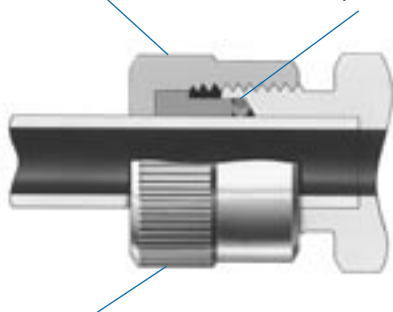


Ultra-Torr Vacuum Fittings

Features

Seal performance is maintained through repeated disconnects.

An O-ring seal provides a seal on glass, metal, or plastic tubing.



The nut is knurled for easy, finger-tight assembly.

Temperature Rating

Standard fluorocarbon FKM O-ring
-25 to 400°F (-31 to 204°C)

Materials of Construction

Body, nut, and sleeve: stainless steel
O-ring: 70 durometer fluorocarbon FKM

O-ring Lubricant

O-ring is wetted with a thin film of silicone vacuum grease.

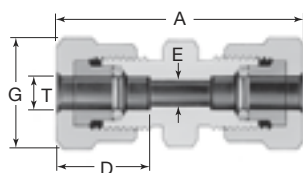
Testing

The Ultra-Torr fitting design has been helium leak tested to a maximum leak rate of 4×10^{-9} std cm³/s.

Ordering Information and Dimensions

Union

Connects tube to tube

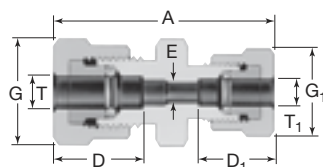


T Tube OD in.	Ordering Number ^①	Dimensions, in. (mm)			
		A	D	E Min Opening	G Dia
1/16	SS-1-UT-6	1.23 (31.2)	0.43 (10.9)	0.05 (1.3)	3/8
1/8	SS-2-UT-6	1.40 (35.6)		0.09 (2.3)	9/16
1/4	SS-4-UT-6	1.63 (41.4)	0.62 (15.7)	0.18 (4.6)	11/16
3/8	SS-6-UT-6	1.81 (46.0)	0.66 (16.8)	0.28 (7.1)	13/16
1/2	SS-8-UT-6	1.84 (46.7)	0.80 (20.3)	0.40 (10.2)	15/16
5/8	SS-10-UT-6		0.84 (21.3)	0.50 (12.7)	1 1/8
3/4	SS-12-UT-6	2.05 (52.1)	0.94 (23.9)	0.62 (15.7)	1 1/4
1	SS-16-UT-6	2.15 (54.6)		0.87 (22.1)	1 9/16
1 1/2	SS-24-UT-6	2.27 (57.6)		1.38 (35.1)	2 1/16

^① To order bored-through, use BT as a suffix to the Ordering Number. Example: SS-1-UT-6BT.

Reducing Union

Connects tube to tube

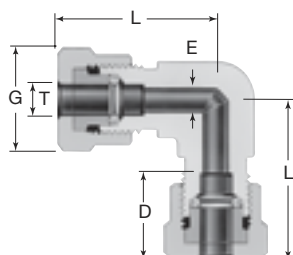


T Tube OD in.	T ₁ Tube OD in.	Ordering Number ^①	Dimensions, in. (mm)					
			A	D	D ₁	E Min Opening	G Dia	G ₁ Dia
3/8	1/4	SS-6-UT-6-4	1.72 (43.7)	0.66 (16.8)	0.62 (15.7)	0.18 (4.6)	13/16	11/16
1/2		SS-8-UT-6-4	1.75 (44.4)	0.80 (20.3)			15/16	

^① To order bored-through, use BT as a suffix to the Ordering Number. Example: SS-6-UT-6-4BT.

Union Elbow

Connects tube to tube

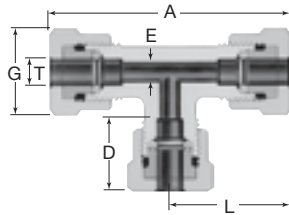


T Tube OD in.	Ordering Number	Dimensions, in. (mm)			
		D	E Min Opening	G Dia	L
1/4	SS-4-UT-9	0.62 (15.7)	0.18 (4.6)	11/16	1.14 (29.0)
3/8	SS-6-UT-9	0.66 (16.8)	0.28 (7.1)	13/16	1.36 (34.5)
1/2	SS-8-UT-9	0.80 (20.3)	0.40 (10.2)	15/16	

Swagelok®

Union Tee

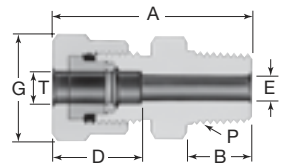
Connects Tube to Tube



T Tube OD in.	Ordering Number	Dimensions, in. (mm)				
		A	D	E Min Opening	G Dia	L
1/8	SS-2-UT-3	2.12 (53.8)	0.43 (10.9)	0.09 (2.3)	9/16	1.06 (26.9)
1/4	SS-4-UT-3	2.30 (58.4)	0.62 (15.7)	0.18 (4.6)	11/16	1.15 (29.2)
3/8	SS-6-UT-3	2.72 (69.1)	0.66 (16.8)	0.28 (7.1)	13/16	1.36 (34.5)
1/2	SS-8-UT-3		0.80 (20.3)	0.40 (10.2)	15/16	
3/4	SS-12-UT-3	3.30 (83.8)	0.94 (23.9)	0.62 (15.7)	1 1/4	1.65 (41.9)
1	SS-16-UT-3	3.64 (92.4)		0.87 (22.1)	1 9/16	1.82 (46.2)

Male Connector

Connects tube to female
NPT thread

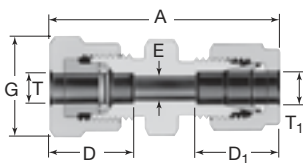


T Tube OD in.	P Male NPT in.	Ordering Number ^①	Dimensions, in. (mm)				
			A	B	D	E Min Opening	G Dia
1/16	1/8	SS-1-UT-1-2	1.12 (28.4)	0.38 (9.6)	0.43 (10.9)	0.05 (1.3)	3/8
1/8		SS-2-UT-1-2	1.22 (31.0)			0.09 (2.3)	9/16
1/4			SS-4-UT-1-2		1.35 (34.3)	0.62 (15.7)	0.18 (4.6)
	1/4	SS-4-UT-1-4	1.53 (38.9)	0.56 (14.2)			
3/8	1/8	SS-6-UT-1-2	1.44 (36.6)	0.38 (9.6)	0.66 (16.8)	0.28 (7.1)	13/16
	1/4	SS-6-UT-1-4	1.62 (41.1)	0.56 (14.2)			
1/2	3/8	SS-8-UT-1-6	1.65 (41.9)	0.80 (20.3)	0.40 (10.2)	15/16	
	1/2	SS-8-UT-1-8	1.84 (46.7)				0.75 (19.1)
3/4	3/4	SS-12-UT-1-12	1.96 (49.8)	0.94 (23.9)	0.62 (15.7)	1 1/4	
1	1	SS-16-UT-1-16	2.25 (57.2)		0.87 (22.1)	1 9/16	

① To order bored-through, use BT as a suffix to the Ordering Number. Example: SS-1-UT-1-2BT.

Swagelok Tube Fitting Union

Connects tube to tube

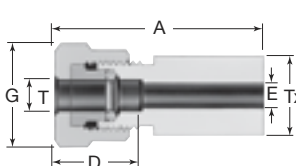


T Tube OD in.	T ₁ Tube OD in.	Ordering Number	Dimensions, in. (mm)				
			A	D	D ₁	E Min Opening	G Dia
1/4	1/4	SS-4-UT-6-400	1.66 (42.2)	0.62 (15.7)	0.60 (15.2)	0.18 (4.6)	11/16
3/8	3/8	SS-6-UT-6-600	1.81 (46.0)	0.66 (16.8)	0.66 (16.8)	0.28 (7.1)	13/16
1/2	1/2	SS-8-UT-6-810	1.95 (49.5)	0.80 (20.3)	0.90 (22.9)	0.40 (10.2)	15/16

Dimensions shown with Swagelok nuts finger-tight.

Adapter

Connects tube to
Ultra-Torr Fittings



T Tube OD in.	Tx	Ordering Number ^①	Dimensions, in. (mm)			
			A	D	E Min Opening	G Dia
1/16	1/4	SS-1-UT-A-4	1.12 (28.4)	0.43 (10.9)	0.05 (1.3)	3/8
1/8		SS-2-UT-A-4	1.20 (30.5)		0.09 (2.3)	9/16
	3/8	SS-2-UT-A-6	1.21 (30.7)			
1/4	1/4	SS-4-UT-A-4 ^②	1.34 (34.0)	0.62 (15.7)	0.18 (4.6)	11/16
	3/8	SS-4-UT-A-6	1.33 (33.8)			
	1/2	SS-4-UT-A-8	1.47 (37.3)			
3/8	3/8	SS-6-UT-A-6 ^②		0.66 (16.8)	0.28 (7.1)	13/16
	1/2	SS-6-UT-A-8	1.58 (40.1)			
1/2	5/8	SS-8-UT-A-10	1.64 (41.7)	0.80 (20.3)	0.40 (10.2)	15/16
	3/4	SS-8-UT-A-12	1.69 (42.9)			
3/4	1	SS-12-UT-A-16	1.78 (45.2)	0.94 (23.9)	0.62 (15.7)	1 1/4
1	1 1/4	SS-16-UT-A-20	1.80 (45.7)		0.87 (22.1)	1 9/16
1 1/2	1 1/2	SS-24-UT-A-24 ^②	1.98 (50.3)		1.25 (31.8)	2 1/16

① To order bored-through, use BT as a suffix to the Ordering Number. Example: SS-1-UT-A-4BT.

② Bored-through not applicable.

Dimensions are for reference only and are subject to change. Dimensions are shown with Swagelok nuts finger-tight.

O-ring Uniform Size Number

Tube OD in.	Number
1/16	001-1/2 ^③
1/8	006
1/4	010
3/8	012
1/2	014
5/8	114
3/4	116
1	120
1 1/2	128

③ No uniform size number exists for this O-ring.

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

Caution: Do not mix or interchange parts with those of other manufacturers.

Warranty Information

Swagelok products are backed by The Swagelok Limited Lifetime Warranty. For a copy, visit swagelok.com or contact your authorized Swagelok representative.

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