



DESCRIPTION

molstics provide an engineered solution to the practical issues of mounting and using molbloc flow elements. Highest quality components are integrated into a convenient, compact assembly.

The gas supply is attached using a quick connector. A 2.0 micron filter protects the downstream components. Then, an adjustable (0 kPa/0 psig to 700 kPa/100 psig) regulator sets molbloc upstream pressure and protects the molbox transducers against overpressure. A shut-off valve allows the gas supply upstream of the molbloc to be shut-off. A connection and pads are provided downstream of the molbloc for mounting the device under test (DUT), or the optional needle valve kit for manual flow control.

molstic, dual, mid flow (P/N 401317) is designed to optimize use of 5E2 to 3E4 molblocs (500 sccm to 60 slm). It cannot be used for lower flow ranges which require the single (P/N 401316) or dual (P/N 401318) low flow molstics. The 1E5 molbloc requires the hi flow molstic (P/N 401663).

START UP (for Independent Operation of Each Channel)

Starting up a molstic requires connecting a gas pressure supply, adjusting the pressure regulator if necessary, and connecting the device or system to be tested downstream of the molbloc. To flow, open the isolation valve (1) for the appropriate molbloc.

- 1 **Connect the gas supply:** Connect a gas supply to the quick connector stem (1/4 in. SWG®, NUPRO® SS-QC4-D-400). Ideally, inlet supply pressure will be regulated to approximately 760 kPa (110 psig). The supply should not exceed 1 MPa (150 psig). Note: **Be sure the molstic isolation valves (1) are closed** (handle down) before connecting the quick connector stem to the quick connector.
- 2 **Install the molblocs:** Install the desired molblocs onto the molstic (see molbloc INSTALLATION AND SWAPPING below).
- 3 **Adjust the molbloc upstream pressure regulator:** The molstic is delivered with the pressure regulator set to 270 kPa absolute (40 psia) (about 165 kPa gauge (26 psig)), the most common molbloc upstream pressure setting. Depending on the molbloc's pressure dependent calibration type, a different molbloc upstream pressure setting may be needed (see the molbloc calibration report). Shut off the pressure or cap the connection downstream of the molbloc. To adjust the regulator, open the molbloc isolation valve (1). Read the molbloc upstream pressure using the [P&T] function of the molbox (see the molbox Operation and Maintenance Manual). Adjust the molbloc upstream pressure to the desired value by rotating the regulator stem (4). The regulator is NOT self venting. Once the desired pressure is set, lock the stem by tightening the jam nut on the stem. Note: **If the pressure will be adjusted frequently, the regulator knob may be installed. It is included in the molstic accessories.**
- 4 **Install the MFC/device under test:** Install the MFC to be used or tested onto the molstic downstream of the appropriate molbloc. The MFC pads (2) should assure that the MFC is at the correct height for alignment if the MFC fitting is VCR. For MFC fittings other than VCR, use the appropriate adaptor (not supplied). If you have the needle valve option (P/N 401320) for manual flow control, install it here.

Note concerning high flow operation: To achieve maximum flow rates, assure that the gas handling equipment upstream of the molstic maintains the pressure supplied to the molstic at 760 kPa (110 psig) or higher. Also, monitor molbloc upstream pressure to assure it remains within the recommended limits of the molbloc pressure dependent calibration type.



