JSRHULP Series

High Flow Bio-Pharma Clean Gas Pressure Reducing Valves

The JSRHULP Series high purity, gas, ultra low pressure regulator was designed and built specifically for Bio-Pharma gas applications.

Traditionally, manufacturers adapted their industrial gas regulators for use in biopharm by simply changing the construction materials and surface finish. Not so with the JSRHULP. It's been designed specifically to eliminate the exposed threaded connections associated with those traditional designs. And, it features an in-line removable trim set to facilitate quick trim change out and cleaning without valve removal.

The durable valve body and metal trim components are machined from ASTMA479 316L SST barstock and the internal components are finished to ASME BPE SF5 20Ra µin (0.5 Ra µm), electropolished standard. The valve is outfitted with the rugged Jorlon diaphragm and EPDM seats and seals that are all FDA approved, USP Class VI compliant materials.



Features

- No exposed threaded connections
- Integral outlet pressure sensing line. No need to connect sensing line directly to vessel.
- In-line removable seat and trim facilitate cleaning and maintenance
- Barstock construction guarantees material integrity and surface finish
- Minimized internal volume
- Proprietary Jorlon diaphragm material provides exceptionally long life, CIP/SIP capability, and FDA and USP Class VI compliance
- Soft seat material for ANSI Class VI shutoff

* Panel Mount feature available

Documentation

The following documentation is shipped at no charge:

- Steriflow Unicert, a QC signed Certificate of Compliance for:
  - Material, listing heat numbers with attached MTR's
  - Surface Finish
  - FDA/USP Class VI - for all thermoplastic and elastomers
- Traceability:
  - Each individual product serial number is traceable to the Unicert serial number, heat numbers and attached MTR's

Other documents must be requested at time of RFQ, or order:

- ADI/TSE Free, Certified Test reports, Certificate of Origin.

Applications

Ideal for clean, compressed air and gas typically used in bio-pharmaceutical stainless or Single Use Vessels and Process Systems

- Clean Process Air
- Nitrogen
- Carbon Dioxide
- Argon
- Oxygen
- Custom sparge, purge or blanket gas

STERIFLOW
a division of Jordan Valve

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Specifications

Sizes: 1/2" (DN15), 3/4" (DN20) & 1" (DN25)
End Connections: Tri-clamp, consult factory for others
Gauge Ports: 1/4" FNPT is standard. Consult factory for others
Lower Diaphragm Plate/ Body and Diffuser Material: ASME SA479 316L (UNS 31603) is standard. EN 10272:2000 GR 1.4435, AL-6XN®, Hastelloy®C-22 and others are optional.
Trim Material:

- Stem: S21800 Nitronic® 60 Stainless Steel
- Wetted Spring: 316SS

Body Seals: Elastomer o-rings (EPDM, Viton, Silicon, Kalrez); PTFE gasket - All FDA and USP Class VI compliant
Soft Seat Materials for ANSI Class VI Shut-Off:

- EPDM to +275°F (135°C) FDA, USP Class VI*

Shutoff: Class VI
Spring Range:

- 4-18" H_2O (0.14 - 0.65 PSI)

Sizing: Use SVCV Steriflow software sizing module, Size at 60% capacity

Maximum Operating Pressure: 230 psi max inlet @ 100°F / psi max ΔP (15,8 bar @ 37,7°C)
Maximum Operating Temperature: 150 psi max inlet @ 275°F (10,3 bar @ 135°C)
Optional Cleaning Specifications

- Clean for Oil-Free
- O2 Cleaning complying with ASTM G93-03 2011 and CGA G-4.1-2009

Flow Capacity - Cv (Kv)

- 1/2": Cv 1.5 (Kv 1,3)
- 3/4" & 1": Cv 1.9 (Kv 1,64)

Failure - Cv (Kv)

- 1/2": Cv 1.8 (Kv 1,56)
- 3/4" & 1": Cv 2.28 (Kv 1,97)

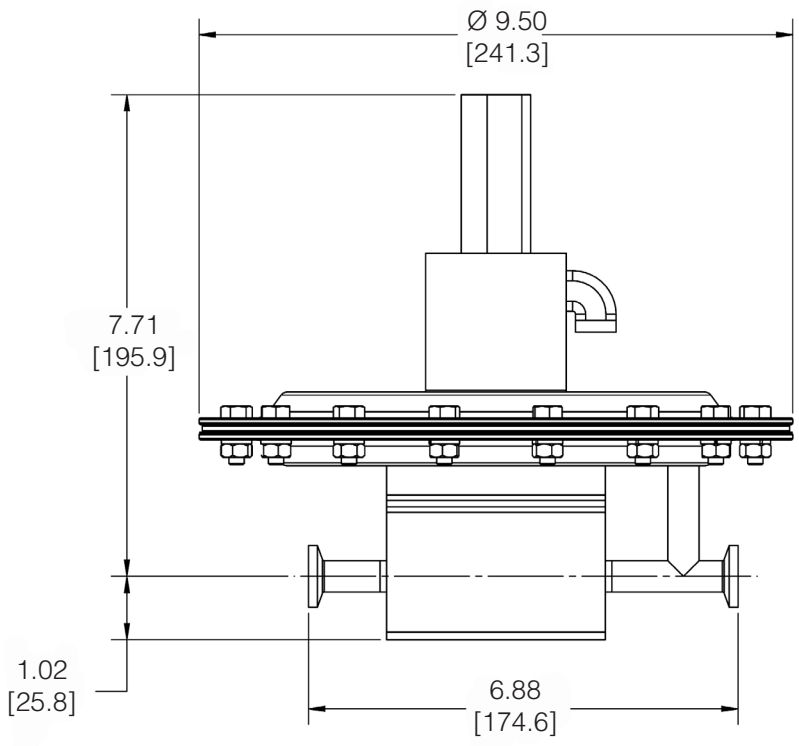
Surface Finish:

- Wetted Internal surface finish: Mechanically polished, and electropolished to ASME BPE SF5, 20 Ra µin (0.5 Ra µm) as standard*
- Exterior surface finish: Mechanically polished, and electropolished to 40 Ra µin (1.0 Ra µm) as standard
- Other finishes available upon request

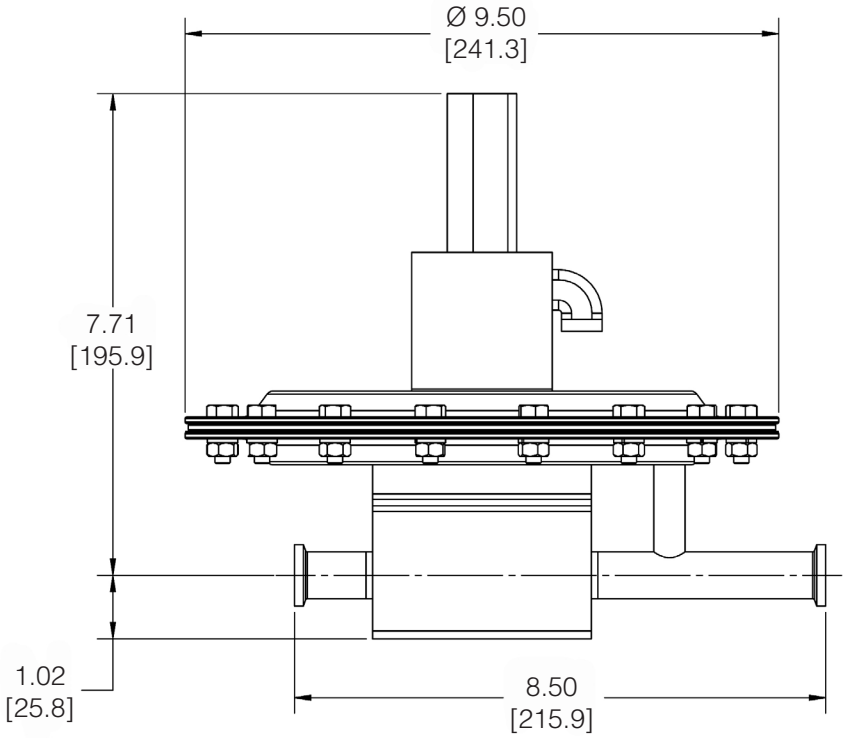
Note: For a complete ancillary list of all wetted and non-wetted material specifications, please contact Steriflow Valve.

* NPT treaded end valves: Threads are not 20 Ra (0.5 Ra). Bottom of outlet cavities (inlet, outlet, or gauge ports) are machine finish only. They cannot be polished to spec without damaging the treads. For pure gas installations, Tri-clamp, or weld end connections recommended if specific surface finish is required at bottom of cavity ports.

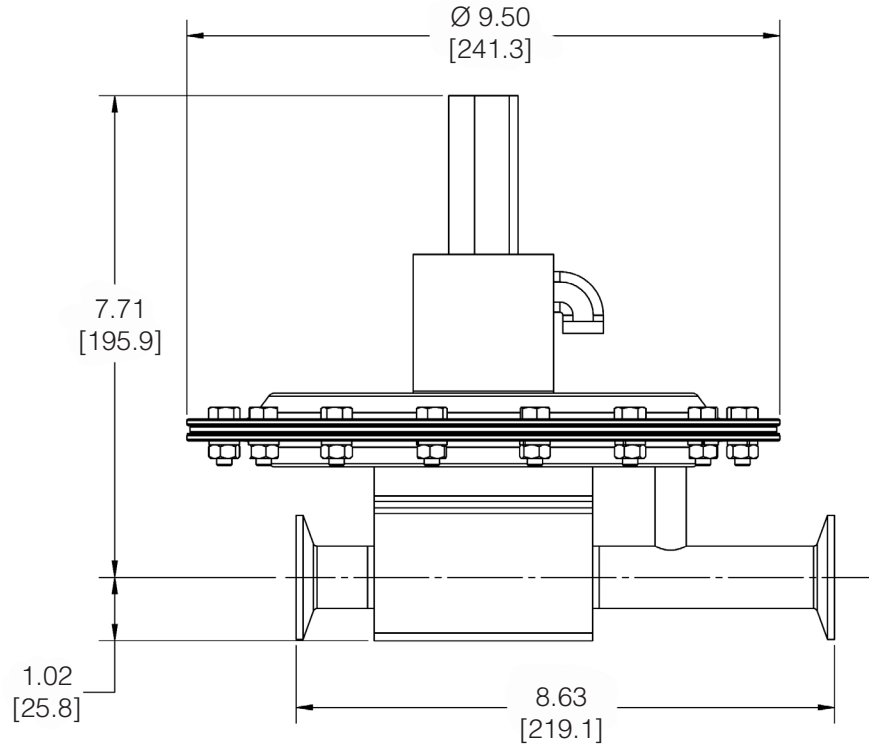
Dimensions 1/2" JSRHULP Sanitary Pressure Reducing Valve F/ Ultra Low Pressure. 1/2" ASME BPE Tri-Clamp Ends



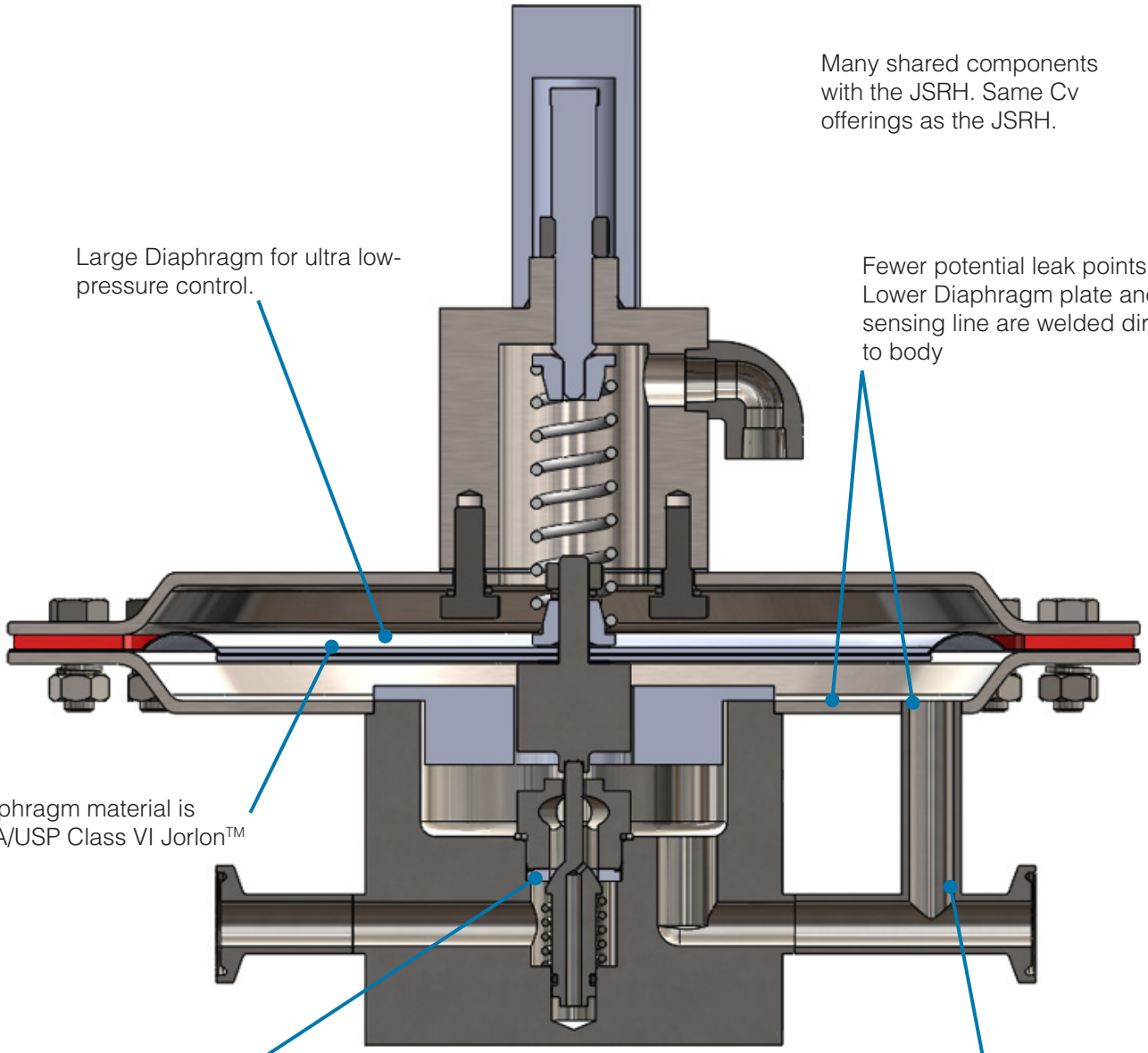
Dimensions 3/4" JSRHULP Sanitary Pressure Reducing Valve F/ Ultra Low Pressure. 3/4" ASME BPE Tri-Clamp Ends



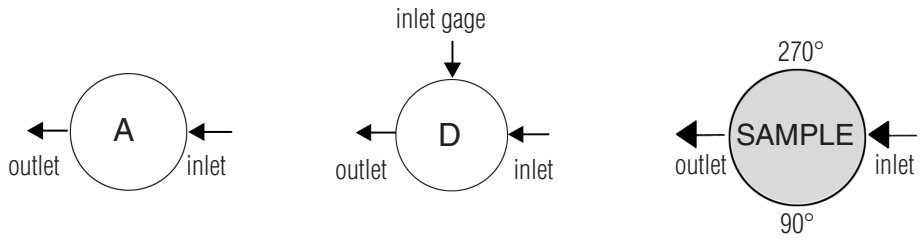
Dimensions 1" JSRHULP Sanitary Pressure Reducing Valve F/ Ultra Low Pressure. 1" ASME BPE Tri-Clamp Ends



Features & Benefits



Flow Configurations/ Gauge Ports

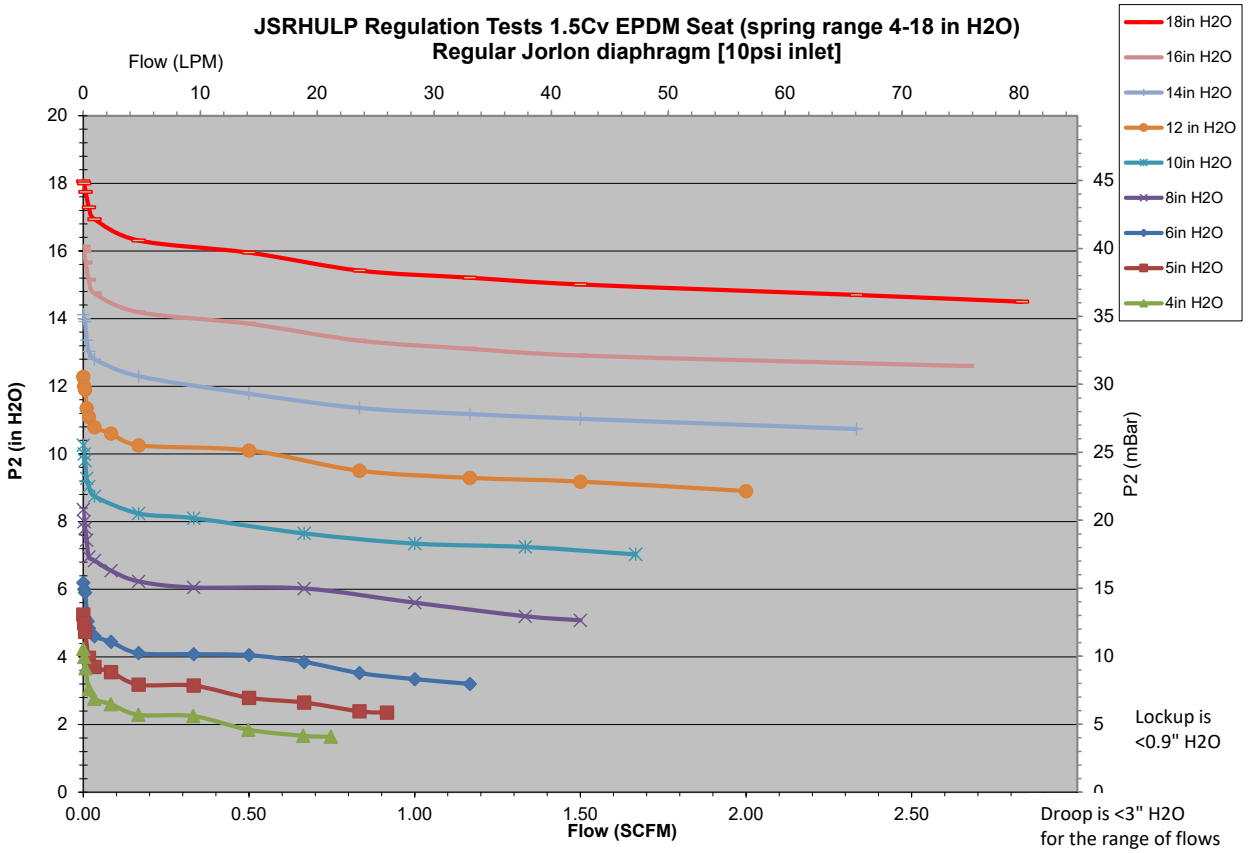


* Gage ports are 1/4" FNPT.

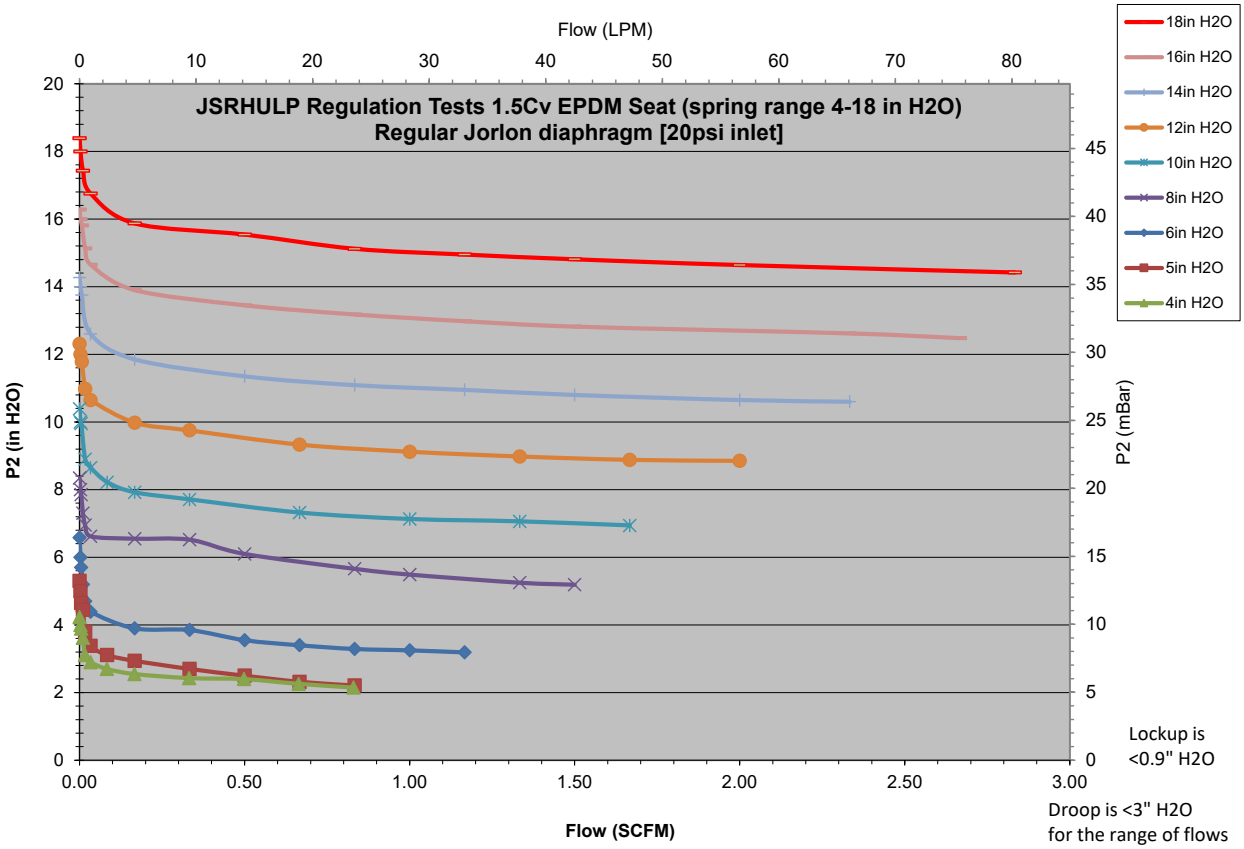
Sample Specifications

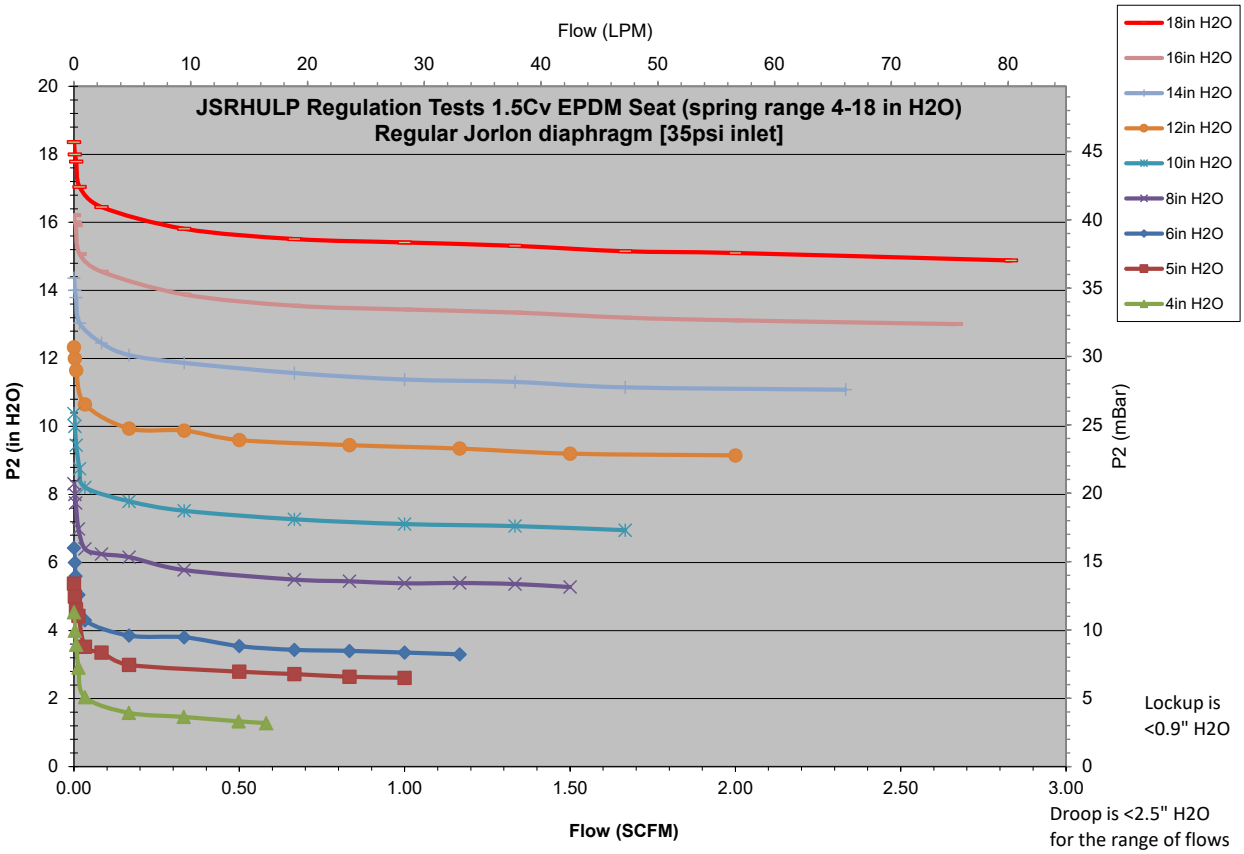
Stainless Steel pressure regulator shall be made from ASTM A479 barstock material, which includes body and all wetted metal parts. Regulator shall have integral outlet pressure sensing line and be free of exposed threads within wetted process area. Regulator shall have one piece diaphragm subassembly, and trim that can be replaced inline after removing upstream and downstream system pressure.

JSRHULP Regulation Tests

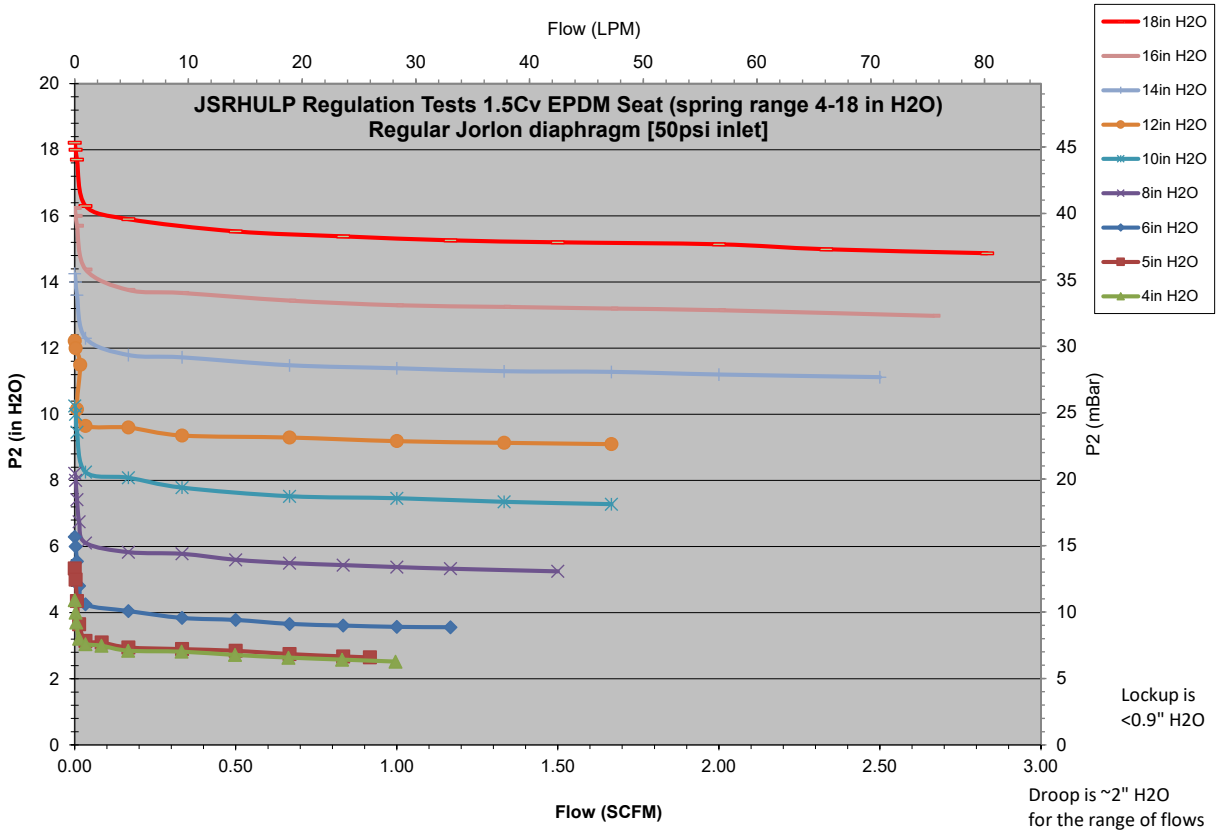


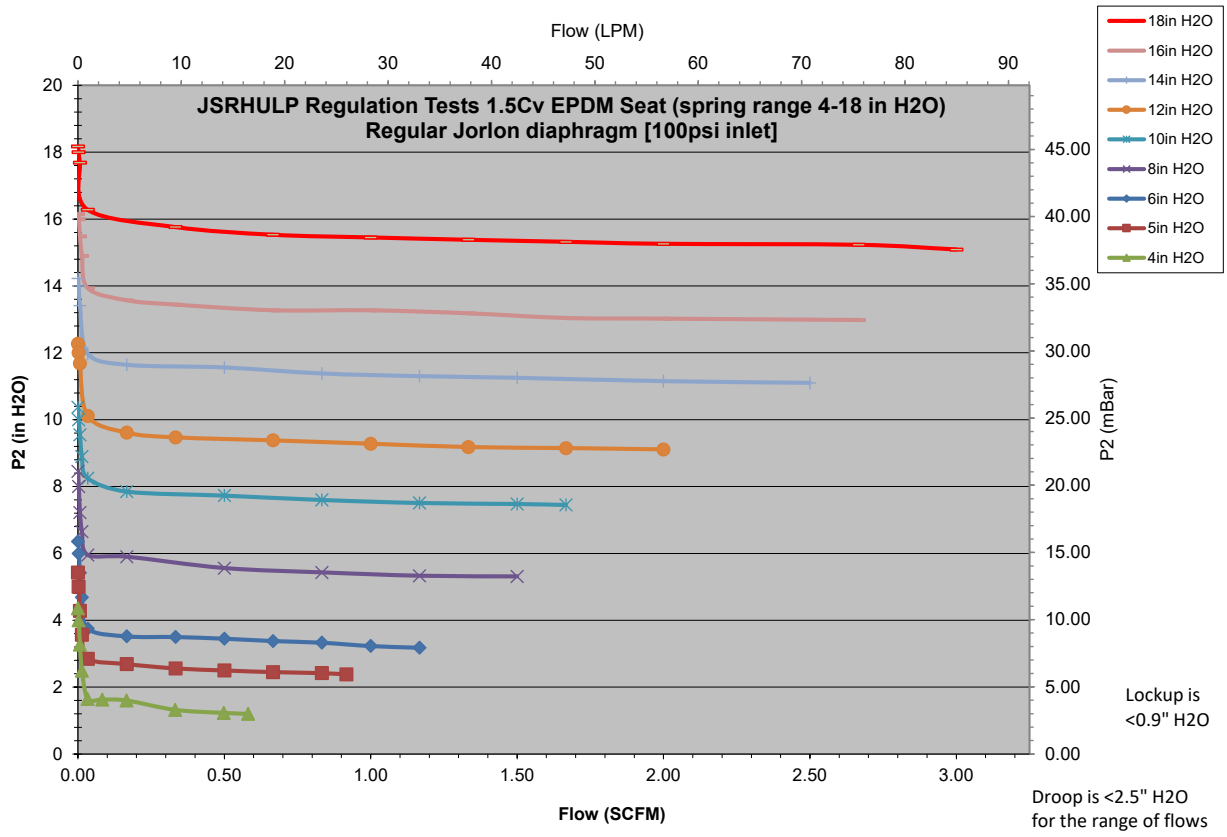
JSRHULP REGULATION TESTS



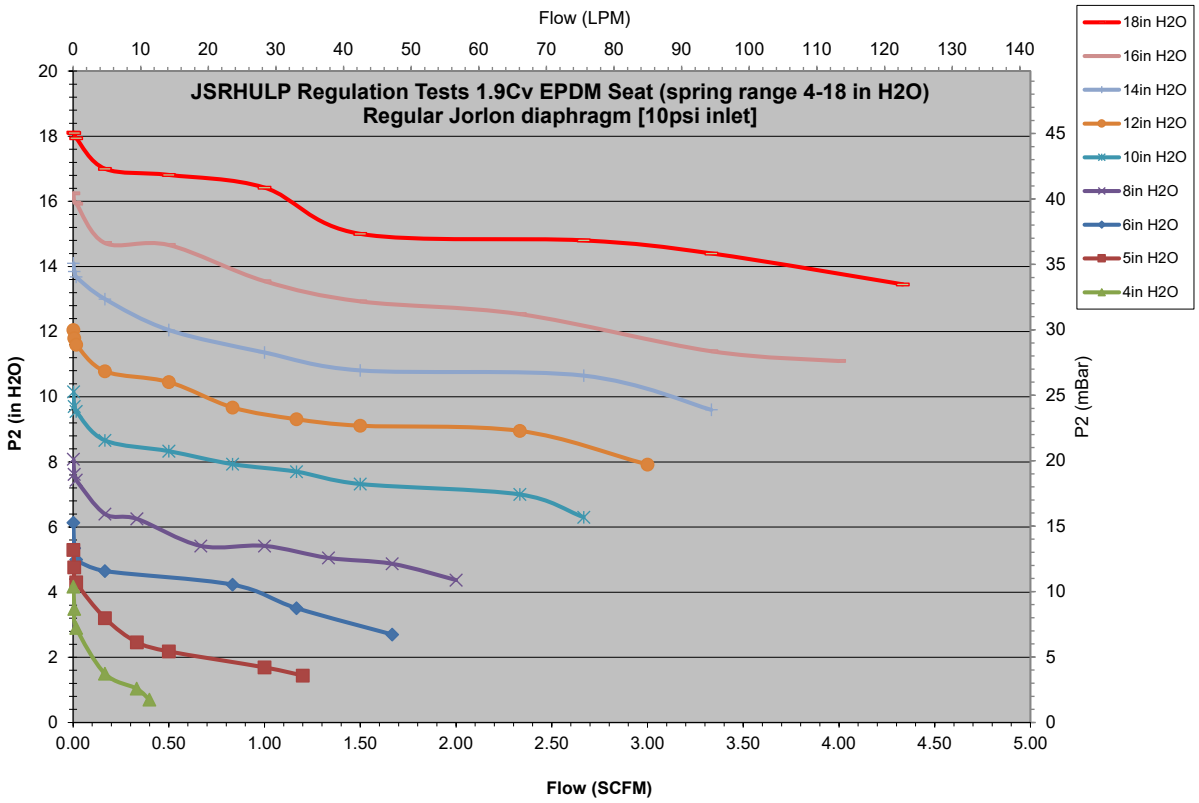


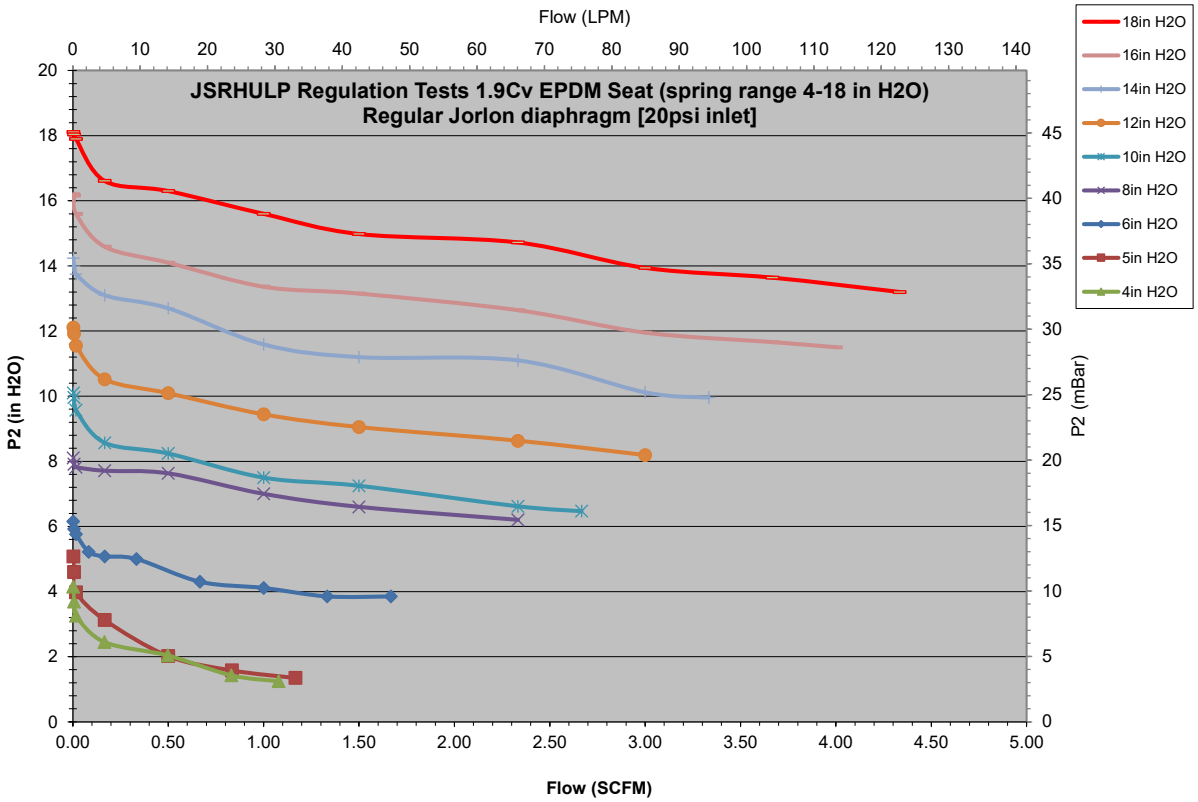
JSRHULP REGULATION TESTS



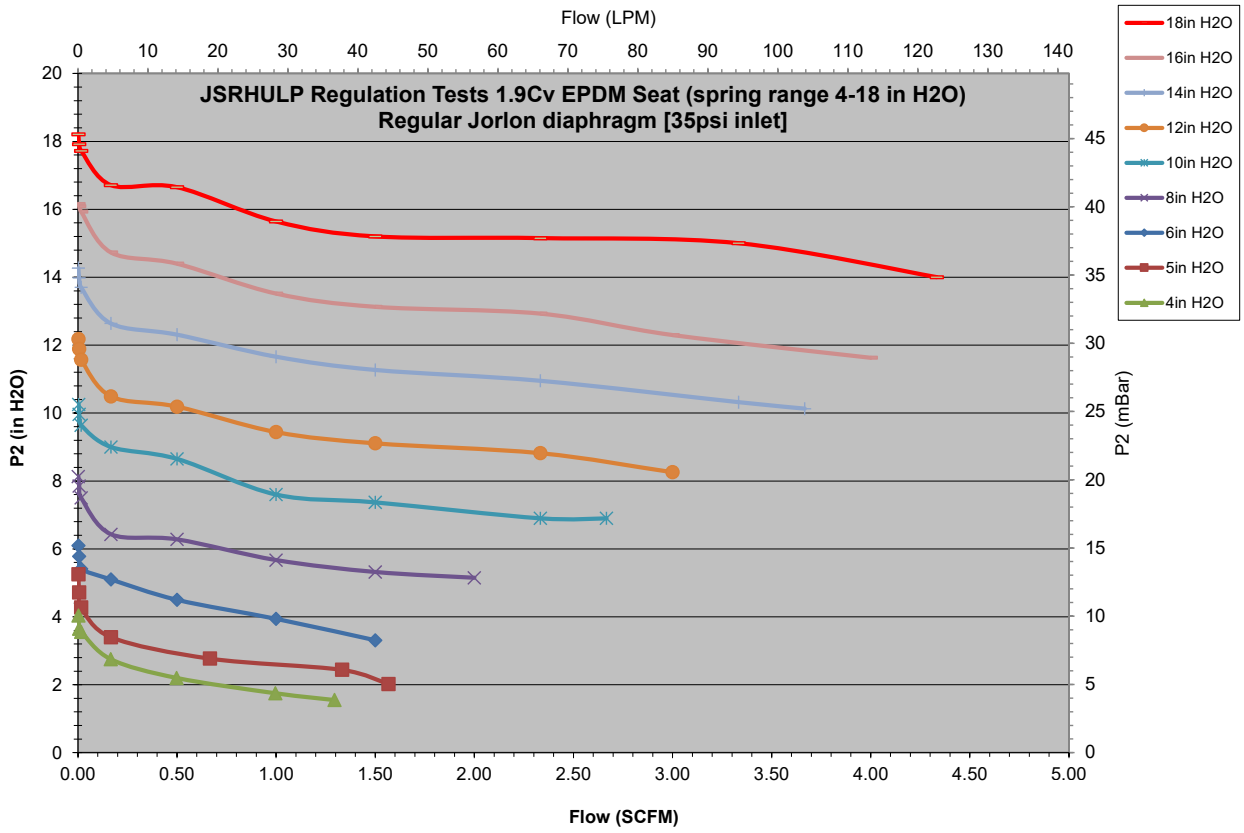


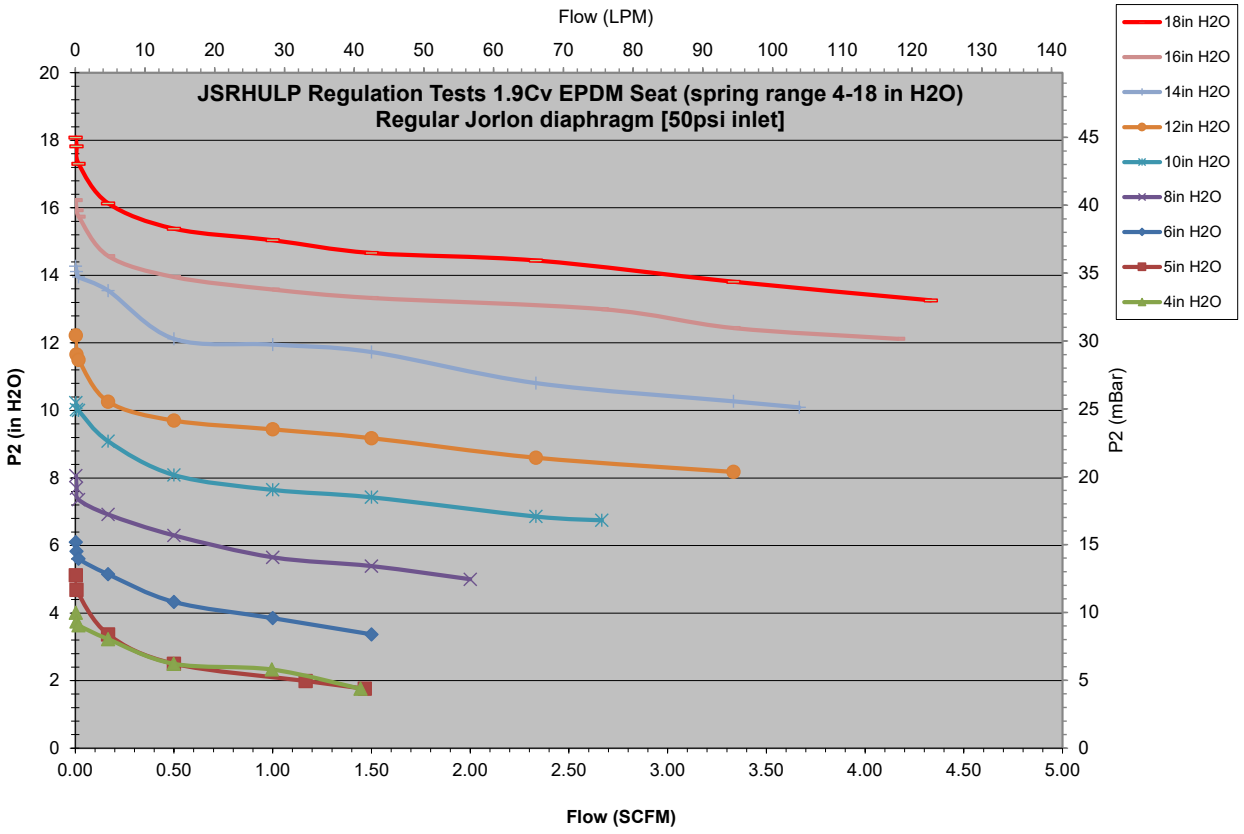
JSRHULP Regulation Tests



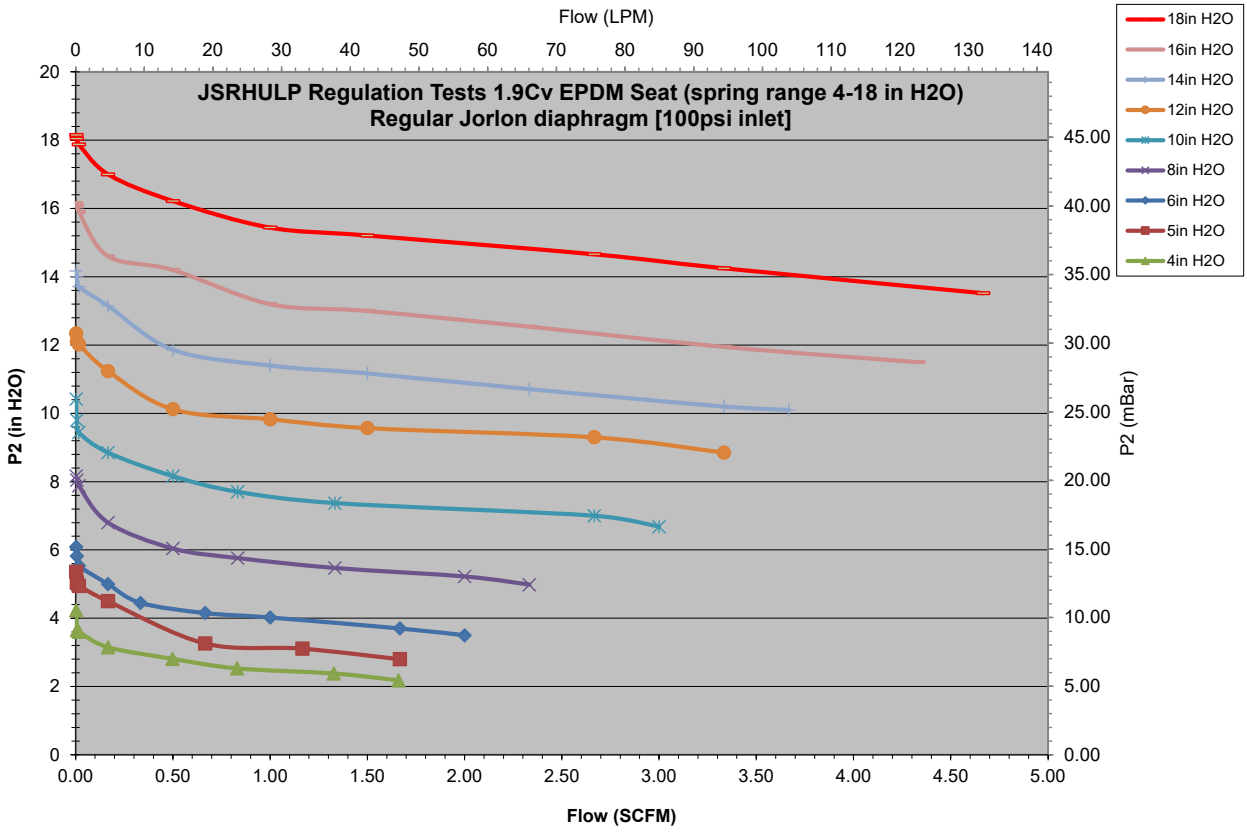


JSRHULP Regulation Tests





JSRHULP Regulation Tests



Option Definition

Gauge Ports - Pressure Gauge

Inlet pressure gauges (and the gauges) are available as standard options.

Ordering Schematic

Model		Size		Material	/	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15	16	17

Model	
JSRHULP	High Flow Gas Pressure Reducing Valve

Size	
050	1/2" (DN15)
075	3/4" (DN20)
100	1" (DN25)

Material	
6L	Stainless Steel 316L

1 & 2	Body Feature		
End Connection/Int. Finish		Port Configuration	
C	Tri-Clamp 20Ra INT	A	Port "A"

3 & 4	O-Ring & Trim - FDA & USP Class VI
1E	USP - EPDM & 6L
1V	USP - Viton & 6L
1K	USP - KLRZ & 6L
1L	USP - Silicone & 6L
ZZ	Non-Standard

5 & 6	Seat - FDA & USP Class VI
EP	EPDM (1/2" 1.5 Cv, 3/4" & 1" 1.9 Cv)
ZZ	Non-Standard

7 & 8	Range Spring
A8	4 - 18" WC
ZZ	Non-Standard

9 & 10	Diaphragm Material
GL	Jorlon
ZZ	Non-Standard

11 & 12	Actuator
SK	Standard Actuator
ZZ	Non-Standard

13 & 14	Inlet Gauge
0N	None
0B	0 - 30 PSIG/Bar (Dual)
0C	0 - 60 PSIG/Bar (Dual)
0D	0 - 100 PSIG/Bar (Dual)
0E	0 - 160 PSIG/Bar (Dual)
ZZ	Non-Standard

15	Outlet Gauge
0N	None
ZZ	Non-Standard

16	SEP Compliance
G	SEP Compliant
0	None
ZZ	Non-Standard

17	Accessories
S	Clean for Oil Free
X	Clean for Oxygen
A	EN10204 3.1 Cert All Wet
0	None
ZZ	Non-Standard

Ordering Schematic for JSRHULP Repair Kit

Model		Size		Material		Kit	/	1 & 2	3 & 4	5 & 6	7

Model	
JSRHULP	High Flow Gas Pressure Reducing Valve

Size	
050	1/2" (DN15)
075	3/4" (DN20)
100	1" (DN25)

Material	
6L	Stainless Steel 316L

1 & 2	Trim
1E	USP-EPDM & 6L
1V	USP-VIT & 6L
1K	USP-KLRZ & 6L
1L	USP-SIL & 6L
ZZ	Non-Standard

3 & 4	Seat Material
EP	EPDM (1/2" 1.5Cv) 1.9Cv
ZZ	Non-Standard

5 & 6	Diaphragm Material
SJ	Standard Jorlon
ZZ	Non-Standard

7	Accessories
S	Clean For Oil Free
X	Clean for Oxygen
0	None
Z	Non-Standard

Steriflow Valve reserves the right to make revisions to its products, specifications, literature, and related information without notice. Please visit our website at www.steriflowvalve.com for the latest information on our products.