

Series BS/BD

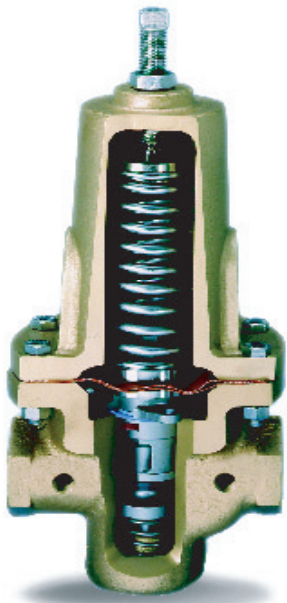
Burling Valve Co., LLC

16 River Road, P.O. Box 1064, Chatham, NJ 07928

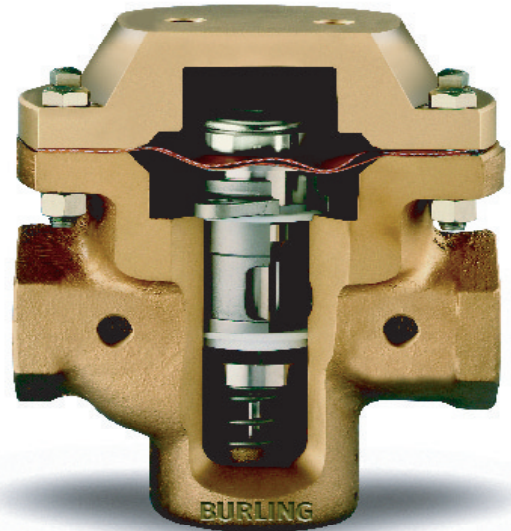
Tel: 973/665-0601 Fax: 973/665-0603

SIZES
1/2"-4"

Direct Acting, Spring Loaded and Dome Loaded Pressure Regulating Valves



BSSeries



BDSeries

Specifications (Subject to change)

- Sizes: 1/2" to 4"
- Body Materials: Cast Iron/Carbon Steel
Bronze/Stainless Steel/Others
- Trim Material: 17-4ph SS/Monel/Others
- Diaphragm Material: Teflon/Viton/Neoprene
Fluorosilicone/Others
- Seats: Teflon/Polyurethane/Others
- Cv Range: to 220
- Temperature Limits: -50°F to 450°F
- End Connections: NPT/Flanged/SWE/BWE/Others
- Pressure Regulating or Back Pressure
- Differential Regulating Valves
- Pilot Actuated
- Top Entry Design — Easy In-line Maintenance
- Balanced Trim

Typical Applications

- Pressure Reduction — Gas
- Cryogenic Applications, or in Conjunction with
Burling Temperature Controllers OR-A, HR-A
- Seal Pressurization
- Spray Atomization
- Scrubbers
- Gas Trains
- Replacement of Control Valves
- Pump Discharge
- Filter Discharge Regulators
- HVAC — Steam
- Architectural Fountains
- Air Systems
- CPI Plants; Petroleum Plants
- Atmospheric Bulk Gases

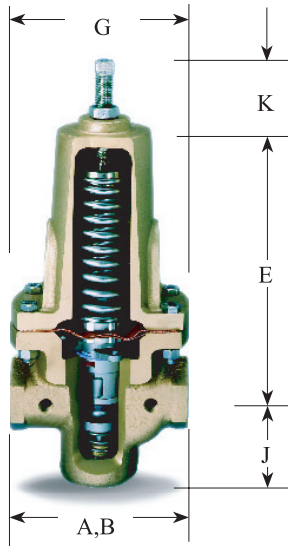
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Available Spring Ranges (psi)

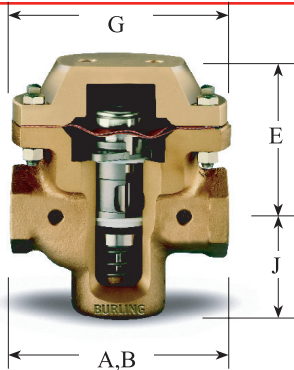
Top-Spring Range for Direct Acting Regulators

Symbol	1/2", 1"	1-1/2"	2"	3", 4"
1	0.1-10	0.2-6	0.2-5	1-10
2	2-20	5-20	5-15	5-20
3	10-35	15-45	10-30	10-40
4	20-80	10-70	15-50	10-70
5	30-150	40-125	30-90	40-125
6	70-200	70-200	50-150	-1 to -20
7	100-300	100-400*	80-300*	-20 to -40
8	200-650*	-1 to -20	-1 to -15	
9	-1 to -20	-20 to -50	-20 to -50	
10	-20 to -60			

Letter & Description	1/2", 1"	1-1/2"	2"	3"	4"
A End to End - CC/SS	6"	9-7/8"	9-7/8"		
A End to End - BRZ, CI, DI	6"	9-7/8"	9-7/8"		
B Face to Face - 150# FE CC/SS	8-3/8"	12-1/2"	12-1/2"	12"	14"
B 300# FE CC/SS	8-3/8"	12-1/2"	12-1/2"	12-1/2"	14-1/2"
B 150# FE BRZ	9-5/8"	11-1/2"	11-1/2"	12"	14"
B 300# FE BRZ	9-5/8"	11-1/2"	11-1/2"	12-1/2"	14-1/2"
B 125# FE CI/DI				12"	14"
B 250# FE CI/DI				12-1/2"	14-1/2"
B 600# FE CC/SS		13-1/2"	13-1/2"	13-1/2"	15-1/2"
J Center to Bottom	2-13/16"	4"	4"	5-3/4"	5-3/4"
E* Center to Top	8-11/16"	11-5/8"	12"	21-1/4"	22-1/4"
G Diaphragm Flange Diameter	6-1/4"	7"	8"	11"	11"
Approximate Weight	23 lb.	48 lb.	48 lb.	155 lb.	170 lb.
Maximum Cv	4.15	30	60	120	220
K Maximum Height	3-7/8"	3-7/8"	3-7/8"	6"	6"

*Contact Factory for Specifics.

BDSeries



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J Center to Bottom	2-13/16"	4"	4"	5-3/4"	5-3/4"
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G Diaphragm Flange Diameter	6-1/4"	7"	8"	11"	11"
Approximate Weight	23 lb.	48 lb.	48 lb.	140 lb.	155 lb.
Maximum Cv	4.15	30	60	120	220

External dimensions are identical for all trim options.

Product Numbering System

Model	Size (Inches)	Type	Body Material	Top Material	Rating	End Connection	Trim	Top Spring Rating (1-10)	Seat	Membrane	Dynamic Seal	Static Seal	Lower Spring (0-4)	Trim Variations	Sensing	Flow	Special
BS	1/2"	1 Direct Acting	I CI	I CI	1 125	1 NPT	1 17-4 pH	1 Polyurethane	1 Neoprene	1 Virgin TFE U-Cup	1 Reinforced Teflo	1 Reinforced Teflo	1 Full	1 Internal	1 Normal	0 None	
BD	1"	2 Differential	B BRZ	B BRZ	2 150	2 Flange	2 316 LSS	2 Teflo	2 Teflon 6 Ply	2 Reinforced TFE U-Cup	2 Buna-N	2 Buna-N	2 Reduced	2 External	2 Reverse	1 Body Tap Gauges	
	1-1/2"	3 Dome	C CS	C CS	3 250	3 Tube End	3 Monel	3 ReTFE	3 Viton	3 Polyurethane U-Cup	3 Viton	3 Viton				2 Special Support	
	2"	4 Dome/Ret Spring	S SS	S SS	4 300	4 Butt Weld	4 Other	4 Kel-F	4 EPR	4 EPR	4 Fluorosilicone	4 Fluorosilicone				3 NDPR	
	2-1/2"	5 BP Spring	O Other	O Other	5 600	5 Socket Weld			5 Metal		5 EPR	5 EPR				4 O2 Cleaned	
	3"	6 BP Dome			6 700	6 Other			6 Fluorosilicone		6 EPR	6 Virgin Teflo				5 Combination	
	4"	7 Pilot Actuated			7 1500				7 Buna N		7 Other	7 Other				6 Other	
		8 Differential Back Pressure			8 Other				8 Other								
		9 Other															

Lower Return Springs

Symbol	PSI
0	No Spring
1	1-3
2	2-7
3	3-15
4	Other

Sizing a Regulator Correctly

The following data is required for proper regulator application.

Fluid: _____ Specific Gravity: _____ Temperature: _____ °F Viscosity (If Known): _____ Function: _____
 Flow (Min.): _____ Flow (Norm.): _____ Flow (Max.): _____ P₁ (Min.): _____ P₁ (Norm.): _____ P₁ (Max.): _____ P₂ (Min.): _____
 P₂ (Norm.): _____ P₂ (Max.): _____ Regulation Accuracy Desired: ±(_____ psi) or % of set point. Chemical Compatibility (If Known): _____
 Max. Noise Level: _____ Inlet/Outlet Pipe: _____ Schedule: _____ Air Available: _____ psi. Atmospheric Pressure (If Known): _____