

# Mark 688 Series

## Piloted Soft Seat Regulator (1" - 2")

The Mark 688 Series piloted soft seat regulator was designed specifically to provide accurate pressure control on very low pressure tank blanketing systems. The pilot operated Mark 688 responds to very small changes in tank pressure by throttling open or closed to maintain the desired pressure set point.

- Accurate regulation down to 1" wc
- ANSI Class VI Shutoff
- Five available spring ranges
- 200 psi maximum inlet pressure
- High flows: Cv 1" - 17; 1-1/2" - 30; 2" - 45



### SPECIFICATIONS

**Sizes:** 1" (DN25) through 2" (DN50)

#### End Connections

- ANSI Flanges — 150#, 300#

#### Body Materials

- Carbon Steel — ASME SA216 WCB
- Stainless Steel — ASME SA351 CF8M

**Trim Material:** 316SS (Standard on all valves)

**Main Valve Seat Material:** 316SS/Viton

#### Actuator Materials

- Carbon Steel for WCB bodies
- Electroless Nickel Plated Carbon Steel for CF8M bodies

**Diaphragm Material:** Buna-N

**Service:** Tank blanketing only

**Shutoff:** ANSI Class VI

#### Available Spring Ranges

- MK688 Low Pressure Pilot (psi): 1-5 wc, 4-10 wc, 5-30 wc, 0.5-1.75 psi, 1.0-3.5 psi

**Minimum & Maximum Pressure Drop:** 25 psi minimum (1,7 bar); 200 psi maximum (13,8 bar)

#### Pressure Temperature Ratings (Body):

Maximum inlet 200 psi @ 100°F

**Maximum Outlet Casing Pressure:** 185 psi (12,8 bar)

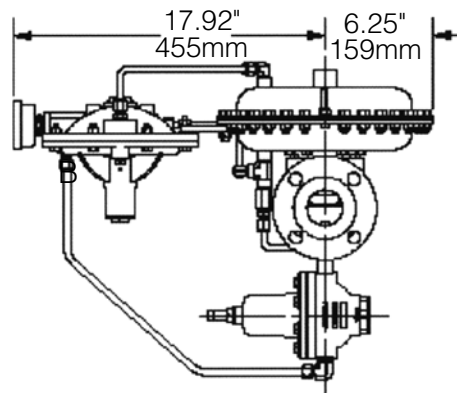
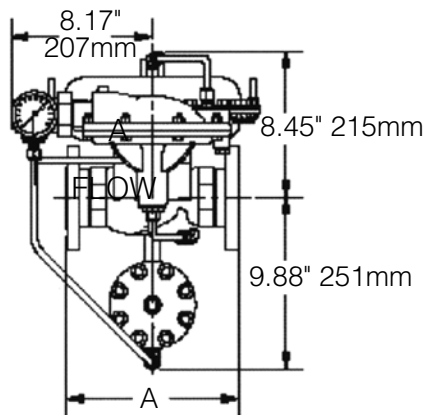
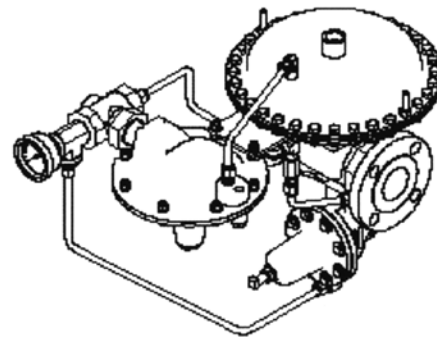
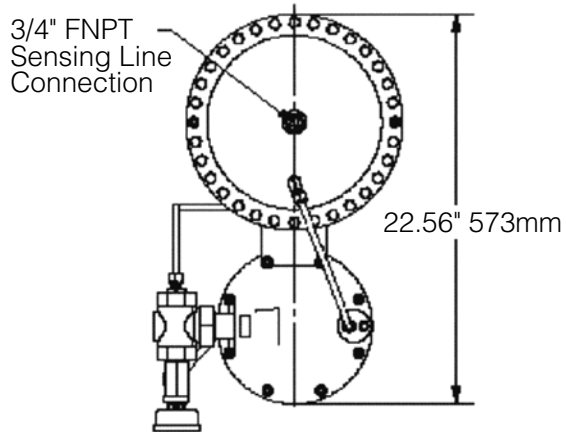
#### Flow Coefficients:

- 1": 17 Cv
- 1-1/2": 30 Cv
- 2": 45 Cv



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**DIMENSIONS**



View from Outlet Side

Valve Size	Ends	A
1"	150	9.25" (235mm)
1-1/2"	150/300	8.75"/9.25" (222mm/235mm)
2"	150/300	10.00"/10.50" (254mm/267mm)

**ORDERING SCHEMATIC**

Model No	Size	Body Mat'l	1	2	3	4	5	6

Model	Model
688	Standard

Size	Size
100	1"
150	1-1/2"
200	2"

Body Material	Body Material
CS	Carbon Steel (WCB)
S6	Stainless Steel (CF8M)

1 & 2	End Connections
I5	150# FE
I3	300# FE
ZZ	Non-Standard

3 & 4	Trim
Seal Materials / Pressure Drop Ranges	
V1	316SS / Viton / 25-50 psi drop
V2	316SS / Viton / 50 - 200 psi drop
ZZ	Non-Standard

5 & 6	Range
688P Pilot	
01	1 - 5 wc
02	4 - 10 wc
03	5 - 30 wc
04	0.5 - 1.75 psi
05	1.0 - 3.5 psi
ZZ	Non-Standard