

JBDL Series

Back Pressure Reducing Valves

BACK PRESSURE REDUCING VALVES

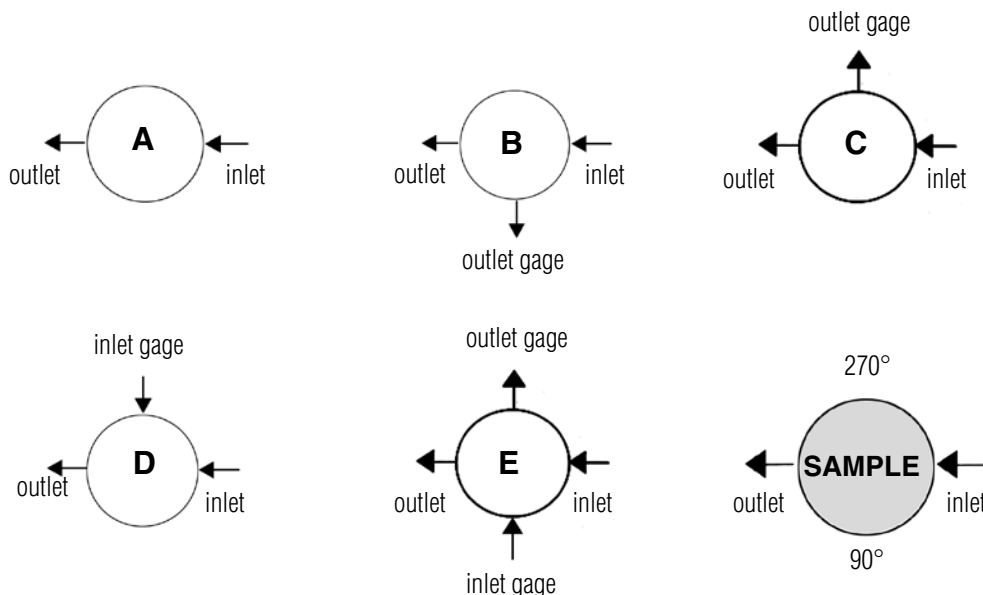
The JBDL Series is a diaphragm operated, balanced trim, back pressure regulator. The 1.95 Cv offers increased flows across its 1200 psi inlet range, while the Kel-F soft seat provides ANSI Class VI shutoff. Four set spring ranges and three soft seal options offer the customer flexibility in a number of applications and environments. These valves are designed to regulate a variety of gases and liquids from pump and compressor control to process pressure control where high flows and low pressures are required.

Features:

- In-line removable plug and trim provides for quick cleaning and maintenance
- Barstock construction guarantees material integrity and surface finish
- Balanced trim offers high flows with minimal lockup
- Optimized internal volume
- Proprietary Jorlon diaphragm provides exceptionally long life
- Kel-F soft seat for ANSI Class VI shutoff



JBDL SERIES FLOW CONFIGURATIONS



Top View

Gage ports are 1/4" FNPT; Consult factory for other porting options



A Division of
Jordan Valve
3170 Wasson Road
Cincinnati, OH 45209

toll free. 800.543.7311
local. 513.533.5600
fax. 513.871.0105

www.lowflowvalve.com

JBDL SERIES SPECIFICATIONS

Line Size: 1/2" (DN15)

Materials

- Body & Trim: SS 316L
- Spring Housing: SS 316L
- Plug: 416 SST
- Seat Insert: KEL-F
- Body Seals: Elastomer o-rings (Buna-N, EPDM, Viton) with back up rings
- PTFE

Inlet Pressure: 1,200 psi (400 bar)

Spring Ranges:

- SST: 0 – 50 psi (0 – 3,45 bar)
- Red: 0 - 100 psi (0 - 6,9 bar)
- White: 0 - 200 psi (0 - 13,8 bar)
- Green: 0 - 400 psi (0 - 27,6 bar)

Seat Diameter: 0.40" (10mm)

Maximum Allowable Pressure: 1,200 psi max inlet @ 100°F / 400 psi max ΔP

Maximum Operating Temperature: 600 psi max inlet @ 250°F (331 bar max inlet @ 121°C)

End Connections

- Threaded Ends – FNPT or BSPP
- Socket Weld
- Flanged

Gauge Port: 1/4" NPT (optional)

Temperature Range: -29°F to +250°F (-20°C to +120°C) - actual range depends on choice of seal materials

Shutoff: Class VI

Flow Capacity: Cv 1.95 (1,69 Kv)

Optional Cleaning: For oxygen service, oil free service

Options:

- Panel Mounting
- Captured Vent

JBDL SIZING

1. Use the "LVCV Sizing Software" link found on the www.lowflowvalve.com home page and navigate to LowFlow valve sizing.
2. Use the software to size for flow using the listed CV of the valve and the customer's application conditions.
3. The JBDL is rated to 50% of the flow value found using LVCV. There is no low-end cutoff limit.

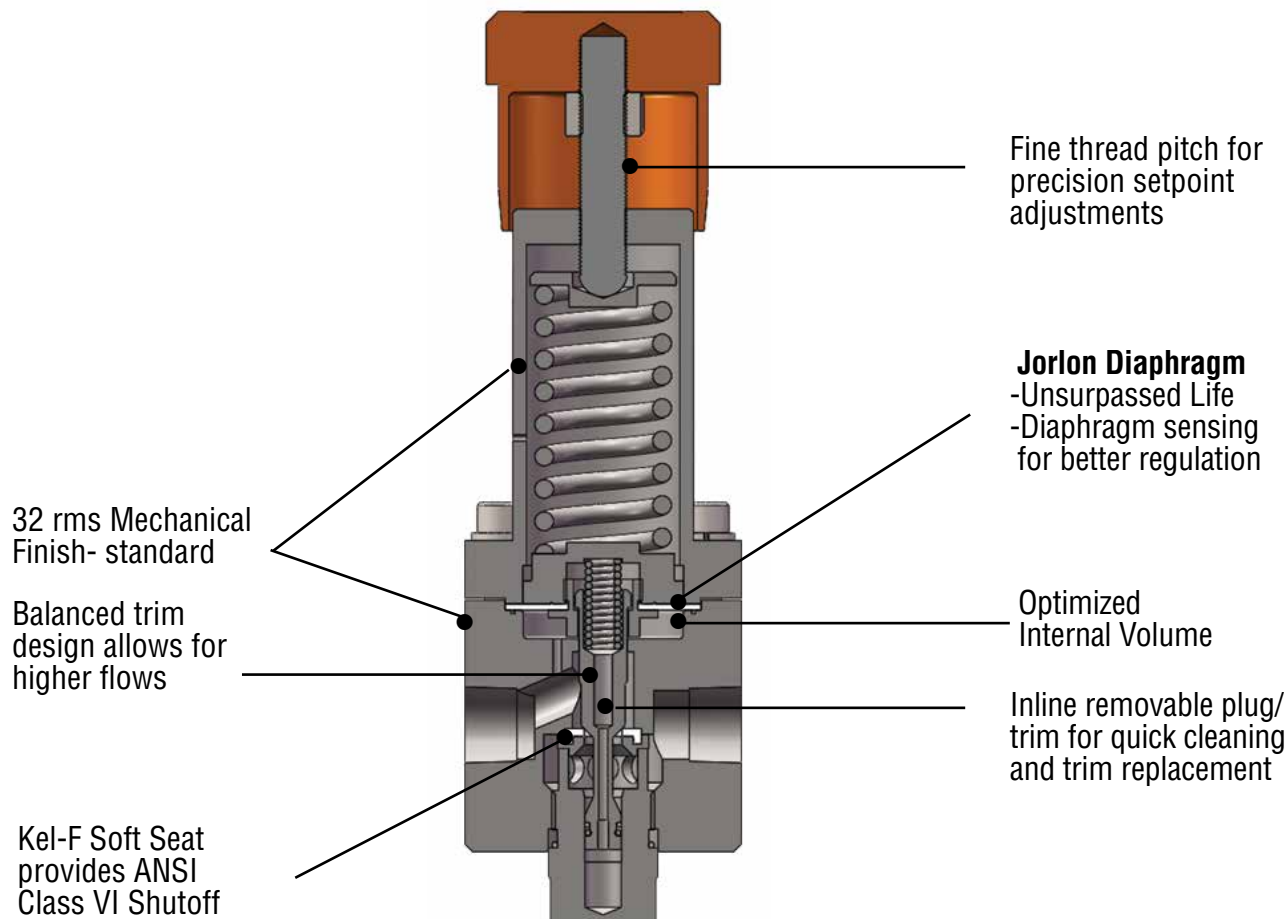
Example:

Air, ambient temperature, P1 = 200 psi, P2 = 0 psi, 1/2" schedule 40 pipe, flow rate 6,000 SCFH

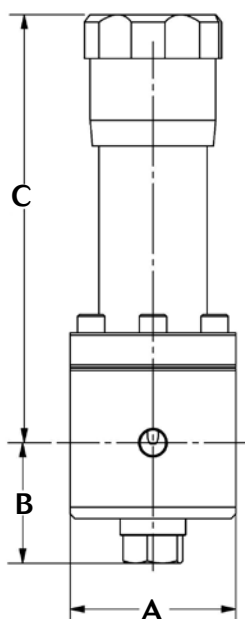
Using LVCV to size for flow we find that these conditions and a 1.95 CV will result in a maximum flow of 13,742 scfh. Multiply this value by 0.50 to find the maximum rated flow for the JBDL-050-S6. Your result will be 6,871 scfh (13,742 x 0.5 = 6,871). Any flow below this result is acceptable for the valve.

FEATURES AND BENEFITS

JBDL SERIES FEATURES AND BENEFITS



JBDL DIMENSIONS



VALVE SIZE	DIMENSIONS, INCHES			WEIGHT, LBS
	A	B	C	
1/2"	2.8	2.1	7.5	7.7

VALVE SIZE	DIMENSIONS, MM			WEIGHT, KGS
	A	B	C	
DN15	71	53	191	3,5

JBDL SERIES ORDERING SCHEMATIC

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

Model	
JBDL	Low Range

Size	
050	1/2"
075	3/4"
100	1"

Material	
6L	Stainless Steel 316L

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

3 & 4	Trim
BB	Buna-N
EE	EPDM
VV	Viton
ZZ	Non-Standard

5 & 6	Seat
K5	KEL-F Cv 1.95 (1,69 Kv)
ZZ	Non-Standard

7 & 8	Range Spring/Outlet Pressure
E1	0 - 50 psi (0 - 3,45 bar)
E2	0 - 100 psi (0 - 6,9 bar)
E3	0 - 200 psi (0 - 13,8 bar)
E4	0 - 400 psi (0 - 27,6 bar)
ZZ	Non-Standard

9 & 10	Diaphragm
BB	Buna-N
EE	EPDM
VV	Viton
ZZ	Non-Standard

11 & 12	Actuator
SK	Standard
CV	Captured Vent
PM	Panel Mount
ZZ	Non-Standard

13 & 14	Inlet Gauge
LL	0 - 60 PSIG/BAR (Dual)
MM	0 - 160 PSIG/BAR (Dual)
PP	0 - 300 PSIG/BAR (Dual)
SS	0-600 PSIG/BAR (Dual)
NN	None
ZZ	Non-Standard

15	Outlet Gauge
N	None
Z	Non-Standard

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

17	Accessories
A	Captured Vent Preset with Anti-Tamper
B	Standard Preset with Anti-Tamper
C	Panel Mount Preset with Anti-Tamper
S	Clean for Oil Free
X	Clean for Oxygen
O	None
Z	Non-Standard