**DESCRIPTION**

The dome loaded Premier P91W Series serves as a replacement for the Mity Mite 91W, and features a new and improved diaphragm seal. The P91W Series dome-loaded, back pressure regulator operates to maintain a constant upstream pressure by sensing the upstream pressure and limiting it through constant throttling. The dome must be charged (externally) from a gas pressure source; two NPT connections are available (1 for dome loading and the second for an optional gauge). The P91W Series features a control pressure range of 100-2000 PSIG (6.89 - 137.9 bar) / 100-3000 PSIG (6.89 - 206.84 bar) for stainless steel models, PTFE diaphragm, Cv: 0.38 or 0.17 and can be used to control both gases and liquids as compatible with the materials of construction.

**FEATURES**

- New and improved PTFE diaphragm seal
- External dome load
- Cv: 0.38 or 0.17
- Machined bar stock body, bonnet and piston eliminates porosity found in castings
- Optional precharge isolation valves available

"The dome loaded Premier P91W Series back pressure regulator’s design is remarkably flexible. Contact Premier Industries for a custom dome loaded Premier P91W Series back pressure regulator to meet your exact needs."
**SPECIFICATIONS**

- **CONTROL PRESSURE RANGE:**
  - 100-2000 PSIG / 6.89 - 137.9 bar (aluminum body)
  - 100-3000 PSIG / 6.89 - 206.8 bar (stainless steel body)
- **FLOW (Cv):** 0.38 or 0.17
- **AMBIENT OPERATING TEMPERATURE RANGE:**
  - -65°F/-54°C to 200°F/93°C (PTFE)

**MATERIALS OF CONSTRUCTION**

- **BODY:**
  - 2024-T4 Aluminum
  - 316 Stainless Steel
- **BONNET:** 2024-T4 Aluminum
- **DIAPHRAGM:** PTFE
- **O-RING, NON-WETTED:** Viton®

**PORTING**

- **INLET PORTING:**
  - 1/4” FNPT
- **OUTLET PORTING:**
  - 1/4” FNPT
- **EXTERNAL DOME LOADING/GAUGE CONNECTIONS:**
  - 1/4” FNPT and 1/8” FNPT (interchangeable)

**OPTIONS**

- Precharge isolation valves
- Gauges
- Private label

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Viton® is a registered trademark of E.I. duPont de Nemours and Company
## MITY MITE REPLACEMENT
### DOME LOADED
#### Back Pressure Regulators

**PART #** | 1 | 2 |
--- | --- | --- |
50-12253 | | |

| 1 | BODY MATERIAL  
**MAX. INLET PRESSURE** |
|---|--------------------------|
| Blank | 2024-T4 Aluminum  
**(100-2000 psig / 6.89 - 137.9 bar)** |
| S | 316 Stainless Steel  
**(100-3000 psig / 6.89-206.8 bar)** |

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<tr>
<th>2</th>
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Contact factory for material certifications. Fees may apply.