

Hy-Lok Clean Fittings

for Weld & ZCR Metal Gasket Face Seal

Catalog No. H-250CF
Oct. 2004



Feature

- 1/4 to 1 inch and 6 to 18mm size
- 316, 316L, 316L VOD and 316L VIM VAR Stainless steel material
- Weld Fitting for manual or Automatic welding equipment



HY-LOK CORPORATION

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ISO 14001

OHSAS 18001



Technical Data

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Tube Weld Fittings

Feature

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Mini Tube Butt Weld Fittings

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Tube Butt Weld Fittings

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Automatic Tube Butt Weld Fittings

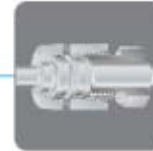
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Metal Gasket Face Seal Fittings

Feature

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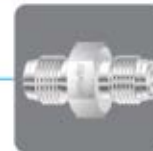
Glands

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Union, Elbow, Tee, Connectors

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Swivel Union, Elbow, Tee, Connectors

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Nut, Cap, Plug & Gasket

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High-Flow Connections

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Assembly Instruction

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Ordering Information

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■ Pressure Ratings

The HY-LOK clean weld fittings and metal gasket face seal fittings are manufactured from material in accordance with material table, and calculated in accordance with ASME code for Pressure Piping B 31.3, Process Piping for allowable stress value of 20,000 psi (equivalent ASTM A269-tubing) wall thickness.

Pressure ratings for fittings are also determined by temperature applied on the fittings. Allowable working pressure at temperatures greater than 100°F (37°C) may be obtained by multiplying factors shown in Table 1

To determine pressure ratings in accordance with ASME B31.1, Power Piping, multiply working pressure by 0.94

Table 1. Derating Factors

Temperature °F (°C)	Factor	
	316 Stainless Steel	316L Stainless Steel
-20 to 100 (-28 to 37)	1.00	0.84
200 (93)	0.86	0.71
300 (148)	0.78	0.63
400 (204)	0.71	0.57
600 (315)	0.66	0.53
500 (260)	0.63	0.5
650 (343)	0.62	0.49
750 (398)	0.60	0.48
700 (371)	0.60	0.47
850 (454)	0.59	0.46
800 (426)	0.58	0.45
900 (482)	0.57	-
950 (510)	0.57	-
1000 (537)	0.56	-

■ Temperature Rating

Type	Material	Temperature, °F (°C)
Fittings	316L Stainless Steel	1000 (537)
	316L Stainless Steel	
	Single Vacuum Melt 316L Stainless Steel	
	Double Vacuum Melt 316L Stainless Steel	
Gaskets	316L Stainless Steel	1000 (537)
	Nickel	600 (315)
	Copper	400 (204)

■ Material

Material	Designator	Specification	
		Bar Stock	Forging
316 Stainless Steel	S316	ASME SA479 ASTM A479 ASTM A276	ASME SA182 ASTM A182
316L Stainless Steel	316L		
Single Vacuum Melt 316L Stainless Steel	SM6L		
Double Vacuum Melt 316L Stainless Steel	VV6L		

■ Surface Finishes

Grade	Designator	Roughness Average Ra	EP	Material	Packing Standard Class 10
B.A.	B	0.25 μm (10 μin)	N/A	S316, 316L or SM6L	Double
High	H	0.13 μm (5 μin)	Yes	SM6L or VV6L	Double
Super	S	0.1 μm (4 μin)	Yes	VV6L	Triple

■ Cleaning

Passivation is done at Nitric environment. Precision cleaning is done by Ultra-sonic cleansing with resistivity over 18MΩ D.I. water after finishing the passivation.

■ Packing & Handling

HY-LOK clean fittings are double packed with anti-static polyethylene bag high purity nitrogen gas has been pressured into. Care should be considered to maintain cleanliness. Packing is done in the clean room of Class 10 and separate packing needed

- To maintain and transport in standard-pack condition.
- To remove particles from outer package, than open the cardboard or outer package before carrying into clean room.
- To move in double pack condition in clean room and take off the 1st package while using.
- Remove the 2nd package just before welding.



■ Mini Tube Butt Weld Fittings

- is suitable for the miniature tubing system.
- is available to arrange the parts closely.
- has the equivalent flow capacity with bigger sized weld fitting.

Radius junction means smooth flow transitions and elimination of pockets and entrapment zones.



Standard surface finish is average $Ra\ 0.25\ \mu\text{m}$ ($Ra\ 10\ \mu\text{in}$)

Square, sharp, burr-free tube weld end.

Laser etch Marking Heat Code Traceability
HY-LOK Clean fittings are marked as standard with Manufacturer, Part No., Material, Surface Finish, Heat Code No. designation.



■ TBW(Tube Butt Weld) and ATW(Automatic Tube Butt Weld) Fittings

- HY-LOK Clean fittings are applicable for two welding shapes. TBW(Tube Butt Weld) and ATW(Automatic Tube Butt Weld)
- TBW is machined for optimal Butt Welding by Automatic TIG welder.

Tube ends are machined with a square face and corners to enhance alignment and maintain tube wall uniformity.



Standard surface finish is average $Ra\ 0.25\ \mu\text{m}$ ($Ra\ 10\ \mu\text{in}$)

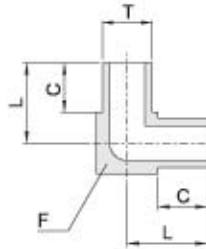


Precisely finished diameter matches tube diameter.



H-MLA

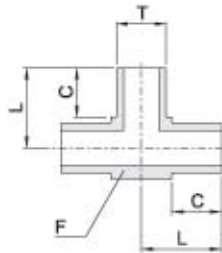
Mini Elbow



Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Cube inch	Working Pressure	
			mm	inch	mm	inch		psig	bar
H-MLA- 4	1 / 4	0.035 in.	10.4	0.41	6.35	0.25	5 / 16	5100	351
H-MLA- 6	3 / 8		11.9	0.47			7 / 16	3300	227
H-MLA- 8	1 / 2	0.049 in.	13.5	0.53			9 / 16	3700	254
H-MLA- 6M	6mm	1.0 mm	10.4	0.41			5 / 16	6095	420
H-MLA- 8M	8mm		11.9	0.47			7 / 16	4499	310
H-MLA-10M	10mm		13.5	0.53			9 / 16	3483	240
H-MLA-12M	12mm		13.5	0.53	9 / 16	2902	200		

H-MTA

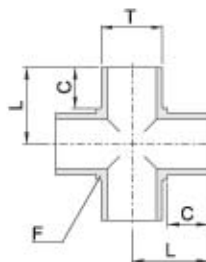
Mini Tee



Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Cube inch	Working Pressure	
			mm	inch	mm	inch		psig	bar
H-MTA- 4	1 / 4	0.035 in.	10.4	0.41	6.35	0.25	5 / 16	5100	351
H-MTA- 6	3 / 8		11.9	0.47			7 / 16	3300	227
H-MTA- 8	1 / 2	0.049 in.	13.5	0.53			9 / 16	3700	254
H-MTA- 6M	6mm	1.0 mm	10.4	0.41			5 / 16	6095	420
H-MTA- 8M	8mm		11.9	0.47			7 / 16	4499	310
H-MTA-10M	10mm		13.5	0.53			9 / 16	3483	240
H-MTA-12M	12mm		13.5	0.53	9 / 16	2902	200		

H-MXA

Mini Cross



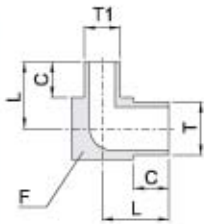
Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Cube inch	Working Pressure	
			mm	inch	mm	inch		psig	bar
H-MXA- 4	1 / 4	0.035 in.	10.4	0.41	6.35	0.25	5 / 16	5100	351
H-MXA- 6	3 / 8		11.9	0.47			7 / 16	3300	227
H-MXA- 8	1 / 2	0.049 in.	13.5	0.53			9 / 16	3700	254
H-MXA- 6M	6mm	1.0 mm	10.4	0.41			5 / 16	6095	420
H-MXA- 8M	8mm		11.9	0.47			7 / 16	4499	310
H-MXA-10M	10mm		13.5	0.53			9 / 16	3483	240
H-MXA-12M	12mm		13.5	0.53	9 / 16	2902	200		

Dimensions are reference only, subject to change.



H-MLA

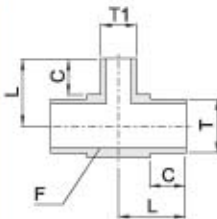
Mini Reducing Elbow



Part Number	T Tube O.D.	Wall Thickness	T1 Tube O.D.	Wall Thickness	L		C		F Body Cube		Working Pressure	
					mm	inch	mm	inch	inch	psig	bar	
H-MLA 6-4	3 / 8	0.035 in.	1 / 4	0.035 in.	11.9	0.47	6.35	0.25	7 / 16	3300	227	
H-MLA 8-4	1 / 2	0.049 in.	1 / 4		13.5	0.53			9 / 16	3700	254	
H-MLA 8-6	1 / 2		3 / 8		13.5	0.53			3300	227		
H-MLA 8M-6M	8mm	1.0 mm	6mm	1.0 mm	11.9	0.47	6.35	0.25	7 / 16	4499	310	
H-MLA10M-6M	10mm				3483	240						
H-MLA12M-6M	12mm				2902	200						
H-MLA12M-8M	12mm				8mm	13.5			0.53	2902	200	

H-MTA

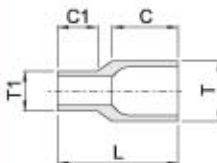
Mini Reducing Tee



Part Number	T Tube O.D.	Wall Thickness	T1 Tube O.D.	Wall Thickness	L		C		F Body Cube		Working Pressure	
					mm	inch	mm	inch	inch	psig	bar	
H-MTA 6-4	3 / 8	0.035 in.	1 / 4	0.035 in.	11.9	0.47	6.35	0.25	7 / 16	3300	227	
H-MTA 8-4	1 / 2	0.049 in.	1 / 4		13.5	0.53			9 / 16	3700	254	
H-MTA 8-6	1 / 2		3 / 8		13.5	0.53			3300	227		
H-MTA 8M-6M	8mm	1.0 mm	6mm	1.0 mm	11.9	0.47	6.35	0.25	7 / 16	4499	310	
H-MTA10M-6M	10mm				3483	240						
H-MTA12M-6M	12mm				2902	200						
H-MTA12M-8M	12mm				8mm	13.5			0.53	2902	200	

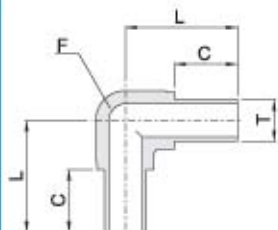
H-MCA

Mini Reducing Coupling

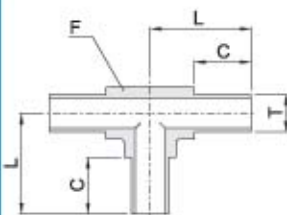


Part Number	T Tube O.D.	Wall Thickness	T1 Tube O.D.	Wall Thickness	L		C		C1		Working Pressure	
					mm	inch	mm	inch	mm	inch	psig	bar
H-MCA6-4	3 / 8	0.035 in.	1 / 4	0.035 in.	19.05	0.75	10.41	0.41	6.35	0.25	3300	227
H-MCA8-4	1 / 2	0.049 in.	1 / 4		3700	254						
H-MCA8-6	1 / 2		3 / 8		3300	227						

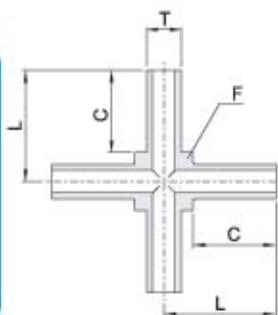
Dimensions are reference only, subject to change.

H-ML
Long Elbow


Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Flat inch	Working Pressure	
			mm	inch	mm	inch		psig	bar
H-ML- 4	1 / 4	0.035 in.	31.2	1.23	19.05	0.75	7 / 16	5100	351
H-ML- 6	3 / 8		30.5	1.20				3300	227
H-ML- 8	1 / 2	0.049 in.	34	1.34			11 / 16	3700	254
H-ML-12	3 / 4		37.1	1.46			15 / 16	2400	165
H-ML-16	1	0.065 in.	47.0	1.85	24.40	0.94	1 1 / 4	2400	165
H-ML- 6M	6mm	1.0 mm	31.2	1.23	19.05	0.75	7 / 16	6095	420
H-ML- 8M	8mm		34.0	1.34				4499	310
H-ML-10M	10mm		37.1	1.46			11 / 16	3483	240
H-ML-12M	12mm		47.0	1.85			15 / 16	2902	200
H-ML-18M	18mm	1.5 mm	37.6	1.48					

H-MT
Long Tee


Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Flat inch	Working Pressure	
			mm	inch	mm	inch		psig	bar
H-MT- 4	1 / 4	0.035 in.	31.2	1.23	19.05	0.75	7 / 16	5100	351
H-MT- 6	3 / 8		30.5	1.20				3300	227
H-MT- 8	1 / 2	0.049 in.	34	1.34			11 / 16	3700	254
H-MT-12	3 / 4		37.1	1.46			15 / 16	2400	165
H-MT-16	1	0.065 in.	47.0	1.85	24.40	0.96	1 1 / 4	2400	165
H-MT- 6M	6mm	1.0 mm	31.2	1.23	19.05	0.75	7 / 16	6095	420
H-MT- 8M	8mm		34.0	1.34				4499	310
H-MT-10M	10mm		37.1	1.46			11 / 16	3483	240
H-MT-12M	12mm		47.0	1.85			15 / 16	2902	200
H-MT-18M	18mm	1.5 mm	37.6	1.48					

H-MX
Long Cross


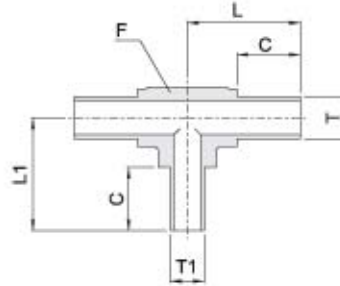
Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Flat inch	Working Pressure	
			mm	inch	mm	inch		psig	bar
H-MX- 4	1 / 4	0.035 in.	31.2	1.23	19.05	0.75	7 / 16	5100	351
H-MX- 6	3 / 8		30.5	1.20				3300	227
H-MX- 8	1 / 2	0.049 in.	34	1.34			11 / 16	3700	254
H-MX- 6M	6mm		31.2	1.23			7 / 16	6095	420
H-MX- 8M	8mm	1.0 mm	34.0	1.34	4499	310			
H-MX-10M	10mm		37.1	1.46	11 / 16	3483	240		
H-MX-12M	12mm	47.0	1.85	15 / 16	2902	200			

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H-MT

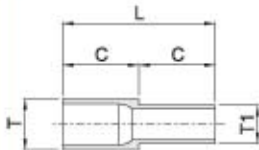
Long Reducing Tee



Part Number	T Tube O.D.	Wall Thickness	T1 Tube O.D.	Wall Thickness	L		L1		C		F Body Flat	Working Pressure	
					mm	inch	mm	inch	mm	inch		psig	bar
H-MT 6-4	3 / 8	0.035 in.	1 / 4	0.035 in.	30.5	1.20	31.2	1.23	19.05	0.75	7 / 16	3300	227
H-MT 8-4	1 / 2	0.049 in.			3 / 8	34.0	1.34	34.0			1.34	11 / 16	3700
H-MT 8-6	1 / 2		37.1			1.46	34.3	1.35			3300	227	
H-MT12-6	3 / 4						37.6	1.48			15 / 16	2400	165
H-MT12-4	3 / 4	1 / 4	7 / 16		4499	310							
H-MT 8M-6M	8mm	1.0 mm	6mm	1.0 mm	31.3	1.23	31.3	1.23	19.05	0.75	11 / 16	3483	240
H-MT10M-6M	10mm		8mm		34.0	1.34	34.0	1.34			2902	200	
H-MT10M-8M													6mm
H-MT12M-6M	12mm		8mm										
H-MT12M-8M			8mm										

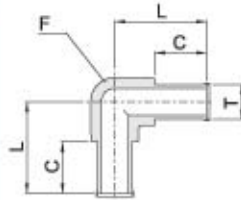
H-MU

Reducing Union

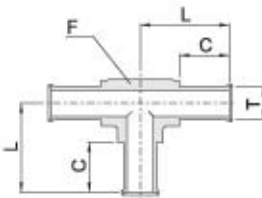


Part Number	T Tube O.D.	Wall Thickness	T1 Tube O.D.	Wall Thickness	L		C		Working Pressure	
					mm	inch	mm	inch	psig	bar
H-MU 6- 4	3 / 8	0.035 in.	1 / 4	0.035 in.	38.1	1.50	19.05	0.75	3300	227
H-MU 8- 4	1 / 2	0.049 in.	1 / 4						3700	254
H-MU 8- 6	1 / 2		3 / 8						3300	227
H-MU12- 8	3 / 4	0.065 in.	1 / 2	2400					165	
H-MU16- 8	1		1 / 2							
H-MU16-12	1	3 / 4	3483	240						
H-MU10M- 6M	10mm	1.0 mm	6mm	1.0 mm	2902	200				
H-MU10M- 8M	10mm		8mm							
H-MU12M- 6M	12mm		6mm							
H-MU12M- 8M	12mm		8mm							
H-MU12M-10M	12mm		10mm							
H-MU18M- 6M	18mm	1.5 mm	6mm	1.5 mm						
H-MU18M-12M	18mm		12mm							

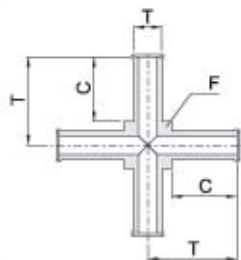
Dimensions are reference only, subject to change.

H-ML-A
Long Elbow with Shoulder


Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Flat inch	Working Pressure					
			mm	inch	mm	inch		psig	bar				
H-ML- 4A	1 / 4	0.035 in.	31.2	1.23	19.05	0.75	7 / 16	5100	351				
H-ML- 6A	3 / 8		30.5	1.20				3300	227				
H-ML- 8A	1 / 2		34	1.34				3700	254				
H-ML-12A	3 / 4	0.049 in.	37.1	1.46			15 / 16	2400	165				
H-ML-16A	1	0.065 in.	47.0	1.85	24.40	0.94	1 1 / 4						
H-ML- 6MA	6mm	1.0 mm	31.2	1.23	19.05	0.75	7 / 16	6095	420				
H-ML- 8MA	8mm		30.5	1.20				4499	310				
H-ML-10MA	10mm		34.0	1.34				3483	240				
H-ML-12MA	12mm		37.1	1.46				2902	200				
H-ML-18MA	18mm		1.5 mm	37.6				1.48			15 / 16		

H-MT-A
Long Elbow with Shoulder


Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Flat inch	Working Pressure					
			mm	inch	mm	inch		psig	bar				
H-MT- 4A	1 / 4	0.035 in.	31.2	1.23	19.05	0.75	7 / 16	5100	351				
H-MT- 6A	3 / 8		30.5	1.20				3300	227				
H-MT- 8A	1 / 2		34	1.34				3700	254				
H-MT-12A	3 / 4	0.049 in.	37.1	1.46			15 / 16	2400	165				
H-MT-16A	1	0.065 in.	47.0	1.85	24.40	0.94	1 1 / 4						
H-MT- 6MA	6mm	1.0 mm	31.2	1.23	19.05	0.75	7 / 16	6095	420				
H-MT- 8MA	8mm		30.5	1.20				4499	310				
H-MT-10MA	10mm		34.0	1.34				3483	240				
H-MT-12MA	12mm		37.1	1.46				2902	200				
H-MT-18MA	18mm		1.5 mm	37.6				1.48			15 / 16		

H-MX-A
Long Cross with Shoulder


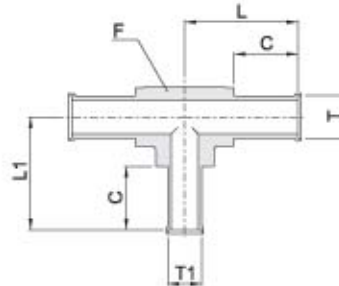
Part Number	T Tube O.D.	Wall Thickness	L		C		F Body Flat inch	Working Pressure						
			mm	inch	mm	inch		psig	bar					
H-MX- 4A	1 / 4	0.035 in.	31.2	1.23	19.05	0.75	7 / 16	5100	351					
H-MX- 6A	3 / 8		30.5	1.20				3300	227					
H-MX- 8A	1 / 2		34	1.34				3700	254					
H-MX- 6MA	6mm	1.0 mm	31.2	1.23	19.05	0.75	7 / 16	6095	420					
H-MX- 8MA	8mm		30.5	1.20				4499	310					
H-MX-10MA	10mm		34.0	1.34				3483	240					
H-MX-12MA	12mm			37.6			1.48			5 / 8	2902	200		

Dimensions are reference only, subject to change.



H-MT-A

Long Reducing Tee with Shoulder



Part Number	T Tube O.D.	Wall Thickness	T1 Tube O.D.	Wall Thickness	L		L1		C		F Body Flat	Working Pressure	
					mm	inch	mm	inch	mm	inch		psig	bar
H-MT 6- 4A	3 / 8	0.035 in.	1 / 4	0.035 in.	30.5	1.20	31.2	1.23	19.05	0.75	7 / 16	3300	227
H-MT 8- 4A	1 / 2	0.049 in.	1 / 4		34.0	1.34	34.5	1.36			11 / 16	3700	254
H-MT 8- 6A	1 / 2		3 / 8				34.0	1.34				3300	227
H-MT12- 6A	3 / 4		3 / 8				37.1	1.46				37.1	1.46
H-MT12- 8A	3 / 4	0.049 in.	1 / 2	0.049 in.	37.1	1.46	37.1	1.46	11 / 16	200	227		
H-MT12M-6MA	12mm	1.0 mm	6mm	1.0 mm	34.0	1.34	34.0	1.34			11 / 16	200	227

H-MU-A

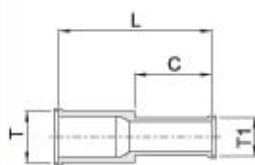
Union with Shoulder



Part Number	T Tube O.D.	Wall Thickness	L		Working Pressure	
			mm	inch	psig	bar
H-MU- 4A	1 / 4	0.035 in.	24.4	0.96	5100	351
H-MU- 6A	3 / 8		23.8	0.94	3300	227
H-MU- 8A	1 / 2	0.049 in.	23.4	0.92	3700	254
H-MU-12A	3 / 4		23.4	0.92	2400	165
H-MU-16A	1	0.065 in.	29.8	1.17		
H-MU- 6MA	6mm	1.0 mm	30.8	1.21	6095	420
H-MU- 8MA	8mm		30.2	1.19	4499	310
H-MU-10MA	10mm		3483	240		
H-MU-12MA	12mm					
H-MU-18MA	18mm	1.5 mm	29.8	1.17	2902	200

H-MU-A

Reducing Union with Shoulder



Part Number	T Tube O.D.	Wall Thickness	T1 Tube O.D.	Wall Thickness	L		C		Working Pressure	
					mm	inch	mm	inch	psig	bar
H-MU 6-4A	3 / 8	0.035 in.	1 / 4	0.035 in.	38.8	1.53	18.6	0.73	3300	227
H-MU 8-4A	1 / 2	0.049 in.	1 / 4		38.6	1.52	18.6	0.73	3700	254
H-MU 8-6A	1 / 2		3 / 8		38.3	1.51	18.3	0.72	3300	227
H-MU 8M-6MA	8mm	6mm	1.0 mm		38.6	1.52	18.6	0.73	4499	310
H-MU12M-6MA	12mm	1.0 mm	6mm	1.0 mm	38.6	1.52	18.6	0.73	2902	200
H-MU12M-8MA	12mm		8mm		38.6	1.52	18.3	0.72		

Dimensions are reference only, subject to change.

■ Feature

- Provides ultra-high purity Metal to metal seal for vacuum and positive pressure applications.
- Sealing is accomplished by compressing the gasket between the two beads during assembly of the male nut or body and female nut.

Gasket options include - silver plated stainless steel 316L, Nickel plated, unplated nickel or special request.

Roll stamped or Laser etch Marking & Heat Code Traceability
HY-LOK Clean fittings are marked as standard with Manufacturer, Part No., Material, Surface finish, Heat Code No. designation.

Standard surface finish is average Ra 0.25 μ m (Ra 10 μ in)



QA leak test port also allows visual inspection of sealing gasket prior to assembly.

The internal surface finish of the female nut is silver plated to ensure consistent, low make up torque.

■ Typical Assembly



■ Plating

- Female Nut-The internal surface of the nut is silver plated to avoid galling and reduce the tightenign torque.
- Gasket options include-Silver plated stainless steel 316L, Nickel plated, unplated nickel or special request.

■ Testing

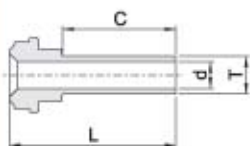
- ZCR Fittings have been helium leak tested to a rate of 1×10^{-8} atm/cc/sec with unplated, silver plated and copper gasket.
- Optional tests are available upon request.





H-ZSG

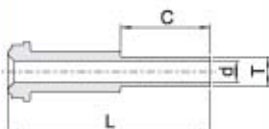
Short Tube Butt Weld Gland



Part Number	ZCR Size	T Tube O.D.	Nominal Wall Thickness	d		L		C		Working Pressure psig (bar)		
				mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZSG - 2	1/8	1/8	0.028 in.	1.50	0.06	27.4	1.08	19.05	0.75	8500 (585) 6800 (468)		
H-ZSG - 4	1/4	1/4	0.035 in.	4.55	0.18	27.9	1.10			5100 (351)		
H-ZSG- 4	1/4	1/4		4.55	0.18	28.4	1.12			3500 (241)	4300 (296)	2800 (192)
H-ZSG - 6	1/2	3/8	7.67	0.30	3500 (227)					2600 (179)		
H-ZSG - 8	1/2	1/2	0.049 in.	10.14	0.40	3500 (241)	2800 (192)					
H-ZSG - 6M	1/4	6mm	1.0 mm	4.06	0.16	29.5	1.16			6800 (468)	5400 (372)	
H-ZSG - 8M		8mm		6.12	0.24					4900 (337)		
H-ZSG -10M	1/2	10mm	8.12	0.32	3500 (241)	2800 (192)						
H-ZSG -12M		12mm	9.96	0.39	3100 (213)	2400 (165)						
H-ZSG -18M	3/4	18mm	1.5 mm	15.0	0.59	31.0	1.22			3000 (206)	2400 (165)	

H-ZLG

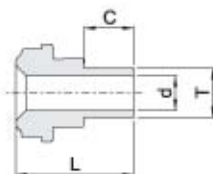
Long Tube Butt Weld Gland



Part Number	ZCR Size	T Tube O.D.	Nominal Wall Thickness	d		L		C		Working Pressure psig (bar)		
				mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZLG - 2	1/8	1/8	0.028 in.	1.50	0.06	36.1	1.42	19.05	0.75	8500 (585) 6800 (468)		
H-ZLG - 4	1/4	1/4	0.035 in.	4.55	0.18	43.2	1.70			5100 (351)		
H-ZLG- 4	1/4	1/4		4.55	0.18	45.7	1.80			3500 (241)	4300 (296)	2800 (192)
H-ZLG - 6	1/2	3/8	7.67	0.30	45.5	1.79	3300 (227)			2600 (179)		
H-ZLG - 8	1/2	1/2	0.049 in.	10.14			0.40			3500 (241)	2800 (192)	
H-ZLG -12	3/4	3/4	16.5	0.65	51.6	2.03	2400 (165)			1900 (130)		
H-ZLG -16	1	1	0.065 in.	22.1	0.87	58.9	2.32			6800 (468)	5400 (372)	
H-ZLG - 6M	1/4	6mm	1.0 mm	4.06	0.16	43.2	1.70			4900 (337)		
H-ZLG - 8M		8mm		6.12	0.24							
H-ZLG -10M	1/2	10mm	8.12	0.32	45.5	1.79	3500 (241)			2800 (192)		
H-ZLG -12M		12mm	9.96	0.39	3100 (213)	2400 (165)						
H-ZLG -18M	1/2	18mm	1.5 mm	15.0	0.59	51.6	2.03			3000 (206)	2400 (165)	

H-ZMSG

Mini Short Tube Butt Weld Gland

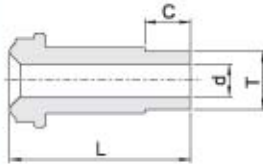


Part Number	ZCR Size	T Tube O.D.	Nominal Wall Thickness	d		L		C		Working Pressure psig (bar)		
				mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZMSG- 4	1/4	1/4	0.035 in.	4.55	0.18	15.2	0.60	6.35	0.25	5100 (351)		
H-ZMSG- 6	3/8	3/8		7.67	0.30	15.8	0.62			3300 (227)	2600 (179)	
H-ZMSG- 8	1/2	1/2	0.049 in.	10.14	0.40					3500 (241)	2800 (192)	
H-ZMSG- 6M	1/4	6mm	1.0 mm	4.06	0.16	15.2	0.60			6800 (468)	5400 (372)	
H-ZMSG- 8M		8mm		6.12	0.24	4900 (337)						
H-ZMSG-10M	1/2	10mm	8.12	0.32	15.8	0.62	3500 (241)			2800 (192)		
H-ZMSG-12M		12mm	9.96	0.39	3100 (213)	2400 (165)						



H-ZMLG

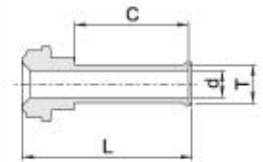
Mini Long Tube Butt Weld Gland



Part Number	ZCR Size	T Tube O.D.	Nominal Wall Thickness	d		L		C		Working Pressure psig (bar)		
				mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZMLG- 4	1 / 4	1 / 4	0.035 in.	4.55	0.18	30.5	1.20	6.35	0.25	5100 (351)		
H-ZMLG- 6	1 / 2	3 / 8		7.67	0.30	32.8	1.29			3300 (227)	2600 (179)	
H-ZMLG- 8		1 / 2	0.049 in.	10.14	0.40					3500 (241)	2800 (192)	
H-ZMLG- 6M	1 / 4	6mm	1.0 mm	4.06	0.16	31.0	1.22			6800 (468)	5400 (372)	
H-ZMLG- 8M		8mm		6.12	0.24	31.2	1.23			4900 (337)		
H-ZMLG-10M	1 / 2	10mm		8.12	0.32	32.8	1.29			3500 (241)	2800 (192)	
H-ZMLG-12M		12mm		9.96	0.39	33.8	1.33			3100 (213)	2400 (166)	

H-ZSG-A

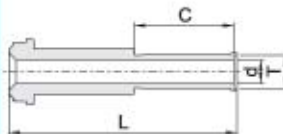
Short Tube Butt Weld Gland with Shoulder



Part Number	ZCR Size	T Tube O.D.	Nominal Wall Thickness	d		L		C		Working Pressure psig (bar)		
				mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZSG- 4A	1 / 4	1 / 4	0.035 in.	4.55	0.18	28.4	1.12	19.05	0.75	5100 (351)		
H-ZSG- 6A	1 / 2	3 / 8		7.67	0.30	29.2	1.15			3300 (227)	2600 (179)	
H-ZSG- 8A		1 / 2	0.049 in.	10.14	0.40	29.5	1.16			3500 (241)	2800 (192)	
H-ZSG- 6MA	1 / 4	6mm	1.0 mm	4.06	0.16	30.0	1.18			6800 (468)	5400 (372)	
H-ZSG- 8MA		8mm		6.12	0.24	30.2	1.19			4900 (337)		
H-ZSG-10MA	1 / 2	10mm		8.12	0.32	31.0	1.22			3500 (241)	2800 (192)	
H-ZSG-12MA		12mm		9.96	0.39	30.5	1.20			3100 (213)	2400 (166)	

H-ZLG-A

Long Tube Butt Weld Gland with Shoulder



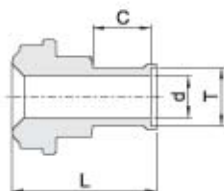
Part Number	ZCR Size	T Tube O.D.	Nominal Wall Thickness	d		L		C		Working Pressure psig (bar)		
				mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZLG - 4A	1 / 4	1 / 4	0.035 in.	4.55	0.18	43.7	1.72	19.05	0.75	5100 (351)		
H-ZLG- 4A		1 / 4		4.55	0.18	46.2	1.82			3500 (241)	2800 (192)	
H-ZLG - 6A	1 / 2	3 / 8	7.67	0.30	3300 (227)					2600 (179)		
H-ZLG - 8A		1 / 2	0.049 in.	10.14	0.40	46.5	1.83			3500 (241)	2800 (192)	
H-ZLG -12A	3 / 4	3 / 4	1.0 mm	16.5	0.65	52.6	2.07			2400 (165)	2400 (165)	
H-ZLG -16A	1	1		0.065 in.	22.1	0.87	65.3			2.57	1900 (130)	1900 (130)
H-ZLG - 6MA	1 / 4	6mm		4.06	0.16	43.7	1.72			6800 (468)	5400 (372)	
H-ZLG - 8MA		8mm		6.12	0.24	43.9	1.73			4900 (337)		
H-ZLG -10MA	1 / 2	10mm		8.12	0.32	46.5	1.83	3500 (241)	2800 (192)			
H-ZLG -12MA		12mm		9.96	0.39	46.5	1.83	3100 (213)	2400 (166)			
H-ZLG -18MA	3 / 4	18mm		1.5 mm	15.0	0.59	52.6	2.07	3000 (206)	2400 (166)		

Dimensions are reference only, subject to change.



H-ZMSG-A

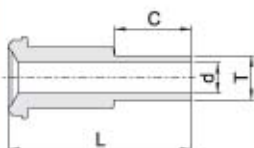
Mini Short Tube Butt Weld Gland with Shoulder



Part Number	ZCR Size	T Tube O.D.	Nominal Wall Thickness	d		L		C		Working Pressure psig (bar)		
				mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZMSG- 4A	1/4	1/4	0.035 in.	4.55	0.18	15.7	0.62	6.35	0.25	5100 (351)		
H-ZMSG- 6A	1/2	3/8		7.67	0.30	16.6	0.65			3300 (227)	2600 (179)	
H-ZMSG- 8A		1/2	0.049 in.	10.14	0.40	16.8	0.66			3500 (241)	2800 (192)	
H-ZMSG- 6MA	1/4	6mm	4.06	0.16	15.7	0.62	6800 (468)			5400 (372)		
H-ZMSG- 8MA		8mm	6.12	0.24	16.6	0.65	4900 (337)					
H-ZMSG-10MA	1/2	10mm	8.12	0.32			3500 (241)			2800 (192)		
H-ZMSG-12MA		12mm	9.96	0.39	16.8	0.66	3100 (213)	2400 (165)				

H-ZGM

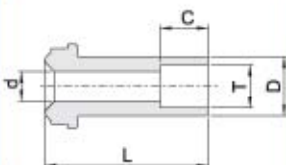
Male Weld Gland



Part Number	ZCR Size	T Tube O.D.	d		L		C		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZGM - 2	1/8	1/8	1.50	0.06	17.8	0.70	7.1	0.28	9000 (620)	11200 (771)	7200 (496)
H-ZGM4- 2	1/4		1.50	0.06	33.3	1.31			8000 (551)	10000 (689)	6400 (440)
H-ZGM - 4		1/4	1/4	3.00	0.12	33.3	1.31	10.4	0.41		
H-ZGM8- 4	3.00			0.12	38.1	1.50					
H-ZGM - 6	1/2	3/8	7.10	0.28	38.1	1.50	12.7	0.5	3500 (241)	4300 (296)	2800 (192)
H-ZGM - 8		1/2	10.14	0.40	38.1	1.50			3500 (241)		
H-ZGM -12	3/4	3/4	13.50	0.53	50.8	2.00	15.7	0.62	3000 (206)	3700 (254)	2400 (165)
H-ZGM -16	1	1	19.10	0.75	56.4	2.22	20.6	0.81	2400 (165)	3000 (206)	1900 (130)

H-ZGS

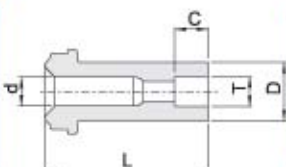
Socket Weld Gland



Part Number	ZCR Size	T Tube Socket	d		D		L		C		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZGS- 2S	1/8	1/8	2.30	0.09	5.1	0.2	17.8	0.70	2.50	0.10	7100 (489)		
H-ZGS- 4S	1/4	1/4	4.55	0.18	8.9	0.35	33.3	1.31	7.1	0.28	5500 (378)		
H-ZGS- 6S	1/2	3/8	7.67	0.30	15.2	0.60	38.1	1.50	7.9	0.31	3500 (241)	4300 (291)	2800 (192)
H-ZGS- 8S		1/2	10.14	0.40							3000 (206)		2400 (165)
H-ZGS-12S	3/4	3/4	13.5	0.53	22.4	0.88	50.8	2.0	11.2	0.44	2800 (192)		2200 (151)
H-ZGS-16S	1	1	19.1	0.75	30.2	1.19	56.4	2.22	15.7	0.62	2400 (165)	3000 (306)	1900 (130)

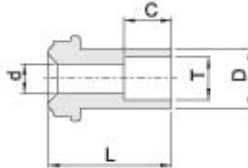
H-ZGS

Reducing Socket Weld Gland

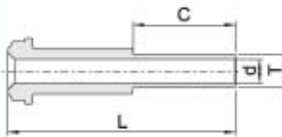


Part Number	ZCR Size	T Tube Socket	d		D		L		C		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZGS4-2S	1/4	1/8	2.30	0.09	8.9	0.35	33.3	1.31	2.50	0.10	8000 (551)		
H-ZGS8-4S	1/2	1/4	4.55	0.18	15.2	0.60	38.1	1.50	7.1	0.28	3500 (241)		

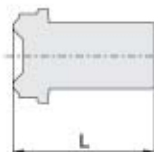
Dimensions are reference only, subject to change.

H-ZGS
Short Socket Weld Gland


Part Number	ZCR Size	T Tube Socket	d		D		L		C		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	mm	inch	Ni	SS	CU
H-ZGS-4SL12.7	1/4	1/4	4.55	0.18	8.9	0.35	12.7	0.5	7.1	0.28	5500 (378)		
H-ZGS-4SL19.1							19.1	0.75					

H-ZGT
Tube Adapter Gland


Part Number	ZCR Size	T Tube Socket	d		L		C		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	Ni	SS	CU
H-ZGT-4	1/4	1/4	4.30	0.17	41.0	1.62	16.2	0.64	8000 (511)	10000 (689)	6400 (440)
H-ZGT-6	1/2	3/8	6.80	0.27	46.0	1.81	17.8	0.70	3500 (241)	4300 (296)	2800 (192)
H-ZGT-8		1/2	9.40	0.37	49.3	1.94	24.4	0.96			

H-ZBG
Blind Gland


Part Number	ZCR Size	L	
		mm	inch
H-ZBG- 2	1/8	17.8	0.70
H-ZBG- 4	1/4	33.3	1.31
H-ZBG- 8	1/2	38.1	1.50
H-ZBG-12	3/4	50.8	2.00
H-ZBG-16	1	56.4	2.22

H-ZC
Coupling

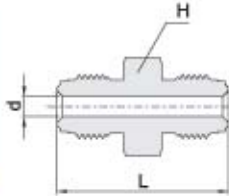

Part Number	ZCR Size	L		H
		mm	inch	inch
H-ZC- 2	1/8	16.8	0.66	7/16
H-ZC- 4	1/4	30.2	1.19	3/4
H-ZC- 8	1/2	33.3	1.31	1 1/16
H-ZC-12	3/4	42.7	1.68	1 1/2
H-ZC-16	1	51.8	2.04	1 3/4

Dimensions are reference only, subject to change.



H-ZUA

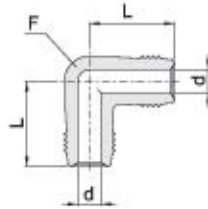
Double Male Union



Part Number	ZCR Size	d		L		H	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZUA- 2	1 / 8	2.30	0.09	28.7	1.13	3/8	9000 (620)	11200 (771)	7200 (496)
H-ZUA- 4	1 / 4	4.55	0.18	39.4	1.55	5/8	8000 (551)	10000 (689)	6400 (440)
H-ZUA- 8	1 / 2	10.14	0.40	46.7	1.84	15/16	3500 (241)	4300 (296)	2800 (192)
H-ZUA-12	3 / 4	15.70	0.62	62.0	2.44	1 5/16	3000 (206)	3700 (254)	2400 (165)
H-ZUA-16	1	22.10	0.87	65.8	2.59	1 5/8	2400 (165)	3000 (206)	1900 (130)

H-ZLA

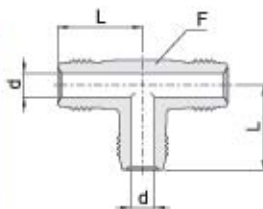
Union Elbow



Part Number	ZCR Size	d		L		F Body Flat	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZLA- 2	1 / 8	2.30	0.09	22.6	0.89	7 / 16	9000 (620)	11200 (771)	7200 (496)
H-ZLA- 4	1 / 4	4.55	0.18	27.2	1.07	1 / 2	8000 (551)	10000 (689)	6400 (440)
H-ZLA- 8	1 / 2	10.14	0.40	36.8	1.45	13 / 16	3500 (241)	4300 (296)	2800 (192)
H-ZLA-12	3 / 4	15.70	0.62	48.8	1.92	1 1 / 4	3000 (206)	3700 (254)	2400 (165)
H-ZLA-16	1	22.10	0.87	50.8	2.00	1 11 / 16	2400 (165)	3000 (206)	1900 (130)

H-ZTA

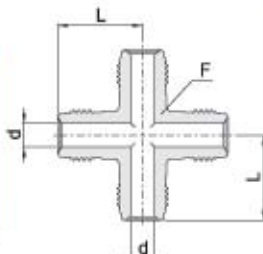
Union Tee



Part Number	ZCR Size	d		L		F Body Flat	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZTA- 2	1 / 8	2.30	0.09	22.6	0.89	7 / 16	9000 (620)	11200 (771)	7200 (496)
H-ZTA- 4	1 / 4	4.55	0.18	27.2	1.07	1 / 2	8000 (551)	10000 (689)	6400 (440)
H-ZTA- 8	1 / 2	10.14	0.40	36.8	1.45	13 / 16	3500 (241)	4300 (296)	2800 (192)
H-ZTA-12	3 / 4	15.70	0.62	48.8	1.92	1 1 / 4	3000 (206)	3700 (254)	2400 (165)
H-ZTA-16	1	22.10	0.87	50.8	2.00	1 11 / 16	2400 (165)	3000 (206)	1900 (130)

H-ZXA

Union Cross



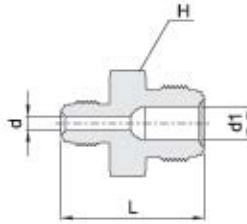
Part Number	ZCR Size	d		L		F Body Flat	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZXA- 2	1 / 8	2.30	0.09	22.6	0.89	7 / 16	9000 (620)	11200 (771)	7200 (496)
H-ZXA- 4	1 / 4	4.55	0.18	27.2	1.07	1 / 2	8000 (551)	10000 (689)	6400 (440)
H-ZXA- 8	1 / 2	10.14	0.40	36.8	1.45	13 / 16	3500 (241)	4300 (296)	2800 (192)
H-ZXA-12	3 / 4	15.70	0.62	48.8	1.92	1 1 / 4	3000 (206)	3700 (254)	2400 (165)
H-ZXA-16	1	22.10	0.87	50.8	2.00	1 11 / 16	2400 (165)	3000 (206)	1900 (130)

Dimensions are reference only, subject to change.



H-ZUR

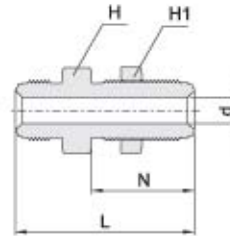
Double Male Reducing Union



Part Number	ZCR Size		d		d1		L		H	Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch		inch	NI	SS
H-ZUR4-2	1/4	1/8	4.55	0.18	2.30	0.09	34.8	1.37	5/8	8000 (551)	10000 (689)	6400 (440)
H-ZUR8-4	1/2	1/4	10.14	0.4	4.55	0.18	43.4	1.71	15/16	3500 (241)	4300 (296)	2800 (192)

H-ZBHU

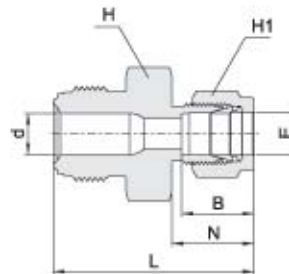
Bulkhead Union



Part Number	ZCR Size	d		L		N		H	H1	Panel Hole size		Max. Panel Thickness		Working Pressure psig (bar)		
		mm	inch	mm	inch	mm	inch			mm	inch	mm	inch	NI	SS	CU
H-ZBHU-4	1/4	4.55	0.18	56.6	2.23	33.0	1.30	3/4	3/4	14.5	0.57	11.1	0.44	8000 (551)	10000 (689)	6400 (440)
H-ZBHU-4L46				46.2	1.82	25.1	0.99			3.30	0.13					
H-ZBHU-8	1/2	10.14	0.4	65.3	2.57	37.6	1.48	1 1/16	1 1/16	22.5	0.89	12.7	0.5	3500 (241)	4300 (296)	2800 (192)
H-ZBHU-8L54				54.4	2.14	28.2	1.11			3.30	0.13					

H-ZHC

Hy-Lok Tube Fitting Connector



Part Number	ZCR Size	E Tube O.D.	d		L		B		N		H	H1	Working Pressure* psig (bar)		
			mm	inch	mm	inch	mm	inch	mm	inch			inch	inch	NI
H-ZHC4-2	1/4	1/8	4.55	0.18	38.6	1.52	12.7	0.5	15.2	0.6	5/8	7/16	8000 (551)	10000 (689)	6400 (440)
H-ZHC4-4		1/4			41.1	1.62	15.2	0.6	17.8	0.7		9/16			
H-ZHC4-6		3/8			43.0	1.7	16.8	0.66	19.3	0.76	11/16	11/16	6500 (447)		
H-ZHC8-6	3/8	46.7	1.84	16.8	0.66										
H-ZHC8-8	1/2	1/2	10.14	0.40	49.5	1.95	22.9	0.9	21.8	0.86	15/16	7/8	3500 (241)	4300 (296)	2800 (192)

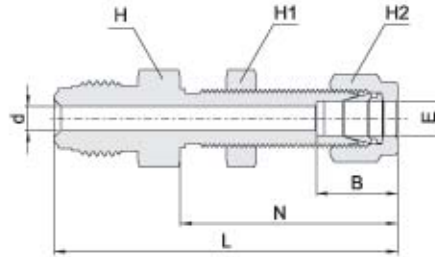
Note : B,N,L are finger - tight dimensions.

Dimensions are reference only, subject to change.



H-ZBHC

Hy-Lok Tube Fitting Bulkhead Connector

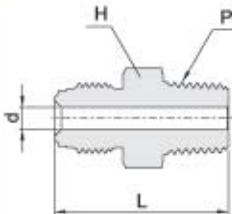


Part Number	ZCR Size	E Tube O.D.	d		L		B		N		H	H1	H2	Panel Hole size		Max. Panel Thickness		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	mm	inch				mm	inch	mm	inch	NI	SS	CU
H-ZBHC4-4	1/4	1/4	4.55	0.18	57.2	2.25	15.2	0.60	33.5	1.32	5/8	5/8	9/16	11.9	15/32	10.2	0.40	8000 (551)	10000 (689)	6400 (440)
H-ZBHC4-4L48					47.8	1.88			26.7	1.05						3.3	0.13			
H-ZBHC8-8	1/2	3/8	7.10	0.28	64.5	2.54	16.8	0.66	36.8	1.45	15/16	3/4	11/16	15.10	19/32	11.1	0.44	3500 (241)	4300 (296)	2800 (192)
H-ZBHC8-8		1/2	10.14	0.40	69.6	2.74	22.9	0.9	41.9	1.65						12.7	0.50			

Note : B,N,L are finger - tight dimensions.

H-ZMC

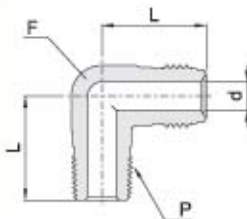
Male NPT Connector



Part Number	ZCR Size	d		L		H	P NPT	Working Pressure psig (bar)		
		mm	inch	mm	inch			NI	SS	CU
H-ZMC 2- 1N	1/8	2.30	0.09	27.2	1.07	3/8	1/16	9000 (620)	7200 (496)	
H-ZMC 2- 2N							7/16			
H-ZMC 4- 2N	1/4	4.55	0.18	33.3	1.31	5/8	1/8	8000 (551)	10000 (689)	6400 (440)
H-ZMC 4- 4N				37.8	1.49		1/4			
H-ZMC 8- 6N	1/2	9.65	0.38	41.9	1.65	15/16	3/8	3500 (241)	4300 (296)	2800 (192)
H-ZMC 8- 8N							10.14			
H-ZMC12-12N	3/4	15.70	0.62	55.6	2.19	15/16	3/4	3000 (206)	3700 (254)	2400 (165)
H-ZMC16-16N	1	22.10	0.87	62.7	2.47	15/8	1	2400 (165)	3000 (206)	1900 (130)

H-ZLMA

Male NPT Elbow



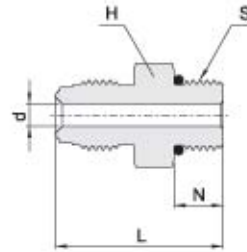
Part Number	ZCR Size	d		L		L1		P NPT	F	Working Pressure psig (bar)		
		mm	inch	mm	inch	mm	inch			Flat	NI	SS
H-ZLMA4-2N	1/4	4.55	0.18	27.2	1.07	22.1	0.87	1/8	1/2	8000 (551)	10000 (689)	6400 (440)
H-ZLMA4-4N						26.7	1.05					
H-ZLMA8-6N	1/2	10.14	0.40	36.8	1.45	32.0	1.26	3/8	13/16	3500 (241)	4300 (296)	2800 (192)
H-ZLMA8-8N						36.8	1.45					

Dimensions are reference only, subject to change.



H-ZSC

Straight thread O-Ring Seal Male Connector

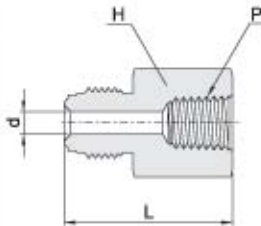


Part Number	ZCR Size	d		L		N		H	S Straight Thread	O-Ring Uniform Size	Working Pressure psig (bar)		
		mm	inch	mm	inch	mm	inch	inch			NI	SS	CU
H-ZSC4- 6U	1 / 4	4.55	0.18	33.8	1.33	9.9	0.39	3/4	9/16-18	-906	4500 (310)		
H-ZSC8- 6U	1 / 2	10.14	0.4	37.6	1.48	9.9	0.39	15/16	9/16-18	-906	3500 (241)	2800 (192)	
H-ZSC8-10U				42.2	1.66	12.7	0.5	1	7/8-14	-910			

Note : Standard O-Ring is viton other materials are available upon request.

H-ZFC

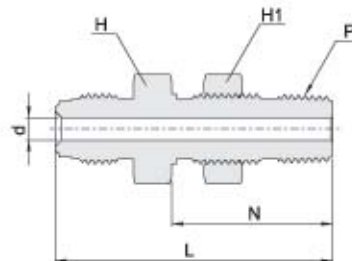
Female NPT Connector



Part Number	ZCR Size	d		L		H	P NPT	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch		NI	SS	CU
H-ZFC 2- 1N	1 / 8	2.30	0.09	27.9	1.10	7 / 16	1 / 16	6700 (461)		
H-ZFC 2- 2N				30.2	1.19	9 / 16		6500 (447)		
H-ZFC 4- 2N	1 / 4	4.55	0.18	35.8	1.41	5 / 8	1 / 4	8000 (551)	6400 (440)	
H-ZFC 4- 4N				39.1	1.54	3 / 4		6600 (454)	5200 (358)	
H-ZFC 8- 6N	1 / 2	10.14	0.40	44.7	1.76	15 / 16	3 / 8	3500 (241)	4300 (296)	2800 (192)
H-ZFC 8- 8N				50.5	1.99	1 1 / 16	1 / 2			
H-ZFC12-12N	3 / 4	15.70	0.62	59.9	2.36	1 5 / 16	3 / 4	3000 (206)	3700 (254)	2400 (165)
H-ZFC16-16N	1	22.10	0.87	63.8	2.51	1 5 / 8	1	2400 (165)	3000 (206)	1900 (130)

H-ZBMC

Bulkhead Male Connector



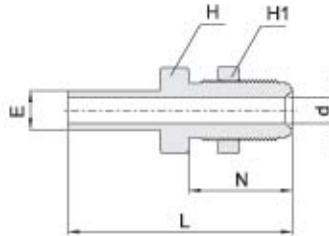
Part Number	ZCR Size	d		L		N		H	H1	p NPT	Panel Hole size		Max. Panel Thickness		Working Pressure psig (bar)			
		mm	inch	mm	inch	mm	inch	inch	inch		mm	inch	mm	inch	NI	SS	CU	
H-ZBMC4-4N	1 / 4	4.55	0.18	56.1	2.21	31.5	1.24	13/16	13/16	1 / 4	16.7	0.66	9.6	0.38	8000 (551)			6400 (440)
H-ZBMC8-4N	1 / 2	10.14	0.4	59.4	2.34			15/16	13/16		3500 (241)	4370 (301)			2800 (192)			

Dimensions are reference only, subject to change.



H-ZBT

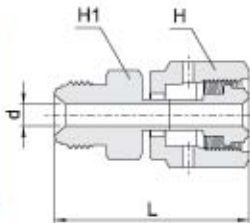
Tube Butt Weld Bulkhead Connector



Part Number	ZCR Size	E Tube O.D.	d		L		N		H	H1	Panel Hole size		Max. Panel Thickness		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	inch	inch	mm	inch	mm	inch	NI	SS	CU
H-ZBT4-4	1/4	1/4	4.55	0.18	59.9	2.36	33.0	1.30	3/4	3/4	14.5	0.57	11.1	0.44	5100 (351)		
H-ZBT4-4L50					49.5	1.95	25.1	0.99					3.30	0.13			

H-ZSMU

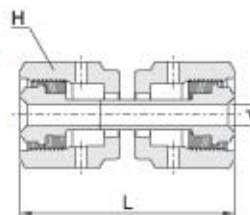
Swivel Male/Female Union



Part Number	ZCR Size	d		L		H	H1	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	inch	NI	SS	CU
H-ZSMU-4	1/4	4.55	0.18	42.9	1.69	3/4	5/8	80000 (551)	10000 (689)	6400 (440)

H-ZSUA

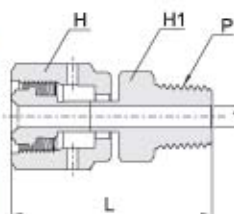
Swivel Female Union



Part Number	ZCR Size	d		L		H	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZSUA-4	1/4	4.55	0.18	43.4	1.71	3/4	8000 (551)	10000 (689)	6400 (440)
H-ZSUA-8	1/2	10.14	0.40	46.7	1.84	1 1/16	3500 (241)	4300 (296)	2800 (192)

H-ZSMC

Swivel Male NPT Connector



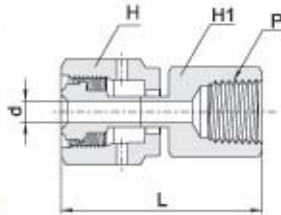
Part Number	ZCR Size	d		L		H	H1	P	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	inch	NPT	NI	SS	CU
H-ZSMC4-2N	1/4	4.55	0.18	40.1	1.58	3/4	7/16	1/8	8000 (551)		6400 (440)
H-ZSMC4-4N				45.5	1.79		9/16	1/4			
H-ZSMC8-6N	1/2	10.14	0.40	48.0	1.89	1 1/16	11/16	3/8	3500 (241)	4300 (296)	2800 (192)
H-ZSMC8-8N				53.1	2.09		7/8	1/2			

Dimensions are reference only, subject to change.



H-ZSFC

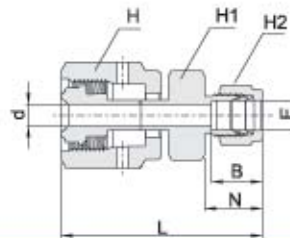
Swivel Female NPT Connector



Part Number	ZCR Size	d		L		H	H1	P NPT	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	inch		NI	SS	CU
H-ZSFC4-4N	1 / 4	4.55	0.18	45.0	1.77	3/4	3/4	1 / 4	6600 (454)		
H-ZSFC8-6N	3 / 8	10.14	0.40	49.5	1.95	1 1/16	7/8	3 / 8	3500 (241)	4300 (296)	2800 (192)
H-ZSFC8-8N	1 / 2			55.4	2.18	1 1/16	1 1/16	1 / 2			

H-ZSMH

Swivel Hy-Lok Tube Fitting Connector

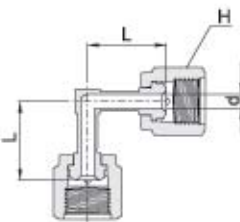


Part Number	Tube O.D.	E Tube O.D.	d		L		B		N		H	H1	H2	Working Pressure [*] psig (bar)		
			mm	inch	mm	inch	mm	inch	mm	inch	inch	inch	inch	NI	SS	CU
H-ZSMH4-4	1 / 4	1 / 4	4.55	0.18	49.3	1.94	15.2	0.60	17.8	0.70	3/4	1/2	9/16	8000 (551)	10000 (689)	6400 (440)
H-ZSMH4-6		3 / 8	4.55	0.18	50.0	1.97	16.8	0.66	19.3	0.76		5/8	11/16	6500 (447)		
H-ZSMH8-8	1 / 2	1 / 2	10.14	0.40	56.6	2.23	22.9	0.90	21.8	0.86	1 1/16	13/16	7/8	3500 (241)	4300 (296)	2800 (192)

Note : B,N,L are finger - tight dimensions.

H-ZSLA

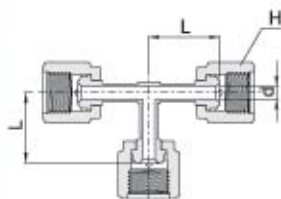
Swivel Elbow



Part Number	ZCR Size	d		L		H	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZSLA-4	1 / 4	4.55	0.18	25.4	1.00	3 / 4	5100 (351)		

H-ZSTA

Swivel Tee



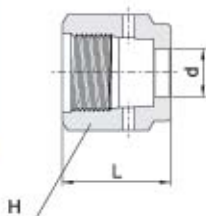
Part Number	ZCR Size	d		L		H	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZSTA-4	1 / 4	4.55	0.18	25.4	1.00	3 / 4	5100 (351)		

Dimensions are reference only, subject to change.



H-ZFN

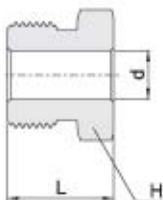
Female Nut



Part Number	ZCR Size	d		L		H
		mm	inch	mm	inch	inch
H-ZFN- 2	1 / 8	5.30	0.21	13.5	0.53	7/16
H-ZFN- 4	1 / 4	9.15	0.36	20.6	0.81	3/4
H-ZFN- 8	1 / 2	15.5	0.61	22.4	0.88	1 1/16
H-ZFN-12	3 / 4	22.6	0.89	28.4	1.12	1 1/2
H-ZFN-16	1	30.5	1.20	34.0	1.34	1 3/4

H-ZMN

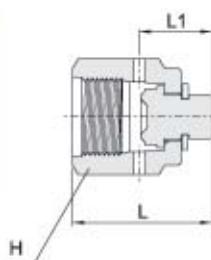
Male Nut



Part Number	ZCR Size	d		L		H
		mm	inch	mm	inch	inch
H-ZMN- 2	1 / 8	5.30	0.21	12.7	0.50	3/8
H-ZMN- 4	1 / 4	9.15	0.36	18.0	0.71	5/8
H-ZMN- 8	1 / 2	15.5	0.61	20.6	0.81	15/16
H-ZMN-12	3 / 4	22.6	0.89	25.4	1.00	1 5/16
H-ZMN-16	1	30.5	1.20	30.2	1.19	1 5/8

H-ZCP

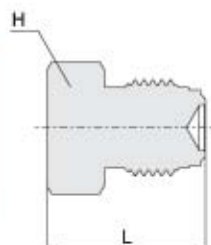
Cap



Part Number	ZCR Size	L		L1		H
		mm	inch	mm	inch	inch
H-ZCP- 2	1 / 8	16.0	0.63	7.6	0.30	7/16
H-ZCP- 4	1 / 4	23.9	0.94	11.3	0.44	3/4
H-ZCP- 8	1 / 2	25.6	1.01	11.4	0.45	1 1/16
H-ZCP-12	3 / 4	32.8	1.29	13.7	0.54	1 1/2
H-ZCP-16	1	39.1	1.54	16.0	0.63	1 3/4

H-ZP

Plug



Part Number	ZCR Size	L		H
		mm	inch	inch
H-ZP- 2	1 / 8	17.3	0.68	3/8
H-ZP- 4	1 / 4	23.4	0.92	5/8
H-ZP- 8	1 / 2	27.4	1.08	15/16
H-ZP-12	3 / 4	36.3	1.43	1 5/16
H-ZP-16	1	38.6	1.52	1 5/8

Dimensions are reference only, subject to change.



H-ZGSK

Gasket

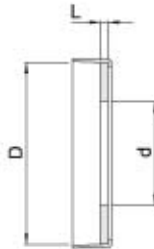


Part Number	ZCR Size	d		D		L	
		mm	inch	mm	inch	mm	inch
H-ZGSK- 2	1 / 8	2.3	0.09	6.6	0.26	0.5	0.02
H-ZGSK- 4	1 / 4	5.6	0.22	12.5	0.49	0.8	0.03
H-ZGSK- 8	1 / 2	11.2	0.44	19.8	0.78		
H-ZGSK-12	3 / 4	16.8	0.66	29.0	1.14		
H-ZGSK-16	1	22.6	0.89	35.6	1.40		

Note : Cannot be used in a gasket retainer assembly.

H-ZGRT

Gasket Retainer



Part Number	ZCR Size	d		D		L	
		mm	inch	mm	inch	mm	inch
H-ZGRT- 4	1 / 4	5.6	0.22	11.9	0.47	0.8	0.03
H-ZGRT- 8	1 / 2	11.2	0.44	19.2	0.76		
H-ZGRT-12	3 / 4	16.8	0.66	28.5	1.12		
H-ZGRT-16	1	22.6	0.89	35.1	1.38		

Ordering Information for Gasket & Gasket Retainer Assembly

H

HY-LOK Clean

ZGSK

Product Pattern Designator
 • ZGSK - Gasket
 • ZGRT - Gasket Retainer Assembly

8

Gasket Plating Option*
 • Nil - unplated (standard)
 • SP - with silver plated

SP

BL

Blind Gasket Option*
 • Nil - Standard
 • BL - Blind gasket

316L

Gasket Material Designator
 • 316L - 316L stainless steel
 • NI - Nickel
 • CU - Copper

Size Designator

Designator	ZCR Size
2	1/8
4	1/4
8	1/2
12	3/4
16	1

Note

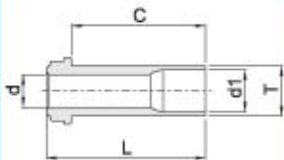
1. Retainer Material for 316L Stainless Steel, Nickel and Copper gasket Retainer Assemblies are 316L Stainless Steel.
2. * * No designator is required for standard gasket e.g. H-ZGSK-8 - 316L
3. For application of Blind Gaskets exceed not a differential pressure rating of 100 psi(6.8 bar)

Dimensions are reference only, subject to change.



H-ZHG

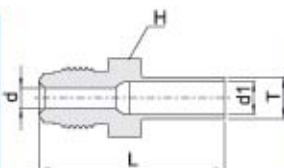
High Flow Tube Butt Weld Gland



Part Number	ZCR Size	T Tube O.D.	d		d1		L		Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	NI	SS	CU
H-ZHG-6L15.2	1 / 4	3 / 8	6.35	0.25	7.9	0.31	15.2	0.60	3300 (227)		
H-ZHG-6L30.2							30.2	1.19			
H-ZHG-6L33.3							33.3	1.31			

H-ZR

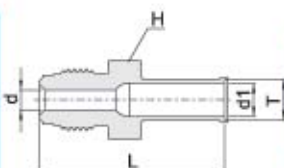
High Flow Tube Butt Weld Reducer



Part Number	ZCR Size	T Tube O.D.	d		d1		L		H	Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	inch	NI	SS	CU
H-ZR4-6	1 / 4	3 / 8	6.35	0.25	7.9	0.31	42.7	1.68	5 / 8	3300 (227)		

H-ZR-A

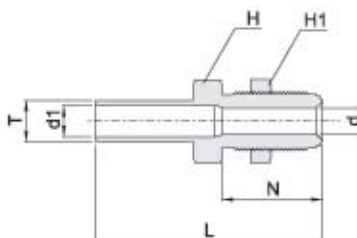
High Flow Tube Butt Weld Reducer with Shoulder



Part Number	ZCR Size	T Tube O.D.	d		d1		L		H	Working Pressure psig (bar)		
			mm	inch	mm	inch	mm	inch	inch	NI	SS	CU
H-ZR4-6A	1 / 4	3 / 8	6.35	0.25	7.9	0.31	43.4	1.71	5 / 8	3300 (227)		

H-ZHBT

High Flow Tube Butt Weld Bulkhead Connector



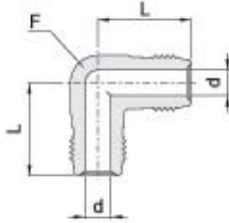
Part Number	ZCR Size	T Tube O.D.	d		d1		L		N	H	H1	Panel Hole size		Max. Panel Thickness		Working Pressure psig (bar)			
			mm	inch	mm	inch	mm	inch	mm	inch	inch	inch	mm	inch	mm	inch	NI	SS	CU
H-ZHBT4-6	1 / 4	3 / 8	6.35	0.25	7.9	0.31	59.9	2.36	33.0	1.30	3/4	3/4	14.5	0.57	11.1	0.44	3300 (227)		

Dimensions are reference only, subject to change.



H-ZHLA

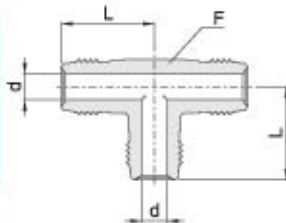
High Flow Union Elbow



Part Number	ZCR Size	d		L		F Body Flat	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZHLA-4	1 / 4	6.35	0.25	27.2	1.07	1 / 2	8000 (551)	10000 (689)	6400 (440)

H-ZHTA

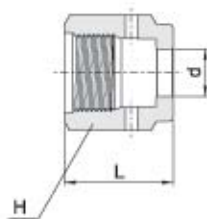
High Flow Union Tee



Part Number	ZCR Size	d		L		F Body Flat	Working Pressure psig (bar)		
		mm	inch	mm	inch	inch	NI	SS	CU
H-ZHTA-4	1 / 4	6.35	0.25	27.2	1.07	1 / 2	8000 (551)	10000 (689)	6400 (440)

H-ZHFN

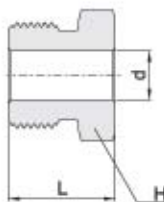
High Flow Female Nut



Part Number	ZCR Size	d		L		H
		mm	inch	mm	inch	inch
H-ZHFN-4	1 / 4	9.9	0.39	20.6	0.81	3 / 4

H-ZHMN

High Flow Male Nut



Part Number	ZCR Size	d		L		H
		mm	inch	mm	inch	inch
H-ZHMN-4	1 / 4	9.9	0.39	18.0	0.71	5 / 8

Dimensions are reference only, subject to change.



■ Assembly Instruction

- Step 1. Prior to tightening fittings, make sure beads and gaskets are free of scratches and dirt.
- Step 2. Insert non-retained gasket into the female nut. The gasket is self aligning. Use caution not to damage sealing surfaces while inserting gasket into female nut.
- Step 3. Finger tighten male and female nuts assuring that all components have made proper contact and are in position for final tightening with wrenches. Inspection port in female nut allows for easy visual inspection.
- Step 4. Make a reference mark on both the female nut and male nut or body hex.
- Step 5. Hold the male nut or male body with the appropriate back up wrench and tighten the female nut $1/8 \sim 1/4$ ($1/8$ for 316L and Ni gasket, $1/4$ for copper gasket) turn past finger tight.

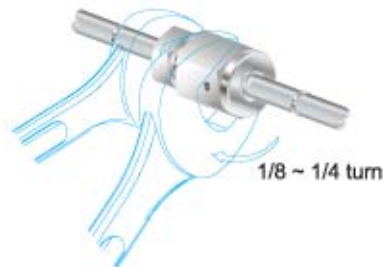


Caution

Do not rotate fixed thread components against the gasket. Hold the fixed thread component and tighten the corresponding rotating female or male nut $1/8 \sim 1/4$ turn past finger tight.

■ Care for Installation

1. Do not attempt to reuse gaskets, use new gasket for subsequent installations.
2. Protect bead end of ZCR during welding, shipping or storage by using the appropriate cap or plug.
3. ZCR Fittings will not compensate for tube misalignment.
4. Protect internal silver plating on threads of female nuts during polishing, brazing, operations or additional cleaning. These operations could remove the silver plating and cause thread galling.





Ordering Information



1. Clean Fitting : Designator "H"
2. Name of Fitting : See Title Name of product.
3. Tube O.D. : See Tube O.D. or ZCR Size Designator.
4. Reduced Ends : See Tube O.D. or ZCR Size Designator in case of Reducing or other connection.
5. Type of Weld : See Weld Designator
6. Surface Grade : See Surface Finish Designator.
7. Material : See Material Designator.

Tube O.D. Designator					
Size (Inch)	1 / 4	3 / 8	1 / 2	3 / 4	1
Identifier	4	6	8	12	16
Size (Metric)	6mm	8mm	10mm	12mm	18mm
Identifier	4M	6M	8M	12M	16M

Weld Designator	
Type of Weld	Identifier
Butt Weld (Without Shoulder)	Standard
Automatic Weld (With Shoulder)	A
Socket Weld	S
Male Weld	M

ZCR Size Designator					
Size (Inch)	1 / 8	1 / 4	1 / 2	3 / 4	1
Identifier	2	4	8	12	16

Surface Finish Designator			
Grade	B.A Grade	High Grade	Super Grade
Identifier	B	H	S

Note : Surface Finishes Information see page 3.

Material Designator	
Identifier	Material
S316	316 Stainless Steel
316L	316L Stainless Steel
SM6L	Single Vacuum Melt 316L Stainless Steel
VV6L	Double Vacuum Melt 316L Stainless Steel

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. It is the responsibility of system designer and user to select and use the products for their specific applications.