

3" Flowgrid® Regulator and Shutoff Valve

Flanged CL 150, 300

The 3" Mooney Flowgrid Slam Shut is a combination of a regulator and a slam shut. In addition to pressure regulation, this pneumatically actuated device provides automatic downstream pressure protection. By separating the pneumatic controller and mechanical latching mechanism, shut off occurs only when designated set points are reached. The patent pending design prevents disruptive and costly "accidental shutoffs". Positive shutoff is achieved instantly through the snap acting mechanism, and reset can be completed with common tools.

Specifications

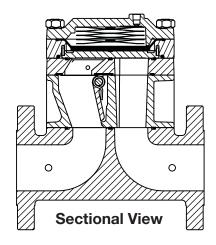
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Size	3"
Body Style	Standard Single Port Slam Shut
End Connections	3"CL 150 RF Flange, 3" CL 300 RF Flange
Temperature	Working -20°F to 150°F (-29°C to 65°C)
Minimum Differential	Refer to Graph on pg 2
Cracking Differential	Refer to Graph on pg 2
Maximum Inlet Pressure	740 psig (50 bar)
Outlet Pressure Range	Limited by SSV controller & Series 20 Pilot
Flow Direction	Uni-Directional
Taps	Four 1/4" - 18 NPT (one inlet, one center port*, one loading and one downstream

^{*}Center port - between flapper valve and regulator

Materials of Construction

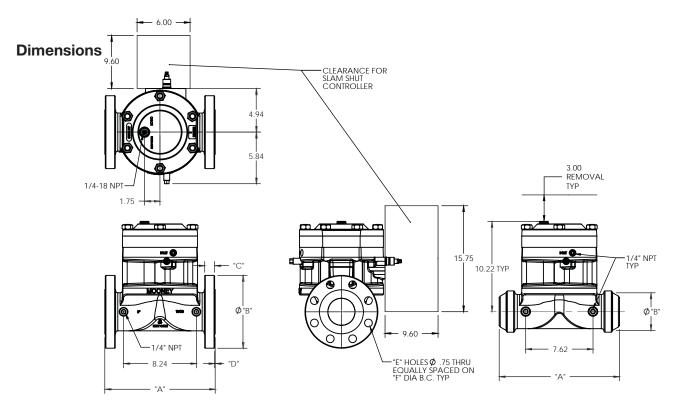
Body & Spring Case, Seal Retainer and Flapper Body	ASTM A 216 GR WCB Carbon Steel
Throttle Plate, Flapper and Shaft	17 - 4PH Stainless Steel or A515 Carbon Steel with ENC Coating
Diaphragm	Nitrile/Nylon*
O-Ring and Seals	Nitrile, Optional Viton®
Studs and Nuts	ASTM A 193 GR B-7 ASTM A 194 GR 2H or Equal
Springs	301 Stainless Steel ASTM A 313-03 17-17 SS
Bushings	Acetal





Stock Numbers

3" Flowgrid & Shutoff Valve	Stock Number	Retrofit	Weight
150# Flange	SG-16	SR-16	136 lbs
300# Flange	SG-17	SR-17	146 lbs
150/300 Buttweld	SG-61	SR-61	124 lbs



Flange Dimensions

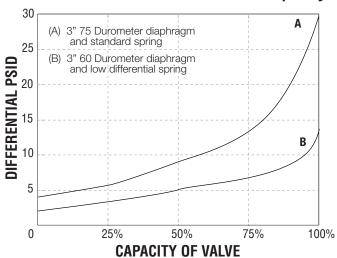
Flange Class	A	В	C	D	E	F
Class 150	11.75	7.50	.75	.06	8	6.00
Class 300	12.50	8.25	1.12	.06	8	6.62

Flow Coefficients and Constants*

3" S	3" Standard Port Slam Shut				
Percent	C _v	C ₁	C _g	1.5:1	2:1
100%	84	41	3450	0.98	0.95
75%	71	39	2750	1.00	1.00
50%	58	37	2150	1.00	1.00
35%	44	35	1530	1.00	1.00

^{*} Preliminary Data.

Minimum Pressure Differential vs. Capacity



Diaphragm Selection

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Compound	Temp. Range (Degrees F)	Maximum Differential	Characteristics	Recommended Applications	
75 Duro	-20 to 150	1000 psid	Best All Around Material	60 psid to Max. Differential	
60 Duro	-25 to 150	300 psid	Best Shutoff at Low Differential Pressure	Low Differential (100 psid or less) or Low Temperature	
80 Duro High ACN	-5 to 175	1000 psid	Higher Abrasion and Swelling Resistance	High Differential (400 psid or higher) or Abrasive Conditions with Distillates	
80 Duro Low ACN	-20 to 150	1000 psid	Higher Abrasion Resistance and Low Temperature Flexibility	High Differential (400 psid or higher) or Abrasive Conditions at Low Temperatures	