

# SMC Corporation Of America

## KV Series Fitting Installation / Removal Guide

### Installation



Insert the KV series fitting into port and rotate until hand tight.



Using approved assembly method, tighten KV fitting to the manufacturers recommended torque specifications.



**Rotate KV series fitting to desired location.**

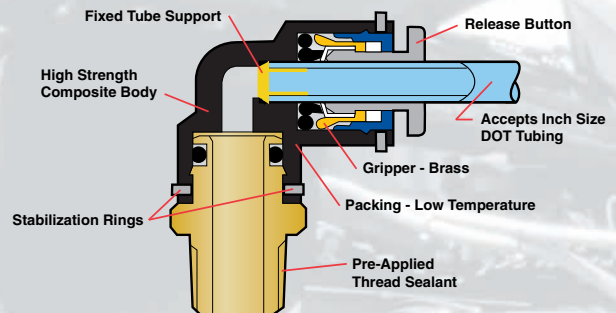


Insert SAE J844, Type A or Type B, approved tubing into the KV series fitting until the tube bottoms out.



Gently pull back on tubing to engage the gripping teeth into the tubing.

### Features



### Removal

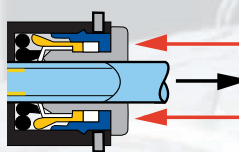


#### **CAUTION**

Release system air pressure from air tanks prior to removal of any KV fittings or DOT tubing.



Push in guide to remove tube from KV series fitting.



Depress and hold the release button against the fitting body, then remove tubing.


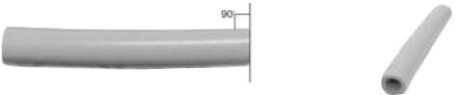
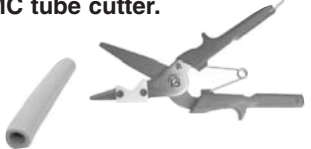










Remove KV series fitting from the fitting port with approved tool.

# Important Information!

## DO'S

## DONT'S

- 1** Tighten fitting by hand. Apply final torque with wrench at the hex. 
- 2** Cut tubing square with a clean edge. 
- 3** Use SMC tube cutter. 
- 4** Allow adequate bend radius of tube. 
- 5** Simply push the tubing until it bottoms out. Holding and sealing is accomplished instantaneously. 

- 1** Avoid using wrench on push-to-connect end. 
- 2** Avoid excessive tube angle cut which can lead to improper sealing. 
- 3** Avoid using dikes, a knife, a saw or a dull tool to cut the tubing. Avoid burrs, dirt, and anything that can cause improper sealing. 
- 4** Avoid kinking the tubing and applying excessive side load which can cause leaks. 
- 5** Do not allow contaminants to enter fittings and cartridges. 
- 6** Do not attempt to disassemble tubing from fitting with vehicle air system under pressure. 

### Specifications for Series KV - DOT & SAE Approved Fittings

Operating Fluid	Air							
Max. Operating Pressure	150psi (1.0 Mpa)							
Operating Vacuum Pressure	10 Torr (-100 kPa)							
Proof Pressure	Size	5/32"	3/16"	1/4"	3/8"	1/2"	5/8"	
	At 75°F (24°C)	1200 psi (8.3 Mpa)		1400 psi (9.7 Mpa)	950 psi (6.6 Mpa)	900 psi (6.2 Mpa)		
	At 200°F (93°C)	450 psi (3.1 Mpa)						
Ambient & Operating Fluid Temp. (Note 1)	-40°F ~ 200°F (-40°C ~ 93°C)							
Leak Rate at (-40°F)(-40°C)	7 Ncm <sup>3</sup> /min or less							
Thread	Thread Portion	ANSI/ASME B1.20.3, (NPTF male thread)					ANSI/ASME B1.20.1, (NPT female thread)	
	Nut	JISB0208 2A.2B (Unified fine thread)						
Thread Sealant	Fluorine/Acrylic							
Applicable Standards	FMVSS106, SAEJ1131, SAEJ2494 (Proposed Standard)							
Applicable Tubing	Tubing conforming to both SAEJ844 and FMVSS106 Materials: Nylon 11 or Nylon 12							
Tube O.D.	5/32", 3/16", 1/4", 3/8", 1/2", 5/8"							

Note 1) Conforming to SAEJ1131 and SAEJ2494

NOTE: Consult the component manufacturer for appropriate port torque values. Stud end torque ranges into metallic ports: 1/16 NPTF 62 to 80 in-lb; 1/8 NPTF 62 to 80 in-lb; 1/4 NPTF 106 to 124 in-lb; 3/8 NPTF 195 to 212 in-lb; 1/2 NPTF 248 to 266 in-lb.

### How To Order

Series **KV** **L** **07** - **35** **S**

Body style

H	Male Connector Straight Union
L	Male Elbow Plug-in Elbow Union Elbow
K	45° Male Elbow
Y	Male Run Tee
T	Male Branch Tee Union Tee
E	Bulkhead Connector Bulhead Union
F	Female Connector
LF	Female Elbow Male Branch "Y"
U	Plug-in "Y" Union "Y"
R	Plug-in Reducer
Q	Cartridge

Sealant

-	Without
S	With Sealant (as applicable)

Thread/Tube Size

33	1/16 NPT(F)*
34	1/8 NPT(F)*
35	1/4 NPT(F)*
36	3/8 NPT(F)*
37	1/2 NPT(F)*
00	Union
99	Plug-in

Tube Size

03	5/32"
05	3/16"
07	1/4"
11	3/8"
13	1/2"
15	5/8"

\* Per SAE proposed specifications, all male threads will incorporate NPTF threads.

Note: 1/8" tube sizes are designated by a KO series part number and is not covered under the DOT or SAE specifications.

For further information, contact your TRAMEC representative . . .



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