JSHM Series Hand Metering Valves

Hand metering valve for precise manual control of Biopharm and Pharmaceutical gas or liquids

The JSHM Series allows precision manual adjustment of pharmaceutical liquid and gas flows. These valves are most often used in bio-pharmaceutical and pharmaceutical R & D, and clinical and pilot scale production facilities to manually set precise flows of liquids and gas. They can also be used for precision fixed flow balancing of small to medium WFI or Clean Steam distribution loops in large scale manufacturing.

The JSHM is the first rising stem diaphragm valve to offer both precision metering capabilities and the long durability needed for repeated SIP, or continuous clean steam use.

Construction & Design Features

- Available in both inline and angled body variants
- 316L barstock construction guarantees material integrity and quality surface finish
- Cv ranges that assure a valve that will fit your application:
  1/2" - 3/4": 0 - 0.4; 0 - 0.7; 0 - 1.5
  1" - 1-1/2": 0 - 3.5
- Soft seat material for ANSI Class VI shutoff
- Minimal internal volume
- Proprietary Jorlon diaphragm material provides exceptionally long life
- Top entry design and modular trim facilities five minute in-line Cv trim, or diaphragm change outs, or maintenance
- Zero hold up and gravity draining through the outlet with valve open in vertical down flow installation, and separately drainable inlet and outlet with valve open in horizontal installation
- All designs are CIP and SIP capable
- Can be used on continuous clean steam and on non-cavitating fluids

Documentation

The following documentation is shipped with each order:

- Steriflow Unicert
  - — Certificate of Material Compliance with MTR's and Traceable Material Heat Number for body, ferrules and wetted trim
  - — Certificate of Compliance to FDA and USP Class VI
  - — Certificate of Surface Finish
- Final Test Reports and Certificate of Origin available upon request at time of order

Application

Ideal for bio-pharmaceutical and pharmaceutical research and production facilities and equipment for precise, manual clean liquid and gas flow control.

- WFI, growth media, buffer, solvent and elution mix
- Clean air N_2, CO_2, O_2, AR

STERIFLOW
a division of Jordan Valve

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Specifications

Sizes: 1/2" (DN15), 3/4" (DN20), 1" (DN25), 1-1/2" (DN40)

End Connections
- Tri-Clamp
- Tube weld ends
- NPT

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 (177°C), FDA & USP Class VI

Body & Wetted Trim
- ASTM A479 316L SST

Diaphragm Material
- Jorlon™ - FDA, USP Class VI

Maximum Inlet Pressure
- Tube End & Tri-Clamp: 450 psig (31,0 bar)
- NPT: 4000 psig (276 bar)

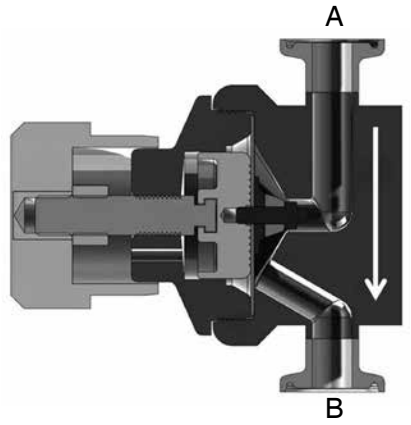
Pressure at Maximum Temperature
- Tube End and Tri-Clamp; 450 psi @ 350°F (31,0 bar @ 177°C) with PEEK seats; 450 psi @ 150°F (30,1 bar @ 66°C) with PTFE seats
- NPT: 2,165 psi @ 350°F(149 bar @177°C) with PEEK seats; 3,600 psi @ 150°F (248 bar @ 66°C) with PTFE seats

Surface Finish, External and Internal
- ASME BPE SF5, 205, 20 Ra µin (0,5 Ra µm) electropolish standard
- ASME BPE SF1, 20Ra µin(0,5 Ra µm) non-electropolished is optional, as are other finishes

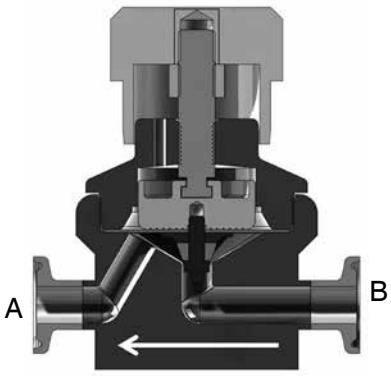
Maximum Pressure Droop
- Tube End and Tri-Clamp: 450 psi (31,0 bar)
- NPT: 3000 psi (207 bar)

Cv Ranges
- 0 - 0.4 (1/2" - 3/4")
- 0 - 0.7 (1/2" - 3/4")
- 0 - 1.5 (1/2" - 3/4")
- 0 - 3.5 (1" - 1-1/2")

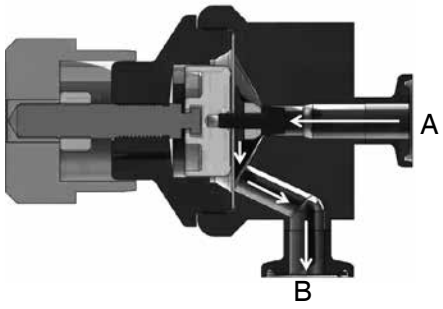
Orientation for Drainability



Vertical Down Installation
No holdup and drainable from port A through port B with valve open in vertical down orientation

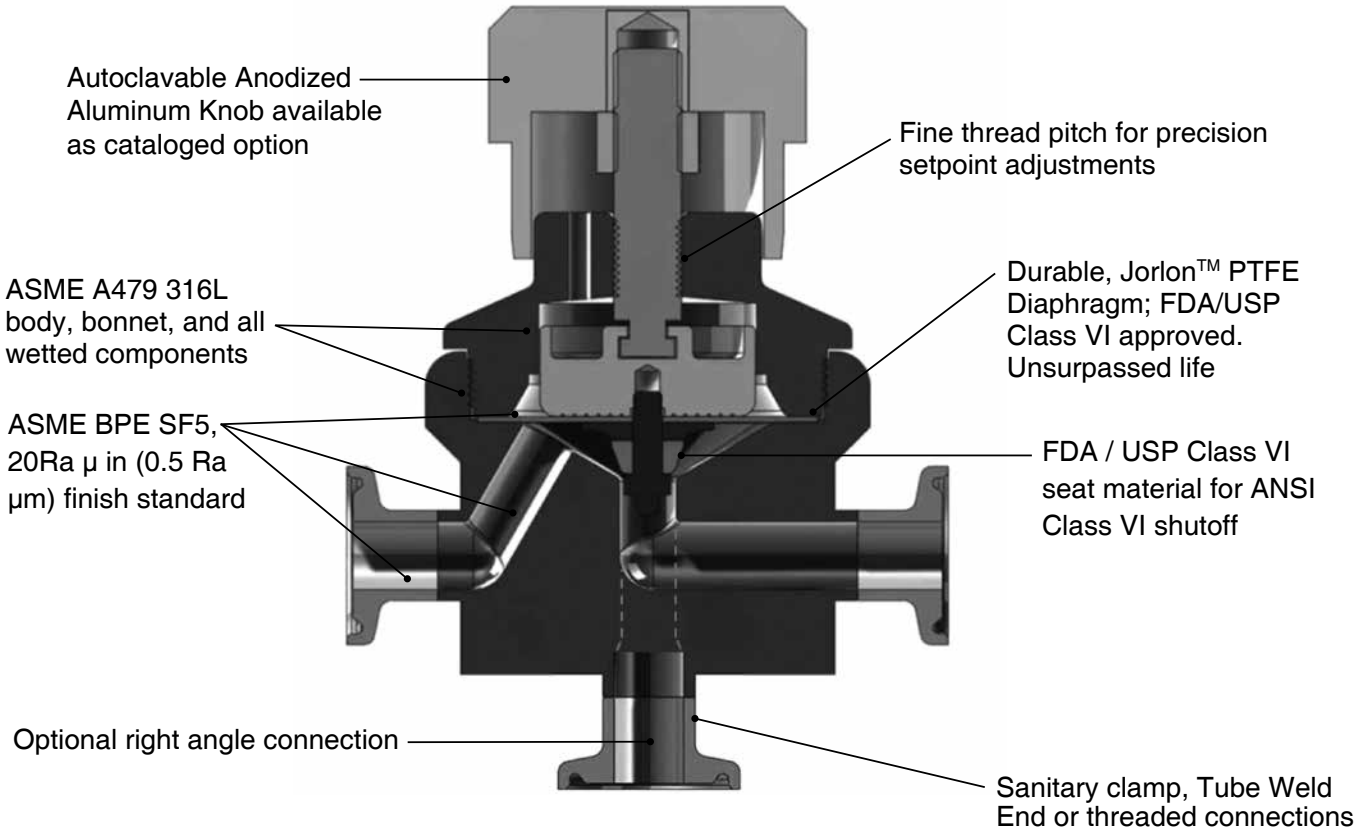


Horizontal Installation
No holdup and drainable out port A, and port B with valve open in horizontal orientation

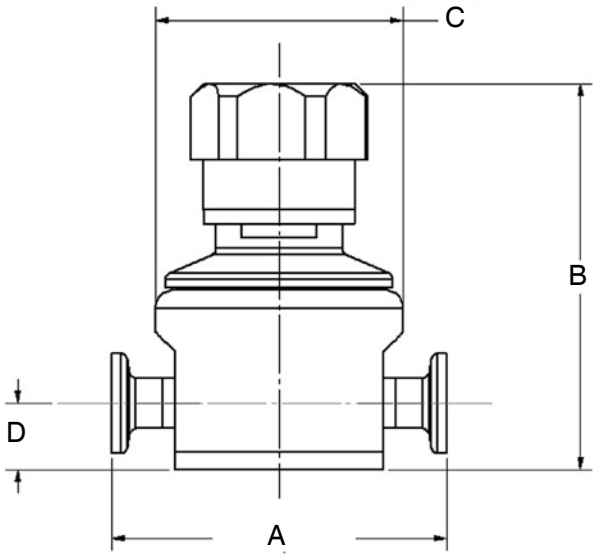


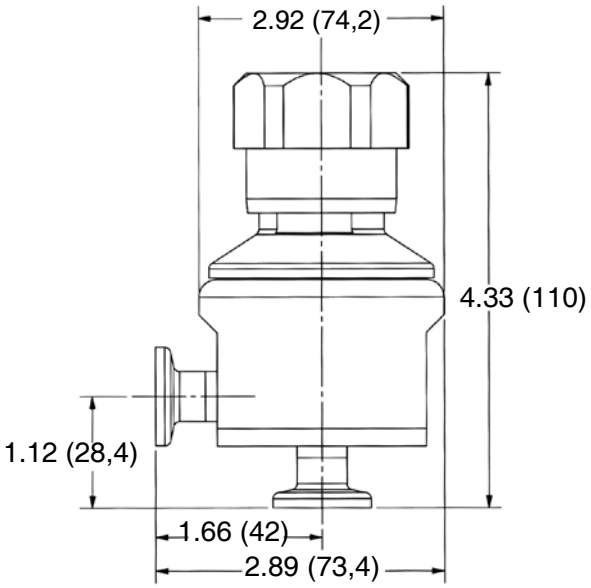
Horizontal Installation (Angle Valve Option)
Some holdup at A inlet with standard angle valve version.
Note: Contact factory for offset inlet version with full drainability from port A through port B

Features & Benefits



Dimensions, Inches (mm)





Valve Size	Dimensions (inches)			
	A	B	C	D
1/2"	3.31	2.92	Ø2.45	0.66
3/4"	(84,1)	(74,2)	(62,2)	(16,6)
1"	6.00	6.20	3.70	1.19
1-1/2"	(152,4)	(157,5)	(94,0)	(30,1)

Ordering Schematic

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

	Model
JSHM	J Series Hand Metering Valve

	Size
050	1/2" (DN15)
075	3/4" (DN20)
100	1" (DN25)
150	1-1/2" (DN40)

	Body Material
6L	ASTM A479, 316L

1 & 2	Body Feature
AT	Angle Body ASME BPE Tri-Clamp
AB	Angle Body ASME BPE BWE
PT	FNPT
TC	ASME BPE Tri-Clamp
TE	ASME BPE Tube Weld
ZZ	Non-Standard

3 & 4	Trim - FDA & USP Class V
1S	Cv 0 - 0.4 (1/2" - 3/4" only)
2S	Cv 0 - 0.7 (1/2" - 3/4" only)
3S	Cv 0 - 1.5 (1/2" - 3/4" only)
4S	Cv 0 - 3.5 (1" - 1-1/2" only)
ZZ	Non-standard

5 & 6	Seat Material - FDA & USP Class VI
TF	PTFE
PK	PEEK
ZZ	Non-Standard

7 & 8	Range
00	None

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

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

13 & 14	SEP Compliance
0G	SEP Compliant (1/2" - 1" ONLY)
0F	PED Compliant (1-1/2" ONLY)
00	None
ZZ	Non-Standard

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

Ordering Schematic for Repair Kit

Model	—	Size	—	Material	/	1&2	3&4	5&6	7&8

	Model
JSHM	J Series Hand Metering Valve

	Size
050	1/2" (DN15)
075	3/4" (DN20)
100	1" (DN25)
150	1-1/2" (DN40)

	Body Material
6L	ASTM A479, 316L

	Kit
	Kit

1 & 2	Trim - FDA & USP Class V
1S	Cv 0 - 0.4 (1/2" - 3/4" only)
2S	Cv 0 - 0.7 (1/2" - 3/4" only)
3S	Cv 0 - 1.5 (1/2" - 3/4" only)
4S	Cv 0 - 3.5 (1" - 1-1/2" only)
ZZ	Non-standard

3 & 4	Seat Material
TF	PTFE
PK	PEEK

5 & 6	Diaphragm Material
JL	Jorlon
ZZ	Non-Standard

7 & 8	Accessories
0S	Clean for Oil Free
0X	Clean for Oxygen
00	None
ZZ	Non-Standard