



JR Series

Gas Pressure Reducing Valves

GAS PRESSURE REDUCING VALVES

The LowFlow JR Series line of high pressure regulators have the ability to handle very high pressures and very low flows. These valves are typically used in research and sampling systems for general, corrosive and specialty gas and liquid service. Typical applications include gas chromatography and flame ionization detectors, as well as other industrial controls.



Features:

- Top entry design facilitates in-line cleaning and maintenance
- Barstock construction guarantees material integrity and surface finish
- High flow rate coupled with high rangeability reduces need for reduced trim sizes
- Optimized internal volume
- Proprietary Jorlon diaphragm material provides exceptionally long life
- Soft seat material for ANSI Class VI shutoff



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JR SERIES SPECIFICATIONS

Line Size: 1/4", 3/8", 1/2" (DN8, DN10, DN15)

End Connections

- SWE
- NPT

Soft Seat Materials for ANSI Class VI Shut-off

- PTFE to +150°F (66°C)
- PEEK to +350°F (+177°C)

Body Material

- 316L SST – Standard
- Contact factory for other body/trim/seat materials

Diaphragm Material: Jorlon

Maximum Inlet Pressure: 4000 psig (276 bar) @ -20°F (-28,9°C)

Pressure at Maximum Temperature: 2550 psi @ 350°F (178,8 bar @ 177°C) with PEEK seat; 3600 psi @ 150°F (248 bar @ 66°C) with PTFE seat

Maximum Pressure Drop: 3000 psi (207 bar)

Spring Ranges

- 5 – 50 psi (0,3 – 3,4 bar)
- 25 – 100 psi (1,7 – 6,9 bar)
- 50 – 150 psi (3,4 – 10,3 bar)
- 75 – 250 psi (5,2 – 17 bar)
- 100 – 475 psi (7 – 33 bar)
- 200 – 750 psi (14 – 52 bar)

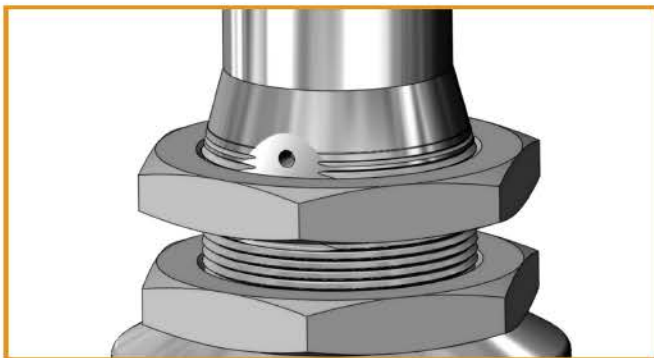
Flow Characteristics

- Cv 0.012
- Cv 0.03
- Cv 0.08
- Cv 0.20

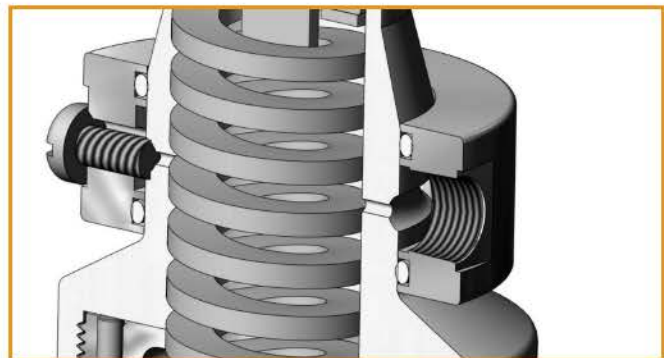
Options

- Panel Mounting
- Captured Vent
- Self Relieving - Available with PTFE seats

OPTIONS & DEFINITIONS



Panel Mount Option



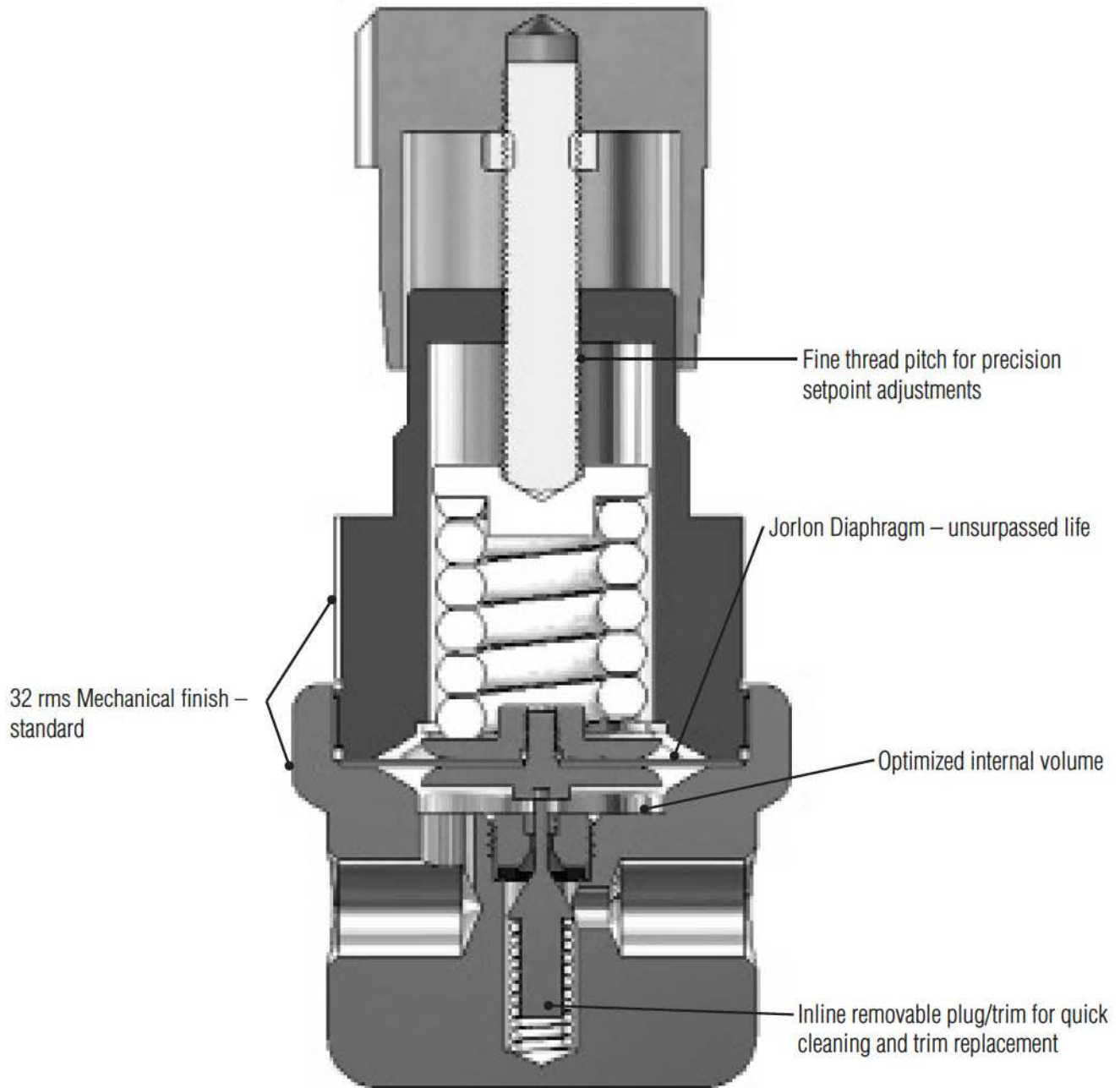
Captured Vent Option (1/8" NPT)

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 ring to secure the regulator.

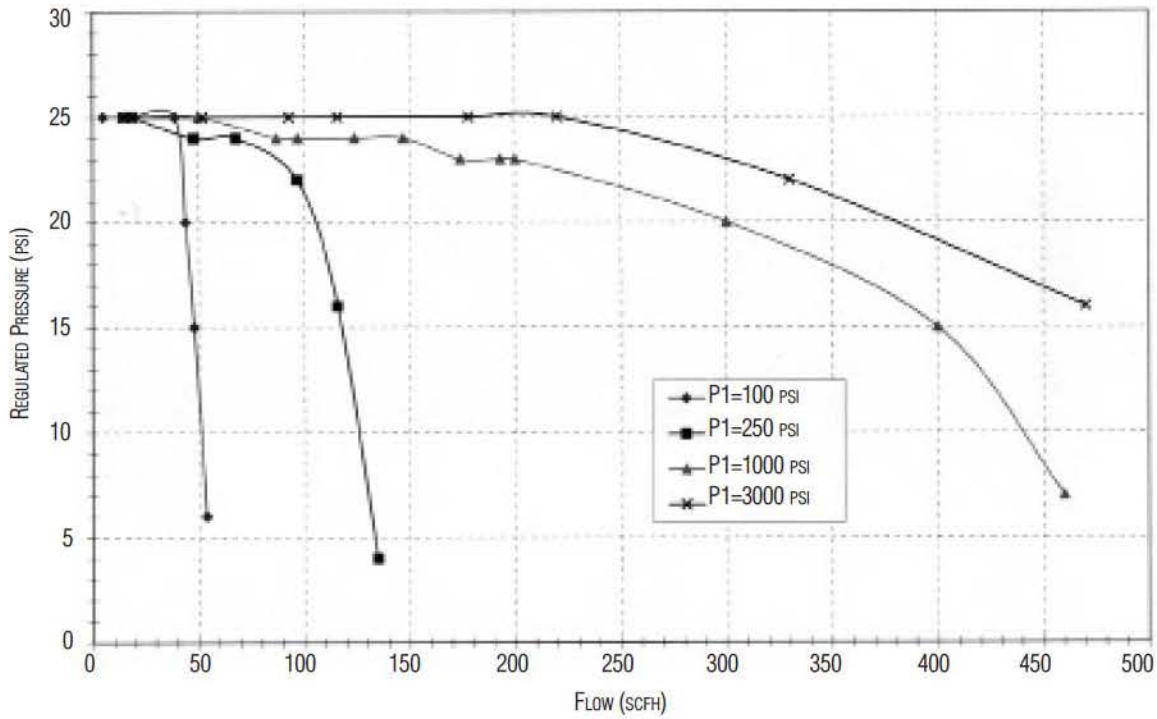
Self Relieving The self relieving option is used for internal venting of downstream pressure. From a practical standpoint, it allows for immediate reduction in pressure setpoints and automatically alleviates regulator lock up.

JR SERIES FEATURES & BENEFITS

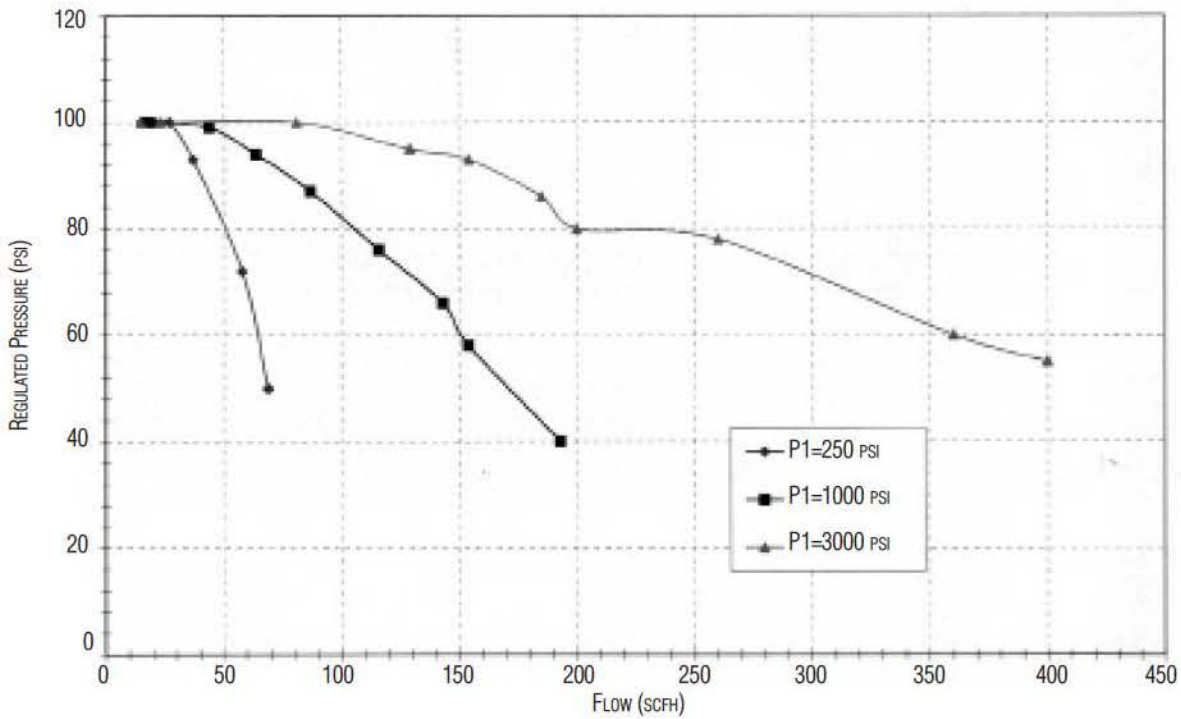


JR SERIES TRIM FLOW GRAPHS

- 0.012Cv – 5 - 50 PSI RANGE

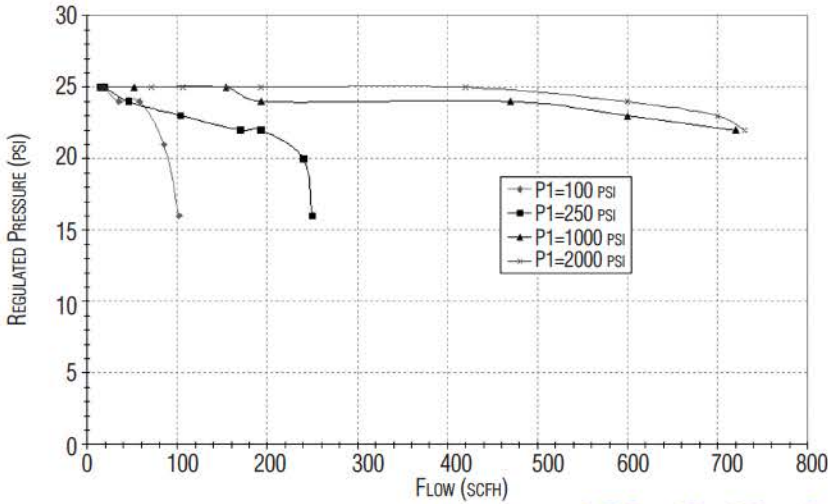


- 0.012Cv – 50 - 150 PSI RANGE

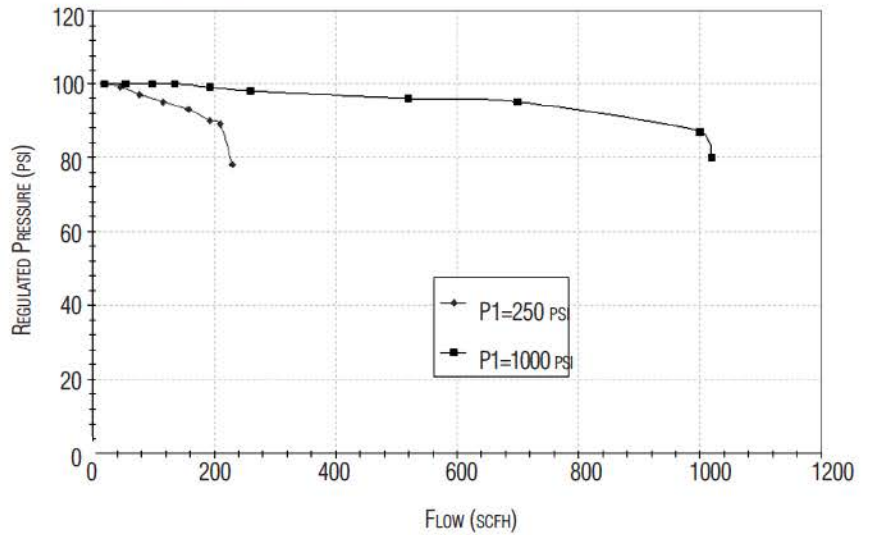


JR SERIES TRIM FLOW GRAPHS

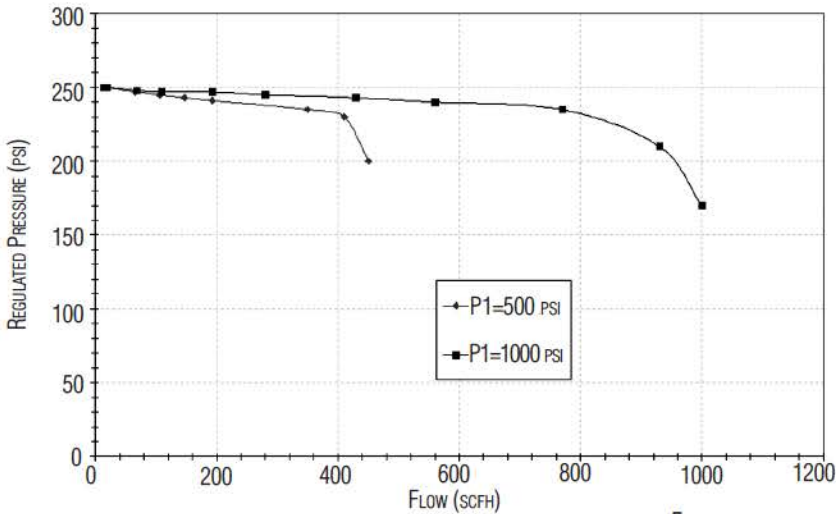
- 0.08Cv – 5 - 50 PSI RANGE



- 0.08Cv – 50 - 150 PSI RANGE

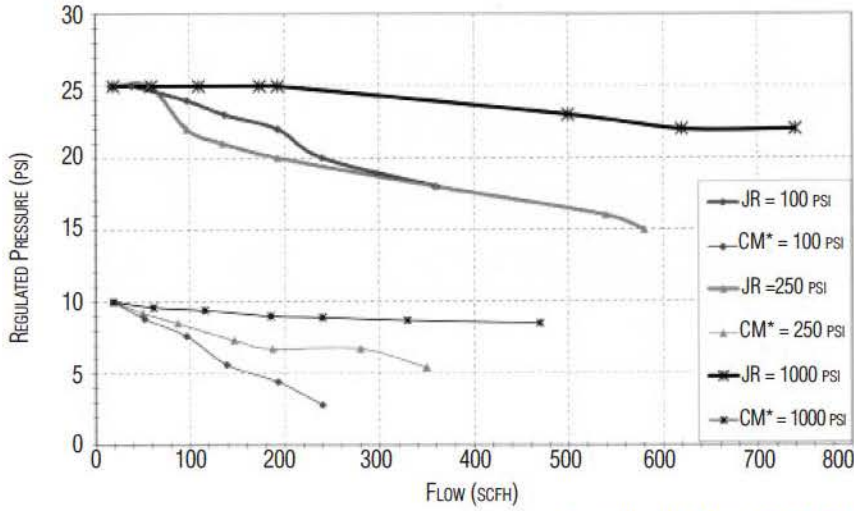


- 0.08Cv – 100 - 475 PSI RANGE



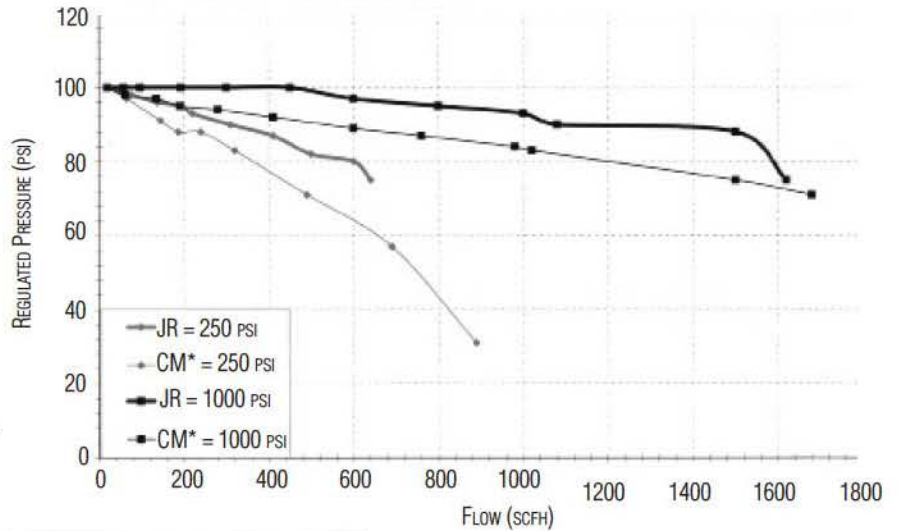
JR SERIES TRIM FLOW GRAPHS

- JR = 0.2 Cv – 5 - 50 PSI RANGE



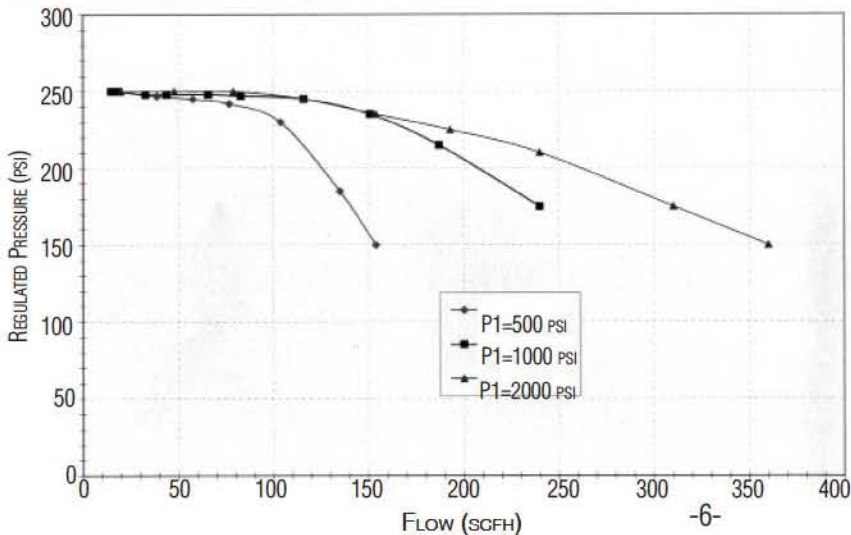
CM* = COMPETITIVE MODEL

- JR = 0.2 Cv – 50 - 150 PSI RANGE



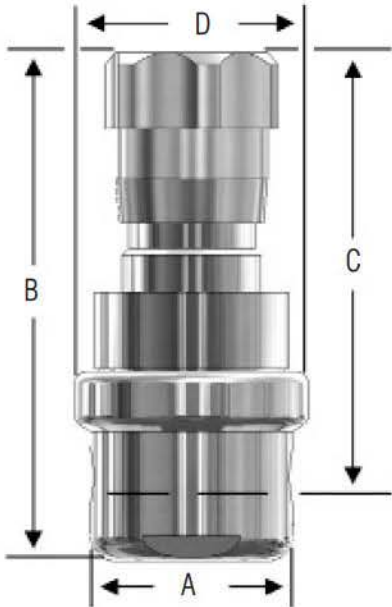
CM* = COMPETITIVE MODEL

- 0.2 Cv – 100 - 475 PSI RANGE



SPECIFICATIONS

JR SERIES FLOW DIMENSIONS



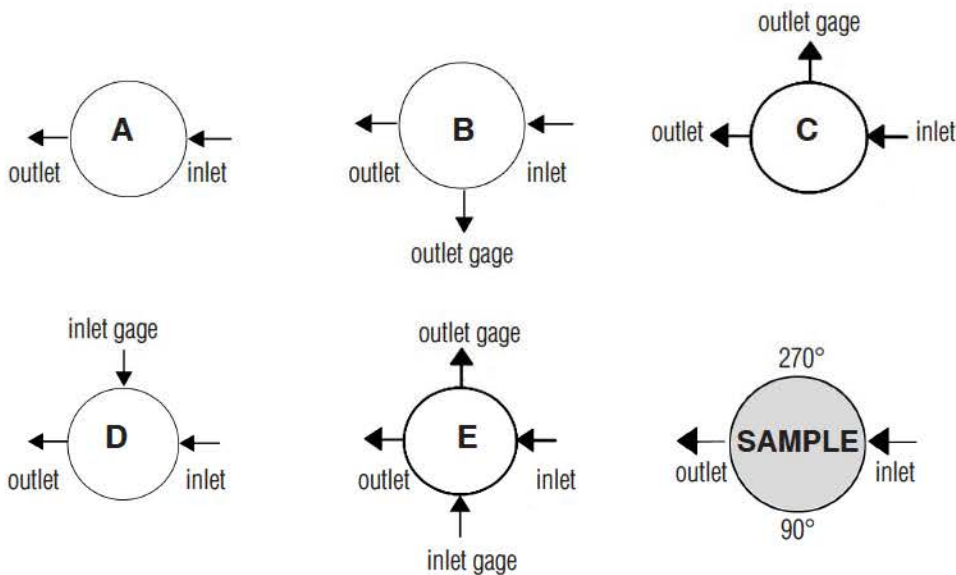
- JR Series, Inches**

VALVE SIZE	DIMENSIONS, INCHES				WEIGHT, LBS
	A	B	C	D	
1/4"	2.00	5.03	4.20	2.31	3.4
3/8"	2.00	5.03	4.20	2.31	3.4
1/2"	2.75	5.03	4.20	2.31	4.2

- JR Series, Metric**

VALVE SIZE	DIMENSIONS, MM				WEIGHT, KGS
	A	B	C	D	
DN8	50,8	128	107	58,7	1,5
DN10	50,8	128	107	58,7	1,5
DN15	69,9	128	107	58,7	1,9

JR SERIES FLOW CONFIGURATIONS



Top View

* Gage ports are 1/4" FNPT; Other porting options are available at www.lowflowvalve.com under the resources tab

JR SERIES ORDERING SCHEMATIC

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

Size	
025	1/4"
038	3/8"
050	1/2"

Material	
6L	Stainless Steel 316L

1 & 2		Body Feature	
End Connection		Port Configuration	
A	FNPT 1/4"	A	Port "A"
B	FNPT 3/8"	B	Port "B"
C	FNPT 1/2"	C	Port "C"
		D	Port "D"
		E	Port "E"
ZZ	Non-Standard		

3 & 4		Trim	
1S		Cv 0.012	
2S		Cv 0.08	
3S		Cv 0.2	
4S		Cv 0.03	
1R		Cv 0.012 Self-Relieving PTFE	
2R		Cv 0.08 Self-Relieving PTFE	
3R		Cv 0.2 Self-Relieving PTFE	
4R		Cv 0.03 Self-Relieving PTFE	
ZZ		Non-Standard	

5 & 6		Seat Material	
T1		PTFE Cv 0.012	
T2		PTFE Cv 0.08	
T3		PTFE Cv 0.2	
T4		PTFE Cv 0.03	
P1		PEEK Cv 0.012	
P2		PEEK Cv 0.08	
P3		PEEK Cv 0.2	
P4		PEEK Cv 0.03	
ZZ		Non-Standard	

7 & 8		Range Spring/Outlet Pressure	
E1		5- 50 psi	
E2		25 - 100 psi	
E3		50 - 150 psi	
E4		75 - 250 psi	
E5		100 - 475 psi	
E6		200 - 750 psi	
ZZ		Non-Standard	

9 & 10		Diaphragm Material	
JL		Jorlon	
ZZ		Non-Standard	

11 & 12		Actuator	
		Ranges E1 thru E6	
SK		Standard	
CV		Captured Vent	
PM		Panel Mount	
TP		Tamper Proof	
ZZ		Non-Standard	

13 & 14		Inlet Gauge	
AA		0 - 30 psig	
BB		0 - 60 psig/bar (dual)	
CC		0 - 100 psig/bar (dual)	
DD		0 - 160 psig/bar (dual)	
EE		0 - 200 psig/bar (dual)	
FF		0 - 300 psig/bar (dual)	
GG		0 - 400 psig/bar (dual)	
HH		0 - 600 psig/bar (dual)	
JJ		0 - 1000 psi/bar (dual)	
KK		0 - 2000 psi/bar (dual)	
LL		0 - 3000 psi/bar (dual)	
MM		0 - 5000 psi/bar (dual)	
NN		None	
ZZ		Non-Standard	

15		Outlet Gauge	
A		0 - 30 psig	
B		0 - 60 psig/bar (dual)	
C		0 - 100 psig/bar (dual)	
D		0 - 160 psig/bar (dual)	
E		0 - 200 psig/bar (dual)	
F		0 - 300 psig/bar (dual)	
G		0 - 400 psig/bar (dual)	
H		0 - 600 psig/bar (dual)	
J		0 - 1000 psi/bar (dual)	
N		None	
ZZ		Non-Standard	

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

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