



JRM Series

Gas Pressure Reducing Valve, SST Diaphragm

GAS PRESSURE REDUCING VALVE

The LowFlow JRM Series of pressure reducing valves are designed to regulate the outlet pressure for very low flow and high pressure, low molecular weight, corrosive and hazardous gasses. The impermeable 316L diaphragm sealed between the body/bonnet joint make it ideal for research and manufacturing systems that utilize these gasses.

Features:

- Top entry design facilitates easy in-line cleaning and maintenance
- Barstock construction guarantees material integrity and surface finish
- Proprietary metal diaphragm design provides flexibility and long life
- Five spring ranges with set points ranging from 5 to 475 psi (0,3 – 33 bar)
- Three different soft seat materials for ANSI Class VI shutoff
- Extensive Flow vs. set point pressure test charts allows you to see how your valve will react under real flowing conditions
- Gauge Ports, panel mount, locking, and captured vent available as standard options

Applications

- Laboratory and point-of-use gas systems
- Sampling systems, zero, span and calibration analyzer gases
- Specialty and industrial gas cylinder regulator
- Chromatograph flame detector fuel supply
- Fuel cells



A Division of
Richards Industrials
3170 Wasson Road
Cincinnati, OH 45209

513.533.5600
lowflow@richardsind.com
www.lowflowvalve.com

JRM SERIES SPECIFICATIONS

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

End Connections

- Threaded

Soft Seat Materials for ANSI Class VI Shut-off

- PTFE to +150°F (66°C)
- PEEK to +350°F (+177°C)
- Kel-F to +250°F (+121°C)

Body / Spring Housing Material

- SA479 316L SST standard
- Others on application

Diaphragm Material:

- SA479 316L SST standard

Maximum Operating Pressure: 4000 psig (276 bar) @ -20°F (-28,9°C) / 3000 psi max (207 bar) ΔP

Maximum Operating Temperature: 2500 psi (178,8 bar) @ 350°F (177°C) with PEEK seat; 3600 psi (248 bar) @ 150°F (66°C) with PTFE seat; 2165 psi (149 bar) @ 350°F (177°C) with KEL-F seat

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 Inlet: 4000 psi (276 bar)

Spring Ranges

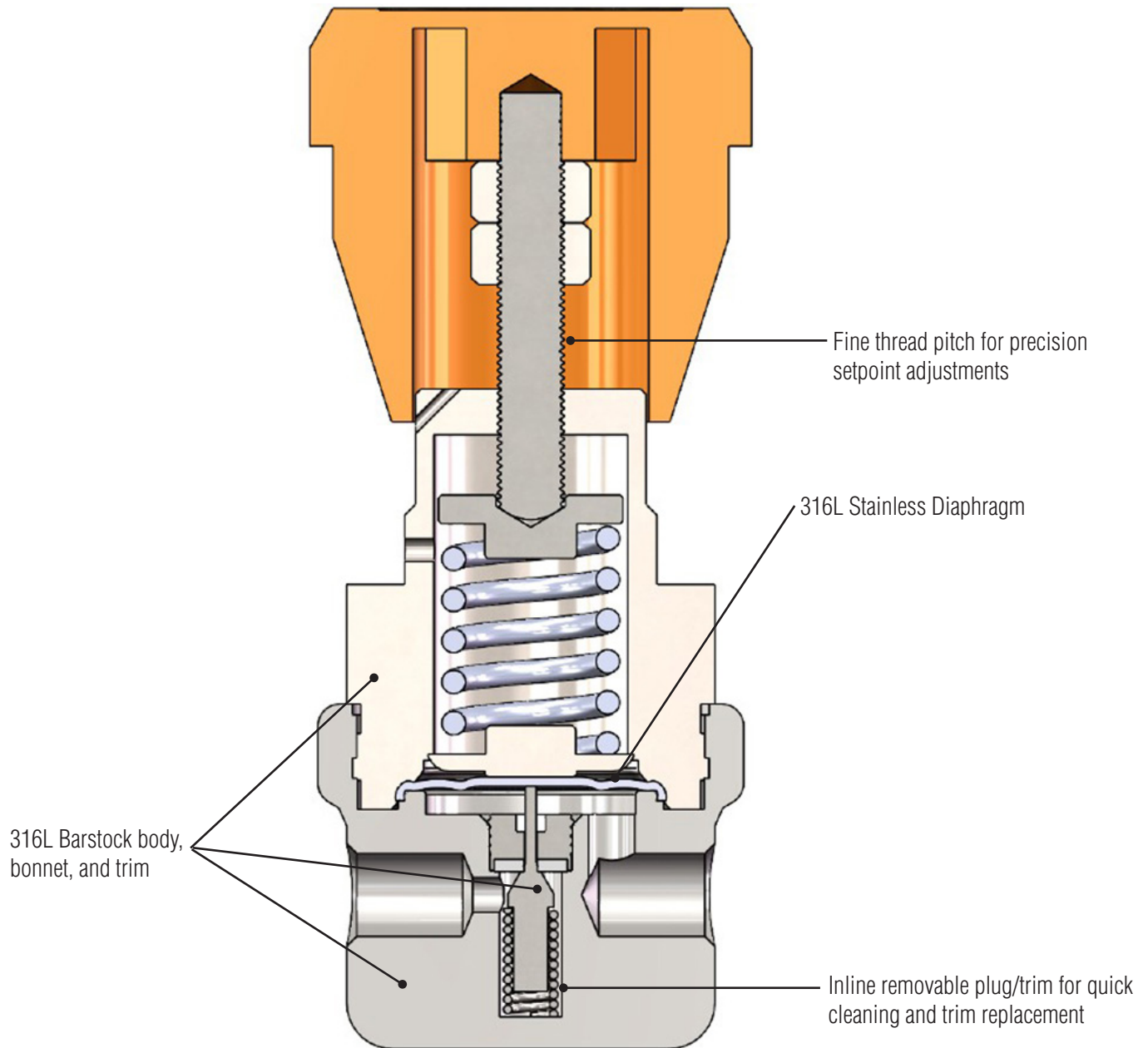
- 5 – 50 psi (0,3 – 3,4 bar)
- 25 – 100 psi (1,7 – 6,9 bar)
- 50 – 150 psi (3,4 – 10,3 bar)
- 75 – 250 psi (5,2 – 17 bar)
- 100 – 475 psi (7 – 33 bar)

Flow Characteristics

- Cv 0.012 (0,010 Kv)
- Cv 0.03 (0,025 Kv)
- Cv 0.08 (0,069 Kv)
- Cv 0.20 (0,172 Kv)

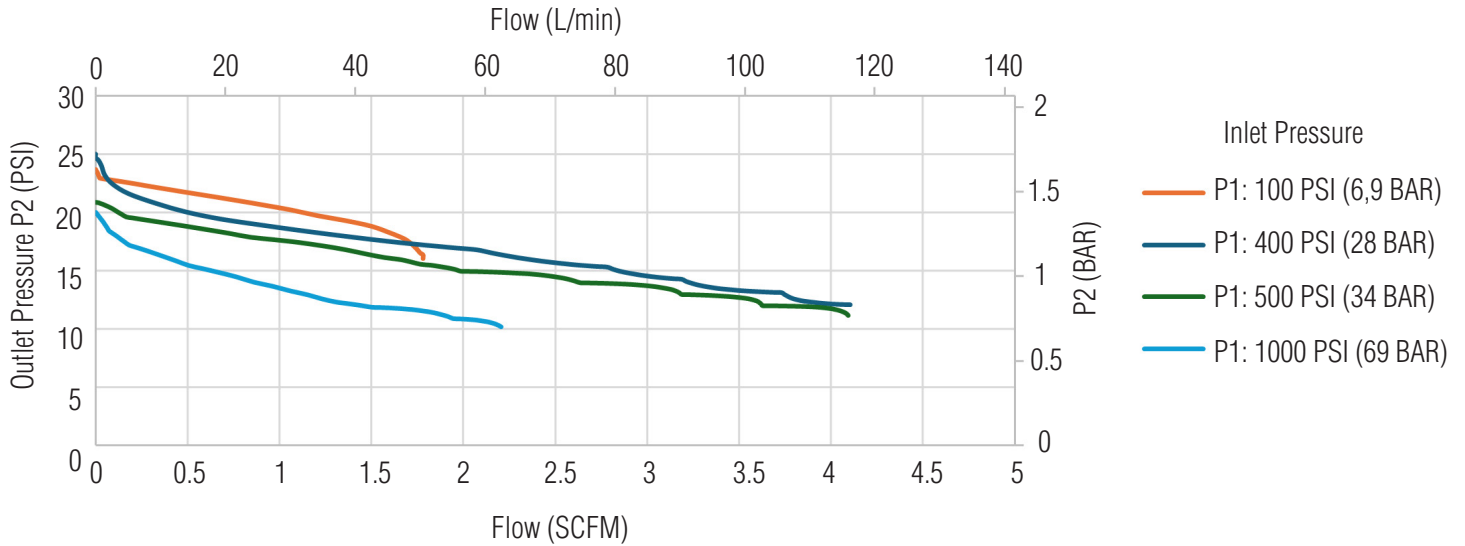
Options

- Anti-Tamper
- Gauge Port(s) - 1/4" FNPT
- ANSI and DIN flanges
- Captured Vent
- Panel Mount
- Locking Wire
- Other body/spring housing materials on application

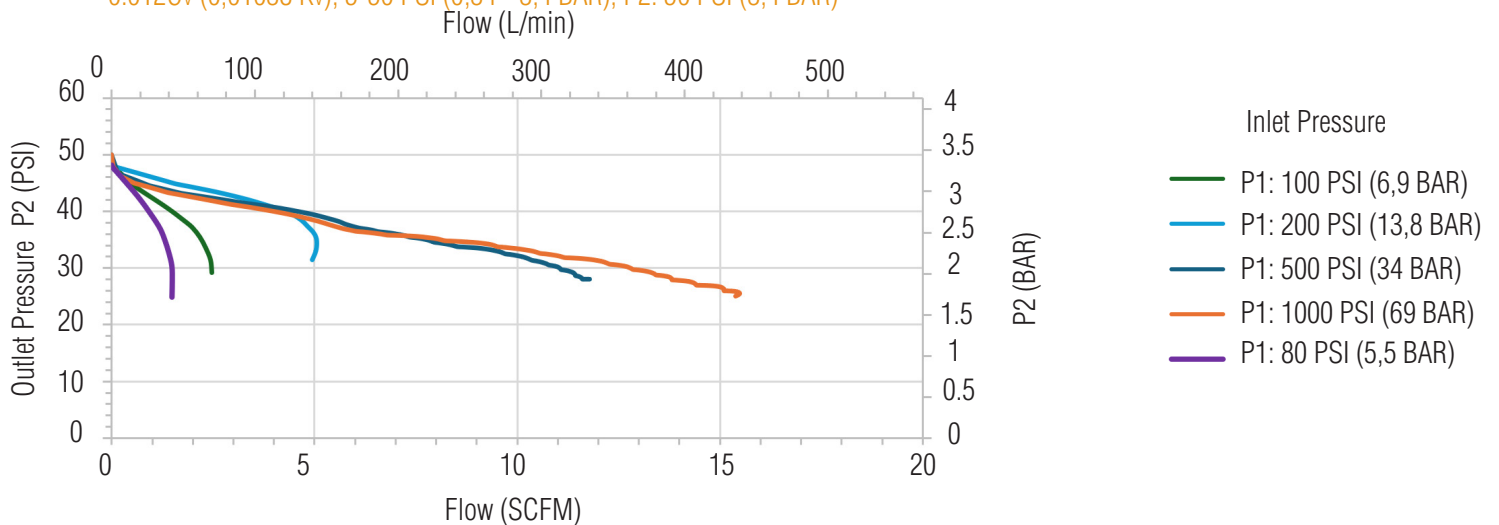
JRM SERIES FEATURES & BENEFITS

JRM SERIES TRIM FLOW GRAPHS

- 0.012Cv (0,01038 Kv), 5-50 PSI (0,34 - 3,4 BAR), P2: 25 PSI (1,7 BAR)

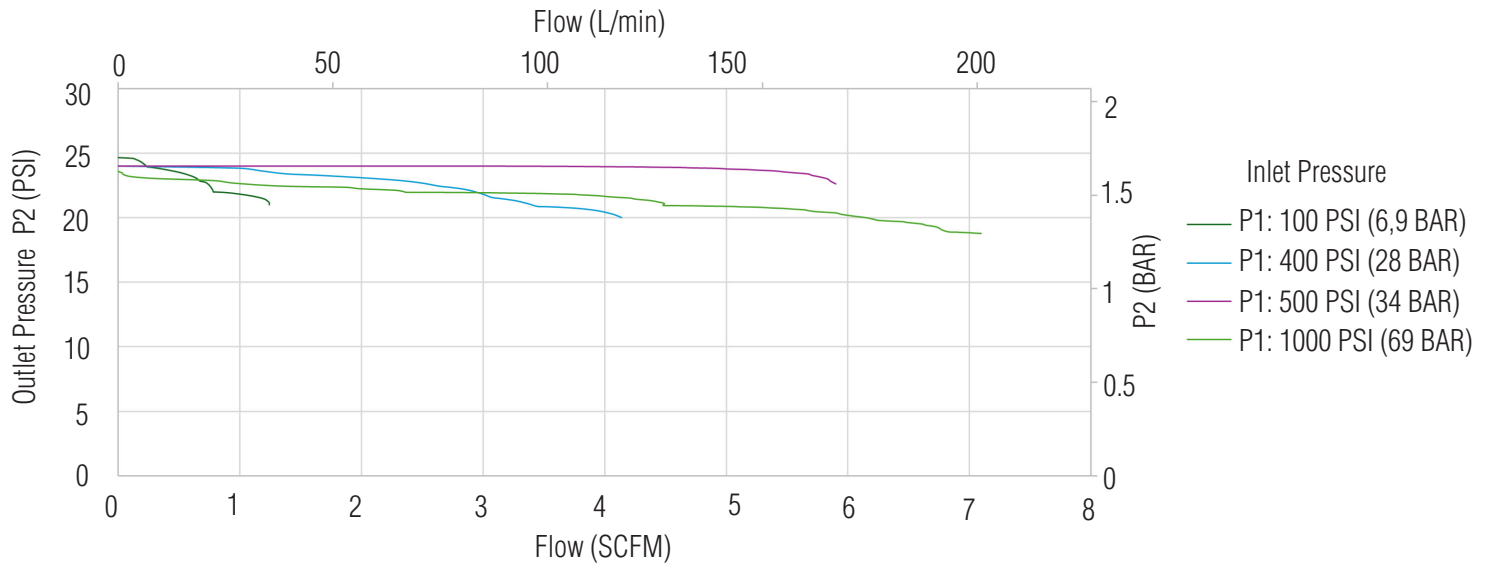


- 0.012Cv (0,01038 Kv), 5-50 PSI (0,34 - 3,4 BAR), P2: 50 PSI (3,4 BAR)

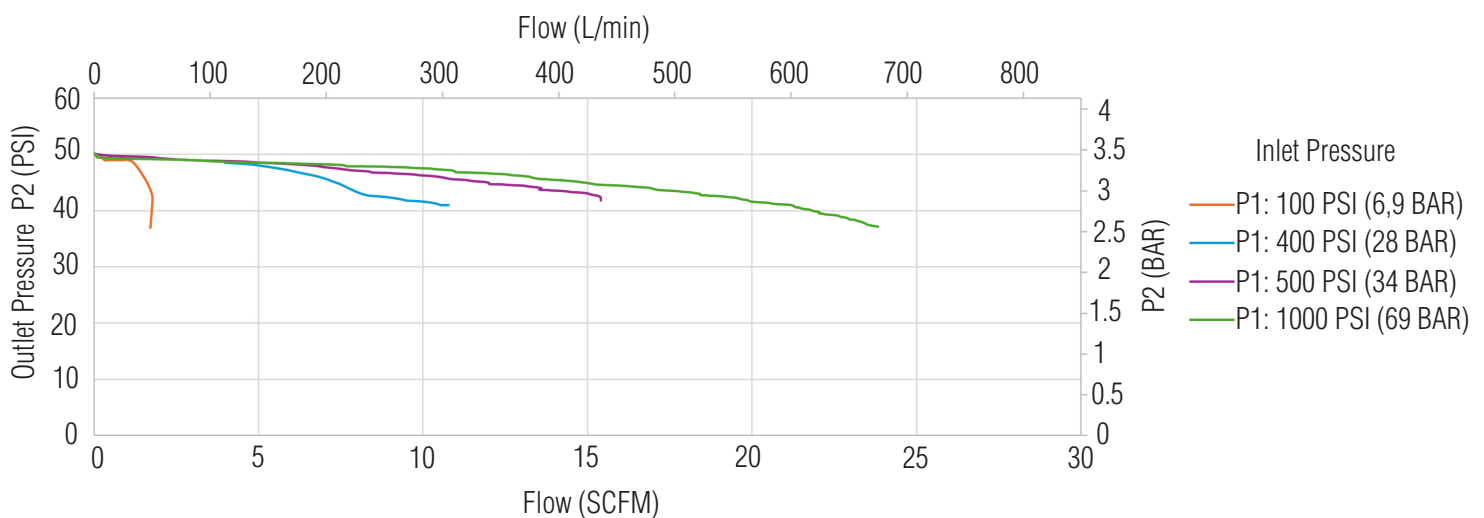


JRM SERIES TRIM FLOW GRAPHS

- 0.08 Cv (0,069 Kv), 5-50 PSI (0,34 - 3,4 BAR), P2: 25 PSI (1,7 BAR)

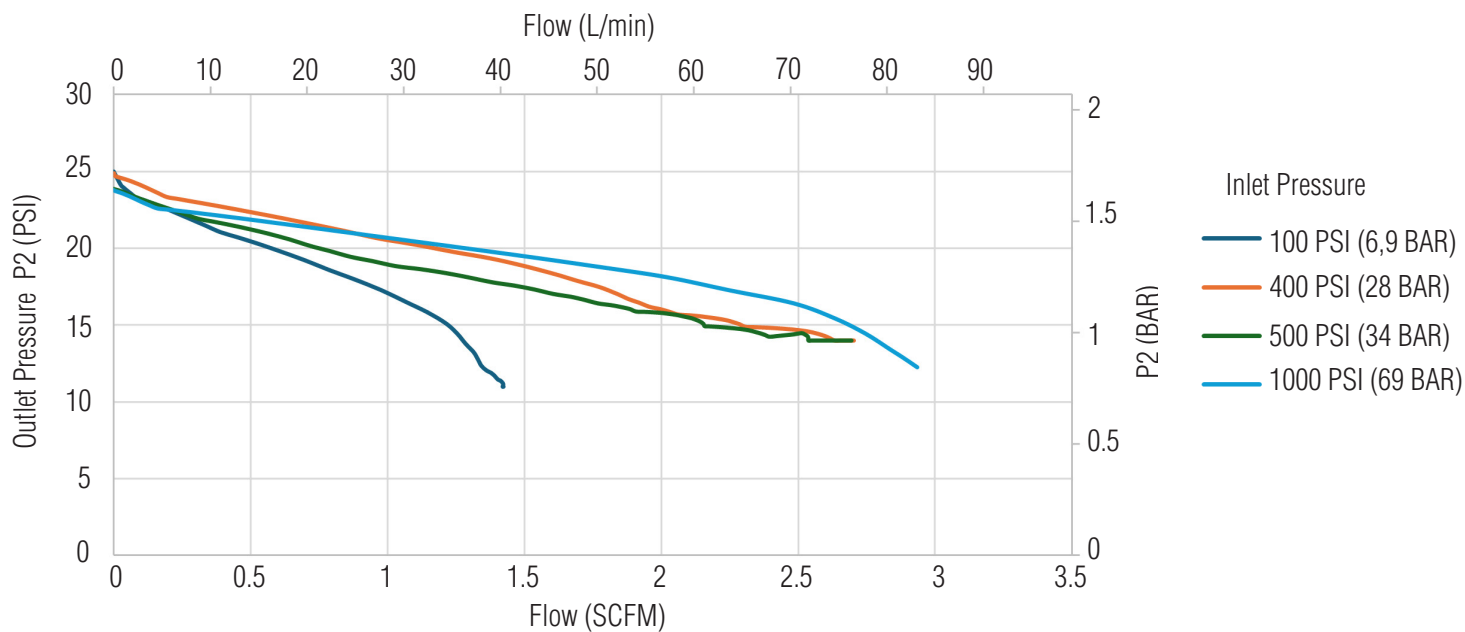


- 0.08 Cv (0,069 Kv), 5-50 PSI (0,34 - 3,4 BAR), P2: 50 PSI (3,4 BAR)

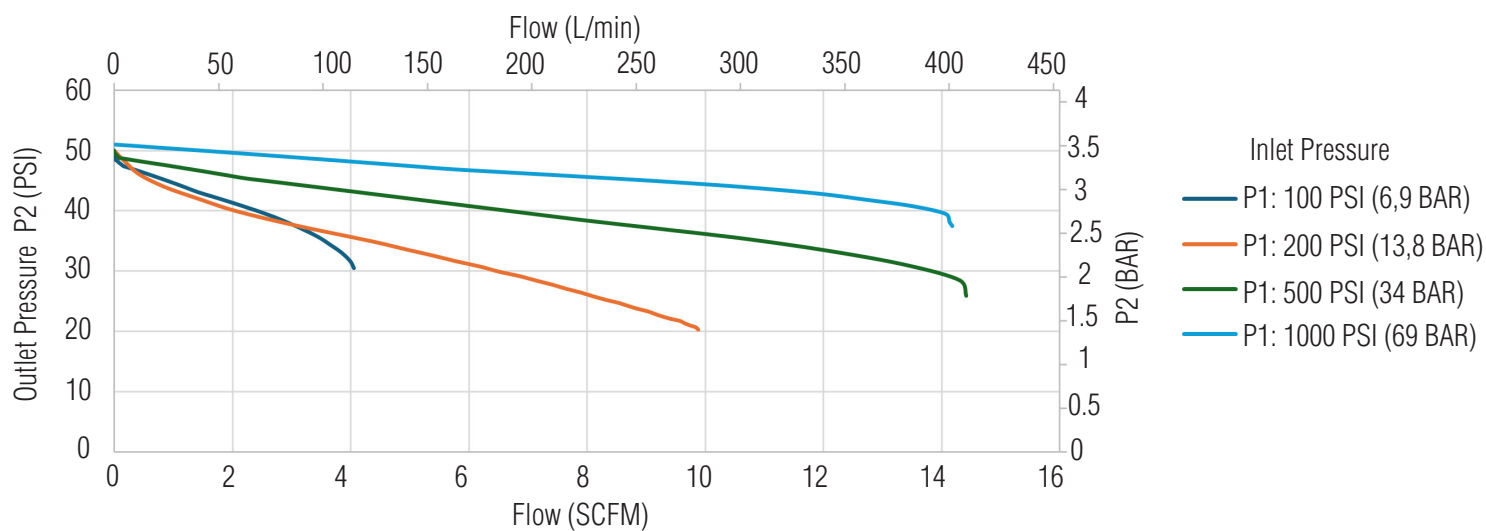


JRM SERIES TRIM FLOW GRAPHS

- 0.08Cv (0,069 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 25 PSI (1,7 BAR)

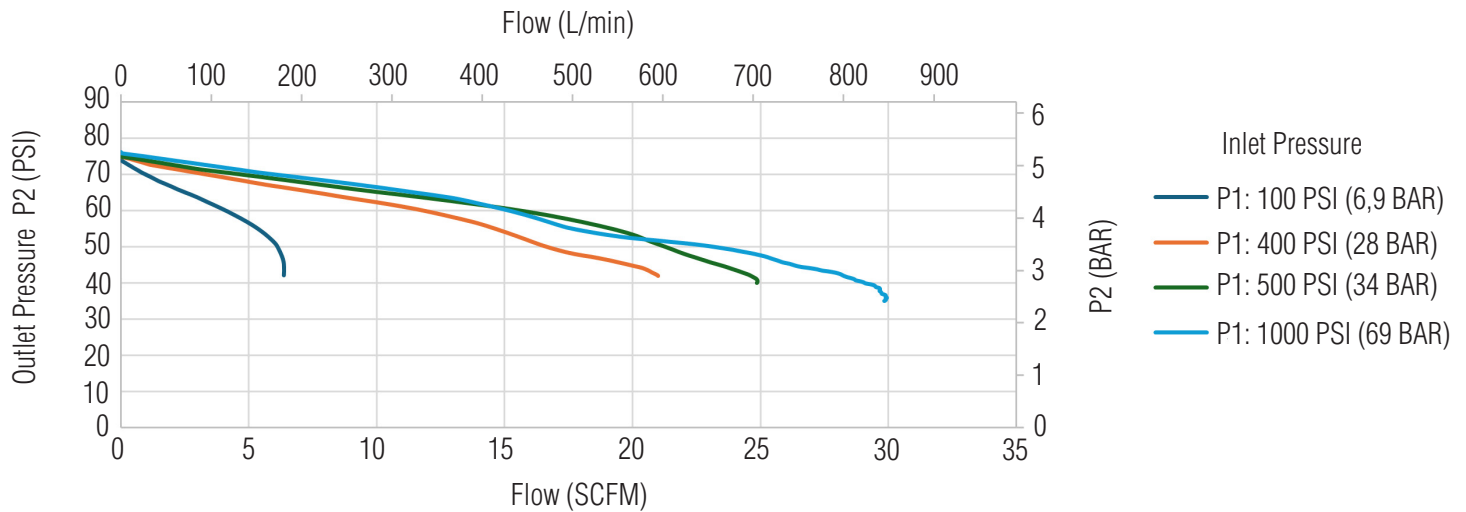


- 0.08Cv (0,069 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 50 PSI (3,4 BAR)

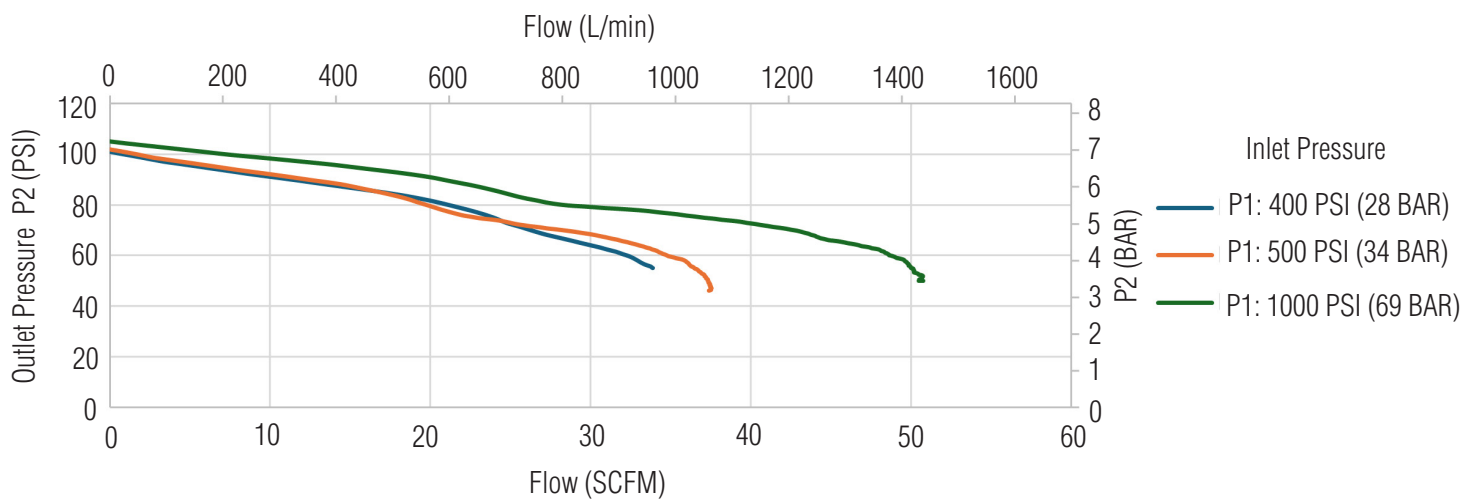


JRM SERIES TRIM FLOW GRAPHS

- 0.08Cv (0,069 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 75 PSI (5,2 BAR)

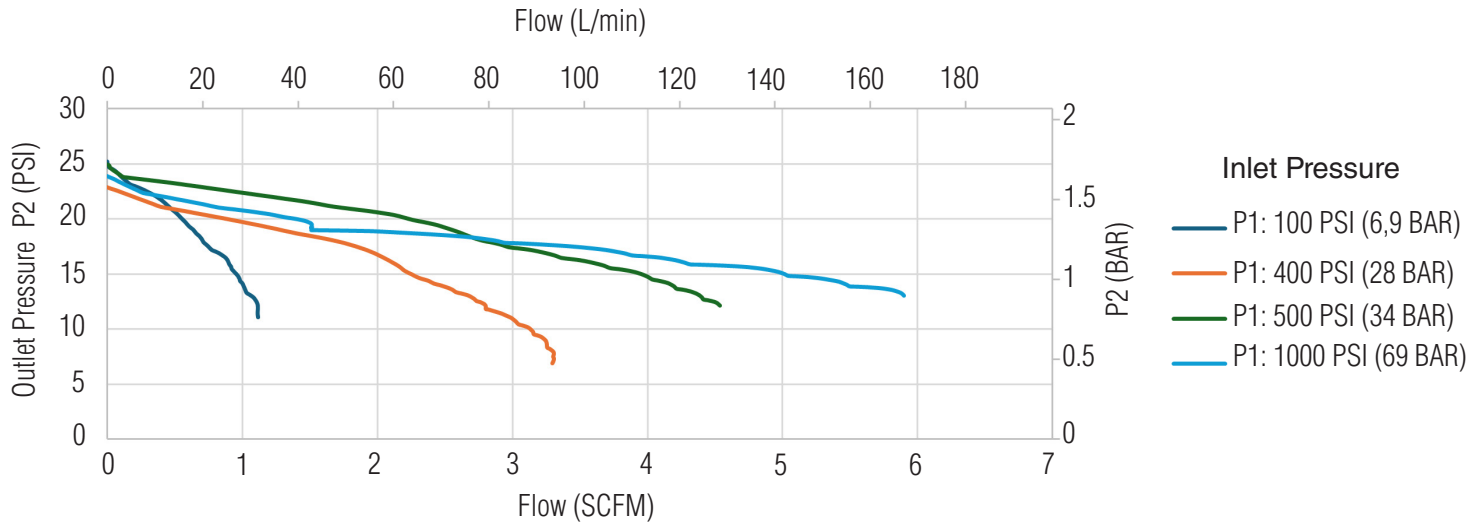


- 0.08Cv (0,069 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 100 PSI (6,9 BAR)

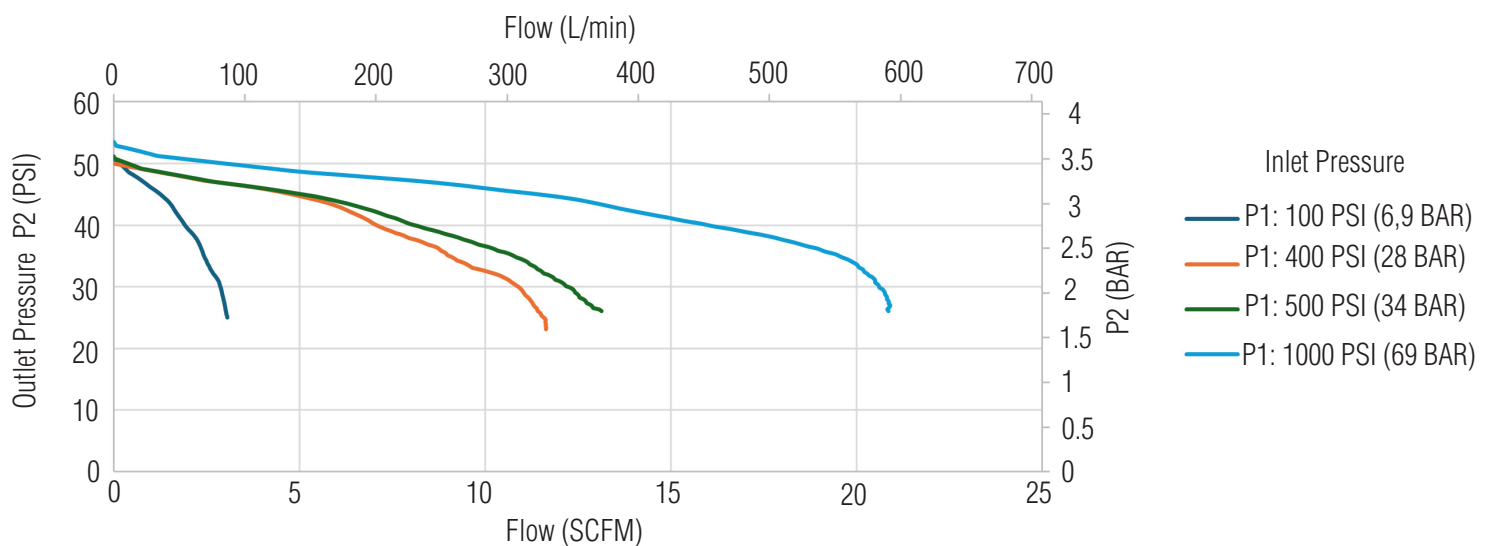


JRM SERIES TRIM FLOW GRAPHS

- 0.08Cv (0,069 Kv), 50-150 PSI (3,4 - 10,3 BAR), P2: 25 PSI (1,7 BAR)

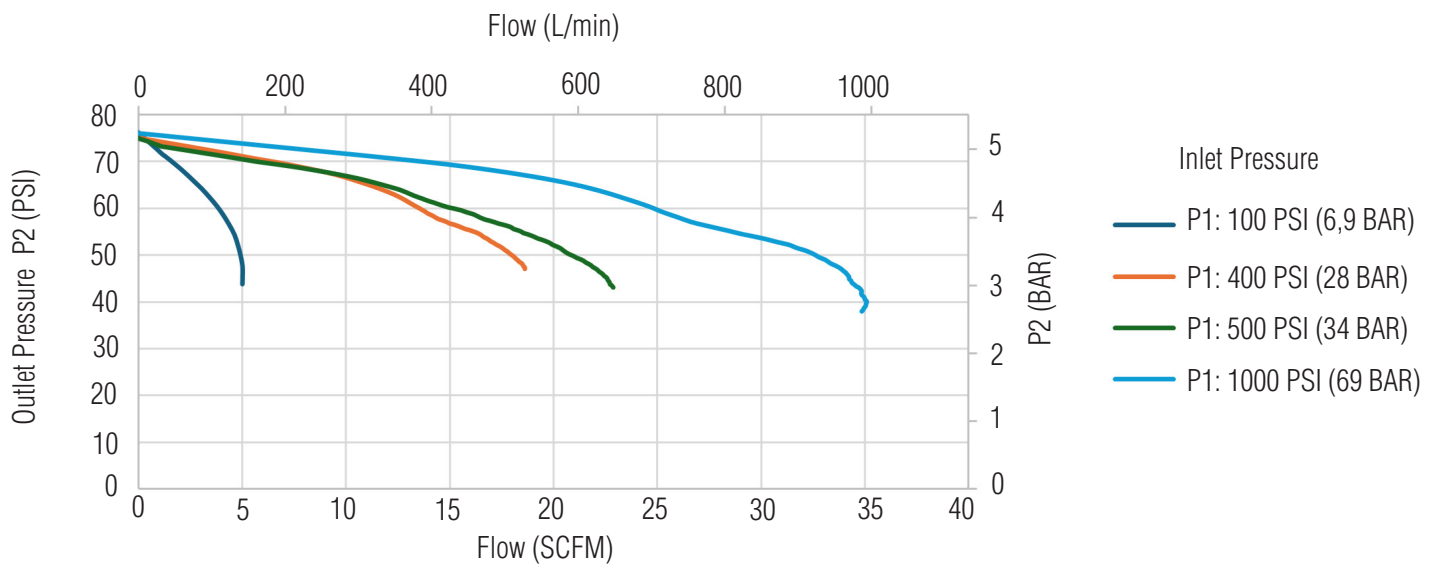


- 0.08Cv (0,069 Kv), 50-150 PSI (3,4 - 10,3 BAR), P2: 50 PSI (3,4 BAR)

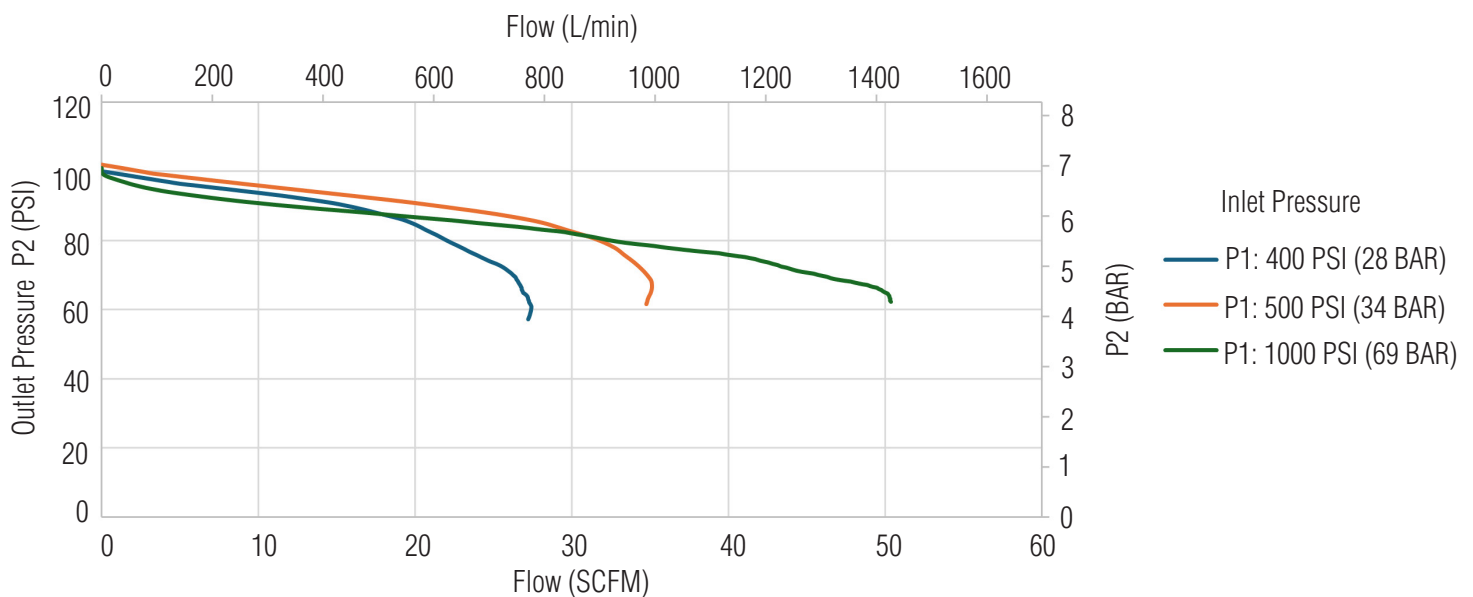


JRM SERIES TRIM FLOW GRAPHS

- 0.08Cv (0,069 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 75 PSI (5,2 BAR)

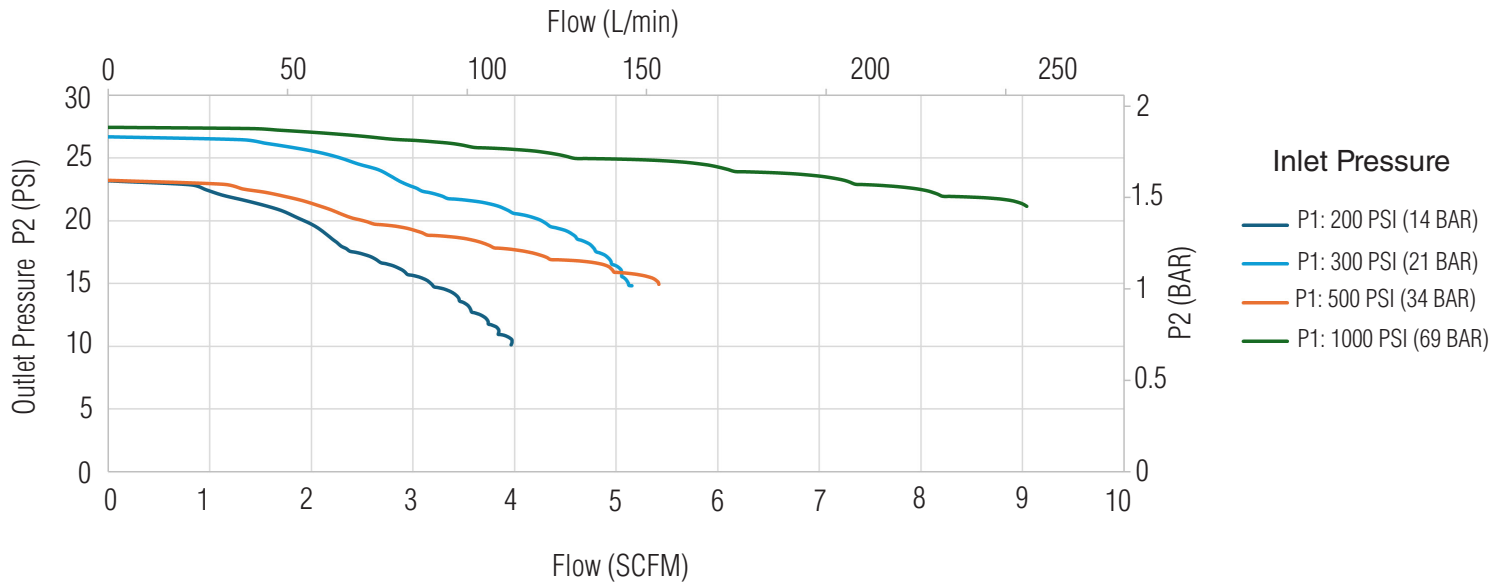


- 0.08Cv (0,069 Kv), 50-150 PSI (3,4 - 10,3 BAR), P2: 100 PSI (6,9 BAR)

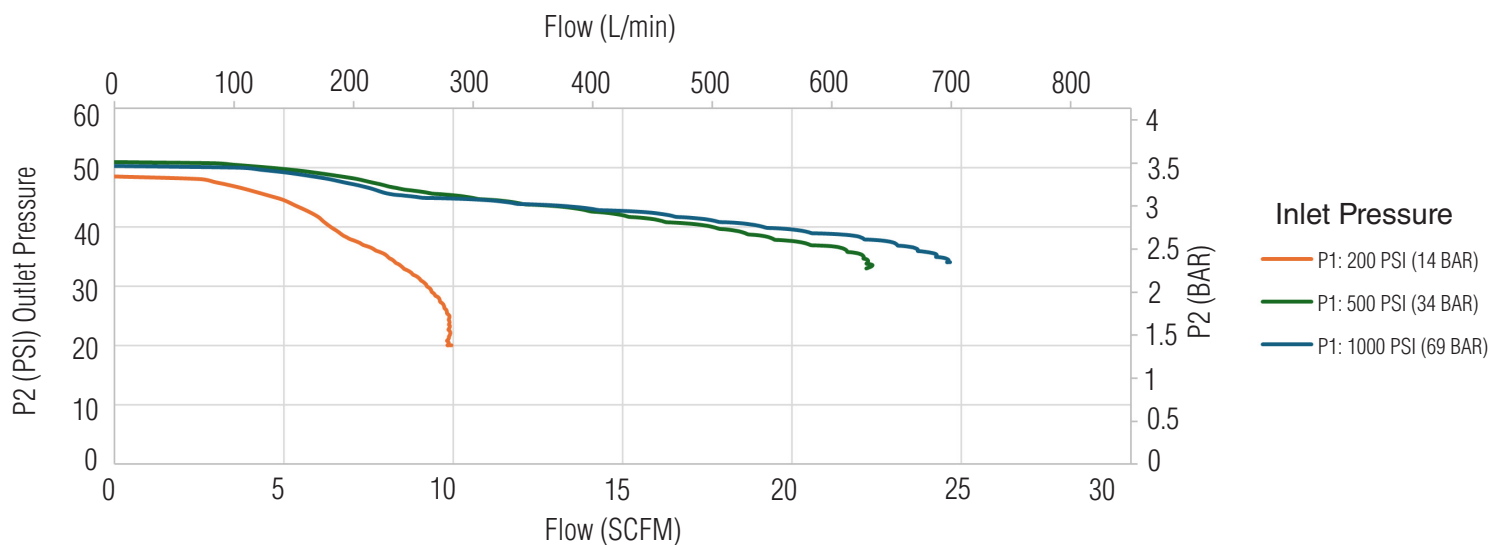


JRM SERIES TRIM FLOW GRAPHS

- 0.2Cv (0,173 Kv), 5-50 PSI (0,34 - 3,4 BAR), P2: 25 PSI (1,7 BAR)

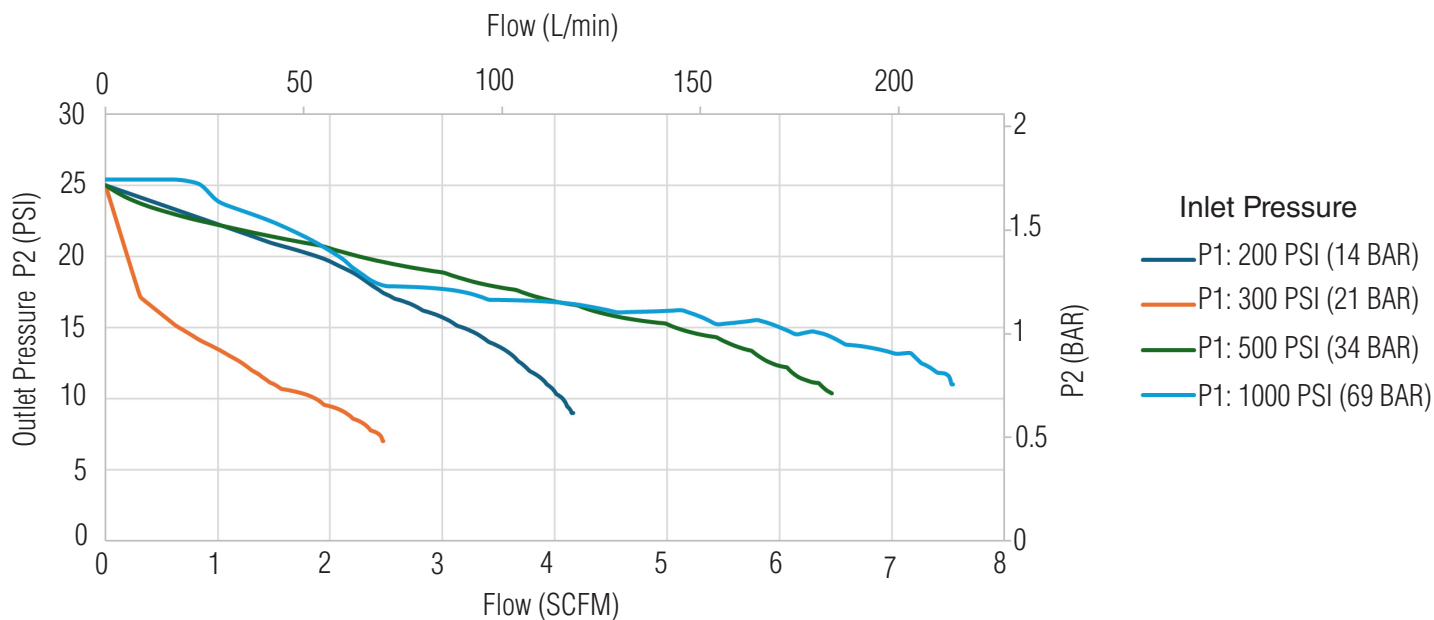


- 0.2Cv (0,173 Kv), 5-50 PSI (0,34 - 3,4 BAR), P2: 50 PSI (3,4 BAR)

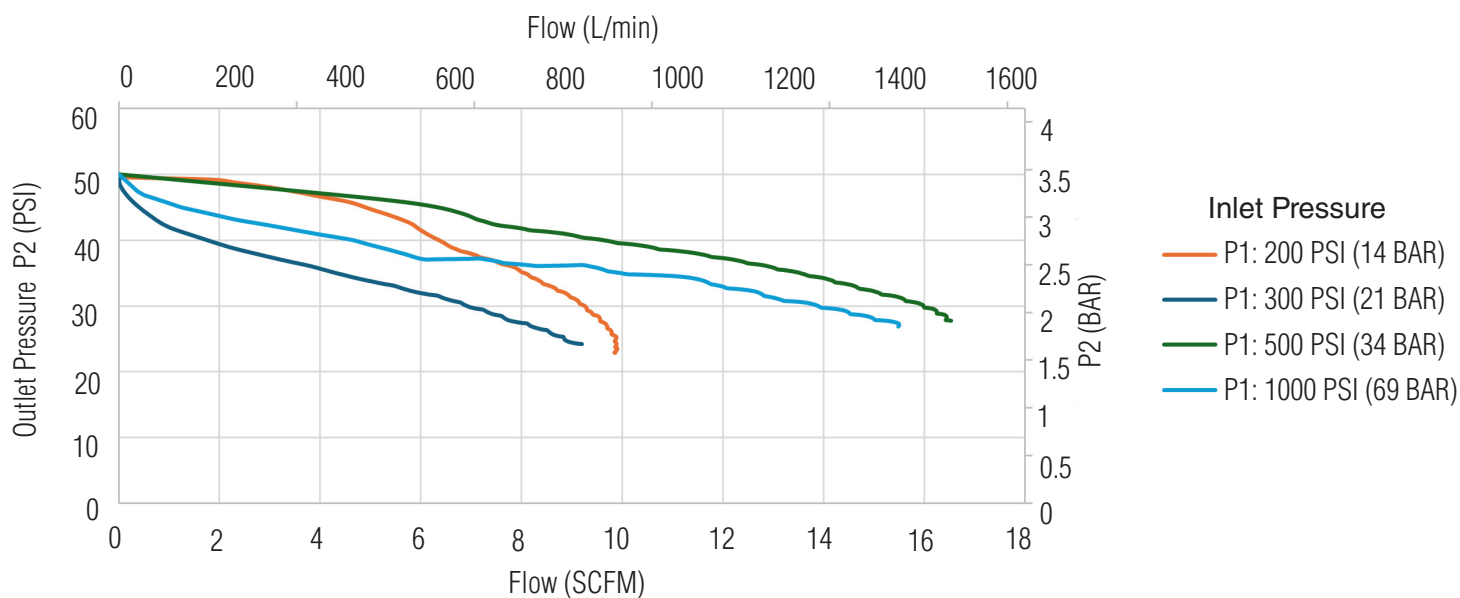


JRM SERIES TRIM FLOW GRAPHS

- 0.2Cv (0,173 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 25 PSI (1,7 BAR)

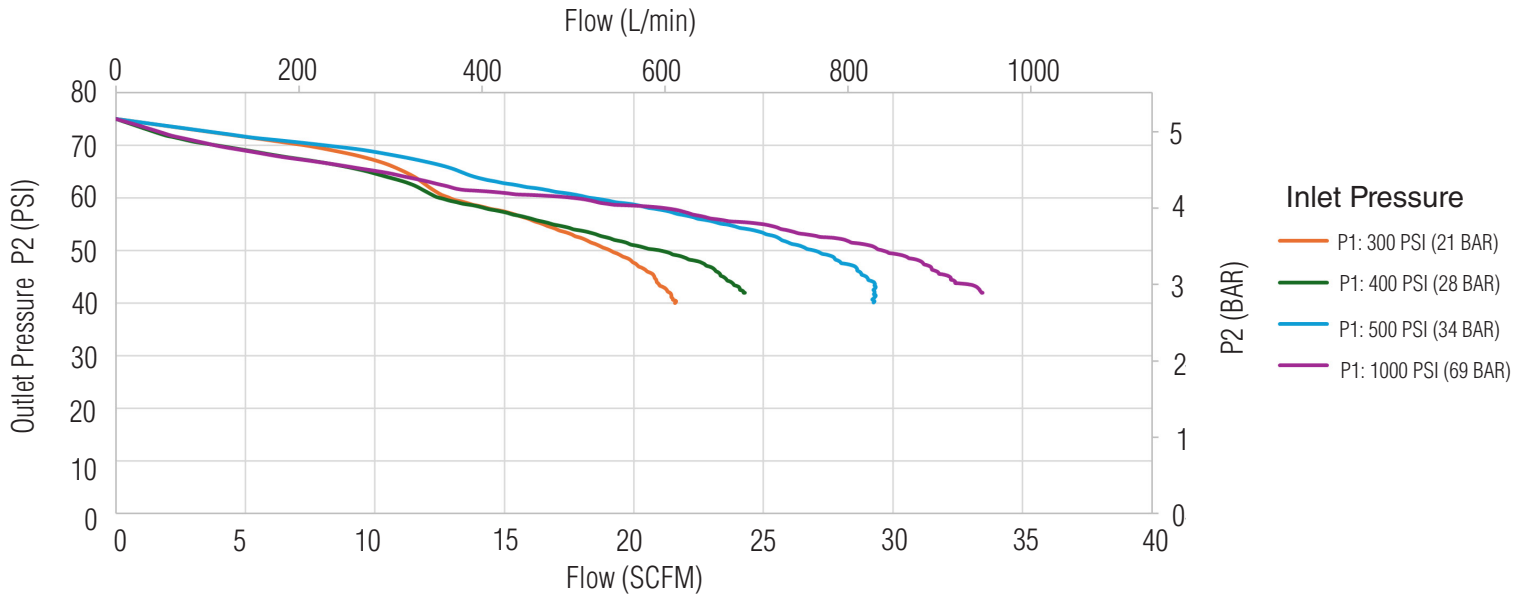


- 0.2Cv (0,173 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 50 PSI (3,4 BAR)

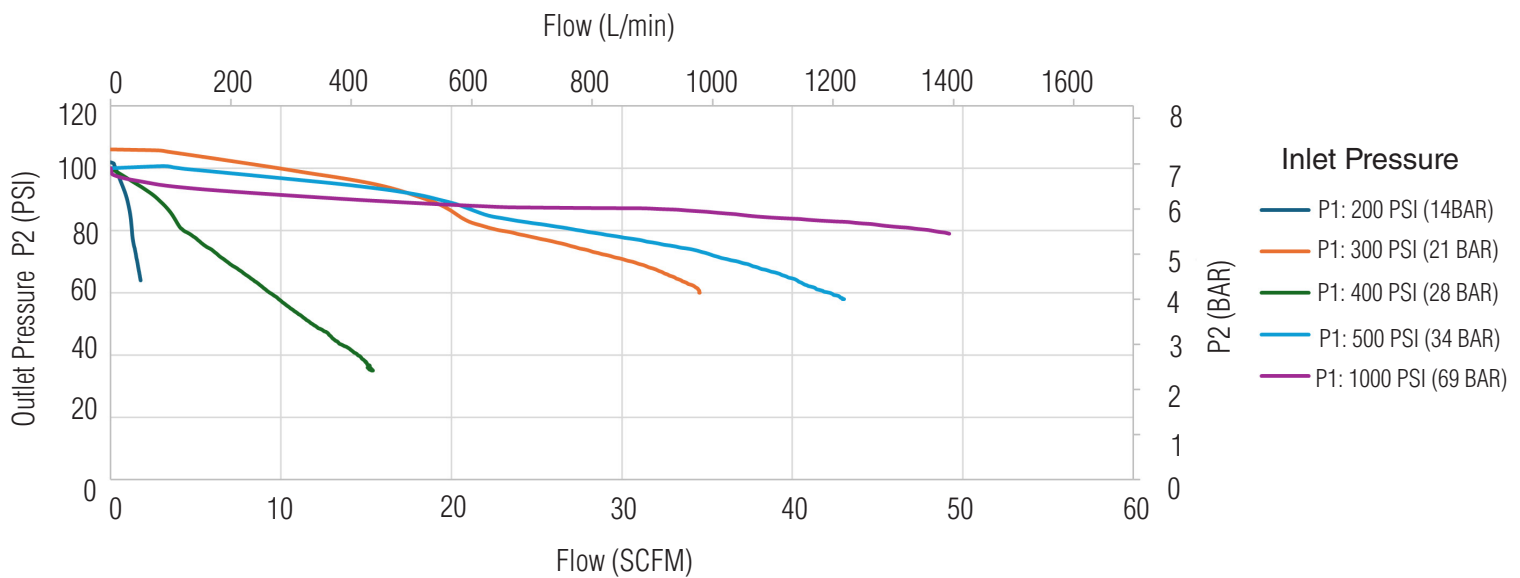


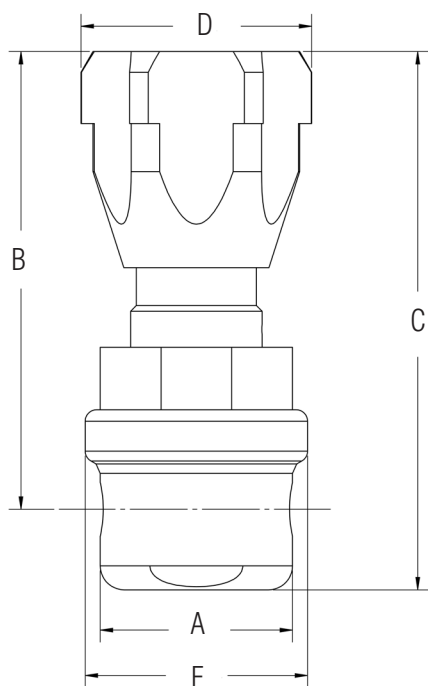
JRM SERIES TRIM FLOW GRAPHS

- 0.2Cv (0,173 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 75 PSI (5,2 BAR)



- 0.2Cv (0,173 Kv), 25-100 PSI (1,7 - 6,9 BAR), P2: 100 PSI (6,9 BAR)



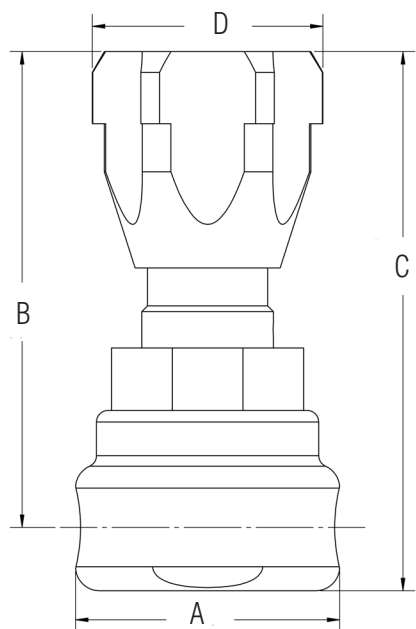
JRM SERIES DIMENSIONS


- JR Series, Inches (1/4" & 3/8")**

VALVE SIZE	DIMENSIONS, INCHES					WEIGHT, LBS
A	B	C	D	E		
1/4"	Ø2.00	4.77	5.60	2.40	Ø2.31	3.0
3/8"	Ø2.00	4.77	5.60	2.41	Ø2.31	3.0

- JR Series, Metric (DN8 & DN10)**

VALVE SIZE	DIMENSIONS, MM					WEIGHT, KGS
A	B	C	D	E		
DN8	Ø50,8	121	142	61	Ø58,8	1,36
DN10	Ø50,8	121	142	61,2	Ø58,8	1,36



- JR Series, Inches (1/2")**

VALVE SIZE	DIMENSIONS, INCHES				WEIGHT, LBS
A	B	C	D		
1/2"	2.75	4.94	5.60	2.40	3

- JR Series, Metric (DN15)**

VALVE SIZE	DIMENSIONS, MM				WEIGHT, KGS
A	B	C	D		
DN15	69,9	126	107	61	1,36

JRM SERIES ORDERING SCHEMATIC

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

Model	
JRM	Pressure Reducing Valve

Size	
025	1/4" (DN8)
038	3/8" (DN10)
050	1/2" (DN15)

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"
		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
ZZ	Non-Standard

5 & 6	Seat
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
K1	Kel - F Cv 0.012
K2	Kel - F Cv 0.08
K3	Kel - F Cv 0.2
K4	Kel - F Cv 0.03
ZZ	Non-Standard

7 & 8	Range Spring/Outlet Pressure
E1	5- 50 psi (0,3 – 3,4 bar)
E2	25 - 100 psi (1,7 – 6,9 bar)
E3	50 - 150 psi (3,4 – 10,3 bar)
E4	75 - 250 psi (5,2 – 17 bar)
E5	100 - 475 psi (7 – 33 bar)
ZZ	Non-Standard

9 & 10	Diaphragm Material
6L	316/316L

11 & 12	Actuator
	Ranges E1 thru E5
SK	Standard
CV	Captured Vent
PM*	Panel Mount
TP	Tamper Proof
LW	Lockwire TP
ZZ	Non-Standard

* When combined with gauge options, the gauge(s) will be behind the panel

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

* Customer assumes all responsibility for possible damage or injury if selected gauge span does not fully cover range spring / outlet pressure option

JRM SERIES ORDERING SCHEMATIC

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

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

* Customer assumes all responsibility for possible damage or injury if selected gauge span does not fully cover range spring / outlet pressure option

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

*Consult factory for compatible gauge options