



FLOW METERING EQUIPMENT

PFV Venturi Fire Pump Systems 2" to 16" Low-Loss Venturi

The Model PFV FM approved Fire Pump System features the Preso CV Venturi. The CV is a differential pressure element designed to accurately measure flow. It can be installed in any position with minimal straight pipe requirements (5 pipe diameters upstream and 2 pipe diameters downstream). Preso can relate the success of the CV Venturi to the Low-Loss design which amounts to over 35 years of field performance in a wide variety of applications.

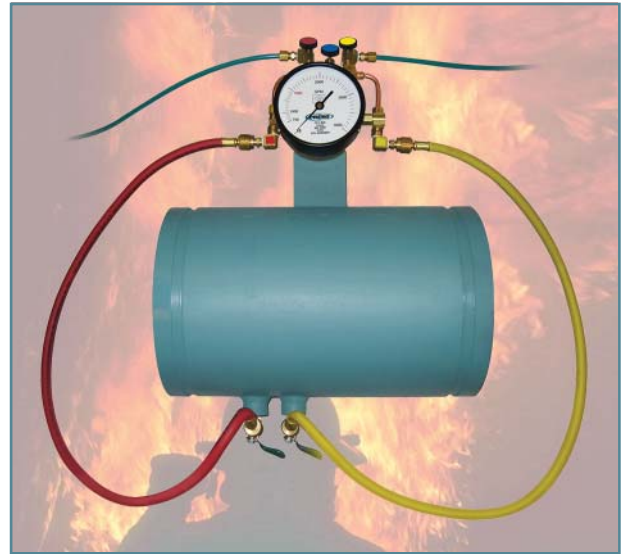
Construction & Specifications

Material: Carbon Steel ASTM A53 / Carbon Steel Insert
 Valves: 1/4" MSAE Flare Brass Ball
 1/8" FNPT CS Weld Fitting: 150# for 1-1/4" thru 6"
 3000# for 8" & up
 Flange Option: 150# ANSI B 16.5 or
 300# ANSI B 16.5
 Identification Tag: Polycarbonate
 Temperature: 250 °F (120 °C) Maximum
 Pressure: 300 PSIG (2070 kPa) Maximum

Type of Pipe Installation

Schedule STD Carbon Steel

The gage is a Direct-Readout meter with a dial featuring a 270° arc for fast and accurate reading. A precision engineered, dust-tight case ensures trouble-free operation. Preso gages are protected against overload by a unique diaphragm housing design. When the pressure difference exceeds the range, the gage will accept the accidental application of up to 60 PSIG without damage. Under normal conditions the differential pressure should not exceed the range of the gage.



MODEL SELECTOR: PPFV□□□□□□□□

PIPE SIZE

- A - 2"
- B - 2-1/2"
- C - 3"
- E - 4"
- F - 5"
- G - 6"
- H - 8"
- I - 10"
- J - 12"
- K - 14"
- L - 16"

END CONNECTION

- A - RF FLANGE - 150#
- B - RF FLANGE - 300#
- C - NPT (1/2" - 2")
- D - GROOVED
- E - BUTT WELD

DIAL SIZE

- 1 - 4" (100 mm)
- 2 - 6" (150 mm)

TYPE

- A - STANDARD DIAPHRAGM
- B - DOUBLE BELLOWS

GAGE MATERIAL

- A - BRASS/BRONZE
- B - 316 SS

HOSES

- 1 - NYLON
- 2 - SS BRAIDED

RATING (Please see note) GPM (RANGE)

- A - 50 (25-100)
- B - 100 (50-200)
- C - 150 (75-300)
- D - 200 (100-400)
- E - 250 (125-500)
- F - 300 (150-600)
- G - 400 (200-800)
- H - 450 (225-900)
- I - 500 (250-1000)
- J - 750 (375-1500)
- K - 1000 (500-2000)
- L - 1250 (625-2500)
- M - 1500 (750-3000)
- N - 2000 (1000-4000)
- O - 2500 (1250-5000)
- P - 3000 (1500-6000)
- Q - 3500 (1750-7000)
- R - 4000 (2000-8000)
- S - 4500 (2250-9000)
- T - 5000 (2500-10000)

NOTE - ONLY SELECT FM APPROVED PUMP RATINGS (GPM) FOR

PIPE SIZES	PIPE SIZES
(50)	- 2"
(100)	- 2-1/2"
(150/200)	- 3"
(250/300/400/450)	- 4"
(450/500/750)	- 5"
(500/750/1000/1250)	- 6"
(1000/1250/1500/2000/2500/3000)	- 8"
(1500/2000/2500/3000/3500/4000/4500)	- 10"
(2000/2500/3000/3500/4000/4500/5000)	- 12"
(3500/4000/4500/5000)	- 14"
(4500/5000)	- 16"

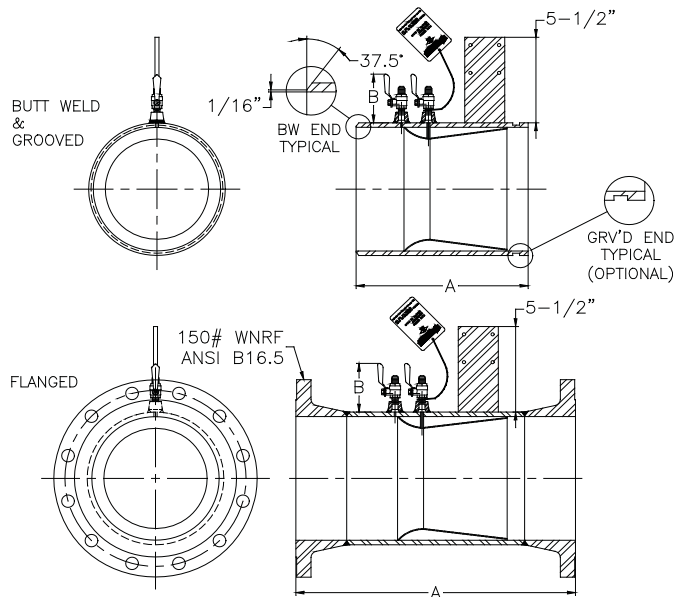
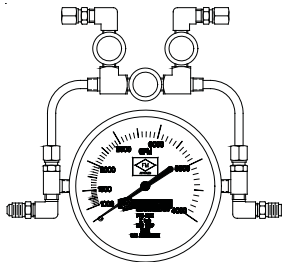
SPECIFICATIONS AND SUBMITTAL DATA

Model PFV Low-Loss Venturi

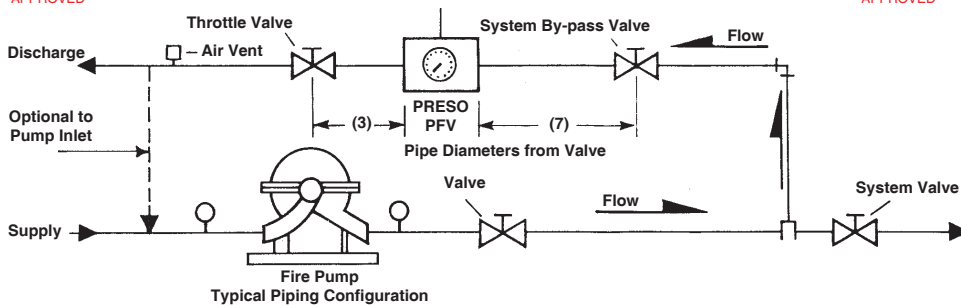
SIZE	MODEL	B APP inch (mm)	BW & GROOVED		Flanged 150#		Flanged 300#	
			A inch (mm)	APP WEIGHT lbs (kg)	A inch (mm)	APP WEIGHT lbs (kg)	A inch (mm)	APP WEIGHT lbs (kg)
2"	PPFVAXXXXXX	3.5 (89)	6 (152)	3 (1.4)	11.63 (295)	15 (6.8)	11.63 (295)	21 (9.5)
2-1/2"	PPFVBXXXXXX	3.5 (89)	6 (152)	3 (1.4)	11.63 (295)	19 (8.6)	12.63 (308)	27 (12.3)
3"	PPFVCXXXXXX	3.5 (89)	6 (152)	5 (2.3)	11.63 (295)	25 (11.4)	12.38 (314)	35 (15.9)
4"	PPFVEXXXXXX	3.5 (89)	6 (178)	7 (3.2)	13.13 (334)	37 (16.8)	13.88 (353)	57 (25.9)
5"	PPFVFXXXXXX	3.5 (89)	8.5 (216)	9 (4.1)	15.63 (397)	47 (21.4)	16.38 (416)	73 (33.2)
6"	PPFVGXXXXXX	3.5 (89)	9.5 (241)	17 (7.7)	16.63 (422)	65 (29.5)	17.38 (441)	101 (45.9)
8"	PPFVHXXXXXX	3.25 (83)	13.5 (343)	35 (15.9)	21.63 (549)	113 (51.4)	22.38 (568)	169 (76.8)
10"	PPFVIXXXXXX	3.25 (83)	16 (406)	59 (26.8)	24.13 (613)	163 (74.1)	25.38 (645)	241 (109.5)
12"	PPFVJXXXXXX	3.25 (83)	17.25 (438)	106 (48.2)	26.38 (670)	266 (120.9)	27.63 (702)	386 (175.5)
14"	PPFVKXXXXXX	3.25 (83)	19.25 (489)	130 (59.1)	29.38 (746)	350 (159.1)	30.63 (778)	490 (222.7)
16"	PPFVLXXXXXX	3.25 (83)	20.25 (514)	160 (72.7)	30.38 (772)	440 (200)	31.88 (810)	660 (300)

Gage Data

Construction: Brass Body
Operation: Diaphragm (Beryllium Copper)
Dial: 4" or 6" / 270° Arc
Accuracy: ±1.75% Full Scale
Temperature: 180 °F (80 °C)
Pressure: 500 PSIG (3450 kPa)
Approx. Wt.: 6" = 4.25 lbs (1.9 kgs)
 4" = 3.75 lbs (1.7 kgs)



PRESO FIRE PUMP SYSTEM



OPERATING INSTRUCTIONS:

1. CLOSE SYSTEM VALVE.
2. OPEN SYSTEM BY-PASS VALVE AND THROTTLE VALVE.
3. PURGE GAGE LOCATED ON PFV AS FOLLOWS: OPEN GAGE BY-PASS VALVE (BLUE), PFV SHUT-OFF VALVES (RED & YELLOW) AND VENT VALVES (ABOVE GAGE). WHEN A STEADY STREAM OF WATER IS PASSING THROUGH EACH PLASTIC HOSE, GAGE IS PURGED OF AIR. CLOSE VENT VALVES AFTER PURGING IS COMPLETE.
4. START FIRE PUMP, CLOSE GAGE BY-PASS VALVE (BLUE) AND READ GAGE IN GPM.
5. REFER TO PUMP GPM REQUIREMENT AND ADJUST THROTTLE VALVE FOR THIS REQUIREMENT.
6. AFTER TEST OPEN SYSTEM VALVE AND CLOSE SYSTEM BY-PASS AND THROTTLE VALVES.

