

## ADAPTOR KIT, P/N 401820, INCLUDES

<u>QTY</u>	<u>PART NO</u>	<u>DESCRIPTION</u>
4	102070	O-ring, 2-202 Brown Viton
4	102912	O-ring, 2-207 Brown Viton
1	103026	Adaptor, 4VCR F x 8VCR F
2	103027	Gland, 8VCR x 3/8 in. tube
1	103028	Adaptor, 8VCR M x 3/8 in. SWG
2	103029	Nut, 8VCR M (male)
2	103030	Nut, 3/8 in. SWG
2	103031	Ferrule, Front 3/8 in. SWG
2	103032	Ferrule, Rear 3/8 in. SWG
2	103040	Nut, 8VCR F (female)

This adaptor kit is for making flowpath connections between a mid flow or high flow molstic™ or a mid/high flow metering valve kit and DUTs (devices under test) having 1/2 in. VCR or 3/8 in. Swagelok® connections. The kit can also be used to adapt from a 1E5 molbloc's 1/2 in. VCR male inlet and outlet fittings to 3/8 in. Swagelok when no molstic is used.

## INSTRUCTIONS

### When Using a High Flow molstic:

The high flow molstic outlet fitting is 1/2 in. VCR female.

- DUTs with 1/2 in. VCR male fittings can be connected directly to the available 1/2 in. VCR female connector on the molstic.
- To adapt from the molstic's 1/2 in. VCR female fitting to a device with a 3/8 in. Swagelok connection, use an 8VCR gland with an 8VCR male nut to connect to the molstic and connect directly to the DUT using 3/8 in. SWG nut and ferrules on the tube end of the 8VCR gland.
- To adapt from the molstic's 1/2 in. VCR female fitting to a 3/8 in. tube which leads to another device, connect the tube to the molstic using the 8VCR M x 3/8 in. SWG adaptor.

### When Using a Mid Flow molstic (without metering valve kit):

The mid flow molstic outlet fitting is a 1/4 in. VCR female union. To connect to devices with larger fittings, first replace the 1/4 in. union with the 4VCR F x 8VCR F adaptor. The bracket that supported the 1/4 in. VCR union must be removed from the molstic using a 3 mm Allen wrench. There is no bracket included to support the 4VCR F x 8VCR F adaptor. After installing the 4VCR F x 8VCR F adaptor, connect to other devices using the high flow molstic instructions above.

### When Adapting from a Mid/High Flow Metering Valve Kit:

The mid/high flow metering valve kit may be installed on either a mid flow or high flow molstic. Like the mid flow molstic, the metering valve kit has a 1/4 in. VCR female union at its outlet. To connect to devices with larger fittings, first replace the 1/4 in. union with the 4VCR F x 8VCR F adaptor. The bracket that supported the 1/4 in. VCR union must be removed from the molstic using a 3 mm Allen wrench. There is no bracket included to support the 4VCR F x 8VCR F adaptor. After installing the 4VCR F x 8VCR F adaptor, connect to other devices using the high flow molstic instructions above.

### When Connecting to the 1E5 molbloc (without molstic):

When a 1E5 molbloc is used without a molstic, this adaptor kit will connect the molbloc's 1/2 in. male VCR fittings to 3/8 in. Swagelok devices or connectors. Use an 8VCR gland with an 8VCR female nut on each end of the molbloc. Use the 3/8 in. Swagelok nuts and ferrules for the tube end of each gland.

## PROCEDURES FOR MAKING CONNECTIONS

### Soft O-Rings

- *Always use the soft Viton O-rings provided for making VCR connections to the molbloc.*

The O-rings supplied for making molbloc and other VCR® connections are:

- **Size:** For 1/2 in. VCR fittings: 2-207 (Parker Seal Group, O-Ring Division)  
For 1/4 in. VCR fittings: 2-202 (Parker Seal Group, O-Ring Division)
- **Material:** Fluorocarbon rubber (FKM), Viton®

Four (4) of each size O-ring are supplied in this adaptor kit. If frequent fittings changes will be made, replacement O-rings should be purchased. Avoid using a dirty or damaged O-ring.

### To Connect VCR Fittings:

- ➊ Place the O-ring securely against the sealing surface inside the female nut.
- ➋ Insert the male fitting and tighten by hand until resistance is felt when the O-ring begins to compress. When connecting an adaptor directly to the molbloc, hold the molbloc by hand and rotate the female nut.
- ➌ Turn the nut an additional 1/2 turn beyond the point of resistance. A wrench may be used on the nut if desired, but do not tighten beyond 1/2 turn. If more than 1/2 turn is needed to make a leak free connection, the O-ring may be damaged and should be replaced.

- *Never use wrenches to hold the molbloc body.*

### To make original Swagelok connections,

- ➊ Seat the tube fully into the Swagelok fitting and, using fingers, turn the nut until resistance is felt.
- ➋ Turn the nut 1 1/4 turns beyond this point of resistance with a wrench.
- ➌ For reconnecting fittings later, return the nut to the point of increasing resistance, then turn slightly more with a wrench.

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