

JSRH Series

**NEW: EPDM and PEEK
Soft Seats (see pg 2)**

High Flow Bio-Pharma Clean Gas Pressure Reducing Valves

The JSRH Series high purity gas pressure regulator was designed and built specifically for Bio-Pharma gas applications. It may also be used on non-cavitating liquids, although it is not drainable.

Traditionally, manufacturers adapted their industrial gas regulators for use in biopharm by simply changing the construction materials and surface finish. Not so with the JSRH. 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 or disassembly.

The durable valve body and metal trim components are machined from ASTM A479 316L SST barstock and the internal components are finished to ASME BPE SF5 20Ra μm (0.5 Ra μm), electropolished standard. The valve is outfitted with the rugged Jorlon diaphragm and Teflon seats and seals that are all FDA approved, USP Class VI compliant materials. These materials of construction enable JSRH to withstand the rigors of SIP and CIP processes (if required for valves used on liquid applications).



FEATURES

- No exposed threaded connections below diaphragm
- 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

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 gases typically found in bio-pharmaceutical, pharmaceutical and food & beverage processes including:

Clean Filter Air
Nitrogen
Carbon Dioxide
Argon
Oxygen
Custom purge or blanket gas
Non-cavitating liquids

NOTE: Though not drainable in any installation orientation, this valve can be used on clean steam or non-cavitating liquids with Steriflow engineering application approval.



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SPECIFICATIONS

Sizes: 1/2" (DN15), 3/4" (DN20) & 1" (DN25)

End Connections: Tri-clamp, Tube weld end and NPT Standard. VCR® on Tri-clamp connections optional, contact factory

Gauge Ports: 1/4" FNPT is standard. Consult factory for others

Lower Diaphragm Plate/ Body and Diffuser

Material: ASTM A479 316L Stainless Steel; others on application

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:

- PTFE to +252°F (122°C) continuous or 275°F (135°C) intermittent [not to exceed 15 min. in a one hour period] FDA, USP Class VI
- PEEK to +350°F (176,7°C) FDA, USP Class VI
- EPDM to +275°F (135°C) FDA, USP Class VI*

Shutoff: Class VI

Spring Range:

- 5 - 150 psi (0,34 - 10,3 bar)
- 5 - 100 psi (0,34 - 6,9 bar)
- 5 - 50 psi (0,34 - 3,4 bar)
- 5 - 20 psi (0,34 - 1,4 bar)

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

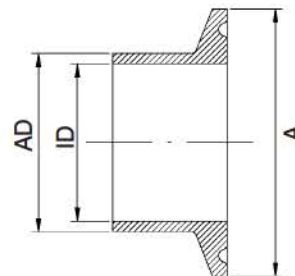
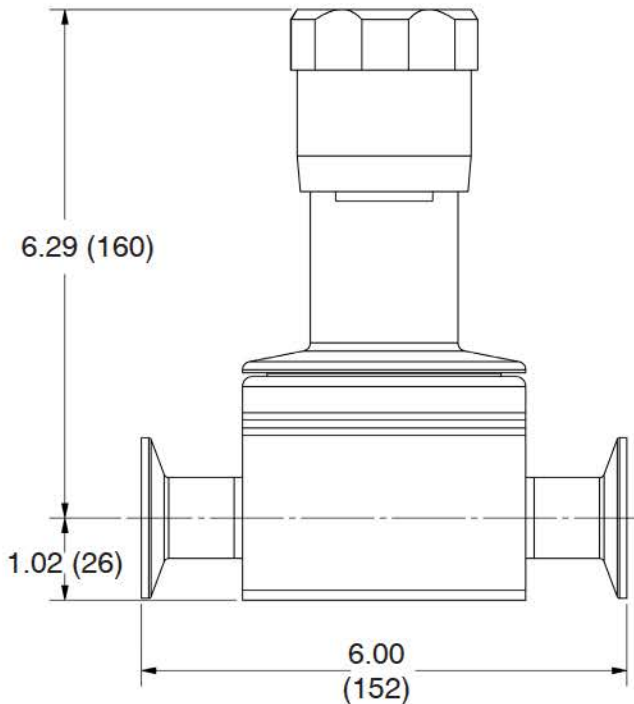
Flow Capacity:

- 1/2": Cv 1.5
- 3/4" & 1": Cv 1.9

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

DIMENSIONS



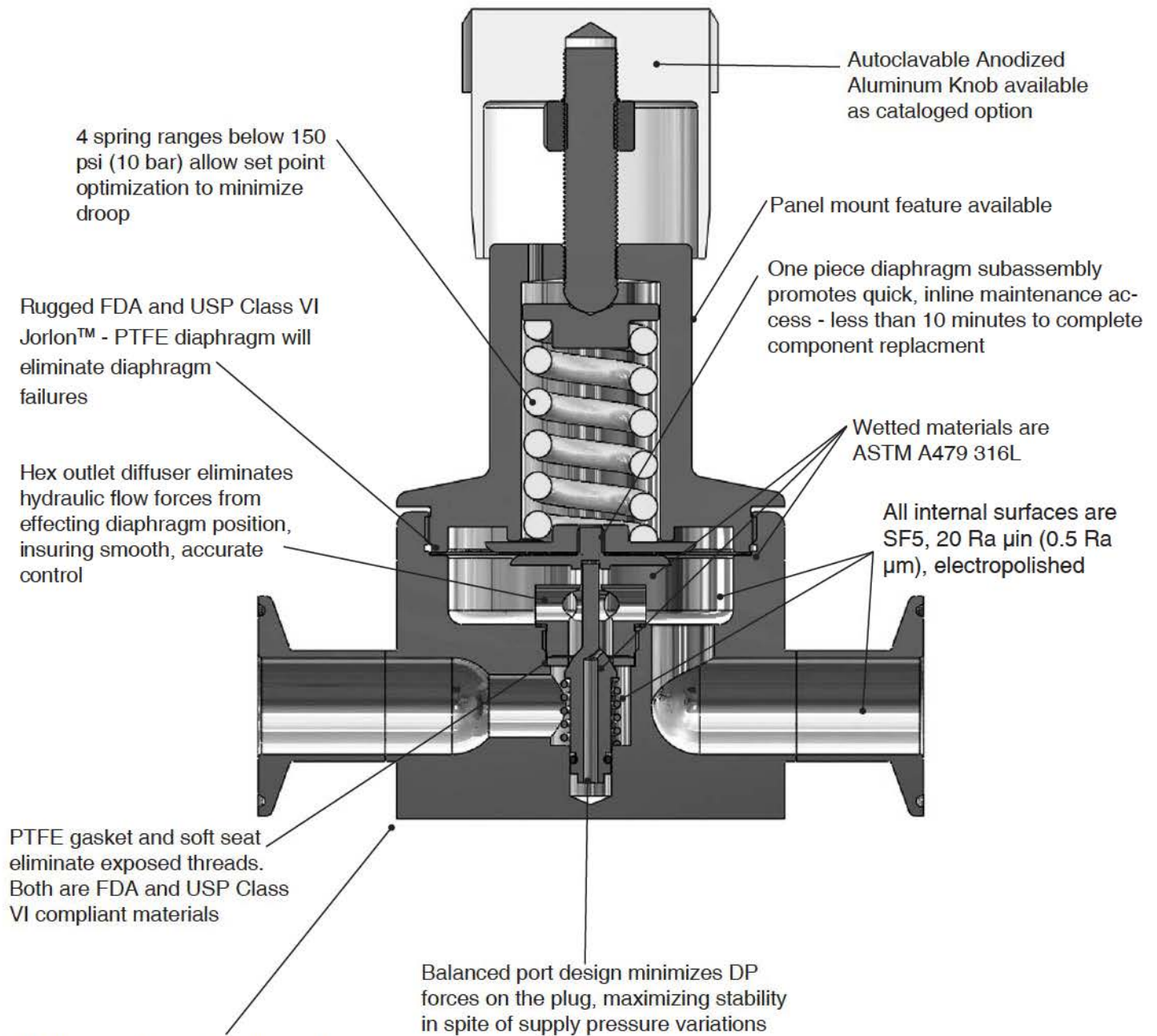
DIN 32676 Row B (ISO 1127)

VALVE SIZE	A	AD	ID
DN15	50.5	21.3	18.1
DN15*	34.0	21.3	18.1
DN20	50.5	26.9	22.9
DN25	50.5	33.7	28.7

DIN 32676 Row A (DIN 11850)

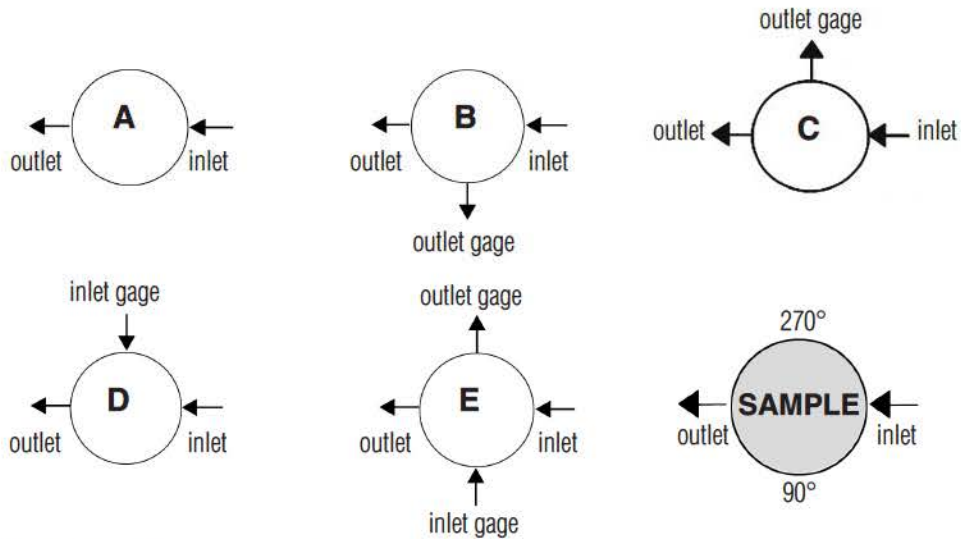
VALVE SIZE	A	AD	ID
DN15	34.0	19.0	16.0
DN15*	50.5	19.0	16.0
DN20	34.0	23.0	20.0
DN20*	50.5	23.0	20.0
DN25	50.5	29.0	26.0

FEATURES & BENEFITS



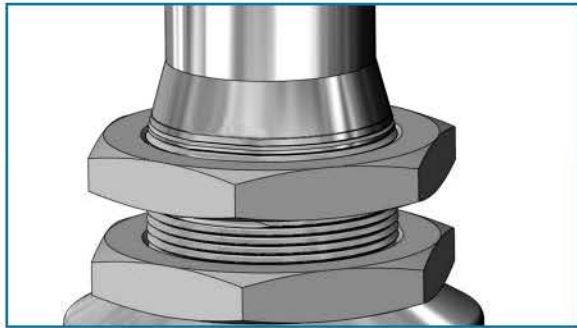
NOTE: Can be used on clean steam or non-cavitating liquids (the design is not drainable) with Steriflow engineering application approval.

FLOW CONFIGURATIONS/ GAUGE PORTS

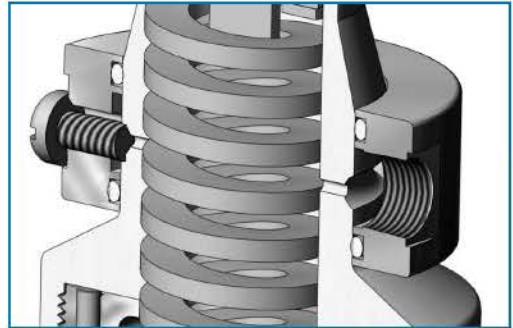


* Gage ports are 1/4" FNPT. Consult factory for Tri-Clamp, VCR, or other connections or porting options.

OPTIONS



Panel Mount Option



Captured Vent Option (1/8" NPT)

OPTION DEFINITION

Captured Vent

The captured vent design is for maximum safety for the user when handling toxic or hazardous media. It features a 1/8" FNPT port located on the spring housing. The user can easily tube this vent to a safe location. This option can be incorporated into a self-relieving regulator that provides an additional port to permit the safe expulsion of hazardous media.

Panel Mount

The panel mount feature requires a panel cut out of 1-1/2", complete with a threaded spring housing, and a panel mount threaded ring to secure the regulator. See Page 5 for more information.

*Self Relieving

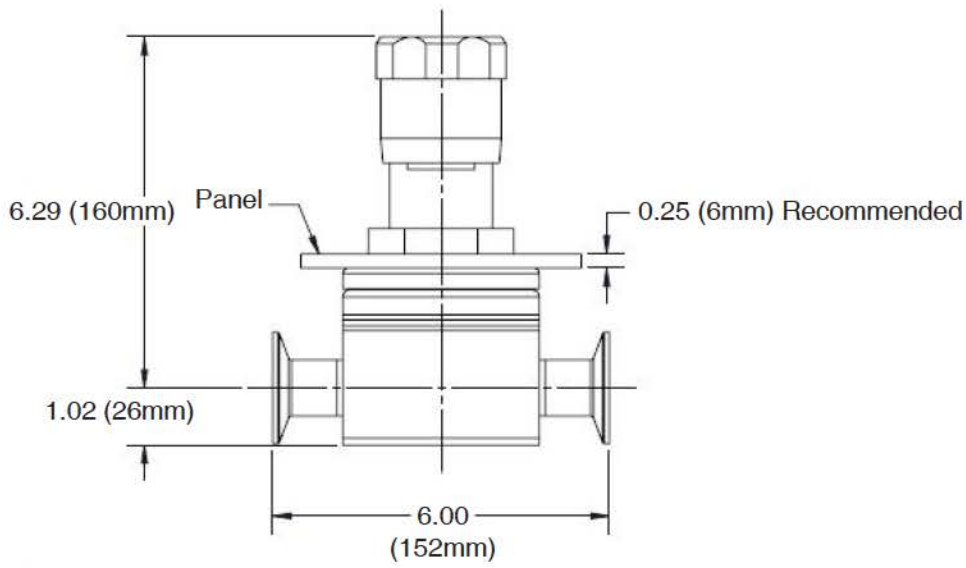
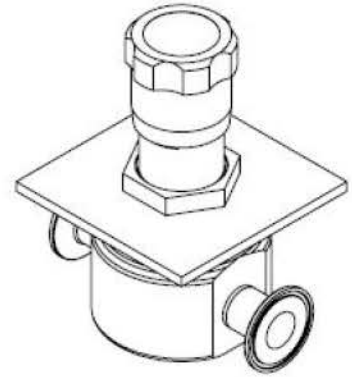
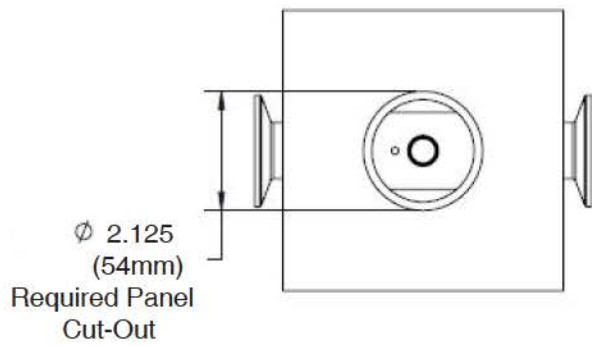
The self relieving option is used for internal venting of downstream pressure. From a practical standpoint, it allows for immediate reduction in pressure setpoints and automatically alleviates regulator lock up. (Recommended with outlet gauges)

SAMPLE SPECIFICATIONS

Stainless Steel pressure regulator shall be made from ASTM A479 barstock material, which includes body and all wetted metal parts. Regulator shall be activated by an un-tied, FDA approved, USP Class VI certified Jorlon™ diaphragm. Regulator shall be free of exposed threads within wetted process area and valve internal to hold minimal media volume. Regulator shall have one piece diaphragm subassembly, and trim that can be replaced inline without dome/spring chamber disassembly.

DIMENSIONS WITH PANEL MOUNT FEATURE

1/2" – 1" JSRH with Panel Mount and Tri-Clamp Ends



ORDERING SCHEMATIC

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

Model	
JSRH	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 EP	A Port "A"
P	FNPT 20Ra EP	B Port "B"
T	Tube Weld End 20Ra EP	C Port "C"
S ¹	ISO TRI-CLAMP, DIN15	D Port "D"
V ¹	ISO W/34.0mm Face TR-Clamp, DIN15	E Port "E"
R ¹	ISO T-Clamp, DN20	
D ²	DIN Tri-Clamp, DN15	
N ²	DIN T-Clamp, DN15 w/50.5mm face	
U ²	DIN T-Clamp, DN20	
X ²	DIN T-Clamp, DN20 w/50.5mm face	
M ³	DIN Tube Weld, DN15	
H ⁴	ISO Tube Weld, DN15	
E ¹	ISO Tri-Clamp, DN25	
F ²	DIN Tri-Clamp, DN25	
G ³	DIN Tube Weld DN20	
J ⁴	ISO Tube Weld DN20	
K ³	DIN Tube Weld DN25	
L ⁴	ISO Tube Weld DN25	
ZZ	Non-Standard	

¹ Acc. to DIN 32676 Row B (ISO 1127). See dimensions, page 2

² Acc. to DIN 32676 Row. See dimensions, page 2

³ Acc. to DIN 11866, DIN 11850 Row A

⁴ Acc. to DIN 11866 Row B

* Std. Gauge Port conns are 1/4" FNPT. Consult factory for availability of other alternatives

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

5 & 6	Trim - FDA & USP Class VI
EP	EPDM (1/2" 1.5 Cv) (3/4" & 1" 1.9 Cv)
PK	PEEK (1/2" 1.5 Cv) (3/4" & 1" 1.9 Cv)
TF	PTFE (1/2" 1.5 Cv) (3/4" & 1" 1.9 Cv)
ZZ	Non-Standard

7 & 8	Range Spring/Outlet Pressure
02	5 - 20 PSI (0,3 - 1,4 bar)
05	5 - 50 PSI (0,3 - 3,4 bar)
10	5 - 100 PSI (0,3 - 6,9 bar)
15	5 - 150 (0,3 - 10,3 bar)
ZZ	Non-Standard

9 & 10	Diaphragm Material
JL	Jorlon PTFE - FDA & USP Class VI
ZZ	Non-Standard

11 & 12	Actuator
SK	Standard Actuator / Nylon Knob
AK	Standard Actuator / Autoclavable Anod. Aluminum Knob
PM	Panel Mount
ZZ	Non-Standard

* Gauges are Oil Free and O2 clean as standard.

13 & 14	Inlet Gauge*
ØN	None
ØB	0 - 30 PSIG/Bar (Dual)
ØC	0 - 60 PSIG/Bar (Dual)
ØD	0 - 100 PSIG/Bar (Dual)
ØE	0 - 160 PSIG/Bar (Dual)
ØF	0 - 200 PSIG/Bar (Dual)
ØG	0 - 400 PSIG/Bar (Dual)
ZZ	Non-Standard

* Gauges are Oil Free and O2 clean as standard.

15	Outlet Gauge*
N	None
B	0 - 30 PSIG/Bar (Dual)
C	0 - 60 PSIG/Bar (Dual)
D	0 - 100 PSIG/Bar (Dual)
E	0-160 PSIG/Bar (Dual)
ZZ	Non-Standard

Continued on next page

ORDERING SCHEMATIC (CONTINUED)

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

16	SEP Compliance
0	None Required
G	SEP Compliant
Z	Non-Standard

17	Accessories
S	Clean For Oil Free
X	Clean for Oxygen*
Z	Non-Standard

*Procedure complies with ASTM G-93 2011 and CGA G-4.1-2009