

CHEMINERT® MODEL C25G INSTALLATION & MAINTENANCE

Technical Note 824

INITIAL PRECAUTIONS

After unpacking the valve, do not remove the protective tape from the valve ports until you are ready to install the valve. As supplied, all surfaces are clean and free of contaminants, and must be kept clean to prevent valve damage. Open ports and fittings cause unnecessary risk of particulate matter entering the valve and scratching the sealing surfaces, which is the most frequent cause of premature valve failure.

SPECIAL 6-40 FITTINGS FOR 1/16" TUBING

These fittings are unique in that there is no ferrule required to make a leak-free connection well beyond the C25G's rated pressure of 100 psi. The compact size of the fitting allows many ports to be housed in a relatively small valve package. (For unused ports, order plugs: VICI product number CNPPK.)

Figure 1 illustrates the sealing principle of the fittings. As the fitting is tightened, the grooved area (supported by the stainless retainer) compresses enough to grip the tube to form the connection.

FIGURE 1: 6-40 fitting

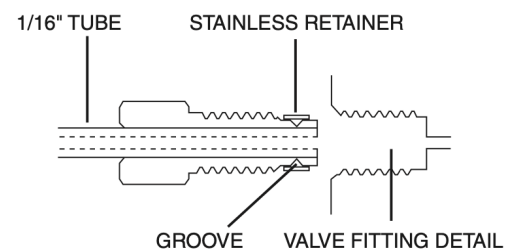


Figure 1: 6-40 fitting



WARNING: The use of any metal or non-VICI fittings in Models C25G valves may cause irreparable damage, and therefore voids the warranty.

INSTRUCTIONS FOR INITIAL FITTING MAKEUP

NOTE: It is possible that the groove may be partially collapsed from the fitting being tightened without a tube in place. This can give the false impression that the tube has reached the bottom of the detail. Usually the tubing can be forced past the groove and out through the fitting. However, it is possible that the groove is so collapsed that you cannot force the tubing through the fitting. In this case, consult the factory for a replacement.

1. Remove the fittings from the valve fitting details.
2. Slide the fitting (hex end first) onto the tubing, exposing the tubing beyond the ferrule by ~1 mm.
3. Thread the fitting/tube assembly into the detail and screw it in two or three turns.

4. Gently continue to screw in the fitting until the ferrule makes initial contact with the tubing. To determine that point of contact, as you turn the nut in small clockwise increments, grip the tubing and gently slide it in and out until you feel a very slight resistance.
5. Push the tube in firmly to make sure it is butting into the bottom of the fitting detail.
6. Tighten the nut an additional half turn using the manual tightening tool which is provided.

To remake the connection after it has been removed, simply screw the fitting/tube back into the detail until the ferrule makes contact, then tighten a quarter turn (90°).loaded, this remaining sample must be cleared out by following a simple procedure:

CLEANING AND ROTOR REPLACEMENT

Cleaning a valve can often be accomplished by flushing all the lines with appropriate solvents. Do not disassemble the valve unless system malfunction is definitely isolated to the valve.

Disassembly (Refer to Figure 2)

1. Use a 7/64" hex driver to remove the socket head screws which secure the stator to the valve body. (If you wish to purchase the proper hex driver, order VICI product number HKS.)
2. To ensure that the sealing surface of the stator is not damaged, rest it on its outer face. Or, if the tubing is still connected, leave it suspended by the tubing.
3. With your fingers or a small tool, gently pry the rotor away from the driver.
4. Examine the rotor and stator sealing surfaces for scratches. If scratches are visible to the naked eye, the part must be replaced. If no scratches are visible, clean all the parts thoroughly with an appropriate solvent, taking care that no surfaces get scratched. (A common problem is the formation of buffer crystals, which are usually water-soluble.) It is not necessary to dry the parts prior to reassembly.

Reassembly

1. Replace the rotor in the driver, making sure that the rotor sealing surface with its engraved flow passage is facing out. The rotor's tab pattern is asymmetrical to prevent improper placement.
2. Orient the stator to the valve body as shown below, with port 1 toward the VICI logo on the body. Replace the stator on the valve body, carefully engaging the alignment pins.
3. Insert the socket head screws and begin to tighten them. As they begin to get snug, tighten them alternately by quarter turns to avoid any possibility of distorting the stator. Do not over-tighten them – the screws simply hold the assembly together and do not affect the sealing force, which is automatically set as the screws close the cap against the valve body.
4. Test the valve by pressurizing the system. If it doesn't hold pressure, the valve should be returned to VICI for repair.

FIGURE 2: Exploded view of the Model C25G (orientation with actuator in "Home" position)

