

## Balanced Pressure Proportioner PP and PPW

### Description

The balanced pressure proportioner induces foam concentrate into the feed water line. The proportioning rate is site adjustable, although this is initially set during the manufacturing process.

### Application

This type of proportioner is used in foam pump systems. The PP series is designed for monitor and deluge systems.

The PPW (wide range proportioner) offers accurate proportioning of foam concentrate irrespective of variations in flow and pressure. These capabilities are vital for the correct proportioning of foam concentrates into feed water lines.

### Features

- Easily adjustable integrated foam regulating nozzle
- Accurate proportioning over the range
- Maintenance free construction
- Compact design
- Water connection wafer type
- Foam connection flanged or screw threaded
- Made of high grade corrosion resistant bronze and stainless steel
- Dynamic flow range up to 100:1 (PPW)

### Connections

- Water: Wafer mounted between flanges. See the performance data tables.
- Foam inlet: flanged to fit DIN PN16 or ANSI 150 lb or screw threaded BSP

### Listings and Approvals

- Det Norske Veritas (DNV)
- Factory Mutual approval for: PP-100 / 50; 150 / 50; 200 / 80; PPW-100 / 50; 150 / 50; 200 / 80
- RINA approval for PP-100 / 50; PP-150 / 50
- Russian Maritime Register of Shipping
- Chinese class CCS PP-100 / 50 and 150 / 50

### Operation

The proportioner will operate automatically when the flow and pressure are within the flow range. The foam pressure must be 1 bar to 5 bar higher than the water pressure through the proportioner.



PP-80 / 20



PP-100 / 50



### Optional

- Available in optional materials including stainless steel, super duplex and titanium.
- Gauges on foam and water lines

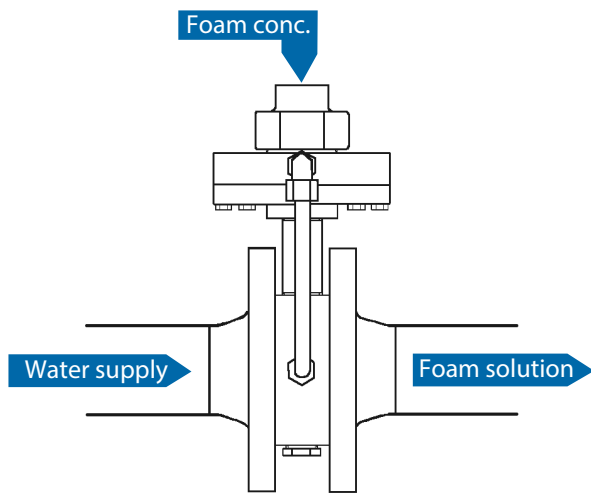
### Ordering Information

Specify the following information when ordering:

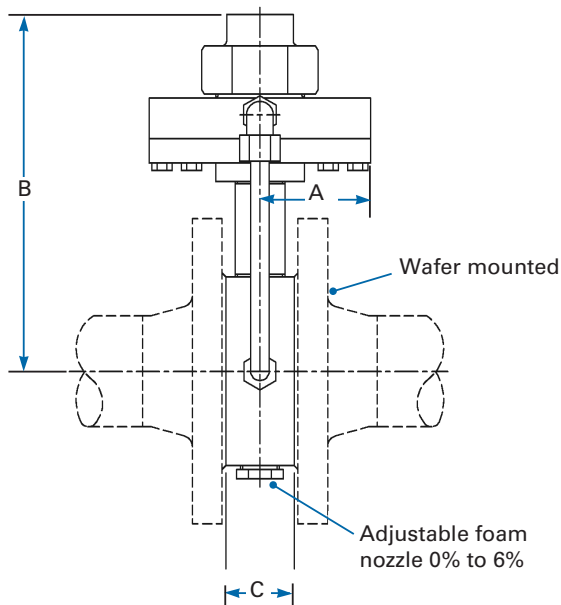
- Size
- Part Number
- Connection: DIN or ANSI

Part No.	Description
123010102	PP-100/50 DIN/ANSI
123015105	PP-150/50 DIN/ANSI
123020103	PP-200/80 DIN
123020152	PP-200/80 ANSI
123025108	PP-250/80 DIN
123025157	PP-250/80 ANSI
123210106	PPW-100/50 DIN/ANSI
123215114	PPW-150/50 DIN/ANSI
123220105	PPW-200/80 DIN
123220154	PPW-200/80 ANSI
123225104	PPW-250/80 DIN
123225153	PPW-250/80 ANSI

## PP-50 PP-80



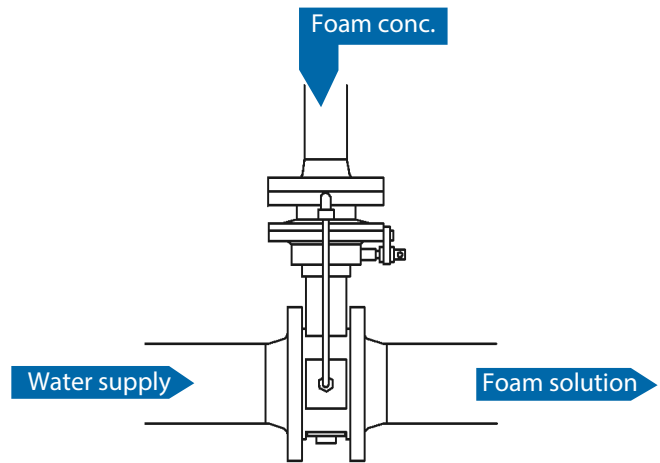
Principle flow diagram



## Dimensions PP and PPW

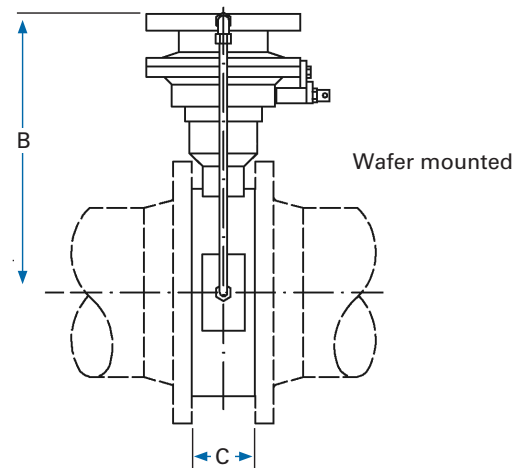
PP	PPW	A mm	B mm	C mm
PP-50/20		60	200	37
PP-80/20		60	200	37
PP-100/50	PPW-100/50	115	271	70
PP-150/50	PPW-150/50	115	297	70
PP-200/80	PPW-200/80	140	361	82
PP-250/80	PPW-250/80	140	390	82

## PP / PPW



Principle flow diagram

**Note:** Foam pressure must be 1 bar to 5 bar higher than the water pressure through the proportioner. Minimum 5 diameters straight pipe required upstream and 3 diameters straight pipe required downstream.



## Installation

A minimum of 5 diameters (D) of straight pipe is required in the water line before entering the proportioner and 3 diameters (D) after the proportioner.

## Performance Data PP Proportioners

Type	Connection		Min. capacity		Max. capacity*		Weight		Material
	Foam	Water	Lpm	US gpm	Lpm	US gpm	kg	lb	
PP-50/20	3/4 in. BSP	50 / 2 in.	125	33	800	211	6	13	Bronze (Cu88Sn12)
PP-80/20	3/4 in. BSP	80 / 3 in.	300	79	2,000	528	10	22	Bronze (Cu88Sn12)
PP-100/50	50 / 2 in.	100 / 4 in.	770	203	4,900	1,295	20	44	Bronze (Cu88Sn12)
PP-150/50	50 / 2 in.	150 / 6 in.	1,500	395	9,800	2,589	25	55	Bronze (Cu88Sn12)
PP-200/80	80 / 3 in.	200 / 8 in.	2,875	760	21,100	5,575	44	97	Bronze (Cu88Sn12)
PP-250/80	80 / 3 in.	250 / 10 in.	5,100	1,347	33,100	8,745	54	119	Bronze (Cu88Sn12)

The foam concentrate pressure must exceed the water pressure by at least 1 bar.

\*At 1.5 bar pressure drop,  $Q [Lpm] \sqrt{p} = k\text{-factor}$

## Performance Data PPW Proportioners

Type	Connection		Min. capacity		Max. capacity*		Weight		Material
	Foam	Water	Lpm	US gpm	Lpm	US gpm	kg	lb	
PPW-100/50	50 / 2 in.	100 / 4 in.	75	20	2,500	661	20	44	Bronze (Cu88Sn12)
PPW-150/50	50 / 2 in.	150 / 6 in.	100	26	5,600	1,480	26	57	Bronze (Cu88Sn12)
PPW-200/80	80 / 3 in.	200 / 8 in.	125	33	10,600	2,801	45	99	Bronze (Cu88Sn12)
PPW-250/80	80 / 3 in.	250 / 10 in.	150	40	16,100	4,254	55	121	Bronze (Cu88Sn12)

\*At proportioner system pressure drop 1.5 bar, Min. 0.3 bar

$Q [Lpm] \div \sqrt{P [bar]} = k\text{-factor}$

1 bar = 0.1 MPa = 14.5 psi

Maximum working pressure: 16 bar (235 psi)

**Note:** The converted values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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