

# Mooney\* 2" Large Port Flowgrid\* Regulator and Shutoff Valve

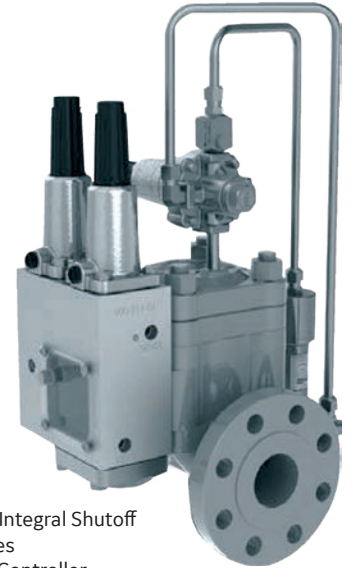
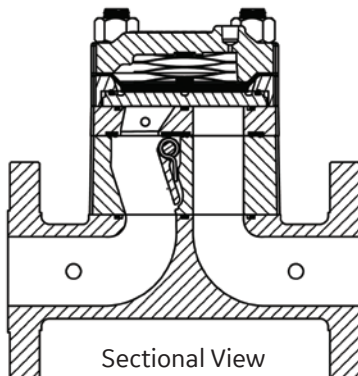
Flanged CL 150 300 NPT & SWE CL 300 Butt weld CL 300

The 2" 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

<b>Size</b>	2"
<b>Body Style</b>	Large Port with Slam Shut
<b>End Connections</b>	2" NPT CL 300, 2" SWE CL 300, 2" CL 150 RF Flange, 2" CL 300 RF Flange, 2" Butt weld CL 300
<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



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

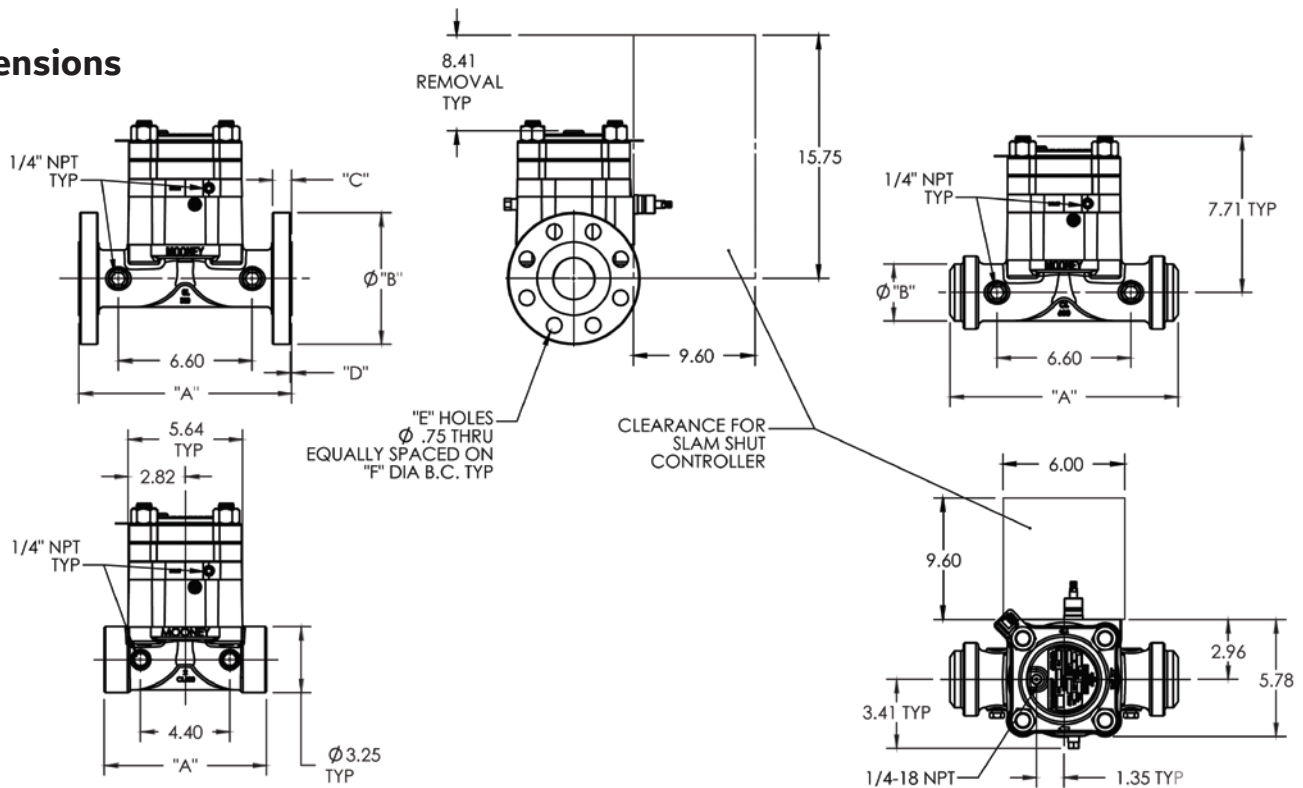
## Materials of Construction

<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

2" Large Port Flowgrid Regulator & Shutoff Valve	Stock Number	Weight
NPT CL 300	SG-27	58lbs.
SWE CL 300	SG-28	58 lbs.
150# Flange	SG-29	69 lbs.
300# Flange	SG-30	73 lbs.
Butt weld CL 300	SG-77	64 lbs.

## Dimensions



### Flange Dimensions

Flange Class	A	B	C	D	E	F
Class 150	10.00	6.00	.75	.06	4	4.75
Class 300	10.50	6.50	.88	0.6	8	5.00
Buttweld	11.25	2.80	-	-	-	-
NPT/SWE	8.00	-	-	-	-	-

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

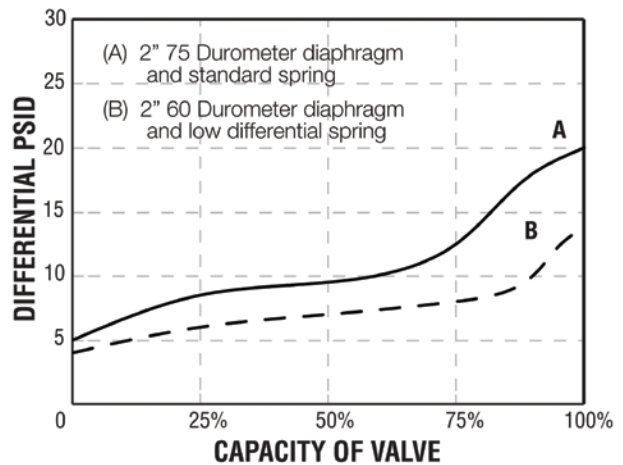
2" Large Port Flowgrid & Shutoff Valve				Swage Factor	
% Capacity	C <sub>v</sub>	C <sub>1</sub>	C <sub>g</sub>	1.5:1	2:1
100%	36	40	1420	0.97	0.96
75%	30	38	1130	0.98	0.97
50%	23	35	820	0.99	0.98
35%	17	35	610	1.00	1.00

1) Preliminary Data

### 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

### Minimum Pressure Differential vs. Capacity



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