



EZY - Finder Simple Selection for Fittings

HY-LOK CORPORATION



Distributed by:



Handelsonderneming PD

TECHNOLOGIE VOOR GASSEN

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HY-LOK CORPORATION

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CBUW



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CPA



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CCA



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CFF



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CTW



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78

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CFTA



79

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CFSC



79

Used to Plug a Tube Fittings Port
CFSP



79

Hy-Lok Instrument Pipe Thread Fittings

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H-SLA



80

Street Elbow
H-SLC



80

Reducing Street Elbow
H-SLCR



80

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H-SML



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81

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H-SMT



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H-SXA



82

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Pipe Plug
H-SPB



83

Close Nipple
H-SBE



83

Hex Nipple
H-SNA



83

Hex Nipple
H-SNA



84

Hex Reducing Nipple
H-SNR



84

Hex Long Nipple
H-SNL



84

Hex Nipple
H-SNA



84

Adapter
H-MFAA



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Adapter
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Adapter
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85

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KP-A



87

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Union Tee
H-SWTA



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Union Cross
H-SWXA



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Male Connector
H-SSD



89

Female Connector
H-SSB



89

Male Elbow
H-SLG



89

Female Elbow
H-SLD



89

Pipe Weld to Tube Socket Weld
H-SWRM



90

Tube Weld to Tube Socket Weld
H-SWRM



90

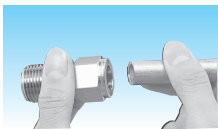
Installation Instructions

Tube Preparation

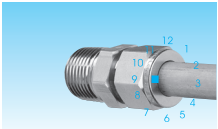
1. Check if tubing O.D., wall thickness, ovality, hardness and their tolerances are within specs for your application. Also check if surface is free from scratches and dirt.
2. Make a square cut, (Always use proper tube cutter. Improper tube cutter can cause excessive tube deformation at the tube end.)
3. Remove burrs from inner and outer edges of tubing.

Installation Instructions for Hy-Lok Fittings of 1 inch or 25mm and Under

Hy-Lok fittings are supplied fully assembled / finger tight and are readily usable. A leak tight and mechanically safe installation is easily made by just turning the nut 1 1/4 turns or 3/4 turn for small sizes.



1. Insert prepared tubing into Hy-Lok fitting until tubing end is firmly seated on the body shoulder and make sure the nut is finger-tight. (Do not force the tubing into ferrule if it does not go in easily. It may be burred or oval, or there may be foreign materials inside the fitting.)



2. Mark the nut at 9 o'clock position for identification of starting point.
3. Tighten the nut 1 1/4 turns* with a wrench keeping the fitting body steady with a back-up wrench. When the nut is tightened 1 1/4 turns, the mark at 9 o'clock position before tightening will be at 12 o'clock position.

Note*: Only 3/4 turn from finger-tight is required for 1/16", 1/8", 3/16", 2mm, 3mm, and 4mm sizes.

High Pressure Applications

Even though Hy-Lok fittings are designed to accept the tube variations specified in ASTM or equivalent specifications, it is more desirable to have common starting point, or snug position, for high pressure applications. Make sure that the tubing end is fully seated. Slightly tighten the nut until the tubing can not be rotate by hand. 1 1/4 turns (or 3/4 turn for small size fittings) from snug position will ensure reliable leak tight installation.

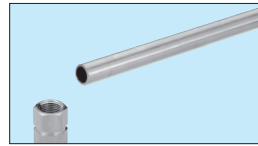
Reassembling Instructions

Hy-Lok fittings can be disassembled and reassembled many times and leak tight performance can be obtained each time.

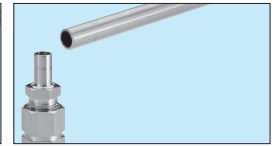
1. Insert tubing which is preswaged with ferrules into fitting body. Hand tighten the nut and further tighten the nut with a wrench to the original position
2. position keeping the body steady with a back-up wrench, A sharp rise in resistance will be felt at the original position, then snug - up slightly with a wrench.

Adapters

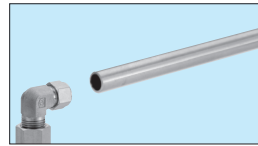
Hy-Lok Adapter eliminates difficult alignment problems.



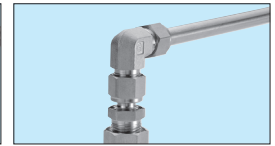
1. It is required to install tubing to a female port in a certain direction as shown.



3. To avoid this, simply tighten the pipe thread of male adapter into female port.



2. With pipe connection tight, the male elbow is directed to wrong direction.



4. Connect union elbow to male adapter by tightening the Hy-Lok nut while keeping the elbow in the desired direction. Then install the tubing into the other end of elbow.

Installation Instruction Port Connectors

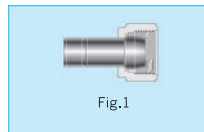


Fig.1

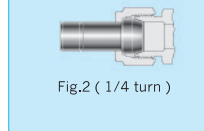


Fig.2 (1/4 turn)

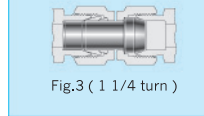


Fig.3 (1 1/4 turn)

Machined Ferrule End

While holding fitting body steady, tighten the port connector one-quarter turn from the finger-tight position For 1/16", 1/8", and 3/16". ; 2mm 3mm and 4mm tube fittings, tighten the port connector one-eighth turn. For over 1in. and over 25mm tube fittings, tighten the port connector one quarter turn.

Reassembly

You may disassemble and reassemble Hy-Lok port connectors many times. Make subsequent connections by slightly tightening with a wrench after snugging the nut by hand.

Tube adapter End

1. Insert the tube adapter into the Hy-Lok fitting until tubing end is firmly seated on the body shoulder and make sure the nut is hand tight.(Fig.3)
2. Mark the nut at 9 o'clock position for identification of starting point.
3. Tighten the nut 1 1/4turns* with a wrench keeping the fitting body steady with a back-up wrench, when the nut is tightened 1 1/4 turns, the mark at 9o'clock position before tightening will be at 12o'clock position.

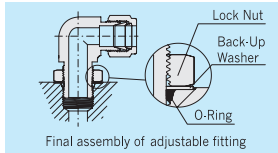
Note*: Only 3/4 turn from finger tight is required for 1/16", 1/8", 3/16", 2mm, 3mm, and 4mm sizes.

Reassembly

See Hy-Lok Tube fitting reassembly, page71

Adjustable SAE/MS Straight Thread Fittings

These adjustable or positionable fittings are useful in that the direction of Hy-Lok tube end can be oriented into desired direction with ease. they can be installed on tanks or vessels without welding or brazing. Viton O-ring is standard, and other materials are available upon request.



Installation Instructions

1. Lubricate O-ring with lubricant compatible with system and O-ring material and place it over the groove close to metal back-up washer.
2. Screw fitting into the SAE straight thread boss until the washer contacts the face of the boss.

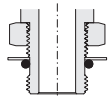


Fig. 1 · Lock Nut Backed Off

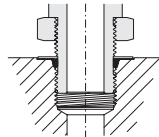


Fig. 2 · Fitting Installed Hight

3. Position the fitting by backing it out no more than one turn.

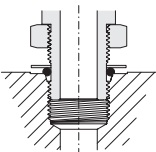


Fig. 3 · Fitting Backed Off for Alignment (1 Turn Maximum)

4. Hold the fitting in position and tighten the lock nut until the washer contacts the face of the boss.

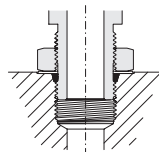
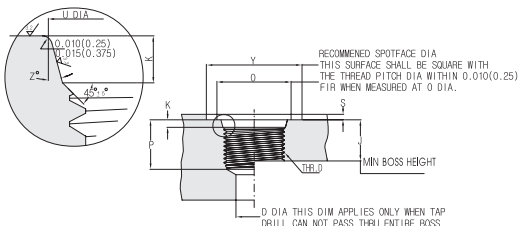


Fig. 4 · Fitting Lock Nut Tightened to Appropriate Torque

SAE / MS Internal Straight Thread Boss



O-Seal Connectors

Hy-Lok O-seal Fittings can be directly installed into existing pipe thread or straight thread port.

Due to short thread length, thread interference which is common on tapered thread does not occur and the leak tight seal is made by O-ring.

The standard Viton O-ring is fully contained in a precision groove. The groove provides antiextrusion of O-ring at high pressure and controlled squeeze for vacuum tight sealing.

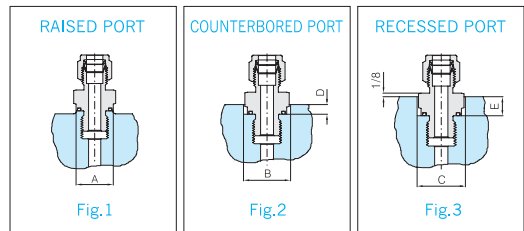
To provide a leak tight installation, smooth flat surface perpendicular to the axis of the threads is required.

Installation Instructions

1. Hand tighten the O-Seal fittings in the port until O-ring compresses on the port.
2. Further snug the fitting lightly with a wrench.

Note : When installing or disconnecting tubing to or from Hy-Lok tube end, make sure that the fitting body is always held by back-up wrench. By doing this, the fitting does not turn and the proper seal is maintained.

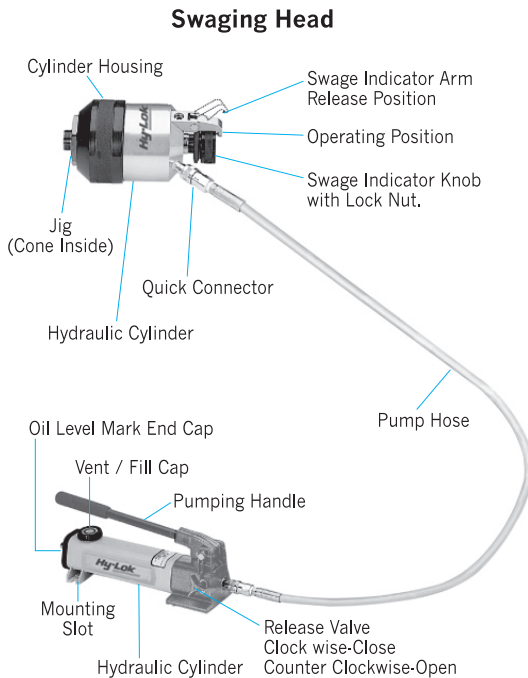
The illustrations and table below show required mounting dimensions for O-seal connectors.



Operating Procedures

1. Assemble front ferrule, back ferrule and nut onto jig.
2. Insert the prepared tube into pre-assembled nut and ferrules and hand-tighten the nut. Pumping until arm release (manual), or just press, "start" switch(auto).
3. Unthread nut from swaging jig. Remove pre-swaged tube and insert it into fitting body. Make sure the ferrule seats in the fitting. (The detailed instructions are provided for each of EZY-MAT TOOL.)

EZY - MAT 1 (Manual)



Hydraulic Hand Pump

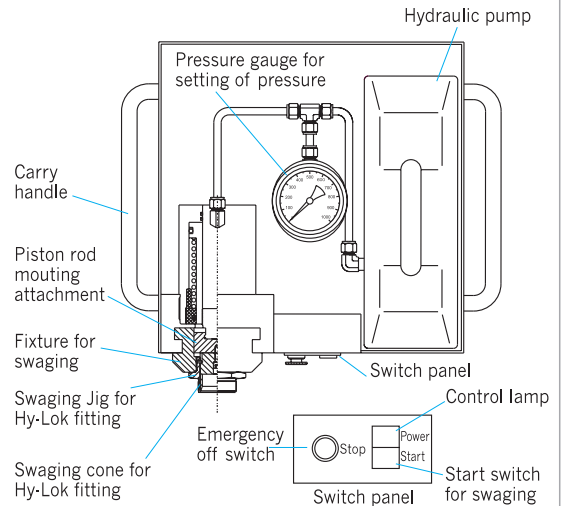
EZY - MAT 2 (Auto)

220V version

Hydraulic pump : 0.35 kW/2.0 ℓ /min,
 Operating pressure : 0~600bar,
 Connection : 220V/1~/50/60 Hz/2,5 A,
 Dimension : 400x400x230 mm,
 Weight : 30kg.

110V version

Hydraulic pump : 0.35 kW/2.0 ℓ /min,
 Operating pressure : 0~600bar,
 Connection : 110V/1~/50/60 Hz/6,5 A,
 Dimension : 400x400x230 mm,
 Weight : 30kg.



How to Order

EZY - MAT TOOL

Part No.	Applicable Fitting Size	Operation
EZY - MAT 1	1/2" to 2" (12mm to 38mm)	Manual
EZY - MAT 2	1/2" to 2" (12mm to 38mm)	Auto

JIG and DIE

Basic Part No.	Size Designator	Remark
PS - CSJ - *	See below - *	for Jig
PS - CSD - *	See below - *	for Die

Note * : To complete part number, basic part No. must be followed by size designator. For fractional size, designate size in sixteenth and then add T, e.g. 20T for 1 1/4 inches. For metric size, designate size in millimeters and then add M, e.g. 28M for 28mm.

Union CUA



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CUA - 1	1/16	1.58
CUA - 2	1/8	3.17
CUA - 3	3/16	4.76
CUA - 4	1/4	6.35
CUA - 5	5/16	7.93
CUA - 6	3/8	9.52
CUA - 8	1/2	12.70
CUA - 10	5/8	15.87
CUA - 12	3/4	19.05
CUA - 14	7/8	22.22
CUA - 16	1	25.40
CUA - 20	1 1/4	31.75
CUA - 24	1 1/2	38.10
CUA - 32	2	50.80

Connects Metric Tubes

Part No.	Tube O.D.
	mm
CUA - 2M	2
CUA - 3M	3
CUA - 4M	4
CUA - 6M	6
CUA - 8M	8
CUA - 10M	10
CUA - 12M	12
CUA - 15M	15
CUA - 16M	16
CUA - 18M	18
CUA - 20M	20
CUA - 22M	22
CUA - 25M	25
CUA - 28M	28
CUA - 32M	32
CUA - 38M	38
CUA - 42M	42

Reducing Union CUR



Connects Fractional Tubes

Part No.	Tube O.D.		Reduced O.D.	
	in	mm	in	mm
CUR 2 - 1	1/8	3.17	1/16	1.58
CUR 3 - 1	3/16	4.76	1/8	3.17
CUR 3 - 2			1/16	1.58
CUR 4 - 1	1/4	6.35	1/8	3.17
CUR 4 - 2			3/16	4.76
CUR 4 - 3	5/16	7.93	1/8	3.17
CUR 5 - 2			1/4	6.35
CUR 5 - 4	3/8	9.52	1/16	1.58
CUR 6 - 1			1/8	3.17
CUR 6 - 2	1/2	12.70	1/4	6.35
CUR 6 - 4			5/16	7.93
CUR 6 - 5	5/8	15.87	1/8	3.17
CUR 8 - 2			1/4	6.35
CUR 8 - 4	3/4	19.05	3/8	9.52
CUR 8 - 6			1/2	12.70
CUR 10 - 6	1	25.40	1/2	12.70
CUR 10 - 8			1/4	6.35
CUR 12 - 4	1 1/4	31.75	3/8	9.52
CUR 12 - 6			1/2	12.70
CUR 12 - 8	1 1/2	38.10	5/8	15.87
CUR 12 - 10			1/2	12.70
CUR 16 - 8	2	50.80	5/8	15.87
CUR 16 - 12			3/4	19.05

Connects Metric Tubes

Part No.	Tube O.D.	Reduced O.D.
	mm	mm
CUR 3M - 2M	3	2
CUR 6M - 2M	6	3
CUR 6M - 3M		4
CUR 6M - 4M	8	6
CUR 8M - 6M		8
CUR 10M - 6M	10	8
CUR 10M - 8M		6
CUR 12M - 6M	12	8
CUR 12M - 8M		10
CUR 12M - 10M	16	12
CUR 16M - 10M		16
CUR 16M - 12M	18	18
CUR 18M - 12M		20
CUR 25M - 18M	25	18
CUR 25M - 20M		20

Reducing
Union
CUR



**Connects Metric Tube To
Fractional Tube**

Part No.	Tube O.D.	Reduced O.D.	
	mm	in	mm
CUR 3M - 2	3	1/8	3.17
CUR 4M - 2	4	1/4	6.35
CUR 4M - 4		1/8	3.17
CUR 6M - 2	6	1/4	6.35
CUR 6M - 4		5/16	7.93
CUR 6M - 5	8	1/4	6.35
CUR 8M - 4		1/8	3.17
CUR 10M - 2	10	1/4	6.35
CUR 10M - 4		5/16	7.93
CUR 10M - 5		3/8	9.52
CUR 10M - 6	12	5/16	7.93
CUR 12M - 5		3/8	9.52
CUR 12M - 6	15	1/2	12.70
CUR 12M - 8		5/8	15.87
CUR 15M - 8	18	3/4	19.05
CUR 18M -12		1	25.40
CUR 20M -12	22		
CUR 20M -16			
CUR 22M -16			

Union Elbow
CLA



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CLA - 1	1/16	1.58
CLA - 2	1/8	3.17
CLA - 3	3/16	4.76
CLA - 4	1/4	6.35
CLA - 5	5/16	7.93
CLA - 6	3/8	9.52
CLA - 8	1/2	12.70
CLA -10	5/8	15.87
CLA -12	3/4	19.05
CLA -14	7/8	22.22
CLA -16	1	25.40
CLA -20	1-1/4	31.75
CLA -24	1-1/2	38.10
CLA -32	2	50.80

Connects Metric Tubes

Part No.	Tube O.D.
	mm
CLA - 2M	2
CLA - 3M	3
CLA - 4M	4
CLA - 6M	6
CLA - 8M	8
CLA -10M	10
CLA -12M	12
CLA -15M	15
CLA -16M	16
CLA -18M	18
CLA -20M	20
CLA -22M	22
CLA -25M	25
CLA -28M	28
CLA -32M	32
CLA -38M	38
CLA -42M	42

Union Tee

CTA



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CTA - 1	1/16	1.58
CTA - 2	1/8	3.17
CTA - 3	3/16	4.76
CTA - 4	1/4	6.35
CTA - 5	5/16	7.93
CTA - 6	3/8	9.52
CTA - 8	1/2	12.70
CTA-10	5/8	15.87
CTA-12	3/4	19.05
CTA-14	7/8	22.22
CTA-16	1	25.40
CTA-20	1-1/4	31.75
CTA-24	1-1/2	38.10
CTA-32	2	50.80

Connects Metric Tubes

Part No.	Tube O.D.
	mm
CTA - 2M	2
CTA - 3M	3
CTA - 4M	4
CTA - 6M	6
CTA - 8M	8
CTA -10M	10
CTA -12M	12
CTA -15M	15
CTA -16M	16
CTA -18M	18
CTA -20M	20
CTA -22M	22
CTA -25M	25
CTA -28M	28
CTA -32M	32
CTA -38M	38
CTA -42M	42

*Reducing union tees are available upon request.

Union Cross

CXA



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CXA - 1	1/16	1.58
CXA - 2	1/8	3.17
CXA - 3	3/16	4.76
CXA - 4	1/4	6.35
CXA - 5	5/16	7.93
CXA - 6	3/8	9.52
CXA - 8	1/2	12.70
CXA-10	5/8	15.87
CXA-12	3/4	19.05
CXA-14	7/8	22.22
CXA-16	1	25.40

Connects Metric Tubes

Part No.	Tube O.D.
	mm
CXA - 3M	3
CXA - 6M	6
CXA - 8M	8
CXA -10M	10
CXA -12M	12
CXA -16M	16
CXA -18M	18
CXA -20M	20
CXA -25M	25

Bulkhead Union CBU



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CBU - 1	1/16	1.58
CBU - 2	1/8	3.17
CBU - 3	3/16	4.76
CBU - 4	1/4	6.35
CBU - 5	5/16	7.93
CBU - 6	3/8	9.52
CBU - 8	1/2	12.70
CBU -10	5/8	15.87
CBU -12	3/4	19.05
CBU -14	7/8	22.22
CBU -16	1	25.40
CBU -20	1-1/4	31.75
CBU -24	1-1/2	38.10
CBU -32	2	50.80

Connects Metric Tubes

Part No.	Tube O.D.
	mm
CBU - 3M	3
CBU - 4M	4
CBU - 6M	6
CBU - 8M	8
CBU -10M	10
CBU -12M	12
CBU -15M	15
CBU -16M	16
CBU -18M	18
CBU -20M	20
CBU -22M	22
CBU -25M	25
CBU -32M	32
CBU -38M	38

Male Connector CMC - N



Connects Fractional Tube To Female NPT Thread

Part No.	Tube O.D.		NPT* Male Pipe Size
	in	mm	
CMC 1 - 1N			1/16
CMC 1 - 2N	1/16	1.58	1/8
CMC 1 - 4N			1/4
CMC 2 - 1N			1/16
CMC 2 - 2N			1/8
CMC 2 - 4N	1/8	3.17	1/4
CMC 2 - 6N			3/8
CMC 2 - 8N			1/2
CMC 3 - 2N	3/16	4.76	1/8
CMC 3 - 4N			1/4
CMC 4 - 1N			1/16
CMC 4 - 2N			1/8
CMC 4 - 4N	1/4	6.35	1/4
CMC 4 - 6N			3/8
CMC 4 - 8N			1/2
CMC 4 -12N			3/4
CMC 5 - 2N			1/8
CMC 5 - 4N	5/16	7.93	1/4
CMC 5 - 6N			3/8
CMC 6 - 2N			1/8
CMC 6 - 4N	3/8	9.52	1/4
CMC 6 - 6N			3/8
CMC 6 - 8N			1/2
CMC 6 -12N			3/4
CMC 8 - 2N			1/8
CMC 8 - 4N			1/4
CMC 8 - 6N	1/2	12.70	3/8
CMC 8 - 8N			1/2
CMC 8 -12N			3/4
CMC 8 -16N			1
CMC 10 - 6N			3/8
CMC 10 - 8N	5/8	15.87	1/2
CMC 10 - 12N			3/4
CMC 12 - 8N			1/2
CMC 12 - 12N	3/4	19.05	3/4
CMC 12 - 16N			1
CMC 14 - 12N	7/8	22.22	3/4
CMC 14 - 16N			1
CMC 16 - 8N			1/2
CMC 16 - 12N	1	25.40	3/4
CMC 16 - 16N			1
CMC 20 - 16N	1-1/4	31.75	1
CMC 20 - 20N			1-1/4
CMC 24 - 24N	1-1/2	38.10	1-1/2
CMC 32 - 32N	2	50.80	2

* ISO Tapered Threads are available upon request.

Male Connector CMC - R



Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube O.D.	ISO [®] Male Pipe Size (in)
	mm	
CMC 2M - 2R	2	1/8
CMC 3M - 2R	3	1/4
CMC 3M - 4R		1/8
CMC 4M - 2R	4	1/4
CMC 4M - 4R		1/8
CMC 6M - 2R	6	1/4
CMC 6M - 4R		3/8
CMC 6M - 6R		1/2
CMC 6M - 8R	8	1/4
CMC 8M - 2R		3/8
CMC 8M - 4R		1/2
CMC 8M - 6R		1/8
CMC 8M - 8R	10	1/4
CMC 10M - 2R		3/8
CMC 10M - 4R		1/2
CMC 10M - 6R		1/8
CMC 10M - 8R	12	1/4
CMC 12M - 4R		3/8
CMC 12M - 6R		1/2
CMC 12M - 8R		3/4
CMC 12M - 12R	15	1/4
CMC 15M - 8R		3/8
CMC 16M - 4R	16	1/2
CMC 16M - 6R		3/4
CMC 16M - 8R		1/8
CMC 16M - 12R	18	1/4
CMC 18M - 8R		3/4
CMC 18M - 12R	20	1/2
CMC 20M - 8R		3/4
CMC 20M - 12R	22	1
CMC 22M - 12R		3/4
CMC 22M - 16R	25	1
CMC 25M - 12R		3/4
CMC 25M - 16R		1
CMC 28M - 16R	28	1-1/4
CMC 28M - 20R		3/4
CMC 32M - 20R	32	1-1/2
CMC 32M - 24R		3/4

* NPT Threads are available upon request.

Thermocouple Male Connector CMCT

Bore-through male connectors handle thermocouples or dip tubes with ease. For correct part number, just add "T" as a suffix to CMC, the male connector designator.
Example : CMCT 12M-8R-S316 12mm tube O.D. x 1/2" ISO tapered stainless Steel 316
CMCT 8-8N-S316 1/2" tube O.D. x 1/2" NPT stainless steel 316



Note : There are some limitations in size available as it is impractical to bore through all male connectors.
For availability, contact your local distributor.

Male Connector For Bonded Washer Seal CMC - G



Connects Metric Tube To Female ISO Parallel Thread

Part No.	Tube O.D.	ISO [®] Male Pipe Size (in)
	mm	
CMC 2M - 2G	2	1/8
CMC 3M - 2G	3	1/4
CMC 3M - 4G		1/8
CMC 4M - 2G	4	1/4
CMC 4M - 4G		3/8
CMC 6M - 2G	6	1/2
CMC 6M - 4G		1/8
CMC 6M - 6G		3/8
CMC 6M - 8G	8	1/4
CMC 8M - 2G		3/8
CMC 8M - 4G		1/2
CMC 8M - 6G		1/8
CMC 8M - 8G	10	3/8
CMC 10M - 4G		1/2
CMC 10M - 6G	12	1/4
CMC 10M - 8G		3/8
CMC 12M - 4G	12	1/2
CMC 12M - 6G		3/4
CMC 12M - 8G	16	3/8
CMC 12M - 12G		1/2
CMC 16M - 6G	18	1/8
CMC 16M - 8G		3/4
CMC 18M - 8G	20	1/2
CMC 18M - 12G		3/4
CMC 20M - 8G	22	1
CMC 20M - 12G		3/4
CMC 22M - 12G	25	1
CMC 22M - 16G		3/4
CMC 25M - 12G	28	1
CMC 25M - 16G		1-1/4
CMC 28M - 16G	32	1-1/2
CMC 28M - 20G		3/4
CMC 32M - 20G	38	1-1/2
CMC 32M - 24G		3/4

For leak tight installation, see ISO Parallel and Tapered Pipe Thread on page 7.

Male Connector For
Metal Gasket Seal

COM



**Connects Metric Tube To
Female ISO Parallel Thread**

Part No.	Tube O.D.	ISO Male Pipe Size (in)
	mm	
COM 3M - 2G	3	1/8
COM 3M - 4G		1/4
COM 4M - 2G	4	1/8
COM 6M - 2G		6
COM 6M - 4G	3/8	
COM 6M - 6G	1/2	
COM 6M - 8G	8	
COM 8M - 2G		1/4
COM 8M - 4G		3/8
COM 8M - 6G		1/2
COM 8M - 8G	10	1/4
COM 10M - 4G		3/8
COM 10M - 6G		1/2
COM 10M - 8G		12
COM 12M - 4G	3/8	
COM 12M - 6G	1/2	
COM 12M - 8G	3/4	
COM 12M - 12G	15	1/2
COM 15M - 8G		3/8
COM 16M - 6G	16	1/2
COM 16M - 8G		18
COM 18M - 8G	20	
COM 18M - 12G		22
COM 20M - 8G	25	
COM 20M - 12G		28
COM 22M - 12G	32	
COM 22M - 16G		38
COM 25M - 12G	38	
COM 25M - 16G		
COM 28M - 16G		
COM 28M - 20G		
COM 32M - 20G		
COM 38M - 24G		

For leak tight installation, see ISO Parallel and Tapered Pipe Thread on page 7.

Bulkhead
Male Connector

CBMC



**Connects Fractional Tube
To Female NPT Thread**

Part No.	Tube O.D.		NPT* Male Pipe Size (in)
	in	mm	
CBMC 2 - 2N	1/8	3.17	1/8
CBMC 4 - 2N			
CBMC 4 - 4N	1/4	6.35	1/4
CBMC 6 - 4N			
CBMC 6 - 6N	3/8	9.52	3/8
CBMC 6 - 8N			1/2
CBMC 8 - 6N	1/2	12.70	3/8
CBMC 8 - 8N			1/2
CBMC12 -12N	3/4	19.05	3/4
CBMC16 -16N	1	25.40	1

45° Male Elbow

CLMB



**Connects Fractional Tube
To Female NPT Thread**

Part No.	Tube O.D.		NPT* Male Pipe Size (in)
	in	mm	
CLMB 4 - 2N	1/4	6.35	1/8
CLMB 4 - 4N			1/4
CLMB 6 - 2N	3/8	9.52	1/8
CLMB 6 - 4N			1/4
CLMB 6 - 6N	1/2	12.70	3/8
CLMB 8 - 6N			1/2
CLMB 8 - 8N	3/4	19.05	1/2
CLMB12 -12N			3/4
CLMB16 -16N	1	25.40	1

* ISO Tapered Threads are available upon request.

Male Elbow CLMA



Connects Fractional Tube To Female NPT Thread

Part No.	Tube O.D.		NPT* Male Pipe Size (in)		
	in	mm			
CLMA 1 - 1N	1/16	1.58	1/16		
CLMA 1 - 2N			1/8		
CLMA 2 - 2N	1/8	3.17	1/4		
CLMA 2 - 4N			1/8		
CLMA 3 - 2N	3/16	4.76	1/8		
CLMA 3 - 4N			1/4		
CLMA 4 - 1N	1/4	6.35	1/16		
CLMA 4 - 2N			1/8		
CLMA 4 - 4N			1/4		
CLMA 4 - 6N			3/8		
CLMA 4 - 8N			1/2		
CLMA 5 - 2N			5/16	7.93	1/8
CLMA 5 - 4N					1/4
CLMA 5 - 6N			3/8	9.52	3/8
CLMA 6 - 2N	1/8				
CLMA 6 - 4N	1/4				
CLMA 6 - 6N	3/8				
CLMA 6 - 8N	1/2				
CLMA 6 - 12N	3/4				
CLMA 8 - 4N	1/2	12.70			1/4
CLMA 8 - 6N					3/8
CLMA 8 - 8N			1/2		
CLMA 8 - 12N			3/4		
CLMA10 - 6N	5/8	15.87	3/8		
CLMA10 - 8N			1/2		
CLMA10 - 12N	3/4	19.05	3/4		
CLMA12 - 8N			1/2		
CLMA12 - 12N	7/8	22.22	3/4		
CLMA14 - 12N			3/4		
CLMA16 - 12N	1	25.40	1		
CLMA16 - 16N			1		
CLMA20 - 20N	1-1/4	31.75	1-1/4		
CLMA24 - 24N	1-1/2	38.10	1-1/2		
CLMA32 - 32N	2	50.80	2		

*ISO Tapered Threads are available upon request.

Male Elbow CLMA



Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube O.D.	ISO* Male Pipe Size (in)
	mm	
CLMA 3M - 2R	3	1/8
CLMA 3M - 4R		1/4
CLMA 4M - 2R	4	1/8
CLMA 4M - 4R		1/4
CLMA 6M - 2R	6	1/8
CLMA 6M - 4R		1/4
CLMA 6M - 6R		3/8
CLMA 6M - 8R	8	1/2
CLMA 8M - 2R		1/4
CLMA 8M - 4R		3/8
CLMA 8M - 6R		1/2
CLMA10M - 2R	10	1/8
CLMA10M - 4R		1/4
CLMA10M - 6R		3/8
CLMA10M - 8R	12	1/2
CLMA12M - 2R		1/8
CLMA12M - 4R		1/4
CLMA12M - 6R		3/8
CLMA12M - 8R	16	1/2
CLMA12M - 12R		3/4
CLMA16M - 6R		3/8
CLMA16M - 8R	18	1/2
CLMA16M - 12R		3/4
CLMA18M - 8R	20	1/2
CLMA18M - 12R		3/4
CLMA20M - 8R	22	3/4
CLMA20M - 12R		1
CLMA22M - 12R	25	3/4
CLMA22M - 16R		1
CLMA25M - 12R	25	3/4
CLMA25M - 16R		1

* NPT Threads are available upon request.

Male Run Tee CRTM



Connects Fractional Tube To Female NPT Thread

Part No.	Tube O.D.		NPT* Male Pipe Size (in)
	in	mm	
CRTM 2 - 2N	1/8	3.17	1/8
CRTM 2 - 4N			1/4
CRTM 3 - 2N	3/16	4.76	1/8
CRTM 4 - 2N	1/4	6.35	1/4
CRTM 4 - 4N			
CRTM 5 - 2N	5/16	7.93	1/8
CRTM 6 - 4N	3/8	9.52	1/4
CRTM 6 - 6N			
CRTM 8 - 6N	1/2	12.70	3/8
CRTM 8 - 8N			
CRTM10 - 8N	5/8	15.87	1/2
CRTM12- 12N	3/4	19.05	3/4

* ISO Tapered Threads are available upon request.

Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube O.D.	ISO* Male Pipe Size (in)
	mm	
CRTM 3M - 2R	3	1/8
CRTM 3M - 4R		1/4
CRTM 4M - 2R	4	1/8
CRTM 6M - 2R	6	1/4
CRTM 6M - 4R		
CRTM 8M - 2R	8	1/8
CRTM 8M - 4R		1/4
CRTM 10M - 4R	10	3/8
CRTM 10M - 6R		
CRTM 12M - 4R	12	1/4
CRTM 12M - 6R		3/8
CRTM 12M - 8R		1/2
CRTM 16M - 6R	16	3/8
CRTM 16M - 8R		1/2
CRTM 20M - 12R	20	3/4

* NPT Threads are available upon request.

Male Branch Tee CBTM



Connects Fractional Tube To Female NPT Thread

Part No.	Tube O.D.		NPT* Male Pipe Size (in)
	in	mm	
CBTM 2 - 2N	1/8	3.17	1/8
CBTM 2 - 4N			1/4
CBTM 3 - 2N	3/16	4.76	1/8
CBTM 4 - 2N	1/4	6.35	1/8
CBTM 4 - 4N			
CBTM 5 - 2N	5/16	7.93	1/8
CBTM 6 - 4N	3/8	9.52	1/4
CBTM 6 - 6N			
CBTM 8 - 6N	1/2	12.70	3/8
CBTM 8 - 8N			
CBTM 10 - 8N	5/8	15.87	1/2
CBTM 12 - 12N	3/4	19.05	3/4

* ISO Tapered Threads are available upon request.

Connects Metric Tube To Female ISO Tapered Thread

Part No.	Tube O.D.	ISO* Male Pipe Size (in)
	mm	
CBTM 3M - 2R	3	1/8
CBTM 3M - 4R		1/4
CBTM 4M - 2R	4	1/8
CBTM 6M - 2R	6	1/4
CBTM 6M - 4R		
CBTM 8M - 2R	8	1/8
CBTM 8M - 4R		1/4
CBTM 10M - 4R	10	3/8
CBTM 10M - 6R		
CBTM 12M - 4R	12	1/4
CBTM 12M - 6R		3/8
CBTM 12M - 8R		1/2
CBTM 16M - 6R	16	3/8
CBTM 16M - 8R		1/2
CBTM 20M - 12R	20	3/4

* NPT Threads are available upon request.

Female Connector
CFC

**Connects Fractional Tube
To Male NPT Thread**



Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	in	mm	
CFC 1 - 1N	1/16	1.58	1/16
CFC 1 - 2N			1/8
CFC 2 - 2N	1/8	3.17	1/4
CFC 2 - 4N			1/8
CFC 3 - 2N	3/16	4.76	1/8
CFC 4 - 2N	1/4	6.35	1/4
CFC 4 - 4N			3/8
CFC 4 - 6N			1/2
CFC 4 - 8N			1/8
CFC 5 - 2N	5/16	7.93	1/4
CFC 5 - 4N			1/8
CFC 6 - 2N	3/8	9.52	1/4
CFC 6 - 4N			3/8
CFC 6 - 6N			1/2
CFC 6 - 8N			3/4
CFC 6 - 12N			1/4
CFC 8 - 4N			1/2
CFC 8 - 6N	1/2		
CFC 8 - 8N	3/4		
CFC 8 - 12N	3/8		
CFC 10 - 6N	5/8	15.87	1/2
CFC 10 - 8N			3/4
CFC 10 - 12N	3/4	19.05	1/2
CFC 12 - 8N			3/4
CFC 12 - 12N	7/8	22.22	3/4
CFC 14 - 12N	1	25.40	1
CFC 16 - 12N			1
CFC 16 - 16N	1	25.40	1
CFC 20 - 20N	1-1/4	31.75	1-1/4
CFC 24 - 24N	1-1/2	38.10	1-1/2
CFC 32 - 32N	2	50.80	2

* ISO Tapered Threads are available upon request.

Female Connector
CFC

**Connects Metric Tube To
Male ISO Tapered Thread**



Part No.	Tube O.D.		ISO* Female Pipe Size (in)
	mm	mm	
CFC 3M - 2R	3		1/8
CFC 3M - 4R			1/4
CFC 4M - 2R	4		1/8
CFC 6M - 2R			1/4
CFC 6M - 4R	6		3/8
CFC 6M - 6R			1/2
CFC 6M - 8R			1/8
CFC 8M - 2R	8		1/4
CFC 8M - 4R			3/8
CFC 8M - 6R			1/2
CFC 8M - 8R			1/8
CFC 10M - 2R	10		1/8
CFC 10M - 4R			1/4
CFC 10M - 6R			3/8
CFC 10M - 8R	12		1/2
CFC 12M - 2R			1/8
CFC 12M - 4R			1/4
CFC 12M - 6R			3/8
CFC 12M - 8R	12		1/2
CFC 12M - 12R			3/4
CFC 15M - 8R	15		1/2
CFC 16M - 8R	16		1/2
CFC 20M - 8R	20		3/4
CFC 20M - 12R			1
CFC 22M - 12R	22		3/4
CFC 22M - 16R			1
CFC 25M - 12R	25		3/4
CFC 25M - 16R			1

* NPT Threads are available upon request.

Gauge Connector CGC



Connects Fractional Tube To ISO Parallel Thread (Gauge)

Part No.	Tube O.D.		ISO Female Pipe Size (in)
	in	mm	
CGC 4 - 2G	1/4	6.35	1/8
CGC 4 - 4G			1/4
CGC 4 - 6G			3/8
CGC 4 - 8G			1/2
CGC 5 - 4G	5/16	7.93	1/4
CGC 5 - 8G			1/2
CGC 6 - 4G	3/8	9.52	1/4
CGC 6 - 6G			3/8
CGC 6 - 8G			1/2
CGC 8 - 4G	1/2	12.70	1/4
CGC 8 - 6G			3/8
CGC 8 - 8G			1/2

Connects Metric Tube To ISO Parallel Thread (Gauge)

Part No.	Tube O.D.	ISO Female Pipe Size (in)
	mm	
CGC 3M - 4G	3	1/4
CGC 6M - 4G		
CGC 6M - 6G		
CGC 6M - 8G	6	3/8
CGC 8M - 4G		1/2
CGC 8M - 6G		1/4
CGC 8M - 8G	8	3/8
CGC 10M - 4G		1/2
CGC 10M - 6G		1/4
CGC 10M - 8G	10	3/8
CGC 12M - 4G		1/2
CGC 12M - 6G		1/4
CGC 12M - 8G	12	3/8
CGC 20M - 8G		1/2
CGC 22M - 8G		

Bulkhead Female Connector CBFC



Connects Fractional Tube To Male NPT Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	in	mm	
CBFC 2 - 2N	1/8	3.17	1/8
CBFC 4 - 2N			
CBFC 4 - 4N	1/4	6.35	1/4
CBFC 6 - 4N			
CBFC 8 - 6N	1/2	12.70	3/8
CBFC 8 - 8N			1/2
CBFC12 -12N	3/4	19.05	3/4

Connects Metric Tube To Male NPT Thread

Part No.	Tube O.D.	NPT* Female Pipe Size (in)
	mm	
CBFC 6M - 2N	6	1/8
CBFC 6M - 4N		
CBFC 8M - 4N	8	1/4
CBFC 12M - 8N		

* ISO Tapered Threads are available upon request.

Female Elbow CLF



Connects Fractional Tube To Male NPT Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	in	mm	
CLF 2 - 2N	1/8	3.17	1/8
CLF 2 - 4N			1/4
CLF 3 - 2N	3/16	4.76	1/8
CLF 4 - 2N			1/4
CLF 4 - 4N	1/4	6.35	1/4
CLF 4 - 6N			3/8
CLF 4 - 8N			1/2
CLF 5 - 2N	5/16	7.93	1/8
CLF 5 - 4N			1/4
CLF 6 - 2N	3/8	9.52	1/8
CLF 6 - 4N			1/4
CLF 6 - 6N			3/8
CLF 6 - 8N	1/2	12.70	1/2
CLF 8 - 4N			1/4
CLF 8 - 6N			3/8
CLF 8 - 8N	1/2	19.05	1/2
CLF 10 - 6N			3/8
CLF 10 - 8N	5/8	15.87	1/2
CLF 12 - 8N			3/4
CLF 12 - 12N	7/8	22.22	3/4
CLF 14 - 12N			1
CLF 16 - 12N	1	25.40	1
CLF 16 - 16N			1

Connects Metric Tube To Male NPT Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	mm	mm	
CLF 6M - 2N	6		1/8
CLF 6M - 4N			1/4
CLF 6M - 6N			3/8
CLF 6M - 8N			1/2
CLF 8M - 4N	8		1/4
CLF 8M - 8N			1/2
CLF10M - 2N	10		1/8
CLF10M - 4N			1/4
CLF10M - 6N			3/8
CLF10M - 8N			1/2
CLF12M - 4N	12		1/4
CLF12M - 6N			3/8
CLF12M - 8N			1/2
CLF16M - 8N	16		1/2

* ISO Tapered Threads are available upon request.

Female Run Tee CRTF



Connects Fractional Tube To Male NPT Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	in	mm	
CRTF 2 - 2N	1/8	3.17	1/8
CRTF 4 - 2N			1/4
CRTF 4 - 4N	1/4	6.35	1/4
CRTF 6 - 4N			3/8
CRTF 8 - 6N	1/2	12.70	3/8
CRTF 8 - 8N			1/2
CRTF12 - 12N	3/4	19.05	3/4
CRTF16 - 12N			1
CRTF16 - 16N	1	25.40	1

Connects Metric Tube To Male NPT Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	mm	mm	
CRTF 6M - 2N	6		1/8
CRTF 6M - 4N			1/4
CRTF 6M - 8N			1/2
CRTF 8M - 2N	8		1/8
CRTF 8M - 4N			1/4
CRTF 8M - 6N			3/8
CRTF 8M - 8N			1/2
CRTF 10M - 4N	10		1/4
CRTF 12M - 4N	12		3/8
CRTF 12M - 6N			1/2
CRTF 12M - 8N			1/2
CRTF 16M - 8N	16		1/2

* ISO Tapered Threads are available upon request.

Female Branch Tee.

CBTF



Connects Fractional Tube To Male NPT Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	in	mm	
CBTF 2 - 2N	1/8	3.17	1/8
CBTF 4 - 2N	1/4	6.35	—
CBTF 4 - 4N			
CBTF 6 - 4N	3/8	9.52	1/4
CBTF 8 - 4N	1/2	12.70	3/8
CBTF 8 - 6N			
CBTF 8 - 8N			
CBTF10 - 8N	5/8	15.87	1/2
CBTF12 -12N	3/4	19.05	
CBTF16 -12N	1	25.40	3/4
CBTF16 - 16N			

Connects Metric Tube To Male NPT Thread

Part No.	Tube O.D.	NPT* Female Pipe Size (in)
	mm	
CBTF 6M - 2N	6	1/8
CBTF 6M - 4N		1/4
CBTF 6M - 6N		3/8
CBTF 6M - 8N		1/2
CBTF 8M - 2N	8	1/8
CBTF 8M - 4N		1/4
CBTF 8M - 6N		3/8
CBTF 8M - 8N		1/2
CBTF10M - 4N	10	1/4
CBTF10M - 6N		3/8
CBTF10M - 8N		1/2
CBTF12M - 4N	12	1/4
CBTF12M - 6N		3/8
CBTF12M - 8N		1/2
CBTF16M - 8N	16	

* ISO Tapered Threads are available upon request.

Reducer
CR



*Connects Fractional Tube To Fractional Hy-Lok Port

Part No.	Tube O.D. (1)		Part O.D. (2)	
	in	mm	in	mm
CR 1 - 2	1/16	1.58	1/8	3.17
CR 1 - 4			1/4	6.35
CR 2 - 1	1/8	3.17	1/16	1.58
CR 2 - 2			1/8	3.17
CR 2 - 3			3/16	4.76
CR 2 - 4			1/4	6.35
CR 2 - 6	3/8	9.52	3/8	9.52
CR 2 - 8			1/2	12.70
CR 3 - 2	3/16	4.76	1/8	3.17
CR 3 - 4			1/4	6.35
CR 4 - 2	1/4	6.35	1/8	3.17
CR 4 - 3			3/16	4.76
CR 4 - 4			1/4	6.35
CR 4 - 5			5/16	7.93
CR 4 - 6	1/2	12.70	3/8	9.52
CR 4 - 8			1/2	12.70
CR 4 - 10	5/8	15.87	5/8	15.87
CR 4 - 12			3/4	19.05
CR 5 - 6	5/16	7.93	3/8	9.52
CR 5 - 8			1/2	12.70
CR 6 - 4	3/8	9.52	1/4	6.35
CR 6 - 6			3/8	9.52
CR 6 - 8			1/2	12.70
CR 6 - 10			5/8	15.87
CR 6 - 12	1/2	12.70	3/4	19.05
CR 8 - 4			1/4	6.35
CR 8 - 6			3/8	9.52
CR 8 - 8			1/2	12.70
CR 8 - 10	5/8	15.87	5/8	15.87
CR 8 - 12			3/4	19.05
CR 8 - 16	1	25.40	1	25.40
CR10 - 12			3/4	19.05
CR10 - 14	5/8	15.87	7/8	22.22
CR10 - 16			1	25.40
CR12 - 8	3/4	19.05	1/2	12.70
CR12 - 16			1	25.40
CR16 - 20	1	25.40	1-1/4	31.75
CR16 - 24			1-1/2	38.10
CR16 - 32	1-1/4	31.75	2	50.80
CR20 - 24			1-1/2	38.10
CR20 - 32	1-1/2	38.10	2	50.80
CR24 - 32			2	50.80

* Connects fractional tube to metric Hy-Lok port are available upon request.

Reducer
CRConnects Metric Tube To
Metric Hy-Lok Port

Part No.	Tube O.D.	
	(1) mm	(2) mm
CR 2M - 3M	2	3
CR 3M - 4M		4
CR 3M - 6M	3	6
CR 3M - 10M		10
CR 4M - 6M	4	6
CR 6M - 3M		3
CR 6M - 8M	6	8
CR 6M - 10M		10
CR 6M - 12M		12
CR 8M - 6M		6
CR 8M - 10M	8	10
CR 8M - 12M		12
CR10M - 6M		6
CR10M - 12M	10	12
CR10M - 15M		15
CR10M - 18M		18
CR12M - 6M		6
CR12M - 10M		10
CR12M - 16M		16
CR12M - 18M	12	18
CR12M - 20M		20
CR12M - 22M		22
CR12M - 25M		25
CR16M - 12M	16	12
CR18M - 12M		12
CR18M - 16M		16
CR18M - 20M	18	20
CR18M - 22M		22
CR18M - 25M		25
CR20M - 16M		16
CR20M - 18M	20	18
CR20M - 22M		22
CR20M - 25M		25
CR22M - 18M		18
CR22M - 20M	22	20
CR22M - 25M		25
CR25M - 18M		18
CR25M - 20M	25	20

Reducer
CRConnects Metric Tube To
Fractional Hy-Lok Port

Part No.	Tube O.D.		
	(1) mm	(2) in mm	
CR 2M - 2	2		
CR 3M - 2		1/8	3,17
CR 3M - 4	3		
CR 4M - 4	4	1/4	6,35
CR 6M - 2		1/8	3,17
CR 6M - 4		1/4	6,35
CR 6M - 5	6	5/16	7,93
CR 6M - 6		3/8	9,52
CR 6M - 8		1/2	12,70
CR 8M - 6		3/8	9,52
CR 8M - 8	8	1/2	12,70
CR 10M - 6	10	3/8	9,52
CR 10M - 8		1/2	12,70
CR 12M - 8	12		
CR 12M - 12		3/4	19,05
CR 18M - 12	18		
CR 18M - 16		1	25,40
CR 25M - 16	25		

Bulkhead Reducer
CBRConnects Fractional Tube To
Fractional Hy-Lok Port

Part No.	Tube O.D.	
	in	mm
CBR 2 - 2	1/8	3,17
CBR 4 - 4	1/4	6,35
CBR 6 - 6	3/8	9,52
CBR 8 - 8	1/2	12,70
CBR10 - 10	5/8	15,87
CBR16 - 16	1	25,40

Adjustable Elbow
CAL**Connects Fractional Tube To Fractional Hy-Lok Port**

Part No.	Tube O.D.	
	in	mm
CAL - 1	1/16	1,58
CAL - 2	1/8	3,17
CAL - 3	3/16	4,76
CAL - 4	1/4	6,35
CAL - 5	5/16	7,93
CAL - 6	3/8	9,52
CAL - 8	1/2	12,70
CAL - 10	5/8	15,87
CAL - 12	3/4	19,05
CAL - 14	7/8	22,22
CAL - 16	1	25,40

Connects Metric Tube To Metric Hy-Lok Port

Part No.	Tube O.D.
	mm
CAL - 2M	2
CAL - 3M	3
CAL - 4M	4
CAL - 6M	6
CAL - 8M	8
CAL - 10M	10
CAL - 12M	12
CAL - 15M	15
CAL - 16M	16
CAL - 18M	18
CAL - 20M	20
CAL - 22M	22
CAL - 25M	25
CAL - 28M	28

Adjustable Run Tee
CRTA**Connects Fractional Tube To Fractional Hy-Lok Port**

Part No.	Tube O.D.	
	in	mm
CRTA - 1	1/16	1,58
CRTA - 2	1/8	3,17
CRTA - 3	3/16	4,76
CRTA - 4	1/4	6,35
CRTA - 5	5/16	7,93
CRTA - 6	3/8	9,52
CRTA - 8	1/2	12,70
CRTA - 10	5/8	15,87
CRTA - 12	3/4	19,05
CRTA - 14	7/8	22,22
CRTA - 16	1	25,40

Connects Metric Tube To Metric Hy-Lok Port

Part No.	Tube O.D.
	mm
CRTA - 2M	2
CRTA - 3M	3
CRTA - 4M	4
CRTA - 6M	6
CRTA - 8M	8
CRTA - 10M	10
CRTA - 12M	12
CRTA - 15M	15
CRTA - 16M	16
CRTA - 18M	18
CRTA - 20M	20
CRTA - 22M	22
CRTA - 25M	25
CRTA - 28M	28

Adjustable Branch
Tee**CBTA****Connects Fractional Tube
To Fractional Hy-Lok Port**

Part No.	Tube O.D.	
	in	mm
CBTA - 1	1/16	1.58
CBTA - 2	1/8	3.17
CBTA - 3	3/16	4.76
CBTA - 4	1/4	6.35
CBTA - 5	5/16	7.93
CBTA - 6	3/8	9.52
CBTA - 8	1/2	12.70
CBTA - 10	5/8	15.87
CBTA - 12	3/4	19.05
CBTA - 14	7/8	22.22
CBTA - 16	1	25.40

**Connects Metric Tube
To Metric Hy-Lok Port**

Part No.	Tube O.D.
	mm
CBTA - 2M	2
CBTA - 3M	3
CBTA - 4M	4
CBTA - 6M	6
CBTA - 8M	8
CBTA - 10M	10
CBTA - 12M	12
CBTA - 15M	15
CBTA - 16M	16
CBTA - 18M	18
CBTA - 20M	20
CBTA - 22M	22
CBTA - 25M	25
CBTA - 28M	28

Male Adapter
CAM**Connects Fractional Hy-Lok
Port To Female NPT Thread**

Part No.	Tube O.D.		NPT* Male Pipe Size (in)
	in	mm	
CAM 2 - 2N	1/8	3.17	1/8
CAM 2 - 4N			1/4
CAM 3 - 2N	3/16	4.76	1/8
CAM 3 - 4N			1/4
CAM 4 - 2N	1/4	6.35	1/8
CAM 4 - 4N			1/4
CAM 4 - 6N			3/8
CAM 4 - 8N			1/2
CAM 5 - 2N	5/16	7.93	1/8
CAM 5 - 4N			1/4
CAM 6 - 2N	3/8	9.52	1/8
CAM 6 - 4N			1/4
CAM 6 - 6N			3/8
CAM 6 - 8N			1/2
CAM 8 - 4N	1/2	12.70	1/4
CAM 8 - 6N			3/8
CAM 8 - 8N	1/2	12.70	1/2
CAM10 - 6N			3/8
CAM10 - 8N	5/8	15.87	1/2
CAM10 - 12N			3/4
CAM12 - 8N	3/4	19.05	1/2
CAM12 - 12N			3/4
CAM12 - 16N			1
CAM14 - 12N	7/8	22.22	3/4
CAM16 - 12N	1	25.40	
CAM16 - 16N			1
CAM20 - 20N	1-1/4	31.75	1-1/4
CAM24 - 24N	1-1/2	38.10	1-1/2
CAM32 - 32N	2	50.80	2

* ISO Tapered Threads are available upon request.

Male Adapter
CAMConnects Metric Hy-Lok Port
To Female ISO Taperad Thread

Part No.	Tube O.D.		ISO* Male Pipe Size (in)
	in	mm	
CAM 2M - 2R	3		1/8
CAM 6M - 2R	6		
CAM 6M - 4R	6		1/4
CAM 8M - 4R	8		
CAM10M - 4R	10		3/8
CAM10M - 6R	10		
CAM10M - 8R	10		1/2
CAM12M - 4R	12		1/4
CAM12M - 6R	12		3/8
CAM12M - 8R	12		1/2
CAM18M - 8R	18		
CAM18M - 12R	18		3/4
CAM28M - 16R	28		1
CAM28M - 20R	28		1-1/4
CAM32M - 20R	32		
CAM38M - 24R	38		1-1/2

* NPT Threads are available upon request.

SAE / MS Male
Adapter
CAM-UConnectors Fractional Hy-Lok Port
To SAE / MS Straight Thread Boss

Part No.	Tube O.D.	
	in	mm
CAM 2 - 2U	1/8	3.17
CAM 4 - 4U	1/4	6.35
CAM 6 - 4U	3/8	9.52
CAM 6 - 6U		
CAM 6 - 8U	1/2	12.7
CAM 8 - 6U		
CAM 8 - 8U	1/2	12.7
CAM 10 - 10U	5/8	15.87
CAM 12 - 12U	3/4	19.05
CAM 16 - 16U	1	25.40
CAM 20 - 20U	1 1/4	31.75
CAM 24 - 24U	1 1/2	38.10
CAM 32 - 32U	2	50.80

Female Adapter
CAFConnects Fractional Hy-Lok
Port To Male NPT Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	in	mm	
CAF 2 - 2N	1/8	3.17	1/8
CAF 2 - 4N			1/4
CAF 3 - 2N	3/16	4.76	1/8
CAF 3 - 4N			1/4
CAF 4 - 2N	1/4	6.35	1/8
CAF 4 - 4N			1/4
CAF 4 - 6N			3/8
CAF 4 - 8N			1/2
CAF 5 - 2N	5/16	7.93	1/8
CAF 5 - 4N			1/4
CAF 6 - 2N	3/8	9.52	1/8
CAF 6 - 4N			1/4
CAF 6 - 6N			3/8
CAF 6 - 8N			1/2
CAF 8 - 4N	1/2	12.70	1/4
CAF 8 - 6N			3/8
CAF 8 - 8N	1/2	12.70	1/2
CAF10 - 6N			3/8
CAF10 - 8N	5/8	15.87	1/2
CAF10 - 12N			3/4
CAF12 - 8N	3/4	19.05	1/2
CAF12 - 12N			3/4
CAF12 - 16N	7/8	22.22	1
CAF14 - 12N			3/4
CAF16 - 12N	1	25.40	1
CAF16 - 16N			1
CAF20 - 20N	1-1/4	31.75	1-1/4
CAF24 - 24N	1-1/2	38.10	1-1/2
CAF32 - 32N	2	50.80	2

* ISO Tapered Threads are available upon request.

Connects Metric Hy-Lok Port
To Male ISO Tapered Thread

Part No.	Tube O.D.		ISO* Female Pipe Size (in)
	in	mm	
CAF 3M - 2R	3		1/8
CAF 6M - 2R	6		1/8
CAF 6M - 4R	8		1/4
CAF 8M - 4R			
CAF10M - 4R	10		3/8
CAF10M - 6R			
CAF10M - 8R			
CAF12M - 4R	12		1/4
CAF12M - 6R			3/8
CAF12M - 8R	18		1/2
CAF18M - 12R			3/4

* NPT Threads are available upon request.

Male Adapter
CAM-GConnectors Fractional Hy-Lok Port
To Female ISO Parallel Thread

Part No.	Tube O.D.		NPT* Female Pipe Size (in)
	in	mm	
CAM 2 - 2G	1/8	3.17	1/8
CAM 2 - 4G			1/4
CAM 4 - 2G	1/4	6.35	1/8
CAM 4 - 4G			1/4
CAM 6 - 4G	3/8	9.52	3/8
CAM 6 - 6G			3/8
CAM 8 - 4G	1/2	12.70	1/4
CAM 8 - 6G			3/8
CAM 8 - 8G			1/2
CAM 12 - 12G			3/4
CAM 16 - 16G	1	25.40	1

Plugs unused port of metric Hy-Lok fittings.

Connectors Metric Hy-Lok Port
To Female ISO Parallel Thread

Part No.	Tube O.D.		ISO* Female Pipe Size (in)
	mm	mm	
CAM 6M - 2G	6		1/8
CAM 6M - 4G			1/4
CAM 8M - 4G	10		3/8
CAM 10M - 4G			1/2
CAM 10M - 6G			1/4
CAM 10M - 8G			3/8
CAM 12M - 4G	12		1/2
CAM 12M - 6G			3/4
CAM 12M - 8G			1
CAM 18M - 8G			1 1/4
CAM 18M - 12G	18		3/4
CAM 28M - 16G			1
CAM 28M - 20G	28		1
CAM 30M - 20G			1 1/4
CAM 32M - 20G			1 1/2
CAM 38M - 24G	30	38	1 1/2

Plugs unused port of metric Hy-Lok fittings.

O-Seal Straight
Thread Male
Adapter**CAMOS**Connectors Fractional Hy-Lok Port
To O-Seal Female Straight Thread

Part No.	Tube O.D.	
	in	mm
CAMOS 2 - 2U	1/8	3.17
CAMOS 3 - 3U		
CAMOS 4 - 4U	1/4	6.35
CAMOS 5 - 5U		
CAMOS 5 - 6U	5/16	7.93
CAMOS 8 - 8U	1/2	12.70

AN Adapter

CAMFConnectors Fractional Hy-Lok
Port To AN Flared Tube

Part No.	Tube O.D.		AN Tube O.D.	
	in	mm	in	mm
CAMF 4 - 4	1/4	6.35	1/4	6.35
CAMF 6 - 4	3/8	9.52		
CAMF 6 - 6	1/2	12.70	3/8	9.52
CAMF 8 - 8			1/2	12.70
CAMF 12 - 12	3/4	19.05	3/4	19.05
CAMF 16 - 16	1	25.40	1	25.40

Weld Adapter

SAPWConnectors Fractional
Hy-Lok Port To Pipe

Part No.	Tube O.D.		Male Pipe Size P	
	in	mm	in	mm
SAPW 4T - 4P	1/4	6.35	1/4	13.70
SAPW 6T - 8P	3/8	9.52	1/2	21.30
SAPW 8T - 8P				
SAPW 8T - 12P	1/2	12.70	3/4	26.67
SAPW 12T - 12P	3/4	19.05		

Port Connector CPC



Connects Two Fractional Hy-Lok Ports

Part No.	Tube O.D.	
	in	mm
CPC - 1	1/16	1,58
CPC - 2	1/8	3,17
CPC - 4	1/4	6,35
CPC - 5	5/16	7,93
CPC - 6	3/8	9,52
CPC - 8	1/2	12,70
CPC - 12	3/4	19,05
CPC - 16	1	25,40

Connects Two Metric Hy-Lok Ports

Part No.	Tube O.D.
	mm
CPC - 3M	3
CPC - 4M	4
CPC - 6M	6
CPC - 8M	8
CPC - 10M	10
CPC - 12M	12
CPC - 15M	15
CPC - 16M	16
CPC - 18M	18
CPC - 20M	20
CPC - 22M	22
CPC - 25M	25
CPC - 28M	28
CPC - 32M	32
CPC - 38M	38

Reducing Port Connector CPR



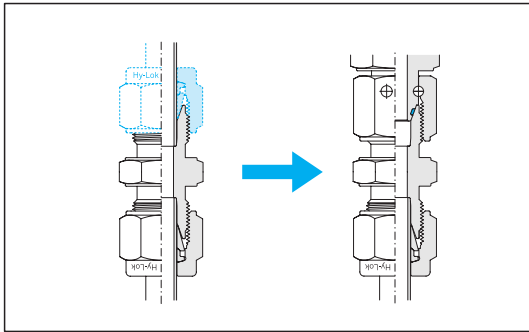
Connects Two Fractional Hy-Lok Ports

Part No.	Tube O.D.		Reduced O.D.	
	in	mm	in	mm
CPR 2 - 1	1/8	3,17	1/16	1,58
CPR 4 - 1	1/4	6,35		
CPR 4 - 2			1/8	3,17
CPR 6 - 2	3/8	9,52	1/4	6,35
CPR 6 - 4				
CPR 8 - 4	1/2	12,70	3/8	9,52
CPR 8 - 6				
CPR 12 - 8	3/4	19,05	1/2	12,70
CPR 16 - 8				
CPR 16 - 12	1	25,40	3/4	19,05

Connects Two Metric Hy-Lok Ports

Part No.	Tube O.D.	Reduced O.D.
	mm	mm
CPR 6M - 3M	6	3
CPR 8M - 6M	8	6
CPR 10M - 6M	10	
CPR 10M - 8M		8
CPR 12M - 6M	12	6
CPR 12M - 8M		8
CPR 12M - 10M		10
CPR 16M - 6M	16	6
CPR 16M - 12M		12
CPR 28M - 25M	28	25
CPR 32M - 25M	32	
CPR 38M - 25M	38	

Features & Application



Swivel Reducing
Adapter

CSRA New



Connects Fractional Tubes

Part No.	Tube O.D. D		Tube O.D. D ₁	
	in	mm	in	mm
CSRA 4- 1	1/4	6.35	1/16	1.58
CSRA 4- 2			1/8	3.17
CSRA 4- 3		9.52	3/16	4.76
CSRA 4- 4		1/4	6.35	
CSRA 4- 6	3/8	6.35	3/8	9.52
CSRA 4- 8			1/2	12.70
CSRA 6- 2	3/8	9.52	1/8	3.17
CSRA 6- 4			1/4	6.35
CSRA 6- 8			1/2	12.70
CSRA 8- 2	1/2	12.70	1/8	3.17
CSRA 8- 4			1/4	6.35
CSRA 8- 6			3/8	9.52
CSRA 8- 8			1/2	12.70
CSRA 8-12	5/8	15.87	3/4	19.05
CSRA 10- 6			3/8	9.52
CSRA 10- 8			1/2	12.70
CSRA 12- 4	3/4	19.05	1/4	6.35
CSRA 12- 6			3/8	9.52
CSRA 12- 8			1/2	12.70
CSRA 12-10			5/8	15.87
CSRA 12-16	7/8	22.22	1	25.40
CSRA 14-10			5/8	15.87
CSRA 16- 8	1	25.40	1/2	12.70
CSRA 16-10			5/8	15.87
CSRA 16-12			3/4	19.05

1. Features

Assembly is easy and usability is superb than Hy-Lok Reducer Type tube fitting(CR) assuring the superior sealing by operating O-Ring. Also O-Ring is connected to Body nipple machined by 40° cone Ends and form O-Ring Seal by facing with Body 40° Taper.

So Body Nipple should be assembled by this kinds of fact. It should be easy for storage and handling.

2. Application

If the place where we assemble is quite narrow, its assembly could be easy and It should not only be applied for Metric and Imperial(Inch) Size but also apply a different type of shape(Union, Elbow, Tee). Since it has a superb sealing feature, It should be satisfied with various customer by applying different territory which need safety like a Gas Line.

Swivel Reducing
Adapter**CSRA** **Connects Metric Tubes**

Part No.	Tube O.D.	
	D	D ₁
CSRA 6M - 3M	6	3
CSRA 6M - 4M		4
CSRA 6M - 8M		8
CSRA 6M - 10M		10
CSRA 6M - 12M	8	12
CSRA 8M - 6M		6
CSRA 8M - 12M	12	
CSRA10M - 6M	10	6
CSRA10M - 8M		8
CSRA10M - 12M		12
CSRA12M - 6M	12	6
CSRA12M - 8M		8
CSRA12M - 10M		10
CSRA12M - 16M		16
CSRA12M - 18M	18	
CSRA15M - 10M	15	10
CSRA15M - 12M		12
CSRA16M - 10M	16	10
CSRA16M - 12M		12
CSRA16M - 18M		18
CSRA16M - 20M		20
CSRA18M - 10M	18	10
CSRA18M - 12M		12
CSRA18M - 20M		20
CSRA18M - 22M		22
CSRA18M - 25M	25	
CSRA20M - 12M	20	12
CSRA20M - 18M		18
CSRA20M - 22M		22
CSRA20M - 25M		25
CSRA22M - 12M	22	12
CSRA22M - 18M		18
CSRA22M - 20M		20
CSRA25M - 12M	25	12
CSRA25M - 18M		18
CSRA25M - 20M		20
CSRA25M - 22M		22

Swivel Elbow

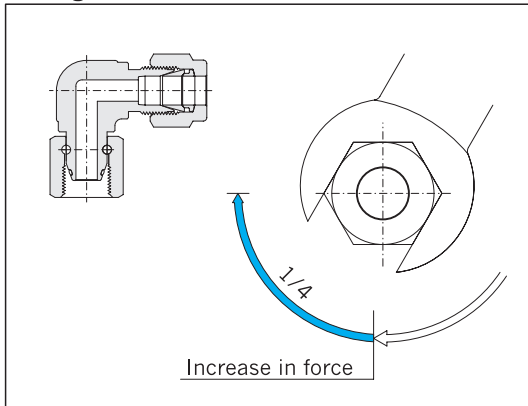
CSL **Connects Fractional Tubes**

Part No.	Tube O.D. D	
	in	mm
CSL - 4	1/4	6,35
CSL - 6	3/8	9,52
CSL - 8	1/2	12,70
CSL - 10	5/8	15,87
CSL - 12	3/4	19,05
CSL - 14	7/8	22,22
CSL - 16	1	25,40

Connects Metric Tubes

Part No.	Tube O.D. D
CSL - 6M	6
CSL - 8M	8
CSL - 10M	10
CSL - 12M	12
CSL - 15M	15
CSL - 16M	16
CSL - 18M	18
CSL - 20M	20
CSL - 22M	22
CSL - 25M	25

Assembly instruction for swivel fitting with O-Ring



1.0 Oil O-ring.

Tighten the nut 1/4 turn with a wrench beyond application of increased effort is required. Hold fitting body firmly by means of wrench

1.1 In difficult mounting situation on large tube sizes, final assembly must be completed in vice with the fitting body.

Caution!

Any deviating of tightening turns reduces the nominal pressure and the service life of the fitting, and may cause leakages or slip of the fitting.

Swivel Branch Tee

CBST

New



Connects Fractional Tubes

Part No.	Tube O.D. D	
	in	mm
CBST - 4	1/4	6,35
CBST - 6	3/8	9,52
CBST - 8	1/2	12,70
CBST - 10	5/8	15,87
CBST - 12	3/4	19,05
CBST - 14	7/8	22,22
CBST - 16	1	25,40

Swivel Branch Tee

CBST

New



Connects Metric Tubes

Part No.	Tube O.D. D
CBST - 6M	6
CBST - 8M	8
CBST - 10M	10
CBST - 12M	12
CBST - 15M	15
CBST - 16M	16
CBST - 18M	18
CBST - 20M	20
CBST - 22M	22
CBST - 25M	25

Swivel Run Tee

CRST

New



Connects Fractional Tubes

Part No.	Tube O.D. D	
	in	mm
CRST - 4	1/4	6,35
CRST - 6	3/8	9,52
CRST - 8	1/2	12,70
CRST - 10	5/8	15,87
CRST - 12	3/4	19,05
CRST - 14	7/8	22,22
CRST - 16	1	25,40

Connects Metric Tubes

Part No.	Tube O.D. D
CRST - 6M	6
CRST - 8M	8
CRST - 10M	10
CRST - 12M	12
CRST - 15M	15
CRST - 16M	16
CRST - 18M	18
CRST - 20M	20
CRST - 22M	22
CRST - 25M	25

Lapped Flange Connector

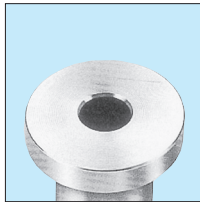
CFTC



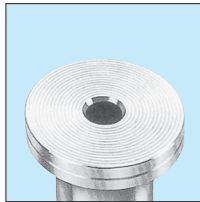
Part No.	Tube Size	Flange Seal
CFTC 4 - SM	1/4"	SM
CFTC 4 - SE		SE
CFTC 6 - SM	3/8"	SM
CFTC 6 - SE		SE
CFTC 8 - SM	1/2"	SM
CFTC 8 - SE		SE

Hy-Lok Lapped flange connector provides safe and easy connections between process lines and instruments. It provides Hy-Lok tube connection ends by a lap joint pipe flange to ANSI B 16.5 or BS 1560, Both "smooth" and "serrated" surface finishes are available. For identification of serrated surface finish, groove is provided.

Surface Finish



Smooth (SM)



Serrated (SE)

Integral ANSI Flange Connector

CIAF



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CIAF 8- 8F -R	1/2	12.70
CIAF 8- 8G -R		
CIAF12- 8F -R	3/4	19.05
CIAF12- 8G -R		
CIAF12-12F -R		
CIAF12-12G -R		
CIAF12-12I -R		
CIAF12-16F -R		
CIAF12-16G -R		
CIAF16-12F -R		
CIAF16-16F -R	1	25.40
CIAF16-16G -R		
CIAF16-16I -R		
CIAF16-24G -R		

AN Union

CFU



Connects Fractional Tube To AN Flared Tube

Part No.	Tube O.D.		*AN Tube Flare Size	
	in	mm	in	mm
CFU 1 - 2	1/16	1.58	1/8	3.17
CFU 2 - 2	1/8	3.17		
CFU 2 - 4	1/4	6.35	1/4	6.35
CFU 4 - 4	1/4	6.35	5/16	7.93
CFU 5 - 5	5/16	7.93	1/4	6.35
CFU 6 - 4	3/8	9.52	3/8	9.52
CFU 6 - 6				
CFU 8 - 8	1/2	12.70	1/2	12.70
CFU12-12	3/4	19.05	3/4	19.05
CFU16-16	1	25.40	1	25.40

AN Bulkhead Union

CBFU



Connects Fractional Tube To AN Flared Tube

Part No.	Tube O.D.		*AN Tube Flare Size	
	in	mm	in	mm
CBFU 4 - 4	1/4	6.35	1/4	6.35
CBFU 6 - 6	3/8	9.52	3/8	9.52
CBFU 8 - 8	1/2	12.70	1/2	12.70
CBFU12-12	3/4	19.05	3/4	19.05
CBFU16-16	1	25.40	1	25.40

AN Adapter

CFA



Connects Fractional Hy-Lok Port To Male AN

Part No.	Tube O.D.		*AN Tube O.D.	
	in	mm	in	mm
CFA 2 - 2	1/8	3.17	1/8	3.17
CFA 2 - 4				
CFA 4 - 4	1/4	6.35	1/4	6.35
CFA 6 - 6	3/8	9.52	3/8	9.52
CFA 8 - 8	1/2	12.70	1/2	12.70

* From Air Force and Navy Standard for 37 degree flared fittings (SAE J514)

SAE / MS Male
Connector

CSC



Connects Fractional Tube To
SAE / MS Straight Thread Boss

Part No.	Tube O.D.		SAE/MS Straight Thread Size
	in	mm	
CSC 2- 2U	1/8	3,17	5/16-24
CSC 2- 4U			7/16-20
CSC 4- 4U	1/4	6,35	9/16-18
CSC 4- 6U			3/4-16
CSC 4- 8U			7/8-14
CSC 4-10U			1-2-20
CSC 5- 5U	5/16	7,93	7/16-20
CSC 6- 4U	3/8	9,52	9/16-18
CSC 6- 6U			3/4-16
CSC 6- 8U			7/8-14
CSC 6-10U			9/16-18
CSC 8- 6U	1/2	12,70	3/4-16
CSC 8- 8U			7/8-14
CSC 8-10U	1/2	12,70	1-1/16-12
CSC 8-12U			3/4-16
CSC10- 8U	5/8	15,87	7/8-14
CSC10-10U			3/4-16
CSC12- 8U	3/4	19,05	1-1/16-12
CSC12-12U			1-3/16-12
CSC14-14U	7/8	22,22	1-1/16-12
CSC16-12U	1	25,40	1-5/8-12
CSC16-16U			1-7/8-12
CSC20-20U	1-1/4	31,75	1-7/8-12
CSC24-24U	1-1/2	38,10	2-1/2-12
CSC32-32U	2	50,80	

Positionable
Male Elbow

CSLA



Connects Fractional Tube To
SAE / MS Straight Thread Boss

Part No.	Tube O.D.		SAE/MS Straight Thread Size
	in	mm	
CSLA 4- 4U	1/4	6,35	7/16-20
CSLA 4- 6U	1/4	6,35	9/16-18
CSLA 5- 5U	5/16	7,93	1-2-20
CSLA 6- 6U	3/8	9,52	9/16-18
CSLA 6- 8U			3/4-16
CSLA 8- 8U	1/2	12,70	7/8-14
CSLA10-10U	5/8	15,87	1-1/16-12
CSLA12-12U	3/4	19,05	1-1/16-12
CSLA14-14U	7/8	22,22	1-3/16-12
CSLA16-16U	1	25,40	1-5/8-12
CSLA20-20U	1-1/4	31,75	1-5/8-12
CSLA24-24U	1-1/2	38,10	1-7/8-12
CSLA32-32U	2	50,80	2-1/2-12

Positionable
Male Elbow

CSLA



Positionable
Male Run Tee

CSRT



Positionable
Male Branch Tee

CSBT



Connects Metric Tube To
Female ISO Parallel Thread

Part No.	Tube O.D.	SAE/MS Straight Thread Size
CSLA 6M- 2G	6	1/8
CSLA 6M- 4G	6	1/4
CSLA 8M- 2G	8	1/8
CSLA 8M- 4G	8	1/4
CSLA10M- 4G	10	1/4
CSLA10M- 6G	10	3/8
CSLA12M- 4G	12	1/4
CSLA12M- 6G	12	3/8
CSLA12M- 8G	12	1/2
CSLA12M-12G	12	3/4

Connects Fractional Tube To
SAE / MS Straight Thread Boss

Part No.	Tube O.D.		SAE/MS Straight Thread Size
	in	mm	
CSRT 4- 4U	1/4	6,35	7/16-20
CSRT 6- 6U	3/8	9,52	9/16-18
CSRT 8- 8U	1/2	12,70	3/4-16
CSRT12-12U	3/4	19,05	1-1/16-12
CSRT16-16U	1	25,40	1-5/8-12
CSRT20-20U	1-1/4	31,75	1-5/8-12
CSRT24-24U	1-1/2	38,10	1-7/8-12
CSRT32-32U	2	50,80	2-1/2-12

Connects Fractional Tube To
SAE / MS Straight Thread Boss

Part No.	Tube O.D.		SAE/MS Straight Thread Size
	in	mm	
CSBT 4- 4U	1/4	6,35	7/16-20
CSBT 6- 6U	3/8	9,52	9/16-18
CSBT 8- 8U	1/2	12,70	3/4-16
CSBT12-12U	3/4	19,05	1-1/16-12
CSBT16-16U	1	25,40	1-5/8-12
CSBT20-20U	1-1/4	31,75	1-5/8-12
CSBT24-24U	1-1/2	38,10	1-7/8-12
CSBT32-32U	2	50,80	2-1/2-12

Positionable
45° Male Elbow

CSLB



Connects Fractional Tube To
SAE / MS Straight Thread Boss

Part No.	Tube O.D.		SAE/MS Straight Thread Size
	in	mm	
CSLB 4- 4U	1/4	6.35	7/16-20
CSLB 6- 6U	3/8	9.52	9/16-18
CSLB 8- 8U	1/2	12.70	3/4-16
CSLB12-12U	3/4	19.05	1-1/16-12
CSLB16-16U	1	25.40	1-5/16-12

Male Pipe Weld
Connector

CWC



Connects Fractional Tube
To Pipe

Part No.	Tube O.D.		Male Pipe Size P	
	in	mm	Nom.	O.D.
CWC 2- 2P	1/8	3.17	1/8	10.30
CWC 3- 2P	3/16	4.76		
CWC 4- 2P	1/4	6.35	1/4	13.70
CWC 4- 4P			1/8	10.30
CWC 5- 2P	5/16	7.93	1/4	13.70
CWC 5- 4P			3/8	17.10
CWC 6- 4P	3/8	9.52	1/2	21.30
CWC 6- 6P			3/4	26.67
CWC 6- 8P	1/2	12.70	3/8	17.10
CWC 6-12P			1/2	21.30
CWC 8- 6P	3/4	19.05	3/4	26.67
CWC 8- 8P			1/2	21.30
CWC 8-12P	5/8	15.87	1/2	21.30
CWC10- 8P	3/4	19.05	3/4	26.67
CWC12-12P	1	25.40	1	33.40
CWC16-16P	1-1/4	31.75	1-1/4	42.16
CWC20-20P	1-1/2	38.10	1-1/2	48.26
CWC24-24P	2	50.80	2	60.32

O-Seal Straight
Thread Connector

COS



Connects Fractional Tube To
Female Straight Thread.

Part No.	Tube O.D.		SAE/MS Straight Thread Size
	in	mm	
COS 2- 2U	1/8	3.17	5/16-24
COS 3- 3U	3/16	4.76	3/8-20
COS 4- 4U	1/4	6.35	7/16-20
COS 5- 5U	5/16	7.93	1/2-20
COS 6- 6U	3/8	9.52	9/16-18
COS 8- 8U	1/2	12.70	3/4-16
COS12-12U	3/4	19.05	1-1/16-12
COS16-16U	1	25.40	1-5/16-12

O-Seal Pipe
Thread Connector

COP



Connects Fractional Tube To
Female NPT Thread.

Part No.	Tube O.D.		ISO* Male Pipe Size (in)
	in	mm	
COP2- 2	1/8	3.17	1/8
COP4- 2	1/4	6.35	
COP4- 4			1/4
COP6- 4	3/8	9.52	3/8
COP6- 6			1/2
COP6- 8	1/2	12.70	1/2
COP8- 8			

* ISO Paralled Threads are available upon request.

Connects Metric Tube
To Pipe

Part No.	Tube O.D.		Male Pipe Size P	
	mm		Nom.	O.D.
CWC 3M- 2P	3	1/8	10.3	
CWC 4M- 2P	4			
CWC 6M- 2P	6	1/4	13.7	
CWC 6M- 4P		1/8	10.3	
CWC 8M- 2P	8	1/4	13.7	
CWC 8M- 4P		1/2	21.3	
CWC 8M- 8P	10	1/4	13.7	
CWC 10M- 4P		3/8	17.1	
CWC 10M- 6P	12	1/2	21.3	
CWC 10M- 8P		1/4	13.7	
CWC 12M- 4P	14	3/8	17.1	
CWC 12M- 6P		1/2	21.3	
CWC 12M- 8P	15	3/8	17.1	
CWC 14M- 6P		1/2	21.3	
CWC 15M- 8P	16	1/2	21.3	
CWC 16M- 8P		18		
CWC 18M- 8P	32	1-1/4	42.2	
CWC 32M- 20P		38	1-1/2	48.3

Welding Precautions

- If you weld the fully assembled fittings, the assembly can be distorted and the lubricant on the nut can be removed, which is not desirable.
- To avoid this, remove nut and ferrules from the body and cover thread and seat area with another nut or a plug in order to protect them from weld splatter. (Jstut finger tighten for easy removal)
- Provide a proper heat sink for heat dissipation.
- After weld, put the nut and ferrule back in place.

Note : All Hy-Lok pipe weld ends have schedule 80 wall thickness or greater.

Male Pipe Weld
Elbow

CLW



Connects Fractional Tube
To Pipe

Part No.	Tube O.D.		Pipe Weld Size	
	in	mm	Nom.	O.D.
CLW 2 - 2P	1/8	3.17	1/8	10.30
CLW 4 - 4P	1/4	6.35	1/4	13.70
CLW 6 - 4P	3/8	9.52		
CLW 8 - 8P	1/2	12.70	1/2	21.30
CLW12 - 12P	3/4	19.05	3/4	26.67

Weld Union
CBUW



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CBUW - 1	1/16	1.58
CBUW - 2	1/8	3.17
CBUW - 3	3/16	4.76
CBUW - 4	1/4	6.35
CBUW - 5	5/16	7.93
CBUW - 6	3/8	9.52
CBUW - 8	1/2	12.70
CBUW - 10	5/8	15.87
CBUW - 12	3/4	19.05
CBUW - 14	7/8	22.22
CBUW - 16	1	25.40
CBUW - 20	1 1/4	31.75
CBUW - 24	1 1/2	38.10
CBUW - 32	2	50.80

Tube Socket Weld
Connector

CSWC



Connects Fractional Tubes

Part No.	Tube O.D.		d Min.
	in	mm	
CSWC 2 - 2	1/8	3.17	2.28
CSWC 4 - 4	1/4	6.35	4.82
CSWC 6 - 6	3/8	9.52	7.11
CSWC 8 - 8	1/2	12.70	10.41
CSWC12 - 12	3/4	19.05	15.74
CSWC16 - 16	1	25.40	22.35

Tube Socket Weld
Elbow

CLSW



Connects Fractional Tubes

Part No.	Tube O.D.		d Min.
	in	mm	
CLSW 4 - 4	1/4	6.35	4.82
CLSW 6 - 6	3/8	9.52	7.11
CLSW 8 - 8	1/2	12.70	10.41
CLSW12 - 12	3/4	19.05	15.74
CLSW16 - 16	1	25.40	22.35

Connects Metric Tubes

Part No.	Tube O.D.
	mm
CBUW - 2M	2
CBUW - 3M	3
CBUW - 4M	4
CBUW - 6M	6
CBUW - 8M	8
CBUW - 10M	10
CBUW - 12M	12
CBUW - 15M	15
CBUW - 16M	16
CBUW - 18M	18
CBUW - 20M	20
CBUW - 22M	22
CBUW - 25M	25
CBUW - 28M	28
CBUW - 32M	32
CBUW - 38M	38

* Specified length to be shown as last designator in part number
Example : CBUW-8L100

Thermocouple Weld Union
CBUWT

Bore Through weld union handle thermocouple or dip tubes with ease. For correct part number, just add "T" as s suffix to CBUW, the weld union designator.

Example : CBUWT-8-S316 1/2" tube stainless steel 316

Weld Half Union CHBUW



Connects Fractional Tubes

Part No.	Tube O.D.	
	in	mm
CHBUW - 1	1/16	1.58
CHBUW - 2	1/8	3.17
CHBUW - 3	3/16	4.76
CHBUW - 4	1/4	6.35
CHBUW - 5	5/16	7.93
CHBUW - 6	3/8	9.52
CHBUW - 8	1/2	12.70
CHBUW - 10	5/8	15.87
CHBUW - 12	3/4	19.05
CHBUW - 14	7/8	22.22
CHBUW - 16	1	25.40
CHBUW - 20	1 1/4	31.75
CHBUW - 24	1 1/2	38.10
CHBUW - 32	2	50.80

Connects Metric Tubes

Part No.	Tube O.D.
	mm
CHBUW - 2M	2
CHBUW - 3M	3
CHBUW - 4M	4
CHBUW - 6M	6
CHBUW - 8M	8
CHBUW - 10M	10
CHBUW - 12M	12
CHBUW - 15M	15
CHBUW - 16M	16
CHBUW - 18M	18
CHBUW - 20M	20
CHBUW - 22M	22
CHBUW - 25M	25
CHBUW - 28M	28
CHBUW - 32M	32
CHBUW - 38M	38

* Specified length to be shown as last designator in part number

Example : CHBUW-4L100

Thermocouple Weld Half Union CHBUWT

Bore Through weld union handle thermocouple or dip tubes with ease. For correct part number, just add "T" as s suffix to CHBUW, the weld half union designator.

Example : CHBUWT-8-S316 1/2" tube stainless steel 316

Plug for Hy-Lok Port CPA



Connects Fractional Hy-Lok Port

Part No.	Tube O.D.	
	in	mm
CPA - 1	1/16	1.58
CPA - 2	1/8	3.17
CPA - 3	3/16	4.76
CPA - 4	1/4	6.35
CPA - 5	5/16	7.93
CPA - 6	3/8	9.52
CPA - 8	1/2	12.70
CPA - 10	5/8	15.87
CPA - 12	3/4	19.05
CPA - 14	7/8	22.22
CPA - 16	1	25.40
CPA - 20	1-1/4	31.75
CPA - 24	1-1/2	38.10
CPA - 32	2	50.80

Plugs unused port of metric Hy-Lok fittings.

Connects Metric Hy-Lok Port

Part No.	Tube O.D.
	mm
CPA - 2M	2
CPA - 3M	3
CPA - 4M	4
CPA - 6M	6
CPA - 8M	8
CPA - 10M	10
CPA - 12M	12
CPA - 15M	15
CPA - 16M	16
CPA - 18M	18
CPA - 20M	20
CPA - 22M	22
CPA - 25M	25
CPA - 28M	28
CPA - 32M	32
CPA - 38M	38

Plugs unused port of fractional Hy-Lok fittings.

Cap for Tube End CCA



Connects Fractional Tube End

Part No.	Tube O.D.	
	in	mm
CCA - 1	1/16	1.58
CCA - 2	1/8	3.17
CCA - 3	3/16	4.76
CCA - 4	1/4	6.35
CCA - 5	5/16	7.93
CCA - 6	3/8	9.52
CCA - 8	1/2	12.70
CCA - 10	5/8	15.87
CCA - 12	3/4	19.05
CCA - 14	7/8	22.22
CCA - 16	1	25.40
CCA - 20	1-1/4	31.75
CCA - 24	1-1/2	38.10
CCA - 32	2	50.80

Connects Metric Tube End

Part No.	Tube O.D. D
CCA - 2M	2
CCA - 3M	3
CCA - 4M	4
CCA - 6M	6
CCA - 8M	8
CCA - 10M	10
CCA - 12M	12
CCA - 15M	15
CCA - 16M	16
CCA - 18M	18
CCA - 20M	20
CCA - 22M	22
CCA - 25M	25
CCA - 28M	28
CCA - 32M	32
CCA - 38M	38

Union CRMTU



Low Dead Volume Union

Part No.	Tube O.D.	
	in	mm
CRMTU - 1	1/16	1.58

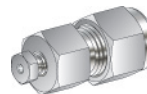
Union Tee CRMTT



Low Dead Volume Union Tee

Part No.	Tube O.D.	
	in	mm
CRMTT - 1	1/16	1.58

Female Union CCFF



Female Union

Part No.	Tube O.D.		AN Tube O.D.	
	in	mm	in	mm
CCFF 4 - 1	1/4	6.35	1/16	1.58
CCFF 6 - 1	3/8	9.52		

Reducing Union CCEUR



Reducing Union

Part No.	Tube O.D.		AN Tube O.D.	
	in	mm	in	mm
CCEUR 2-1-ZV	1/8	3.17	1/16	1.58
CCEUR 4-1-ZV	1/4	6.35		
CCEUR 6-1-ZV	3/8	9.52		
CCEUR 8-1-ZV	1/2	12.70		
CCEUR 2-1	1/8	3.17		
CCEUR 4-1	1/4	6.35		
CCEUR 6-1	3/8	9.52		

The dead volume in the low volume fitting is equal to the volume of the 0.052" bore. The tubing in the zero volume fitting is inserted to the frit.

Both low and zero volume column end fittings are available with stainless steel sintered frits. Frits are loosely installed to facilitate removal and replacement. To order, add a frit designator to the ordering number.

Dielectric Fittings

CDF



The Hy-Lok Dielectric tube fittings are for use in applications where electrical current flowing through a pipe or tube line must be interrupted to protect vital instrumentation and metering equipment.

Features

- Metal components are machined from 316 stainless steel for use in rugged environments.
- Thermoplastic insulation with excellent electrical, chemical, ultraviolet resistance and low water absorption maintains dielectric strength and integrity over a wide range of operating and climate conditions.
- Gageable Hy-Lok tube fitting or tapered pipe thread end connections provide direct connection to tubing or piping system.

Benefits

- Maximum safety and protection to critical monitoring station instrumentation.
- Long component life in rugged environment.
- Maximum flow capability provided by all sizes of Hy-Lok dielectric tube fittings.
- The unique value and performance offered by Hy-Lok tube fitting connections

Materials

- Body : 316 stainless steel
- Insulations : PEEK
- Quad seal(O-ring) : 70 durometer VITON
- Backup ring : Virgin PTFE

Technical data

- Electrical resistance of insulators @ 70°F(20°C) : $10 \times 10^6 \Omega$ @ 10 V (dc)
- Pressure Rating : 5,000psig (344bar)
- Temperature Rating : -40 to 200°F (-40 to 93°C)

Ordering information / Dimensions

Part No.	Tube O.D.	
	in	mm
CDF - 4	1/4	6,35
CDF - 6	3/8	9,52
CDF - 8	1/2	12,70
CDF -12M	-	12,00
CDF6- 4N	3/8	9,52

Sanitary Flange Fitting

CSFC



Connectors Fractional Tube To Kwik-Clamp Flange

Part No.	Tube O.D.		Flange Size
	in	mm	
CSFC 4- 8SC	1/4	6,35	1/2
CSFC 4-12SC			3/4
CSFC 4-16SC			1
CSFC 4-24SC			1 1/2
CSFC 6- 8SC	3/8	9,52	1/2
CSFC 6-12SC			3/4
CSFC 6-16SC			1
CSFC 6-24SC			1 1/2
CSFC 8- 8SC	1/2	12,70	1/2
CSFC 8-12SC			3/4
CSFC 8-16SC			1
CSFC 8-24SC			1 1/2
CSFC16-16SC	1	25,40	1
CSFC16-32SC			2

Nut
CN

Fractional

Part No.	Tube O.D.	
	in	mm
CN - 1	1/16	1.58
CN - 2	1/8	3.17
CN - 3	3/16	4.76
CN - 4	1/4	6.35
CN - 5	5/16	7.93
CN - 6	3/8	9.52
CN - 8	1/2	12.70
CN - 10	5/8	15.87
CN - 12	3/4	19.05
CN - 14	7/8	22.22
CN - 16	1	25.40
CN - 20	1-1/4	31.75
CN - 24	1-1/2	38.10
CN - 32	2	50.80

Metric

Part No.	Tube O.D.
	mm
CN - 2M	2
CN - 3M	3
CN - 4M	4
CN - 6M	6
CN - 8M	8
CN - 10M	10
CN - 12M	12
CN - 15M	15
CN - 16M	16
CN - 18M	18
CN - 20M	20
CN - 22M	22
CN - 25M	25
CN - 28M	28
CN - 32M	32
CN - 38M	38
CN - 42M	42

Front Ferrule
CFF

Fractional

Part No.	Tube O.D.	
	in	mm
CFF - 1	1/16	1.58
CFF - 2	1/8	3.17
CFF - 3	3/16	4.76
CFF - 4	1/4	6.35
CFF - 5	5/16	7.93
CFF - 6	3/8	9.52
CFF - 8	1/2	12.70
CFF - 10	5/8	15.87
CFF - 12	3/4	19.05
CFF - 14	7/8	22.22
CFF - 16	1	25.40
CFF - 20*	1-1/4	31.75
CFF - 24*	1-1/2	38.10
CFF - 32*	2	50.80

Metric

Part No.	Tube O.D.
	mm
CFF - 2M	2
CFF - 3M	3
CFF - 4M	4
CFF - 6M	6
CFF - 8M	8
CFF - 10M	10
CFF - 12M	12
CFF - 15M	15
CFF - 16M	16
CFF - 18M	18
CFF - 20M	20
CFF - 22M	22
CFF - 25M	25
CFF - 28M*	28
CFF - 32M*	32
CFF - 38M*	38
CFF - 42M*	42

Note : "*" Over1", and 25mm stainless steel fittings use stainless steel ferrules with a PFA coating.

Back Ferrule
CFB**Fractional**

Part No.	Tube O.D.	
	in	mm
CFB - 1	1/16	1.58
CFB - 2	1/8	3.17
CFB - 3	3/16	4.76
CFB - 4	1/4	6.35
CFB - 5	5/16	7.93
CFB - 6	3/8	9.52
CFB - 8	1/2	12.70
CFB - 10	5/8	15.87
CFB - 12	3/4	19.05
CFB - 14	7/8	22.22
CFB - 16	1	25.40
CFB - 20*	1-1/4	31.75
CFB - 24*	1-1/2	38.10
CFB - 32*	2	50.80

Metric

Part No.	Tube O.D.
	mm
CFB - 2M	2
CFB - 3M	3
CFB - 4M	4
CFB - 6M	6
CFB - 8M	8
CFB - 10M	10
CFB - 12M	12
CFB - 15M	15
CFB - 16M	16
CFB - 18M	18
CFB - 20M	20
CFB - 22M	22
CFB - 25M	25
CFB - 28M*	28
CFB - 32M*	32
CFB - 38M*	38
CFB - 42M*	42

Note : "*" Over1", and 25mm stainless steel fittings use stainless steel ferrules with a PFA coating.

Ferrule Set
CFS**Fractional**

Part No.	Tube O.D.	
	in	mm
CFS - 1	1/16	1.58
CFS - 2	1/8	3.17
CFS - 3	3/16	4.76
CFS - 4	1/4	6.35
CFS - 5	5/16	7.93
CFS - 6	3/8	9.52
CFS - 8	1/2	12.70
CFS - 10	5/8	15.87
CFS - 12	3/4	19.05
CFS - 14	7/8	22.22
CFS - 16	1	25.40

Hy-Lok ferrule set is composed of one back ferrule and one front ferrule.

Metric

Part No.	Tube O.D.
	mm
CFS - 2M	2
CFS - 3M	3
CFS - 4M	4
CFS - 6M	6
CFS - 8M	8
CFS - 10M	10
CFS - 12M	12
CFS - 15M	15
CFS - 16M	16
CFS - 18M	18
CFS - 20M	20
CFS - 22M	22
CFS - 25M	25

**Fractional**

Part No.	Tube O.D.	
	in	mm
CFS - 1 - SET	1/16	1.58
CFS - 2 - SET	1/8	3.17
CFS - 3 - SET	3/16	4.76
CFS - 4 - SET	1/4	6.35
CFS - 5 - SET	5/16	7.93
CFS - 6 - SET	3/8	9.52
CFS - 8 - SET	1/2	12.70
CFS - 10 - SET	5/8	15.87
CFS - 12 - SET	3/4	19.05
CFS - 14 - SET	7/8	22.22
CFS - 16 - SET	1	25.40

One ferrule bar is assembled with 10 ferrule sets or 5nut ferrule sets.

Metric

Part No.	Tube O.D.
	mm
CFS - 2M - SET	2
CFS - 3M - SET	3
CFS - 4M - SET	4
CFS - 6M - SET	6
CFS - 8M - SET	8
CFS - 10M - SET	10
CFS - 12M - SET	12
CFS - 15M - SET	15
CFS - 16M - SET	16
CFS - 18M - SET	18
CFS - 20M - SET	20
CFS - 22M - SET	22
CFS - 25M - SET	25

Nut Ferrule Set
CNFS



Fractional

Part No.	Tube O.D.	
	in	mm
CNFS - 1	1/16	1.58
CNFS - 2	1/8	3.17
CNFS - 3	3/16	4.76
CNFS - 4	1/4	6.35
CNFS - 5	5/16	7.93
CNFS - 6	3/8	9.52
CNFS - 8	1/2	12.70
CNFS - 10	5/8	15.87
CNFS - 12	3/4	19.05
CNFS - 14	7/8	22.22
CNFS - 16	1	25.40

Metric

Part No.	Tube O.D.
	mm
CNFS - 2M	2
CNFS - 3M	3
CNFS - 4M	4
CNFS - 6M	6
CNFS - 8M	8
CNFS - 10M	10
CNFS - 12M	12
CNFS - 15M	15
CNFS - 16M	16
CNFS - 18M	18
CNFS - 20M	20
CNFS - 22M	22
CNFS - 25M	25

Hy-Lok nut ferrule set is composed of one nut, one back ferrule and one front ferrule.



Fractional

Part No.	Tube O.D.	
	in	mm
CNFS - 1 - SET	1/16	1.58
CNFS - 2 - SET	1/8	3.17
CNFS - 3 - SET	3/16	4.76
CNFS - 4 - SET	1/4	6.35
CNFS - 5 - SET	5/16	7.93
CNFS - 6 - SET	3/8	9.52
CNFS - 8 - SET	1/2	12.70
CNFS - 10 - SET	5/8	15.87
CNFS - 12 - SET	3/4	19.05
CNFS - 14 - SET	7/8	22.22
CNFS - 16 - SET	1	25.40

Metric

Part No.	Tube O.D.
	mm
CNFS - 2M - SET	2
CNFS - 3M - SET	3
CNFS - 4M - SET	4
CNFS - 6M - SET	6
CNFS - 8M - SET	8
CNFS - 10M - SET	10
CNFS - 12M - SET	12
CNFS - 15M - SET	15
CNFS - 16M - SET	16
CNFS - 18M - SET	18
CNFS - 20M - SET	20
CNFS - 22M - SET	22
CNFS - 25M - SET	25

One ferrule bar is assembled with 10 ferrule sets or 5nut ferrule sets.

Tube Insert for Nylon or Soft Plastic Tubing
CI



Fractional

Part No.	Tube O.D.		Tube I.D.	
	in	mm	in	mm
CI 3 - 2	3/16	4.76	1/8	3.17
CI 4 - 2	1/4	6.35	0.17	4.32
CI 4 - 4,3M			3/16	4.76
CI 4 - 3			1/8	3.17
CI 5 - 2	5/16	7.93	3/16	4.76
CI 5 - 4			1/4	6.35
CI 6 - 3	3/8	9.52	3/16	4.76
CI 6 - 4			1/4	6.35
CI 8 - 4			1/2	12.70
CI 8 - 6	5/8	15.87		
CI10 - 6			3/4	19.05
CI10 - 8	1	25.40		
CI12 - 8				
CI12 - 10				
CI16 - 12				

Metric

Part No.	Tube O.D.	Tube I.D.
	mm	mm
CI 6M - 4M	6	4
CI 8M - 6M	8	6
CI 10M - 8M	10	8
CI 12M - 8M	12	
CI 12M - 10M		

Hy-Lok Tube Inserts are used to secure the nylon or other soft plastic tubing to Hy-Lok tube fittings.

For, right choice of Hy-Lok tube inserts, check if O.D. and I.D. of the tubing are the same as dimension D and DI of tube inserts, respectively.

Bulkhead Retainer
CBRE



Part No.	Fitting Size	
	in	mm
CBRE - 1	1/16	-
CBRF - 2	1/8	9.52
CBRE - 3	3/16	3.4
CBRE - 4	1/4	6
CBRE - 5	5/16	-
CBRE - 6	3/8	-
CBRE - 8	1/2	12
CBRE - 10	5/8	15.16
CBRE - 12	3/4	18
CBRE - 14	7/8	-
CBRE - 16	1	-
CBRE - 8M	-	8
CBRE - 10M	-	10

Bulkhead retainer can function as a back up wrench, tubing can be installed to side "A" or "B" by one person with only one wrench.

Sure Ring
Against Overtight

CCL



Fractional

Part No.	Tube O.D.	
	in	mm
CCL - 2	1/8	3,17
CCL - 4	1/4	6,35
CCL - 6	3/8	9,52
CCL - 8	1/2	12,70
CCL - 12	3/4	19,05
CCL - 16	1	25,40

Metric

Part No.	Tube O.D.
	mm
CCL - 3M	3
CCL - 6M	6
CCL - 10M	10
CCL - 12M	12
CCL - 18M	18
CCL - 20M	20
CCL - 25M	25

Hy-Lok Sure Ring is especially useful when you install Hy-Lok fittings in a small space such as in a cabinet where it is practically impossible to apply the standard installation procedures. (i.e., 1 1/4 turns or 3/4 turn from finger tight) it ensures sufficient tightening and protects over-tightening. For installation, insert Sure Ring between the nut and the body before assembly, and then tighten the nut until being blocked by the sure ring.

Gap Gauge for
Gap Inspection

CIG



Multiple Size

Part No.	Tube O.D. in / mm	
	CIG 46810M	1/4(6mm) 3/8 1/2(12mm) 10mm

Part No.	Tube O.D.	
	in	mm
CIG - 1	1/16	-
CIG - 2M 3M 2	1/8	2, 3
CIG - 4M 3	3/16	4
CIG - 6M 4	1/4	6
CIG - 8M 5	5/16	8
CIG - 6	3/8	-
CIG - 10M	-	10
CIG - 12M 8	1/2	12
CIG - 14M 15M 16M 10	5/8	14,15,16
CIG - 18M 12	3/4	18
CIG - 20M 14	7/8	20
CIG - 25M 16	1	25
CIG - 28M		28
CIG - 35M	-	35
CIG - 38M		38

Tube Marker CTDM



Fractional

Part No.	Tube O.D.	
	in	mm
CTDM - 4	1/4	6.35
CTDM - 5	5/16	7.93
CTDM - 6	3/8	9.52
CTDM - 8	1/2	12.70
CTDM - 10	5/8	15.87
CTDM - 12	3/4	19.05
CTDM - 14	7/8	22.22
CTDM - 16	1	25.40

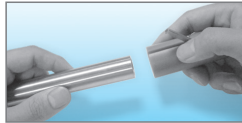
Multiple Size

Part No.	Tube O.D.
	mm
CTDM - 6M	6
CTDM - 8M	8
CTDM - 10M	10
CTDM - 12M	12
CTDM - 15M	15
CTDM - 16M	16
CTDM - 18M	18
CTDM - 20M	20
CTDM - 22M	22
CTDM - 25M	25

The strong point of Hy-Lok tube marker.

1. Easy to carry because of light product.
2. No damage of the tube surface when inserting and detaching the tube.
3. It helps complete work without any leakage due to visible line on the tube.

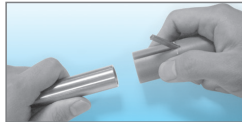
Instruction of Use



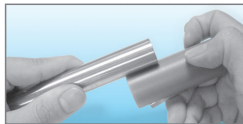
1. Insert the tube the product.



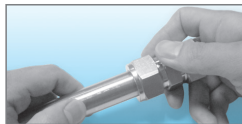
2. After inserting the tube, push the marker and turn the product.



3. Detach the tube from the product.



4. Be position the tube on the cutting plane of the product and confirm whether the lone on the tube is visible or not.



5. Insert the tube to Hy-Lok product and confirm the meeting point between a cutting plane of the nut and the line on the tube. Once confirm it, the tube is seated firmly and the work should be done.

Preswaging Tool CJ



Fractional

Part No.	Tube O.D.	
	in	mm
CJ - 1	1/16	1.58
CJ - 2	1/8	3.17
CJ - 3	3/16	4.76
CJ - 4	1/4	6.35
CJ - 5	5/16	7.93
CJ - 6	3/8	9.52
CJ - 8	1/2	12.70
CJ - 10	5/8	15.87
CJ - 12	3/4	19.05
CJ - 14	7/8	22.22
CJ - 16	1	25.40

Metric

Part No.	Tube O.D.
	mm
CJ - 2M	2
CJ - 3M	3
CJ - 4M	4
CJ - 6M	6
CJ - 8M	8
CJ - 10M	10
CJ - 12M	12
CJ - 15M	15
CJ - 16M	16
CJ - 18M	18
CJ - 20M	20
CJ - 22M	22
CJ - 25M	25

For Hy-Lok tube fitting installations in close quarters, the Hy-Lok preswaging tool is a convenient accessory.

Tee Wrench

CTW



Multiple Size

Part No.	Size < Tee or Cross >
CTW-4	1/4 in. and 6mm
CTW-6	5/16 and 3/8 in. and 8mm
CTW-8	1/2 in. and 12mm

The tee wrench provides positive backup support when installing Hy-Lok union tees and crosses.

Tube Deburring
Tools

CTDT



Multiple Size

Part No.	Size
CTDT	The inside and outside diameters of 3/16 to 1 1/2in 4 to 38mm tubing

When stainless steel, steel and hard alloy tubes are cut by tube cut or tube sawing guide, the tube ends are deburred by Hy-Lok tools.

Applications

• Applications include fire prevention systems, gas supply systems, gas mixing systems, pressure systems, fire alarm systems, liquid pumps and safety release systems.

Features

- Available in brass or 316 stainless steel. The fittings are filled with autectic material which has melting points of 180°F (71°C), 255°F (124°C), or 281°F (138°C). Melting temperatures are stamped on each point.
- Fittings available in pipe plug, Hy-Lok cap, Hy-Lok plug and Tube adapter configuration
- Sizes available are 1/4", 3/8" and 1/2" NPT and tube
- All fittings machined from barstock
- Maximum working pressure is 250psig(17.3bar)

Used to plug a female pipe port

H-SPBFM



Part No.	Pipe Size
H-SPBFM - 4N	1/4
H-SPBFM - 6N	3/8
H-SPBFM - 8N	1/2

Used to plug a Tube Fittings

CFTA



Part No.	D Tube O.D
CFSC - 4	1/4
CFSC - 6	3/8
CFSC - 8	1/2

Used to Cap the End of a Tube

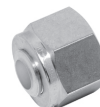
CFSC



Part No.	T Tube O.D
CFTA - 4	1/4
CFTA - 6	3/8
CFTA - 8	1/2

Used to Plug a Tube Fittings Port

CFSP



Part No.	D Tube O.D
CFSP - 4	1/4
CFSP - 6	3/8
CFSP - 8	1/2

Instrument Thread & Weld Fittings for 1/8" thru 1"

Welding Information

Due to coefficients of expansion and contraction fitting material and material to be welded shall be the same.
All socket weld port have a machined taper at the end, which facilitates proper true fit, consistent assembly and alignment.

Standard material

316 stainless steel is the standard material. Fitting made from forgings are manufactured from materials to ASTM A-314 and ASME SA-182 and fittings made from bar stock are manufactured from materials to ASTM A-276 and ASME SA-479.

Pressure ratings

Pressure ratings for Hope weld fittings are in accordance with ANSI B31.3 and safety factor 4:1 is reflected to all working pressure listed.

Elbow H-SLA



Female NPT Both Ends.

Part No.	Pipe Size
H - SLA - 2N	1/8
H - SLA - 4N	1/4
H - SLA - 6N	3/8
H - SLA - 8N	1/2
H - SLA - 12N	3/4
H - SLA - 16N	1

Street Elbow H-SLC



Female to Male NPT.

Part No.	Pipe Size
H - SLC - 2N	1/8
H - SLC - 4N	1/4
H - SLC - 6N	3/8
H - SLC - 8N	1/2
H - SLC - 12N	3/4
H - SLC - 16N	1

Reducing Street Elbow H-SLCR



Female to Male NPT.

Part No.	Pipe Size
H - SLCR 4 - 2N	1/4
H - SLCR 6 - 4N	3/8
H - SLCR 8 - 4N	1/2
H - SLCR 8 - 6N	1/2
H - SLCR12 - 8N	3/4
H - SLCR16 - 8N	1

Male Elbow H-SML



Male NPT Both Ends.

Part No.	Pipe Size
H - SML - 2N	1/8
H - SML - 4N	1/4
H - SML - 6N	3/8
H - SML - 8N	1/2
H - SML - 12N	3/4
H - SML - 16N	1

Tee H-STA



Female NPT all ports.

Part No.	Pipe Size
H - STA - 2N	1/8
H - STA - 4N	1/4
H - STA - 6N	3/8
H - STA - 8N	1/2
H - STA - 12N	3/4
H - STA - 16N	1

Run Tee H-SRT



Female to Male to Female NPT.

Part No.	Pipe Size
H - SRT - 2N	1/8
H - SRT - 4N	1/4
H - SRT - 6N	3/8
H - SRT - 8N	1/2
H - SRT - 12N	3/4
H - SRT - 16N	1

Branch Tee H-SBT



Female to Female to Male NPT.

Part No.	Pipe Size
H - SBT - 2N	1/8
H - SBT - 4N	1/4
H - SBT - 6N	3/8
H - SBT - 8N	1/2
H - SBT - 12N	3/4
H - SBT - 16N	1

Male Tee
H-SMT



Male NPT all ports.

Part No.	Pipe Size
H - SMT - 2N	1/8
H - SMT - 4N	1/4
H - SMT - 6N	3/8
H - SMT - 8N	1/2
H - SMT - 12N	3/4
H - SMT - 16N	1

Pipe Cap
H-SCA



Female NPT.

Part No.	Pipe Size
H - SCA - 2N	1/8
H - SCA - 4N	1/4
H - SCA - 6N	3/8
H - SCA - 8N	1/2
H - SCA - 12N	3/4
H - SCA - 16N	1

Cross
H-SXA



Female NPT all ports.

Part No.	Pipe Size
H - SXA - 2N	1/8
H - SXA - 4N	1/4
H - SXA - 6N	3/8
H - SXA - 8N	1/2
H - SXA - 12N	3/4
H - SXA - 16N	1

Pipe Plug
H-SPB



Male NPT.

Part No.	Pipe Size
H - SPB - 2N	1/8
H - SPB - 4N	1/4
H - SPB - 6N	3/8
H - SPB - 8N	1/2
H - SPB - 12N	3/4
H - SPB - 16N	1

Hex Coupling
H-SSA



Female NPT Both Ends.

Part No.	Pipe Size
H - SSA - 2N	1/8
H - SSA - 4N	1/4
H - SSA - 6N	3/8
H - SSA - 8N	1/2
H - SSA - 12N	3/4
H - SSA - 16N	1

Close Nipple
H-SBE



Male NPT Both Ends.

Part No.	Pipe Size
H - SBE - 2N	1/8
H - SBE - 4N	1/4
H - SBE - 6N	3/8
H - SBE - 8N	1/2
H - SBE - 12N	3/4
H - SBE - 16N	1

Hex Reducing Coupling
H-SSR



Female NPT to Reduced Female NPT.

Part No.	Pipe Size	Reduced Pipe Size
H - SSR 4 - 2N	1/4	1/8
H - SSR 6 - 4N	3/8	1/4
H - SSR 8 - 2N	1/2	1/8
H - SSR 8 - 4N		1/4
H - SSR 8 - 6N	3/4	3/8
H - SSR12 - 4N		1/4
H - SSR12 - 8N	1	1/2
H - SSR16 - 4N		1/4
H - SSR16 - 8N	1	1/2
H - SSR16 - 12N		3/4

Hex Nipple
H-SNA



Male NPT Both Ends.

Part No.	Pipe Size
H - SNA - 2N	1/8
H - SNA - 4N	1/4
H - SNA - 6N	3/8
H - SNA - 8N	1/2
H - SNA - 12N	3/4
H - SNA - 16N	1

Hex Nipple
H-SNA



Male NPT to ISO Tapered.

Part No.	NPT Thread Size	BSP/ISO Thread Size
H - SNA - 2NR	1/8	1/8-28 7/1
H - SNA - 4NR	1/4	1/4-19 7/1
H - SNA - 6NR	3/8	3/8-19 7/1
H - SNA - 8NR	1/2	1/2-14 7/1
H - SNA -12NR	3/4	3/4-14 7/1
H - SNA -16NR	1	1-11 7/1

Hex Reducing Nipple
H-SNR



Male NPT to Reduced Male NPT.

Part No.	Pipe Size	Reduced Pipe Size
H - SNR 4 -2N	1/4	1/8
H - SNR 6 -2N	3/8	
H - SNR 6 -4N		1/4
H - SNR 8 -2N	1/2	1/8
H - SNR 8 -4N		1/4
H - SNR 8 -6N	3/4	3/8
H - SNR12 -4N		1/4
H - SNR12 -8N	1	1/2
H - SNR16 -4N		1/4
H - SNR16 -8N		1/2

Hex Long Nipple
H-SNL



Male NPT Both Ends.

Part No.	Pipe Size
H - SNL - 2N	1/8
H - SNL - 4N	1/4
H - SNL - 6N	3/8
H - SNL - 8N	1/2
H - SNL - 12N	3/4
H - SNL - 16N	1

Hex Nipple
H-SNA



Male NPT to Male ISO Parallel

Part No.	NPT Thread Size	BSP/ISO Thread Size
H - SNA - 2NG	1/8	1/8-28 228/1
H - SNA - 4NG	1/4	1/4-19 228/1
H - SNA - 6NG	3/8	3/8-19 228/1
H - SNA - 8NG	1/2	1/2-14 228/1
H - SNA -12NG	3/4	3/4-14 228/1
H - SNA -16NG	1	1-11 228/1

Adapter
H-MFAA



Female NPT to Male ISO Tapered.

Part No.	NPT Thread Size	BSP/ISO Thread Size
H - MFAA - 2RN	1/8	1/8-28 7/1
H - MFAA - 4RN	1/4	1/4-19 7/1
H - MFAA - 6RN	3/8	3/8-19 7/1
H - MFAA - 8RN	1/2	1/2-14 7/1
H - MFAA - 12RN	3/4	3/4-14 7/1
H - MFAA - 16RN	1	1-11 7/1

Adapter
H-MFAB



Female NPT Male ISO Parallel

Part No.	NPT Thread Size	BSP/ISO Thread Size
H - MFAB - 2GN	1/8	1/8-28 228/1
H - MFAB - 4GN	1/4	1/4-19 228/1
H - MFAB - 6GN	3/8	3/8-19 228/1
H - MFAB - 8GN	1/2	1/2-14 228/1
H - MFAB -12GN	3/4	3/4-14 228/1
H - MFAB -16GN	1	1-11 228/1

Adapter
H-MFAA



Female NPT to Same Size Male NPT.

Part No.	Pipe Size
H - MFAA - 2N	1/8
H - MFAA - 4N	1/4
H - MFAA - 6N	3/8
H - MFAA - 8N	1/2
H - MFAA -12N	3/4
H - MFAA -16N	1

Reducing Adapter
H-MFAC



Female NPT to Reduced Male NPT.

Part No.	Female Pipe Size	Male Pipe Size
H - MFAC 2 - 4N	1/4	1/8
H - MFAC 2 - 6N	3/8	1/8
H - MFAC 4 - 6N		1/4
H - MFAC 2 - 8N	1/2	1/8
H - MFAC 4 - 8N		1/4
H - MFAC 6 - 8N	3/4	3/8
H - MFAC 4 -12N		1/4
H - MFAC 6 -12N	1	3/8
H - MFAC 8 -12N		1/2
H - MFAC 4 -16N	1	1/4
H - MFAC 8 -16N		1/2
H - MFAC16 -16N	1	1

Hex Bushing H-SHB



Male NPT to Reduced Female NPT.

Part No.	Male Pipe Size	Female Pipe Size
H-SHB 4- 2N	1/4	1/8
H-SHB 6- 2N	3/8	1/4
H-SHB 6- 4N		1/8
H-SHB 8- 2N	1/2	1/8
H-SHB 8- 4N		1/4
H-SHB 8- 6N		3/8
H-SHB 12- 4N	3/4	1/4
H-SHB 12- 6N		3/8
H-SHB 12- 8N		1/2
H-SHB 16- 4N		1/4
H-SHB 16- 8N	1	1/2
H-SHB 16- 12N		3/4

Vent Protector H-SBS



Male NPT

Part No.	Pipe Size
H-SBS- 4N	1/4
H-SBS- 6N	3/8
H-SBS- 8N	1/2
H-SBS-12N	3/4

Hy-Lok vent protectors, more commonly known as mud dauber fittings, protect open ends of instruments, tubing, outlet vents, and bleed-off lines

The mesh wire screen prevents foreign objects, such as mud dauber insects, from entering and clogging various systems and causing damage.

Vent protectors are available in stainless steel and brass.

Union Ball Joint H-SUR



Female NPT Both Ends.

Part No.	Pipe Size
H-SUR - 2N	1/8
H-SUR - 4N	1/4
H-SUR - 6N	3/8
H-SUR - 8N	1/2
H-SUR - 12N	3/4
H-SUR - 16N	1

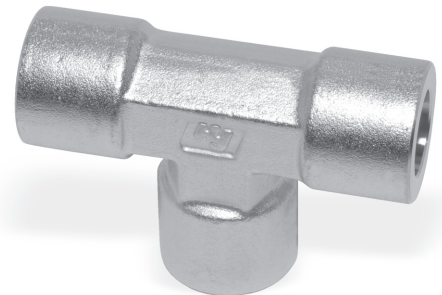
ISO Parallel Gasket KP-A



Female NPT Both Ends.

Part No.	Pipe Size
KP - A - 01	1/8
KP - A - 03	1/4
KP - A - 05	3/8
KP - A - 07	1/2
KP - A - 11	3/4
KP - A - 16	1

Used to provide a seal with ISO parallel thread. (Material is Copper only)



Union
H-SWFC



Part No.	T Tube O.D
H - SWFC - 4T	1/4
H - SWFC - 6T	3/8
H - SWFC - 8T	1/2
H - SWFC -10T	5/8
H - SWFC -12T	3/4
H - SWFC -16T	1

Male Connector
H-SSD



Part No.	T Tube O.D	P-NPT Male Pipe Size
H - SSD4T - 4N	1/4	1/4
H - SSD6T - 4N	3/8	3/8
H - SSD6T - 8N		1/2
H - SSD8T - 4N	1/2	1/4
H - SSD8T - 6N		3/8
H - SSD8T - 8N		1/2

Union Elbow
H-SWLA



Part No.	T Tube O.D
H - SWLA - 4T	1/4
H - SWLA - 6T	3/8
H - SWLA - 8T	1/2
H - SWLA -10T	5/8
H - SWLA -12T	3/4
H - SWLA -16T	1

Female Connector
H-SSB



Part No.	T Tube O.D	P-NPT Male Pipe Size
H-SSB 2T- 2N	1/8	1/8
H-SSB 4T- 2N	1/4	
H-SSB 4T- 4N		3/8
H-SSB 6T- 4N	1/2	3/8
H-SSB 8T- 6N		1/2
H-SSB 8T- 8N	5/8	1/2
H-SSB10T- 8N		3/4
H-SSB12T-12N	3/4	3/4

Union Tee
H-SWTA



Part No.	T Tube O.D
H - SWTA - 2T	1/8
H - SWTA - 4T	1/4
H - SWTA - 6T	3/8
H - SWTA - 8T	1/2
H - SWTA -10T	5/8
H - SWTA -12T	3/4
H - SWTA -16T	1

Male Elbow
H-SLG



Part No.	T Tube O.D	P-NPT Male Pipe Size
H-SLG 4T- 4N	1/4	1/4
H-SLG 6T- 4N	3/8	
H-SLG 6T- 6N		3/8
H-SLG 6T- 8N		1/2
H-SLG 8T- 8N	1/4	1/2
H-SLG12T-12N		3/4

Union Cross
H-SWXA



Part No.	T Tube O.D
H - SWXA - 4T	1/4
H - SWXA - 6T	3/8
H - SWXA - 8T	1/2
H - SWXA -12T	3/4
H - SWXA -16T	1

Female Elbow
H-SLD



Part No.	T Tube O.D	P-NPT Male Pipe Size
H - SLD4T - 4N	1/4	1/4
H - SLD6T - 4N	3/8	
H - SLD6T - 8N		1/2
H - SLD8T - 8N	1/2	1/2

Pipe Weld to Tube Socket Weld

H-SWRM



Part No.	P Pipe Size	T Tube Socket Size
H - SWRM 4P - 4T	1/4	1/4
H - SWRM 6P - 6T	3/8	3/8
H - SWRM 6P - 8T		1/2
H - SWRM 8P - 4T	1/2	1/4
H - SWRM 8P - 6T		3/8
H - SWRM 8P - 8T		1/2
H - SWRM12P - 6T	3/4	3/8
H - SWRM12P - 8T		1/2

Used to reduce from a pipe butt weld or pipe socket weld to a smaller tube size

Tube Weld to Tube Socket Weld

H-SWRM



Part No.	T Tube Size	T1 Tube Socket Size
H - SWRM 4T - 2T	1/4	1/8
H - SWRM 6T - 4T	3/8	1/4
H - SWRM 8T - 4T	1/2	
H - SWRM 8T - 6T	1/2	3/8
H - SWRM12T - 8T	3/4	1/2
H - SWRM16T - 8T	1	

Used to reduce from a tube butt weld or tube socket weld to a smaller tube size

DOs

- DO use Hy-Lok fittings for best performance.
- DO send us tubing for test if it is too thin or too thick.
- DO deburr tubing properly prior to installation.
- DO use correct tube cutter to avoid excessive deformation.
- DO ensure tubing is firmly seated on the shoulder of fitting body.
- DO tighten nuts according to the installation instructions.
- DO use SURE RING where Hy-Lok needs be installed in close corners or in awkward places.
- DO ensure components are clean and free from dirt prior to installation or remake.

DON'Ts

- DON'T mix metric and fractional size of fitting or tubing.
- DON'T mix components of different materials.
- DON'T force tubing into fitting if it does not fit easily. Check tubing.
- DON'T turn fitting body, but turn nut.
- DON'T over tighten. It will not improve seal integrity and it may cause material fatigue and remake difficult.
- DON'T bleed system pressure by loosening the nut.

SAFETY in FITTING SELECTION

For proper, safe, trouble-free installation, operation and maintenance of fluid systems, material compatibility, pressure/temperature ratings, and application details must be considered in the selection of fittings.

Improper selection or employment of products described in this catalogue can cause personal injury or property losses.



Handelsonderneming PD

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