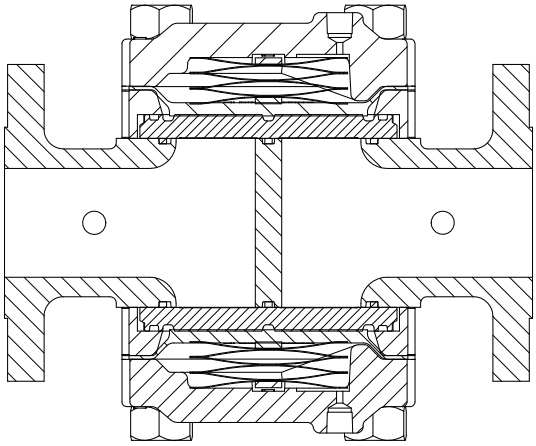
2” Large Dual Port

Flanged CL 150 – 600

2” Large Dual Port Flowgrid® Valve with Series 20 Pilot

SECTIONAL VIEW



OVERPRESSURE PROTECTION

The Flowgrid® Valve is bi-directional and has a full ANSI rating on both the inlet and outlet. Overpressure protection is required only if the pressure can exceed the flange or body rating.

The pilots, like most regulators, may have an outlet pressure rating lower than the inlet pressure rating. If this is the case then some external form of overpressure protection must be provided for the pilot.

Anytime the Flowgrid® valve or pilot system is exposed to pressure in excess of its rating it should be inspected for damage.

The 2” Large Dual Port Flowgrid® Valve is simply a higher capacity version of the original 2” Dual Port valve. This construction is ideal for redundant (dual pilot) applications where the maximum capacity per side is needed, The two constructions share the same Body, O-ring, Body Seal, and Main Spring. The Spring Case, Diaphragm, Spacer and Throttle Plate are unique to this construction.

SPECIFICATIONS

Size	2”
Body Style	Dual Port (2”)
End Connections	2” CL150, 300, 600 Flanged
Temperature	Working -20°F to 150°F Emergency -40°F to 175°F
Max. Operating Differential	800 psi
Max. Emergency Differential	1000 psi
Min. Differential	Refer to graph on page 2
Cracking Differential	Refer to graph on page 2
Max. Inlet Pressure	1480 psig*
Outlet Pressure Range	Limited by Pilot
Flow Direction	Bi-Directional**
Body Taps	Two 1/4” - 18NPT

* Limited by pilot or flange rating

** Reverse flow by changing pilot connections and reversing spring case

MATERIALS OF CONSTRUCTION

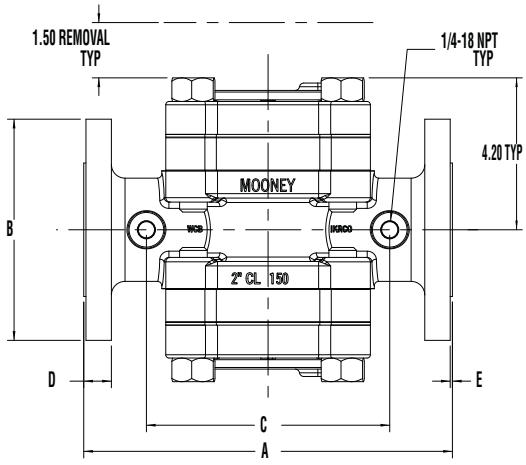
Body & Spring Case	ASTM A 216 GR WCB Carbon Steel
Throttle Plate	17 - 4PH Stainless Steel or A515 Carbon Steel with ENC Coating
Diaphragm	Nitrile/Nylon*
O-Ring & Seals	Nitrile, Optional (Viton)
Bolting	ASTM A 193 GR B-7 or Equal
Spring	301 Stainless Steel

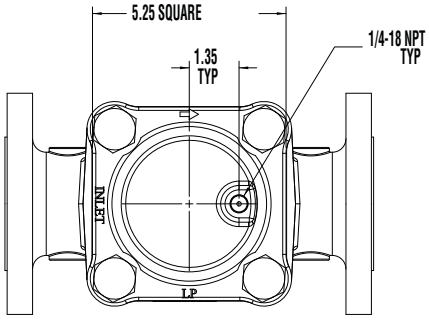
*Refer to diaphragm selection chart on page 2

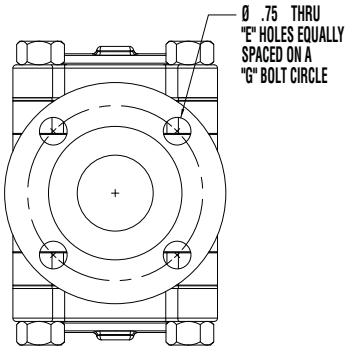
STOCK NUMBERS

2” Dual Port Valve	Stock #	Weight
150# Flange	FG-32	48 lbs.
300# Flange	FG-33	52 lbs.
600# Flange	FG-34	54 lbs.

DIMENSIONS







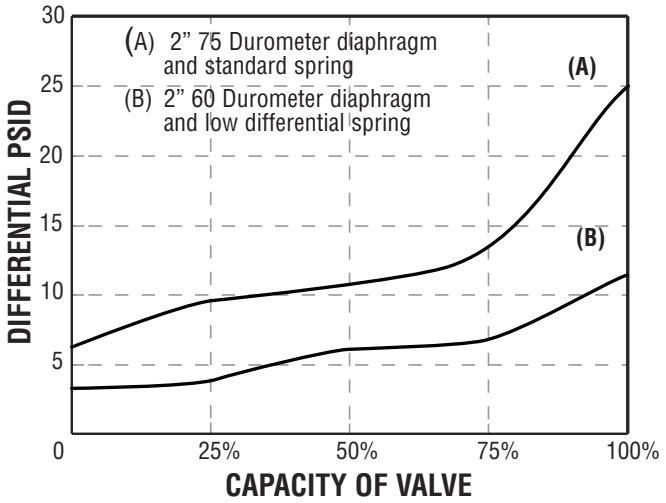
End Connection	A	B	C	D	E	F	G
150# Flange	10.00	6.00	6.62	0.75	0.06	4	4.75
300# Flange	10.50	6.50	6.62	0.88	0.06	8	5.00
600# Flange	11.25	6.50	6.62	1.25	0.25	8	5.00

FLOW COEFFICIENTS AND CONSTANTS

4" Dual Port Valve				Swage Factor	
Percent Capacity	**Cv**	**C1**	**Cg**	**1.5:1**	**2:1**
100%	59	35	2050	0.95	0.91
75%	57	30	1715	0.95	0.92
50%	46	27	1245	0.97	0.94
35%	36	24	925	0.98	0.96

NOTE: For relief sizing, add 5% factor of safety when calculating relief activity.

MINIMUM PRESSURE DIFFERENTIAL VS. CAPACITY



DIAPHRAGM SELECTION

Compound	Temp. Range (Degrees F)	Maximum Differential	Characteristics	Recommended Applications
75 Duro	-20 to 150	800 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	800 psid	Higher Abrasion and Swelling Resistance	High Differential (400 psid or higher) or Abrasive Conditions with Distillates
80 Duro Low ACN	-20 to 150	800 psid	Higher Abrasion Resistance and Low Temperature Flexibility	High Differential (400 psid or higher) or Abrasive Conditions at Low Temperatures

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