

PCU-360
Clear Union

NEW OBJECTIVE



Use & Care

rev 200602

PicoClear™ Technology employs a disposable clear insert with an inert fluoropolymer core to facilitate connections between fused-silica tubing. PicoClear Technology enhances troubleshooting ability, optimizes tubing alignment, and removes dead volume.

Components Checklist

- 2 Primary Sealing Nuts
- 2 Secondary Locking Ferrules
- 1 Reuseable Union Body
- 2 Disposable Clear Inserts with Fluoropolymer Cores

Union Assembly

1. Insert clear core into union body. Core will slide into union in only one particular orientation (FIG 1).
2. Loosely assemble both sets of sealing nuts and locking ferrules (FIG 2)
3. Obtain fused silica tubing to plumb the PicoClear union. If the tubing is not purchased as pre-cut, it must be cleaved using a diamond scribe or SHORTIX™ rotary cutter (See Technical Note FS-1).
4. Insert fused-silica tubing through one of the nut/ferrule assemblies until approximately 6 mm of tubing protrudes from the end of the sealing nut. (FIG 3) Set aside.
5. Repeat for the second nut/ferrule assembly

Installing Fused Silica Tubing into the Union

1. Insert the first assembly and length of fused-silica tubing into the clear insert (FIG 4)
2. Twist the sealing nut approximately 1/4 turn until it engages with the body. Do not tighten further.
3. Gently slide fused silica through the nut/ferrule assembly and into the union until it is positioned halfway through the clear insert (FIG 4)
4. Repeat steps 1 through 3 for the other nut/ferrule assembly
5. Adjust second inserted tubing until it butts against the first with no visible gaps between the two ends (FIG 5)
6. Alternating from one to the other, incrementally twist and tighten each sealing nut 1/2 of a turn. Tightening the primary nuts must be done in a balanced manner. Discontinue tightening when both sealing nuts are snug and the insert becomes optically clear. (FIG 6)
7. Tighten each secondary locking ferrule only to fingertight pressure to secure and seal the tubing union (FIG 7)

NOTE: Do not tighten primary sealing nuts without fused-silica tubing inserted through core. Compression of an empty core will drastically reduce the lifetime of the clear core.

Made in the U.S.A.

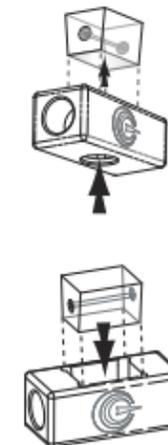
PicoClear is a trademark of New Objective, Inc. All rights reserved. U.S. and Foreign Patents Pending

Replacement of the Disposable Clear Insert

Change the clear insert when insertion of fused-silica becomes difficult and/or the insert fails to become clear when tightened. (Reorder stock #PCU-360-I)

1. Holding the union body upside-down, use a dissecting needle to apply light pressure on the clear insert through the circular window in the bottom of the union body. The insert will easily fall out of the body.
2. Insert the narrow end of a new clear insert into the union body. The insert will slide into the union body only when it is oriented correctly. Do not force the insert into the body of the union.
3. Press the new clear insert firmly into place. Discard the used insert.

Warning: Handling of fused-silica or glass tubing and tips can result in serious personal injury, including eye and skin injury. Use safety glasses or goggles meeting ANSI Z87.1-1989 requirements, or the equivalent. Puncture- and chemical-resistant gloves should also be worn at all times.



New Objective, Inc. 2 Constitution Way Woburn, MA 01801 U.S.A.

tel 781 933 9560 orders 888 290 2998 fax 781 933 9564 sales@newobjective.com www.newobjective.com

PicoClear™ Union Assembly & Use

