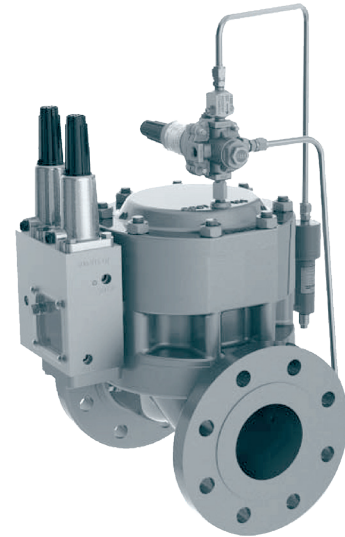


# 4" Flowgrid™ Regulator and Shutoff Valve

Flanged CL 150, 300

The 4" **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.

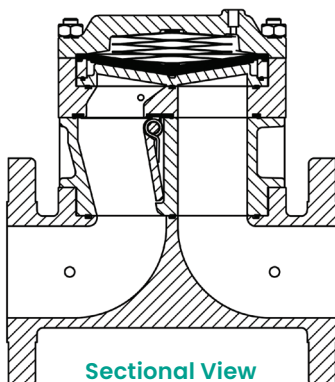


**Flowgrid Regulator with Integral Shutoff Valve,  
Series 50D Dual Function Controller.**

## Specifications

<b>Size</b>	4"
<b>Body Style</b>	Standard Single Port Slam Shut
<b>End Connections</b>	4"CL 150 RF Flange, 4" CL 300 RF Flange
<b>Temperature</b>	Working -20°F to 150°F (-29°C to 65°C)
<b>Minimum Differential</b>	Refer to graph on page 2
<b>Cracking Differential</b>	Refer to graph on page 2
<b>Maximum Inlet Pressure</b>	740 psig (50 bar)
<b>Outlet Pressure Range</b>	Limited by SSV Controller and Series 20 Pilot
<b>Flow Direction</b>	Uni-Directional
<b>Body Taps</b>	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.



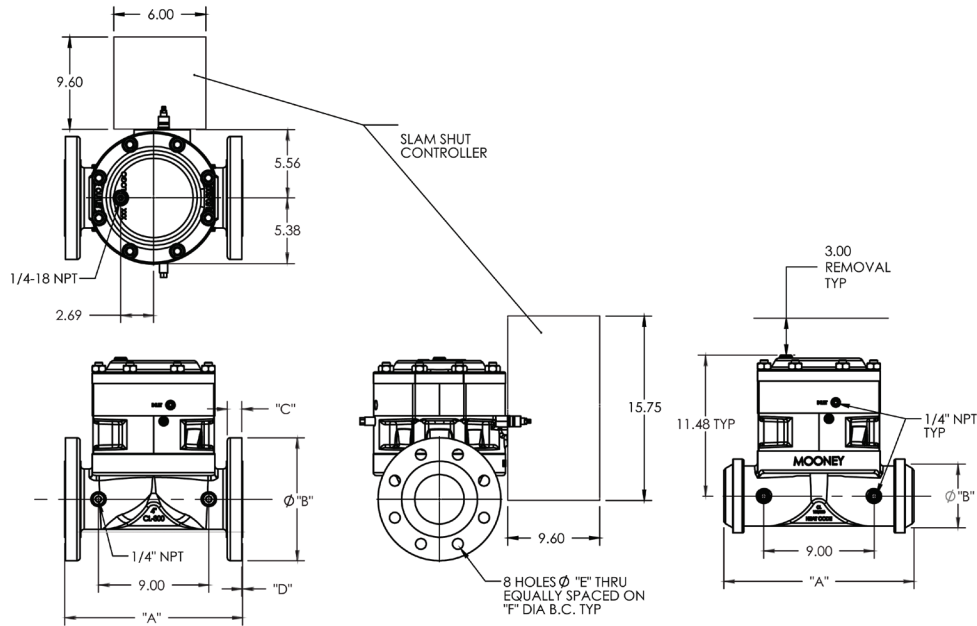
## Materials of Construction

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

## Stock Numbers

4" Flowgrid & Shutoff Valve	Stock Number	Retrofit	Weight
150# Flange	SG-39	SR-16	123 lbs.
300# Flange	SG-40	SR-17	133 lbs.
150/300 Buttweld	SG-61	SR-61	111 lbs.

## Dimensions



## Flange Dimensions

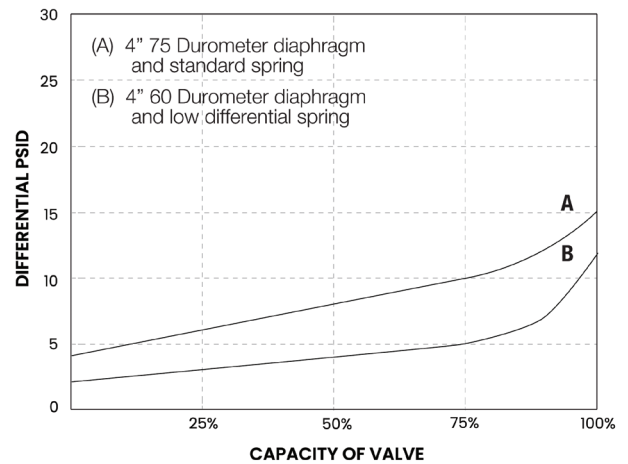
Flange Class	A	B	C	D	E	F
Class 150	13.88	1.00	9.00	0.062	0.750	4.75
Class 300	14.5	1.25	10.00	0.062	0.875	7.87

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

4" Standard Port Slam Shut				Swage Factor	
% Capacity	$C_v$	$C_1$	$C_g$	1.5:1	2:1
100%	172	38	6500	0.97	0.95
75%	142	37	5300	0.98	0.96
50%	100	35	3550	0.99	0.98
35%	76	35	2700	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

**Baker Hughes** 