

Ultra-High Pressure

Ultra High Pressure Valves, Fittings and Tubing
100000 & 150000 psig

100 and 150 Series

Ultra High Pressure Fittings Nipples and Tubing

100 Series

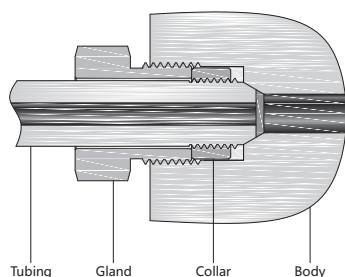
Features

- ❖ Maximum working pressure up to 100,000 psi(6900 bar)
- ❖ Working temperature from 0°F to 600°F(-18°C to 315°C)
- ❖ Coned-and-Threaded Connection
- ❖ Tubing sizes available for 1/4", 3/8", 9/16"
- ❖ Anti-vibration connection components available

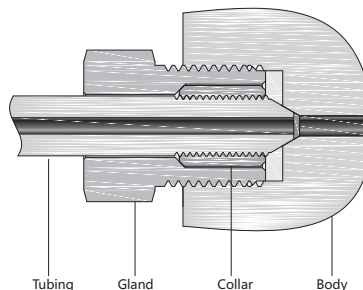
Standard Materials of Construction

Component	Material	Standard
Body, Collar, Gland	316 Stainless Steel	ASTM A479
Tubing		

- ❖ CIR-LOK 100 Series Tube Fittings and Tubing can be made with materials suitable for sour gas service are available, materials are selected in accordance with NACE MR0175/ISO 15156



Tubing 1/4", 3/8"

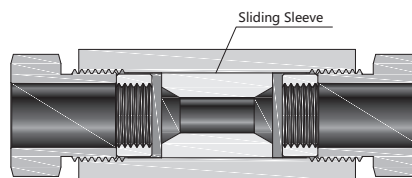
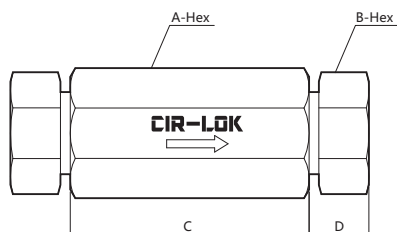


Tube 9/16"

Dimensions

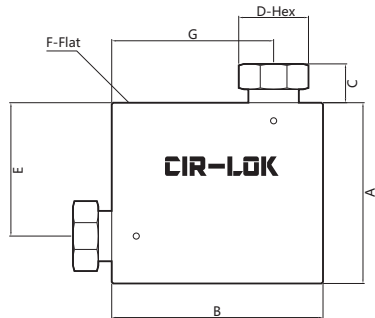
- ❖ All dimensions for reference only and subject to change

Unions



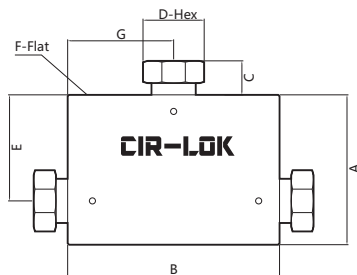
T-Tube O.D. in.	Fitting Type	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)			
				A	B	C	D
1/4	Unions	100U-XP4-	0.094 (2.39)	1.12 (28.45)	0.75 (19.05)	2.62 (66.55)	0.52 (13.21)
	Unions(Slip on type)	100SU-XP4-					
3/8	Unions	100U-XP6-	0.125 (3.18)	1.12 (28.45)	0.75 (19.05)	2.62 (66.55)	0.52 (13.21)
	Unions(Slip on type)	100SU-XP6-					
9/16	Unions	100U-XP9-	0.188 (4.78)	1.38 (35.05)	1.19 (30.23)	2.19 (55.63)	0.81 (20.57)
	Unions(Slip on type)	100SU-XP9-					

Elbows



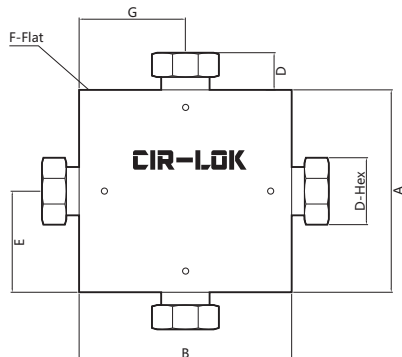
T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
1/4	100UE-XP4-	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)
3/8	100UE-XP6-	0.125 (3.18)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)
9/16	100UE-XP9-	0.188 (4.78)	2.24 (56.90)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.50 (38.10)	1.50 (38.10)	1.88 (47.75)

Tees



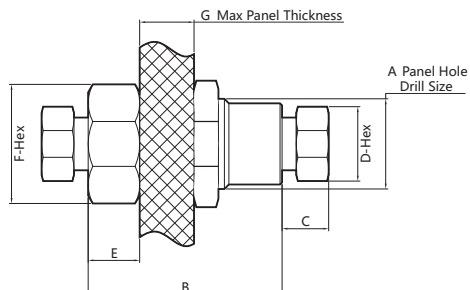
T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
1/4	100UT-XP4-	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)
3/8	100UT-XP6-	0.125 (3.18)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)
9/16	100UT-XP9-	0.188 (4.78)	2.12 (53.85)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.38 (35.05)	1.50 (38.10)	1.31 (33.27)

Crosses



T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
1/4	100UC-XP4-	0.094 (2.39)	3.00 (76.20)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)
3/8	100UC-XP6-	0.125 (3.18)	3.00 (76.20)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)
9/16	100UC-XP9-	0.188 (4.78)	2.75 (69.85)	2.62 (66.55)	0.81 (20.57)	1.19 (30.23)	1.38 (35.05)	1.50 (38.10)	1.31 (33.27)

Bulkhead Couplings



T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
1/4	100BU-XP4-	0.094 (2.39)	2.12 (53.85)	3.25 (82.55)	0.52 (13.21)	0.75 (19.05)	1.38 (35.05)	2.00 (50.80)	0.38 (9.65)
3/8	100BU-XP6-	0.125 (3.18)	2.12 (53.85)	3.25 (82.55)	0.52 (13.21)	0.75 (19.05)	1.38 (35.05)	2.00 (50.80)	0.38 (9.65)
9/16	100BU-XP9-	0.188 (4.78)	1.69 (42.93)	2.75 (69.85)	0.81 (20.57)	1.19 (30.23)	1.00 (25.40)	1.88 (47.75)	0.38 (9.65)

How to Order

100U — XPF4 — 316

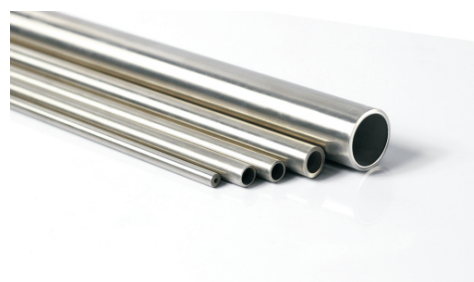
Fitting Type	Connection Type	Connection Size	Body Material
100U Unions 100SU Unions(Slip on type) 100UE Elbows 100UT Tees 100UC Crosses 100BU Bulkhead Couplings	XPF Ultra High Pressure Fittings	4 1/4 in. 6 3/8 in. 9 9/16 in.	316 316 S.S.

100 Series Tubing

❖ 100 series ultra high pressure tubing is manufactured specifically for ultra high pressure applications

Dimensions

Basic Ordering Number	Tube O.D. in.(mm)	Tube I.D. in.(mm)	Tube Wall Thickness in.(mm)
100FT-4-0.083-6M-	1/4 (6.35)	0.083 (2.11)	0.083 (2.11)
100FT-6-0.125-6M-	3/8 (9.63)	0.125 (3.18)	0.125 (3.18)
100FT-9-0.188-6M-	9/16 (14.29)	0.188 (4.78)	0.187 (4.75)



Technical Data

Tube O.D. in.(mm)	Working Pressure, psig(bar)			
	-325 to 100°F (-198 to 37.8°C)	200°F (93°C)	400°F (204°C)	600°F (316°C)
1/4 (6.35)	100,000 (6900)	83,000 (5727)	72,000 (4965)	65,000 (4480)
3/8 (9.63)	100,000 (6900)	83,000 (5727)	72,000 (4965)	65,000 (4480)
9/16 (14.29)	100,000 (6900)	83,000 (5727)	72,000 (4965)	65,000 (4480)

How to Order

100FT — 4 — 0.083 — 6M — TP316

Tubing Type	Tubing O.D. (in.)	Wall Thickness (in.)	Nominal Length (m/feet)	Material Grade
100FT 100 Series ultra high pressure tubing	4 1/4 in.	0.083	1M 1 meter	TP316
	6 3/8 in.	0.125	2M 2 metres	
	9 9/16 in.	0.187	3M 3 metres	
			4M 4 metres	
			5M 5 metres	
			6M 6 metres	
			10F 10 feet	
			20F 20 feet	

Coned and Threaded Nipples

❖ Supply coned and threaded nipples in various sizes and lengths for 100 series ultra high pressure valves and fittings

How to Order

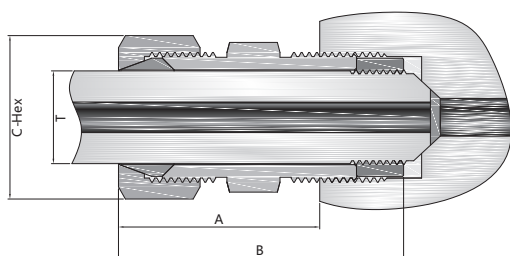
NIP — **XPF4** — **4** — **316**

Type	Connection Type	Connection Size	Nominal Length	Material
NIP Coned and Threaded Nipples	XPF Ultra High Pressure Fittings	4 1/4 in. 6 3/8 in. 9 9/16 in.	4 4 in. 6 6 in. 8 8 in. 10 10 in.	316 316 S.S.

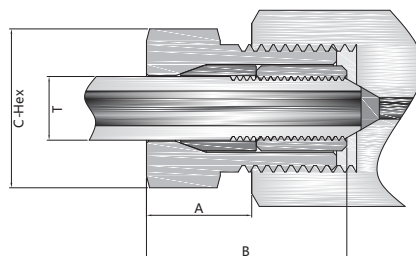


Anti-Vibration Collet Gland Assemblies

- ❖ Completely interchangeable with standard 100 series ultra high pressure connections
- ❖ Moving the stress concentration back to the unthreaded part of the tubing and providing a wedge-typegripping action
- ❖ Anti-vibration collet gland assembly strengthens the entire structure



Tubing 1/4", 3/8"



Tube 9/16"

Tube O.D. in.	Basic Ordering Number	Dimension in.(mm)		
		A	B	C
1/4	AVA-XPF4-	1.06 (26.92)	1.65 (41.91)	0.625 (15.88)
3/8	AVA-XPF6-	1.38 (34.92)	1.88 (47.62)	0.75 (19.05)
9/16	AVA-XPF9-	1.00 (25.40)	1.50 (38.10)	1.19 (30.16)

How to Order

AVA — **XPF4** — **316**

Type	Connection Type	Connection Size	Material
AVA Anti-Vibration Collet Gland Assemblies	XPF Ultra High Pressure Fittings	4 1/4 in. 6 3/8 in. 9 9/16 in.	316 316 S.S.

Ultra High Pressure Fittings Nipples and Tubing

150 Series

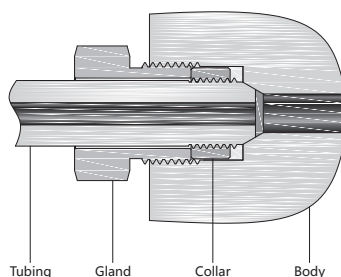
Features

- ❖ Maximum working pressure up to 150,000 psi (10344 bar)
- ❖ Working temperature from 0°F to 600°F(-18°C to 315°C)
- ❖ Coned-and-Threaded Connection
- ❖ Tubing sizes available for 5/16"
- ❖ Anti-vibration connection components available

Standard Materials of Construction

Component	Material	Standard
Body, Collar, Gland	316 Stainless Steel	ASTM A479
Tubing		

- ❖ CIR-LOK 150 Series Tube Fittings and Tubing can be made with materials suitable for sour gas service are available, materials are selected in accordance with NACE MR0175/ISO 15156

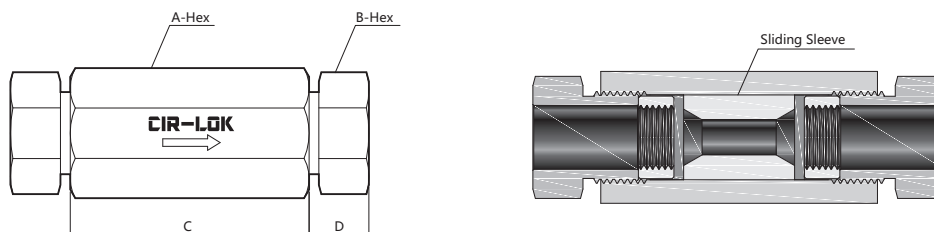


Tubing 5/16"

Dimensions

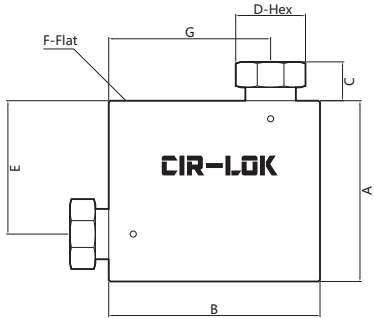
- ❖ All dimensions for reference only and subject to change

Unions



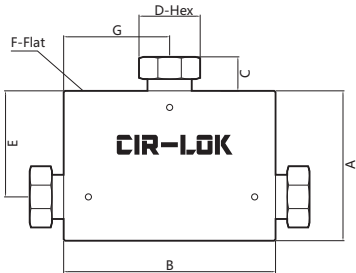
T-Tube O.D. in.	Fitting Type	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)			
				A	B	C	D
5/16	Unions	150U-XPF5-	0.094 (2.39)	1.12 (28.45)	0.75 (19.05)	2.62 (66.55)	0.52 (13.21)
	Unions(Slip on type)	150SU-XPF5-					

Elbows



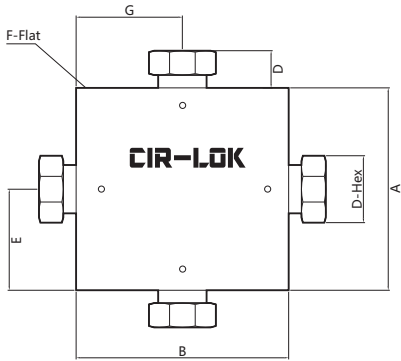
T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
5/16	150UE-XPf5-	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)

Tees



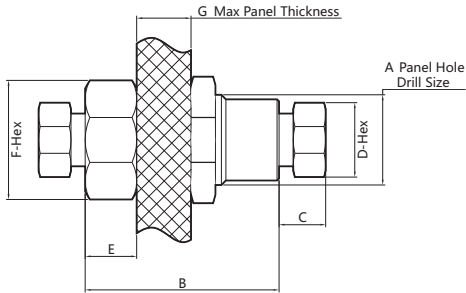
T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
5/16	150UT-XPf5-	0.094 (2.39)	2.12 (53.85)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)

Crosses



T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
5/16	150UC-XPf5-	0.094 (2.39)	3.00 (76.20)	3.00 (76.20)	0.52 (13.21)	0.75 (19.05)	1.50 (38.10)	1.38 (35.05)	1.50 (38.10)

Bulkhead Couplings



T-Tube O.D. in.	Basic Ordering Number	Orifice in.(mm)	Dimension in.(mm)						
			A	B	C	D	E	F	G
5/16	150BU-XPf5-	0.094 (2.39)	2.12 (53.85)	3.25 (82.55)	0.52 (13.21)	0.75 (19.05)	1.38 (35.05)	2.00 (50.80)	0.38 (9.65)

How to Order

150U — **XPF5** — **316**

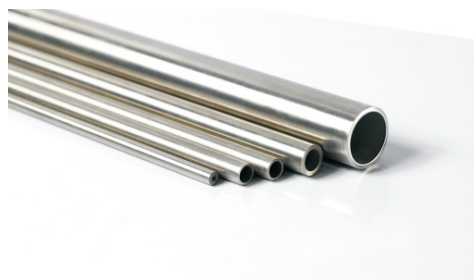
Fitting Type	Connection Type	Connection Size	Body Material
150U Unions 150SU Unions(Slip on type) 150UE Elbows 150UT Tees 150UC Crosses 150BU Bulkhead Couplings	XPF Ultra High Pressure Fittings	5 5/16 in.	316 316 S.S.

150 Series Tubing

❖ 150 series ultra high pressure tubing is manufactured specifically for ultra high pressure applications

Dimensions

Basic Ordering Number	Tube O.D. in.(mm)	Tube I.D. in.(mm)	Tube Wall Thickness in.(mm)
150FT-5-0.062-6M-	5/16 (7.94)	0.062 (1.57)	0.125 (3.18)



Technical Data

Tube O.D. in.(mm)	Working Pressure, psig(bar)			
	-325 to 100°F (-198 to 37.8°C)	200°F (93°C)	400°F (204°C)	600°F (316°C)
5/16 (7.94)	150,000 (10350)	150,000 (10350)	144400 (9956)	136350 (9401)

How to Order

150FT — **5** — **0.062** — **6M** — **TP316**

Tubing Type	Tubing O.D. (in.)	Wall Thickness (in.)	Nominal Length (m/feet)	Material Grade
150FT 150 Series ultra high pressure tubing	5 5/16 in.	0.125	1M 1 meter 2M 2 metres 3M 3 metres 4M 4 metres 5M 5 metres 6M 6 metres 10F 10 feet 20F 20 feet	TP316

Coned and Threaded Nipples

❖ Supply coned and threaded nipples in various sizes and lengths for 150 series ultra high pressure valves and fittings

How to Order

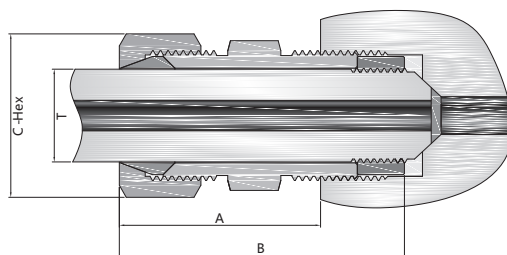
NIP — **XPF5** — **4** — **316**

Type	Connection Type	Connection Size	Nominal Length	Material
NIP Coned and Threaded Nipples	XPF Ultra High Pressure Fittings	5 5/16 in.	4 4 in. 6 6 in. 8 8 in. 10 10 in.	316 316 S.S.



Anti-Vibration Collet Gland Assemblies

- ❖ Completely interchangeable with standard 150 series ultra high pressure connections
- ❖ Moving the stress concentration back to the unthreaded part of the tubing and providing a wedge-typegripping action
- ❖ Anti-vibration collet gland assembly strengthens the entire structure



Tube 5/16"

Tube O.D. in.	Basic Ordering Number	Dimension in.(mm)		
		A	B	C
5/16	AVA-XPF5-	1.38 (34.92)	1.88 (47.62)	0.75 (19.05)

How to Order

AVA — **XPF5** — **316**

Type	Connection Type	Connection Size	Material
AVA Anti-Vibration Collet Gland Assemblies	XPF Ultra High Pressure Fittings	5 5/16 in.	316 316 S.S.