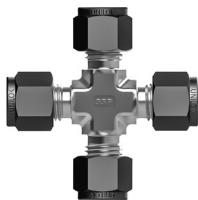
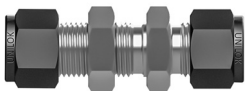


# SSP

## Installers

## Pocket Guide



# Unilok<sup>®</sup>



At SSP, we are proud to be an American manufacturing success story.

**100% of our products are made in America.** All of our manufacturing is performed in our 165,000 sq. ft. facility located near Cleveland, Ohio. Our facility is the largest vertically integrated, single-site operation in the industry. In addition to manufacturing and assembly, we have closed die forging, tool & die design, product engineering and testing operations under the same roof with customer service and management.

**Made in America is good business.** Not only do we make everything in America, we use American suppliers too. Buying American allows us to have better quality control and a more reliable supply chain. We can work more closely within our walls and with our suppliers to improve quality, reduce costs, and shorten lead times, which means faster service and better products for you.




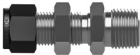






**Support where it counts.** SSP products and services are supported by more than 4000 people and 350 distributor locations around the globe. For a distributor near you, contact SSP Customer Service or visit [www.mySSP.com/distributors](http://www.mySSP.com/distributors).

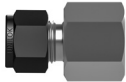
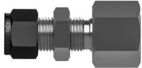

# Table of Contents

## Table of Contents



Visual Index .....	2
<b>Installation Instructions</b>	
Initial Installation .....	7
Reassembly Instructions.....	9
Pre-Setting Instructions .....	10
SSP Gap Gage Instructions .....	12
Technical Data .....	13
<b>SSP Unilok® Fittings</b>	
Tube to Male Pipe .....	16
Tube to Female Pipe.....	23
Tube to Tube Union.....	25
Tube to Welded Systems .....	31
Tube Stub Connectors / Adapters ....	33
Unilok® 37° Flare (AN).....	38
Tube to O-Ring Seal.....	39
Tube to SAE / MS .....	40
Cap and Plug .....	43
Components.....	44
Safety Information .....	48
Limited Lifetime Warranty .....	48


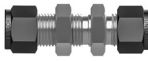







# Visual Index

Tube to Male Pipe		
Male Connector  MC 16	Male Connector ISO Parallel  MCRS 17	Male Connector ISO Tapered  MCRT 18
Bulkhead Male Connector  BMC 18	Male Connector Bored Through  MCBT 19	45° Male Elbow  M45E 19
Male Elbow  ME 20	Male Elbow – ISO Tapered  MERT 21	Male Branch Tee  MBT 21
Male Run Tee  MRT 22		

Tube to Female Pipe		
Female Connector  FC 23	Bulkhead Female Connector  BFC 23	Female Elbow  FE 24

Continued on the next page

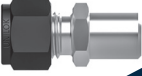
Tube to Female Pipe	
Female Branch Tee 	Female Run Tee 
FBT 24	FRT 25

Tube to Tube Union		
Union 	Bulkhead Union 	Reducing Union 
U 25	BU/BRU 26	RU 27
Union Elbow 	Union Tee 	Union Cross 
UE 27	UT 28	UCS 28
Reducing Union Tee 	Dielectric Adapter 	Dielectric Union 
RUT 29	DA 30	DU 30

# Visual Index

## Tube to Welded Systems

Tube Socket Weld Union



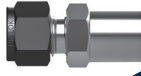
TSWU 31

Tube Socket Weld Elbow



TSWE 31

Male Pipe Weld Connector



MPWC 32

Male Pipe Weld Elbow



MPWE 32

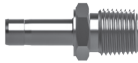
## Tube Stub Connectors / Adapters

Bulkhead Reducer / Adapter



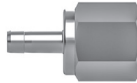
BR 33

Male Adapter



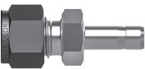
MA 33

Female Adapter



FA 34

Reducer / Adapter



R 35

Reducing Port Connector



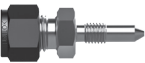
RPC 36

Port Connector



PC 36

Calibration Union




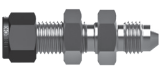


CU 37

Hose Barb Adapter

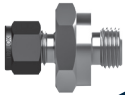
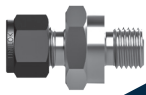
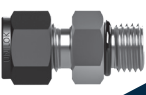




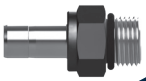


HBA 37



## Unilok to 37° Flare (AN)








<p>AN Union</p>  <p>ANU 38</p>	<p>AN Bulkhead Union</p>  <p>ANBU 38</p>	<p>Female AN Adapter</p>  <p>ANF 38</p>
<p>AN Adapter</p>  <p>ANA 39</p>		

## Tube to O-Ring Seal & Tube to SAE / MS

<p>O-Ring Seal Male Connector</p>  <p>OMC 39</p>	<p>O-Ring Seal Straight Connector</p>  <p>OSC 39</p>	<p>Male Connector to Straight Thread Boss</p>  <p>MCST 40</p>
<p>Male Elbow to Straight Thread Boss</p>  <p>MEST 40</p>	<p>45° Male Elbow to Straight Thread Boss</p>  <p>M45EST 41</p>	<p>Male Branch Tee to Straight Thread Boss</p>  <p>MBTST 41</p>
<p>Male Run Tee to Straight Thread Boss</p>  <p>MRTST 42</p>	<p>Male Adapter to Straight Thread Boss</p>  <p>MAST 42</p>	

# Visual Index

Cap and Plug	
Cap  CP 43	Plug  P 43

Components		
Nut  N 44	Ferrule  F 44	Ferrule Set  FS 44
Knurled Nut  KN 45	Bulkhead Locknut  BN 45	Tube Insert  TI 46
Bonded Washer  DW 46		



# Installation Instructions

## Initial Installation

- ① SSP tube fittings come individually bagged and completely assembled for immediate use. There is no need for disassembly prior to use. Simply remove the tube fitting from its bag, insert the tube\* until it bottoms in the SSP tube fitting body and then hand tighten the SSP nut. (See Figure 02.)

*\*Tubing ends should be cut as straight as possible with all O.D. and I.D. burrs removed. Use of a tubing cutter or guide blocks with a hack-saw is recommended.*

Figure 02.

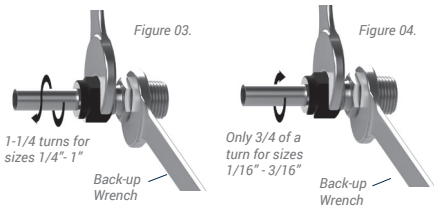


**NOTE:** For extreme system applications using high pressures or requiring an extra factor of safety, it may be desirable to use a “common make up starting point” to alleviate the inherent variations in tubing diameters. Installation should begin from a snug position, which is achieved by wrench tightening the Unilok nut until the inserted tubing will not move by hand (approximately 1/8 turn). From this new “snug” starting point, continue with the recommended installation instructions.

- ② While holding the fitting body stable with a back-up wrench, scribe the nut for a reference point and wrench tighten the nut 1-1/4 turns for sizes 1/4" - 1" and 3/4 turn for sizes 1/16" - 3/16". (See Figures 03 and 04).

**NOTE:** For all sizes, tighten plugs (P), machined ferrule end of port connector (PC) and the SSP tube fitting end of the Female AN adapter (ANF) only 1/4 of a turn. Tube fittings in sizes over 1" require the use of the SSP Hydraulic Swaging Tool for installation. Contact your local SSP Distributor for more information.

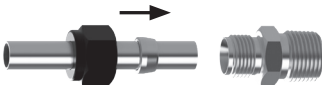
# Installation Instructions



## Reassembly Instructions

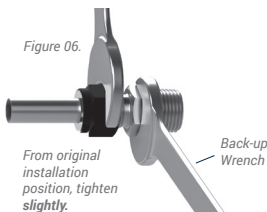
- 1 To reassemble a SSP tube fitting connection, simply insert the tubing with the previously coined ferrules and SSP nut into the fitting body until the front ferrule seats within the fitting body, and then tighten the nut by hand. (See Figure 05.)

Figure 05.



**NOTE: By following proper reassembly procedures, SSP tube fitting connections may be disconnected and reconnected repeatedly.**

- 2 While holding the fitting body stable with a back up wrench, use a wrench to rotate the SSP nut to the fitting's original installation position (approximately 1/4 turn from the hand-tight, snug position) then continue to tighten the SSP nut slightly. (See Figure 06.)

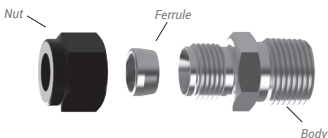


# Installation Instructions

## Component Assembly

Should individual component assembly of a SSP tube fitting ever be required, careful attention must be given to the proper sequence and direction of the SSP tube fitting components. (See Figure 07.)

Figure 07.



## Pre-setting

The SSP tube fitting pre-setting tool is used to preset the ferrules on the tubing for subsequent installation in a fitting body. The pre-setting tool can be especially helpful when an installation must be made in a tight space or hard-to-work area. The pre-setting tool allows the major portion of the installation work to occur in a more favorable work setting with only the completion of the installation in the hard-to-work area.

## Pre-setting Instructions

- ① Secure the pre-setting tool in a vise.
- ② Remove the protective nut and assemble the SSP nut and ferrules loosely to the pre-setting tool. Insert the tubing through the nut and ferrules until it bottoms in the pre-setting tool, and then follow the standard SSP tube fitting installation instructions. (See Figures 08a and 08b.)

Figure 08a.

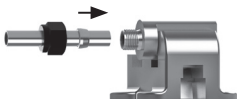
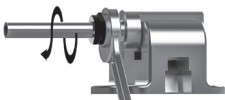


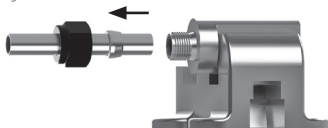
Figure 08b.



# Installation Instructions

- Loosen the nut and remove the tubing with the pre-set SSP tube fitting ferrules and nut from the pre-setting tool. (See Figure 09.)

Figure 09.



- Installation of the tubing, with the pre-set SSP tube fitting ferrule and nut in the appropriate fitting body can now be made by following the standard reassembly instructions. (See Figures 10a and 10b.)

Figure 10a.

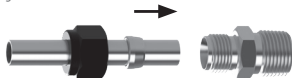
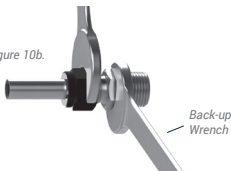


Figure 10b.



- Return the protective nut to the presetting tool.

**NOTE:** To extend the life of a pre-setting tool, lubricate the tool with a lubricant compatible with the system's tubing material, environment and media. Also, at times an over-sized or very soft tubing may tend to stick in the presetting tool after make up. To remove the tubing, gently rock the tubing back and forth. Never turn the tube with pliers or another tool as such action may damage the sealing surfaces.

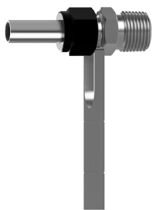
## Gageability

Each SSP tube fitting component is manufactured with utmost precision to provide the optimum performance interaction of the components during assembly. By maintaining such stringent manufacturing tolerances, SSP tube fittings are considered gageable for sufficient pull-up during initial installation. The SSP tube fitting “Gap Gages” are designed to identify for the installer or inspector, prior to pressurizing a system, that sufficient tightening of the tube fitting has occurred. Gageability provides additional reliability for proper installation and ultimate tube fitting safety and performance.

### Gap Gage Instructions

- 1 Follow proper installation instructions (as supplied with the fittings, or published in the SSP tube fittings catalog).
- 2 After completion of the installation instructions and prior to pressuring the system, choose the proper size Gap Gage and try to insert it between the fitting’s nut and body hex. (See Figure 11a and 11b.)

Figure 11a.



No additional tightening required.

Figure 11b.



Additional tightening required.

# Installation Instructions

- ③ If the Gap Gage will not enter between the fitting's nut and body hex, no additional tightening is required.
- ④ If the Gap Gage will enter between the fitting's nut and body hex, additional tightening is required.

# Technical Data

STAINLESS STEEL TUBING – Wall Thickness .010" to .049" Maximum Allowable Working Pressure (PSIG)								
Tube O.D. Size (In.)	Wall Thickness of Tube (In.)							
	.010	.012	.014	.016	.020	.028	.035	.049
1/16	5600	6850	8150	9500	12100			
1/8						8550	11000	
3/16						5450	7000	10300
1/4						4000	5100	7500
5/16							4050	5850
3/8							3300	4800
1/2							2450	3500
5/8								2950
3/4								2400
7/8								2050
1		Note: For light gas service, use tubing with wall thickness outside of shaded area.						
1-1/4								
1-1/2								
2								

(Wall Thicknesses .065" through .188" are on the following page.)

**Calculation Basis:** Annealed, seamless 304 or 316 stainless steel tubing ASTM A-269 or equivalent. System temperatures between -20°F and 100°F with allowable stress of 137 MPA. Ultimate tensile strength of 517MPA. Safety factor of 4.

**Reference:** ANSI B31.3 Code. (For more specific working pressure information regarding a particular tubing, consult with the actual manufacturer of the tubing.)

**Note:** For welded and drawn tubing, a derating factor must be utilized. For double welded tube, multiply the above pressure rating by .85; and for single welded tube by .80 (ANSI B 31, Table A-1B).

**Suggested Tube Ordering Information:** Specify the outside diameter and wall thickness of annealed, seamless or welded and drawn 316 or 304 stainless steel tubing of ASTM A-269, A-249, A-213 or equivalent. Also specify high quality tubing to be free of scratches and suited for bending with material hardness not to exceed Rb 90.

# Technical Data

STAINLESS STEEL TUBING – Wall Thickness .065" to .188" Maximum Allowable Working Pressure (PSIG)								
Tube O.D. Size (In.)	Wall Thickness of Tube (In.)							
	.065	.083	.095	.109	.120	.134	.156	.188
1/16								
1/8					Note: For light gas service, use tubing with wall thickness outside of shaded area.			
3/16								
1/4	10300							
5/16	8050							
3/8	6550							
1/2	4750	6250						
5/8	4000	5200	6050					
3/4	3300	4250	4950	5800				
7/8	2800	3600	4200	4850				
1	2400	3150	3650	4200	4700			
1-1/4		2450	2850	3300	3650	4150	4900	
1-1/2			2350	2700	3000	3400	4000	4900
2				2000	2200	2500	2900	3600

(Wall Thicknesses .010" through .049" are on the previous page.)

**Calculation Basis:** Annealed, seamless 304 or 316 stainless steel tubing ASTM A-269 or equivalent. System temperatures between -20°F and 100°F with allowable stress of 20,000 psi. Ultimate tensile strength of 75,000 psi. Safety factor of 4.

**Reference:** ANSI B31.3 Code. (For more specific working pressure information regarding a particular tubing, consult with the actual manufacturer of the tubing.) Multiply stainless steel rating by 0.94 for working pressure in accordance with ASME B31.1.

**Note:** For welded and drawn tubing, a derating factor must be utilized. For double welded tube, multiply the above pressure rating by .85; and for single welded tube by .80 (ANSI B 31, Table A-1B).

**Suggested Tube Ordering Information:** Specify the outside diameter and wall thickness of annealed, seamless or welded and drawn 316 or 304 stainless steel tubing of ASTM A-269, A-249, A-213 or equivalent. Also specify high quality tubing to be free of scratches, and suited for bending with material hardness not to exceed Rb 90.



STAINLESS STEEL TUBING											
Maximum Allowable Working Pressure (bar)											
Tube O.D. Size (mm)	Wall Thickness of Tube (mm)										
	0.8	1.0	1.2	1.5	1.8	2.0	2.2	2.5	2.8	3.0	3.5
3	670										
6	310	420	540	710				Note: For light gas service, use tubing with wall thickness outside of shaded area.			
8		310	390	520							
10		240	300	400	510	580					
12		200	250	330	410	470					
14		160	200	270	340	380	430				
15		150	190	250	310	360	400				
16			170	230	290	330	370	400			
18			150	200	260	290	320	370			
20			140	180	230	260	290	330	380		
22			140	160	200	230	260	300	340		
25					180	200	230	260	290	320	

**Calculation Basis:** Annealed, seamless 304 or 316 stainless steel tubing EN ISO 1127 or equivalent (from ASME B31.3). System temperatures between -20°F and 100°F with allowable stress of 1370 bar (20,000 psi). Ultimate tensile strength of 5170 bar (75,000 psi). Safety factor of 4.

**Reference:** ANSI B31.3 Code. (For more specific working pressure information regarding a particular tubing, consult with the actual manufacturer of the tubing.) Multiply stainless steel rating by 0.94 for working pressure in accordance with ASME B31.1.

**Note:** For welded and drawn tubing, a derating factor must be utilized. For double welded tube, multiply the above pressure rating by .85; and for single welded tube .80 (ANSI B 31, Table A-1B).

**Suggested Tube Ordering Information:** Specify the outside diameter and wall thickness of annealed, seamless or welded and drawn 316 or 304 stainless steel tubing of EN ISO 1127 or equivalent. Also specify high quality tubing to be free of scratches, and suited for bending with material hardness not to exceed Rb 90 (200 HV).

# Tube to Male Pipe

**MC**

*Male*

*Connector*

*- NPT*

*For Fractional Tube*



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U3MC2	3/16	1/8
U3MC4	3/16	1/4
U4MC2	1/4	1/8
U4MC4	1/4	1/4
U6MC2	3/8	1/8
U6MC4	3/8	1/4
U6MC6	3/8	3/8
U6MC8	3/8	1/2
U8MC2	1/2	1/8
U8MC4	1/2	1/4
U8MC6	1/2	3/8
U8MC8	1/2	1/2
U10MC2	5/8	1/8
U10MC4	5/8	1/4
U10MC6	5/8	3/8
U10MC8	5/8	1/2
U10MC12	5/8	3/4
U12MC2	3/4	1/8
U12MC4	3/4	1/4
U12MC6	3/4	3/8
U12MC8	3/4	1/2
U12MC12	3/4	3/4
U14MC4	7/8	1/4
U14MC6	7/8	3/8
U14MC8	7/8	1/2
U16MC6	1	3/8
U16MC8	1	1/2
U16MC12	1	3/4

# Tube to Male Pipe

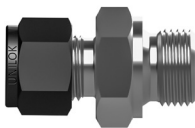
## MCRS

Male

Connector -

ISO Parallel

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	ISO Male Pipe (in.)
U2MCRS2	1/8	1/8
U2MCRS4	1/8	1/4
U2MCRS6	1/8	3/8
U4MCRS2	1/4	1/8
U4MCRS4	1/4	1/4
U4MCRS6	1/4	3/8
U4MCRS8	1/4	1/2
U6MCRS4	3/8	1/4
U6MCRS6	3/8	3/8
U6MCRS8	3/8	1/2
U8MCRS4	1/2	1/4
U8MCRS6	1/2	3/8
U8MCRS8	1/2	1/2
U12MCRS8	3/4	1/2
U12MCRS12	3/4	3/4
U16MCRS8	1	1/2
U16MCRS16	1	1

**NOTE:** RS threaded fittings conform to ISO standards 228-1. The standard gasket for RS fittings is a 300 series stainless steel outer ring with a Viton® inner ring bonded to it.

# Tube to Male Pipe

## MCRT

Male  
Connector -  
ISO Tapered  
For Fractional Tube

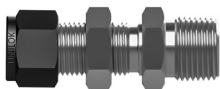


Unilok Part #	Tube O.D. (in.)	ISO Male Pipe (in.)
U2MCRT2	1/8	1/8
U2MCRT4	1/8	1/4
U4MCRT2	1/4	1/8
U4MCRT4	1/4	1/4
U4MCRT6	1/4	3/8
U4MCRT8	1/4	1/2
U5MCRT2	5/16	1/8
U5MCRT4	5/16	1/4
U6MCRT2	3/8	1/8
U6MCRT4	3/8	1/4
U6MCRT6	3/8	3/8
U6MCRT8	3/8	1/2
U8MCRT4	1/2	1/4
U8MCRT6	1/2	3/8
U8MCRT8	1/2	1/2
U8MCRT12	1/2	3/4
U12MCRT12	3/4	3/4
U16MCRT16	1	1

**NOTE:** RT threaded fittings conform to ISO standards 7-1.

## BMC

Bulkhead Male  
Connector - NPT  
For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U2BMC2	1/8	1/8
U4BMC2	1/4	1/8
U4BMC4	1/4	1/4
U6BMC4	3/8	1/4
U8BMC6	1/2	3/8
U8BMC8	1/2	1/2

# Tube to Male Pipe

## MCBT

Male  
Connector  
Bored Through  
- NPT  
For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U1MCBT1	1/16	1/16
U1MCBT2	1/16	1/8
U2MCBT1	1/8	1/16
U2MCBT2	1/8	1/8
U2MCBT4	1/8	1/4
U3MCBT2	3/16	1/8
U3MCBT4	3/16	1/4
U4MCBT2	1/4	1/8
U4MCBT4	1/4	1/4
U4MCBT6	1/4	3/8
U4MCBT8	1/4	1/2
U5MCBT4	5/16	1/4
U6MCBT4	3/8	1/4
U6MCBT6	3/8	3/8
U6MCBT8	3/8	1/2
U8MCBT8	1/2	1/2
U10MCBT12	5/8	3/4
U12MCBT12	3/4	3/4
U16MCBT16	1	1

## M45E

45° Male Elbow  
- NPT  
For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U4M45E2	1/4	1/8
U4M45E4	1/4	1/4
U6M45E2	3/8	1/8
U6M45E4	3/8	1/4
U6M45E6	3/8	3/8
U8M45E6	1/2	3/8

# Tube to Male Pipe

**ME**

*Male Elbow*

*- NPT*

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U1ME1	1/16	1/16
U1ME2	1/16	1/8
U2ME1	1/8	1/16
U2ME2	1/8	1/8
U2ME4	1/8	1/4
U3ME2	3/16	1/8
U3ME4	3/16	1/4
U4ME2	1/4	1/8
U4ME4	1/4	1/4
U4ME6	1/4	3/8
U4ME8	1/4	1/2
U5ME2	5/16	1/8
U5ME4	5/16	1/4
U5ME6	5/16	3/8
U6ME2	3/8	1/8
U6ME4	3/8	1/4
U6ME6	3/8	3/8
U6ME8	3/8	1/2
U6ME12	3/8	3/4
U8ME4	1/2	1/4
U8ME6	1/2	3/8
U8ME8	1/2	1/2
U8ME12	1/2	3/4
U10ME6	5/8	3/8
U10ME8	5/8	1/2
U10ME12	5/8	3/4
U12ME8	3/4	1/2
U12ME12	3/4	3/4
U14ME12	7/8	3/4
U16ME12	1	3/4
U16ME16	1	1

# Tube to Male Pipe

## **MERT**

*Male Elbow -  
ISO Tapered*  
For Fractional Tube



Unilok Part #	Tube O.D. (in.)	ISO Male Pipe (in.)
U2MERT2	1/8	1/8
U4MERT2	1/4	1/8
U4MERT4	1/4	1/4
U4MERT6	1/4	3/8
U4MERT8	1/4	1/2
U5MERT4	5/16	1/4
U6MERT2	3/8	1/8
U6MERT4	3/8	1/4
U6MERT6	3/8	3/8
U6MERT8	3/8	1/2
U8MERT4	1/2	1/4
U8MERT6	1/2	3/8
U8MERT8	1/2	1/2

**NOTE:** RT threaded fittings conform to ISO standards 7-1.

## **MBT**

*Male Branch Tee*  
- NPT  
For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U2MBT2	1/8	1/8
U2MBT4	1/8	1/4
U3MBT2	3/16	1/8
U4MBT2	1/4	1/8
U4MBT4	1/4	1/4
U5MBT2	5/16	1/8
U6MBT4	3/8	1/4
U6MBT6	3/8	3/8
U8MBT6	1/2	3/8
U8MBT8	1/2	1/2
U10MBT8	5/8	1/2
U12MBT12	3/4	3/4

# Tube to Male Pipe

## **MRT**

*Male Run Tee*

*- NPT*

*For Fractional Tube*



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U2MRT2	1/8	1/8
U2MRT4	1/8	1/4
U3MRT2	3/16	1/8
U4MRT2	1/4	1/8
U4MRT4	1/4	1/4
U5MRT2	5/16	1/8
U6MRT4	3/8	1/4
U6MRT6	3/8	3/8
U8MRT6	1/2	3/8
U8MRT8	1/2	1/2
U10MRT8	5/8	1/2
U12MRT12	3/4	3/4

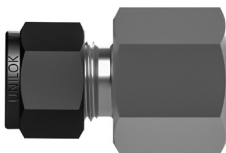


# Tube to Female Pipe

## FC

### Female Connector - FNPT

For Fractional Tube

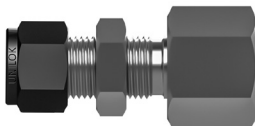


Unilok Part #	Tube O.D. (in.)	NPT Female Pipe (in.)
U1FC1	1/16	1/16
U1FC2	1/16	1/8
U2FC2	1/8	1/8
U2FC4	1/8	1/4
U3FC2	3/16	1/8
U4FC2	1/4	1/8
U4FC4	1/4	1/4
U4FC6	1/4	3/8
U4FC8	1/4	1/2
U5FC2	5/16	1/8
U5FC4	5/16	1/4
U6FC2	3/8	1/8
U6FC4	3/8	1/4
U6FC6	3/8	3/8
U6FC8	3/8	1/2
U6FC12	3/8	3/4
U8FC4	1/2	1/4
U8FC6	1/2	3/8
U8FC8	1/2	1/2
U8FC12	1/2	3/4
U10FC6	5/8	3/8
U10FC8	5/8	1/2
U12FC8	3/4	1/2
U12FC12	3/4	3/4
U14FC12	7/8	3/4
U16FC12	1	3/4
U16FC16	1	1

## BFC

### Bulkhead Female Connector - FNPT

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Female Pipe (in.)
U2BFC2	1/8	1/8
U4BFC2	1/4	1/8
U4BFC4	1/4	1/4
U6BFC4	3/8	1/4
U8BFC6	1/2	3/8
U8BFC8	1/2	1/2

# Tube to Female Pipe

## FE

*Female Elbow*

- FNPT

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Female Pipe (in.)
U2FE2	1/8	1/8
U2FE4	1/8	1/4
U3FE2	3/16	1/8
U4FE2	1/4	1/8
U4FE4	1/4	1/4
U4FE6	1/4	3/8
U4FE8	1/4	1/2
U5FE2	5/16	1/8
U5FE4	5/16	1/4
U6FE2	3/8	1/8
U6FE4	3/8	1/4
U6FE6	3/8	3/8
U6FE8	3/8	1/2
U8FE4	1/2	1/4
U8FE6	1/2	3/8
U8FE8	1/2	1/2
U10FE6	5/8	3/8
U10FE8	5/8	1/2
U12FE8	3/4	1/2
U12FE12	3/4	3/4
U14FE12	7/8	3/4
U16FE12	1	3/4
U16FE16	1	1

## FBT

*Female*

*Branch Tee*

- FNPT

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Female Pipe (in.)
U2FBT2	1/8	1/8
U4FBT2	1/4	1/8
U4FBT4	1/4	1/4
U6FBT4	3/8	1/4
U8FBT4	1/2	1/4
U8FBT6	1/2	3/8
U8FBT8	1/2	1/2
U10FBT8	5/8	1/2
U12FBT12	3/4	3/4
U16FBT12	1	3/4
U16FBT16	1	1

# Tube to Female Pipe

## **FRT**

### *Female Run Tee - FNPT*

*For Fractional Tube*



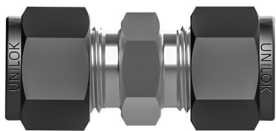
Unilok Part #	Tube O.D. (in.)	NPT Female Pipe (in.)
U2FRT2	1/8	1/8
U4FRT2	1/4	1/8
U4FRT4	1/4	1/4
U6FRT4	3/8	1/4
U8FRT6	1/2	3/8
U8FRT8	1/2	1/2
U12FRT12	3/4	3/4

# Tube to Tube Union

## **U**

### *Union*

*For Fractional Tube*



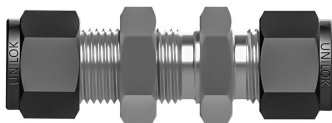
Unilok Part #	Tube O.D. (in.)
U1U	1/16
U2U	1/8
U3U	3/16
U4U	1/4
U5U	5/16
U6U	3/8
U8U	1/2
U10U	5/8
U12U	3/4
U14U	7/8
U16U	1

# Tube to Tube Union

## **BU**

### *Bulkhead Union*

For Fractional Tube

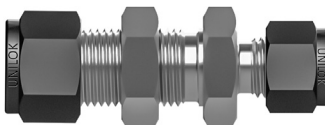


Unilok Part #	Tube O.D. (in.)
U1BU	1/16
U2BU	1/8
U3BU	3/16
U4BU	1/4
U5BU	5/16
U6BU	3/8
U8BU	1/2
U10BU	5/8
U12BU	3/4
U16BU	1

## **BRU**

### *Bulkhead Reducing Union*

For Fractional Tube



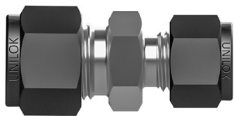
Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)
U4BRU2	1/4	1/8
U6BRU4	3/8	1/4
U8BRU4	1/2	1/4
U8BRU6	1/2	3/8

# Tube to Tube Union

## RU

### Reducing Union

For Fractional Tube



Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)
U2RU1	1/8	1/16
U3RU1	3/16	1/16
U3RU2	3/16	1/8
U4RU1	1/4	1/16
U4RU2	1/4	1/8
U4RU3	1/4	3/16
U5RU2	5/16	1/8
U5RU4	5/16	1/4
U6RU1	3/8	1/16
U6RU2	3/8	1/8
U6RU4	3/8	1/4
U6RU5	3/8	5/16
U8RU2	1/2	1/8
U8RU4	1/2	1/4
U8RU6	1/2	3/8
U10RU6	5/8	3/8
U10RU8	5/8	1/2
U12RU4	3/4	1/4
U12RU6	3/4	3/8
U12RU8	3/4	1/2
U12RU10	3/4	5/8
U16RU8	1	1/2
U16RU12	1	3/4

## UE

### Union Elbow

For Fractional Tube



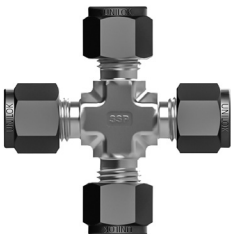
Unilok Part #	Tube O.D. (in.)
U1UE	1/16
U2UE	1/8
U3UE	3/16
U4UE	1/4
U5UE	5/16
U6UE	3/8
U8UE	1/2
U10UE	5/8
U12UE	3/4
U14UE	7/8
U16UE	1

# Tube to Tube Union

## UCS

### Union Cross

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U2UCS	1/8
U4UCS	1/4
U5UCS	5/16
U6UCS	3/8
U8UCS	1/2
U12UCS	3/4
U16UCS	1

## UT

### Union Tee

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U1UT	1/16
U2UT	1/8
U3UT	3/16
U4UT	1/4
U5UT	5/16
U6UT	3/8
U8UT	1/2
U10UT	5/8
U12UT	3/4
U14UT	7/8
U16UT	1

# Tube to Tube Union

## RUT

Reducing  
Union Tee -  
Configuration A  
For Fractional Tube



Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)
U6RUT64	3/8	1/4
U8RUT84	1/2	1/4
U8RUT86	1/2	3/8
U10RUT106	5/8	3/8
U12RUT126	3/4	3/8
U12RUT128	3/4	1/2
U16RUT166	1	3/8
U16RUT168	1	1/2
U16RUT1612	1	3/4

## RUT

Reducing  
Union Tee -  
Configuration B  
For Fractional Tube

Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)
U6RUT46	3/8	1/4

## RUT

Reducing  
Union Tee -  
Configuration C  
For Fractional Tube

Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)
U8RUT66	1/2	3/8
U10RUT66	5/8	3/8
U12RUT66	3/4	3/8

## RUT

Reducing  
Union Tee -  
Configuration D  
For Fractional Tube

Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)	Tube 3 O.D. (in.)
U10RUT86	5/8	1/2	3/8
U12RUT86	3/4	1/2	3/8
U16RUT126	1	3/4	3/8

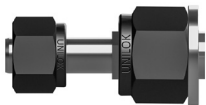
# Tube to Tube Union

## DA

### Dielectric Adapter

For Fractional Tube

Unilok Part #	Tube End 1 (in.)	Tube End 2 (in.)
U8DA6	3/8	1/2



The SSP Instrumentation Dielectric Adapter is supplied with pre-swaged 3/8" nut and ferrules. The dielectric connection has a captive 1/2" nut. Dielectric Stop Collar and assembly instructions are also supplied with the adapter. By using 3/8" and 1/2" tube-ended SSP Instrumentation tube fittings with the adapter, a wide range of dielectric fitting configurations can be built.

## DU

### Dielectric Union

For Fractional Tube

Unilok Part #	Length (in.)
U4DU	4.08
U6DU	4.20
U8DU	4.79
U6DMC4	3.80



Dielectric fittings are designed to isolate monitoring and control instruments and equipment from electrical current and voltages. Manufactured in 316 stainless steel with thermoplastic insulators, SSP Instrumentation's dielectric fittings provide high dielectric strength in applications up to 5,000 PSIG. Typical applications for dielectric fittings are on impulse lines in natural gas pipeline monitoring stations. For additional factory assembled configurations, contact your local distributor.

## Materials and Technical Data

**Body:** 316 Stainless Steel

**Insulator:** Polyetherimide

**Pressure Rating:** 5,000 PSIG

**Temperature Rating:** From -40°F to +200°F

**Electrical Resistance:** 1.0 x 10E7 Ohm at 70°F (20°C) at 10 VDC

@ 50% relative humidity; voltage breakdown resistance of 3,000 VDC.

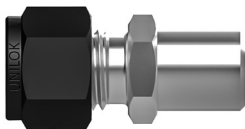


# Tube to Welded Systems

## **TSWU**

*Tube Socket  
Weld Connector*

*For Fractional Tube*



Unilok Part #	Tube Size (in.)
U2TSWU2	1/8
U4TSWU4	1/4
U6TSWU6	3/8
U8TSWU8	1/2
U12TSWU12	3/4
U16TSWU16	1

## **TSWE**

*Tube Socket  
Weld Elbow*

*For Fractional Tube*



Unilok Part #	Tube Size (in.)
U4TSWE4	1/4
U6TSWE6	3/8
U8TSWE8	1/2

# Tube to Welded Systems

## MPWC

### Male Pipe Weld Connector

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	Male Pipe Weld Size (in.)
U2MPWC2	1/8	1/8
U3MPWC2	3/16	1/8
U4MPWC2	1/4	1/8
U4MPWC4	1/4	1/4
U5MPWC2	5/16	1/8
U5MPWC4	5/16	1/4
U6MPWC4	3/8	1/4
U6MPWC6	3/8	3/8
U6MPWC8	3/8	1/2
U8MPWC6	1/2	3/8
U8MPWC8	1/2	1/2
U8MPWC12	1/2	3/4
U10MPWC8	5/8	1/2
U12MPWC12	3/4	3/4
U16MPWC16	1	1

## MPWE

### Male Pipe Weld Elbow

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	Male Pipe Weld Size (in.)
U4MPWE2	1/4	1/8
U4MPWE4	1/4	1/4
U6MPWE4	3/8	1/4
U8MPWE8	1/2	1/2
U12MPWE12	3/4	3/4

# Tube Stub Connectors / Adapters

## BR

### Bulkhead Reducer / Adapter

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U2BR2	1/8
U4BR4	1/4
U6BR6	3/8
U8BR8	1/2

## MA

### Male Adapter - NPT

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	NPT Male Pipe (in.)
U2MA2	1/8	1/8
U2MA4	1/8	1/4
U3MA2	3/16	1/8
U3MA4	3/16	1/4
U4MA2	1/4	1/8
U4MA4	1/4	1/4
U4MA6	1/4	3/8
U4MA8	1/4	1/2
U5MA2	5/16	1/8
U5MA4	5/16	1/4
U6MA2	3/8	1/8
U6MA4	3/8	1/4
U6MA6	3/8	3/8
U6MA8	3/8	1/2
U8MA4	1/2	1/4
U8MA6	1/2	3/8
U8MA8	1/2	1/2
U10MA8	5/8	1/2
U12MA8	3/4	1/2
U12MA12	3/4	3/4
U16MA12	1	3/4
U16MA16	1	1

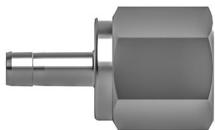
# Tube Stub Connectors / Adapters

## FA

*Female Adapter*

*- FNPT*

*For Fractional Tube*



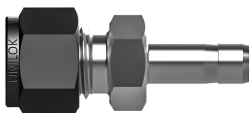
Unilok Part #	Tube O.D. (in.)	NPT Female Pipe (in.)
U2FA2	1/8	1/8
U2FA4	1/8	1/4
U3FA4	3/16	1/4
U4FA2	1/4	1/8
U4FA4	1/4	1/4
U4FA6	1/4	3/8
U4FA8	1/4	1/2
U5FA4	5/16	1/4
U6FA2	3/8	1/8
U6FA4	3/8	1/4
U6FA6	3/8	3/8
U6FA8	3/8	1/2
U8FA4	1/2	1/4
U8FA6	1/2	3/8
U8FA8	1/2	1/2
U10FA8	5/8	1/2
U12FA8	3/4	1/2
U12FA12	3/4	3/4
U12FA16	3/4	1
U16FA12	1	3/4
U16FA16	1	1

# Tube Stub Connectors / Adapters

**R**

*Reducer / Adapter*

For Fractional Tube



Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)
U1R2	1/16	1/8
U1R4	1/16	1/4
U2R1	1/8	1/16
U2R2	1/8	1/8
U2R3	1/8	3/16
U2R4	1/8	1/4
U2R6	1/8	3/8
U2R8	1/8	1/2
U3R2	3/16	1/8
U3R4	3/16	1/4
U4R2	1/4	1/8
U4R3	1/4	3/16
U4R4	1/4	1/4
U4R5	1/4	5/16
U4R6	1/4	3/8
U4R8	1/4	1/2
U4R10	1/4	5/8
U4R12	1/4	3/4
U5R6	5/16	3/8
U5R8	5/16	1/2
U6R4	3/8	1/4
U6R6	3/8	3/8
U6R8	3/8	1/2
U6R10	3/8	5/8
U6R12	3/8	3/4
U8R4	1/2	1/4
U8R6	1/2	3/8
U8R8	1/2	1/2
U8R10	1/2	5/8
U8R12	1/2	3/4
U8R16	1/2	1
U10R12	5/8	3/4
U10R14	5/8	7/8
U10R16	5/8	1
U12R8	3/4	1/2
U12R16	3/4	1

**NOTE:** For Heat Exchanger Tee applications, certain Reducer / Adapter fittings can be “bored through” to accommodate a process tube’s insertion. Consult with the local distributor for further information on “bored through” Reducer / Adapter (RBT) fittings.

# Tube Stub Connectors / Adapters

## PC

### Port Connector

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U1PC	1/16
U2PC	1/8
U4PC	1/4
U5PC	5/16
U6PC	3/8
U8PC	1/2
U12PC	3/4
U16PC	1

## RPC

### Reducing

### Port Connector

For Fractional Tube



Unilok Part #	Tube 1 O.D. (in.)	Tube 2 O.D. (in.)
U2RPC1	1/8	1/16
U4RPC1	1/4	1/16
U4RPC2	1/4	1/8
U6RPC2	3/8	1/8
U6RPC4	3/8	1/4
U8RPC4	1/2	1/4
U8RPC6	1/2	3/8
U12RPC8	3/4	1/2

# Tube Stub Connectors / Adapters

## HBA

### Hose Barb Adapter

For Fractional Tube

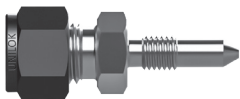


Unilok Part #	Hose I.D. (in.)	Tube Size (in.)
U2HBA2	1/8	1/8
U2HBA4	1/8	1/4
U4HBA4	1/4	1/4
U4HBA6	1/4	3/8
U5HBA4	5/16	1/4
U6HBA6	3/8	3/8
U6HBA8	3/8	1/2
U8HBA6	1/2	3/8
U8HBA8	1/2	1/2
U12HBA12	3/4	3/4

## CU1

### Calibration Union

For Fractional Tube

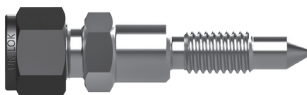


Unilok Part #	Tube O.D. (in.)
U4CU1	1/4

## CU2

### Calibration Union

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U4CU2	1/4

# Unilok to 37° Flare

## ANU

### AN Union

For Fractional Tube

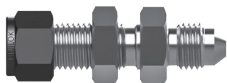


Unilok Part #	Tube O.D. (in.)	AN Tube Flare Size (in.)
U1ANU2	1/16	1/8
U2ANU2	1/8	1/8
U2ANU4	1/8	1/4
U4ANU4	1/4	1/4
U5ANU5	5/16	5/16
U6ANU4	3/8	1/4
U6ANU6	3/8	3/8
U8ANU8	1/2	1/2
U12ANU12	3/4	3/4
U16ANU16	1	1

## ANBU

### AN Bulkhead Union

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	AN Tube Flare Size (in.)
U4ANBU4	1/4	1/4
U6ANBU6	3/8	3/8
U8ANBU8	1/2	1/2
U12ANBU12	3/4	3/4
U16ANBU16	1	1

## ANF

### Female AN Adapter

For Fractional Tube



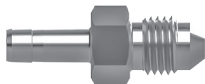
Unilok Part #	Tube O.D. (in.)	AN Flare Size (in.)
U2ANF2	1/8	1/8
U2ANF4	1/8	1/4
U4ANF4	1/4	1/4
U6ANF6	3/8	3/8
U8ANF8	1/2	1/2



# Unilok to 37° Flare

## ANA

*AN Adapter  
For Fractional Tube*

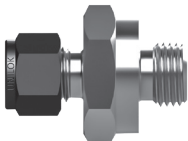


Unilok Part #	Tube O.D. (in.)	AN Tube Flare Size (in.)
U4ANA4	1/4	1/4
U6ANA4	3/8	1/4
U6ANA6	3/8	3/8
U8ANA8	1/2	1/2
U12ANA12	3/4	3/4
U16ANA16	1	1

# Tube to O-Ring Seal

## OMC

*O-Ring  
Seal Male  
Connector\*  
For Fractional Tube*



Unilok Part #	Tube O.D. (in.)	NPT* Male Pipe (in.)
U2OMC2	1/8	1/8
U4OMC2	1/4	1/8
U4OMC4	1/4	1/4
U6OMC4	3/8	1/4
U6OMC6	3/8	3/8
U6OMC8	3/8	1/2
U8OMC8	1/2	1/2

\*Connects to Female Short NPT Thread

## OSC

*O-Ring Seal Male  
Straight Thread  
Connector\*  
For Fractional Tube*



Unilok Part #	Tube O.D. (in.)	Thread Size
U1OSC2	1/16	5/16 - 24
U2OSC2	1/8	5/16 - 24
U3OSC3	3/16	3/8 - 24
U4OSC4	1/4	7/16 - 20
U5OSC5	5/16	1/2 - 20
U6OSC6	3/8	9/16 - 18
U8OSC8	1/2	3/4 - 16
U12OSC12	3/4	1-1/16 - 12
U16OSC16	1	1-5/16 - 12

\*Connects to Female Straight Thread - SAE J1926

# Tube to SAE / MS

## MCST

Male Connector -  
Straight Thread  
Boss  
For Fractional Tube



Unilok Part #	Tube O.D. (in.)	Thread Size
U2MCST2	1/8	5/16 - 24
U4MCST4	1/4	7/16 - 20
U4MCST6	1/4	9/16 - 18
U4MCST8	1/4	3/4 - 16
U4MCST10	1/4	7/8 - 14
U5MCST5	5/16	1/2 - 20
U6MCST4	3/8	7/16 - 20
U6MCST6	3/8	9/16 - 18
U6MCST8	3/8	3/4 - 16
U6MCST10	3/8	7/8 - 14
U8MCST6	1/2	9/16 - 18
U8MCST8	1/2	3/4 - 16
U8MCST10	1/2	7/8 - 14
U8MCST12	1/2	1-1/16 - 12
U10MCST8	5/8	3/4 - 16
U10MCST10	5/8	7/8 - 14
U12MCST8	3/4	3/4 - 16
U12MCST12	3/4	1-1/16 - 12
U14MCST14	7/8	1-3/16 - 12
U16MCST12	1	1-1/16 - 12
U16MCST16	1	1-5/16 - 12

90 Durometer Viton® O-Ring is standard. Other O-Ring compounds are available.

## MEST

Male Elbow -  
Straight Thread  
Boss  
For Fractional Tube



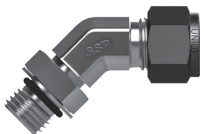
Unilok Part #	Tube O.D. (in.)	SAE / MS Thread Size
U4MEST4	1/4	7/16 - 20
U4MEST6	1/4	9/16 - 18
U5MEST5	5/16	1/2 - 20
U6MEST4	3/8	7/16 - 20
U6MEST6	3/8	9/16 - 18
U6MEST8	3/8	3/4 - 16
U8MEST6	1/2	9/16 - 18
U8MEST8	1/2	3/4 - 16
U10MEST10	5/8	7/8 - 14
U12MEST12	3/4	1-1/16 - 12
U16MEST16	1	1-5/16 - 12

90 Durometer Viton® O-Ring is standard. Other O-Ring compounds are available.

## **M45EST**

*45° Male Elbow -  
Straight Thread  
Boss*

For Fractional Tube



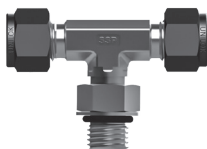
Unilok Part #	Tube O.D. (in.)	SAE / MS Thread Size
U4M45EST4	1/4	7/16 - 20
U6M45EST6	3/8	9/16 - 18
U8M45EST8	1/2	3/4 - 16
U12M45EST12	3/4	1-1/16 - 12
U16M45EST16	1	1-5/16 - 12

90 Durometer Viton® O-Ring is standard. Other O-Ring compounds are available.

## **MBTST**

*Male Branch  
Tee - Straight  
Thread Boss*

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	SAE / MS Thread Size
U4MBTST4	1/4	7/16 - 20
U6MBTST6	3/8	9/16 - 18
U8MBTST8	1/2	3/4 - 16
U12MBTST12	3/4	1-1/16 - 12
U16MBTST16	1	1-5/16 - 12

90 Durometer Viton® O-Ring is standard. Other O-Ring compounds are available.

# Tube to SAE / MS

## **MRTST**

*Male Run  
Tee - Straight  
Thread Boss  
For Fractional Tube*

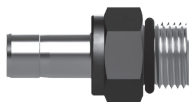


Unilok Part #	Tube O.D. (in.)	SAE / MS Thread Size
U4MRTST4	1/4	7/16 - 20
U6MRTST6	3/8	9/16 - 18
U8MRTST8	1/2	3/4 - 16
U12MRTST12	3/4	1-1/16 - 12
U16MRTST16	1	1-5/16 - 12

90 Durometer Viton® O-Ring is standard. Other O-Ring compounds are available.

## **MAST**

*Male Adapter -  
Straight Thread  
Boss  
For Fractional Tube*



Unilok Part #	Tube O.D. (in.)	SAE / MS Thread Size
U2MAST2	1/8	5/16 - 24
U4MAST4	1/4	7/16 - 20
U6MAST4	3/8	7/16 - 20
U6MAST6	3/8	9/16 - 18
U6MAST8	3/8	3/4 - 16
U8MAST6	1/2	9/16 - 18
U8MAST8	1/2	3/4 - 16
U12MAST12	3/4	1-1/16 - 12
U16MAST16	1	1-5/16 - 12

90 Durometer Viton® O-Ring is standard. Other O-Ring compounds are available.

# Cap and Plug

## CP

### Cap

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U1CP	1/16
U2CP	1/8
U3CP	3/16
U4CP	1/4
U5CP	5/16
U6CP	3/8
U8CP	1/2
U10CP	5/8
U12CP	3/4
U14CP	7/8
U16CP	1
U20CP	1-1/4
U24CP	1-1/2

## P

### Plug

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U1P	1/16
U2P	1/8
U3P	3/16
U4P	1/4
U5P	5/16
U6P	3/8
U8P	1/2
U10P	5/8
U12P	3/4
U16P	1
U20P	1-1/4
U24P	1-1/2

# Components

## N

### Nut

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U1N	1/16
U2N	1/8
U3N	3/16
U4N	1/4
U5N	5/16
U6N	3/8
U8N	1/2
U10N	5/8
U12N	3/4
U14N	7/8
U16N	1

## F

### Ferrule

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U1F	1/16
U2F	1/8
U3F	3/16
U4F	1/4
U5F	5/16
U6F	3/8
U8F	1/2
U10F	5/8
U12F	3/4
U14F	7/8
U16F	1

## FS

### Ferrule Set

For Fractional Tube



A Ferrule Set consists of one front ferrule and is conveniently packaged and sold in multiples of ten per "holding tube" housing.

Unilok Part #	Tube O.D. (in.)
U1FS	1/16
U2FS	1/8
U3FS	3/16
U4FS	1/4
U5FS	5/16
U6FS	3/8
U8FS	1/2

# Components

## **KN**

### *Knurled Nut*

For Fractional Tube



Unilok Part #	Tube O.D. (in.)
U1KN	1/16
U2KN	1/8
U3KN	3/16
U4KN	1/4
U5KN	5/16
U6KN	3/8
U8KN	1/2
U10KN	5/8
U12KN	3/4
U14KN	7/8
U16KN	1

## **BN**

### *Bulkhead Locknut*

### *Locknut*

For Fractional Tube



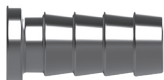
Unilok Part #	Tube O.D. (in.)
U1BN	1/16
U2BN	1/8
U3BN	3/16
U4BN	1/4
U5BN	5/16
U6BN	3/8
U8BN	1/2
U10BN	5/8
U12BN	3/4
U14BN	7/8
U16BN	1

# Components

## TI

### Tube Insert

For Fractional Tube



Unilok Part #	Tube O.D. (in.)	Tube I.D. (in.)
U3TI2	3/16	1/8
U4TI2	1/4	1/8
U4TI17	1/4	0.170
U4TI3	1/4	3/16
U5TI2	5/16	1/8
U5TI3	5/16	3/16
U5TI4	5/16	1/4
U6TI3	3/8	3/16
U6TI4	3/8	1/4
U8TI4	1/2	1/4
U8TI6	1/2	3/8
U10TI6	5/8	3/8
U10TI8	5/8	1/2
U12TI8	3/4	1/2
U12TI10	3/4	5/8
U16TI12	1	3/4

## DW

### Bonded Washer

For Fractional Tube



Unilok Part #	ISO Pipe Size (in.)
2DW-BSPP-SS-V	1/8
4DW-BSPP-SS-V	1/4
6DW-BSPP-SS-V	3/8
8DW-BSPP-SS-V	1/2
12DW-BSPP-SS-V	3/4
16DW-BSPP-SS-V	1

Comes standard as a 300 series stainless steel outer ring with a Viton® inner ring bonded to it. Also available with Buna-N.





## Safety

To help ensure the safe and reliable performance of tube fitting products, complete system design must be considered prior to the installation of the tubing and tube fittings. Determining the design compatibility of materials, media, flows, temperatures and pressures; as well as implementing proper installation, operation and maintenance of the system are the responsibility of the systems' owners, designers and users.

### SSP Safety Reminders

All SSP products are designed and manufactured with safety in mind. The following is a limited list of general safety practices:

Do not install, tighten or loosen a tube fitting while the system is under pressure.

Do not loosen a tube fitting, nut or plug to relieve or bleed system pressure.

Always use a back-up wrench to hold the tube fitting body steady when tightening or loosening tube fitting nuts.

There is no need to disassemble a new tube fitting prior to use.

Use proper thread lubricants and sealants on tapered pipe threads.

Very soft, pliable plastic tubing requires a tube insert.

Tube fitting and tubing material should be similar (stainless steel fittings on stainless steel tubing, brass fittings on copper tubing, etc.) with the tubing material being fully annealed. For more specific information, refer to the Selection Guide for Instrumentation Tubing in the Duolok® catalog.

Do not weld tube fittings that are assembled. Prior to welding, remove the nut and ferrules and protect the seat and thread area of the tube fitting by covering with a plug or another nut.

## Unilok® Tube Fittings LIFETIME LIMITED WARRANTY

SSP guarantees all Unilok tube fittings and Unilok tube fitting components to be free from defects in materials and workmanship. Additionally, SSP guarantees Unilok product performance to the published catalog specifications when properly installed according to the catalog selection and installation instructions. To initiate a warranty claim, suspected defective product must be returned to SSP with the nature of potential defect documented for factory evaluation. Any product with a determined defect in material or workmanship will be replaced with an equivalent product at no charge.

This warranty comprises the sole and entire warranty pertaining to items provided hereunder. There is no other warranty, guarantee, express or implied representation of any kind whatsoever. All other warranties including, but not limited to, merchantability and fitness for purpose, whether express, implied, or arising by operation of law. Course of dealing, or trade usage are hereby disclaimed. There are no warranties which extend beyond the description on the face hereof; and this warranty does not apply in the case of abuse, mishandling, or normal use depreciation. In no event, whether alleged to arise from breach of contract, express or implied warranty, by operation of law, negligence or otherwise, will SSP be liable for any incidental, consequential, lost property, or other special damages of any kind whatsoever. The exclusive only remedy under this warranty is the replacement of determined defective parts as set forth above.

Duolok®, Unilok®, Griplok®, TruFit® & FloLok® are registered trademarks of SSP Fittings Corp.

Swagelok® and Cajon® are registered trademarks of Swagelok Co.

Parker CPI® and Parker™ are registered trademarks of Parker Hannifin.

Hoke Gyrolok® and Hoke® are registered trademarks of Hoke Inc.

Viton® and Teflon® are registered trademarks of E.I. duPont Nemours and Co.

Monel® is a registered trademark of Inco Alloys International

**NOTICE:** This publication is an uncontrolled copy of a controlled document. SSP has made every reasonable effort to insure the accuracy of the information contained in this publication, and is not to be held liable in any manner for any mistakes, omissions, typographical and/or printing errors.



**WARNING**

IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE PERSONAL INJURY AND PROPERTY DAMAGE.

It is the sole responsibility of the system designers and users to properly select and use products for their specific applications. This document has been printed for users with technical expertise as a reference for further investigation to determine specific product needs relative to design requirements.

# SSP

Founded 1926

Privately owned, third generation business

Modern single-site vertically integrated manufacturing facility

DFARS-compliant raw material

ISO 9001 quality management system

Limited Lifetime Warranty



*The Only  
100% American Made  
Instrument Valves & Fittings*

8250 Boyle Parkway • Twinsburg, OH 44087

330-425-4250 • [www.mySSP.com](http://www.mySSP.com)

©2025 SSP Fittings Corp. All rights reserved.

SSPUIPG-25A