

# Mooney™ 3" Flowgrid™ Regulator and Shutoff Valve

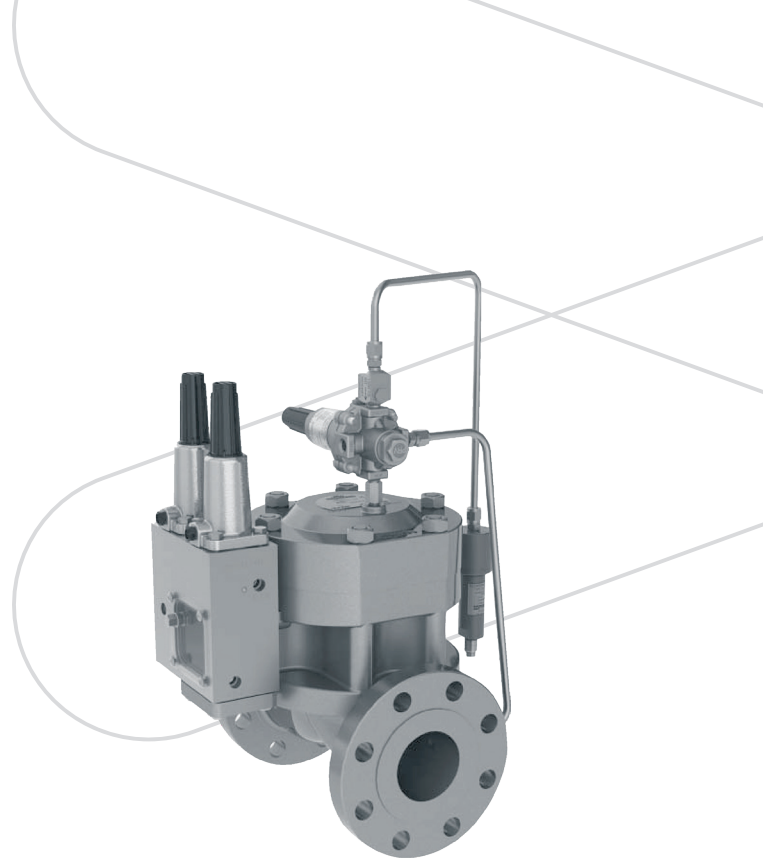
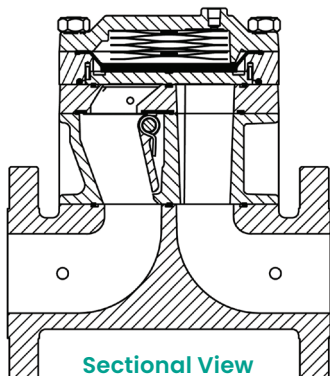
Flanged CL 150, 300

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, shutoff 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

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 page 2
Cracking Differential	Refer to graph on page 2
Maximum Inlet Pressure	740 psig (50 bar)
Outlet Pressure Range	Limited by SSV Controller and Series 20 Pilot
Flow Direction	Uni-Directional
Body Taps	Four 1/4" - 18 NPT (one inlet, one center port <sup>1)</sup> , one loading and one downstream)

1. Center port - between flapper valve and regulator.



**Flowgrid Regulator with Integral Shutoff Valve,  
Series 50D Dual Function Controller.**

## Materials of Construction

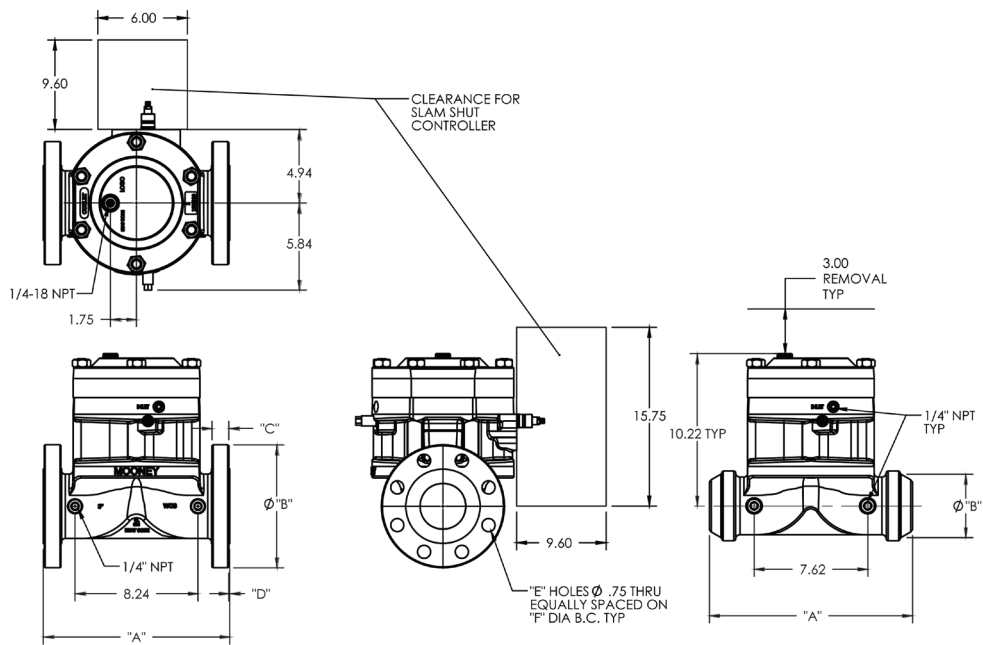
Valve Body, Bleed Plate & Spring Case	Carbon Steel WCB
Throttle Plate	17 - 4 PH or A515
Slam Shut Seat	SST
Slam Shut Seal	Nitrile
Flowgrid Diaphragm	Nitrile or Viton*
Slam Shut Housing, Slam Shut Spring Case	Aluminum
Spring Cover	Aluminum
Rotating Shaft	SST
Main Shaft Guide	Delrin
End Cap	Lexan
Plug Seal	Nitrile
O-Rings	Nitrile

## Stock Numbers

3" Flowgrid & Shutoff Valve	Stock Number	Weight
150# Flange	SG-27	58lbs.
300# Flange	SG-28	58 lbs.
150/300 Butt weld	SG-77	64 lbs.

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## Dimensions



## Flange Dimensions

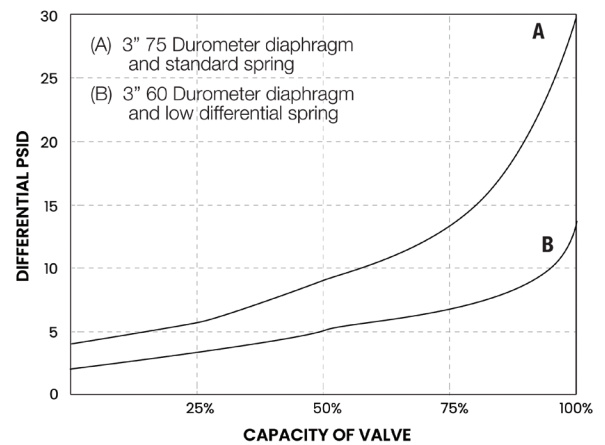
Flange Class	A	B	C	D	E	F
Class 150	11.75	7.50	.75	.06	8	6.00
Class 300	12.50	8.25	1.12	.06	8	6.62

## Flow Coefficients and Constants<sup>1</sup>

3" Standard Port Slam Shut				Swage Factor	
% Capacity	$C_v$	$C_l$	$C_g$	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

1. Preliminary Data.

## Minimum Pressure Differential vs. Capacity



## Diaphragm Selection

Compound	Temp. Range (°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

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