Precise Control of Downstream Pressure
With Minimal Drop-Off from Set Pressure,
Remote Setting and Easy Adjustment

Series PRA, Air-Loaded Pressure Regulator:
- Inlet pressures to 150 PSI.
- Downstream settings from 5 to 125 PSI.
- Outperforms spring-loaded regulators through improved response to pressure changes; pressure is maintained without sacrificing flow.
- Performance rivals control valves, at much lower cost.
- Ideal for applications requiring frequent adjustment or remote control.
- Multi-million cycle design.
- Dual rolling diaphragms provide exceptional sensitivity.
- One piece body and double u-cup design prevent leakage and eliminate “creep”.
- Can be used to control any flow related parameter via sensors and E/P controller.
- For critical ultra-pure and corrosive liquid applications.

Materials of Construction and Piping Connections:
Standard connections are female NPT threaded ports. Socket, flanged and spigot connections are also available. Standard body materials are Grade 1 Type 1 PVC, Natural Polypropylene, and Kynar PVDF. Standard seal materials are Viton and EPDM. Some Kynar PVDF components are used in the Natural Polypropylene models for strength. External fasteners are stainless steel. For materials other than listed, please consult factory.

Controlling Pressure and Other Flow Related Parameters:
When used as a pressure regulator (pressure reducing valve), Series PRA requires no electronics; it simply needs compressed air and a relieving-type air regulator for operation. Plast-O-Matic offers a dynamic relieving-type regulator, Series PRS, which loads the PRA with greater accuracy by reacting to actual downstream pressure.

Controlling Pressure with Series PRA...
SERIES PRA AIR LOADED PRESSURE REGULATOR

To use Series PRA to control other flow related parameters, such as flow rate, pH, viscosity, temperature, etc., a transducer, controller, and E/P or I/P controller is required.

The PRA is also a Control Valve...

OPERATION:
Series PRA pressure regulators prevent downstream pressure from exceeding the desired set pressure. Regulator will remain closed as long as set pressure is maintained. As equipment or valves downstream of the regulator begin to open and demand flow, the downstream pressure begins to fall and the regulator begins to open. As valves or equipment downstream open further, the pressure regulator continues to open until its maximum opening is reached. As the process is reversed, downstream pressure begins to increase and the regulator starts closing. When the downstream pressure again reaches set pressure the regulator closes bubble-tight. IMPORTANT: It should be noted from the preceding explanation that a pressure regulator does not maintain a specific downstream pressure, but only prevents the downstream pressure from exceeding a set point.

REGULATOR PERFORMANCE CURVES
Flow Capacity (gpm) vs. Pressure Drop-Off (psi)
Comparison of Representative Plast-O-Matic Models with Competitors “A”, “B”, “C”

REGULATORY PERFORMANCE CURVES
Flow Capacity (gpm) vs. Pressure Drop-Off (psi)
Comparison of Representative Plast-O-Matic Models with Competitors “A”, “B”, “C”

SERIES PRA MODEL NUMBERS
MAXIMUM FLOW RATES

<table>
<thead>
<tr>
<th>Valve</th>
<th>EPDM Seals</th>
<th>Viton Seals</th>
<th>Flow Rates GPM*</th>
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<tr>
<td>Size</td>
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<td>Model No.</td>
<td>Flow Rates GPM*</td>
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<td>PRA025V</td>
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<tr>
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<td>PRA300EP</td>
<td>PRA300V</td>
<td>200</td>
</tr>
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NOTE:
Refer to Catalog PR/PR/PRH for Information on Plast-O-Matic Spring-Loaded Pressure Regulator Models.

"Sail-Dry" SAFETY VENT
"DUAL LARGE AREA ROLLING DIAPHRAGMS"

PLAST-O-MATIC

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