



Instrumentation Solutions

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VL Vacuum Fittings



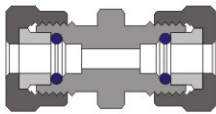
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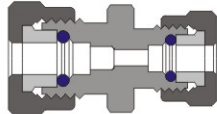
ZHEJIANG FANGDUN INSTRUMENT VALVE CO.,LTD

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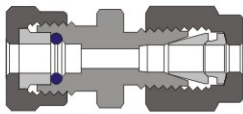
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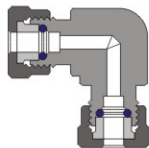
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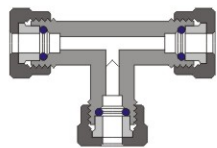
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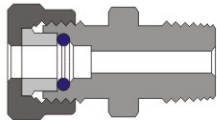
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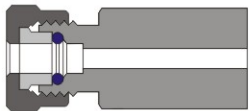
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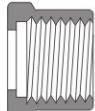
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Features

- Stainless steel construction, fluorocarbon FKM O-ring.
- Available in tube sizes from 1/16" to 1 1/2 ".
- Temperature rating: -25 to 400°F (-31 to 204°C).
- Knurled nut for easy, finger-tight assembly.
- Reliable, repeatable sealing performance.

Testing

- The VL vacuum fitting design has been helium leak tested to a maximum leak rate of 4×10^{-9} std cm³ /s at ambient temperature.
- The leak rate increases as temperature increases due to permeation through the O-ring.

Cleaning and Packaging

- VL vacuum fittings meet the requirements of FD-LOK Standard Cleaning and Packing.
- VL vacuum fittings are cleaned to remove machine oil, grease and loose particles.

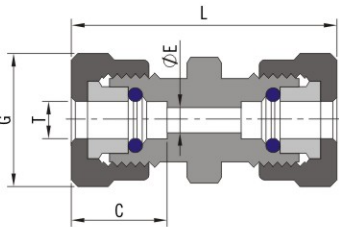
Ordering Information

- The E dimension refers to the smallest nominal inside diameter of the part.
- To order straight fittings bored through, add-T to the ordering number.
Example: SS-U-VL6-T

Dimensions

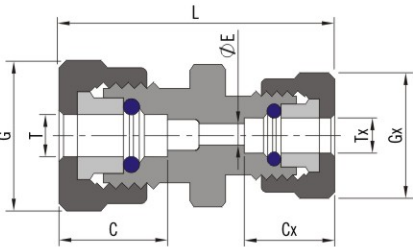
•Dimensions are for reference only and are subject to change.

Unions



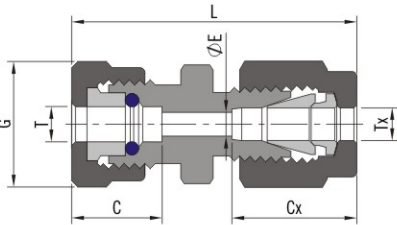
T-Tube O.D.(in.)	Ordering Number	Dimensions, in. (mm)			
		L	C	E	G
1/16	SS-U-VL1	1.23(31.2)	0.43(10.9)	0.05(1.3)	3/8
1/8	SS-U-VL2	1.40(35.6)	0.43(10.9)	0.09(2.3)	9/16
1/4	SS-U-VL4	1.63(41.4)	0.62(15.7)	0.18(4.6)	11/16
3/8	SS-U-VL6	1.81(46.0)	0.66(16.8)	0.28(7.1)	13/16
1/2	SS-U-VL8	1.84(46.7)	0.80(20.3)	0.40(10.2)	15/16
5/8	SS-U-VL10	1.84(46.7)	0.84(21.3)	0.50(12.7)	1 1/8
3/4	SS-U-VL12	2.05(52.1)	0.94(23.9)	0.62(15.7)	1 1/4
1	SS-U-VL16	2.15(54.6)	0.94(23.9)	0.87(22.1)	1 9/16
1 1/2	SS-U-VL24	2.27(57.6)	0.94(23.9)	1.38(35.1)	2 1/16

Reducing Unions



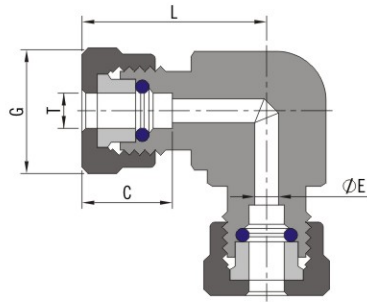
T-Tube O.D.(in.)	T-Tube O.D.(in.)	Ordering Number	Dimensions, in. (mm)					
			L	C	Cx	E	G	Gx
3/8	1/4	SS-U-VL6-VL4	1.72(43.7)	0.66(16.8)	0.62 (15.7)	0.18 (4.6)	13/16	11/16
1/2		SS-U-VL8-VL4	1.75(44.4)	0.80(20.3)			15/16	

Tube Fitting Unions



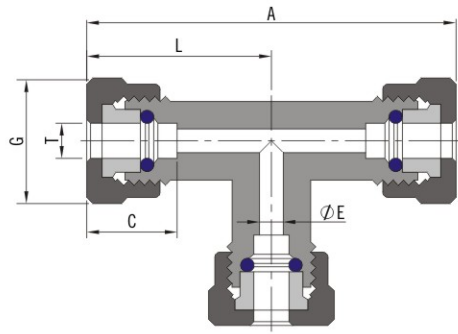
T-Tube O.D.(in.)	T-Tube O.D.(in.)	Ordering Number	Dimensions, in. (mm)				
			L	C	Cx	E	G
1/4	1/4	SS-U-VL4-S4	1.66(42.2)	0.62(15.7)	0.60(15.2)	0.18(4.6)	11/16
3/8	3/8	SS-U-VL6-S6	1.81(46.0)	0.66(16.8)	0.66(16.8)	0.28(7.1)	13/16
1/2	1/2	SS-U-VL8-S8	1.95(49.5)	0.80(20.3)	0.90(22.9)	0.40(10.2)	15/16

Union Elbows



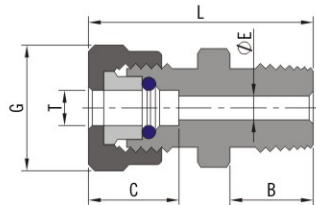
T-Tube O.D.(in.)	Ordering Number	Dimensions, in. (mm)			
		C	E	G	L
1/4	SS-LU-VL4	0.62(15.7)	0.18(4.6)	11/16	1.14(29.0)
3/8	SS-LU-VL6	0.66(16.8)	0.28(7.1)	13/16	1.36(34.5)
1/2	SS-LU-VL8	0.80(20.3)	0.40(10.2)	15/16	1.36(34.5)

Union Tees



T-Tube O.D.(in.)	Ordering Number	Dimensions, in. (mm)				
		A	C	E	G	L
1/8	SS-TTT-VL2	2.12(53.8)	0.43(10.9)	0.09(2.3)	9/16	1.06(26.9)
1/4	SS-TTT-VL4	2.30(58.4)	0.62(15.7)	0.18(4.6)	11/16	1.15(29.2)
3/8	SS-TTT-VL6	2.72(69.1)	0.66(16.8)	0.28(7.1)	13/16	1.36(34.5)
1/2	SS-TTT-VL8	2.72(69.1)	0.80(20.3)	0.40(10.2)	15/16	1.36(34.5)
3/4	SS-TTT-VL12	3.30(83.8)	0.94(23.9)	0.62(15.7)	1 1/4	1.65(41.9)
1	SS-TTT-VL16	3.64(92.4)	0.94(23.9)	0.87(22.1)	1 9/16	1.82(46.2)

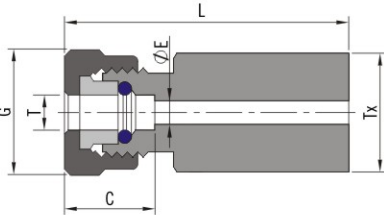
Male Connectors



T-Tube O.D.(in.)	NPT size in.	Ordering Number	Dimensions, in. (mm)				
			L	B	C	E	G
1/16	1/8	SS-CM-VL1-NT2	1.12(28.4)	0.38(9.6)	0.43(10.9)	0.05(1.3)	3/8
1/8	1/8	SS-CM-VL2-NT2	1.22(31.0)	0.38(9.6)		0.09(2.3)	9/16
1/4	1/8	SS-CM-VL4-NT2	1.35(34.3)	0.38(9.6)	0.62(15.7)	0.18(4.6)	11/16
	1/4	SS-CM-VL4-NT4	1.53(38.9)	0.56(14.2)			
3/8	1/8	SS-CM-VL6-NT2	1.44(36.6)	0.38(9.6)	0.66 (16.8)	0.18(4.6)	13/16
	1/4	SS-CM-VL6-NT4	1.62(41.1)	0.56(14.2)			
1/2	3/8	SS-CM-VL8-NT6	1.65(41.9)	0.56(14.2)	0.80(20.3)	0.40(10.2)	15/16
	1/2	SS-CM-VL8-NT8	1.84(46.7)	0.75(19.1)			
3/4	3/4	SS-CM-VL12-NT12	1.96(49.8)	0.75(19.1)	0.94(23.9)	0.62(15.7)	1 1/4
1	1	SS-CM-VL16-NT16	2.25(57.2)	0.94(23.9)		0.87(22.1)	1 9/16

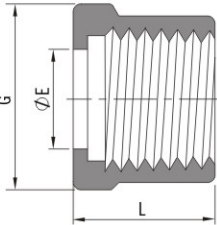
VL Vacuum Fittings

Adapters



T-Tube O.D.(in.)	Tx-Tube O.D.(in.)	Ordering Number	Dimensions, in. (mm)			
			L	C	E	G
1/16	1/4	SS-CW-VL1-A4	1.12(28.4)	0.43(10.9)	0.05(1.3)	3/8
1/8	1/4	SS-CW-VL2-A4	1.20(30.5)	0.43(10.9)	0.09(2.3)	9/16
	3/8	SS-CW-VL2-A6	1.21(30.7)			
1/4	1/4	SS-CW-VL4-A4	1.34(34.0)	0.62(15.7)	0.18(4.6)	11/16
	3/8	SS-CW-VL4-A6	1.33(33.8)			
	1/2	SS-CW-VL4-A8	1.47(37.3)			
3/8	3/8	SS-CW-VL6-A6	1.47(37.3)	0.66(16.8)	0.28(7.1)	13/16
	1/2	SS-CW-VL6-A8	1.58(40.1)			
1/2	5/8	SS-CW-VL8-A10	1.64(41.7)	0.80(20.3)	0.40(10.2)	15/16
	3/4	SS-CW-VL8-A12	1.69(42.9)			
3/4	1	SS-CW-VL12-A16	1.78(45.2)	0.94(23.9)	0.62(15.7)	1 1/4
1	1 1/4	SS-CW-VL16-A20	1.80(45.7)	0.94(23.9)	0.87(22.1)	1 9/16
1 1/2	1 1/2	SS-CW-VL24-A24	1.98(50.3)	0.94(23.9)	1.25(31.8)	2 1/16

Nuts



T-Tube O.D.(in.)	Ordering Number	Thread Size	Dimensions, in. (mm)		
			E	L	G
1/16	SS-N-VL1	1/4-20 UNC	0.07(1.8)	0.38(9.6)	3/8
1/8	SS-N-VL2	3/8-20 UN	0.13(3.3)	0.41(10.4)	9/16
1/4	SS-N-VL4	1/2-20 UNF	0.26(6.6)	0.53(13.5)	11/16
3/8	SS-N-VL6	5/8-20 UN	0.38(9.6)	0.62(15.7)	13/16
1/2	SS-N-VL8	3/4-20 UNEF	0.51(13.0)	0.62(15.7)	15/16
5/8	SS-N-VL10	15/16-20 UNEF	0.63(16.0)	0.62(15.7)	1 1/8
3/4	SS-N-VL12	1 1/16-20 UN	0.76(19.3)	0.72(18.3)	1 1/4
1	SS-N-VL16	1 3/8-20 UN	1.01(25.6)	0.72(18.3)	1 9/16
1 1/2	SS-N-VL24	1 7/8-20 UN	1.51(38.4)	0.72(18.3)	2 1/16

O-rings



T-Tube O.D.(in.)	Ordering Number	Material
1/16	VI7-001	70 durometer fluorocarbon FKM
1/8	VI7-002	
1/4	VI7-004	
3/8	VI7-006	
1/2	VI7-008	
5/8	VI7-010	
3/4	VI7-012	
1	VI7-016	
1 1/2	VI7-024	