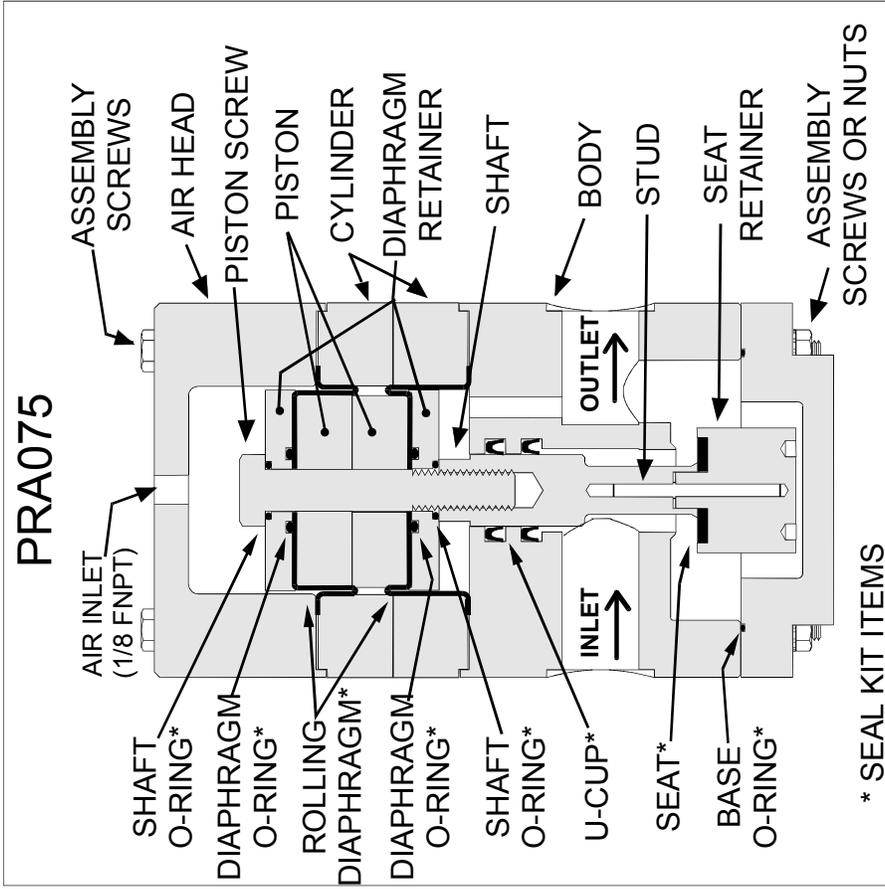


**MAINTENANCE**

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 PRA050V-PV is SKPRA050V.



# Series PRA AIR-PILOTED PRESSURE REGULATORS

INSTALLATION & MAINTENANCE INSTRUCTIONS

**IMPORTANT - BEFORE INSTALLING**

Series PRA pressure regulators will prevent downstream pressure from exceeding the set pressure, 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. PRA regulators require a customer supplied air pressure regulator (relieving type). See the Product Data Sheet or call our Technical Support for information about your application.

**Note:** Pressure regulators maintain outlet pressure only when air supply pressure and valve inlet pressure are above set pressure.

**Caution:**

1. Plastic materials will degrade in ultraviolet (UV) light or sunlight.
2. Polypropylene and PVDF (Kynar) look similar. Do not install if you are not sure.
3. Quick closing valves installed downstream of the regulator can cause water hammer. This may cause leakage or seal damage.

**RATINGS AND SPECIFICATIONS**

Set pressure Range 5-125 PSI (0.3 to 8 Bar)

BODY MAT'L	COLOR	MAXIMUM INLET PRESSURES for WATER*		at MAXIMUM TEMPERATURE
		77 °F (25 °C)	104 °F (40 °C)	
PVC	DARK GRAY	150 PSI 10 Bar	100 PSI 7 Bar	40 PSI @ 140 °F 3 Bar @ 60 °C
Polypro	TRANSLUCENT WHITE	150 PSI 7 Bar	100 PSI 7 Bar	25 PSI @ 180 °F 2 Bar @ 105 °C
Kynar PVDF	TRANSLUCENT WHITE (yellowish)	150 PSI 10 Bar	120 PSI 8 Bar	30 PSI @ 280 °F 2 Bar @ 140 °C
PTFE	OPAQUE WHITE	100 PSI 3 Bar	100 PSI 2 Bar	5 PSI @ 280 °F 35 KPa @ 140 °C

\*or compatible chemical - ratings reduced for some applications.

Minimum temperature 40°F (5°C). EPDM max. 250 °F (120°C), Buna-N max. 200 °F (95°C).

GEON is a trademark of The Geon Company

CORZAN is a trademark of The BF Goodrich Company

KYNAR is a trademark of Elf Atochem

CALL TECHNICAL SUPPORT IF FURTHER INFORMATION IS NEEDED

Shown as 3/4" (PRA075). Construction may be different for other sizes.

**Plast-O-Matic Valves, Inc.**

1384 Pompton Avenue, Cedar Grove, NJ 07009

Phone: 973-256-3000 Fax: 973-256-3000

e-mail: info@plastomatic.com

## INSTALLATION

Install the valve in the proper flow direction as indicated by the flow label. The valve may be mounted vertically or horizontally.

**THREADED CONNECTION** - Apply a suitable thread sealant (for example, PTFE tape) to male tapered threads to assure a "leak-tight" seal. Assemble "hand-tight" followed by 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 to plastic pipe and fittings only; when using metal pipe, install an intervening plastic fitting. Metal pipe and straight threaded pipe tends to cut, stretch, and distort the plastic bodies, resulting in cracking or leaking over time.

**NON-THREADED CONNECTIONS** - For solvent cementing or heat fusion, follow the instructions supplied with the cement or fusion equipment, or contact your distributor.

**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** -- The air should be filtered, regulated, and non-lubricated, with no solvent vapors or detergents, for longer service life.

### **PRESSURE SETTING**

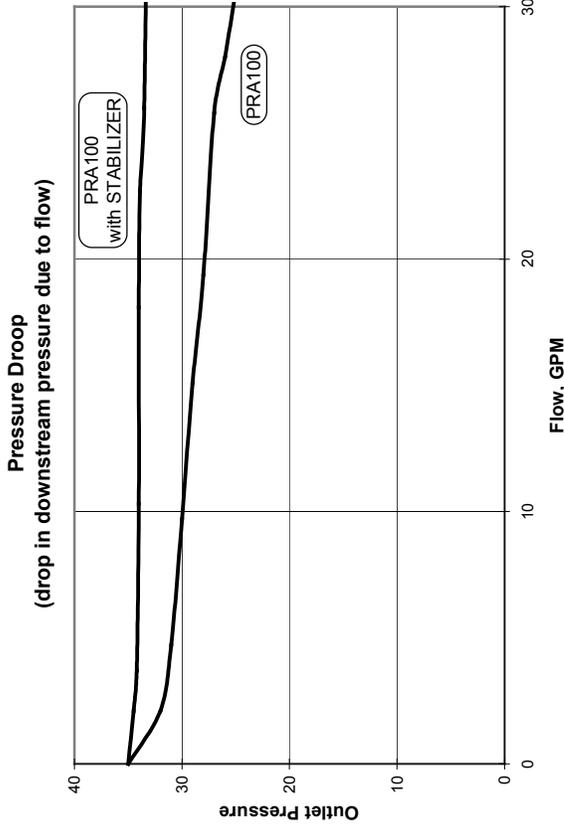
Series PRA and pressure regulators sense downstream pressure; therefore it may be helpful to install a pressure gauge at the outlet of the valve for setting. This procedure is for static (no flow) pressure setting. Under flow conditions, the outlet pressure may be slightly lower (see "Droop" chart). The pressure can also be set dynamically (with flow) using the same basic procedure.

1. Install the regulator in the piping system. Close all outlets to stop flow. The inlet pressure must be higher than the desired set pressure.
2. If the outlet pressure is low, increase air pressure until the set pressure is reached.
3. If the outlet pressure is high, reduce air pressure until the set pressure is reached\*.

\* Series PRA regulators are non-relieving. Outlet pressure will not drop unless the outlet is open to lower pressure.

## PLAST-O-MATIC SERIES PRS STABILIZER

This accessory, sold separately, uses pressure feedback from the process to adjust the air pressure. The result is process pressure held at precisely the point you set, even when conditions change severely.



### Notes:

1. The example above is for a regulator set to 35 PSI at zero flow. At other set pressures the droop (reduction of outlet pressure due to flow) will be about the same.
2. The example above is for a 1" NPT regulator. For other sizes the droop will be similar if taken over the recommended flow range.
3. Droop is not affected by inlet pressure, except that inlet pressure must exceed set pressure by enough to maintain flow. High flow rates may require inlet up to 20 PSI over set pressure.
4. When any pressure regulator is set under no-flow conditions, "droop" will cause the outlet pressure, when operating, to be lower than the set pressure.