7.9	22	38.9	46.5	17.2
768LR _ 10 X 3/4	10	R-3/4	7.9	27	40.4	48.0	17.2
768LR _ 12 X 1/4	12	R-1/4	7.1	22	33.3	43.4	22.8
768LR _ 12 X 3/8	12	R-3/8	9.5	22	33.3	43.4	22.8
768LR _ 12 X 1/2	12	R-1/2	9.5	22	38.9	49.0	22.8
768LR _ 12 X 3/4	12	R-3/4	9.5	27	40.4	50.5	22.8
768LR _ 14 X 1/4	14	R-1/4	7.1	24	34.0	44.1	24.4
768LR _ 14 X 3/8	14	R-3/8	9.5	24	34.0	44.1	24.4
768LR _ 15 X 1/2	15	R-1/2	11.9	24	38.9	49.0	24.4
768LR _ 16 X 1/4	16	R-1/4	7.1	24	34.0	44.1	24.4
768LR _ 16 X 3/8	16	R-3/8	9.5	24	34.0	44.1	24.4
768LR _ 16 X 1/2	16	R-1/2	11.9	24	38.9	49.0	24.4
768LR _ 16 X 3/4	16	R-3/4	12.7	27	40.4	50.5	24.4
768LR _ 18 X 1/2	18	R-1/2	11.9	27	40.4	50.5	24.4
768LR _ 18 X 3/4	18	R-3/4	15.1	27	40.4	50.5	24.4
768LR _ 20 X 1/2	20	R-1/2	11.9	30	42.2	52.3	26.0
768LR _ 20 X 3/4	20	R-3/4	15.9	30	42.2	52.3	26.0
768LR _ 22 X 3/4	22	R-3/4	15.9	30	42.2	52.3	26.0
768LR _ 22 X 1	22	R-1	18.3	35	47.0	57.1	26.0
768LR _ 25 X 1/2	25	R-1/2	11.9	35	45.2	57.5	31.3
768LR _ 25 X 3/4	25	R-3/4	15.9	35	45.2	57.5	31.3
768LR _ 25 X 1	25	R-1	21.8	35	45.2	57.5	31.3
768LR _ 30 X 1 1/4	30*	R-1 1/4	26.2	46	55.6	77.2	39.6

Designation:
Marking LR on Hex

Reference Specifications: DIN - ISO 2999
BS - 21
JIS - B0203
ISO - 7/1-BSP-T

Thermoelement
(See Page 32)

* Including low friction paste, see page 97
"D" - Dimension is minimum opening.
Dimensions are for reference only, and are subject to change without notice.

768 LR**MALE CONNECTOR** (Cont'd)**TUBE (METRIC) ISO TAPERED THREAD**

Ordering Information	A Tube O.D.	T (ISO)	D	W Hex. Flat	N	L	I
	mm	inch	mm	mm	mm	mm	mm
768LR _ 32 X 1 1/4	32*	R-1 1/4	28.6	46	56.6	79.6	42
768LR _ 38 X 1 1/2	*38	R-1 1/2	33.7	55	64.0	91.6	49.4
768LR _ 50 X 2"	50*	R-2	45.2	inch 3	76.2	113.3	65.0

TUBE (INCH) ISO TAPERED THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		W Hex. Flat	N		L		I	
	inch	mm	inch	inch	mm	inch	inch	mm	inch	mm	inch	mm
768LR _ 1/8 X 1/8	1/8	3.17	R-1/8	.09	2.28	7/16	.94	23.90	1.20	30.48	.50	12.70
768LR _ 1/8 X 1/4	1/8	3.17	R-1/4	.09	2.28	9/16	1.14	28.95	1.40	35.56	.50	12.70
768LR _ 1/4 X 1/8	1/4	6.35	R-1/8	.19	4.82	1/2	1.00	25.40	1.29	32.76	.60	15.20
768LR _ 1/4 X 1/4	1/4	6.35	R-1/4	.19	4.82	9/16	1.20	30.50	1.49	37.85	.60	15.20
768LR _ 1/4 X 3/8	1/4	6.35	R-3/8	.19	4.82	11/16	1.22	30.98	1.51	38.35	.60	15.20
768LR _ 1/4 X 1/2	1/4	6.35	R-1/2	.19	4.82	7/8	1.47	37.34	1.76	44.70	.60	15.20
768LR _ 5/16 X 1/8	5/16	7.93	R-1/8	.19	4.82	9/16	1.05	26.67	1.34	34.03	.64	16.20
768LR _ 5/16 X 1/4	5/16	7.93	R-1/4	.25	6.35	9/16	1.23	31.24	1.52	38.60	.64	16.20
768LR _ 3/8 X 1/8	3/8	9.52	R-1/8	.19	4.82	5/8	1.10	27.90	1.39	35.30	.66	16.80
768LR _ 3/8 X 1/4	3/8	9.52	R-1/4	.28	7.11	5/8	1.28	32.51	1.57	39.87	.66	16.80
768LR _ 3/8 X 3/8	3/8	9.52	R-3/8	.28	7.11	11/16	1.28	32.51	1.57	39.87	.66	16.80
768LR _ 3/8 X 1/2	3/8	9.52	R-1/2	.28	7.11	7/8	1.53	38.90	1.82	46.23	.66	16.80
768LR _ 3/8 X 3/4	3/8	9.52	R-3/4	.28	7.11	1 1/16	1.59	40.38	1.88	47.75	.66	16.80
768LR _ 1/2 X 1/4	1/2	12.70	R-1/4	.28	7.11	13/16	1.31	33.27	1.71	43.43	.90	22.90
768LR _ 1/2 X 3/8	1/2	12.70	R-3/8	.38	9.65	13/16	1.31	33.27	1.71	43.43	.90	22.90
768LR _ 1/2 X 1/2	1/2	12.70	R-1/2	.41	10.41	7/8	1.53	38.90	1.93	49.02	.90	22.90
768LR _ 1/2 X 3/4	1/2	12.70	R-3/4	.41	10.41	1 1/16	1.59	40.38	1.99	50.54	.90	22.90
768LR _ 5/8 X 1/2	5/8	15.87	R-1/2	.47	11.90	15/16	1.53	38.86	1.93	49.02	.96	24.40
768LR _ 3/4 X 3/4	3/4	19.05	R-3/4	.62	15.74	1 1/16	1.59	40.38	1.99	50.54	.96	24.40
768LR _ 3/4 X 1	3/4	19.05	R-1	.62	15.74	1 3/8	1.85	47.00	2.25	57.15	.96	24.40
768LR _ 1 X 3/4	1	25.40	R-3/4	.63	15.90	1 3/8	1.78	45.21	2.26	57.40	1.23	31.20
768LR _ 1 X 1	1	25.40	R-1	.88	22.35	1 3/8	1.97	50.03	2.45	62.23	1.23	31.20
768LR _ 1 1/4 X 1 1/4	*1 1/4	31.75	R-1 1/4	1.09	27.70	1 3/4	2.17	55.12	3.04	77.22	1.62	41.20

* Including low friction paste, See page 97

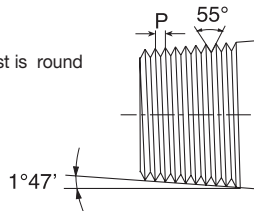
Reference Specifications:

DIN - ISO 2999
BS - 21
JIS - B0203
ISO - 7/1-BSP-T

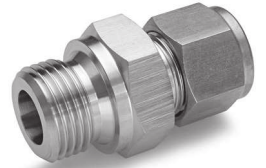
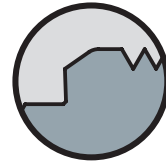
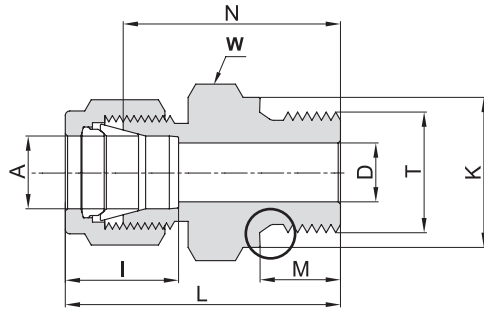
Designation:

Marking LR on Hex

55° Thread angle
Truncation of root and crest is round
Taper angle 1°47'

**Thermoelement** (see Page 32)

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

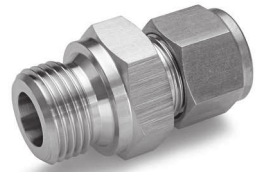
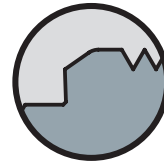
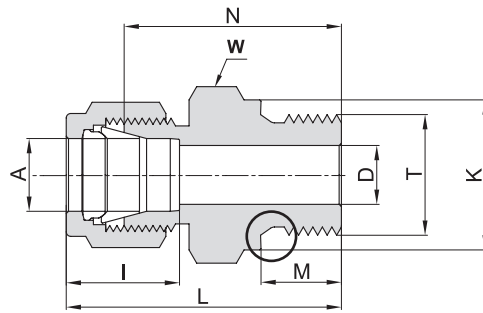
768 LG**MALE CONNECTOR****TUBE (METRIC) ISO PARALLEL THREAD**

Ordering Information	A Tube O.D.	T (P-ISO)	D	K	W Hex. Flat	N	M	L	I
	mm	inch	mm	mm	mm	mm	mm	mm	mm
768LG _ 2 X 1/8	2	G-1/8	1.7	13.8	14	23.4	7.1	30.0	12.9
768LG _ 3 X 1/8	3	G-1/8	2.4	13.8	14	23.4	7.1	30.0	12.9
768LG _ 3 X 1/4	3	G-1/4	2.4	18.0	19	28.7	11.2	35.3	12.9
768LG _ 4 X 1/8	4	G-1/8	2.4	13.8	14	24.1	7.1	30.7	13.7
768LG _ 6 X 1/8	6	G-1/8	4.0	13.8	14	24.9	7.1	32.3	15.3
768LG _ 6 X 1/4	6	G-1/4	4.8	18.0	19	30.2	11.2	37.6	15.3
768LG _ 6 X 3/8	6	G-3/8	4.8	21.8	22	31.5	11.2	38.9	15.3
768LG _ 6 X 1/2	6	G-1/2	4.8	26.0	27	37.3	14.2	44.7	15.3
768LG _ 8 X 1/8	8	G-1/8	4.0	13.8	15	25.7	7.1	33.2	16.2
768LG _ 8 X 1/4	8	G-1/4	6.4	18.0	19	31.0	11.2	38.5	16.2
768LG _ 8 X 3/8	8	G-3/8	6.4	21.8	22	32.3	11.2	39.8	16.2
768LG _ 8 X 1/2	8	G-1/2	6.4	26.0	27	38.1	14.2	45.6	16.2
768LG _ 10 X 1/4	10	G-1/4	5.9	18.0	19	31.8	11.2	39.4	17.2
768LG _ 10 X 3/8	10	G-3/8	7.9	21.8	22	33.0	11.2	40.6	17.2
768LG _ 10 X 1/2	10	G-1/2	7.9	26.0	27	38.9	14.2	46.5	17.2
768LG _ 12 X 1/4	12	G-1/4	5.9	18.0	22	32.5	11.2	42.6	22.8
768LG _ 12 X 3/8	12	G-3/8	7.9	21.8	22	33.0	11.2	43.1	22.8
768LG _ 12 X 1/2	12	G-1/2	9.5	26.0	27	37.4	14.2	47.5	22.8
768LG _ 12 X 3/4	12	G-3/4	9.5	32.0	35	42.7	15.7	52.8	22.8
768LG _ 14 X 3/8	14	G-3/8	7.9	21.8	24	33.8	11.2	43.9	24.4
768LG _ 14 X 1/2	14	G-1/2	11.1	26.0	27	38.9	14.2	49.0	24.4
768LG _ 15 X 3/8	15	G-3/8	7.9	21.8	24	33.8	11.2	43.9	24.4
768LG _ 15 X 1/2	15	G-1/2	11.9	26.0	27	37.4	14.2	47.5	24.4
768LG _ 15 X 3/4	15	G-3/4	11.9	32.0	35	42.1	15.7	52.8	24.4
768LG _ 16 X 3/8	16	G-3/8	7.9	21.8	24	33.8	11.2	43.9	24.4
768LG _ 16 X 1/2	16	G-1/2	11.9	26.0	27	38.9	14.2	49.0	24.4
768LG _ 16 X 3/4	16	G-3/4	12.7	32.0	35	42.1	15.7	52.8	24.4
768LG _ 18 X 1/2	18	G-1/2	11.9	26.0	27	38.9	14.2	49.0	24.4
768LG _ 18 X 3/4	18	G-3/4	15.1	32.0	35	42.7	15.7	52.8	24.4
768LG _ 20 X 1/2	20	G-1/2	11.9	26.0	30	40.4	14.2	50.5	26.0
768LG _ 20 X 3/4	20	G-3/4	15.9	32.0	35	42.7	15.7	52.8	26.0
768LG _ 22 X 3/4	22	G-3/4	15.9	32.0	35	42.7	15.7	52.8	26.0
768LG _ 22 X 1	22	G-1	18.3	39.0	41	45.2	18.3	55.3	26.0
768LG _ 25 X 3/4	25	G-3/4	15.9	32.0	35	45.2	15.7	57.5	31.3
768LG _ 25 X 1	25	G-1	19.8	39.0	41	47.8	18.3	60.1	31.3
768LG _ 30 X 1 1/4	*30	G-1 1/4	25	49	50	55.6	19.8	76.7	39.6
768LG _ 32 X 1 1/4	*32	G-1 1/4	25	49	50	56.2	19.8	79.2	42
768LG _ 38 X 1 1/2	*38	G-1 1/2	31.8	54.7	55	63.2	22.1	90.9	49.4

For Parallel Threads Sealing, see page 81

768 LG MALE CONNECTOR

(Cont'd)



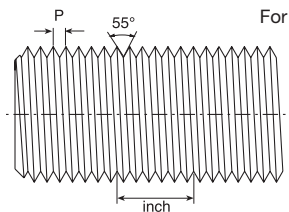
TUBE (INCH) TO ISO PARALLEL THREAD

Ordering Information	A Tube O.D.		T (P-ISO)	D		K		W Hex. Flat	N		M		L		I	
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm
768LG _ 1/8 X 1/8	1/8	3.17	G-1/8	0.09	2.30	0.54	13.80	9/16	0.92	23.40	0.28	7.10	1.18	30.00	0.50	12.7
768LG _ 1/8 X 1/4	1/8	3.17	G-1/4	0.09	2.30	0.71	18.00	3/4	1.13	28.70	0.44	11.20	1.39	35.30	0.50	12.7
768LG _ 1/8 X 3/8	1/8	3.17	G-3/8	0.09	2.30	0.86	21.80	7/8	1.17	29.72	0.44	11.20	1.43	36.32	0.50	12.7
768LG _ 1/8 X 1/2	1/8	3.17	G-1/2	0.09	2.30	1.02	26.00	1 1/16	1.40	35.70	0.56	14.20	1.66	42.16	0.50	12.7
768LG _ 3/16 X 1/8	3/16	4.76	G-1/8	0.12	3.10	0.54	13.80	9/16	0.95	24.10	0.28	7.10	1.21	30.70	0.54	13.7
768LG _ 1/4 X 1/8	1/4	6.35	G-1/8	0.16	4.10	0.54	13.80	9/16	0.98	24.90	0.28	7.10	1.27	32.26	0.60	15.2
768LG _ 1/4 X 1/4	1/4	6.35	G-1/4	0.19	4.80	0.71	18.00	3/4	1.19	30.20	0.44	11.20	1.48	37.60	0.60	15.2
768LG _ 1/4 X 3/8	1/4	6.35	G-3/8	0.19	4.80	0.86	21.80	7/8	1.24	31.50	0.44	11.20	1.50	38.10	0.60	15.2
768LG _ 1/4 X 1/2	1/4	6.35	G-1/2	0.19	4.80	1.02	26.00	1 1/16	1.47	37.30	0.56	14.20	1.76	44.70	0.60	15.2
768LG _ 5/16 X 1/4	5/16	7.93	G-1/4	0.23	5.80	0.71	18.00	3/4	1.22	31.00	0.44	11.20	1.51	38.36	0.64	16.2
768LG _ 5/16 X 3/8	5/16	7.93	G-3/8	0.25	6.40	0.86	21.80	7/8	1.27	32.30	0.44	11.20	1.56	39.66	0.64	16.2
768LG _ 3/8 X 1/8	3/8	9.52	G-1/8	0.16	4.00	1.26	32.0	5/8	1.05	26.7	0.28	7.10	1.34	34.03	0.66	16.8
768LG _ 3/8 X 1/4	3/8	9.52	G-1/4	0.23	5.80	0.71	18.00	3/4	1.25	31.75	0.44	11.20	1.54	39.11	0.66	16.8
768LG _ 3/8 X 3/8	3/8	9.52	G-3/8	0.28	7.10	0.86	21.80	7/8	1.30	33.00	0.44	11.20	1.59	40.40	0.66	16.8
768LG _ 3/8 X 1/2	3/8	9.52	G-1/2	0.28	7.10	1.02	26.00	1 1/16	1.53	38.86	0.56	14.20	1.82	46.22	0.66	16.8
768LG _ 1/2 X 1/4	1/2	12.70	G-1/4	0.23	5.80	0.71	18.00	13/16	1.28	32.50	0.44	11.20	1.68	42.67	0.90	22.9
768LG _ 1/2 X 3/8	1/2	12.70	G-3/8	0.31	7.90	0.86	21.80	7/8	1.30	33.00	0.44	11.20	1.70	43.18	0.90	22.9
768LG _ 1/2 X 1/2	1/2	12.70	G-1/2	0.41	10.40	1.02	26.00	1 1/16	1.47	37.40	0.56	14.20	1.87	47.56	0.90	22.9
768LG _ 1/2 X 3/4	1/2	12.70	G-3/4	0.41	10.40	1.26	32.00	1 5/16	1.68	42.70	0.62	15.70	2.08	52.86	0.90	22.9
768LG _ 5/8 X 3/8	5/8	15.87	G-3/8	0.31	7.90	0.86	21.80	24mm	1.33	33.80	0.44	11.20	1.73	43.96	0.96	24.4
768LG _ 5/8 X 1/2	5/8	15.87	G-1/2	0.47	11.90	1.02	26.00	1 1/16	1.53	38.90	0.56	14.20	1.93	49.10	0.96	24.4
768LG _ 3/4 X 1/2	3/4	19.05	G-1/2	0.47	11.90	1.02	26.00	1 1/16	1.53	38.86	0.56	14.20	1.93	49.00	0.96	24.4
768LG _ 3/4 X 3/4	3/4	19.05	G-3/4	0.62	15.80	1.26	32.00	1 5/16	1.68	42.70	0.62	15.70	2.08	52.83	0.96	24.4
768LG _ 1 X 1/2	1	25.40	G-1/2	0.47	11.90	1.02	26.00	1 3/8	1.72	43.70	0.56	14.20	2.20	55.80	1.23	31.2
768LG _ 1 X 3/4	1	25.40	G-3/4	0.62	15.90	1.26	32.00	1 3/8	1.78	45.20	0.62	15.70	2.26	57.40	1.23	31.2
768LG _ 1 X 1	1	25.40	G-1	0.78	19.80	1.54	39.00	1 5/8	1.88	47.80	0.72	18.30	2.36	59.94	1.23	31.2

Designation:
Marking LG on Hex.

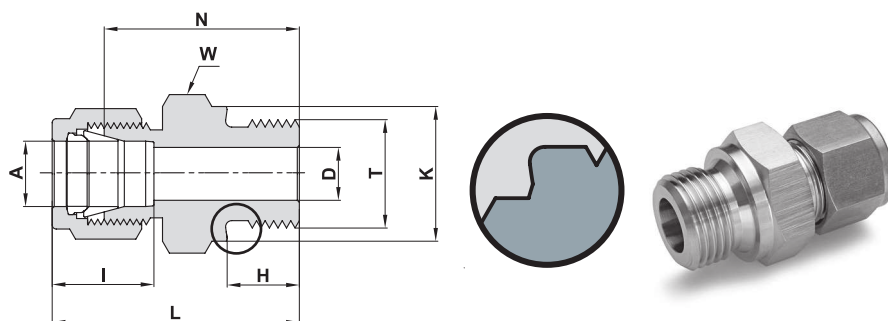
Reference Specifications:

- DIN - ISO 228/1
- BS - 2779
- JIS - B0202
- ISO - 228/1-BSP-P
- 55° Thread angle
- Pitch measured in inches
- Truncation of root and crest is round
- Diameter measured in inches



For Parallel Threads Sealing, see page 81

768 LOK MALE CONNECTOR



TUBE (METRIC) ISO PARALLEL THREAD

Ordering Information	A Tube O.D.	T (P-ISO)	D	K	W Hex. Flat	N	H	L	I
	mm	inch	mm	mm	mm	mm	mm	mm	mm
768LOK _ 3 X 1/8	3	G-1/8A	2.4	13.8	14	26.7	7.1	33.3	12.9
768LOK _ 3 X 1/4	3	G-1/4A	2.4	18.0	19	28.7	11.2	35.3	12.9
768LOK _ 4 X 1/8	4	G-1/8A	2.4	13.8	14	24.1	7.1	30.7	13.7
768LOK _ 6 X 1/8	6	G-1/8A	4.0	13.8	14	24.9	7.1	32.3	15.3
768LOK _ 6 X 1/4	6	G-1/4A	4.8	18.0	19	30.2	11.2	37.6	15.3
768LOK _ 6 X 3/8	6	G-3/8A	4.8	21.8	22	31.5	11.2	38.9	15.3
768LOK _ 6 X 1/2	6	G-1/2A	4.8	26.0	27	37.3	14.2	44.7	15.3
768LOK _ 8 X 1/8	8	G-1/8A	4.0	13.8	15	25.7	7.1	33.2	16.2
768LOK _ 8 X 1/4	8	G-1/4A	6.4	18.0	19	31.0	11.2	38.5	16.2
768LOK _ 8 X 3/8	8	G-3/8A	6.4	21.8	22	32.3	11.2	39.8	16.2
768LOK _ 8 X 1/2	8	G-1/2A	6.4	26.0	27	38.1	14.2	45.6	16.2
768LOK _ 10 X 1/4	10	G-1/4A	6.4	18.0	19	31.8	11.2	39.4	17.2
768LOK _ 10 X 3/8	10	G-3/8A	7.9	21.8	22	33.0	11.2	40.6	17.2
768LOK _ 10 X 1/2	10	G-1/2A	7.9	26.0	27	38.9	14.2	46.5	17.2
768LOK _ 12 X 1/4	12	G-1/4A	5.9	18.0	22	32.5	11.2	42.6	22.8
768LOK _ 12 X 3/8	12	G-3/8A	7.9	21.8	22	33.0	11.2	43.1	22.8
768LOK _ 12 X 1/2	12	G-1/2A	9.5	26.0	27	38.9	14.2	49.0	22.8
768LOK _ 12 X 3/4	12	G-3/4A	9.5	32.0	35	42.7	15.7	52.8	22.8
768LOK _ 15 X 1/2	15	G-1/2A	11.9	26.0	27	38.9	14.2	49.0	24.4
768LOK _ 16 X 3/8	16	G-3/8A	7.9	21.8	24	33.8	11.2	43.9	22.4
768LOK _ 16 X 1/2	16	G-1/2A	11.9	26.0	27	38.9	14.2	49.0	22.4
768LOK _ 18 X 1/2	18	G-1/2A	11.9	26.0	27	38.9	14.2	49.0	22.4
768LOK _ 18 X 3/4	18	G-3/4A	15.1	32.0	35	42.2	15.7	52.3	22.4
768LOK _ 20 X 1/2	20	G-1/2A	11.9	26.0	30	40.4	14.2	50.5	26.0
768LOK _ 20 X 3/4	20	G-3/4A	15.9	32.0	35	42.7	15.7	52.8	26.0
768LOK _ 22 X 3/4	22	G-3/4A	15.9	32.0	35	42.7	15.7	52.8	26.0
768LOK _ 22 X 1	22	G-1A	18.3	39.0	41	45.2	18.3	55.3	26.0
768LOK _ 25 X 3/4	25	G-3/4A	15.9	32.0	35	45.2	15.7	57.5	31.3
768LOK _ 25 X 1	25	G-1A	19.8	39.0	41	47.8	18.3	60.1	31.3
768LOK _ 30 X 1 1/4	*30	G-1 1/4A	26.2	49	50	55.2	19.8	76.8	39.6
768LOK _ 32 X 1 1/4	*32	G-1 1/4A	28.6	49	50	55.9	19.8	78.9	42
768LOK _ 38X1 1/2	*38	G-1 1/2A	31.8	54.7	55	64.9	20.6	92.1	49.4

* Including low friction paste, see page 97

For Parallel Threads Sealing, see page 81

Reference Specifications:

DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

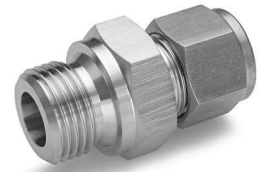
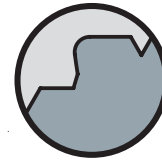
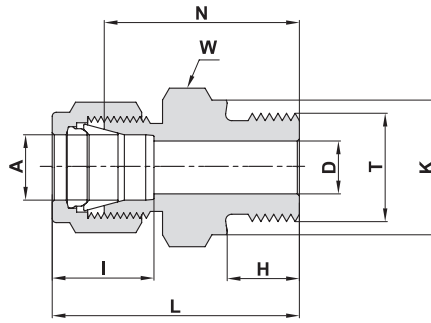
Designation:

Marking LOK on Hex.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 LOK**MALE CONNECTOR**

(Cont'd)

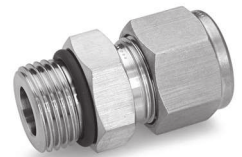
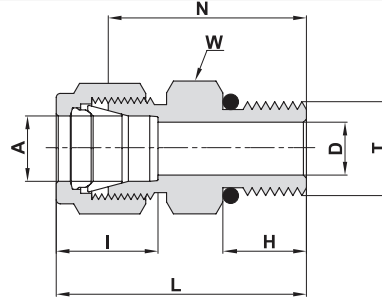
**TUBE (INCH) TO ISO PARALLEL THREAD**

Ordering Information	A Tube O.D.		T Straight Thread UN	D		K		W Hex. Flat	N		H		L		I	
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm
768LOK _ 1/8 X 1/8	1/8	3.17	G-1/8A	0.09	2.30	0.54	13.80	9/16	0.92	23.40	0.28	7.10	1.18	30.00	0.50	12.7
768LOK _ 1/8 X 1/4	1/8	3.17	G-1/4A	0.09	2.30	0.71	18.00	3/4	1.13	28.70	0.44	11.20	1.39	35.30	0.50	12.7
768LOK _ 1/4 X 1/8	1/4	6.35	G-1/8A	0.16	4.10	0.54	13.80	9/16	0.98	24.90	0.28	7.10	1.27	32.26	0.60	15.2
768LOK _ 1/4 X 1/4	1/4	6.35	G-1/4A	0.19	4.80	0.71	18.00	3/4	1.19	30.20	0.44	11.20	1.48	37.60	0.60	15.2
768LOK _ 1/2 X 3/8	1/2	12.70	G-3/8A	0.31	7.90	0.86	21.80	7/8	1.30	33.00	0.44	11.20	1.70	43.18	0.90	22.9
768LOK _ 1/2 X 1/2	1/2	12.70	G-1/2A	0.41	10.40	1.02	26.00	1-1/16	1.53	39.86	0.56	14.20	1.93	49.02	0.90	22.9
768LOK _ 3/4 X 1/2	3/4	19.05	G-1/2A	0.47	11.90	1.02	26.00	1-1/16	3.65	41.91	0.56	14.20	2.05	52.07	0.96	24.4
768LOK _ 3/4 X 3/4	3/4	19.05	G-3/4A	0.62	15.80	1.26	32.00	1 3/8	1.68	42.70	0.62	15.70	2.08	52.83	0.96	24.4
768LOK _ 1 X 1	1	25.40	G-1A	0.78	19.80	1.54	39.00	1 5/8	1.88	47.80	0.72	18.30	2.36	59.94	1.23	31.2

For Parallel threads Sealing, See page 81

Reference Specifications: DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

Designation: Marking LOK on Hex.

**768 LOB****MALE CONNECTOR****SAE/MS STRAIGHT THREAD BOSS*****

Ordering Information	A Tube O.D.	T Straight Thread UN	D	W Hex. Flat	N	H	L	I	**O-Ring
	mm	inch	mm	mm	mm	mm	mm	mm	
768LOB _ 3 X 5/16-24	3	5/16-24	2.4	7/16"	23.4	7.6	30.0	12.9	-902
768LOB _ 3 X 9/16-18	3	9/16-18	2.4	18	26.7	9.9	33.3	12.9	-906
768LOB _ 6 X 1/2-20	6	1/2-20	4.8	17	27.4	9.1	34.8	15.3	-905
768LOB _ 6 X 9/16-18	6	9/16-18	4.8	18	28.2	9.9	35.6	15.3	-906
768LOB _ 6 X 7/8-14	6	7/8-14	4.8	27	33.3	12.7	40.7	15.3	-910
768LOB _ 8 X 1/2-20	8	1/2-20	6.4	17	27.4	9.1	34.9	16.2	-905
768LOB _ 8 X 9/16-18	8	9/16-18	6.4	18	29.1	9.9	36.6	16.2	-906
768LOB _ 10 X 9/16-18	10	9/16-18	7.1	18	29.7	9.9	37.3	17.2	-906
768LOB _ 10 X 3/4-16	10	3/4-16	7.9	22	31.8	11.2	39.4	17.2	-908
768LOB _ 12 X 7/16-20	12	7/16-20	5.2	22	30.5	9.1	40.6	22.8	-904
768LOB _ 12 X 9/16-18	12	9/16-18	7.1	22	29.0	9.9	39.1	22.8	-906
768LOB _ 12 X 3/4-16	12	3/4-16	9.5	22	31.8	11.2	41.9	22.8	-908
768LOB _ 16 X 9/16-18	16	9/16-18	7.1	24	21.2	9.9	31.3	24.4	-906
768LOB _ 25 X 1 1/16-12	25	1 1/16-12	16.7	35	41.2	15.0	53.5	31.3	-912

Designation: Marking LOB on Hex.

*** Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.

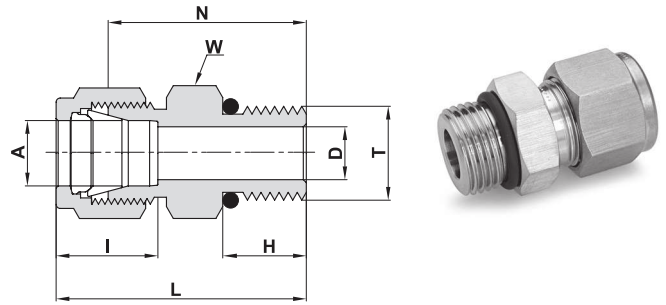
** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 LOB

MALE CONNECTOR

(Cont'd)



SAE/MS STRAIGHT THREAD BOSS***

Ordering Information	A Tube O.D.		T Straight Thread UN	D		W Hex. Flat	N		H		L		I		**O-RING
	inch	mm		inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	
768LOB _ 1/8 X 5/16-24	1/8	3.17	5/16-24	.09	2.28	7/16	.92	23.37	.30	7.62	1.18	29.97	.50	12.7	-902
768LOB _ 1/8 X 7/16-20	1/8	3.17	7/16-20	.09	2.28	9/16	.98	24.89	.36	9.14	1.24	31.50	.50	12.7	-904
768LOB _ 1/8 X 9/16-18	1/8	3.17	9/16-18	.09	2.28	11/16	1.05	26.67	.39	9.90	1.31	33.27	.50	12.7	-906
768LOB _ 1/4 X 5/16-24	1/4	6.35	5/16-24	.09	2.28	9/16	.92	23.37	.30	7.62	1.21	30.73	.60	15.2	-902
768LOB _ 1/4 X 7/16-20	1/4	6.35	7/16-20	.19	4.82	9/16	1.05	26.67	.36	9.14	1.34	34.03	.60	15.2	-904
768LOB _ 1/4 X 9/16-18	1/4	6.35	9/16-18	.19	4.82	11/16	1.11	28.19	.39	9.90	1.40	35.56	.60	15.2	-906
768LOB _ 1/4 X 3/4 -16	1/4	6.35	3/4 -16	.19	4.82	7/8	1.19	30.20	.44	11.17	1.48	37.59	.60	15.2	-908
768LOB _ 1/4 X 7/8-14	1/4	6.35	7/8-14	.19	4.82	1	1.31	33.27	.50	12.70	1.60	40.64	.60	15.2	-910
768LOB _ 5/16 X 1/2-20	5/16	7.93	1/2-20	.25	6.40	5/8	1.08	27.43	.36	9.14	1.37	34.80	.64	16.2	-905
768LOB _ 3/8 X 7/16-20	3/8	9.52	7/16-20	.20	5.10	5/8	1.11	28.19	.36	9.14	1.40	35.56	.66	16.8	-904
768LOB _ 3/8 X 9/16-18	3/8	9.52	9/16-18	.28	7.11	11/16	1.17	29.71	.39	9.90	1.46	37.02	.66	16.8	-906
768LOB _ 3/8 X 3/4 -16	3/8	9.52	3/4 -16	.28	7.11	7/8	1.25	31.75	.44	11.17	1.54	39.11	.66	16.8	-908
768LOB _ 3/8 X 7/8-14	3/8	9.52	7/8-14	.28	7.11	1	1.37	34.80	.50	12.70	1.66	42.16	.66	16.8	-910
768LOB _ 1/2 X 9/16-18	1/2	12.70	9/16-18	.28	7.11	13/16	1.14	28.95	.39	9.90	1.54	39.11	.90	22.9	-906
768LOB _ 1/2 X 3/4 -16	1/2	12.70	3/4 -16	.41	10.41	7/8	1.25	31.75	.44	11.17	1.65	41.91	.90	22.9	-908
768LOB _ 1/2 X 7/8-14	1/2	12.70	7/8-14	.41	10.41	1	1.37	34.80	.50	12.70	1.77	44.96	.90	22.9	-910
768LOB _ 1/2 X 1 1/16-12	1/2	12.70	1 1/16-12	.41	10.41	1 1/4	1.53	38.86	.59	14.98	1.93	49.02	.90	22.9	-912
768LOB _ 5/8 X 3/4 -16	5/8	15.87	3/4 -16	.42	10.66	15/16	1.25	31.75	.44	11.17	1.65	41.91	.96	22.4	-908
768LOB _ 5/8 X 7/8 -14	5/8	15.87	7/8 -14	.50	12.70	1	1.38	35.05	.50	12.70	1.78	45.21	.96	22.4	-910
768LOB _ 3/4 X 3/4 -16	3/4	19.05	3/4 -16	.42	10.66	1 1/16	1.41	35.81	.44	11.17	1.81	46.0	.96	22.4	-908
768LOB _ 3/4 X 1 1/16 -12	3/4	19.05	1 1/16 -12	.62	15.74	1 1/4	1.53	38.86	.59	14.98	1.93	49.02	.96	22.4	-912
768LOB _ 3/4 X 1 5/16-12	3/4	19.05	1 5/16-12	.62	15.74	1 1/2	1.66	42.16	.59	14.98	2.06	52.32	1.02	25.9	-916
768LOB _ 7/8 X 1 3/16 -12	7/8	22.22	1 3/16 -12	.72	18.29	1 3/8	1.53	38.86	.59	14.98	1.93	49.02	1.02	25.9	-914
768LOB _ 1 X 1 1/16 -12	1	25.40	1 1/16 -12	.66	16.76	1 3/8	1.62	41.20	.59	14.98	2.10	53.34	1.23	31.2	-912
768LOB _ 1 X 1 5/16 -12	1	25.40	1 5/16 -12	.88	22.35	1 1/2	1.66	42.16	.59	14.98	2.14	54.35	1.23	31.2	-916
768LOB _ 1 1/4 X 1 5/8 -12	*1 1/4	31.75	1 5/8 -12	1.09	27.70	1 7/8	1.82	46.23	.59	15.10	2.69	68.33	1.62	41.2	-920
768LOB _ 1 1/2 X 1 7/8 -12	*1 1/2	38.10	1 7/8 -12	1.34	34.00	2 1/8	1.99	50.55	.59	15.10	3.06	77.72	1.97	50.0	-924
768LOB _ 2 X 2 1/2 -12	*2	50.80	2 1/2 -12	1.81	45.97	2 3/4	2.53	64.26	.59	15.10	4.00	101.60	2.66	67.6	-932

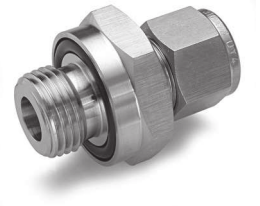
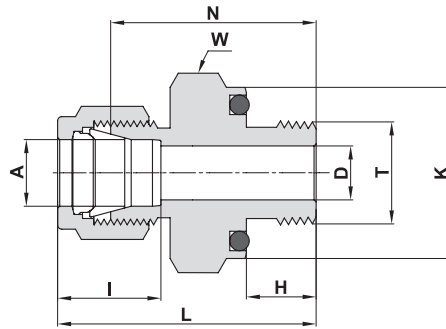
Designation: Marking LOB on Hex.

*** Per SAE J1926 and MS 16142. See page 49 for mounting dimensions.

** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

* Including low friction paste, see page 97

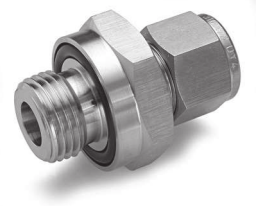
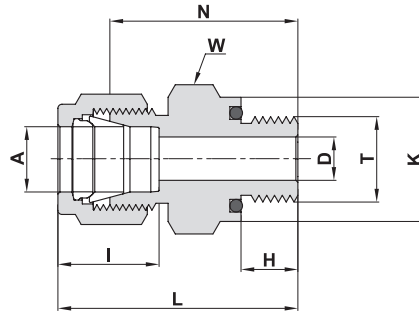
"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 LOP**MALE CONNECTOR****O-SEAL NPT TAPERED THREAD**

Ordering Information	A Tube O.D.		T NPT) Short)	D Hex. Flat		K		W Hex. Flat	N		H		L		I		**O-RING
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	
768LOP _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	.74	18.79	3/4	1.03	26.16	.28	7.11	1.29	32.76	.50	12.7	-111
768LOP _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	.74	18.79	3/4	1.09	27.70	.28	7.11	1.38	35.05	.60	15.2	-111
768LOP _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	.93	23.62	15/16	1.22	31.00	.38	9.65	1.51	38.40	.60	15.2	-113
768LOP _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	.93	23.62	15/16	1.28	32.51	.38	9.65	1.57	39.88	.66	16.8	-113
768LOP _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	1.12	28.45	1 1/8	1.34	34.04	.41	10.41	1.63	41.40	.66	16.8	-116
768LOP _ 3/8 X 1/2	3/8	9.52	1/2	.28	7.11	1.30	33.02	1 5/16	1.56	39.62	.53	13.46	1.85	46.99	.66	16.8	-212
768LOP _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	1.30	33.02	1 5/16	1.56	39.62	.53	13.46	1.96	49.78	.90	22.9	-212

Designation: Marking LOP on Hex.

** Standard O-rings materials are Fluorocarbon FKM 90 Durometer.
Other O-ring materials are available upon request.

768 LO**MALE CONNECTOR****O-SEAL MALE UN THREAD**

Ordering Information	A Tube O.D.		T Straight Thread UN	D		K		W Hex. Flat	N		H		L		I		**O-RING
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	
768LO _ 1/16 X 5/16-24	1/16	1.58	5/16-24	.05	1.27	.55	14.0	9/16	.90	22.86	.34	8.63	1.05	26.67	.34	8.6	-011
768LO _ 1/8 X 5/16-24	1/8	3.17	5/16-24	.09	2.28	.55	14.0	9/16	1.03	26.20	.34	8.63	1.29	32.77	.50	12.7	-011
768LO _ 3/16 X 3/8 -24	3/16	4.76	3/8 -24	.12	3.04	.62	15.75	5/8	1.09	27.70	.38	9.65	1.35	34.29	.54	12.7	-012
768LO _ 1/4 X 7/16-20	1/4	6.35	7/16-20	.19	4.82	.74	18.80	3/4	1.22	31.00	.41	10.41	1.51	38.35	.60	15.2	-111
768LO _ 5/16 X 1/2 -20	5/16	7.93	1/2 -20	.25	6.35	.86	21.84	7/8	1.31	33.30	.44	11.17	1.60	40.64	.64	16.2	-112
768LO _ 3/8 X 9/16-18	3/8	9.52	9/16-18	.28	7.11	.93	23.62	15/16	1.38	35.05	.47	11.93	1.67	40.89	.66	16.8	-113
768LO _ 1/2 X 3/4 -16	1/2	12.70	3/4 -16	.41	10.41	1.12	28.45	1 1/8	1.41	35.81	.47	11.93	1.81	45.77	.90	22.9	-116
768LO _ 3/4 X 1 1/16-12	3/4	19.05	1 1/16-12	.62	15.74	1.49	37.85	1 1/2	1.66	42.20	.56	14.22	2.06	52.32	.96	24.4	-215
768LO _ 1 X 1 5/16-12	1	25.40	1 5/16-12	.88	22.35	1.74	44.20	1 3/4	1.81	45.97	.56	14.22	2.29	58.17	1.23	32.2	-219

Designation: Marking LO on Hex.

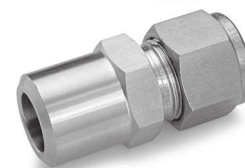
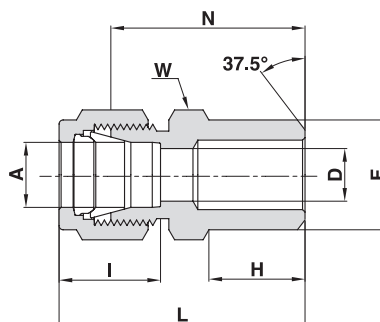
** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 LN

MALE PIPE WELD CONNECTOR

Cont'd next page



TUBE (METRIC)

Ordering Information	A	F		D	W	N	H	L	I
	Tube O.D.	Pipe Size			Hex. Flat				
	mm	inch	mm	mm	mm	mm	mm	mm	mm
768LN _ 3 X 1/8	3	1/8	10.30	2.4	12	23.9	9.7	30.5	12.9
768LN _ 4 X 1/8	4	1/8	10.30	2.4	12	24.6	9.7	31.2	13.7
768LN _ 6 X 1/8	6	1/8	10.30	4.8	14	25.4	9.7	32.8	15.3
768LN _ 6 X 1/4	6	1/4	13.70	4.8	14	30.5	14.2	37.9	15.3
768LN _ 8 X 1/8	8	1/8	10.30	5.1	15	26.7	9.7	34.2	16.2
768LN _ 8 X 1/4	8	1/4	13.70	6.4	15	31.2	14.2	38.7	16.2
768LN _ 8 X 1/2	8	1/2	21.34	6.4	22	38.1	19.0	45.6	16.2
768LN _ 10 X 1/4	10	1/4	13.70	7.1	18	33.3	14.2	40.9	17.2
768LN _ 10 X 3/8	10	3/8	17.10	7.9	18	33.3	14.2	40.9	17.2
768LN _ 10 X 1/2	10	1/2	21.34	7.9	22	38.9	19.0	46.5	17.2
768LN _ 12 X 1/4	12	1/4	13.70	7.1	22	33.3	14.2	43.4	22.8
768LN _ 12 X 3/8	12	3/8	17.10	9.5	22	33.3	14.2	43.4	22.8
768LN _ 12 X 1/2	12	1/2	21.34	9.5	22	38.9	19.0	49.0	22.8
768LN _ 12 X 3/4	12	3/4	26.67	9.5	27	40.4	19.0	50.5	22.8
768LN _ 14 X 3/8	14	3/8	17.10	10.4	24	34.0	14.2	44.1	24.4
768LN _ 15 X 1/2	15	1/2	21.34	11.9	24	38.9	19.0	49.0	24.4
768LN _ 16 X 1/2	16	1/2	21.34	12.7	24	38.9	19.0	49.0	24.4
768LN _ 18 X 1/2	18	1/2	21.34	13.5	27	40.4	19.0	50.5	24.4
768LN _ 30 X 1 1/4	*30	1 1/4	42.2	26.2	46	55.6	23.9	77.2	39.6
768LN _ 32 X 1 1/4	*32	1 1/4	42.2	28.6	46	56.6	23.9	79.6	42
768LN _ 38 X 1 1/2	*38	1 1/2	48.30	33.7	55	64.0	26.2	91.2	49.4

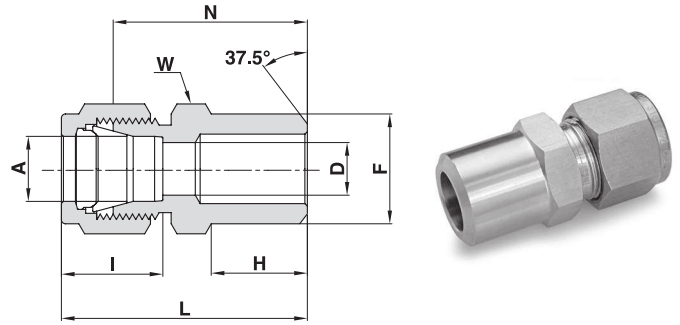
Designation: Marking LN on Hex.

* Including low friction paste, see page 97

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 LN

MALE PIPE WELD CONNECTOR (Cont'd)



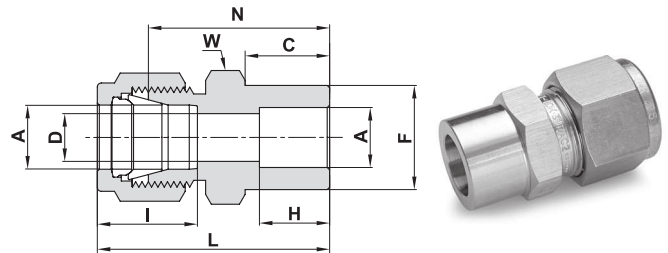
TUBE (INCH)

Ordering Information	A Tube O.D.		F Pipe Size		D		W Hex. Flat	N		H		L		I	
	inch	mm	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm
768LN _ 1/8 X 1/8	1/8	3.17	1/8	10.30	.09	2.28	7/16	.94	23.88	.38	9.65	1.20	30.48	.50	12.7
768LN _ 3/16 X 1/8	3/16	4.76	1/8	10.30	.12	3.04	7/16	.97	24.60	.38	9.65	1.23	31.25	.54	13.7
768LN _ 1/4 X 1/8	1/4	6.35	1/8	10.30	.19	4.82	1/2	1.00	25.40	.38	9.65	1.29	32.77	.60	15.2
768LN _ 1/4 X 1/4	1/4	6.35	1/4	13.70	.19	4.82	9/16	1.20	30.48	.56	14.22	1.49	37.85	.60	15.2
768LN _ 5/16 X 1/8	5/16	7.93	1/8	10.30	.20	5.08	9/16	1.05	26.67	.38	9.65	1.34	34.04	.64	16.2
768LN _ 5/16 X 1/4	5/16	7.93	1/4	13.70	.25	6.35	9/16	1.23	31.24	.56	14.22	1.52	38.61	.64	16.2
768LN _ 3/8 X 1/4	3/8	9.52	1/4	13.70	.28	7.11	5/8	1.28	32.51	.56	14.22	1.57	39.87	.66	16.8
768LN _ 3/8 X 3/8	3/8	9.52	3/8	17.10	.28	7.11	11/16	1.28	32.51	.56	14.22	1.57	39.87	.66	16.8
768LN _ 3/8 X 1/2	3/8	9.52	1/2	21.34	.28	7.11	7/8	1.53	38.86	.75	19.05	1.82	46.22	.66	16.8
768LN _ 3/8 X 3/4	3/8	9.52	3/4	26.67	.28	7.11	1 1/16	1.59	40.38	.75	19.05	1.88	47.75	.66	16.8
768LN _ 1/2 X 3/8	1/2	12.70	3/8	17.10	.41	10.41	13/16	1.31	33.27	.56	14.22	1.71	44.43	.90	22.9
768LN _ 1/2 X 1/2	1/2	12.70	1/2	21.34	.41	10.41	7/8	1.53	38.86	.75	19.05	1.93	49.00	.90	22.9
768LN _ 1/2 X 3/4	1/2	12.70	3/4	26.67	.41	10.41	1 1/16	1.59	40.40	.75	19.05	1.99	50.55	.90	22.9
768LN _ 1/2 X 1	1/2	12.70	1	33.40	.41	10.41	1 3/8	1.87	47.50	.94	23.87	2.27	57.65	.90	22.9
768LN _ 5/8 X 1/2	5/8	15.87	1/2	21.34	.50	12.70	15/16	1.53	38.86	.75	19.05	1.93	49.02	.96	24.4
768LN _ 3/4 X 1/2	3/4	19.05	1/2	21.34	.53	13.46	1 1/16	1.53	38.86	.75	19.05	1.93	49.00	.96	24.4
768LN _ 3/4 X 3/4	3/4	19.05	3/4	26.67	.62	15.74	1 1/16	1.59	40.40	.75	19.05	1.99	50.55	.96	24.4
768LN _ 1 X 1	1	25.40	1	33.40	.88	22.35	1 3/8	1.97	50.03	.94	23.87	2.45	62.23	1.23	31.2
768LN _ 1 1/4 X 1 1/4	*1 1/4	31.75	1 1/4	42.16	1.09	27.70	1 3/4	2.17	55.12	.94	23.88	3.04	77.22	1.62	41.2
768LN _ 1 1/2 X 1 1/2	*1 1/2	38.10	1 1/2	48.26	1.34	34.00	2 1/8	2.43	61.72	1.03	26.16	3.50	88.90	1.97	50.0
768LN _ 2 X 2	*2	50.80	2	60.33	1.81	45.97	2 3/4	3.00	76.20	1.06	26.92	4.47	113.34	2.66	67.6

Designation: Marking LN on Hex.

768 LW

TUBE SOCKET WELD UNION



TUBE (INCH)

Ordering Information	A Tube O.D.		C		D		W Hex. Flat	F		H		I		L		N	
	inch	mm	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
768LW _ 1/8 X 1/8	1/8	3.17	.34	8.64	.09	2.28	7/16	.31	7.87	.25	6.35	.50	12.70	1.14	28.96	.88	22.35
768LW _ 1/4 X 1/4	1/4	6.35	.41	10.41	.19	4.80	1/2	.44	11.18	.31	7.90	.60	15.20	1.32	33.53	1.03	26.16
768LW _ 3/8 X 3/8	3/8	9.52	.47	11.94	.28	7.10	5/8	.62	15.75	.38	9.65	.66	16.80	1.48	37.60	1.19	30.23
768LW _ 1/2 X 1/2	1/2	12.70	.47	11.94	.41	10.40	13/16	.75	19.05	.50	12.70	.90	22.90	1.62	41.15	1.22	31.00
768LW _ 3/4 X 3/4	3/4	19.05	.47	11.94	.62	15.80	1 1/16	1.05	26.67	.56	14.20	.96	24.40	1.71	43.43	1.31	33.28
768LW _ 1 X 1	1	25.40	.56	14.22	.88	22.35	1 3/8	1.36	34.54	.75	19.05	1.23	31.20	2.07	52.58	1.59	40.40

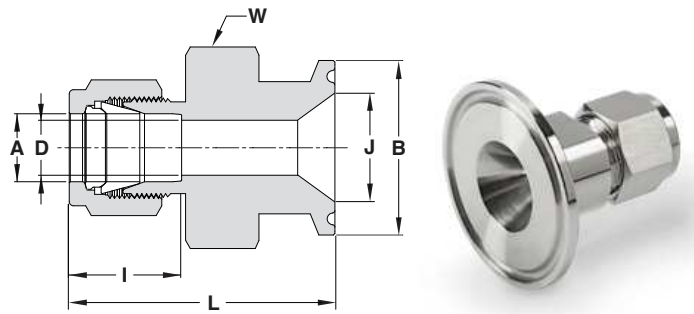
Designation: Marking LW on Hex.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

768 LSFSS

SANITARY FLANGE

LET-LOK® TO SANITARY CLAMP FLANGE



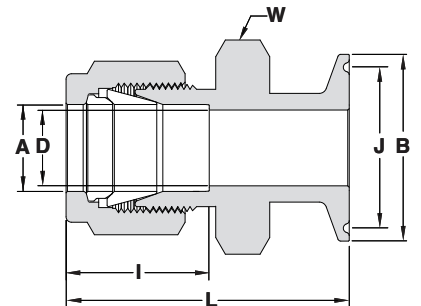
FOR HYGIENIC SEALING AND LET-LOK® FERRULE CONNECTION TO METAL TUBES.

Ordering Information	A Tube O.D.		Flange size	B		J		D		W	L		I	
	inch	mm		inch	mm	inch	mm	inch	mm		inch	mm	inch	mm
768LSF SS 1/4 X 1/2	1/4	6.35	1/2	0.98	24.90	0.37	9.40	0.19	4.82	1	1.57	39.90	0.60	15.2
768LSF SS 1/4 X 3/4	1/4	6.35	3/4	0.98	24.90	0.62	15.70	0.19	4.82	1	1.57	39.90	0.60	15.2
768LSF SS 1/4 X 1	1/4	6.35	1	1.98	50.30	0.87	22.10	0.19	4.82	1-3/8	1.57	39.90	0.60	15.2
768LSF SS 1/4 X 1-1/2	1/4	6.35	1-1/2	1.98	50.30	1.37	34.80	0.19	4.82	1-3/8	1.57	39.90	0.60	15.2
768LSF SS 3/8 X 1/2	3/8	9.52	1/2	0.98	24.90	0.37	9.40	0.28	7.11	1	1.63	41.40	0.66	16.8
768LSF SS 3/8 X 3/4	3/8	9.52	3/4	0.98	24.90	0.62	15.70	0.28	7.11	1	1.63	41.40	0.66	16.8
768LSF SS 3/8 X 1	3/8	9.52	1	1.98	50.30	0.87	22.10	0.28	7.11	1-3/8	1.63	41.40	0.66	16.8
768LSF SS 3/8 X 1-1/2	3/8	9.52	1-1/2	1.98	50.30	1.37	34.80	0.28	7.11	1-3/8	1.63	41.40	0.66	16.8
768LSF SS 1/2 X 1/2	1/2	12.70	1/2	0.98	24.90	0.37	9.40	0.37	9.40	1	1.74	44.20	0.90	22.9
768LSF SS 1/2 X 3/4	1/2	12.70	3/4	0.98	24.90	0.62	15.70	0.41	10.41	1	1.74	44.20	0.90	22.9
768LSF SS 1/2 X 1	1/2	12.70	1	1.98	50.30	0.87	22.10	0.41	10.41	1-3/8	1.74	44.20	0.90	22.9
768LSF SS 1/2 X 1-1/2	1/2	12.70	1-1/2	1.98	50.30	1.37	34.80	0.41	10.41	1-3/8	1.74	44.20	0.90	22.9
768LSF SS 1 X 1	1	25.40	1	1.98	50.30	0.87	22.10	0.88	22.35	1-3/8	1.92	48.80	1.23	31.2
768LSF SS 1 X 2	1	25.40	2	2.52	64.00	1.87	47.50	0.88	22.35	2-3/4	2.50	63.50	1.23	31.2

768 LTC

TRI-CLAMP FITTINGS

LET-LOK® TO TRI-CLAMP

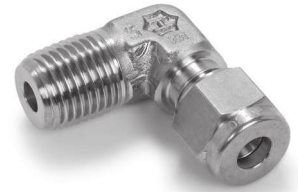
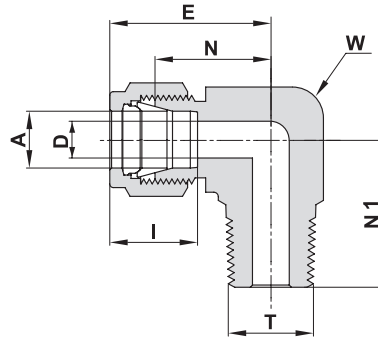


TUBE (INCH) TO TRI-CLAMP

Ordering Information	A .Tube O.D.		Tri-Clamp size	B		J		D		W Hex. Flat	L		I	
	inch	mm		inch	mm	inch	mm	inch	mm		inch	mm	inch	mm
768LTC SS 1/2 X 1/2	1/2	12.7	1/2	1	25.4	0.8	20.3	0.37	9.4	1-1/16	2.1	53.3	0.9	22.9
768LTC SS 3/4 X 3/4	3/4	19.05	3/4	1	25.4	0.8	20.3	0.62	15.8	1-1/16	2.1	53.3	0.96	24.4
768LTC SS 1 X 1	1	25.4	1	1.99	50.5	1.71	43.5	0.87	22.1	2	2.46	62.5	1.23	31.2

Reference Specifications: BS-4825-3

769 L MALE ELBOW



TUBE (METRIC) MALE NPT THREAD

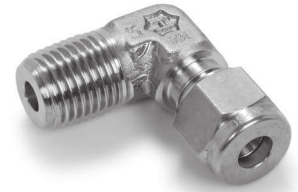
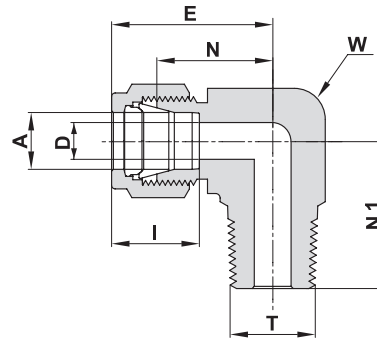
Ordering Information	A Tube O.D.	T (NPT)	D	W Wrench Flat		N	E	N1	I
	mm	inch	mm	inch	mm	mm	mm	mm	mm
769L _ 3 X 1/8	3	1/8	2.4	7/16	11.1	17.0	23.6	17.8	12.9
769L _ 3 X 1/4	3	1/4	2.4	1/2	12.7	18.0	24.6	23.4	12.9
769L _ 4 X 1/8	4	1/8	2.4	1/2	12.7	18.8	25.4	18.8	13.7
769L _ 4 X 1/4	4	1/4	2.4	1/2	12.7	18.8	25.4	23.4	13.7
769L _ 6 X 1/8	6	1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3
769L _ 6 X 1/4	6	1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3
769L _ 6 X 3/8	6	3/8	4.8	11/16	17.5	22.4	29.8	26.2	15.3
769L _ 6 X 1/2	6	1/2	4.8	13/16	20.6	24.4	31.8	33.0	15.3
769L _ 8 X 1/8	8	1/8	4.8	9/16	14.3	21.3	28.8	19.8	16.2
769L _ 8 X 1/4	8	1/4	6.4	9/16	14.3	21.3	28.8	24.4	16.2
769L _ 8 X 3/8	8	3/8	6.4	11/16	17.5	23.1	30.6	26.2	16.2
769L _ 8 X 1/2	8	1/2	6.4	13/16	20.6	25.1	32.6	33.0	16.2
769L _ 10 X 1/8	10	1/8	4.8	11/16	17.5	23.9	31.5	21.6	17.2
769L _ 10 X 1/4	10	1/4	7.1	11/16	17.5	23.9	31.5	26.2	17.2
769L _ 10 X 3/8	10	3/8	7.9	11/16	17.5	23.9	31.5	26.2	17.2
769L _ 10 X 1/2	10	1/2	7.9	13/16	20.6	25.9	33.5	33.0	17.2
769L _ 12 X 1/8	12	1/8	4.8	13/16	20.6	25.9	36.0	23.6	22.8
769L _ 12 X 1/4	12	1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8
769L _ 12 X 3/8	12	3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8
769L _ 12 X 1/2	12	1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8
769L _ 12 X 3/4	12	3/4	9.5	1 1/16	27.0	29.7	39.8	36.8	22.8
769L _ 15 X 1/2	15	1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
769L _ 16 X 3/8	16	3/8	9.5	15/16	23.8	27.9	38.0	30.2	24.4
769L _ 16 X 1/2	16	1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
769L _ 16 X 3/4	16	3/4	12.7	1 1/16	27.0	29.7	39.8	36.8	24.4
769L _ 18 X 1/2	18	1/2	11.9	1 1/16	27.0	29.7	39.8	36.8	24.4
769L _ 18 X 3/4	18	3/4	15.1	1 1/16	27.0	29.7	39.8	36.8	24.4
769L _ 20 X 1/2	20	1/2	11.9	1 3/8	34.9	34.5	44.6	41.7	26.0
769L _ 20 X 3/4	20	3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
769L _ 22 X 3/4	22	3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
769L _ 22 X 1	22	1	18.3	1 3/8	34.9	34.5	44.6	46.5	26.0
769L _ 25 X 3/4	25	3/4	15.9	1 3/8	34.9	36.8	49.1	41.7	31.3
769L _ 25 X 1	25	1	21.8	1 3/8	34.9	36.8	49.1	46.5	31.3
769L _ 38 X 1 1/2	*38	1 1/2	33.7	-	55.0	56.4	84.0	60.4	49.4

* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

769 L

MALE ELBOW (Cont'd)



TUBE (INCH) MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
769L _ 1/16 X 1/16	1/16	1.58	1/16	.05	1.27	7/16	11.1	.60	15.24	.75	19.05	.70	17.78	.34	8.6
769L _ 1/16 X 1/8	1/16	1.58	1/8	.05	1.27	7/16	11.1	.60	15.24	.75	19.05	.70	17.78	.34	8.6
769L _ 1/8 X 1/16	1/8	3.17	1/16	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
769L _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
769L _ 1/8 X 1/4	1/8	3.17	1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.37	.50	12.7
769L _ 3/16 X 1/8	3/16	4.76	1/8	.12	3.04	1/2	12.7	.74	18.80	1.00	25.40	.74	18.80	.54	13.7
769L _ 3/16 X 1/4	3/16	4.76	1/4	.12	3.04	1/2	12.7	.74	18.80	1.00	25.40	.92	23.37	.54	13.7
769L _ 1/4 X 1/16	1/4	6.35	1/16	.12	3.04	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
769L _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
769L _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
769L _ 1/4 X 3/8	1/4	6.35	3/8	.19	4.82	11/16	17.5	.88	22.35	1.17	29.71	1.03	26.16	.60	15.2
769L _ 1/4 X 1/2	1/4	6.35	1/2	.19	4.82	13/16	20.6	.96	24.38	1.25	31.75	1.30	33.02	.60	15.2
769L _ 5/16 X 1/8	5/16	7.93	1/8	.19	4.82	9/16	14.3	.84	21.34	1.13	28.70	.78	19.81	.64	16.2
769L _ 5/16 X 1/4	5/16	7.93	1/4	.25	6.35	9/16	14.3	.84	21.34	1.13	28.70	.96	24.38	.64	16.2
769L _ 5/16 X 3/8	5/16	7.93	3/8	.25	6.35	11/16	17.5	.91	23.11	1.20	30.48	1.03	26.16	.64	16.2
769L _ 3/8 X 1/8	3/8	9.52	1/8	.19	4.82	5/8	15.9	.91	23.11	1.20	30.48	.82	20.83	.66	16.8
769L _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
769L _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	11/16	17.5	.94	23.87	1.23	31.24	1.03	26.16	.66	16.8
769L _ 3/8 X 1/2	3/8	9.52	1/2	.28	7.11	13/16	20.6	1.02	25.90	1.31	33.28	1.30	33.02	.66	16.8
769L _ 3/8 X 3/4	3/8	9.52	3/4	.28	7.11	1 1/16	27.0	1.17	29.71	1.46	37.08	1.45	36.83	.66	16.8
769L _ 1/2 X 1/4	1/2	12.70	1/4	.28	7.11	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
769L _ 1/2 X 3/8	1/2	12.70	3/8	.38	9.50	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
769L _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	1.30	33.02	.90	22.9
769L _ 1/2 X 3/4	1/2	12.70	3/4	.41	10.41	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.90	22.9
769L _ 5/8 X 3/8	5/8	15.87	3/8	.38	9.61	15/16	23.8	1.10	27.94	1.50	38.10	1.19	30.23	.96	24.4
769L _ 5/8 X 1/2	5/8	15.87	1/2	.47	11.94	15/16	23.8	1.10	27.94	1.50	38.10	1.38	35.05	.96	24.4
769L _ 5/8 X 3/4	5/8	15.87	3/4	.50	12.70	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
769L _ 3/4 X 1/2	3/4	19.05	1/2	.47	11.94	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
769L _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.74	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
769L _ 7/8 X 3/4	7/8	22.22	3/4	.62	15.74	1 3/8	34.9	1.36	34.54	1.76	44.70	1.64	41.66	1.02	25.9
769L _ 1 X 3/4	1	25.40	3/4	.62	15.74	1 3/8	34.9	1.45	36.83	1.93	49.02	1.64	41.66	1.23	31.2
769L _ 1 X 1	1	25.40	1	.86	21.84	1 3/8	34.9	1.45	36.83	1.93	49.02	1.83	46.48	1.23	31.2
769L _ 1 1/4 X 1 1/4	*1 1/4	31.75	1 1/4	1.09	27.70	1 11/16	42.9	1.75	44.45	2.62	66.50	1.88	47.75	1.62	41.2
769L _ 1 1/2 X 1 1/2	*1 1/2	38.10	1 1/2	1.34	34.00	2	50.8	2.00	50.80	3.07	78.00	2.38	60.45	1.97	50.0
769L _ 2 X 2	*2	50.80	2	1.81	45.97	2 3/4	69.9	2.75	69.85	4.22	107.19	2.78	70.61	2.66	67.6

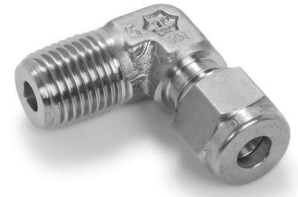
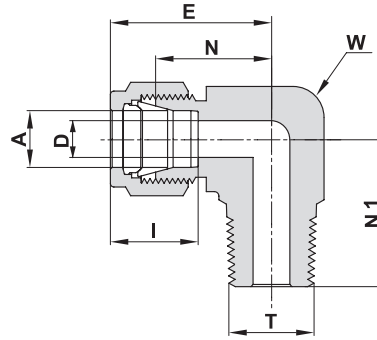
* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

HAM-LET LEADING BY INNOVATION



769 LR MALE ELBOW



TUBE (METRIC) ISO TAPERED THREAD

Ordering Information	A Tube O.D.	T (ISO)	D	W Wrench Flat		N	E	N1	I
	mm	inch	mm	inch	mm	mm	mm	mm	mm
769LR _ 3 X 1/8	3	R-1/8	2.4	7/16	11.1	17.0	23.6	17.8	12.9
769LR _ 3 X 1/4	3	R-1/4	2.4	1/2	12.7	18.0	24.6	23.4	12.9
769LR _ 4 X 1/8	4	R-1/8	2.4	1/2	12.7	18.8	25.4	18.8	13.7
769LR _ 4 X 1/4	4	R-1/4	2.4	1/2	12.7	18.8	25.4	23.4	13.7
769LR _ 6 X 1/8	6	R-1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3
769LR _ 6 X 1/4	6	R-1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3
769LR _ 6 X 3/8	6	R-3/8	4.8	11/16	17.5	22.4	29.8	26.2	15.3
769LR _ 6 X 1/2	6	R-1/2	4.8	13/16	20.6	24.4	31.8	33.0	15.3
769LR _ 8 X 1/8	8	R-1/8	4.8	9/16	14.3	21.3	28.8	19.8	16.2
769LR _ 8 X 1/4	8	R-1/4	6.4	9/16	14.3	21.3	28.8	24.4	16.2
769LR _ 8 X 3/8	8	R-3/8	6.4	11/16	17.5	23.1	30.6	26.2	16.2
769LR _ 8 X 1/2	8	R-1/2	6.4	13/16	20.6	25.1	32.6	33.0	16.2
769LR _ 10 X 1/8	10	R-1/8	4.8	11/16	17.5	23.9	31.5	21.6	17.2
769LR _ 10 X 1/4	10	R-1/4	7.1	11/16	17.5	23.9	31.5	26.2	17.2
769LR _ 10 X 3/8	10	R-3/8	7.9	11/16	17.5	23.9	31.5	26.2	17.2
769LR _ 10 X 1/2	10	R-1/2	7.9	13/16	20.6	25.9	33.5	33.0	17.2
769LR _ 12 X 1/8	12	R-1/8	4.8	13/16	20.6	25.9	36.0	23.6	22.8
769LR _ 12 X 1/4	12	R-1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8
769LR _ 12 X 3/8	12	R-3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8
769LR _ 12 X 1/2	12	R-1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8
769LR _ 12 X 3/4	12	R-3/4	9.5	1 1/16	27.0	29.7	39.8	36.8	22.8
769LR _ 14 X 1/2	14	R-1/2	11.0	15/16	23.8	27.9	38.0	35.0	24.4
769LR _ 15 X 1/2	15	R-1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
769LR _ 16 X 3/8	16	R-3/8	9.5	15/16	23.8	27.9	38.0	30.2	24.4
769LR _ 16 X 1/2	16	R-1/2	11.9	15/16	23.8	27.9	38.0	35.1	24.4
769LR _ 18 X 1/2	18	R-1/2	11.9	1 1/16	27.0	29.7	39.8	36.8	24.4
769LR _ 18 X 3/4	18	R-3/4	15.1	1 1/16	27.0	29.7	39.8	36.8	24.4
769LR _ 20 X 1/2	20	R-1/2	11.9	1 3/8	34.9	34.5	44.6	41.7	26.0
769LR _ 20 X 3/4	20	R-3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
769LR _ 22 X 3/4	22	R-3/4	15.9	1 3/8	34.9	34.5	44.6	41.7	26.0
769LR _ 22 X 1	22	R - 1	18.3	1 3/8	34.9	34.5	44.6	46.5	26.0
769LR _ 25 X 3/4	25	R-3/4	15.9	1 3/8	34.9	36.8	49.1	41.7	31.3
769LR _ 25 X 1	25	R - 1	21.8	1 3/8	34.9	36.8	49.1	46.5	31.3

Reference Specifications:

DIN - 2999

BS - 21

JIS - B0203

ISO - 7/1-BSP-T

Designation:

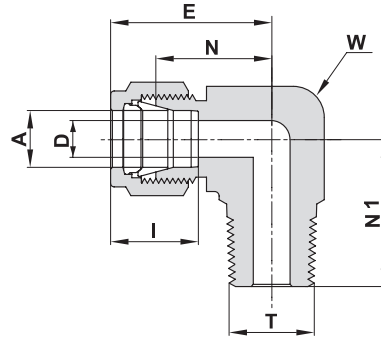
Marking LR on Flat

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

769 LR

MALE ELBOW (Cont'd)



TUBE (INCH) ISO TAPERED THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		N		E		N1		I	
	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
769LR _ 1/8 X 1/8	1/8	3.17	R-1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
769LR _ 1/8 X 1/4	1/8	3.17	R-1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.37	.50	12.7
769LR _ 1/4 X 1/8	1/4	6.35	R-1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
769LR _ 1/4 X 1/4	1/4	6.35	R-1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
769LR _ 1/4 X 3/8	1/4	6.35	R-3/8	.19	4.82	11/16	17.5	.88	22.35	1.17	29.71	1.03	26.16	.60	15.2
769LR _ 1/4 X 1/2	1/4	6.35	R-1/2	.19	4.82	13/16	20.6	.96	24.38	1.25	31.75	1.30	33.02	.60	15.2
769LR _ 5/16 X 1/4	5/16	7.93	R-1/4	.25	6.35	9/16	14.3	.84	21.34	1.13	28.70	.96	24.38	.64	16.2
769LR _ 3/8 X 1/8	3/8	9.52	R-1/8	.19	4.82	5/8	15.9	.91	23.11	1.20	30.48	.82	20.83	.66	16.8
769LR _ 3/8 X 1/4	3/8	9.52	R-1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
769LR _ 3/8 X 3/8	3/8	9.52	R-3/8	.28	7.11	11/16	17.5	.94	23.87	1.23	31.24	1.03	26.16	.66	16.8
769LR _ 1/2 X 1/4	1/2	12.70	R-1/4	.28	7.11	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
769LR _ 1/2 X 3/8	1/2	12.70	R-3/8	.38	9.50	13/16	20.6	1.02	25.90	1.42	36.07	1.11	28.19	.90	22.9
769LR _ 1/2 X 1/2	1/2	12.70	R-1/2	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	1.30	33.02	.90	22.9
769LR _ 3/4 X 1/2	3/4	19.05	R-1/2	.47	11.94	1 1/16	27.0	1.17	29.71	1.57	39.88	1.45	36.83	.96	24.4
769LR _ 1 X 1	1	25.40	R-1	.86	21.84	1 3/8	34.9	1.45	36.83	1.93	49.02	1.83	46.48	1.23	31.2

Reference Specifications:

DIN - 2999
BS - 21
JIS - B0203
ISO - 7/1-BSP-T

Designation:

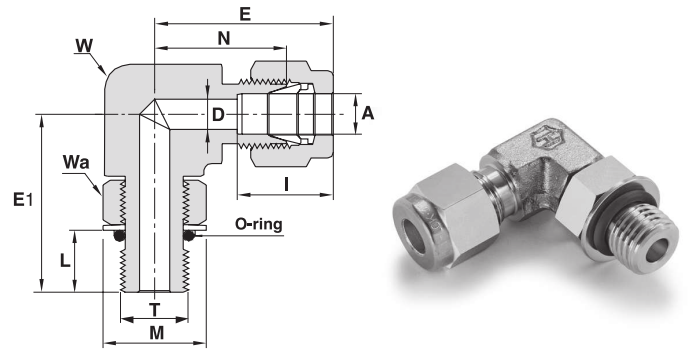
Marking LR on Flat

POSITIONABLES PER SAE

J1926 AND MS 16142

769 LOB

MALE ELBOW POS



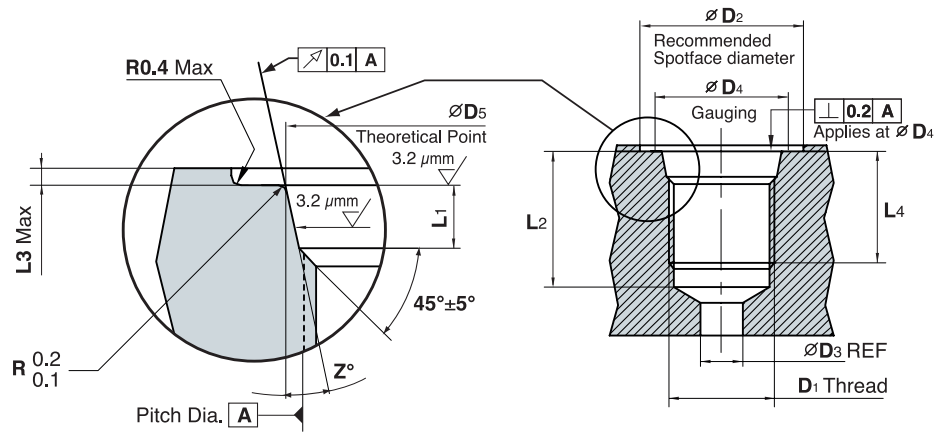
TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

Ordering Information	A Tube O.D.		T SAE/MS	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring Dash No
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
769LOB SS 1/4 X 7/16-20 POS.	1/4	6.35	7/16-20	.19	4.8	1/2	12.7	9/16	.83	21.10	1.12	28.45	1.12	28.45	.39	9.9	.65	16.5	.60	15.2	-904
769LOB SS 1/4 X 9/16-18 POS.	1/4	6.35	9/16-18	.19	4.8	5/8	15.9	11/16	.91	23.11	1.20	30.48	1.27	32.26	.44	11.2	.79	20.1	.60	15.2	-906
769LOB SS 3/8 X 7/16-20 POS.	3/8	9.52	7/16-20	.20	5.1	5/8	15.9	9/16	.97	24.64	1.26	32.00	1.12	28.45	.39	9.9	.65	16.5	.66	16.8	-904
769LOB SS 3/8 X 9/16-18 POS.	3/8	9.52	9/16-18	.28	7.1	5/8	15.9	11/16	.97	24.64	1.26	32.00	1.27	32.26	.44	11.2	.79	20.1	.66	16.8	-906
769LOB SS 3/8 X 3/4-16 POS.	3/8	9.52	3/4-16	.28	7.1	13/16	20.6	7/8	1.08	27.43	1.37	34.80	1.49	37.85	.50	12.7	1.01	25.7	.66	16.8	-908
769LOB SS 1/2 X 9/16-18 POS.	1/2	12.70	9/16-18	.28	7.1	13/16	20.6	11/16	1.08	27.43	1.48	37.59	1.38	35.05	.44	11.2	.79	20.1	.90	22.9	-906
769LOB SS 1/2 X 3/4-16 POS.	1/2	12.70	3/4-16	.41	10.4	13/16	20.6	7/8	1.08	27.43	1.48	37.59	1.49	37.85	.50	12.7	1.01	25.7	.90	22.9	-908
769LOB SS 3/4 X 1 1/16-12 POS.	3/4	19.05	1 1/16-12	.62	15.8	1 1/16	27.0	1 1/4	1.23	31.24	1.63	41.40	1.92	48.77	.66	16.8	1.44	36.7	.96	24.4	-912
769LOB SS 1 X 1 1/16-12 POS.	1	25.40	1 1/16-12	.62	15.8	1 3/8	34.9	1 1/4	1.51	38.35	1.99	50.55	2.05	52.07	.66	16.8	1.44	36.7	1.23	31.2	-912
769LOB SS 1 X 1 5/16-12 POS.	1	25.40	1 5/16-12	.88	22.3	1 3/8	34.9	1 1/2	1.51	38.35	1.99	50.55	2.11	53.59	.66	16.8	1.73	44.0	1.23	31.2	-916

* Per SAE J1926 and MS 16142. See page 53 for mounting dimensions.

DIMENSIONS

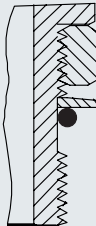
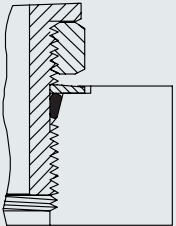
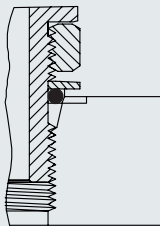
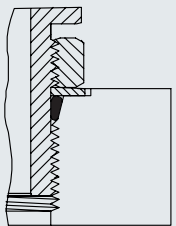
FOR SAE J1926 & MS 16142 BOSS



MOUNTING DIMENSIONS FOR O-SEAL CONNECTORS (SAE/MS)

TUBE O.D.		D1 Thread Size	D2 Min Diameter ±0.05	D3 Min Diameter	D4 Min	D5 ±0.05	L1 ±0.20	L2 Min	L3 Max	L4 Min Full Thread	°Z ±1
inch	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	
1/8	3.17	5/16 - 24 UNF - 2B	17	1.6	11	9.15	2.1	12	1.6	10	12
3/16	4.76	3/8 - 24 UNF - 2B	19	3.5	13	10.75	2.1	12	1.6	10	12
1/4	6.35	7/16 - 20 UNF - 2B	21	4.5	15	12.45	2.6	14	1.6	11.5	12
5/16	7.93	1/2 - 20 UNF - 2B	23	6	16	14.05	2.6	14	1.6	11.5	12
3/8	9.52	9/16 - 18 UNF - 2B	25	7.5	18	15.70	2.7	15.5	1.6	12.7	12
1/2	12.70	3/4 - 16 UNF - 2B	30	10	22	20.65	2.7	17.5	2.4	14.3	15
5/8	15.87	7/8 - 14 UNF - 2B	34	12.5	26	24	2.7	20	2.4	16.7	15
3/4	19.05	1 1/16 - 12 UNF - 2B	41	16	32	29.2	3.5	23	2.4	19	15
7/8	22.22	1 3/16 - 12 UN - 2B	45	18	35	32.4	3.5	23	2.4	19	15
1	25.40	1 5/16 - 12 UN - 2B	49	21	38	35.55	3.5	23	3.2	19	15
1 1/4	31.75	1 5/8 - 12 UN - 2B	58	27	48	43.55	3.5	23	3.2	19	15
1 1/2	38.10	1 7/8 - 12 UN - 2B	65	33	54	49.9	3.5	23	3.2	19	15
2	50.80	2 1/2 - 12 UN - 2B	88	45	70	65.75	3.5	23	3.2	19	15

INSTALLATION INSTRUCTIONS

Figure 1	Figure 2	Figure 3	Figure 4
Locking backed off	Fitting install hand tight	Fittings backed-off for alignment (turn maximum 1)	Fitting locknut tightly to appropriate torque
			
Lubricate the O-ring by inserting it into the groove adjacent to the face of the metal back-up washer which is assembled at the extreme end of the groove as shown in Figure 1	Install the fitting into the S.A.E. straight thread boss, figure 2, until the metal back-up washer contacts the face of the boss as shown in Figure 2	Position the fitting by turning it counter clockwise up to a maximum of one .turn (see Figure 3	Holding the pad of the fitting with a spanner, tighten the locknut and washer against the face as shown in .Figure 4

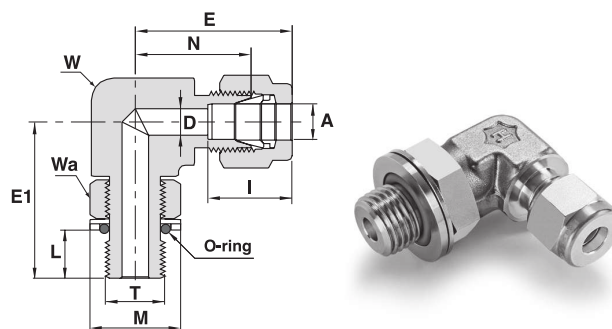
Dimensions are for reference only, and are subject to change without notice.

POSITIONABLES

ISO PARALLEL THREAD

769 LG

MALE ELBOW



TUBE (METRIC) TO ISO PARALLEL THREAD (POSITIONABLE)*

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		Wa Hex. Flat		N		E		E1		L		M		I		**O-ring
	mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	.Dash No
769LG SS 6 X 1/8 POS.	6		G-1/8-28	4.0	1/2	12.7		9/16		19.6		27.0		26.4		8.1		17.3		15.3		***
769LG SS 6 X 1/4 POS.	6		G-1/4-19	4.8	5/8	15.9		3/4		21.6		29.0		32.2		9.1		22.9		15.3		-111
769LG SS 8 X 1/8 POS.	8		G-1/8-28	4.0	5/8	15.9		9/16		21.3		28.8		27.4		8.1		17.3		16.2		***
769LG SS 8 X 1/4 POS.	8		G-1/4-19	5.9	5/8	15.9		3/4		22.4		29.9		32.2		9.1		22.9		16.2		-111
769LG SS 10 X 1/4 POS.	10		G-1/4-19	5.9	13/16	20.6		3/4		25.9		33.5		35.0		9.1		22.9		17.2		-111
769LG SS 10 X 3/8 POS.	10		G-3/8-19	7.9	13/16	20.6		7/8		25.9		33.5		37.1		9.4		26.4		17.2		-113
769LG SS 12 X 1/4 POS.	12		G-1/4-19	5.9	13/16	20.6		3/4		25.9		36.0		35.0		9.1		22.9		22.8		-111
769LG SS 12 X 3/8 POS.	12		G-3/8-19	7.9	13/16	20.6		7/8		25.9		36.0		37.1		9.4		26.4		22.8		-113
769LG SS 12 X 1/2 POS.	12		G-1/2-14	9.5	15/16	23.8		1 1/16		27.9		38.0		43.4		13.0		32.0		22.8		-593

TUBE (INCH) TO ISO PARALLEL THREAD (POSITIONABLE)*

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring
	inch	mm	inch	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	.Dash No
769LG SS 1/4 X 1/8 POS.	1/4	6.35	G-1/8-28	.16	4.0	1/2	12.7	9/16	.77	19.60	1.06	26.9	1.04	26.4	.32	8.1	.68	17.3	.60	15.2	***
769LG SS 1/4 X 1/4 POS.	1/4	6.35	G-1/4-19	.19	4.8	5/8	15.9	3/4	.85	21.60	1.14	28.9	1.27	32.2	.36	9.1	.90	22.9	.60	15.2	-111
769LG SS 1/4 X 1/2 POS.	1/4	6.35	G-1/2-14	.19	4.8	15/16	23.8	1 1/16	.96	24.38	1.25	31.8	1.71	43.4	.51	13.0	1.26	32.0	.60	15.2	-593
769LG SS 3/8 X 1/4 POS.	3/8	9.52	G-1/4-19	.23	5.9	5/8	15.9	3/4	.91	23.11	1.20	30.5	1.27	32.2	.36	9.1	.90	22.9	.66	16.8	-111
769LG SS 3/8 X 3/8 POS.	3/8	9.52	G-3/8-19	.28	7.1	13/16	20.6	7/8	1.02	25.91	1.31	33.3	1.46	37.1	.37	9.4	1.04	26.4	.66	16.8	-113
769LG SS 1/2 X 1/4 POS.	1/2	12.70	G-1/4-19	.23	5.9	13/16	20.6	3/4	1.02	25.91	1.42	36.1	1.27	32.2	.36	9.1	.90	22.9	.90	22.9	-111
769LG SS 1/2 X 3/8 POS.	1/2	12.70	G-3/8-19	.31	7.9	13/16	20.6	7/8	1.02	25.91	1.42	36.1	1.46	37.1	.37	9.4	1.04	26.4	.90	22.9	-113
769LG SS 1/2 X 1/2 POS.	1/2	12.70	G-1/2-14	.41	10.4	15/16	23.8	1 1/16	1.10	27.94	1.50	38.1	1.71	43.4	.51	13.0	1.26	32.0	.90	22.9	-593
769LG SS 5/8 X 1/2 POS.	5/8	15.87	G-1/2-14	.47	11.9	15/16	23.8	1 1/16	1.10	27.94	1.50	38.1	1.71	43.4	.51	13.0	1.26	32.0	.96	24.4	-593

Reference Specifications:

DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

** O-rings used are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available on request.

*** Not standard O-ring size.

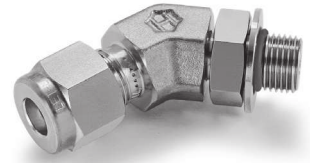
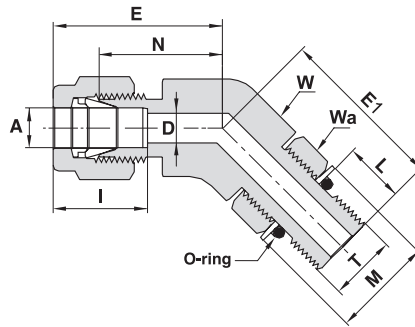
"D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.

POSITIONABLES PER SAE

J1926 AND MS 16142

769 LOB 45°

MALE ELBOW 45° POS



TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

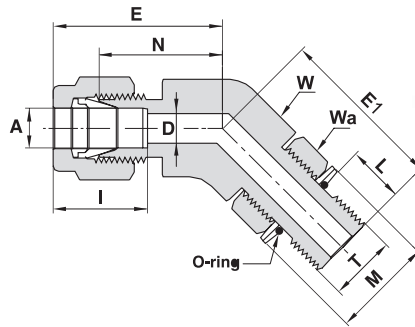
Ordering Information	A Tube O.D.		T SAE/MS	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring .Dash No
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
769LAOB SS 1/4 X 7/16-20 POS.	1/4	6.35	7/16-20	.19	4.8	9/16	14.3	9/16	.72	18.29	1.01	25.65	1.01	25.65	.39	9.9	.65	16.5	.60	15.2	-904
769LAOB SS 3/8 X 9/16-18 POS.	3/8	9.52	9/16-18	.28	7.1	13/16	20.6	11/16	.81	20.57	1.10	27.94	1.06	27.00	0.40	10.2	.79	20.1	.66	16.8	-906

Reference Specifications:

* Per SAE J1926 and MS 16142. See page 49 for mounting dimensions.

** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

"D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.



769 LG 45°

MALE ELBOW 45° POS

TUBE TO (METRIC) TO ISO PARALEL THREAD (POSITIONABLE)*

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring .Dash No
	inch	mm		mm	mm	inch	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
769LAG SS 6 X 1/8 POS.	6		G-1/8-28	4.0		9/16	14.3	9/16	17.5		24.9		24.0		8.1		8.1		15.3		***

TUBE TO (INCH) TO ISO PARALEL THREAD (POSITIONABLE)*

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring .Dash No
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
769LAG SS 1/4 X 1/8 POS.	1/4	6.35	G-1/8-28	.16	4.0	9/16	14.3	9/16	69.	17.5	.98	24.0	.94	24.0	.32	8.1	0.68	17.3	.60	15.2	***

Reference Specifications:

DIN - ISO 228/1

BS - 2779

JIS - B0202

ISO - 228/1-BSP-P

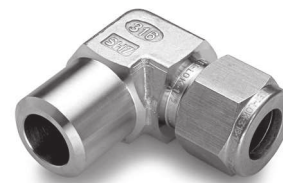
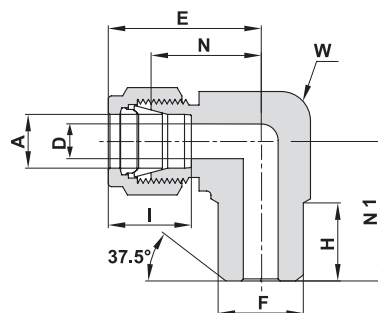
** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

*** Not standard O-ring size.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

769 LN

MALE PIPE WELD ELBOW



TUBE (INCH)

Ordering Information	A Tube O.D.		F Pipe Size		D		W Wrench Flat		N		H		E		N1		I	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
769LN _ 1/4 X 1/8	1/4	6.35	1/8	10.30	.19	4.82	1/2	12.7	.77	19.56	.38	9.65	1.06	26.92	.74	18.8	.60	15.2
769LN _ 1/4 X 1/4	1/4	6.35	1/4	13.70	.19	4.82	1/2	12.7	.77	19.56	.56	14.22	1.06	26.92	.92	23.37	.60	15.2
769LN _ 3/8 X 1/4	3/8	9.52	1/4	13.70	.28	7.11	5/8	15.9	.91	23.11	.56	14.22	1.20	30.48	1.00	25.40	.66	16.8
769LN _ 1/2 X 1/2	1/2	12.70	1/2	21.34	.41	10.41	13/16	20.6	1.02	25.90	.75	19.05	1.42	36.06	1.30	33.02	.90	22.9
769LN _ 3/4 X 3/4	3/4	19.05	3/4	26.67	.62	15.75	1 1/16	27.0	1.17	29.72	.75	19.05	1.57	39.88	1.45	36.83	.96	24.4

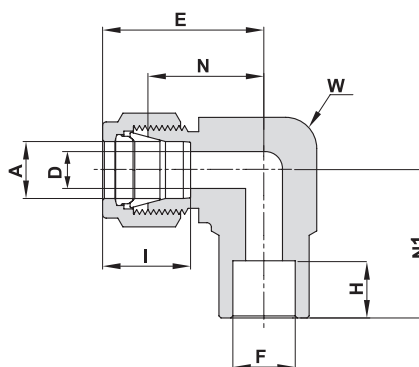
Designation:

Marking LN on Flat

"D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.

769 LW

TUBE SOCKET WELD ELBOW



TUBE (INCH)

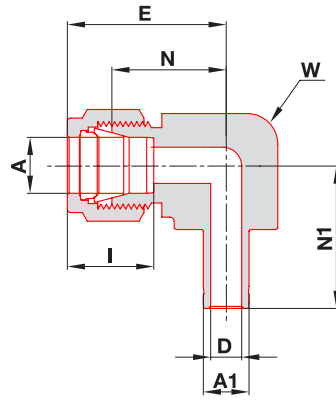
Ordering Information	A Tube O.D.		F Tube O.D.		D		W Wrench Flat		N		H		E		N1		I	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
769LW _ 1/4 X 1/4	1/4	6.35	1/4	6.35	.19	4.82	1/2	12.7	.77	19.60	.31	7.87	1.06	26.98	.77	19.60	.60	15.2
769LW _ 3/8 X 3/8	3/8	9.52	3/8	9.52	.28	7.11	5/8	15.9	.91	23.11	.38	9.65	1.20	30.98	.91	23.11	.66	16.8
769LW _ 1/2 X 1/2	1/2	12.70	1/2	12.70	.41	10.41	15/16	23.8	1.02	25.90	.50	12.70	1.42	36.06	1.02	25.90	.90	22.9
769LW _ 3/4 X 3/4	3/4	19.05	3/4	19.05	.62	15.74	1 1/16	27.0	1.17	29.71	.56	14.22	1.57	39.87	1.17	29.71	.96	24.4
769LW _ 1 X 1	1	25.40	1	25.40	.88	22.35	1 3/8	34.9	1.45	36.83	.75	19.05	1.93	49.02	1.45	36.83	1.23	31.2

Designation:

Marking LW on Flat

769 LT

REDUCING ELBOW



TUBE (METRIC) TO STUB (METRIC)

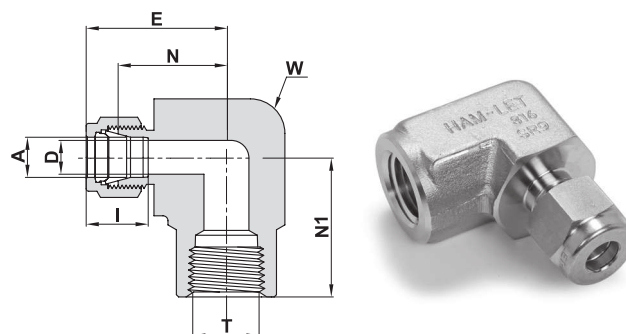
Ordering Information	A Tube O.D.		A1 .Tube O.D		D		W Wrench Flat		N		E		N1		I	
	mm	mm	mm	mm	mm	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm
769LT _ 6 X 6	6	6	6	6	4.0	4.0	1/2	12.7	19.6	19.6	27.0	27.0	23.8	23.8	15.3	15.3
769LT _ 12 X 12	12	12	12	12	8.8	8.8	1 1/8	28.6	27.9	27.9	38.0	38.0	40.4	40.4	22.8	22.8
769LT _ 15 X 15	15	15	15	15	12.0	12.0	1 1/8	28.6	27.9	27.9	38.0	38.0	41.0	41.0	24.4	24.4
769LT _ 22 X 22	22	22	22	22	18.3	18.3	1 3/8	34.9	34.5	34.5	44.6	44.6	50.0	50.0	26.0	26.0

TUBE (INCH) TO STUB (INCH)

Ordering Information	A Tube O.D.		A1 .Tube O.D		D		W Wrench Flat		N		E		N1		I	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
769LT _ 1/4 X 3/8	1/4	6.35	3/8	9.52	.19	4.82	5/8	15.9	.91	23.1	1.20	30.5	1.24	31.5	.60	15.2
769LT _ 1/4 X 1/2	1/4	6.35	1/2	12.7	.19	4.82	5/8	15.9	.91	23.1	1.20	30.5	1.28	32.5	.60	15.2

770 L

FEMALE ELBOW



TUBE (METRIC) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.	T (NPT)	D	W Wrench Flat		N	E	N1	I
	mm	inch	mm	inch	mm	mm	mm	mm	mm
770L _ 6 X 1/8	6	1/8	4.8	1/2	12.7	19.6	27.0	19.0	15.3
770L _ 6 X 1/4	6	1/4	4.8	11/16	17.5	22.4	29.8	22.4	15.3
770L _ 6 X 1/2	6	1/2	4.8	1 1/16	27.0	27.2	34.6	28.4	15.3
770L _ 8 X 1/4	8	1/4	6.4	11/16	17.5	23.1	30.6	22.4	16.2
770L _ 10 X 1/8	10	1/8	7.9	11/16	17.5	23.9	31.5	19.0	17.2
770L _ 10 X 1/4	10	1/4	7.9	13/16	20.6	25.9	33.5	22.4	17.2
770L _ 12 X 1/4	12	1/4	9.5	13/16	20.6	25.9	36.0	22.4	22.8
770L _ 12 X 1/2	12	1/2	9.5	1 1/16	27.0	28.7	38.8	28.4	22.8
770L _ 16 X 1/2	16	1/2	12.7	1 1/16	27.0	29.7	39.8	28.4	24.4

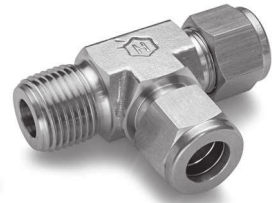
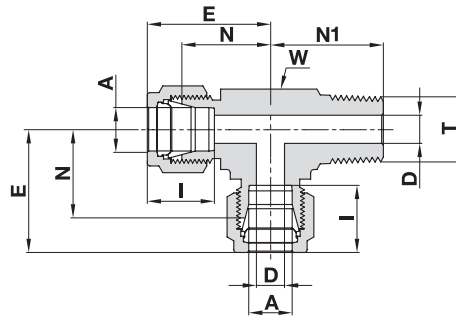
TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
770L _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.75	19.05	.50	12.7
770L _ 1/8 X 1/4	1/8	3.17	1/4	.09	2.28	11/16	17.5	.82	20.80	1.08	27.43	.88	22.40	.50	12.7
770L _ 3/16 X 1/8	3/16	4.76	1/8	.12	3.04	1/2	12.7	.74	18.80	1.00	25.40	.75	19.05	.54	13.7
770L _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	1/2	12.7	.77	19.55	1.06	26.92	.75	19.05	.60	15.2
770L _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	11/16	17.5	.88	22.40	1.17	29.72	.88	22.40	.60	15.2
770L _ 1/4 X 3/8	1/4	6.35	3/8	.19	4.82	15/16	23.8	.96	24.38	1.25	31.75	.88	22.40	.60	15.2
770L _ 1/4 X 1/2	1/4	6.35	1/2	.19	4.82	1 1/16	27.0	1.07	27.18	1.36	34.54	1.12	28.45	.60	15.2
770L _ 5/16 X 1/8	5/16	7.93	1/8	.25	6.35	9/16	14.3	.84	21.30	1.13	28.70	.75	19.05	.64	16.2
770L _ 5/16 X 1/4	5/16	7.93	1/4	.25	6.35	11/16	17.5	.91	23.11	1.20	30.48	.88	22.40	.64	16.2
770L _ 3/8 X 1/8	3/8	9.52	1/8	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	.75	19.05	.66	16.8
770L _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	11/16	17.5	0.94	23.87	1.23	31.24	.88	22.40	.66	16.8
770L _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	15/16	23.8	1.02	25.90	1.31	33.27	.88	22.40	.66	16.8
770L _ 3/8 X 1/2	3/8	9.52	1/2	.28	7.11	1 1/16	27.0	1.13	28.70	1.42	36.07	1.12	28.45	.66	16.8
770L _ 1/2 X 1/4	1/2	12.70	1/4	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	.88	22.40	.90	22.9
770L _ 1/2 X 3/8	1/2	12.70	3/8	.41	10.41	15/16	23.8	1.02	25.90	1.42	36.07	.88	22.40	.90	22.9
770L _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	1 1/16	27.0	1.13	28.70	1.53	36.86	1.12	28.45	.90	22.9
770L _ 5/8 X 3/8	5/8	15.87	3/8	.50	12.70	15/16	23.8	1.10	27.90	1.50	38.10	.88	22.40	.96	24.4
770L _ 5/8 X 1/2	5/8	15.87	1/2	.50	12.70	1 1/16	27.0	1.17	29.70	1.57	39.86	1.12	28.45	.96	24.4
770L _ 3/4 X 1/2	3/4	19.05	1/2	.62	15.74	1 1/16	27.0	1.17	29.70	1.57	39.86	1.12	28.45	.96	24.4
770L _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.74	1 3/8	34.9	1.36	34.54	1.76	44.70	1.25	31.75	.96	24.4
770L _ 7/8 X 3/4	7/8	22.22	3/4	.72	18.28	1 3/8	34.9	1.36	34.54	1.76	44.70	1.25	31.75	1.02	25.9
770L _ 1 X 3/4	1	25.40	3/4	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.02	1.25	31.75	1.23	31.2
770L _ 1 X 1	1	25.40	1	.88	22.35	1 11/16	42.9	1.63	41.40	2.11	53.59	1.50	38.10	1.23	31.2

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

771 L

MALE RUN TEE



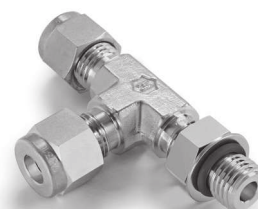
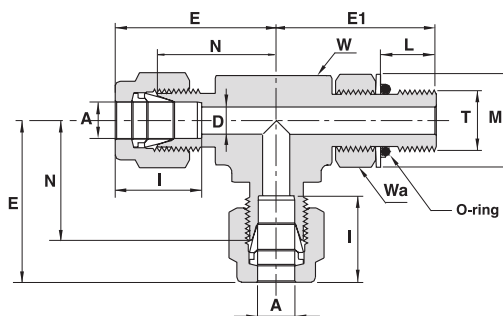
TUBE (METRIC) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
771L _ 6 X 1/8	6	1/8	1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3					
771L _ 6 X 1/4	6	1/4	1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3					
771L _ 8 X 1/8	8	1/8	1/8	4.8	5/8	15.9	22.4	29.9x	20.8	16.2					
771L _ 8 X 1/4	8	1/4	1/4	6.4	5/8	15.9	22.4	29.9	25.4	16.2					
771L _ 10 X 1/4	10	1/4	1/4	7.1	13/16	20.6	25.9	33.5	28.2	17.2					
771L _ 12 X 1/4	12	1/4	1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8					
771L _ 12 X 3/8	12	3/8	3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8					
771L _ 12 X 1/2	12	1/2	1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8					
771L _ 16 X 1/2	16	1/2	1/2	11.9	15/16	23.8	27.9	38.0	35.0	24.4					

TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
771L _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
771L _ 1/8 X 1/4	1/8	3.17	1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.40	.50	12.7
771L _ 3/16 X 1/8	3/16	4.76	1/8	.12	3.05	7/16	11.1	.70	17.78	.96	24.38	.70	17.78	.54	13.7
771L _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.8	.60	15.2
771L _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
771L _ 5/16 X 1/8	5/16	7.93	1/8	.19	4.82	5/8	15.9	.88	22.35	1.17	29.71	.82	20.83	.64	16.2
771L _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
771L _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	13/16	20.6	1.02	25.91	1.31	33.27	1.11	28.19	.66	16.8
771L _ 1/2 X 3/8	1/2	12.70	3/8	.38	9.5	13/16	20.6	1.02	25.91	1.42	36.07	1.11	28.19	.90	22.9
771L _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	13/16	20.6	1.02	25.91	1.42	36.07	1.30	33.00	.90	22.9
771L _ 5/8 X 1/2	5/8	15.87	1/2	.47	11.94	15/16	23.8	1.10	27.94	1.50	38.1	1.38	35.05	.96	24.4
771L _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.75	1 1/16	27.0	1.17	29.72	1.57	39.88	1.45	36.83	.96	24.4

771 LOB MALE RUN TEE POS



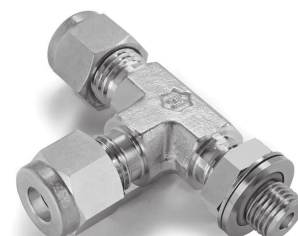
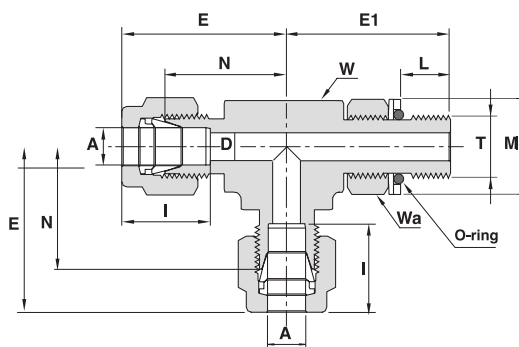
TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

Ordering Information	A Tube O.D.		T SAE/MS	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring .Dash No
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
771LOB SS 1/4 X 7/16-20 POS.	1/4	6.35	7/16-20	.19	4.8	1/2	12.7	9/16	.83	21.10	1.12	28.45	1.12	28.45	.39	9.9	.65	16.5	.60	15.2	-904
771LOB SS 3/8 X 9/16-18 POS.	3/8	9.52	9/16-18	.28	7.1	5/8	15.9	11/16	.97	24.64	1.26	32.00	1.27	32.26	.44	11.2	.79	20.1	.66	16.8	-906

* Per SAE J1926 and MS 16142. See page 49 for mounting dimensions.

** O-rings used are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available on request.

771 LG MALE RUN TEE POS



TUBE (METRIC) TO ISO PARALLEL THREAD (POSITIONABLE)*

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring .Dash No
	mm	inch		mm	inch	inch	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
771LG SS 6 X 1/8 POS.	6		G-1/8-28	4.0	1/2	12.7	9/16	19.6	27.0	26.4	8.1	17.3	15.3	***							
771LG SS 6 X 1/4 POS.	6		G-1/4-19	4.8	5/8	15.9	3/4	21.6	29.0	32.2	9.1	22.9	15.3	-111							
771LG SS 8 X 1/4 POS.	8		G-1/4-19	5.9	5/8	15.9	3/4	22.4	29.9	32.2	9.1	22.9	16.2	-111							
771LG SS 10 X 1/4 POS.	10		G-1/4-19	5.9	15/16	23.8	3/4	25.9	33.5	35.0	9.1	22.9	17.2	-111							

TUBE (INCH) TO ISO PARALLEL THREAD (POSITIONABLE)*

Ordering Information	A Tube O.D.		T (ISO)	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring .Dash No
	inch	mm		inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
771LG SS 1/4 X 1/8 POS.	1/4	6.35	G-1/8-28	.16	4.0	1/2	12.7	9/16	.77	19.6	1.06	26.9	1.04	26.4	.32	8.1	.68	17.3	.60	15.2	***
771LG SS 1/4 X 1/4 POS.	1/4	6.35	G-1/4-19	.19	4.8	5/8	15.9	3/4	.85	21.6	1.14	28.9	1.27	32.2	.36	9.1	.90	22.9	.60	15.2	-111
771LG SS 3/8 X 1/4 POS.	3/8	9.52	G-1/4-19	.23	5.9	5/8	15.9	3/4	.91	23.1	1.20	30.5	1.27	32.2	.36	9.1	.90	22.9	.66	16.8	-111

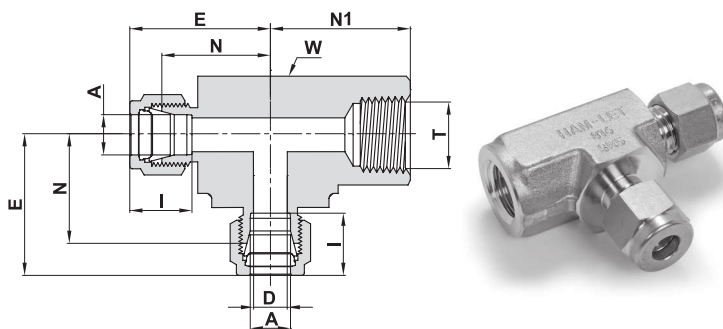
Reference Specifications:
DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P

** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

*** Not standard O-ring size.

"D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.

771 LF FEMALE RUN TEE



TUBE (METRIC) TO FEMALE NPT THREAD

Ordering Information	A	T (NPT)	D	W Wrench Flat		N	E	N1	I
	mm	inch	mm	inch	mm	mm	mm	mm	mm
771LF _ 6 X 1/8	6	1/8	4.8	5/8	15.9	19.6	27.0	19.0	15.3
771LF _ 6 X 1/4	6	1/4	4.8	13/16	20.6	22.4	29.8	22.4	15.3
771LF _ 8 X 1/8	8	1/8	6.4	5/8	15.9	22.4	29.9	22.4	16.2
771LF _ 8 X 1/4	8	1/4	6.4	13/16	20.6	23.1	30.6	22.4	16.2
771LF _ 10 X 1/4	10	1/4	7.9	13/16	20.6	25.9	33.5	22.4	17.2
771LF _ 12 X 1/4	12	1/4	9.5	13/16	20.6	25.9	36.0	22.4	22.8
771LF _ 12 X 3/8	12	3/8	9.5	15/16	23.8	25.9	36.0	22.4	22.8
771LF _ 12 X 1/2	12	1/2	9.5	1 1/16	27.0	29.7	39.8	28.4	22.8
771LF _ 16 X 1/2	16	1/2	12.7	1 1/16	27.0	29.7	39.8	28.4	24.4

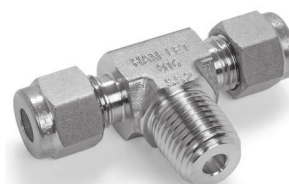
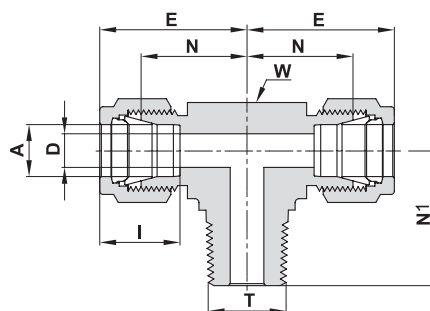
TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
771LF _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	5/8	15.9	.71	18.00	.97	24.63	.75	19.05	.50	12.7
771LF _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	5/8	15.9	.77	19.55	1.06	26.92	.75	19.05	.60	15.2
771LF _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	13/16	20.6	.88	22.35	1.17	29.71	.88	22.35	.60	15.2
771LF _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	13/16	20.6	.94	23.87	1.23	31.24	.88	22.35	.66	16.8
771LF _ 1/2 X 3/8	1/2	12.70	3/8	.41	10.41	15/16	23.8	1.02	25.9	1.42	36.07	.88	22.35	.90	22.9
771LF _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	1 1/16	27.0	1.17	29.72	1.57	39.88	1.12	28.45	.90	22.9
771LF _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.75	1 3/8	34.9	1.36	34.54	1.76	44.70	1.25	31.75	.96	24.4
771LF _ 1 X 3/4	1	25.4	3/4	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.02	1.25	31.75	1.23	31.2
771LF _ 1 X 1	1	25.4	1	.88	22.35	1 11/16	42.9	1.63	41.40	2.11	53.59	1.50	38.10	1.23	31.2

"D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.

772 L

MALE BRANCH TEE



TUBE (METRIC) TO MALE NPT THREAD

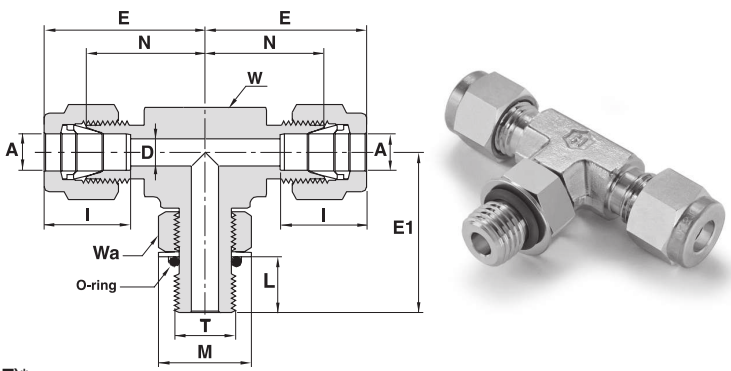
Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
772L _ 6 X 1/8	6	1/8	1/8	4.8	1/2	12.7	19.6	27.0	18.8	15.3					
772L _ 6 X 1/4	6	1/4	1/4	4.8	1/2	12.7	19.6	27.0	23.4	15.3					
772L _ 8 X 1/8	8	1/8	1/8	4.8	5/8	15.9	22.4	29.9	20.8	16.2					
772L _ 8 X 1/4	8	1/4	1/4	6.4	5/8	15.9	22.4	29.9	25.4	16.2					
772L _ 10 X 1/4	10	1/4	1/4	7.1	13/16	20.6	25.9	33.5	28.2	17.2					
772L _ 12 X 1/4	12	1/4	1/4	7.1	13/16	20.6	25.9	36.0	28.2	22.8					
772L _ 12 X 3/8	12	3/8	3/8	9.5	13/16	20.6	25.9	36.0	28.2	22.8					
772L _ 12 X 1/2	12	1/2	1/2	9.5	13/16	20.6	25.9	36.0	33.0	22.8					
772L _ 16 X 1/2	16	1/2	1/2	11.9	15/16	23.8	28.7	38.8	35.8	24.4					

TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
772L _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	7/16	11.1	.67	17.02	.93	23.62	.70	17.78	.50	12.7
772L _ 1/8 X 1/4	1/8	3.17	1/4	.09	2.28	1/2	12.7	.71	18.03	.97	24.64	.92	23.37	.50	12.7
772L _ 3/16 X 1/8	3/16	4.76	1/8	.12	3.04	7/16	11.1	.70	17.78	.96	24.38	.70	17.78	.54	13.7
772L _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.74	18.80	.60	15.2
772L _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	.92	23.37	.60	15.2
772L _ 5/16 X 1/8	5/16	7.93	1/8	.19	4.82	5/8	15.9	.88	22.35	1.17	29.71	.82	20.83	.64	16.2
772L _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.00	25.40	.66	16.8
772L _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	13/16	20.6	1.02	25.91	1.31	33.27	1.11	28.19	.66	16.8
772L _ 1/2 X 3/8	1/2	12.70	3/8	.38	9.65	13/16	20.6	1.02	25.91	1.42	36.07	1.11	28.19	.90	22.9
772L _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	13/16	20.6	1.02	25.91	1.42	36.07	1.30	33.02	.90	22.9
772L _ 5/8 X 1/2	5/8	15.87	1/2	.47	11.94	15/16	23.8	1.13	28.7	1.53	38.86	1.41	35.81	.96	24.4
772L _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.75	1 1/16	27.0	1.17	29.72	1.57	39.88	1.45	36.83	.96	24.4

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

772 LOB
MALE BRANCH TEE POS



TUBE TO SAE/MS STRAIGHT THREAD BOSS (POSITIONABLE)*

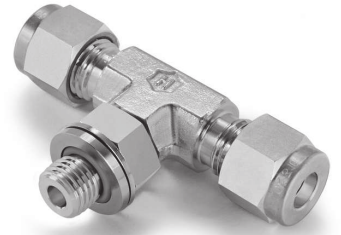
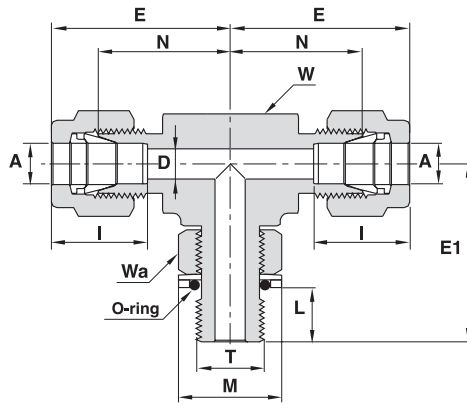
Ordering Information	A Tube O.D.		T SAE/MS	D		W Wrench Flat		Wa Hex. Flat	N		E		E1		L		M		I		**O-ring
	inch	mm	inch	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	Dash No.
772LOB SS 1/4 X 7/16-20 POS.	1/4	6.35	7/16-20	.19	4.8	1/2	12.7	9/16	.83	21.10	1.12	28.45	1.12	28.45	.39	9.9	.65	16.5	.60	15.2	-904
772LOB SS 3/8 X 9/16-18 POS.	3/8	9.52	9/16-18	.28	7.1	5/8	15.9	11/16	.97	24.64	1.26	32.00	1.27	32.26	.44	11.2	.79	20.1	.66	16.8	-906

* Per SAE J1926 and MS 16142. See page 49 for mounting dimensions.
 ** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

POSITIONABLES
ISO PARALLEL THREAD

772 LG
MALE BRANCH
TEE POS



TUBE (METRIC) TO ISO PARALLEL THREAD (POSITIONABLE)*

Ordering Information	A	T	D	W		Wa	N	E	E1	L	M	I	**O-ring
	Tube O.D.	(ISO)		Wrench Flat		Hex. Flat							
	mm	inch	mm	inch	mm	inch	mm	mm	mm	mm	mm	mm	Dash No.
772LG SS 6 X 1/8 POS.	6	G-1/8-28	4.0	1/2	12.7	9/16	19.6	27.0	26.4	8.1	17.3	15.3	***
772LG SS 6 X 1/4 POS.	6	G-1/4-19	4.8	5/8	15.9	3/4	21.6	29.0	32.2	9.1	22.9	15.3	-111
772LG SS 8 X 1/4 POS.	8	G-1/4-19	5.9	5/8	15.9	3/4	22.4	29.9	32.2	9.1	22.9	16.2	-111
772LG SS 10 X 1/4 POS.	10	G-1/4-19	5.9	15/16	23.8	3/4	25.9	33.5	35.0	9.1	22.9	17.2	-111

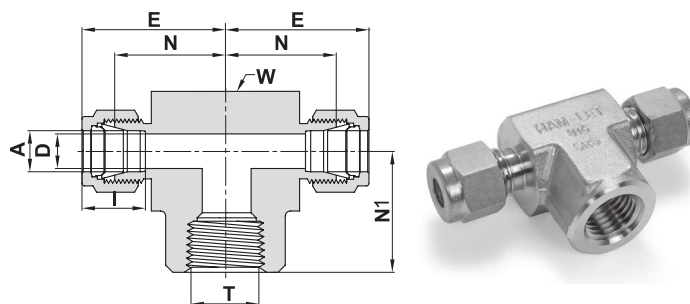
TUBE (INCH) TO ISO PARALLEL THREAD (POSITIONABLE)*

Ordering Information	A Tube O.D.		T (ISO)		D		W Wrench Flat		Wa Hex. Flat		N		E		E1		L		M		I		**O-ring
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	Dash No.
772LG SS 1/4 X 1/8 POS.	1/4	6.35	G-1/8-28		0.16	4.0	1/2	12.7	9/16	0.77	19.6	1.06	26.9	1.04	26.4	0.32	8.1	0.68	17.3	0.60	15.2		***
772LG SS 1/4 X 1/4 POS.	1/4	6.35	G-1/4-19		0.19	4.8	5/8	15.9	3/4	0.85	21.6	1.14	28.9	1.27	32.2	0.36	9.1	0.90	22.9	0.60	15.2		-111
772LG SS 3/8 X 1/4 POS.	3/8	9.52	G-1/4-19		0.23	5.9	5/8	15.9	3/4	0.91	23.1	1.20	30.5	1.27	32.2	0.36	9.1	0.90	22.9	0.66	16.8		-111

Reference Specifications:

DIN - ISO 228/1 ** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.
BS - 2779 *** Not standard O-ring size.
JIS - B0202 "D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.
ISO - 228/1-BSP-P

772 LF FEMALE BRANCH TEE



TUBE (METRIC) TO FEMALE NPT THREAD

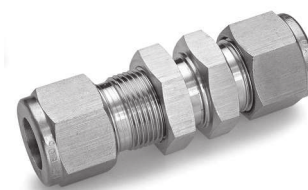
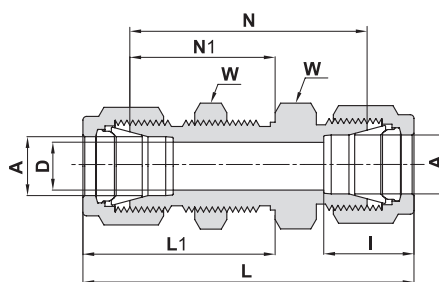
Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	mm	inch		mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
772LF _ 6 X 1/8	6	1/8	1/8	4.8	5/8	15.9	19.6	27.0	19.0	15.3					
772LF _ 6 X 1/4	6	1/4	1/4	4.8	13/16	20.6	22.4	29.8	22.4	15.3					
772LF _ 8 X 1/8	8	1/8	1/8	6.4	5/8	15.9	22.4	29.9	19.0	16.2					
772LF _ 8 X 1/4	8	1/4	1/4	6.4	13/16	20.6	23.1	30.6	22.4	16.2					
772LF _ 10 X 1/4	10	1/4	1/4	7.9	13/16	20.6	25.9	33.5	22.4	17.2					
772LF _ 10 X 3/8	10	3/8	3/8	7.9	15/16	23.8	25.9	33.5	22.4	17.2					
772LF _ 12 X 1/4	12	1/4	1/4	9.5	13/16	20.6	25.9	36.0	22.4	22.8					
772LF _ 12 X 3/8	12	3/8	3/8	9.5	15/16	23.8	25.9	36.0	22.4	22.8					
772LF _ 12 X 1/2	12	1/2	1/2	9.5	1 1/16	27.0	28.7	38.8	28.4	22.8					
772LF _ 16 X 1/2	16	1/2	1/2	12.7	1 1/16	27.0	28.7	38.8	28.4	24.4					

TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Wrench Flat		N		E		N1		I	
	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
772LF _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	5/8	15.9	.70	18.00	.97	24.64	.75	19.05	.50	12.7
772LF _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	5/8	15.9	.77	19.56	1.06	26.96	.75	19.05	.60	15.2
772LF _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	13/16	20.6	.88	22.35	1.17	29.71	.88	22.35	.60	15.2
772LF _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	13/16	20.6	.94	23.88	1.23	31.24	.88	22.35	.66	16.8
772LF _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	15/16	23.8	1.02	25.90	1.31	33.27	.88	22.35	.66	16.8
772LF _ 3/8 X 1/2	3/8	9.52	1/2	.28	7.11	1 1/16	27.0	1.13	28.70	1.42	36.07	1.12	28.45	.66	16.8
772LF _ 1/2 X 1/4	1/2	12.70	1/4	.41	10.41	13/16	20.6	1.02	25.90	1.42	36.07	.88	22.35	.90	22.9
772LF _ 1/2 X 3/8	1/2	12.70	3/8	.41	10.41	15/16	23.8	1.02	25.90	1.42	36.07	.88	22.35	.90	22.9
772LF _ 1/2 X 1/2	1/2	12.70	1/2	.41	10.41	1 1/16	27.0	1.13	28.70	1.53	38.86	1.12	28.45	.90	22.9
772LF _ 5/8 X 1/2	5/8	15.87	1/2	.50	12.70	1 1/16	27.0	1.13	28.70	1.53	38.86	1.12	28.44	.96	24.4
772LF _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.74	1 3/8	34.9	1.36	34.50	1.76	44.70	1.25	31.75	.96	24.4
772LF _ 1 X 3/4	1	25.4	3/4	.88	22.35	1 3/8	34.9	1.45	36.83	1.93	49.02	1.25	31.75	1.23	31.2
772LF _ 1 X 1	1	25.4	1	.88	22.35	1 11/16	42.9	1.63	41.40	2.11	53.60	1.50	38.10	1.23	31.2

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

774 L BULKHEAD UNION



TUBE (METRIC) TO TUBE (METRIC)

Ordering Information	A Tube O.D.	D	W Hex. Flat	N	N1	L	L1	I	Panel Hole Drill Size	Max. Panel thickness
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
774L _ 3	3	2.4	14	38.1	24.6	51.3	31.2	12.9	8.30	12.7
774L _ 4	4	2.4	14	40.4	25.4	53.6	32.0	13.7	9.90	12.7
774L _ 6	6	4.8	16	42.9	26.2	57.7	33.6	15.3	11.50	10.2
774L _ 8	8	6.4	18	46.0	28.6	61.0	36.1	16.2	13.10	11.2
774L _ 10	10	7.9	22	48.5	29.4	63.7	37.0	17.2	16.25	11.2
774L _ 12	12	9.5	24	50.8	31.8	71.0	41.9	22.8	19.50	12.7
774L _ 14	14	11.0	27	52.3	32.5	72.5	42.6	24.4	22.80	12.7
774L _ 15	15	11.9	27	52.3	32.5	72.5	42.6	24.4	22.80	12.7
774L _ 16	16	12.7	27	52.3	32.5	72.5	42.6	24.4	22.80	12.7
774L _ 18	18	15.1	30	58.7	37.3	78.9	47.4	24.4	26.00	16.8
774L _ 20	20	15.9	35	64.3	42.9	84.5	53.0	26.0	29.00	19.0
774L _ 25	25	21.8	41	71.4	45.2	96.0	57.5	31.3	33.70	19.0
774L _ 30	*30	26.2	50	80.5	48.6	123.7	70.2	39.6	40.5	19
774L _ 32	*32	28.6	50	82.3	49.5	128.3	72.5	42	42.5	19
774L _ 38	*38	33.7	60	89.8	51.9	145.0	79.5	49.4	50.50	19.0

TUBE (INCH) TO TUBE (INCH)

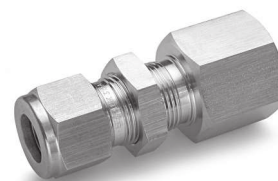
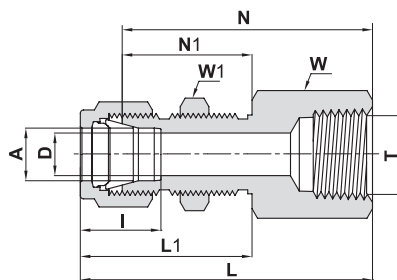
Ordering Information	A Tube O.D.		D		W Hex. Flat	N		N1		L		L1		I		Panel Hole Drill Size		Max. Panel thickness	
	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
774L _ 1/16	1/16	1.58	.05	1.27	5/16	.94	23.88	.53	13.46	1.24	31.5	.68	17.3	.34	8.6	13/64	5.16	.12	3.05
774L _ 1/8	1/8	3.17	.09	2.28	1/2	1.50	38.10	.97	24.63	2.02	51.30	1.23	31.24	.50	12.7	21/64	8.33	.50	12.70
774L _ 3/16	3/16	4.76	.12	3.04	9/16	1.59	40.38	1.00	25.40	2.11	53.59	1.26	32.00	.54	13.7	25/64	9.92	.50	12.70
774L _ 1/4	1/4	6.35	.19	4.82	5/8	1.69	42.92	1.03	26.16	2.27	57.65	1.32	33.52	.60	15.2	29/64	11.50	.40	10.16
774L _ 5/16	5/16	7.93	.25	6.35	11/16	1.81	45.97	1.12	28.44	2.39	60.70	1.41	35.81	.64	16.2	33/64	13.09	.44	11.17
774L _ 3/8	3/8	9.52	.28	7.11	3/4	1.87	47.5	1.16	29.46	2.45	62.2	1.45	36.83	.66	16.8	37/64	14.68	.44	11.17
774L _ 1/2	1/2	12.70	.41	10.41	15/16	2.00	50.80	1.25	31.75	2.80	71.12	1.65	41.91	.90	22.9	49/64	19.44	.50	12.70
774L _ 5/8	5/8	15.87	.50	12.70	1 1/16	2.06	52.32	1.28	32.51	2.86	72.64	1.68	42.67	.96	24.4	57/64	22.62	.50	12.70
774L _ 3/4	3/4	19.05	.62	15.75	1 3/16	2.31	58.67	1.47	37.33	3.11	78.99	1.87	47.49	.96	24.4	1 1/64	25.79	.66	16.76
774L _ 1	1	25.40	.88	22.35	1 5/8	2.81	71.37	1.78	45.21	3.77	95.76	2.26	57.40	1.23	31.2	1 21/64	33.73	.75	19.05
774L _ 1 1/4	*1 1/4	31.75	1.09	27.70	1 7/8	3.11	79.00	1.88	47.75	4.85	123.19	2.75	69.85	1.62	41.2	1 41/64	41.67	.75	19.05
774L _ 1 1/2	*1 1/2	38.10	1.34	34.00	2 1/4	3.34	84.80	1.94	49.28	5.48	139.19	3.01	76.45	1.97	50.0	1 61/64	49.61	.75	19.05
774L _ 2	*2	50.80	1.81	45.97	2 3/4	4.16	105.66	2.22	56.39	7.10	180.34	3.69	93.73	2.66	67.6	2 41/64	67.07	.75	19.05

* Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

774 LF

BULKHEAD FEMALE CONNECTOR



TUBE (METRIC) TO FEMALE NPT THREAD

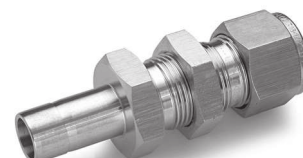
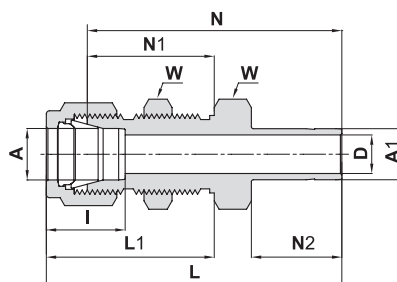
Ordering Information	A Tube O.D.		T (NPT)		D		W Hex. Flat		W1 Hex. Flat		N		N1		L		L1		I		Panel Hole Drill Size		Max. Panel thickness	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
774LF_6 X 1/4	6		1/4		4.8		19		16		44.4		26.2		51.8		33.6		15.3		11.5		10.2	
774LF_12 X 1/2	12		1/2		9.5		27		24		56.4		31.8		66.5		41.9		22.8		19.5		12.7	

TUBE (INCH) TO FEMALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)		D		W Hex. Flat		W1 Hex. Flat		N		N1		L		L1		I		Panel Hole Drill Size		Max. Panel thickness	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
774LF_1/8X1/8	1/8	3.17	1/8		.09	2.28	9/16		1/2		1.50	38.10	.97	24.63	1.76	44.70	1.23	31.24	.50	12.7	21/64	8.33	.50	12.70
774LF_1/4X1/8	1/4	6.35	1/8		.19	4.82	5/8		5/8		1.56	39.62	1.03	26.16	1.85	46.99	1.32	33.52	.60	15.2	29/64	11.50	.40	10.16
774LF_1/4X1/4	1/4	6.35	1/4		.19	4.82	3/4		5/8		1.75	44.45	1.03	26.16	2.04	51.81	1.32	33.52	.60	15.2	29/64	11.50	.40	10.16
774LF_3/8X1/4	3/8	9.52	1/4		.28	7.11	3/4		3/4		1.88	47.75	1.16	29.46	2.17	55.11	1.45	36.83	.66	16.8	37/64	14.68	.44	11.17
774LF_1/2X3/8	1/2	12.70	3/8		.41	10.41	15/16		15/16		2.03	51.56	1.25	31.75	2.43	61.72	1.65	41.91	.90	22.9	49/64	19.44	.50	12.70
774LF_1/2X1/2	1/2	12.70	1/2		.41	10.41	1 1/16		15/16		2.22	56.38	1.25	31.75	2.62	66.54	1.65	41.91	.90	22.9	49/64	19.44	.50	12.70

774 LT

BULKHEAD REDUCER



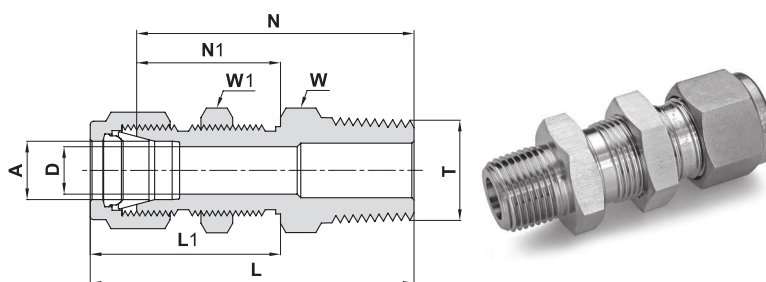
TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		D		W Hex. Flat		N		N1		N2		L		L1		I		Panel hole drill size		Max. Panel thickness	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
774LT_1/8X1/8	1/8	3.17	1/8		.08	2.03	1/2		1.69	42.92	.97	24.63	.53	13.46	1.95	49.53	1.23	31.24	.50	12.7	21/64	8.33	.50	12.70
774LT_1/4X1/4	1/4	6.35	1/4		.17	4.20	5/8		1.91	48.50	1.03	26.16	.62	15.74	2.20	55.88	1.32	33.52	.60	15.2	29/64	11.50	.40	10.16
774LT_3/8X3/8	3/8	9.52	3/8		.28	7.11	3/4		2.12	53.85	1.16	29.46	.69	17.52	2.41	61.21	1.45	36.83	.66	16.8	37/64	14.68	.44	11.17
774LT_1/2X1/2	1/2	12.7	1/2		.39	9.90	15/16		2.47	62.73	1.25	31.75	.91	23.11	2.87	72.89	1.65	41.91	.90	22.9	49/64	19.44	.50	12.70
774LT_5/8X5/8	5/8	15.87	5/8		.50	12.70	1 1/16		2.56	65.02	1.28	32.51	.97	24.64	2.96	75.18	1.68	42.67	.96	24.4	57/64	22.62	.50	12.70
774LT_3/4X3/4	3/4	19.05	3/4		.59	15.00	1 3/16		2.81	71.37	1.47	37.33	.97	24.64	3.21	81.53	1.87	47.49	.96	24.4	1 1/64	25.79	.66	16.76
774LT_1X1	1	25.40	1		.80	20.30	1 5/8		3.47	88.14	1.78	45.21	1.30	33.02	3.95	100.33	2.26	57.40	1.23	31.2	1 21/64	33.73	.75	19.05

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

774 LM

BULKHEAD MALE CONNECTOR



TUBE (METRIC) TO MALE NPT THREAD

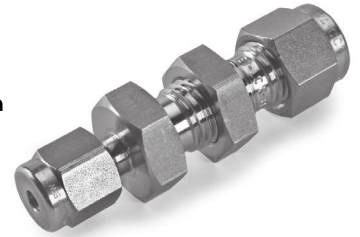
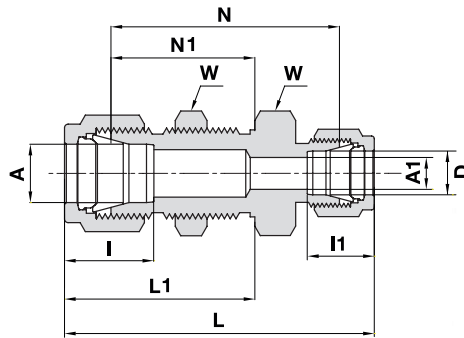
Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	W1 Hex. Flat	N		N1	L		L1	Panel Hole Drill Size		Max. Panel Thickness	
	mm	inch		mm	mm	mm	mm	mm	mm		mm	mm		mm	mm	mm	mm
774LM _ 6 X 1/8	6	1/8		4.8	16	16	16	42.2	26.2		49.6	33.6		11.5	10.2		
774LM _ 6 X 1/4	6	1/4		4.8	16	16	16	46.2	26.2		53.6	33.6		11.5	10.2		
774LM _ 12 X 1/2	12	1/2		9.5	24	24	24	58.7	31.8		68.8	41.9		19.5	12.7		

TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	W1 Hex. Flat	N		N1		L		L1		Panel Hole Drill Size		Max. Panel Thickness	
	inch	mm	inch	inch	mm	inch	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
774LM _ 1/8 X 1/8	1/8	3.17	1/8	.09	2.28	1/2	1/2	1.57	39.90	.97	24.60	1.83	46.48	1.23	31.24	21/64	8.33	.50	12.70
774LM _ 1/4 X 1/8	1/4	6.35	1/8	.19	4.82	5/8	5/8	1.66	42.20	1.03	26.20	1.95	49.53	1.32	33.52	29/64	11.50	.40	10.16
774LM _ 1/4 X 1/4	1/4	6.35	1/4	.19	4.82	5/8	5/8	1.84	46.70	1.03	26.16	2.13	54.10	1.32	33.52	29/64	11.50	.40	10.16
774LM _ 3/8 X 1/4	3/8	9.52	1/4	.28	7.11	3/4	3/4	1.97	50.00	1.16	29.46	2.26	57.40	1.45	36.83	37/64	14.68	.44	11.17
774LM _ 3/8 X 3/8	3/8	9.52	3/8	.28	7.11	3/4	3/4	1.97	50.04	1.16	29.46	2.26	57.40	1.45	36.83	37/64	14.68	.44	11.17
774LM _ 3/8 X 1/2	3/8	9.52	1/2	.28	7.11	7/8	3/4	2.22	56.39	1.16	29.46	2.51	63.75	1.45	36.83	37/64	14.68	.44	11.17
774LM _ 1/2 X 3/8	1/2	12.70	3/8	.40	10.40	15/16	15/16	2.09	53.10	1.25	31.75	2.49	83.25	1.65	41.91	49/64	19.44	.50	12.70
774LM _ 1/2 X 1/2	1/2	12.70	1/2	.40	10.40	15/16	15/16	2.31	58.70	1.25	31.70	2.71	68.83	1.65	41.91	49/64	19.44	.50	12.70
774LM _ 3/4 X 3/4	3/4	19.05	3/4	.62	15.74	1 3/16	1 3/16	2.60	66.04	1.47	37.33	3.00	76.20	1.87	47.49	1 1/64	25.79	.66	16.76
774LM _ 1 X 1	1	25.4	1	.88	22.35	1 5/8	1 5/8	3.19	81.02	1.78	45.21	3.67	93.21	2.26	57.40	1 21/64	33.73	.75	19.05

775 L

BULKHEAD REDUCING UNION



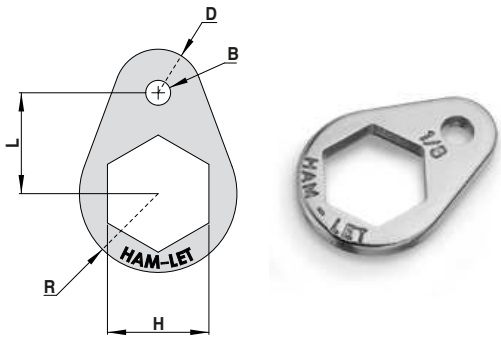
TUBE (METRIC) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		D		W Hex. Flat		N		N1		L		L1		I		I1		Panel Hole Drill Size		Max. Panel Thickness	
	mm	inch	mm	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
775L _ 6 X 1/8	6	1/8	2.4	1/8	2.4	16	41.1	26.2	55.1	33.6	15.3	12.7	11.5	10.2	11.5	10.2	11.5	10.2	11.5	10.2	11.5	10.2	11.5	10.2
775L _ 6 X 1/4	6	1/4	4.8	1/4	4.8	16	42.9	26.2	57.7	33.6	15.3	15.2	11.5	10.2	11.5	10.2	11.5	10.2	11.5	10.2	11.5	10.2	11.5	10.2
775L _ 12 X 1/2	12	1/2	9.5	1/2	9.5	24	50.8	31.8	71.1	41.9	22.8	22.9	19.5	12.7	19.5	12.7	19.5	12.7	19.5	12.7	19.5	12.7	19.5	12.7
775L _ 18 X 3/4	18	3/4	15.1	3/4	15.1	30	58.7	37.3	79.0	47.4	24.4	24.4	26.0	16.8	26.0	16.8	26.0	16.8	26.0	16.8	26.0	16.8	26.0	16.8

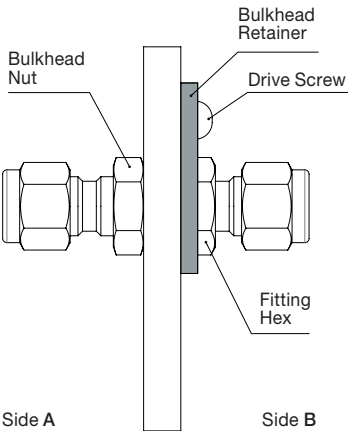
TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Tube O.D.		D		W Hex. Flat	N		N1		L		L1		I		I1		Panel Hole Drill Size		Max. Panel Thickness	
	inch	mm	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
775L _ 1/8 X 1/16	1/8	3.17	1/16	1.58	.05	1.27	1/2	1.44	36.57	.97	24.64	1.85	46.99	1.23	31.24	.50	12.7	.34	8.6	21/64	8.33	.50	12.70
775L _ 3/16 X 1/4	3/16	4.76	1/4	6.35	.12	3.04	9/16	1.62	41.15	1.00	25.40	2.17	55.12	1.26	32.00	.54	13.7	.60	15.2	25/64	9.92	.50	12.70
775L _ 1/4 X 1/8	1/4	6.35	1/8	3.17	.09	2.28	5/8	1.62	41.15	1.03	26.16	2.17	55.12	1.32	33.53	.60	15.2	.50	12.7	29/64	11.50	.40	10.16
775L _ 1/4 X 3/8	1/4	6.35	3/8	9.52	.19	4.82	5/8	1.74	44.20	1.03	26.16	2.61	66.29	1.32	33.53	.60	15.2	.66	16.8	29/64	11.50	.40	10.16
775L _ 3/8 X 1/4	3/8	9.52	1/4	6.35	.19	4.82	3/4	1.81	45.97	1.16	29.46	2.39	60.71	1.45	36.83	.66	16.8	.60	15.2	37/64	14.68	.44	11.17
775L _ 1/2 X 1/4	1/2	12.70	1/4	6.35	.19	4.82	15/16	1.94	49.28	1.25	31.75	2.63	66.80	1.65	41.91	.90	22.9	.60	15.2	49/64	19.44	.50	12.70
775L _ 1/2 X 5/8	1/2	12.70	5/8	15.87	.41	10.41	15/16	2.03	51.56	1.25	31.75	2.83	71.88	1.65	41.91	.90	22.9	.96	24.4	49/64	19.44	.50	12.70
775L _ 5/8 X 3/8	5/8	15.87	3/8	9.52	.28	7.11	1 1/16	2.06	52.32	1.28	32.51	2.75	69.85	1.68	42.67	.96	24.4	.66	16.8	57/64	22.62	.50	12.70

774 LSS
BULKHEAD RETAINER

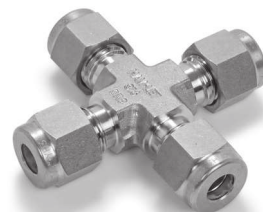
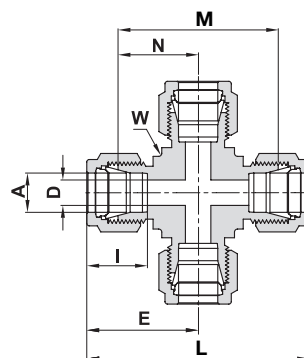


Ordering Information	Fitting Size		H	L	R	D	B	Drill Hole Size	Drill Screw Size
	inch	mm	inch	inch	inch	inch	inch	inch	mm
Bulkhead Retainer for 774L SS 1/8	1/8	-	1/2	1/2	13/32	7/32	5/32	0.12	3.5
Bulkhead Retainer for 774L SS 1/4-6	1/4	6	5/8	5/8	1/2	9/32	5/32	0.12	3.5
Bulkhead Retainer for 774L SS 3/8	3/8	-	3/4	3/4	5/8	11/32	5/32	0.12	3.5



Using Bulkhead Retainer installation can easily be performed by a single installer. The bulkhead retainer will hold the fixed body hex stationary, allowing the installer to tighten only the bulkhead lock nut.

7102 L UNION CROSS



ALL TUBES (METRIC)

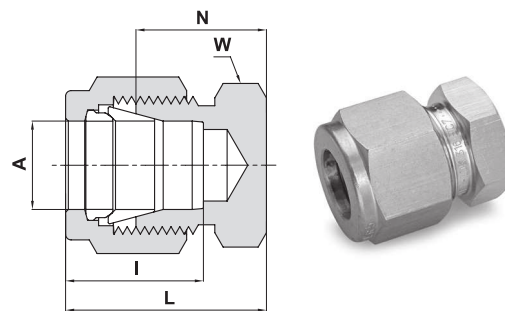
Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		M		L		I	
	mm		mm		inch	mm	mm		mm		mm		mm		mm	
7102L _ 3	3		2.4		3/8	9.5	15.7		22.3		31.5		44.7		12.9	
7102L _ 6	6		4.8		1/2	12.7	19.6		27.0		39.1		53.9		15.3	
7102L _ 8	8		6.4		5/8	15.9	22.4		29.9		44.7		59.7		16.2	
7102L _ 10	10		7.9		13/16	20.6	25.9		33.5		51.8		67.0		17.2	
7102L _ 12	12		9.5		13/16	20.6	25.9		36.0		51.8		72.0		22.8	
7102L _ 16	16		12.7		15/16	23.8	26.9		37.0		53.8		74.0		24.4	
7102L _ 18	18		15.1		1 1/16	27.0	28.2		38.3		56.4		76.6		24.4	
7102L _ 20	20		15.9		1 3/8	34.9	34.5		44.6		69.0		89.3		26.0	
7102L _ 22	22		18.3		1 3/8	34.9	34.6		44.7		69.1		89.4		26.0	
7102L _ 25	25		21.8		1 3/8	34.9	36.8		49.1		73.7		98.3		31.3	

ALL TUBES (INCH)

Ordering Information	A Tube O.D.		D		W Wrench Flat		N		E		M		L		I	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
7102L _ 1/8	1/8	3.17	.09	2.28	3/8	9.5	.62	15.74	.88	22.35	1.24	31.48	1.76	44.70	.50	12.7
7102L _ 1/4	1/4	6.35	.19	4.82	1/2	12.7	.77	19.56	1.06	26.92	1.54	39.12	2.12	53.84	.60	15.2
7102L _ 5/16	5/16	7.93	.25	6.35	5/8	15.9	.88	22.35	1.17	29.71	1.76	44.70	2.34	59.42	.64	16.2
7102L _ 3/8	3/8	9.52	.28	7.11	5/8	15.9	.91	23.11	1.20	30.48	1.82	46.22	2.40	60.96	.66	16.8
7102L _ 1/2	1/2	12.70	.41	10.41	13/16	20.6	1.02	25.9	1.42	36.07	2.04	51.80	2.84	72.14	.90	22.9
7102L _ 3/4	3/4	19.05	.62	15.74	1 1/16	27.0	1.17	29.72	1.57	39.88	2.34	59.44	3.14	79.76	.96	24.4
7102L _ 1	1	25.40	.88	22.35	1 3/8	34.9	1.45	36.8	1.93	49.02	2.90	73.60	3.86	98.04	1.23	31.2

"D" - Dimension is minimum opening. Dimensions are for reference only, and are subject to change without notice.

7108 L CAP



CAPPING END OF TUBE (METRIC)

Ordering Information	A Tube O.D.	W Hex. Flat	N	L	I
	mm	mm	mm	mm	mm
7108L _ 2	2	12	13.5	20.1	12.9
7108L _ 3	3	12	13.5	20.1	12.9
7108L _ 4	4	12	14.7	21.3	13.7
7108L _ 6	6	14	15.7	23.1	15.3
7108L _ 8	8	15	17.0	24.5	16.2
7108L _ 10	10	18	19.0	26.6	17.2
7108L _ 12	12	22	19.0	29.1	22.8
7108L _ 14	14	24	19.8	29.9	24.4
7108L _ 15	15	24	19.8	29.9	24.4
7108L _ 16	16	24	19.8	29.9	24.4
7108L _ 18	18	27	21.3	31.4	24.4
7108L _ 20	20	30	23.9	34.0	26.0
7108L _ 22	22	30	23.9	34.0	26.0
7108L _ 25	25	35	26.2	38.5	31.3
7108L _ 38	38*	55	37.8	65.4	49.4

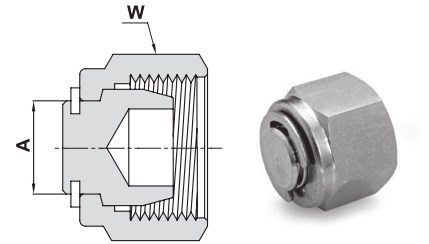
CAPPING END OF TUBE (INCH)

Ordering Information	A Tube O.D.		W Hex. Flat	N		L		I	
	inch	mm	inch	inch	mm	inch	mm	inch	mm
7108L _ 1/16	1/16	1.58	5/16	.44	11.17	.59	14.98	.34	8.6
7108L _ 1/8	1/8	3.17	7/16	.53	13.46	.79	20.06	.50	12.7
7108L _ 3/16	3/16	4.76	7/16	.58	14.73	.84	21.84	.54	13.7
7108L _ 1/4	1/4	6.35	1/2	.63	16.00	.92	23.37	.60	15.2
7108L _ 5/16	5/16	7.93	9/16	.67	17.01	.96	24.38	.64	16.2
7108L _ 3/8	3/8	9.52	5/8	.72	18.28	1.01	26.65	.66	16.8
7108L _ 1/2	1/2	12.70	13/16	.75	19.05	1.15	29.21	.90	22.9
7108L _ 5/8	5/8	15.87	15/16	.78	19.81	1.18	29.97	.96	24.4
7108L _ 3/4	3/4	19.05	1 1/16	.84	21.33	1.24	31.49	.96	24.4
7108L _ 7/8	7/8	22.22	1 3/16	.94	23.88	1.34	34.04	1.02	25.9
7108L _ 1	1	25.40	1 3/8	1.03	26.16	1.51	38.35	1.23	31.2
7108L _ 1 1/4	*1 1/4	31.75	1 3/4	1.23	31.24	2.10	53.34	1.62	41.2
7108L _ 1 1/2	*1 1/2	38.10	2 1/8	1.47	37.33	2.54	64.52	1.97	50.0
7108L _ 2	*2	50.80	2 3/4	1.94	49.28	3.41	86.61	2.66	67.6

* Including low friction paste, see page 97

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

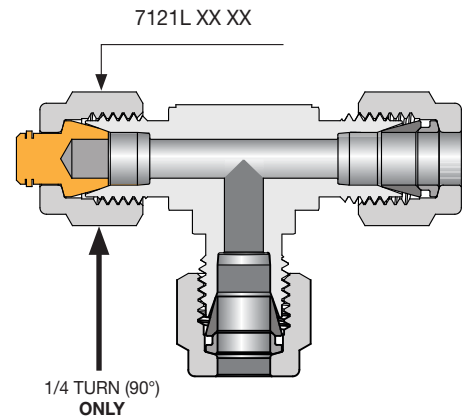
7121 L PLUG



METRIC

Ordering Information	A		W
	mm		Hex. Flat mm
7121L _ 2	2		14
7121L _ 3	3		12
7121L _ 4	4		12
7121L _ 6	6		14
7121L _ 8	8		16
7121L _ 10	10		19
7121L _ 12	12		22
7121L _ 14	14		25
7121L _ 15	15		25
7121L _ 16	16		25
7121L _ 18	18		30
7121L _ 20	20		32
7121L _ 22	22		32
7121L _ 25	25		38
7121L _ 38	*38		60
7121L _ 50	*50		3 inch

PLUG ASSEMBLY INSTRUCTIONS



INCH

Ordering Information	A		W
	inch	mm	Hex. Flat inch
7121L _ 1/16	1/16	1.58	5/16
7121L _ 1/8	1/8	3.17	7/16
7121L _ 3/16	3/16	4.76	1/2
7121L _ 1/4	1/4	6.35	9/16
7121L _ 5/16	5/16	7.93	5/8
7121L _ 3/8	3/8	9.52	11/16
7121L _ 1/2	1/2	12.70	7/8
7121L _ 5/8	5/8	15.87	1
7121L _ 3/4	3/4	19.05	1 1/8
7121L _ 7/8	7/8	22.22	1 1/4
7121L _ 1	1	25.40	1 1/2
7121L _ 1 1/4	*1 1/4	31.75	1 7/8
7121L _ 1 1/2	*1 1/2	38.10	2 1/4
7121L _ 2	*2	50.80	3 inch

* Including low friction paste, see page 97

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

7121 LANYARD

PLUG WITH LANYARD

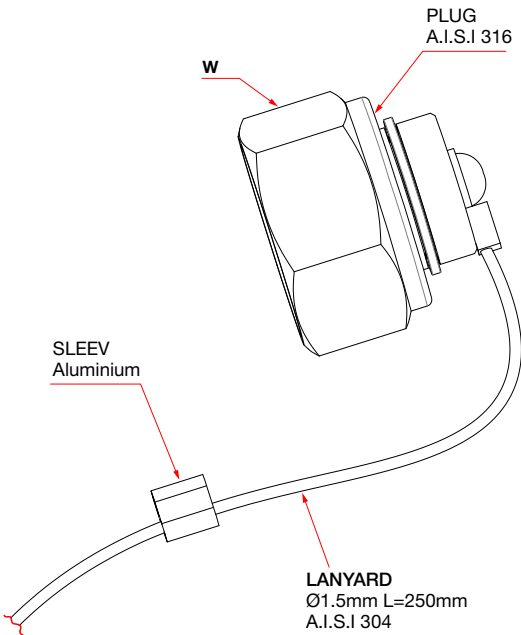
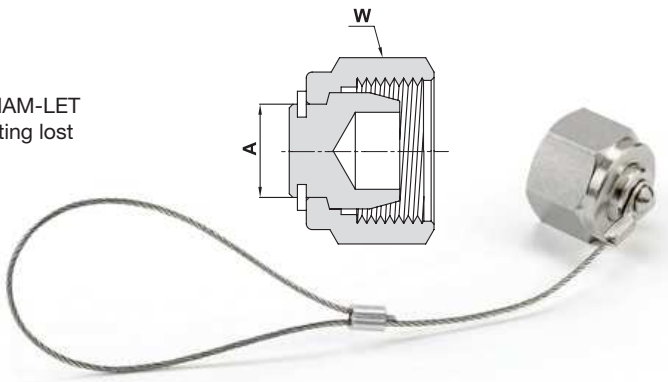
In order to secure the plug near by the system that need to plugged, HAM-LET can provide 7121L plug with securing wire that keep the plug from getting lost when its not in place and there is no need to take it with you.

METRIC

Ordering Information	W Hex Flat
	mm
7121L_3 Secur wire	12
7121L_4 Secur wire	12
7121L_6 Secur wire	14
7121L_8 Secur wire	16
7121L_10 Secur wire	19
7121L_12 Secur wire	22
7121L_14 Secur wire	25
7121L_15 Secur wire	25
7121L_16 Secur wire	25
7121L_18 Secur wire	30
7121L_20 Secur wire	32
7121L_22 Secur wire	32
7121L_25 Secur wire	38

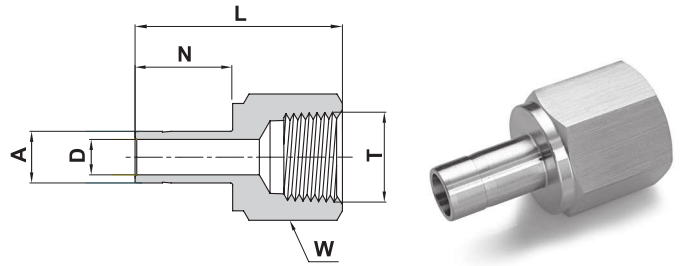
INCH

Ordering Information	W Hex Flat
	inch
7121L_1/8 Secur wire	7/16
7121L_3/16 Secur wire	1/2
7121L_1/4 Secur wire	9/16
7121L_5/16 Secur wire	5/8
7121L_3/8 Secur wire	11/16
7121L_1/2 Secur wire	7/8
7121L_5/8 Secur wire	1
7121L_3/4 Secur wire	1-1/8
7121L_7/8 Secur wire	1-1/4
7121L_1 Secur wire	1-1/2



739 LF

FEMALE ADAPTER TUBE TO PIPE



TUBE (METRIC) FEMALE PIPE

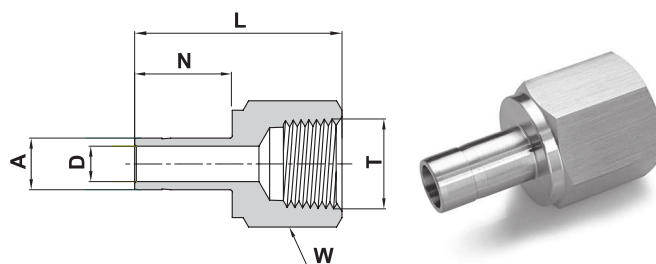
Ordering Information	A Tube O.D.	T (NPT)	D	W Hex. Flat	N	L
	mm	inch	mm	mm	mm	mm
739LF _ 3 X 1/8	3	1/8	2.1	14	13.5	31.5
739LF _ 3 X 1/4	3	1/4	2.1	19	13.5	35.3
739LF _ 4 X 1/4	4	1/4	2.2	19	14.2	35.0
739LF _ 6 X 1/8	6	1/8	4.0	14	15.7	32.5
739LF _ 6 X 1/4	6	1/4	4.0	19	15.7	37.1
739LF _ 6 X 3/8	6	3/8	4.0	22	15.7	39.6
739LF _ 6 X 1/2	6	1/2	4.0	27	15.7	45.5
739LF _ 8 X 1/8	8	1/8	5.6	14	16.8	34.3
739LF _ 8 X 1/4	8	1/4	5.6	19	16.8	37.6
739LF _ 8 X 1/2	8	1/2	5.6	27	16.8	46.0
739LF _ 10 X 1/4	10	1/4	7.1	19	17.5	38.1
739LF _ 10 X 3/8	10	3/8	7.1	22	17.5	40.1
739LF _ 10 X 1/2	10	1/2	7.1	27	17.5	46.5
739LF _ 12 X 1/4	12	1/4	8.8	19	23.1	43.4
739LF _ 12 X 3/8	12	3/8	8.8	22	23.1	45.5
739LF _ 12 X 1/2	12	1/2	8.8	27	23.1	52.3
739LF _ 16 X 3/8	16	3/8	12.7	24	24.7	48.0
739LF _ 16 X 1/2	16	1/2	12.7	27	24.7	53.1
739LF _ 20 X 1/2	20	1/2	15.1	27	26.6	56.0
739LF _ 20 X 3/4	20	3/4	15.1	35	26.6	56.0

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

Cont'd next page

739 LF

FEMALE ADAPTER TUBE TO PIPE (Cont'd)

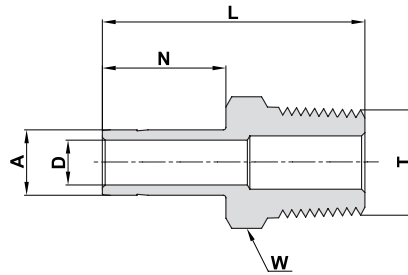


TUBE (INCH) FEMALE PIPE

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L	
	inch	mm		inch	mm		inch	mm	inch	mm
739LF _ 1/8 X 1/8	1/8	3.17	1/8	.08	2.0	9/16	.53	13.45	1.24	31.5
739LF _ 1/8 X 1/4	1/8	3.17	1/4	.08	2.0	3/4	.53	13.45	1.39	35.3
739LF _ 3/16 X 1/4	3/16	4.76	1/4	.12	3.0	3/4	.56	14.20	1.41	35.8
739LF _ 1/4 X 1/8	1/4	6.35	1/8	.17	4.2	9/16	.62	15.75	1.30	33.0
739LF _ 1/4 X 1/4	1/4	6.35	1/4	.17	4.2	3/4	.62	15.75	1.46	37.1
739LF _ 1/4 X 3/8	1/4	6.35	3/8	.17	4.2	7/8	.62	15.75	1.55	39.4
739LF _ 1/4 X 1/2	1/4	6.35	1/2	.17	4.2	1 1/16	.62	15.75	1.79	45.5
739LF _ 5/16 X 1/4	5/16	7.93	1/4	.22	5.6	3/4	.66	16.75	1.48	37.6
739LF _ 3/8 X 1/8	3/8	9.52	1/8	.27	6.9	9/16	.69	17.50	1.35	34.3
739LF _ 3/8 X 1/4	3/8	9.52	1/4	.27	6.9	3/4	.69	17.50	1.50	38.1
739LF _ 3/8 X 3/8	3/8	9.52	3/8	.27	6.9	7/8	.69	17.50	1.59	40.4
739LF _ 3/8 X 1/2	3/8	9.52	1/2	.27	6.9	1 1/16	.69	17.50	1.84	46.7
739LF _ 1/2 X 1/4	1/2	12.70	1/4	.37	9.4	3/4	.91	23.10	1.71	43.4
739LF _ 1/2 X 3/8	1/2	12.70	3/8	.37	9.4	7/8	.91	23.10	1.79	45.5
739LF _ 1/2 X 1/2	1/2	12.70	1/2	.37	9.4	1 1/16	.91	23.10	2.05	52.1
739LF _ 5/8 X 1/2	5/8	15.87	1/2	.50	12.7	1 1/16	.97	24.65	2.09	53.1
739LF _ 3/4 X 1/2	3/4	19.05	1/2	.59	15.0	1 1/16	.97	24.65	2.08	52.8
739LF _ 3/4 X 3/4	3/4	19.05	3/4	.59	15.0	1 5/16	.97	24.65	2.16	54.9
739LF _ 3/4 X 1	3/4	19.05	1	.59	15.0	1 5/8	.97	24.65	2.30	58.4
739LF _ 1 X 3/4	1	25.40	3/4	.80	20.3	1 5/16	1.23	31.20	2.39	60.7
739LF _ 1 X 1	1	25.40	1	.80	20.3	1 5/8	1.23	31.20	2.53	64.3
739LF _ 1 1/4 X 1 1/4	* 1 1/4	31.75	1 1/4	1.02	25.9	2 1/8	1.73	43.82	3.06	77.7
739LF _ 1 1/2 X 1 1/2	* 1 1/2	38.10	1 1/2	1.25	31.8	2 3/8	2.14	54.33	3.50	88.9

* Supplied assembled with Nut and Ferrules. Including low friction paste, see page 97

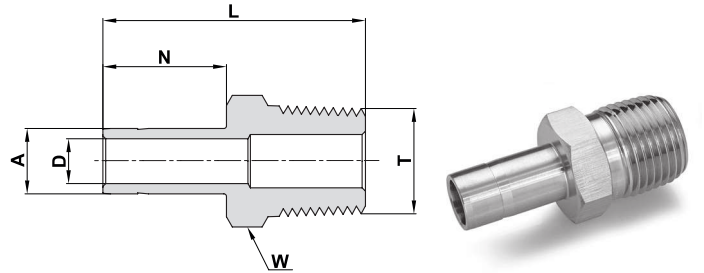
“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

739 LM**MALE ADAPTER
TUBE TO PIPE****TUBE (METRIC) MALE PIPE**

Ordering Information	A Tube O.D.	T (NPT)	D	W Hex. Flat	N	L
	mm	inch	mm	mm	mm	mm
739LM _ 3 X 1/8	3	1/8	2.1	12	13.5	30.0
739LM _ 3 X 1/4	3	1/4	2.1	14	13.5	35.3
739LM _ 6 X 1/8	6	1/8	4.0	12	15.7	32.8
739LM _ 6 X 1/4	6	1/4	4.0	14	15.7	38.1
739LM _ 6 X 3/8	6	3/8	4.0	18	15.7	37.0
739LM _ 6 X 1/2	6	1/2	4.0	22	15.7	43.4
739LM _ 8 X 1/8	8	1/8	4.8	12	16.8	33.5
739LM _ 8 X 1/4	8	1/4	5.6	14	16.8	39.1
739LM _ 8 X 3/8	8	3/8	5.6	11/16 inch	16.8	37.8
739LM _ 8 X 1/2	8	1/2	5.6	22	16.8	43.0
739LM _ 10 X 1/4	10	1/4	7.1	9/16 inch	17.5	39.9
739LM _ 10 X 3/8	10	3/8	7.1	18	17.5	40.6
739LM _ 10 X 1/2	10	1/2	7.1	22	17.5	46.2
739LM _ 12 X 1/4	12	1/4	7.1	16	23.1	46.5
739LM _ 12 X 3/8	12	3/8	8.8	18	23.1	46.5
739LM _ 12 X 1/2	12	1/2	8.8	22	23.1	52.0
739LM _ 16 X 1/2	16	1/2	11.9	22	24.7	50.5
739LM _ 20 X 3/4	20	3/4	15.1	27	26.6	54.3

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

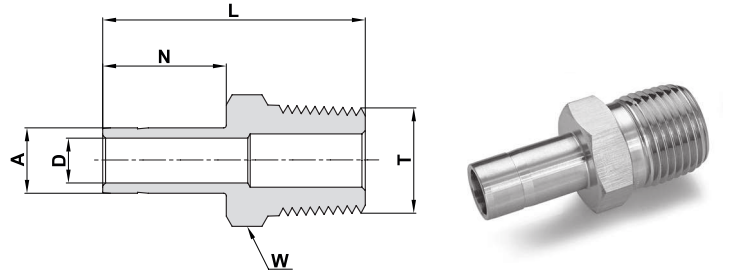
Cont'd next page

739 LM**MALE ADAPTER
TUBE TO PIPE** (Cont'd)**TUBE (INCH) MALE PIPE**

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	N		L	
	inch	mm	inch	inch	mm	inch	inch	mm	inch	mm
739LM _ 1/8 X 1/8	1/8	3.17	1/8	.08	2.0	7/16	.53	13.45	1.16	29.5
739LM _ 1/8 X 1/4	1/8	3.17	1/4	.08	2.0	9/16	.53	13.45	1.37	34.8
739LM _ 3/16 X 1/8	3/16	4.76	1/8	.12	3.0	7/16	.56	14.20	1.19	30.2
739LM _ 3/16 X 1/4	3/16	4.76	1/4	.12	3.0	9/16	.56	14.20	1.40	35.6
739LM _ 1/4 X 1/8	1/4	6.35	1/8	.17	4.2	7/16	.62	15.75	1.25	31.8
739LM _ 1/4 X 1/4	1/4	6.35	1/4	.17	4.2	9/16	.62	15.75	1.46	37.1
739LM _ 1/4 X 3/8	1/4	6.35	3/8	.17	4.2	11/16	.62	15.75	1.49	37.9
739LM _ 1/4 X 1/2	1/4	6.35	1/2	.17	4.2	7/8	.62	15.75	1.71	43.4
739LM _ 5/16 X 1/8	5/16	7.93	1/8	.22	5.6	7/16	.66	16.75	1.29	32.7
739LM _ 5/16 X 1/4	5/16	7.93	1/4	.22	5.6	9/16	.66	16.75	1.50	38.1
739LM _ 3/8 X 1/8	3/8	9.52	1/8	.27	6.9	7/16	.69	17.50	1.32	33.5
739LM _ 3/8 X 1/4	3/8	9.52	1/4	.27	6.9	9/16	.69	17.50	1.53	38.9
739LM _ 3/8 X 3/8	3/8	9.52	3/8	.27	6.9	11/16	.69	17.50	1.56	39.6
739LM _ 3/8 X 1/2	3/8	9.52	1/2	.27	6.9	7/8	.69	17.50	1.78	45.2
739LM _ 1/2 X 1/4	1/2	12.70	1/4	.28	7.1	9/16	.91	23.10	1.75	44.5
739LM _ 1/2 X 3/8	1/2	12.70	3/8	.37	9.4	11/16	.91	23.10	1.78	45.2
739LM _ 1/2 X 1/2	1/2	12.70	1/2	.37	9.4	7/8	.91	23.10	2.0	50.8
739LM _ 5/8 X 3/8	5/8	15.87	3/8	.37	9.5	11/16	.97	24.65	1.81	47.6
739LM _ 5/8 X 1/2	5/8	15.87	1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
739LM _ 5/8 X 3/4	5/8	15.87	3/4	.50	12.7	1 1/16	.97	24.65	2.06	52.3
739LM _ 3/4 X 1/2	3/4	19.05	1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
739LM _ 3/4 X 3/4	3/4	19.05	3/4	.59	15.0	1 1/16	.97	24.65	2.06	52.3
739LM _ 3/4 X 1	3/4	19.05	1	.59	15.0	1 3/8	.97	24.65	2.28	57.3
739LM _ 7/8 X 3/4	7/8	22.22	3/4	.60	15.9	1 1/16	1.05	26.60	2.09	54.3
739LM _ 1 X 3/4	1	25.40	3/4	.60	15.8	1 1/16	1.30	33.00	2.31	58.7
739LM _ 1 X 1	1	25.40	1	.80	20.3	1 3/8	1.30	33.00	2.60	66.0
739LM _ 1 1/4 X 1 1/4	* 1 1/4	31.75	1 1/4	1.02	25.9	1 3/4	1.73	43.82	3.16	80.3
739LM _ 1 1/2 X 1 1/2	* 1 1/2	38.10	1 1/2	1.25	31.6	2 1/8	2.14	54.33	3.72	94.5

* Supplied assembled with Nut and Ferrules. Including low friction paste, see page 97

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

739 LMR**MALE ADAPTER
TUBE TO PIPE****TUBE (METRIC) MALE PIPE**

Ordering Information	A Tube O.D.	T (ISO)	D	W Hex. Flat	N	L
	mm	inch	mm	mm	mm	mm
739LMR _ 6 X 1/8	6	R-1/8	4.0	12	15.7	32.8
739LMR _ 6 X 1/4	6	R-1/4	4.0	14	15.7	38.1
739LMR _ 6 X 1/2	6	R-1/2	4.0	22	15.7	43.4
739LMR _ 8 X 1/8	8	R-1/8	4.8	12	16.8	33.5
739LMR _ 8 X 1/4	8	R-1/4	5.6	14	16.8	39.1
739LMR _ 8 X 3/8	8	R-3/8	5.6	11/16 inch	16.8	37.8
739LMR _ 10 X 1/4	10	R-1/4	7.1	14	17.5	39.9
739LMR _ 10 X 3/8	10	R-3/8	7.1	18	17.5	40.6
739LMR _ 10 X 1/2	10	R-1/2	7.1	22	17.5	46.2
739LMR _ 12 X 1/4	12	R-1/4	7.1	16	23.1	46.5
739LMR _ 12 X 3/8	12	R-3/8	8.8	18	23.1	46.2
739LMR _ 12 X 1/2	12	R-1/2	8.8	22	23.1	52.0
739LMR _ 20 X 3/4	20	R-3/4	15.1	27	26.6	54.3

TUBE (INCH) MALE PIPE

Ordering Information	A Tube O.D.		T (ISO)	D		W Hex. Flat	N		L	
	inch	mm	inch	inch	mm	inch	inch	mm	inch	mm
739LMR _ 1/8 X 1/8	1/8	3.17	R-1/8	.08	2.0	7/16	.53	13.45	1.16	29.5
739LMR _ 1/8 X 1/4	1/8	3.17	R-1/4	.08	2.0	9/16	.53	13.45	1.37	34.8
739LMR _ 1/4 X 1/8	1/4	6.35	R-1/8	.17	4.2	7/16	.62	15.75	1.25	31.8
739LMR _ 1/4 X 1/4	1/4	6.35	R-1/4	.17	4.2	9/16	.62	15.75	1.46	37.1
739LMR _ 1/4 X 3/8	1/4	6.35	R-3/8	.17	4.2	11/16	.62	15.75	1.49	37.9
739LMR _ 1/4 X 1/2	1/4	6.35	R-1/2	.17	4.2	7/8	.62	15.75	1.71	43.4
739LMR _ 3/8 X 1/4	3/8	9.52	R-1/4	.27	6.9	9/16	.69	17.50	1.53	38.9
739LMR _ 3/8 X 3/8	3/8	9.52	R-3/8	.27	6.9	11/16	.69	17.50	1.56	39.6
739LMR _ 3/8 X 1/2	3/8	9.52	R-1/2	.27	6.9	7/8	.69	17.50	1.78	45.2
739LMR _ 1/2 X 1/4	1/2	12.70	R-1/4	.28	7.1	9/16	.91	23.10	1.75	44.5
739LMR _ 1/2 X 3/8	1/2	12.70	R-3/8	.37	9.4	11/16	.91	23.10	1.78	45.2
739LMR _ 1/2 X 1/2	1/2	12.70	R-1/2	.37	9.4	7/8	.91	23.10	2.00	50.8
739LMR _ 5/8 X 1/2	5/8	15.87	R-1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
739LMR _ 3/4 X 1/2	3/4	19.05	R-1/2	.47	11.9	7/8	.97	24.65	2.06	52.3
739LMR _ 3/4 X 3/4	3/4	19.05	R-3/4	.59	15.0	1 1/16	.97	24.65	2.06	52.3
739LMR _ 1 X 1	1	25.40	R-1	.80	20.3	1 3/8	1.30	33.00	2.60	66.0

Reference Specifications:

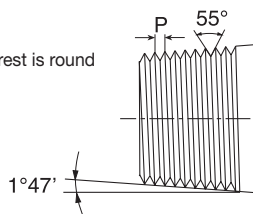
DIN - ISO 2999

BS - 21JIS - B0203ISO - 7/1-BSP-T

Designation:

Marking LR on Hex

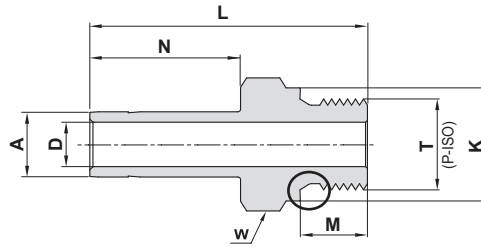
55° Thread angle
Truncation of root and crest is round
Taper angle 1°47'



"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

739 LMG

MALE ADAPTER TUBE TO PIPE

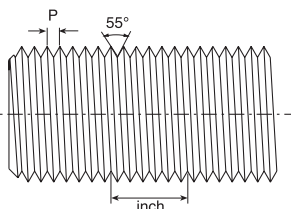


TUBE (METRIC) TO ISO PARALLEL THREAD

Ordering Information	A Tube O.D.	T (ISO)	D	K	W Hex. Flat	N	M	L
	mm	inch	mm	mm	mm	mm	mm	mm
739LMG _ 6 X 1/8	6	G-1/8	4.0	13.8	9/16	15.7	7.1	30.4
739LMG _ 6 X 1/4	6	G-1/4	4.0	18.0	19	15.7	11.2	38.9
739LMG _ 8 X 1/4	8	G-1/4	5.6	18.0	19	16.8	11.2	40.1
739LMG _ 10 X 1/4	10	G-1/4	5.9	18.0	19	17.5	11.2	40.9
739LMG _ 10 X 3/8	10	G-3/8	7.1	21.8	22	17.5	11.2	41.7
739LMG _ 10 X 1/2	10	G-1/2	7.1	26.0	27	17.5	14.2	44.7
739LMG _ 12 X 1/4	12	G-1/4	6.4	18.0	19	23.1	11.2	47.0
739LMG _ 12 X 3/8	12	G-3/8	7.9	21.8	22	23.1	11.2	47.2
739LMG _ 12 X 1/2	12	G-1/2	8.8	26.0	27	23.1	14.2	50.5
739LMG _ 18 X 1/2	18	G-1/2	11.9	26.0	27	24.6	14.2	51.3
739LMG _ 18 X 3/4	18	G-3/4	13.9	32.0	35	24.6	15.7	55.9
739LMG _ 38 X 1 1/2	38	G-1 1/2	31.6	54.7	55	52.8	22.1	91.9

TUBE (INCH) TO ISO PARALLEL THREAD

Ordering Information	A Tube O.D.		T (ISO)	D		K		W Hex. Flat	N		M		L	
	inch	mm	inch	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm
739LMG _ 1/8 X 1/8	1/8	3.17	G-1/8	.08	2.0	.54	13.8	9/16	.53	13.45	.28	7.1	1.22	31.0
739LMG _ 1/8 X 1/4	1/8	6.35	G-1/4	.08	2.0	.71	18.0	3/4	.53	13.45	.44	11.2	1.41	35.8
739LMG _ 1/4 X 1/8	1/4	3.17	G-1/8	.16	4.0	.54	13.8	9/16	.62	15.75	.28	7.1	1.20	30.5
739LMG _ 1/4 X 1/4	1/4	6.35	G-1/4	.17	4.2	.71	18.0	3/4	.62	15.75	.44	11.2	1.42	36.0
739LMG _ 3/8 X 1/4	3/8	6.35	G-1/4	.23	5.8	.71	18.0	3/4	.69	17.50	.44	11.2	1.57	39.9
739LMG _ 3/8 X 3/8	3/8	9.52	G-3/8	.27	6.9	.86	21.8	7/8	.69	17.50	.44	11.2	1.60	40.6
739LMG _ 1/2 X 1/4	1/2	6.35	G-1/4	.23	5.8	.71	18.0	3/4	.91	23.10	.44	11.2	1.85	47.0
739LMG _ 1/2 X 3/8	1/2	9.52	G-3/8	.31	7.9	.86	21.8	7/8	.91	23.10	.44	11.2	1.88	47.7
739LMG _ 1/2 X 1/2	1/2	12.70	G-1/2	.37	9.4	1.02	26.0	1 1/16	.91	23.10	.56	14.2	1.96	49.8
739LMG _ 3/4 X 3/4	3/4	19.05	G-3/4	.59	15.0	1.26	32.0	1 5/16	.97	24.65	.62	15.7	2.16	54.9
739LMG _ 1 X 1	1	25.40	G-1	.78	19.8	1.54	39.0	1 5/8	1.23	31.20	.72	18.3	2.59	65.8



Reference Specifications:

Designation:

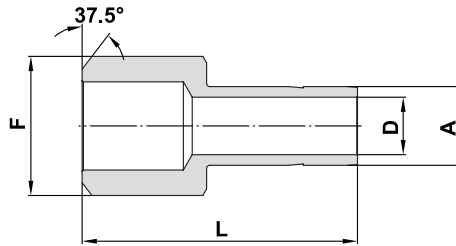
Marking LG on Hex.

* Including low friction paste, See page 97.

"D" - Dimension is minimum opening.

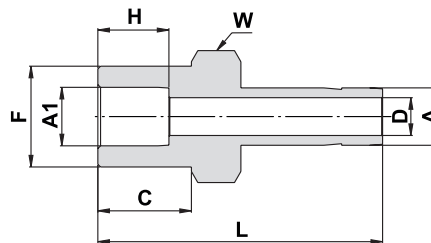
Dimensions are for reference only, and are subject to change without notice.

For Parallel Threads Sealing, see page 81

739 LN**WELD ADAPTER
TUBE TO PIPE**

TUBE (INCH)

Ordering Information	A Tube O.D.		F Pipe Size		D		L	
	inch	mm	inch	mm	inch	mm	inch	mm
739LN _ 1/4 X 1/4	1/4	6.35	1/4	13.70	.17	4.20	1.14	28.96
739LN _ 3/8 X 1/2	3/8	9.52	1/2	21.34	.27	6.85	1.46	37.08
739LN _ 1/2 X 1/2	1/2	12.7	1/2	21.34	.37	9.40	1.66	42.15
739LN _ 1/2 X 3/4	1/2	12.7	3/4	26.67	.37	9.40	1.68	42.67
739LN _ 3/4 X 3/4	3/4	19.05	3/4	26.67	.59	15.00	1.87	47.50

739 LW**SOCKET WELD
ADAPTER**

TUBE (METRIC) TO TUBE (INCH)

Ordering Information	A Tube O.D.	A1 Pipe Size	C	D	W	F	H	L
	mm	inch	mm	mm	inch	mm	mm	mm
739LW _ 6 X 1/4	6	1/4	10.4	4.0	1/2	11.2	7.9	31.7
739LW _ 10 X 1/4	10	1/4	10.4	4.8	9/16	11.2	7.9	34.0
739LW _ 10 X 3/8	10	3/8	11.9	7.1	5/8	15.8	9.7	36.0

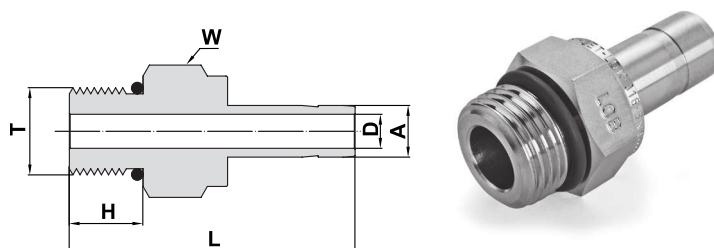
TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		A1 Pipe Size		C		D		W		F		H		L	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
739LW _ 1/4 X 1/4	1/4	6.35	1/4	6.35	.41	10.41	.17	4.20	1/2	12.7	.44	11.18	.31	7.90	1.25	31.70
739LW _ 3/8 X 3/8	3/8	9.52	3/8	9.52	.47	11.94	.28	7.11	5/8	15.9	.62	15.75	.38	9.65	1.42	36.70
739LW _ 1/2 X 1/2	1/2	12.7	1/2	12.7	.47	11.94	.39	9.91	13/16	20.6	.75	19.05	.50	12.7	1.67	42.42

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

739 LMOB

MALE ADAPTER



TUBE (INCH) TO SAE/MS STRAIGHT THREAD BOSS***

Ordering Information	A Tube O.D.		T Straight Thread UN	D		W		H		L		**O-Ring
	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	
739LMOB _ 1/8 X 5/16-24	1/8	3.18	5/16-24	.08	2.03	7/16	11.1	.30	7.62	1.20	30.48	-902
739LMOB _ 1/4 X 7/16-20	1/4	6.35	7/16-20	.17	4.20	9/16	14.3	.36	9.14	1.39	35.3	-904
739LMOB _ 1/4 X 9/16-18	1/4	6.35	9/16-18	.17	4.20	11/16	17.5	.39	9.90	1.42	36.07	-906
739LMOB _ 3/8 X 7/16-20	3/8	9.52	7/16-20	.20	5.10	9/16	14.3	.36	9.14	1.46	37.08	-904
739LMOB _ 3/8 X 9/16-18	3/8	9.52	9/16-18	.27	6.85	11/16	17.5	.39	9.90	1.52	38.61	-906
739LMOB _ 3/8 X 3/4-16	3/8	9.52	3/4-16	.27	6.85	7/8	22.2	.44	11.17	1.60	40.64	-908
739LMOB _ 1/2 X 9/16-18	1/2	12.7	9/16-18	.28	7.11	11/16	17.5	.39	9.90	1.74	44.20	-906
739LMOB _ 1/2 X 3/4-16	1/2	12.7	3/4-16	.37	9.40	7/8	22.2	.44	11.17	1.82	46.23	-908
739LMOB _ 5/8 X 7/8-14	5/8	15.87	7/8-14	.47	11.94	1	25.4	.50	12.70	1.94	49.28	-910
739LMOB _ 3/4 X 1 1/16-12	3/4	19.05	1 1/16-12	.59	15.00	1 1/4	31.8	.59	14.98	2.10	53.34	-912
739LMOB _ 1 X 1 5/16-12	1	25.40	1 5/16-12	.80	20.32	1 1/2	38.1	.59	14.98	2.41	61.21	-916
739LMOB _ 1 1/4 X 1 5/8-12	* 1 1/4	31.75	1 5/8-12	1.02	26.00	1 7/8	47.6	.59	15.10	2.81	71.37	-920
739LMOB _ 1 1/2 X 1 7/8-12	* 1 1/2	38.10	1 7/8-12	1.25	31.60	2 1/8	54.0	.59	15.10	3.28	83.31	-924

Designation: Marking LOB on Hex.

*** Per SAE J1926 and MS 16142. See page 49 for mounting dimensions.

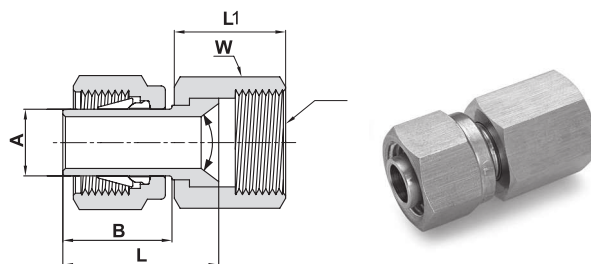
** Standard O-rings materials are Fluorocarbon FKM 90 Durometer. Other O-ring materials are available upon request.

* Supplied assembled with Nut + Front and Back Ferrule. Including low friction paste, see page 97.

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

761 LFL

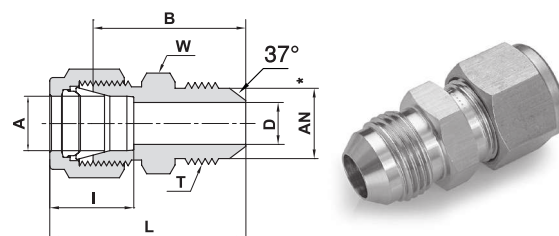
LET-LOK® TO AN ADAPTER



Ordering Information	A Tube O.D.		AN* Tube Flare Size		W Hex. Flat	L		L1		B	
	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm
761LFL _ 1/8 X 1/8	1/8	3.17	1/8	3.17	3/8	.75	19.05	.54	13.71	.53	13.46
761LFL _ 1/8 X 1/4	1/8	3.17	1/4	6.35	9/16	.75	19.05	.61	15.50	.53	13.46
761LFL _ 1/4 X 1/4	1/4	6.35	1/4	6.35	9/16	.84	21.33	.61	15.50	.62	15.75
761LFL _ 3/8 X 3/8	3/8	9.52	3/8	9.52	11/16	.98	24.89	.72	18.30	.69	17.53
761LFL _ 1/2 X 1/2	1/2	12.70	1/2	12.70	7/8	1.25	31.75	.84	21.30	.91	23.11

762 LFL

LET-LOK® TO AN UNION

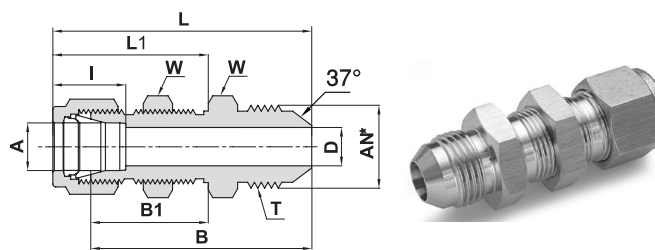


TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		AN* Tube Flare size		D		W Hex. Flat	B		L		I		T Straight Thread
	inch	mm	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm	
762LFL _ 1/16 X 1/8	1/16	1.58	1/8	3.17	.05	1.27	7/16	.92	23.36	1.07	27.18	.34	8.6	5/16-24
762LFL _ 1/8 X 1/8	1/8	3.17	1/8	3.17	.06	1.52	7/16	1.01	25.65	1.27	32.26	.50	12.7	5/16-24
762LFL _ 1/8 X 1/4	1/8	3.17	1/4	6.35	.09	2.28	1/2	1.12	28.44	1.38	35.05	.50	12.7	7/16-20
762LFL _ 1/4 X 1/4	1/4	6.35	1/4	6.35	.17	4.31	1/2	1.19	30.22	1.48	37.59	.60	15.2	7/16-20
762LFL _ 3/8 X 1/4	3/8	9.52	1/4	6.35	.17	4.31	5/8	1.27	32.25	1.56	39.62	.66	16.8	7/16-20
762LFL _ 3/8 X 3/8	3/8	9.52	3/8	9.52	.28	7.11	5/8	1.27	32.25	1.56	39.62	.66	16.8	9/16-18
762LFL _ 1/2 X 1/2	1/2	12.70	1/2	12.70	.39	9.90	13/16	1.41	35.8	1.81	45.96	.90	22.9	3/4-16
762LFL _ 3/4 X 3/4	3/4	19.05	3/4	19.05	.61	15.49	1 1/8	1.70	43.18	2.10	53.34	.96	24.4	1 1/16-12
762LFL _ 1 X 1	1	25.40	1	25.40	.84	21.34	1 3/8	1.94	49.28	2.42	61.47	1.23	31.2	1 5/16-12

774 LFL

LET-LOK® TO AN BULKHEAD UNION



TUBE (INCH) TO TUBE (INCH)

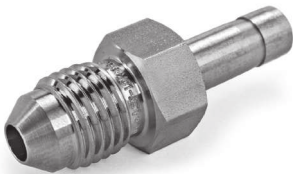
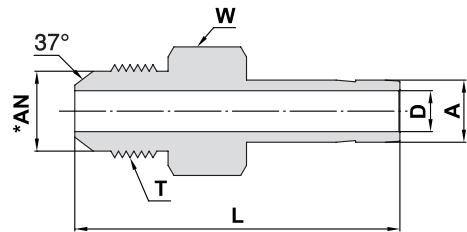
Ordering Information	A Tube O.D.		AN* Tube Flare size		D		W Hex. Flat		B		B1		L		L1		T Straight Thread	Panel hole drill size		Max. panel thickness		I	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	inch	mm	inch	mm	inch	mm
774LFL _ 1/4 X 1/4	1/4	6.35	1/4	6.35	.17	4.30	5/8	15.9	1.83	46.48	1.03	26.16	2.12	53.84	1.32	33.52	7/16-20	29/64	11.50	.40	10.16	.60	15.2
774LFL _ 3/8 X 3/8	3/8	9.52	3/8	9.52	.28	7.11	3/4	19.1	1.96	49.78	1.16	29.46	2.25	57.15	1.45	36.83	9/16-18	37/64	14.68	.44	11.17	.66	16.8
774LFL _ 1/2 X 1/2	1/2	12.70	1/2	12.70	.39	9.90	15/16	23.8	2.19	55.63	1.25	31.75	2.59	65.79	1.65	41.91	3/4-16	49/64	19.45	.50	12.70	.90	22.9
774LFL _ 3/4 X 3/4	3/4	19.05	3/4	19.05	.61	15.49	1 3/16	30.2	2.71	68.83	1.47	37.34	3.11	78.99	1.87	47.50	1 1/16-12	1 1/64	25.80	.66	16.76	.96	24.4
774LFL _ 1 X 1	1	25.40	1	25.40	.84	21.33	1 5/8	41.3	3.16	80.26	1.78	45.21	3.64	92.46	2.26	57.40	1 5/16-12	1 1/16	33.73	.75	19.05	.23	31.2

* Flare 37° per SAE J514.

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

739 LTFL

**MALE ADAPTER
TUBE TO AN**



TUBE (INCH) TO TUBE (INCH)

Ordering Information	A .Tube O.D		AN* Thread Flare Size		D		W		L		T Straight Thread
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
739LTFL _ 1/4 X 1/4	1/4	6.35	1/4	6.35	.17	4.20	1/2	12.7	1.46	37.08	7/16-20
739LTFL _ 3/8 X 1/4	3/8	9.52	1/4	6.35	.17	4.20	1/2	12.7	1.53	38.86	7/16-20
739LTFL _ 3/8 X 3/8	3/8	9.52	3/8	9.52	.28	7.11	5/8	15.9	1.56	39.62	9/16-18
739LTFL _ 1/2 X 1/2	1/2	12.7	1/2	12.7	.39	9.90	13/16	20.6	1.91	48.51	3/4-16
739LTFL _ 5/8 X 5/8	5/8	15.87	5/8	15.87	.484	12.30	15/16	23.8	2.10	53.20	7/8-14
739LTFL _ 3/4 X 3/4	3/4	19.05	3/4	19.05	.59	15.00	1 1/8	28.6	2.21	56.13	1 1/16-12
739LTFL _ 1 X 1	1	25.40	1	25.40	.80	20.32	1 3/8	34.9	2.58	65.53	1 5/16-12

* Flare 37° per SAE J514.

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

PARALLEL THREADS SEALING

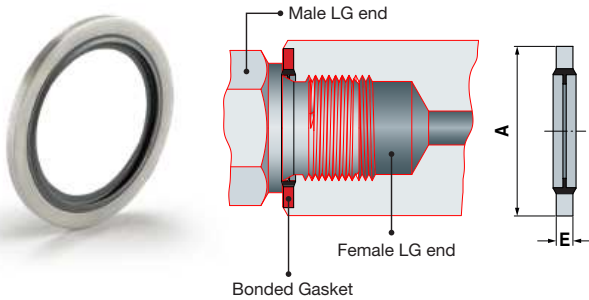
Sealing the parallel thread as 228/1 is done on the shoulder, metal on metal or with the gasket (See labels below)

SEALING WASHER FOR LG END

Bonded Stainless Steel / Carbon Steel Washer

REFERENCE SPECIFICATIONS:

DIN - ISO 228/1
BS - 2779
JIS - B0202
ISO - 228/1-BSP-P



Ordering information		ISO Thread Size	A	E
Stainless Steel 316	Carbon Steel			
SS-GA-LG-1/8	S-GA-LG-1/8	1/8	15.88	2.03
SS-GA-LG-1/4	S-GA-LG-1/4	1/4	20.57	2.03
SS-GA-LG-3/8	S-GA-LG-3/8	3/8	23.80	2.03
SS-GA-LG-1/2	S-GA-LG-1/2	1/2	28.58	2.49
SS-GA-LG-3/4	S-GA-LG-3/4	3/4	34.93	2.49
SS-GA-LG-1	S-GA-LG-1	1	42.80	2.49

HOW TO ORDER:

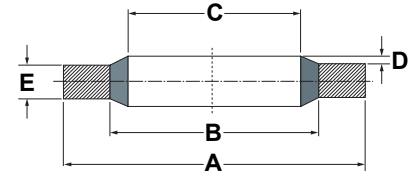
Example:

SS	-	GA-LG-1/4	-	Buna
Material Description			Inner Ring	
SS -	Stainless Steel 316		Fluorocarbon FKM	
S -	Carbon Steel		Buna	

All orders should include material description and ordering information (see product table).

Bonded Stainless Steel Washer Recommended in ISO 1179-1973

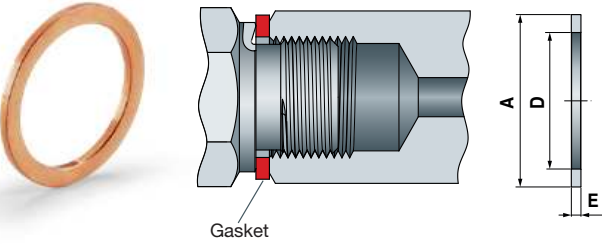
Compatible with end connections compliant with DIN 3852 Part 2.



Ordering information	ISO Thread Size	A	B	C	D	E
ISO-FKM-8/1-SS-GA-LG	1/8	14.70	12.00	10.40	0.25	1.25
ISO- FKM-4/1-SS-GA-LG	1/4	18.70	15.75	13.85		
ISO- FKM-8/3-SS-GA-LG	3/8	22.70	19.25	17.35		
ISO- FKM-2/1-SS-GA-LG	1/2	26.70	23.55	21.65		
ISO- FKM-4/3-SS-GA-LG	3/4	32.50	29.20	27.30		
ISO- FKM-1-SS-GA-LG	1	39.50	36.10	34.20		2.00

Note: • There is a permitted moulding flashline on the inner diameter C in accordance with AGS 1186.
• All dimensions in mm.

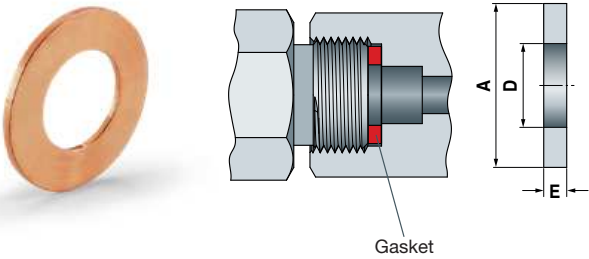
COPPER SEAL GASKET LOK* MALE END



Ordering information	ISO Thread Size	A		D		E	
		mm	inch	mm	inch	mm	inch
COPPER SEAL GASKET LOK 1/8	1/8	15.0	0.59	9.9	0.39	1.0	0.04
COPPER SEAL GASKET LOK 1/4	1/4	18.8	0.75	13.5	0.52	1.5	0.06
COPPER SEAL GASKET LOK 3/8	3/8	22.9	0.91	17.0	0.66	1.5	0.06
COPPER SEAL GASKET LOK 1/2	1/2	27	1.06	21.3	0.83	1.5	0.06
COPPER SEAL GASKET LOK 3/4	3/4	33.0	1.30	26.7	1.05	2.0	0.08
COPPER SEAL GASKET LOK 1	1	40.6	1.58	33.5	1.31	2.0	0.08

* Note: Can be used on LG ends

COPPER SEAL GASKET LG FEMALE END

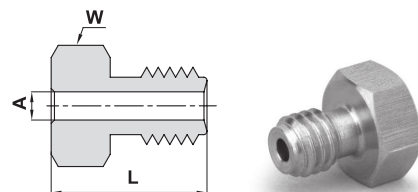


Ordering information	ISO Thread Size	A		D		E	
		mm	inch	mm	inch	mm	inch
COPPER SEAL GASKET LG 1/4	1/4	10.7	0.42	7.6	0.30	1.8	0.07
COPPER SEAL GASKET LG 3/8	3/8	14.2	0.56	8.6	0.34	2.3	0.09
COPPER SEAL GASKET LG 1/2	1/2	17.8	0.70	9.1	0.36	2.5	0.10

CHROMATOGRAPH FITTINGS

961 L

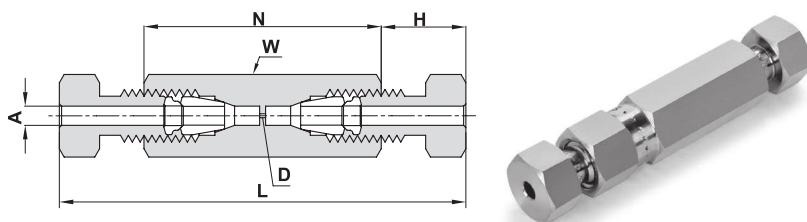
MALE NUT



Ordering Information	A Tube O.D.		W Hex. Flat	L		
	inch	mm		inch	mm	
961L _ 1/16	1/16	1.58	1/4	38.	9.50	

962 L

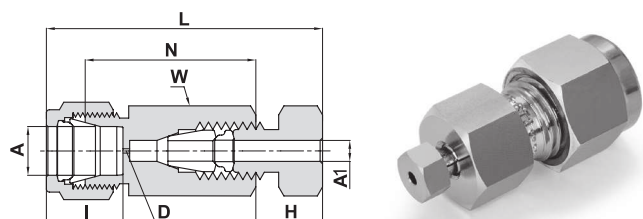
UNION



Ordering Information	A Tube O.D.		D		W Hex. Flat	N		H		L		Dead Space
	inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	
962L _ 1/16	1/16	1.58	013.	33.	1/4	84.	21.34	20.	5.08	1.25	31.75	X 10 ⁻⁵ CC 6.6

963 L

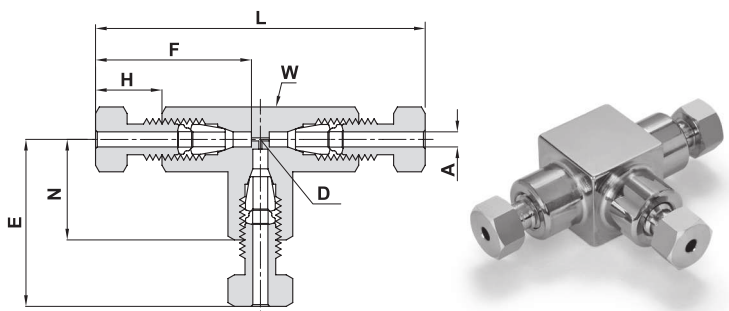
REDUCING UNION



Ordering Information	A Tube O.D.		A1 .Tube O.D		D		W Hex. Flat	N		L		H		I		Dead Space
	inch	mm	inch	mm	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	
963L _ 1/4 X 1/16	1/4	6.35	1/16	1.58	013.	33.	1/2	75.	19.05	1.24	31.50	20.	5.08	60.	15.2	X 10 ⁻⁵ CC 6.8
963L _ 3/8 X 1/16	3/8	9.52	1/16	1.58	013.	33.	5/8	81.	20.57	1.30	33.02	20.	5.08	66.	16.8	X 10 ⁻⁵ CC 6.8

964 L

UNION TEE

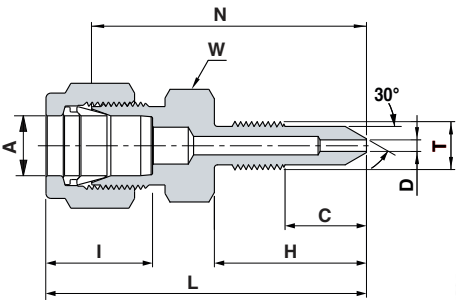


Ordering Information	A Tube O.D.		D		W Wrench Flat		N		H		F		E		L		Dead Space
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	
964L _ 1/16	1/16	1.58	013.	33.	3/8	9.52	45.	11.43	20.	5.08	61.	15.49	65.	16.51	1.30	33.02	X 10 ⁻⁴ CC 2.8

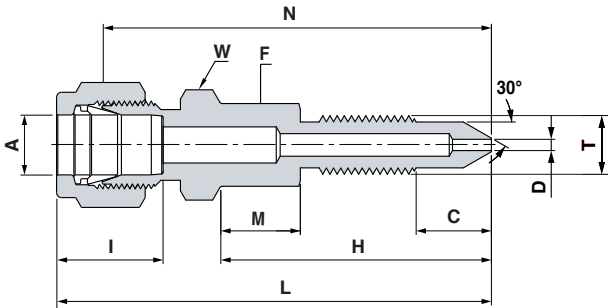
"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

HAM-LET CALIBRATION FITTINGS

768LC
MALE CONNECTOR



Ordering Information	A Tube O.D.		T Thraed UN	D		W Wrench Flat	N		L		H		C		I	
	inch	mm		inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
768LC SS 1/4 X 1/4-28	1/4	6.35	1/4-28	0.07	1.80	1/2	1.41	35.80	1.70	43.17	0.78	19.80	0.42	10.60	0.60	15.20



Ordering Information	A Tube O.D.		T Thraed UN	D		W Wrench Flat	N		L		H		M		C		F		I	
	inch	mm		inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
768LC SS 1/4 X 5/16-24	1/4	6.35	5/16-24	0.07	1.80	1/2	2.03	51.60	2.43	61.76	1.41	35.80	0.41	10.40	0.39	10.00	0.43	11.00	0.60	15.20

HAM-LET

ALLOY 400 NICKEL-COPPER

ALLOY 400/R-405 CONNECTORS

Alloy 400, made of nickel-copper is a solid-solution alloy that can be hardened only by cold working. It has high strength and toughness over a wide temperature range and excellent resistance to many corrosive environments. Alloy 400 is widely used in many fields, especially marine and chemical processing.

Back Ferrule* 760 LB		
	Ordering Information	Tube O.D. inch
	760LB M 1/4	1/4
	760LB M 3/8	3/8
	760LB M 1/2	1/2

Front Ferrule* 760 LF		
	Ordering Information	Tube O.D. inch
	760LF M 1/4	1/4
	760LF M 3/8	3/8
	760LF M 1/2	1/2

Nut 761 L		
	Ordering Information	Tube O.D. inch
	761L M 1/4	1/4
	761L M 3/8	3/8
	761L M 1/2	1/2

Union 762 L		
	Ordering Information	Tube O.D. inch
	762L M 1/4	1/4
	762L M 3/8	3/8
	762L M 1/2	1/2

Union Tee 764 L		
	Ordering Information	Tube O.D. inch
	764L M 1/4	1/4
	764L M 3/8	3/8
	764L M 1/2	1/2

Union Elbow 765 L		
	Ordering Information	Tube O.D. inch
	765L M 1/4	1/4
	765L M 3/8	3/8
	765L M 1/2	1/2

Port Connetor 767 LP		
	Ordering Information	Tube O.D. inch
	767LP M 1/4	1/4
	767LP M 3/8	3/8
	767LP M 1/2	1/2

Cap 7108 L		
	Ordering Information	Tube O.D. inch
	7108L M 1/4	1/4
	7108L M 3/8	3/8
	7108L M 1/2	1/2

Bulkhead Union 774 L		
	Ordering Information	Tube O.D. inch
	774L M 1/4	1/4
	774L M 3/8	3/8
	774L M 1/2	1/2

Plug 7121 L		
	Ordering Information	Tube O.D. inch
	7121L M 1/4	1/4
	7121L M 3/8	3/8
	7121L M 1/2	1/2

ALLOY 400 NICKEL-COPPER	
Barstock	Forging
ASTM B164	ASTM B564

Reducer 767 LT

	Ordering Information	Tube O.D.	Tube O.D.
	767LT M 1/4 x 1/4	1/4	1/4
	767LT M 1/4 x 3/8	1/4	3/8
	767LT M 1/4 x 1/2	1/4	1/2
	767LT M 3/8 x 1/4	3/8	1/4
	767LT M 3/8 x 3/8	3/8	3/8
	767LT M 3/8 x 1/2	3/8	1/2
	767LT M 1/2 x 1/4	1/2	1/4
	767LT M 1/2 x 3/8	1/2	3/8
	767LT M 1/2 x 1/2	1/2	1/2

Male Elbow 769 L

	Ordering Information	Tube O.D.	Male pipe size
	769L M 1/4 x 1/4	1/4	1/4
	769L M 3/8 x 1/4	3/8	1/4
	769L M 1/2 x 1/2	1/2	1/2

Female Connector 766 L

	Ordering Information	Tube O.D.	Male pipe size
	766L M 1/4 x 1/4	1/4	1/4
	766L M 3/8 x 1/4	3/8	1/4

Female Adapter 739 LF

	Ordering Information	Tube O.D.	Female pipe size
	739LF M 1/4 x 1/8	1/4	1/8
	739LF M 1/4 x 1/4	1/4	1/4
	739LF M 1/4 x 1/2	1/4	1/2
	739LF M 3/8 x 1/4	3/8	1/4
	739LF M 3/8 x 1/2	3/8	1/2
	739LF M 1/2 x 1/4	1/2	1/4
	739LF M 1/2 x 1/2	1/2	1/2

Male Connector 768 L

	Ordering Information	Tube O.D.	Female pipe size
	768L M 1/4 x 1/8	1/4	1/8
	768L M 1/4 x 1/4	1/4	1/4
	768L M 1/4 x 3/8	1/4	3/8
	768L M 1/4 x 1/2	1/4	1/2
	768L M 3/8 x 1/4	3/8	1/4
	768L M 3/8 x 3/8	3/8	3/8
	768L M 3/8 x 1/2	3/8	1/2
	768L M 1/2 x 1/4	1/2	1/4
	768L M 1/2 x 3/8	1/2	3/8
	768L M 1/2 x 1/2	1/2	1/2
	768L M 1/2 x 3/4	1/2	3/4

Male Adapter 739 LM

	Ordering Information	Tube O.D.	Male pipe size
	739LM M 1/4 x 1/8	1/4	1/8
	739LM M 1/4 x 1/4	1/4	1/4
	739LM M 1/4 x 3/8	1/4	3/8
	739LM M 1/4 x 1/2	1/4	1/2
	739LM M 3/8 x 1/4	3/8	1/4
	739LM M 3/8 x 3/8	3/8	3/8
	739LM M 3/8 x 1/2	3/8	1/2

Let-Lok® Tubing Data For Alloy 400

Alloy 400 UNS designatin N04400 tubes should be ordered according to ASTM B-165.

Hydraulic tubing is suitable for flaring and bending.

Tubing should be seamless and annealed.

Hardness: 75 HRB maximum.

Tube O.D. inch	0.028	0.035	0.049	0.065
1/4	3700	4800	7000	9500
3/8		3100	4400	6100
1/2		2300	3200	4400

Allowable working pressure in psig at -20° to 100°F (-28° to 37°C)

GAS APPLICATION TUBING

Tube O.D.	Min. Nominal wall thickness
1/2"	.035"

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

HAM-LET ALLOY C-276 CONNECTORS

In aggressive/corrosive service, when nothing else works, many industries have traditionally turned to **Alloy C-276**. Many years of outstanding performance in a variety of industrial applications have confirmed the advantages of using this alloy.

Excellent Resistance to Corrosion

Alloy C-276 is a nickel-molybdenum-chromium wrought alloy that is generally considered a versatile corrosion-resistant alloy.

C-276 alloy has excellent resistance to localized corrosion and to both oxidizing and reducing media. Because of its versatility, C-276 alloy can be used in severe and corrosive environments.

Alloy C-276 has excellent resistance to a wide variety of chemical process environments, including strong oxidizers such as ferric and cupric chlorides, hot contaminated media (organic and inorganic), chlorine, formic and acetic acids, acetic anhydride, and seawater and brine solutions. It is used in flue gas desulfurization systems because of its excellent resistance to sulfur compounds and chloride ions encountered in most scrubbers. **C-276** alloy has excellent resistance to pitting and to stress-corrosion cracking. It is also one of the few materials that withstands the corrosive effects of wet chlorine gas, hypochlorite and chlorine dioxide.

Back Ferrule* 760 LB		
	Ordering Information	Tube O.D. inch
	760LB HC 1/4	1/4
	760LB HC 3/8	3/8
	760LB HC 1/2	1/2

Front Ferrule* 760 LF		
	Ordering Information	Tube O.D. inch
	760LF HC 1/4	1/4
	760LF HC 3/8	3/8
	760LF HC 1/2	1/2

Nut 761 L		
	Ordering Information	Tube O.D. inch
	761L HC 1/4	1/4
	761L HC 3/8	3/8
	761L HC 1/2	1/2

Union 762 L		
	Ordering Information	Tube O.D. inch
	762L HC 1/4	1/4
	762L HC 3/8	3/8
	762L HC 1/2	1/2

Union Tee 764 L		
	Ordering Information	Tube O.D. inch
	764L HC 1/4	1/4
	764L HC 3/8	3/8
	764L HC 1/2	1/2

Union Elbow 765 L		
	Ordering Information	Tube O.D. inch
	765L HC 1/4	1/4
	765L HC 3/8	3/8
	765L HC 1/2	1/2

Port Connector 767 LP		
	Ordering Information	Tube O.D. inch
	767LP HC 1/4	1/4
	767LP HC 3/8	3/8
	767LP HC 1/2	1/2

Cap 7108 L		
	Ordering Information	Tube O.D. inch
	7108L HC 1/4	1/4
	7108L HC 3/8	3/8
	7108L HC 1/2	1/2

Bulkhead Union 774 L		
	Ordering Information	Tube O.D. inch
	774L HC 1/4	1/4
	774L HC 3/8	3/8
	774L HC 1/2	1/2

Plug 7121 L		
	Ordering Information	Tube O.D. inch
	7121L HC 1/4	1/4
	7121L HC 3/8	3/8
	7121L HC 1/2	1/2

ALLOY C-276 MATERIAL STD	
Barstock	Forging
ASTM B574	ASTM B564

Reducer 767 LT

	Ordering Information	Tube O.D.	Tube O.D.
	767LT HC 1/4 x 1/4	1/4	1/4
	767LT HC 1/4 x 3/8	1/4	3/8
	767LT HC 1/4 x 1/2	1/4	1/2
	767LT HC 3/8 x 1/4	3/8	1/4
	767LT HC 3/8 x 3/8	3/8	3/8
	767LT HC 3/8 x 1/2	3/8	1/2
	767LT HC 1/2 x 1/4	1/2	1/4
	767LT HC 1/2 x 3/8	1/2	3/8
	767LT HC 1/2 x 1/2	1/2	1/2

Male Elbow 769 L

	Ordering Information	Tube O.D.	Male pipe size
	769L HC 1/4 x 1/4	1/4	1/4
	769L HC 3/8 x 1/4	3/8	1/4
	769L HC 1/2 x 1/2	1/2	1/2

Female Connector 766 L

	Ordering Information	Tube O.D.	Male pipe size
	766L HC 1/4 x 1/4	1/4	1/4
	766L HC 3/8 x 1/4	3/8	1/4

Female Adapter 739 LF

	Ordering Information	Tube O.D.	Female pipe size
	739LF HC 1/4 x 1/8	1/4	1/8
	739LF HC 1/4 x 1/4	1/4	1/4
	739LF HC 1/4 x 1/2	1/4	1/2
	739LF HC 3/8 x 1/4	3/8	1/4
	739LF HC 3/8 x 1/2	3/8	1/2
	739LF HC 1/2 x 1/4	1/2	1/4
	739LF HC 1/2 x 1/2	1/2	1/2

Male Connector 768 L

	Ordering Information	Tube O.D.	Female pipe size
	768L HC 1/4 x 1/8	1/4	1/8
	768L HC 1/4 x 1/4	1/4	1/4
	768L HC 1/4 x 3/8	1/4	3/8
	768L HC 1/4 x 1/2	1/4	1/2
	768L HC 3/8 x 1/4	3/8	1/4
	768L HC 3/8 x 3/8	3/8	3/8
	768L HC 3/8 x 1/2	3/8	1/2
	768L HC 1/2 x 1/4	1/2	1/4
	768L HC 1/2 x 3/8	1/2	3/8
	768L HC 1/2 x 1/2	1/2	1/2
	768L HC 1/2 x 3/4	1/2	3/4

Male Adapter 739 LM

	Ordering Information	Tube O.D.	Male pipe size
	739LM HC 1/4 x 1/8	1/4	1/8
	739LM HC 1/4 x 1/4	1/4	1/4
	739LM HC 1/4 x 1/2	1/4	1/2
	739LM HC 3/8 x 1/4	3/8	1/4
	739LM HC 3/8 x 1/2	3/8	1/2
	739LM HC 1/2 x 1/4	1/2	1/4
	739LM HC 1/2 x 1/2	1/2	1/2

Let-Lok® Tubing Data For Alloy C-276

Alloy C-276 UNS designation N10276 tubes should be ordered according to ASTM B-622.

Hydraulic tubing is suitable for flaring and bending.

Tubing should be seamless and annealed.

Hardness: 100 HRB maximum.

Tube O.D.	0.035	0.049	0.065
	Working Pressure (psig)		
1/4	5100	7500	10200
3/8	3300	4800	6500
1/2	2600	3700	5100
GAS APPLICATION TUBING			
Tube O.D.	Min. Nominal wall thickness		
1/2"	.035"		

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

HAM-LET **SUPER DUPLEX 2507** CONNECTORS

Duplex stainless-steels are becoming more common, being used for number of reasons:

- Higher strength levels
- Greater corrosion resistance-particularly Stress Corrosion Cracking (S.C.C.) in chloride-bearing environments.
- Much better resistance for localized corrosion, such as pitting and crevice.

The “Pitting Resistances Equivalent Number” (P.R.E.N.) of “SD 2507” (1.4410/S32750) is roughly twice that of Austenitic Stainless Steels such as 304 (1.4301/S30400), or 316 (1.4401/S31600).

- High resistance to erosion-corrosion and corrosion-fatigue mechanism
- Common designation/names/trade names include:

- SAF 2507
- UNS S32750
- EN#1.4410
- SD 2507

The nominal Chemical composition of this alloy is 25% Chromium, 7% Nickel 4% Molybdenum.

Back Ferrule* 760 LB		
	Ordering Information	Tube O.D. inch
	760LB SD 1/4	1/4
	760LB SD 3/8	3/8
	760LB SD 1/2	1/2

Front Ferrule* 760 LF		
	Ordering Information	Tube O.D. inch
	760LF SD 1/4	1/4
	760LF SD 3/8	3/8
	760LF SD 1/2	1/2

Nut 761 L		
	Ordering Information	Tube O.D. inch
	761L SD 1/4	1/4
	761L SD 3/8	3/8
	761L SD 1/2	1/2

Union 762 L		
	Ordering Information	Tube O.D. inch
	762L SD 1/4	1/4
	762L SD 3/8	3/8
	762L SD 1/2	1/2

Union Tee 764 L		
	Ordering Information	Tube O.D. inch
	764L SD 1/4	1/4
	764L SD 3/8	3/8
	764L SD 1/2	1/2

Union Elbow 765 L		
	Ordering Information	Male pipe size
	765L SD 1/4	1/4
	765L SD 3/8	3/8
	765L SD 1/2	1/2

Port Connector 767 LP		
	Ordering Information	Tube O.D. inch
	767LP SD 1/4	1/4
	767LP SD 3/8	3/8
	767LP SD 1/2	1/2

Cap 7108 L		
	Ordering Information	Tube O.D. inch
	7108L SD 1/4	1/4
	7108L SD 3/8	3/8
	7108L SD 1/2	1/2

Bulkhead Union 774 L		
	Ordering Information	Tube O.D. inch
	774L SD 1/4	1/4
	774L SD 3/8	3/8
	774L SD 1/2	1/2

Plug 7121 L		
	Ordering Information	Tube O.D. inch
	7121L SD 1/4	1/4
	7121L SD 3/8	3/8
	7121L SD 1/2	1/2

SUPER DUPLEX 2507 MATERIAL STD	
Barstock	Forging
ASTM A 479	ASTM A 182

Reducer 767 LT

	Ordering Information	Tube O.D.	Tube O.D.
	767LT SD 1/4 X 3/8	1/4	3/8
	767LT SD 1/4 X 1/2	1/4	1/2
	767LT SD 3/8 X 1/4	3/8	1/4
	767LT SD 3/8 X 1/2	3/8	1/2
	767LT SD 1/2 X 1/4	1/2	1/4
	767LT SD 1/2 X 3/8	1/2	3/8

Male Elbow 769 L

	Ordering Information	Tube O.D.	Male pipe size
	769L SD 1/4 X 1/4	1/4	1/4
	769L SD 3/8 X 3/8	3/8	1/4
	769L SD 1/2 X 1/2	1/2	1/2

Male Adapter 739 LMOB

	Ordering Information	Tube O.D.	Male size
	739LMOB SD 1/4 X 7/16-20	1/4	7/16-20
	739LMOB SD 3/8 X 7/16-20	3/8	7/16-20
	739LMOB SD 3/8 X 9/16-18	3/8	9/16-18
	739LMOB SD 1/2 X 9/16-18	1/2	9/16-18
	739LMOB SD 1/2 X 3/4-16	1/2	3/4-16

Male Connector 768 LOB

	Ordering Information	Tube O.D.	Male size
	768LOB SD 1/4 X 7/16-20	1/4	7/16-20
	768LOB SD 1/4 X 9/16-18	1/4	9/16-18
	768LOB SD 3/8 X 9/16-18	3/8	9/16-18
	768LOB SD 1/2 X 9/16-18	1/2	9/16-18
	768LOB SD 1/2 X 3/4-16	1/2	3/4-16

Female Adaptor 739 LF

	Ordering Information	Tube O.D.	Female pipe size
	739LF SD 1/4 X 1/8	1/4	1/8
	739LF SD 1/4 X 1/4	1/4	1/4
	739LF SD 1/4 X 1/2	1/4	1/2
	739LF SD 3/8 X 1/4	3/8	1/4
	739LF SD 3/8 X 1/2	3/8	1/2
	739LF SD 1/2 X 1/4	1/2	1/4
	739LF SD 1/2 X 1/2	1/2	1/2

Male Connector 768 L

	Ordering Information	Tube O.D.	Female pipe size
	768L SD 1/4 X 1/4	1/4	1/4
	768L SD 1/4 X 1/2	1/4	1/2
	768L SD 3/8 X 1/4	3/8	1/4
	768L SD 3/8 X 3/8	3/8	3/8
	768L SD 3/8 X 1/2	3/8	1/2
	768L SD 1/2 X 1/4	1/2	1/4
	768L SD 1/2 X 3/8	1/2	3/8
	768L SD 1/2 X 1/2	1/2	1/2

Male Adapter 739 LM

	Ordering Information	Tube O.D.	Male pipe size
	739LM SD 1/4 X 1/4	1/4	1/4
	739LM SD 3/8 X 1/4	3/8	1/4
	739LM SD 3/8 X 3/8	3/8	3/8
	739LM SD 3/8 X 1/2	3/8	1/2
	739LM SD 1/2 X 1/4	1/2	1/4
	739LM SD 1/2 X 1/2	1/2	1/2

Union Cross 7102 L

	Ordering Information	Tube O.D.	Male pipe size
	7102L SD 1/4	1/4	1/4
	7102L SD 3/8	3/8	1/4
	7102L SD 1/2	3/8	3/8

Let-Lok® Tubing Data For SAE Super Duplex 2507

Alloy 2507 UNS Designation S32750 tubes should be ordered according to ASTM A789 or equivalent.

Hydraulic tubing is suitable for bending, flaring and should be free of scratches. Tubing should be seamless and fully annealed.

Hardness: 32 HRC maximum.

Tube O.D. inch	0.035	0.049	0.065
	Working Pressure (psig)		
1/4	10,000	15,000	-
3/8	6,500	10,000	12,700
1/2	5,000	7,200	10,000

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

HAM-LET **ALLOY 825** CONNECTORS



Alloy 825 (UNS Designation N08825) is a Nickel-Iron-Chromium Alloy with Molybdenum and Copper additives.

This alloy is designed to provide exceptional resistance in many corrosive environments along with an improved resistance to aqueous corrosive media.

It has excellent resistance to both reducing and oxidizing acids, stress corrosion cracking and to localized attacks such as pitting and crevice corrosion.

Alloy 825 is especially resistant to sulfuric and phosphoric acid.

This alloy is used for chemical processing, pollution-control equipment, oil and gas systems as well as in the nuclear fuel reprocessing, acid production and pickling equipment like heating coils and chains.

Back Ferrule* 760 LB		
	Ordering Information	Tube O.D. inch
	760LB 825 1/4	1/4
	760LB 825 3/8	3/8
	760LB 825 1/2	1/2
	760LB 825 3/4	3/4

Front Ferrule* 760 LF		
	Ordering Information	Tube O.D. inch
	760LF 825 1/4	1/4
	760LF 825 3/8	3/8
	760LF 825 1/2	1/2
	760LF 825 3/4	3/4

Nut 761 L		
	Ordering Information	Tube O.D. inch
	761L 825 1/4	1/4
	761L 825 3/8	3/8
	761L 825 1/2	1/2
	761L 825 3/4	3/4

Union 762 L		
	Ordering Information	Tube O.D. inch
	762L 825 1/4	1/4
	762L 825 3/8	3/8
	762L 825 1/2	1/2
	762L 825 3/4	3/4

Union Tee 764 L		
	Ordering Information	Tube O.D. inch
	764L 825 1/4	1/4
	764L 825 3/8	3/8
	764L 825 1/2	1/2
	764L 825 3/4	3/4

Union Elbow 765 L		
	Ordering Information	Tube O.D. inch
	765L 825 1/4	1/4
	765L 825 3/8	3/8
	765L 825 1/2	1/2
	765L 825 3/4	3/4

Port Connector 767 LP		
	Ordering Information	Tube O.D. inch
	767LP 825 1/4	1/4
	767LP 825 3/8	3/8
	767LP 825 1/2	1/2
	767LP 825 3/4	3/4

Cap 7108 L		
	Ordering Information	Tube O.D. inch
	7108L 825 1/4	1/4
	7108L 825 3/8	3/8
	7108L 825 1/2	1/2
	7108L 825 3/4	3/4

Bulkhead Union 774 L		
	Ordering Information	Tube O.D. inch
	774L 825 1/4	1/4
	774L 825 3/8	3/8
	774L 825 1/2	1/2
	774L 825 3/4	3/4

Plug 7121 L		
	Ordering Information	Tube O.D. inch
	7121L 825 1/4	1/4
	7121L 825 3/8	3/8
	7121L 825 1/2	1/2
	7121L 825 3/4	3/4

Male Elbow 769 L			
	Ordering Information	Tube O.D.	Male pipe size
	769L 825 1/4 X 1/4	1/4	1/4
	769L 825 3/8 X 3/8	3/8	3/8
	769L 825 1/2 X 1/2	1/2	1/2
	769L 825 3/4 X 3/4	3/4	3/4

ALLOY 825	
Barstock	Forging
ASTM B 425	ASTM B 564

Reducer 767 LT

	Ordering Information	Tube O.D.	Tube O.D.
	767LT 825 1/4 X 3/8	1/4	3/8
	767LT 825 1/4 X 1/2	1/4	1/2
	767LT 825 3/8 X 1/4	3/8	1/4
	767LT 825 3/8 X 1/2	3/8	1/2
	767LT 825 1/2 X 1/4	1/2	1/4
	767LT 825 1/2 X 3/8	1/2	3/8
	767LT 825 3/4 X 1/2	3/4	1/2
	767LT 825 3/4 X 3/4	3/4	3/4

Male Adapter 739 LMOB

	Ordering Information	Tube O.D.	Tube O.D.
	739LMOB 825 1/4 X 7/16-20	1/4	7/16-20
	739LMOB 825 3/8 X 7/16-20	3/8	7/16-20
	739LMOB 825 3/8 X 9/16-18	3/8	9/16-18
	739LMOB 825 1/2 X 9/16-18	1/2	9/16-18
	739LMOB 825 1/2 X 3/4-16	1/2	3/4-16
	739LMOB 825 3/4 X 3/4-16	3/4	3/4-16
	739LMOB 825 3/4 X 1-1/16-12	3/4	1-1/16-12

Male Connector 768 LOB

	Ordering Information	Tube O.D.	Tube O.D.
	768LOB 825 1/4 X 7/16-20	1/4	7/16-20
	768LOB 825 1/4 X 9/16-18	1/4	9/16-18
	768LOB 825 3/8 X 9/16-18	3/8	9/16-18
	768LOB 825 1/2 X 9/16-18	1/2	9/16-18
	768LOB 825 1/2 X 3/4-16	1/2	3/4-16
	768LOB 825 3/4 X 3/4-16	3/4	3/4-16
	768LOB 825 3/4 X 1-1/16-12	3/4	1-1/16-12

Male Connector 739 LF

	Ordering Information	Tube O.D.	Female pipe size
	739LF 825 1/4 X 1/8	1/4	1/8
	739LF 825 1/4 X 1/4	1/4	1/4
	739LF 825 1/4 X 1/2	1/4	1/2
	739LF 825 3/8 X 1/4	3/8	1/4
	739LF 825 3/8 X 1/2	3/8	1/2
	739LF 825 1/2 X 1/4	1/2	1/4
	739LF 825 1/2 X 1/2	1/2	1/2
	739LF 825 3/4 X 1/2	3/4	1/2
	739LF 825 3/4 X 3/4	3/4	3/4

Male Connector 768 L

	Ordering Information	Tube O.D.	Tube O.D.
	768L 825 1/4 X 1/4	1/4	1/4
	768L 825 1/4 X 1/2	1/4	1/2
	768L 825 3/8 X 1/4	3/8	1/4
	768L 825 3/8 X 3/8	3/8	3/8
	768L 825 3/8 X 1/2	3/8	1/2
	768L 825 1/2 X 1/4	1/2	1/4
	768L 825 1/2 X 3/8	1/2	3/8
	768L 825 1/2 X 1/2	1/2	1/2
	768L 825 3/4 X 1/4	3/4	1/4
	768L 825 3/4 X 3/8	3/4	3/8
	768L 825 3/4 X 1/2	3/4	1/2
	768L 825 3/4 X 3/4	3/4	3/4

Male Adapter 739 LM

	Ordering Information	Tube O.D.	Male size
	739LM 825 1/4 X 1/4	1/4	1/4
	739LM 825 3/8 X 1/4	3/8	1/4
	739LM 825 3/8 X 3/8	3/8	3/8
	739LM 825 3/8 X 1/2	3/8	1/2
	739LM 825 1/2 X 1/4	1/2	1/4
	739LM 825 1/2 X 1/2	1/2	1/2
	739LM 825 3/4 X 1/2	3/4	1/2
	739LM 825 3/4 X 3/4	3/4	3/4

Union Cross 7102 L

	Ordering Information	Tube O.D.
	7102L 825 1/4	1/4
	7102L 825 3/8	3/8
	7102L 825 1/2	1/2
	7102L 825 3/4	3/4

Let-Lok Tubing Data for Alloy 825

Alloy 825 UNS Designation N08825 tubes should be ordered according to ASTM B163, ASTM B423 or equivalent.

suitable for bending, flaring and should be free of scratches.

Tubing should be seamless, High quality and bright Fully annealed.

For Fully annealed welded and cold drawn tube per ASTM B704 CLASS 1. Multiply working pressure by 0.85

Hardness: 90 HR_{15T} max or 201Hv max.

Tube O.D	0.035	0.049	0.065	0.083	0.095
	Working Pressure (psig)				
1/4	6,400	9,300	11,600		
3/8	4,100	5,900	8,200		
1/2	3,000	4,300	5,900		
3/4			3,800	4,900	5,800

HAM-LET **ALLOY 254** CONNECTORS



Alloy 254/254 SMO/6 Mo (UNS designation S31254) is an austenitic stainless steel with high molybdenum content, **super** austenitic which gives the alloy a very good resistance to pitting and crevice corrosion. It is especially useful in environments containing halide ions (chloride, bromide and fluoride solutions) such as brackish water, seawater, pulp mill bleach plants and other related high chloride processes.

SMO 254 characteristics include higher strength, higher resistance to abrasion, erosion and cavitation erosion comparing to austenitic stainless steels such as 316 and 316L and also 317 or 317L. In addition to the above - SMO 254 offers excellent ductility and impact strength at both ambient and sub-zero temperatures.

SMO 254 covers a wide range of applications in several industries, such as chemical and food processing, oil and gas, pulp mill and paper, power generation and desalination plants.

Back Ferrule* 760 LB		
	Ordering Information	Tube O.D. inch
	760LB 254 1/4	1/4
	760LB 254 3/8	3/8
	760LB 254 1/2	1/2

Front Ferrule* 760 LF		
	Ordering Information	Tube O.D. inch
	760LF 254 1/4	1/4
	760LF 254 3/8	3/8
	760LF 254 1/2	1/2

Nut 761 L		
	Ordering Information	Tube O.D. inch
	761L 254 1/4	1/4
	761L 254 3/8	3/8
	761L 254 1/2	1/2

Union 762 L		
	Ordering Information	Tube O.D. inch
	762L 254 1/4	1/4
	762L 254 3/8	3/8
	762L 254 1/2	1/2

Union Tee 764 L		
	Ordering Information	Tube O.D. inch
	764L 254 1/4	1/4
	764L 254 3/8	3/8
	764L 254 1/2	1/2

Union Elbow 765 L		
	Ordering Information	Tube O.D. inch
	765L 254 1/4	1/4
	765L 254 3/8	3/8
	765L 254 1/2	1/2

Port Connector 767 LP		
	Ordering Information	Tube O.D. inch
	767LP 254 1/4	1/4
	767LP 254 3/8	3/8
	767LP 254 1/2	1/2

Cap 7108 L		
	Ordering Information	Tube O.D. inch
	7108L 254 1/4	1/4
	7108L 254 3/8	3/8
	7108L 254 1/2	1/2

Bulkhead Union 774 L		
	Ordering Information	Tube O.D. inch
	774L 254 1/4	1/4
	774L 254 3/8	3/8
	774L 254 1/2	1/2

Plug 7121 L		
	Ordering Information	Tube O.D. inch
	7121L 254 1/4	1/4
	7121L 254 3/8	3/8
	7121L 254 1/2	1/2

ALLOY 254 MATERIAL STD	
Barstock	Forging
ASTM A 479	ASTM A 182

Reducer 767 LT

	Ordering Information	Tube O.D.	Tube O.D.
	767LT 254 1/4 X 3/8	1/4	3/8
	767LT 254 1/4 X 1/2	1/4	1/2
	767LT 254 3/8 X 1/4	3/8	1/4
	767LT 254 3/8 X 1/2	3/8	1/2
	767LT 254 1/2 X 1/4	1/2	1/4
	767LT 254 1/2 X 3/8	1/2	3/8
	767LT 254 1/2 X 1/2	1/2	1/2

Male Connector 768 L

	Ordering Information	Tube O.D.	Tube O.D.
	768L 254 1/4 X 1/4	1/4	1/4
	768L 254 1/4 X 1/2	1/4	1/2
	768L 254 3/8 X 1/4	3/8	1/4
	768L 254 3/8 X 3/8	3/8	3/8
	768L 254 3/8 X 1/2	3/8	1/2
	768L 254 1/2 X 1/4	1/2	1/4
	768L 254 1/2 X 3/8	1/2	3/8
	768L 254 1/2 X 1/2	1/2	1/2

Male Elbow 769 L

	Ordering Information	Tube O.D.	Male pipe size
	769L 254 1/4 X 1/4	1/4	3/8
	769L 254 3/8 X 3/8	1/4	1/2
	769L 254 1/2 X 1/2	3/8	1/4

Male Adapter 739 LM

	Ordering Information	Tube O.D.	Male size
	739LM 254 1/4 X 1/4	1/4	1/4
	739LM 254 3/8 X 1/4	3/8	1/4
	739LM 254 3/8 X 3/8	3/8	3/8
	739LM 254 3/8 X 1/2	3/8	1/2
	739LM 254 1/2 X 1/4	1/2	1/4
	739LM 254 1/2 X 1/2	1/2	1/2

Male Adapter 739 LMOB

	Ordering Information	Tube O.D.	Male size
	739LMOB 254 1/4 X 7/16-20	1/4	7/16-20
	739LMOB 254 3/8 X 7/16-20	3/8	7/16-20
	739LMOB 254 3/8 X 9/16-18	3/8	9/16-18
	739LMOB 254 1/2 X 9/16-18	1/2	9/16-18
	739LMOB 254 1/2 X 3/4-16	1/2	3/4-16

Union Cross 7102 L

	Ordering Information	Tube O.D.
	7102L 254 1/4	1/4
	7102L 254 3/8	3/8
	7102L 254 1/2	1/2

Male Connector 768 LOB

	Ordering Information	Tube O.D.	Tube O.D.
	768LOB 254 1/4 X 7/16-20	1/4	7/16-20
	768LOB 254 1/4 X 9/16-18	1/4	9/16-18
	768LOB 254 3/8 X 9/16-18	3/8	9/16-18
	768LOB 254 1/2 X 9/16-18	1/2	9/16-18
	768LOB 254 1/2 X 3/4-16	1/2	3/4-16

Male Connector 739 LF

	Ordering Information	Tube O.D.	Female pipe size
	739LF 254 1/4 X 1/8	1/4	1/8
	739LF 254 1/4 X 1/4	1/4	1/4
	739LF 254 1/4 X 1/2	1/4	1/2
	739LF 254 3/8 X 1/4	3/8	1/4
	739LF 254 3/8 X 1/2	3/8	1/2
	739LF 254 1/2 X 1/4	1/2	1/4
	739LF 254 1/2 X 1/2	1/2	1/2

Let-Lok® Tubing Data for Alloy 254

Alloy 254 UNS Designation UNS S31254 tubes should be ordered according to ASTM A269 or ASTM A213 or equivalent.

Suitable for bending, flaring and should be free of scratches. Tubing should be seamless, High quality and bright annealed.

Hardness: 95HRB max.

Tube O.D	0.035	0.049	0.065	0.083
	Working Pressure (psig)			
1/4	6,900	10,100	13,900	
3/8	4,500	6,500	8,900	
1/2	3,500	5,000	6,900	9,000

HAM-LET DIELECTRIC FITTINGS

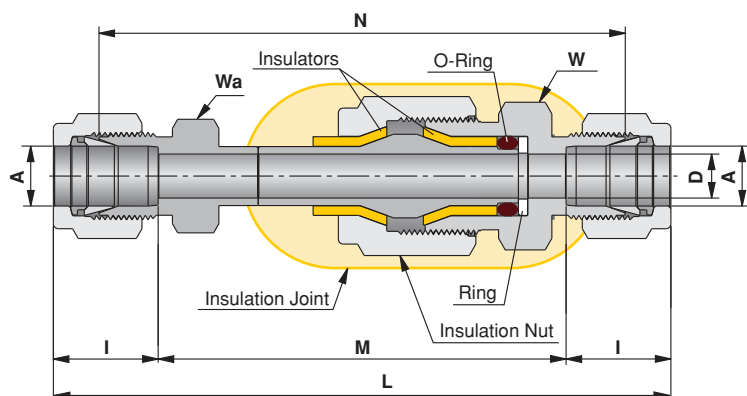
Dielectric fittings are designed to insulate subsystems from electrical current, voltages and static charges.

MATERIAL OF CONSTRUCTION

1. Body: A.I.S.I. 316.
2. Insulators: Polyamide-Imide.
3. O-Ring: Fluorocarbon FKM 70 Durometer.
4. Ring: PTFE.

WORKING CONDITIONS:

1. Pressure rating: 5000 psi
2. Temperature rating: -40°C to 93°C (-40°F to 200°F).
3. Electrical resistance at 20°C-25°C (68°F-77°F): 10X10⁶Ω at 30V DC.



TUBE (METRIC) TO TUBE (METRIC)

Ordering Information	A Tube O.D.	D	W Hex. Flat	Wa Hex. Flat	M	I	N	L
	mm	mm	mm	mm	mm	mm	mm	mm
762L _ 10 mm Dielectric	10	7.1	22	18	65.85	17.2	84.85	100.3
762L _ 12 mm Dielectric	12	7.1	22	22	61.70	22.8	87.10	107.3

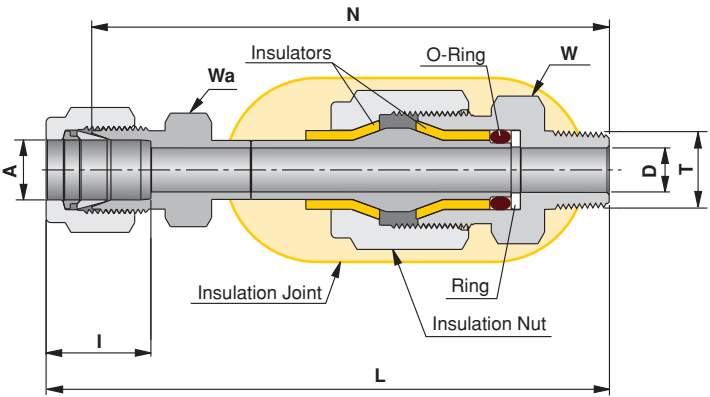
TUBE (INCH) TO TUBE (INCH)

Ordering Information	A Tube O.D.		D		W Hex. Flat	Wa Hex. Flat	M		I		N		L	
	inch	mm	inch	mm	inch	inch	inch	mm	inch	mm	inch	mm	inch	mm
762L _ 1/8 Dielectric	1/8	3.17	.09	2.28	13/16	1/2	2.56	65.10	50.	12.7	3.07	77.94	3.59	9.11
762L _ 1/4 Dielectric	1/4	6.35	.19	4.80	13/16	1/2	2.57	65.30	60.	15.2	3.19	81.02	3.77	95.8
762L _ 3/8 Dielectric	3/8	9.52	.28	7.11	13/16	5/8	2.59	65.80	66.	16.8	3.34	84.87	3.92	99.6
762L _ 1/2 Dielectric	1/2	12.70	.28	7.11	13/16	13/16	2.37	60.20	90.	22.9	3.37	85.68	4.17	106.0

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

TUBE (INCH) TO MALE NPT THREAD

Ordering Information	A Tube O.D.		T (NPT)	D		W Hex. Flat	Wa Hex. Flat	I		N		L	
	inch	mm	inch	inch	mm	inch	inch	inch	mm	inch	mm	inch	mm
768L_ 3/8 X 1/4 Dielectric	3/8	9.52	1/4	.28	7.11	7/8	5/8	.66	16.8	3.44	87.4	3.73	94.7



Assembly Instructions for Dielectric Fittings

1. Hold Hex A (Back-Up) and tighten nut A according to the LET-LOK® assembly instructions (see the LET-LOK® catalog for more information).
2. Hold Hex B (Back-Up) and tighten nut B according to the LET-LOK® assembly instructions.

CAUTION: DO NOT LOOSEN the INSULATION NUT and DO NOT USE IT as a BACK UP HEX.

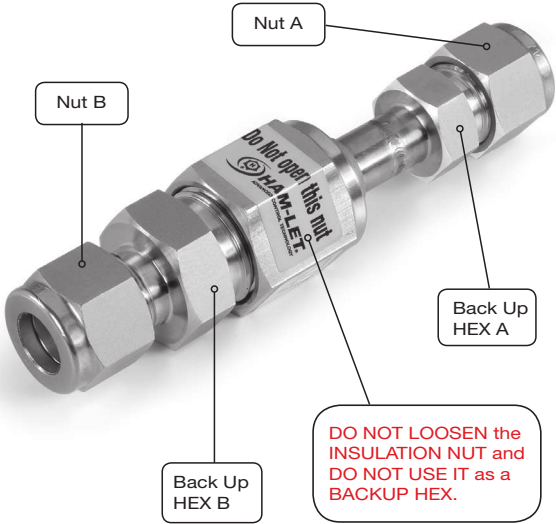
Notes:

1. If the end connection is a Taper Pipe Thread - apply pipe sealant on thread and use Hex A or B as wrenching or as the Backup Hex.
2. For additional types of end connection, please contact your authorized HAM-LET representative.

Warning!

The system designer and user have the sole responsibility to select products suitable for their special application requirements and to ensure the proper installation, operation and maintenance of the product. Please consider application details, material compatibility and product ratings when making your selection. Improper selection or use of products can cause property damage or personal injury.

“D” - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.



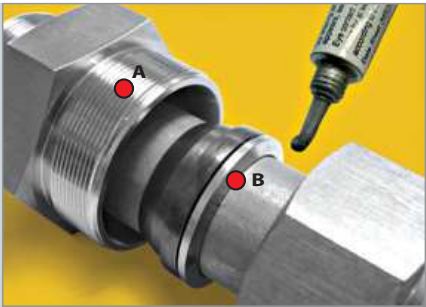
ACCESSORIES

G-RAPID PLUS LOW FRICTION PASTE

INSTALLATION INSTRUCTIONS FOR
LET-LOK® FITTINGS
38mm-50mm
1 1/4"-2"
30-50mm



1. Close the nut and ferrules on the tube with a hydraulic tool.
2. Open and release from the tool.
3. Apply the G-Rapid paste on areas A and B.
4. Tighten the nut on body 1/2 a turn with a wrench



To order:
use part No. 3900753

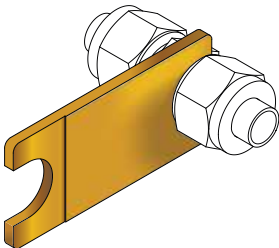


HIGH SAFETY

In applications where severe conditions and high pressure exist, we recommend the following installation procedures:

1. Check that the nut is finger tight.
2. Insert the tube (up to the shoulder).
3. Rotate the nut with a wrench until the tube does not rotate freely.
4. Mark position of the nut.
5. Rotate the nut 1-1/4 turns.

This method ensures that even if the tube O.D. is at the minimum tolerance, the ferrules will be in contact with the tube for the full 1-1/4 rotation.



LET-LOK® GAUGE

SIZE:

GAUGE	
.PART NO	AVAILABLE ONLY IN
3900098	(6mm), 3/8", 1/2" (12mm) "1/4"

ADDITIONAL SIZES:

LET-LOK® GAUGE	
.PART NO	LET-LOK® SIZE
3901508	No-GO Gauge 1/16
3901509	No-GO Gauge 1/8"-2-3 mm
3901510	No-GO Gauge 3/16"- 4 mm
3901513	No-GO Gauge 5/16"- 8 mm
3902398	No-GO Gauge 5/16"- 8 mm
3901511	No-GO Gauge 10 mm
3901247	No-GO Gauge 5/8"-14-15-16 mm
3901246	No-GO Gauge 3/4"-18 mm
3901512	No-GO Gauge 7/8"-20-22 mm
3901245	No-GO Gauge 1"-25 mm

"D" - Dimension is minimum opening. Dimensions are for reference only and are subject to change without notice.

HAM-LET LEADING BY INNOVATION



ACCESSORIES



STAINLESS STEEL TUBE CUTTER

Ordering Information	Capacity	
	inch	mm
Tube Cutter	3/16-1	5-25
Replacement Wheel	3/16-1	5-25



REAMERS, DEBURRING TOOLS

Ordering Information	Capacity
"In.Out.Reamer 1/4"-1 1/4	(5mm) through 1 1/4" (36mm) "1/4
"In.Out.Reamer 1/2"-2	(12mm) through 2" (54mm) "1/2



LEVER TUBE BENDERS

Ordering Information	Capacity	
	Tube Size	Bend Radius
Lever Bender 3/16	3/16"	5/ 8"
Lever Bender 1/4	1/4"	5/8"
Lever Bender 5/16	5/16'	15/16"
Lever Bender 3/8	3/8"	15/16"
Lever Bender 1/2	1/2"	1 1/2"
Lever Bender 6	6mm	16mm
Lever Bender 8	8mm	24mm
Lever Bender 10	10mm	24mm
Lever Bender 12	12mm	38mm

HAM-LET PREASSEMBLY TOOL

In constrained installation areas, LET-LOK® fittings can be assembled with the preassembly tool and a second step on the system.

PART NO.	LET-LOK® SIZE
3902419	PREASSEMBLY TOOL 1/8
3901658	PREASSEMBLY TOOL 1/4
3901659	PREASSEMBLY TOOL 3/8
3901660	PREASSEMBLY TOOL 1/2
3902719	PREASSEMBLY TOOL 5/8
3902402	PREASSEMBLY TOOL 6MM
3902420	PREASSEMBLY TOOL 8MM
3902421	PREASSEMBLY TOOL 10MM
3902422	PREASSEMBLY TOOL 12MM
3902720	PREASSEMBLY TOOL 14MM
3902721	PREASSEMBLY TOOL 15MM
3902538	PREASSEMBLY TOOL 16MM



Instruction for using "Preassembly Tool" 6mm-16mm, 1/4"-5/8"

1. Assemble HAM-LET ferrules and nut on the Preassembly Tool, tighten the nut to finger tight position.
2. Insert the tube through the nut and ferrules until the tube touches the bottom (shoulder).
3. From the finger tight position, rotate the nut 1-1/4 turns (450°).
4. Release the nut from the Preassembly Tool; pull out the tube with the ferrules swaged into the tube.
5. Insert tube with swaged ferrules into the fitting body.
6. Tighten the nut to the finger tight position.
7. To assemble on the fitting, use a wrench to tighten the nut to the original position. An increase of torque will be felt, from this point turn the wrench slightly.
Tightening to the original position depends on the tube size. A large tube size will need more tightening than a small size, and the wall thickness has some effect on the tightening.

Note:

1. When using the Preassembly Tool, make sure the tool is free of damage and is clean prior to use.
2. Usage of the Preassembly Tool is limited, after permanent use please send tool to HAM-LET for evaluation.
3. Soft tubing and tubing at the maximum diameter tolerance can cause the tube to stick to Preassembly Tool.
In order to remove the stuck tube, please rock the tube back and forth until the tube gets released from the tool.

Instruction for using "Preassembly Tool" 1/8"-3/16", 2mm-4mm

1. Assemble HAM-LET ferrules and nut on the Preassembly Tool, tighten the nut to the finger tight position.
2. Insert the tube through the nut and ferrules until the tube touches the bottom (shoulder).
3. From the finger tight position, rotate the nut 3/4 of a turn (270°).
4. Release the nut from the Preassembly Tool; pull out the tube with the ferrules swaged into the tube.
5. Insert tube with swaged ferrules into the fitting body.
6. Tighten the nut to the finger tight position.
7. To assemble on the fitting, use a wrench to tighten the nut to the original position. An increase of torque will be felt, from this point turn the wrench slightly.