

# JSRHF Series

**NEW:** Panel Mount  
Feature: See Page 5

## High Flow Bioprocess Clean Gas Pressure Reducing Valves

The JSRHF Series high purity gas 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 JSRHF. It's been designed specifically to minimize 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 is machined from ASTM A479 316L. The metal trim components are machined from S21800 Nitronic 60 to prevent galling. The internal components are finished to ASME BPE SF5 20Ra  $\mu\text{m}$  (0.5 Ra  $\mu\text{m}$ ), 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 JSRHF to withstand the rigors of SIP and CIP processes (if required for valves used on liquid applications).



### FEATURES

- 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

### 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

**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.



**Steriflow by Jordan Valve**

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## SPECIFICATIONS

**Sizes:** 3/4" - 2" (DN20 - DN50)

**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

**Body Material:** All wetted parts - ASTM A479 316L Stainless Steel; others on application

**Body Seals:** Elastomer o-rings (EPDM, Viton, Silicon, Kalrez) - All FDA and USP Class VI compliant

**Soft Seat:** 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

**Shutoff:** Class VI

**Spring Range:**

- 25 - 250 psi (1,7 - 17,2 bar)
- 10 - 150 psi (0,7 - 10,3 bar)
- 5 - 100 psi (0,3 - 6,9 bar)
- 5 - 50 psi (0,3 - 3,4 bar)
- 5 - 20 psi (0,3 - 1,4 bar) (2.5 & 3.5 Cv only)

**Sizing:** Use SVCV Steriflow software sizing module, Size at 60% capacity for 2.5 & 3.5 Cv models, and

size at 70% capacity on 5, 7.5 & 10 Cv models

**Maximum Operating Pressure:** 300 psi max inlet @ 100°F / psi max  $\Delta P$

**Maximum Operating Temperature:** 250 psi max inlet @ 275°F

**Optional Cleaning Specifications:**

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

**Flow Capacity:**

- 3/4": Cv 2.5 (Kv 2,16)
- 1" & 1-1/2": Cv 3.5 (Kv 3,03), Cv 5 (Kv 4,31), Cv 7.5 (Kv 6,47), Cv 10 (Kv 8,65)
- 2": Cv 5 (Kv 4,31), Cv 7.5 (Kv 6,47), Cv 10 (Kv 8,65)

**Surface Finish:**

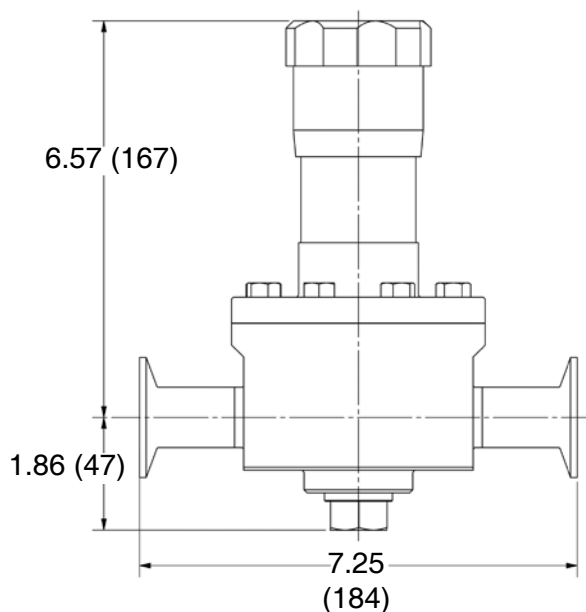
- Wetted Internal surface finish: Mechanically polished, and electropolished to ASME BPE SF5, 20 Ra  $\mu\text{in}$  (0.5 Ra  $\mu\text{m}$ ) as standard
- Exterior surface finish: Mechanically polished, and electropolished to 40 Ra  $\mu\text{in}$  (1.0 Ra  $\mu\text{m}$ ) as standard,
- Other finishes available upon request

**Options:**

- Panel Mount

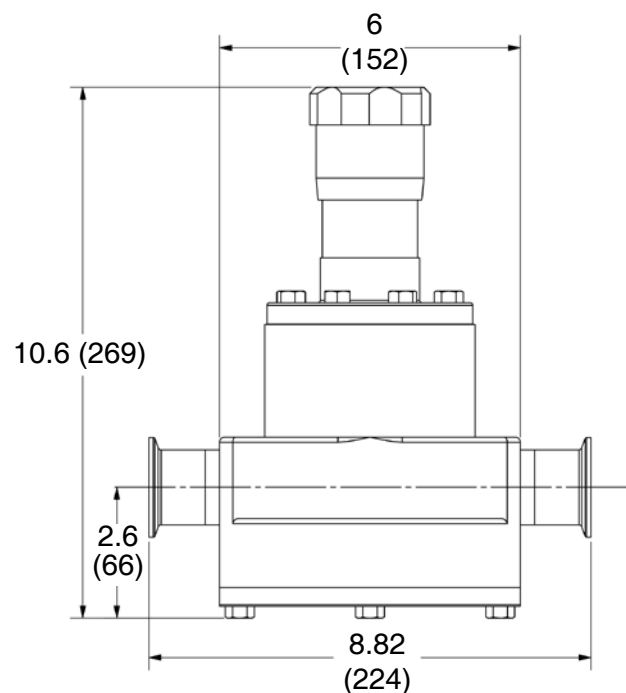
## DIMENSIONS

2.5 &amp; 3.5 Cv Model



Weight: 12 lbs (5 kgs)

5, 7.5 &amp; 10 Cv Model



Weight: 33 lbs (15 kgs)

## FEATURES & BENEFITS - MODEL JSRHF: 2.5 AND 3.5 Cv

Autoclavable anodized aluminum knob  
available as cataloged option

Five different color coded spring  
ranges allow you to select the  
optimum spring for your application  
to minimize droop

One piece diaphragm sub assembly  
promotes quick, inline maintenance and  
fewer spare parts

Rugged bolted spring  
housing eliminates potential  
bonnet compression failures  
due to inline vibration

Long lived Jorlon® diaphragm  
(FDA and USP <88>, and  
<87> Class VI) virtually  
eliminates repetitive cycle  
induced diaphragm failures

All wetted parts are  
ASTM A479 316L

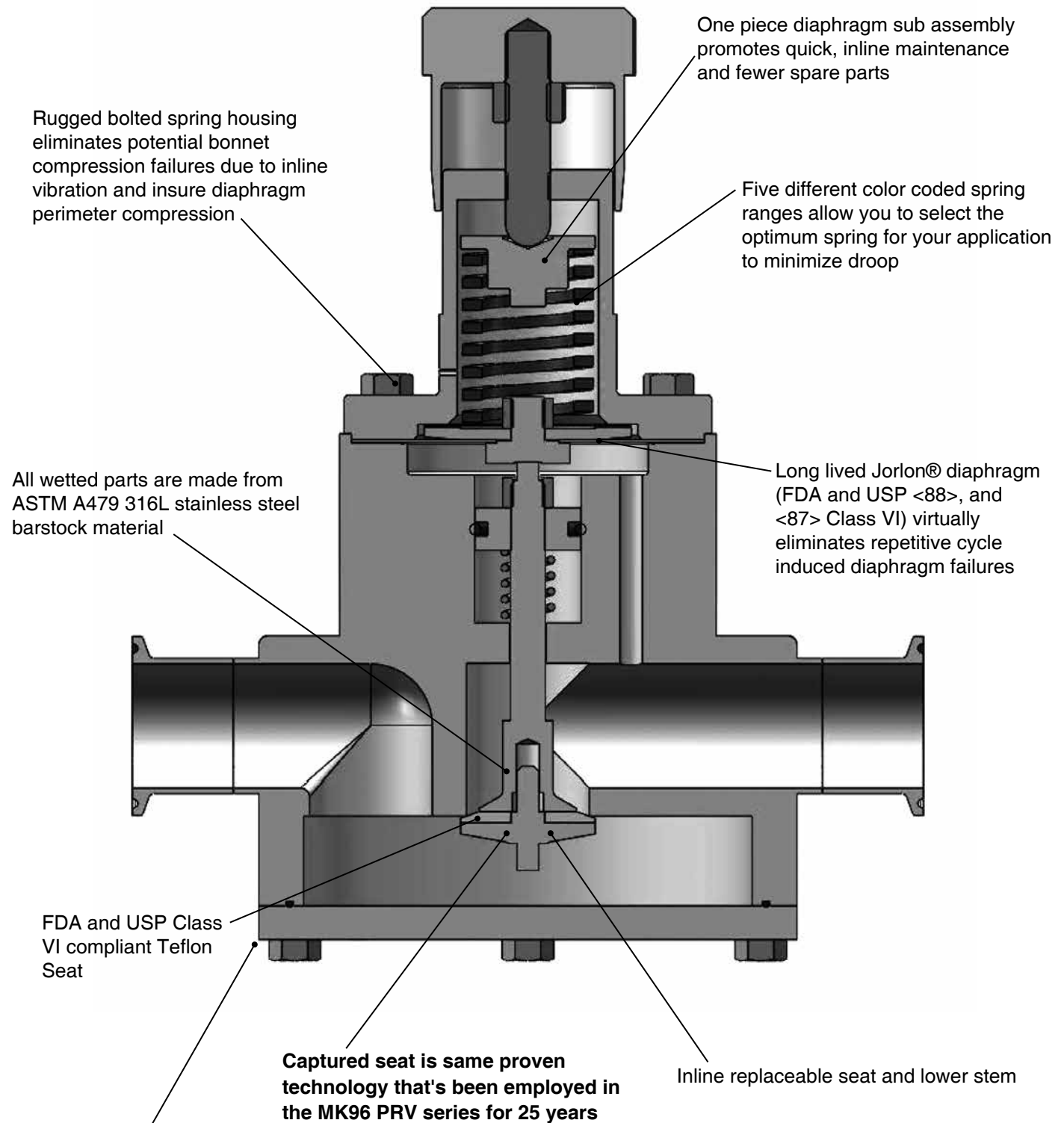
Balanced port design minimizes DP  
forces on the plug, maximizing stability  
in spite of supply pressure variations

PTFE seat for ANSI  
Class VI shutoff. Seat is  
also made of FDA and  
USP Class VI compliant  
material

In-line removable seat and plug subassembly facilitates  
cleaning and maintenance in less than 10 minutes

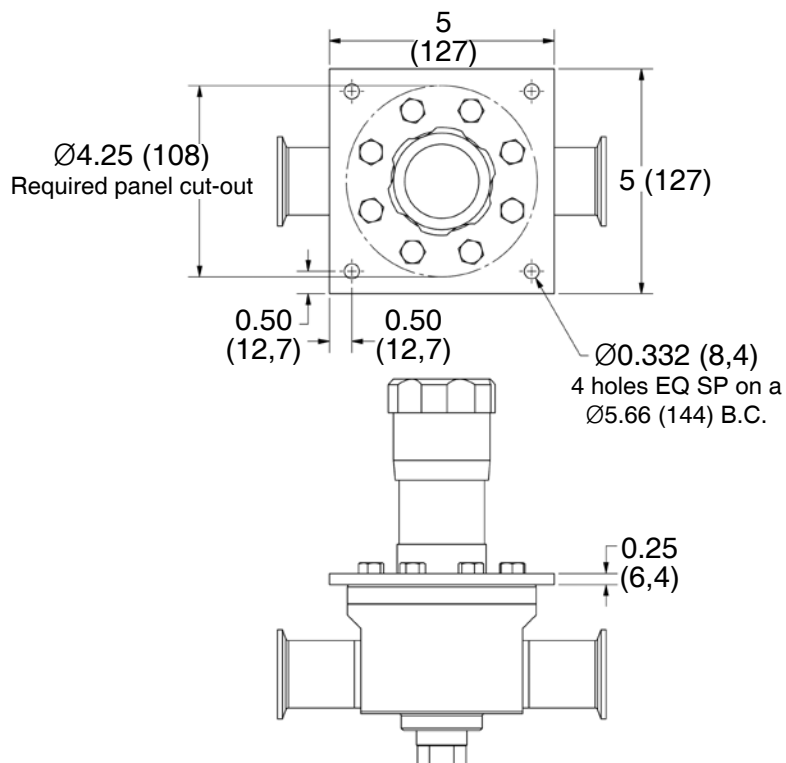
**NOTE:** Can be used on clean steam or  
non-cavating liquids (the design is not  
drainable) with Steriflow engineering ap-  
plication approval.

**FEATURES & BENEFITS - MODEL JSRHF: 5, 7.5 & 10 Cv**



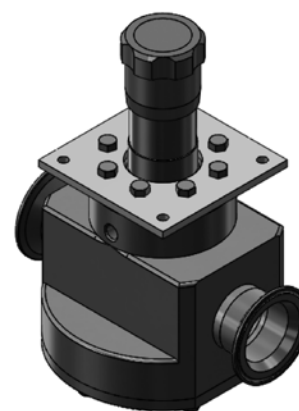
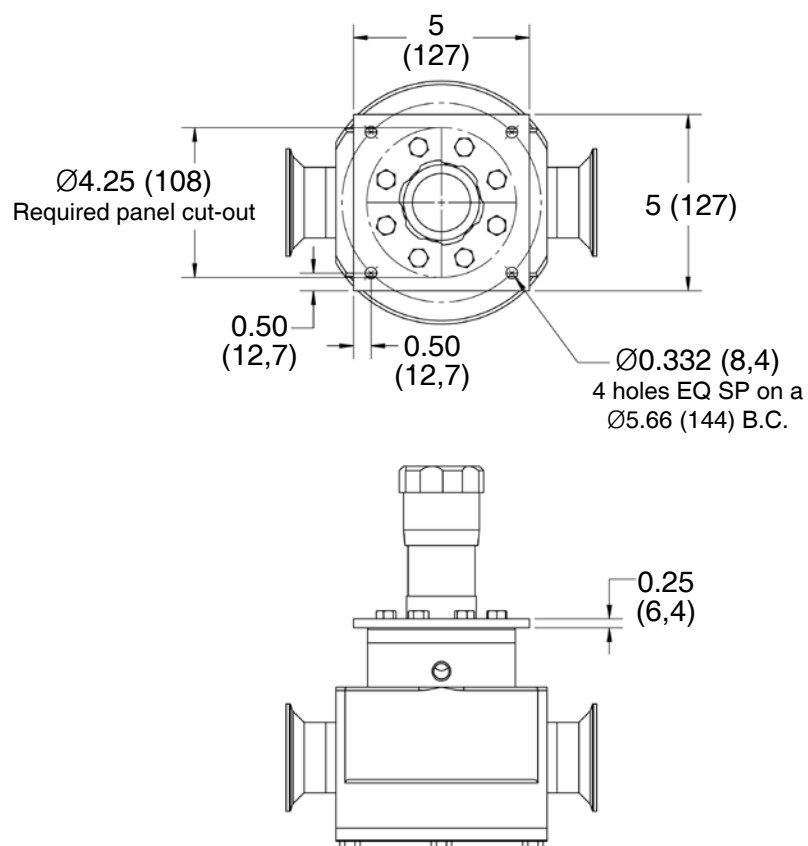
**NOTE:** Can be used on clean steam or non-cavating liquids (the design is not drainable) with Steriflow engineering application approval.

**PANEL MOUNT (PM) OPTION FOR JSRHF 2.5, 3.5 Cv**



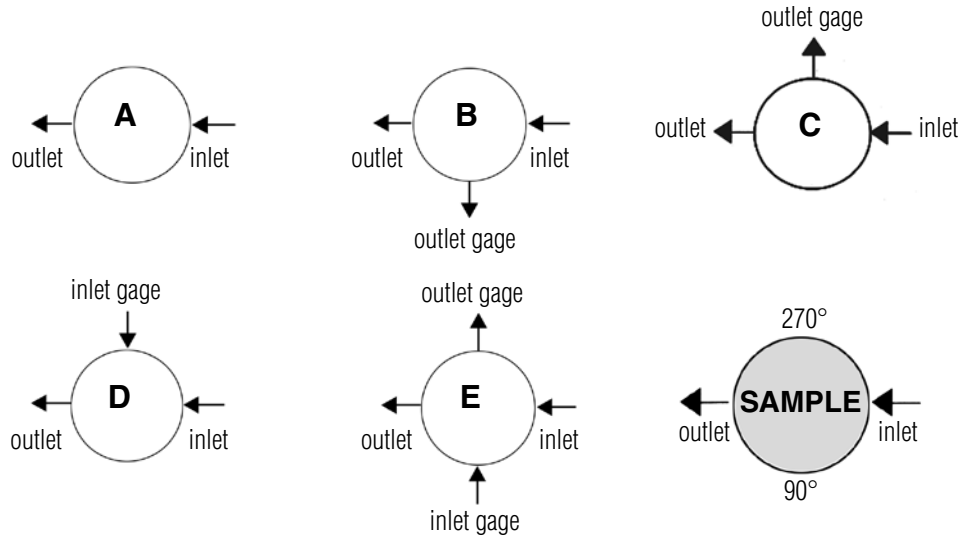
Weight: 12 lbs (5 kgs)

**PANEL MOUNT (PM) OPTION FOR 5, 7.5 & 10 Cv**



Weight: 33 lbs (15 kgs)

### FLOW CONFIGURATIONS/ GAUGE PORTS



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

### 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 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.

## ORDERING SCHEMATIC

Model	Size	Material / Connection Type	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15	16	17
JSRHF	—	075 —	6C									

Model	
JSRHF	High Flow Gas Pressure Reducing Valve

Size	
075	3/4" (DN20)
100	1" (DN25)
150	1-1/2" (DN40)
200	2" (DN50)

Material / Connection Type	
6C	316L / Tri-Clamp
6N	316L / NPT
6T	316L / Tube Weld

1 & 2	Body Feature	
Cv / Connection Size	Port Configuration*	
A	2.5 Cv (3/4")	A Port "A"
B	3.5 Cv (1" - 1-1/2")	B Port "B"
C	5 Cv (1" - 2")	C Port "C"
D	7.5 Cv (1" - 2")	D Port "D"
E	10 Cv (1" - 2")	E Port "E"
ZZ	Non-Standard	

\* Std. Gauge Ports are 1/4" FNPT. Contact factory for availability of others.

3 & 4	O-Ring - FDA & USP Class V
1E	EPDM (2.5 & 3.5 Cv)
1V	Viton (2.5 & 3.5 Cv)
1K	KLRZ (2.5 & 3.5 Cv)
1L	Silicone (2.5 & 3.5 Cv)
2E	EPDM (5-10 Cv)
2V	Viton (5-10 Cv)
2K	KLRZ (5-10 Cv)
2L	Silicone (5-10 Cv)

5 & 6	Trim/Seat Material - FDA & USP Class V
T1	6L/PTFE (2.5 & 3.5 Cv)
T2	6L/PTFE (5 Cv)
T3	6L/PTFE (7.5 Cv)
T4	6L/PTFE (10 Cv)
ZZ	Non-Standard

7 & 8	Range Spring/Outlet Pressure
02	5 - 20 PSI (0,3 - 1,4 bar) (2.5 & 3.5 Cv only)
05	5 - 50 PSI (0,3 - 3,4 bar)
10	5 - 100 PSI (0,3 - 6,9 bar)
15	10 - 150 (0,7 - 10,3 bar)
25	25 - 250 (1,7- 17,2 bar)

9 & 10	Diaphragm Material
J1	Jorlon PTFE - FDA & USP Class VI (2.5 & 3.5 Cv)
J2	Jorlon PTFE - FDA & USP Class VI (5 -10 Cv)
ZZ	Non-Standard

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

Continued on next page

## ORDERING SCHEMATIC (CON'T)

Model		Size		Material / Conne- tion Type		1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15	16	17
JSRHF	—	075	—	6C	/										

15	Outlet Gauge*
O	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)
F	0 - 200 PSIG/Bar (Dual)
G	0 - 300 PSIG/Bar (Dual)
Z	Non-Standard

\* Gauges are Oil Free and O2 clean as standard.

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

17	Accessories
O	None
S	Clean For Oil Free
X	Clean for Oxygen*
A	EN10204 3.1 Cert for Cv 2.5 -3.5 Wetted Parts
B	EN10204 3.1 Cert for Cv 5-10 Wetted Parts

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