



Installation Instructions for 360µm to 1/16" Fitting Adapter (C360IZR1)



NOTE: C360IZR1s are for use in valves with port size of 150 microns (.006") or smaller. Using them in valves with larger ports will result in damage to the valve, the fused silica tube, or both.

The Cheminert C360IZR1 fitting connects a 360 µm fused silica tube directly into a 1/16" fitting detail, with the bore of the tube precisely aligning with the bore of the valve and the face of the PEEK insert sealing at the bottom of the fitting detail. The insert also collapses and seals around the fused silica tube during makeup, eliminating absolutely all dead and unswept volume.

The primary fitting can have either a hex head or a knurled head. *Both are intended to be hand-tightened*—knurled fittings directly with your fingertips and hex fittings with a knurled tightening tool (product number ZNFT) supplied by VICI.

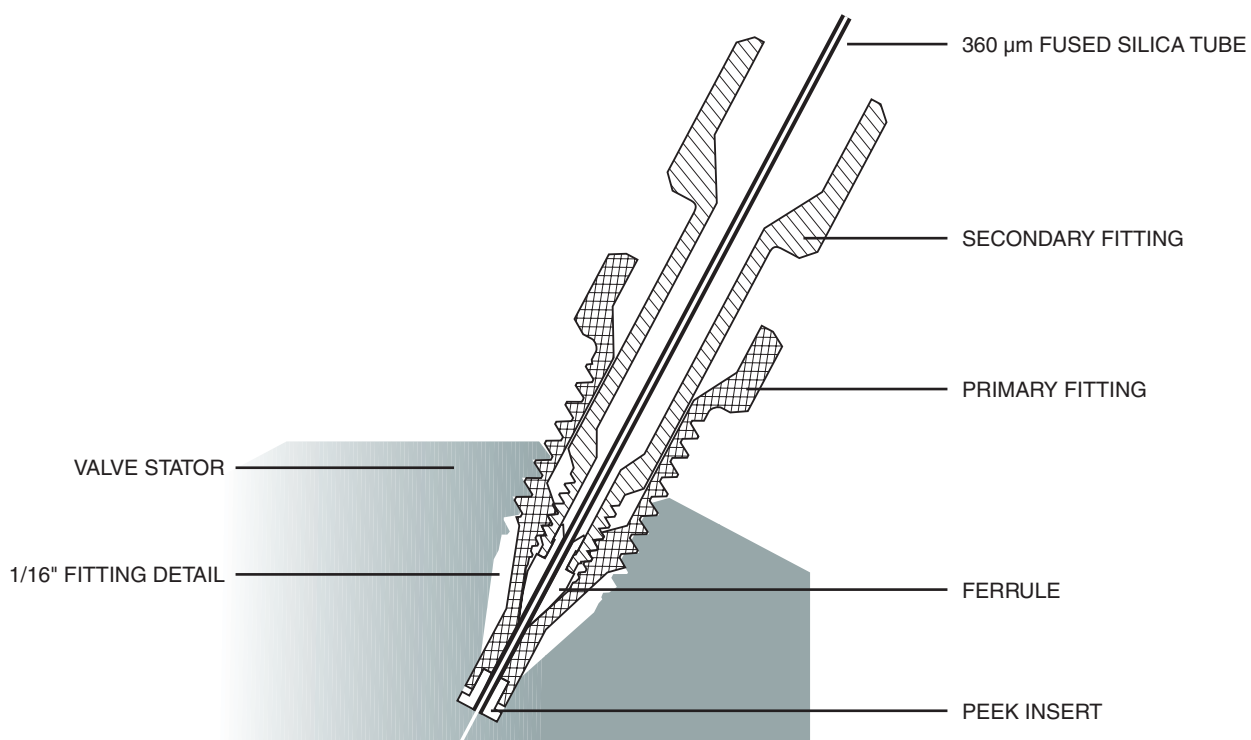


Figure 1: Components of a C360IZR1

Fused Silica Preparation

For peak performance, the ends of the fused silica tube must be lapped perpendicular and flat with our fused silica cutting/polishing kit (product number FS-KIT).

After the lapping operation, the fused silica line can be ruggedized by threading it through a length of 1/32" OD x .020" ID PEEK or ETFE tubing (product numbers TPK.520 or TTZ.520). The protective sleeve should run the entire length of the line, terminating about 1/4" inside the secondary fitting.

Instructions for Initial Makeup

Before proceeding with the steps below, unscrew the secondary fitting from the primary fitting, remove and discard the protective red plastic band, and reassemble the fitting. Do not tighten.

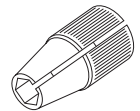
1. Insert one end of the fused silica into the fitting assembly until it extends slightly beyond the face of the PEEK insert. Make sure it is free to rotate.
2. Carefully insert the fitting assembly with the fused silica into the 1/16" fitting detail and screw it in until it bottoms out in the detail.
3. Pull the tubing out slightly and then push it back in to make sure it is against the bottom of the detail.

At this point, it is worth restating that C360IZR1s are for use *in valves with port size of 150 microns (.006") or smaller*. Using them in valves with larger ports will result in damage to the valve, the fused silica tube, or both.

4. Tighten the primary fitting, making sure that the tube remains bottomed out. Knurled head versions are simply finger tightened; hex head versions require tightening tool ZNFT.



Damage from overtightening is possible if a hex-head primary fitting is tightened with a 1/4" wrench instead of with tightening tool ZNFT.



5. Finger tighten the secondary fitting to provide additional gripping force on the tube for high pressures. The fitting is rated to 25,000 psi.

Fitting Removal

1. Loosen the secondary fitting.
2. Loosen the primary fitting and remove the fitting assembly.

Reinstallation

1. Screw the makeup fitting assembly back into the detail and tighten it gently until you feel the PEEK insert make contact with the bottom of the fitting detail.
2. Gently push in on the fused silica tube to make sure it is also touching the bottom of the fitting detail.
3. Tighten the primary fitting as in step 4 above.
4. Tighten the secondary fitting.

North America, South America, and Australia/Oceania contact:

VICI® Valco Instruments Co. Inc.
P.O. Box 55603
Houston, TX 77255
Sales: (800) 367-8424
Tech: (713) 688-9345
Fax: (713) 688-8106 valco@vici.com

Europe, Asia, and Africa contact:

VICI® VICI AG International
Parkstrasse 2
CH-6214 Schenkon
Switzerland
Phone: +41 41 925 6200
Fax: +41 41 925 6201 info@vici.ch

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