

GENERAL DESIGN FEATURES

- ▶ Designed for High Pressure Applications of 10,000 and 15,000 PSI
- ▶ High Pressure Stage: Multi-Stage Design for continuous operation with high pressure drops
- ▶ Field proven design with fixed orifice and pressure balanced piston
- ▶ Compatible sealing with most chemicals (Scale, Corrosion, Asphaltene, Wax Inhibitors, Demulsifier, Antifoam, and Methanol)
- ▶ Available with actuator or handle for manual operation
- ▶ Proven and reliable technology since 1988



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

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 or 15,000 psi and a **maximum continuous pressure drop of up to 8,000 psi** at full scale flow

FLOW CHARACTERISTICS

Available Flow Range	1 to 2000 GPD (0.16 to 315 liters/hr)
Turn-Down Ratio	Ratio of maximum calibrated flow to minimum calibrated flow -10 to -500: 10:1 -500 & -1000: 3:1 -2000: 2:1
Flow Delivery	Maintains set flow rate despite debris and upstream or downstream pressure fluctuations.
Minimum Differential Pressure (@Maximum flow)	300 psi (20.7 bar) required to regulate flow independent of pressure. (50% MEG in water at room temperature). For fluid viscosities 50-100cP, consult factory for minimum required pressure drop)

FLOW RATES

Dash Size	Min (GPD)	Max (GPD)	Min (LPH)	Max (LPH)	Turndown
-10	1	10	0.16	1.6	10:1
-20	2	20	0.32	3.2	10:1
-30	3	30	0.47	4.7	10:1
-40	4	40	0.63	6.3	10:1
-50	5	50	0.79	7.9	10:1
-75	8	75	1.3	12	10:1
-100	10	100	1.6	16	10:1

Dash Size	Min (GPD)	Max (GPD)	Min (LPH)	Max (LPH)	Turndown
-150	15	150	2.4	24	10:1
-200	20	200	3.2	32	10:1
-300	30	300	4.7	47	10:1
-400	40	400	6.3	63	10:1
-500	50	500	7.9	79	10:1
-750	250	750	39	118	3:1
-1000	300	1000	47	158	3:1
-2000	1000	2000	158	315	2:1

*CONSULT FACTORY FOR APPLICATIONS OUTSIDE OF STATED FLOW RANGES

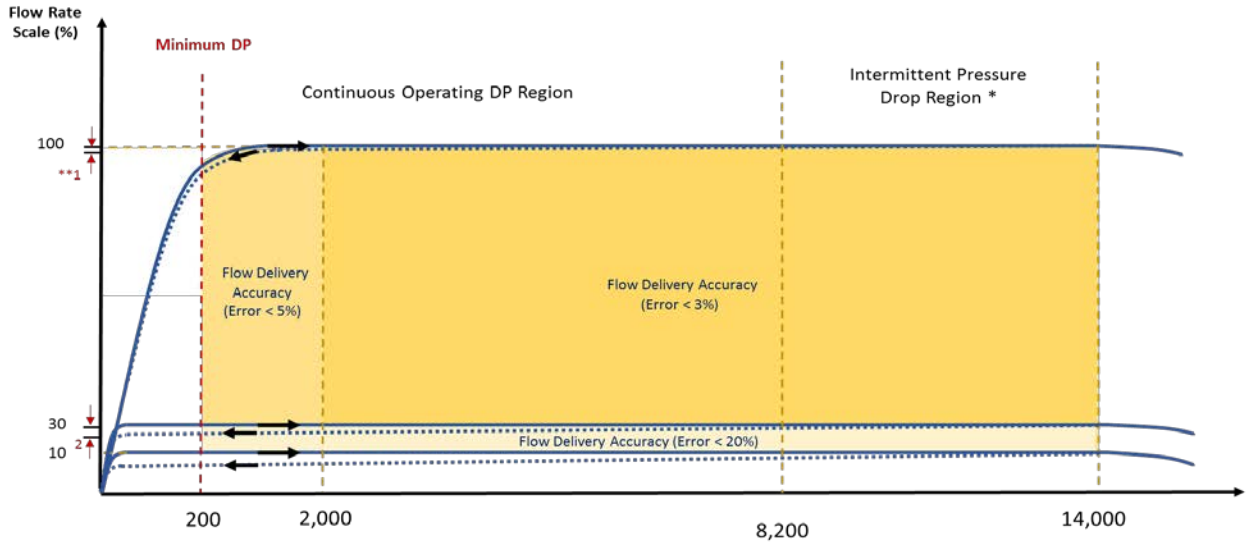
DESIGN RATINGS

Design Standards	NACE MRO175 Material Selection, ASME BPVC-VIII for Wall Thickness and Stem Retention		
Design Life	25 years		
Working Pressure Rating	10,000 or 15,000 psig (690 or 1034 barg)		
Proof Test Pressure (Shell)	15,000 or 22,500 psig (1034 or 1551 barg)		
Operating Temperature Rating	FKM	FFKM	EPDM
	0°F to 160°F (-20°C to 70°C)	32°F to 113°F (0°C to 45°C)	-50°F to 160°F (-45°C to 70°C)
Storage Temperature Rating	-50°F to 160°F (-45°C to 70°C) *Consult Factory for Applications below -13°F		
Viscosity	0.5 - 100 cp		
Debris tolerance	SAE AS4059 Class 12B-F		
Installation Orientation	Horizontal or Vertical		
Envelope Dimensions	12.8in x 3.43in x 5.93in (325mm x 87 mm x 150.6mm)		
Weight (no actuator)	32 lbs (14.5 Kg)		
Process Connections	3/8" AE MP Female; Optional Grayloc (consult factory)		

MATERIALS – CHEMICALLY WETTED

Valve Body	Nitronic 50HS
Metallic components	Nitronic 50HS, 316/316L SS, Inconel x750, x718, Elgiloy, Hastelloy
Non-metallic components	PEEK, PTFE, FFKM, FKM, EPDM, Carbide, Ceramic
Trim (Primary and HPS)	Primary: Ceramic, Secondary Pressure Drop Stage: Carbide/Ceramic

Pressure Drop Region and Flow Delivery Accuracies



*Intermittent Pressure: Non-continuous pressure drop (Maximum 200 hrs. without degrade in performance)

**Hysteresis: The percentage drop in Flow Rate upon changing the DP from Minimum to Maximum and back to Minimum DP.

Flow Rate Drop could occur due to Hysteresis by:

- 1) 1.5% of the reading at 100% Flow Rate Scale
- 2) 5.0% of the reading at 30% Flow Rate Scale

