GENERAL DESIGN FEATURES

- Designed for High Pressure Applications of 10,000 PSI
- High Pressure Stage (HPS): Multi-Stage Design for continuous operation with high pressure drops.
- Field proven design with variable orifice and pressure balanced piston
  - **Maximum debris and filming tolerance** - The ceramic coated surface eliminates filming and helps prevent clogging
  - **High turndown** ratios; Flow ranges of 1 GPD to 600 GPD and 50 GPD to 2000 GPD
- Compatible sealing with most chemicals (Scale, Corrosion, Asphaltene, Wax Inhibitors, Demulsifier, Antifoam, and Methanol)
- Available with SkoFlo’s automated SF3 model (combination of actuator, valve, and flowmeter packaged into one modular structure), actuator mount, or handle for manual operation
- Proven and reliable technology since 1988

HIGH PRESSURE STAGE

- SkoFlo’s Multi-Stage CIMVs utilize the same primary stage design that has demonstrated reliable and accurate chemical injection for over 25 years.
- High Pressure Stage limits pressure drop across primary stage to minimize cavitation for maximum reliability
- Reliably manages a maximum intermittent pressure drop at full scale flow up to 10,000 psi and a maximum continuous pressure drop of 6,500 psi at full scale flow

PRESSURE-BALANCED PISTON

- **Pressure Independence** – Upstream and downstream pressure fluctuations create a net force on the patented pressure balanced piston which is countered by a spring force to maintain constant flow
- **Stable and Accurate Flow Delivery** – Pressure-balanced piston provides instantaneous means of control at different injection points from a common line that is more tolerant to debris and fluid filming. No Pneumatic or electric power sources are required for control.
- **Debris Management** – Accumulated debris results in a net force on the piston that instantly sheds the debris

SKOFLO BENEFITS

- 30-year experience, industry expert and solution provider
- Pressure Independent Valve Technology (PIVT)
- Significant chemical OPEX cost savings
- Unmatched flow delivery accuracy, proven reliability
FLOW CHARACTERISTICS

| Flow Range          | Range 1: 1 GPD to 600 GPD  
|                     | Range 2: 50 GPD to 2000 GPD |
| Flow Delivery       | Maintains set flow rate despite debris and upstream or downstream pressure fluctuations. |
| Minimum Differential Pressure (@ Maximum calibrated flow) | 300 psi (21 bar) required to regulate flow independent of pressure at max flow capacity of the valve. (For fluid viscosities 50-100cP, consult factory for minimum required pressure drop) |
| Flow Delivery Accuracy* | ±5% of reading |

DESIGN RATINGS

| Design Standards    | ASME Section VIII, NACE MR0175 |
| Design Life         | 25 years |
| Working Pressure Rating | 10,000 psig (690 barg) |
| Proof Test Pressure | 15,000 psig (1034 barg) |
| Operating Temperature Rating | 0° to 40°C (32° to 104°F) |
| Storage Temperature Rating | -25° to 70°C (-13° to 158°F) |
| Weight              | 18 lbs (8.2 Kg) |

INTERFACE

| Process Connection  | 3/8” MP Female Autoclave |
| Mounting            | Base: 2 x M6 x 1 – 6H holes |
|                     | Top: 4 x M6 x 1 – 6H holes |
| Handle Torque       | <8 ft-lbf (at max rated working pressure) |

MATERIALS

| Chemically wetted Material | NACE MR0175  
|                           | 3.1 certification per EN 10204 |
| Pressure Containing Material | 3.1 certification per EN 10204 |
| Metallic components       | Nitronic 50HS, 316/316L SS, Inconel 718 and 718 silver plated, Peek, Elgiloy, Hastelloy, Carbide BC-6N |
| Non-metallic Material     | FFKM, Graphite Filled PTFE, Ceramic, Peek |
| Valve Trim                | Ceramic |

*The accuracy that a CIMV delivers chemical in relation to the target/set flow rate regardless of any pressure fluctuations or debris.
OUTLINE DIMENSIONS

**INLET**

\[\frac{3}{8}\) MP AUTOCLAVE

**VARES**

7.77 - 7.62

[197 - 194 mm]

\[5.79\ [147 \text{ mm]}\]

\[5.04\ [128 \text{ mm]}\]

\[\phi 3.95\ [100 \text{ mm]}\]

\[1.35\ [34 \text{ mm]}\]

\[1.62\ [41 \text{ mm]}\]

**PRESSURE DROP REFERENCE**

\[\frac{3}{8}\) MP AUTOCLAVE

\[2.35\ [60 \text{ mm]}\]

\[.85\ [22 \text{ mm]}\]

\[1.10\ [28 \text{ mm]}\]

**OUTLET**

\[\frac{3}{8}\) MP AUTOCLAVE

\[2X M6x1 - 6H \bar{\tau} .40\]

\[2.25\ [57 \text{ mm]}\]