

AIR OPERATED VALVES

INSTALLATION, OPERATION, & MAINTENANCE INSTRUCTIONS

Series:

- EAT & BAT - air pressure to open, air pressure to close
- ELT & BLT - process inlet pressure to open, air pressure to close
- EST-NC & BST-NC - air pressure to open, spring to close
- EST-NO & BST-NO - spring to open, air pressure to close
- F, BFS, & TUCA - three way valve, air to actuate, spring return

IMPORTANT - BEFORE INSTALLING

Plast-O-Matic valves will operate reliably when properly installed and used within the recommended ranges of pressure, temperature, and chemical compatibility. The ultimate determination of material compatibility is previous successful use in the same application. Call our Technical Support for information about your application.

As shown: EST-NC & BST-NC - air connection at lower port
 EAT & BAT - no spring, air connection at upper and lower port
 ELT & BLT - no spring, air connection at upper port
 EST-NO & BST-NO - spring under piston, air connection at upper port
 F, BFS, & TUCA - see catalog for construction

GEON is a trademark of The Geon Company
 KYNAR is a trademark of Elf Atochem

CORZAN is a trademark of The BF Goodrich Company
 VITON is a trademark of Dupont Company

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MATERIALS *

NAME	CODE	COLOR	MAX. TEMP.
Geon/PVC	PV	DARK GRAY	140 °F 60 °C
Corzan/CPVC	CP	LIGHT GRAY	180 °F 80 °C
Polypropylene	PP	TRANSLUCENT WHITE	180 °F 80 °C
GPP**	GPP	GREENISH OR WHITE	220 °F 105 °C
Kynar/PVDF	PF	TRANSLUCENT WHITE (yellowish)	280 °F 140 °C
PTFE	TF	OPAQUE WHITE	300 °F 150 °C
Acrylic	PLEX	CLEAR	160 °F 70 °C
Buna-N	B	BLACK	200 °F 90 °C
EPDM	EP	BLACK	250 °F 120 °C
Viton	V	BLACK OR BROWN	300 °F 150 °C

* Refer to Catalog ASO or TUCA for pressure ratings

**GPP = 20% glass filled polypropylene.

Minimum temperature 40°F (5°C).

Air pressure rating 100 PSI (actuation pressure only, these valves are not rated for gasses) See catalog for air pressure requirements

INSTALLATION INSTRUCTIONS

Install the valve in the proper flow direction as indicated by the flow label. The cylinder may be set in any position, vertical or horizontal. Plast-O-Matic recommends upright for less strain on piping.

Caution: Plastic materials will degrade in ultraviolet (UV) light or sunlight.

Caution: Polypropylene and PVDF (Kynar) often look similar. Do not install in your system if you are not sure.

THREADED CONNECTION - Apply a suitable thread sealant (for example, PTFE tape) to male tapered threads. Assemble “hand-tight” followed by up to a quarter (1/4) turn with a strap wrench. Do not over tighten or use pipe wrenches on plastic pipe and components.

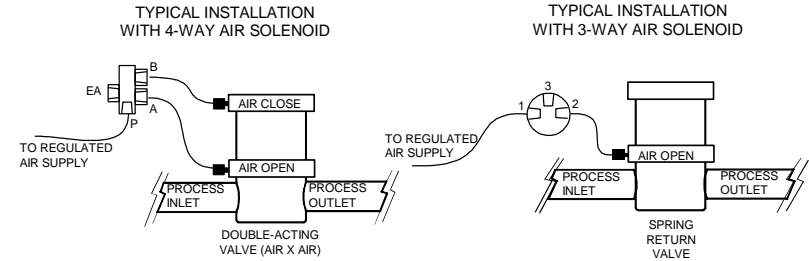
Caution: PTFE tape will “string” as pipe threads are joined. Loose “strings” could lie across the seating surface and prevent the valve from completely closing. To avoid this problem, clean out old tape, and do not apply tape to the first thread.

Caution: Connect the valve to plastic pipe and fittings only; When using metal pipe or fittings, install with an intervening plastic fitting. Metal pipe and straight threaded pipe will cut, stretch, and distort the plastic bodies, which could result in cracking or leaking over time.

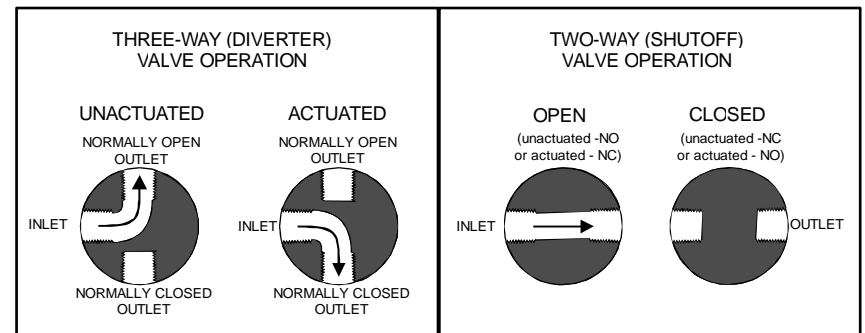
NON-THREADED CONNECTIONS - For solvent cementing or heat fusion, follow instructions supplied with the cement or fusion equipment, or contact your distributor. Take care to avoid dripping cement into the valve.

MOUNTING - These valves are designed to be supported by the piping. The piping must be properly supported, taking into account the weight of the valve, piping, and process liquid.

AIR CONNECTION -- Recommended air pressure for actuation is 65 to 100 PSI (5 to 7 bar). The air should be filtered, regulated, and lubricated, with no solvent vapors or detergents, for longer service life.



OPERATION



MAINTENANCE

REPLACEMENT SEAL KIT - Plast-O-Matic recommends keeping a spare seal kit available for repairs. Seal life will vary in applications due to cycles, temperatures, pressures, chemicals, and concentration. Based on the application, a periodic inspection and maintenance plan should be established. The seal kit part number is “SK” plus the part number less the material suffix. For example, the seal kit for BAT050V-PV is SKBAT050V.

FAIL DRY® - A vent port is provided on some models to protect the spring from contact with the liquid. If there is a failure of the primary seals, secondary seals protect the valve, and the leaking liquid drains out through the Fail Dry vent. If your valve has a threaded port, you can run a line from the port to an open drain or containment.