

VARIABLE FLOW PROPORTIONERS FOR BLADDER TANKS

Models PCVB & PCVI
Ratio controller



PRODUCT DESCRIPTION

Ratio controller model PCVB & PCVI is part of a foam installation. This device has been designed to enter the correct amount of foam concentrate into the water stream over a wide range.

These ratio controllers are used in conjunction with balanced pressure systems such as bladder tanks and pumped proportioning skids.

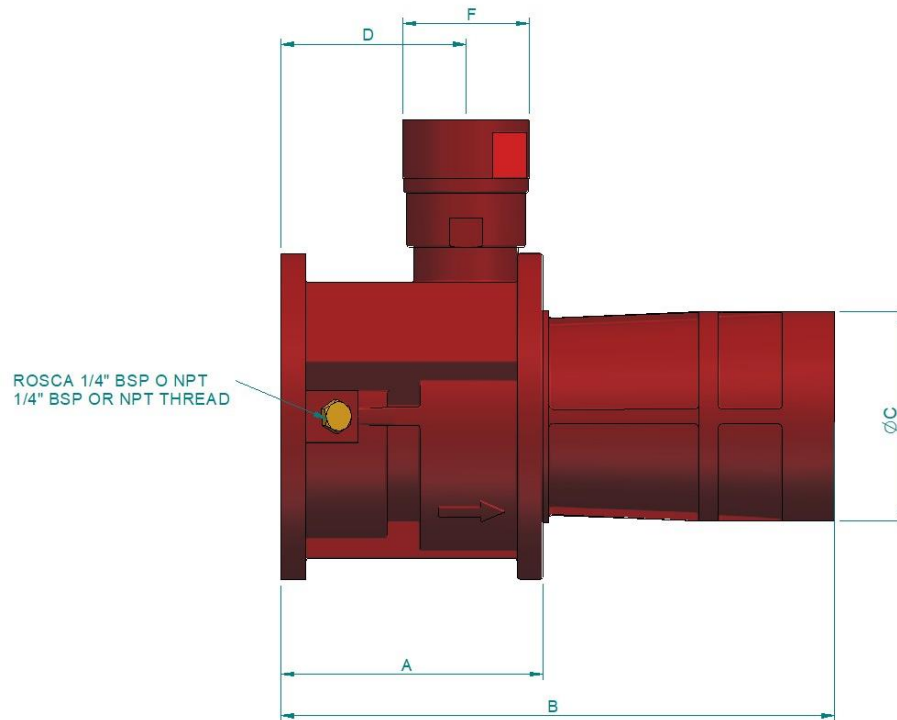
The Ratio Controller works on venturi principle. As the water passes through the inlet jet, a reduction in pressure in the annular area is created. This reduction allows the metering of the foam concentrate into the water stream through the foam concentrate metering orifice.

The total flow rate must equal the flow rating of the mixer at its outlet pressure.

TECHNICAL DATA

Models	PCVB PCVI
Sizes	PCVB-065U & PCVI-065U: 2,5" DN65 PCVB-080U & PCVI-080U: 3" DN80 PCVB-100U & PCVI-100U: 4" DN100 PCVB-150U & PCVI-150U: 6" DN150 PCVB-200U & PCVI-200U: 8" DN200
End connections	Wafer between flanges ANSI B16.5 – 150 Lb
Foam concentrate inlet connection (F)	Thread male or female NPT o BST
Maximum working pressure	14 bar (200 psi) 12,3 bar (175 psi) for UL
Factory tested hydrostatically	25 bar (350 psi)
Materials	PCVB: Bronze PCVI: Stainless Steel
Finish	Red RAL 3001 Natural Finish

DIMENSIONS



RATIO CONTROLLER FLOW RANGE

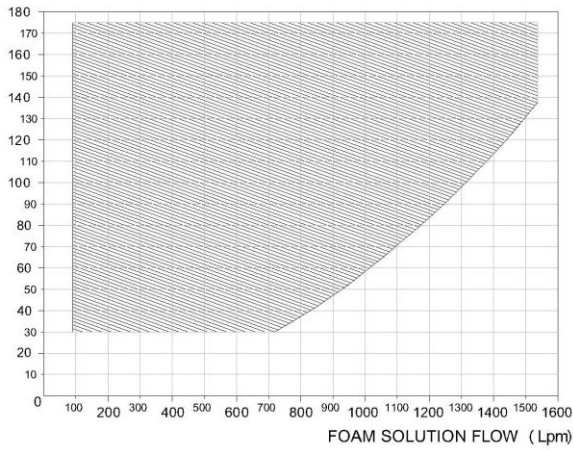
SIZE	DIMENSIONS (mm)			
	A	B	Φ C	F
2 1/2" DN65	85	187	61,5	Thread 1" BSP (F) / NPT (F)
3" DN80	107,5	187	75	Thread 1-1/2" BSP (F) / NPT (F)
4" DN100	128	265	98	Thread 1-1/2" BSP (F) / NPT (F)
6" DN150	134	328	150	Thread 2" BSP (F) / NPT (F)
8" DN200	131	342	198	Thread 2" BSP (F) / NPT (F)

SIZE	FLOW RANGE (lpm)	
	AFFF 3%	ARC-AFFF 3x3%
2 1/2" DN65	110 to 1560	420 to 1450
3" DN80	250 to 3010	790 to 3050
4" DN100	660 to 6010	1150 to 6050
6" DN150	1210 to 12010	-
8" DN200	2760 to 17860	2310 to 17510

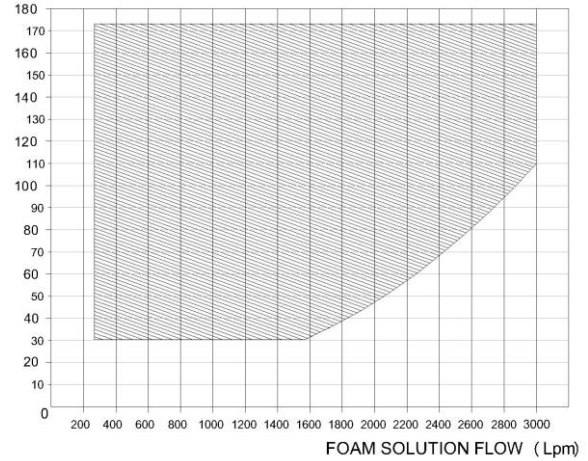
INLET PRESSURE VS FOAM SOLUTION FLOW

FOAM CONCENTRATE AFFF 3%

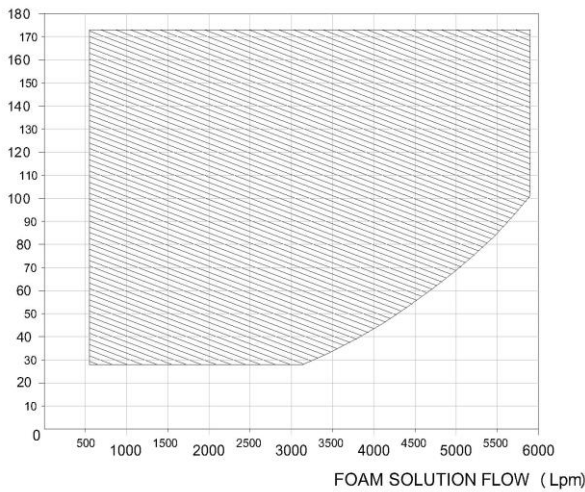
INLET PRESSURE (psi) 65 NB



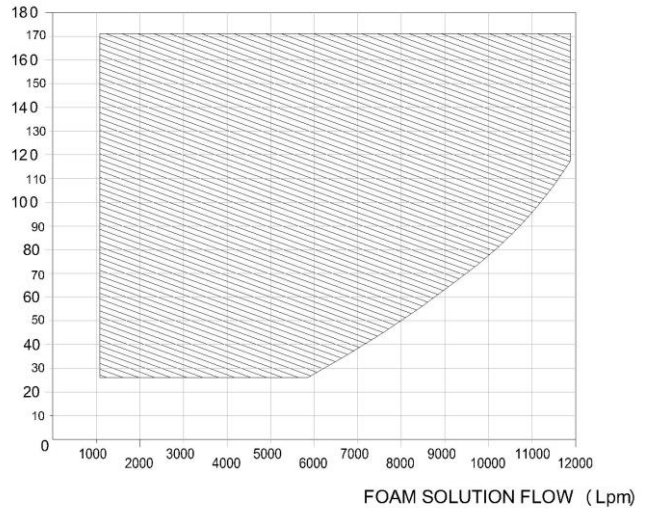
INLET PRESSURE (psi) 80NB



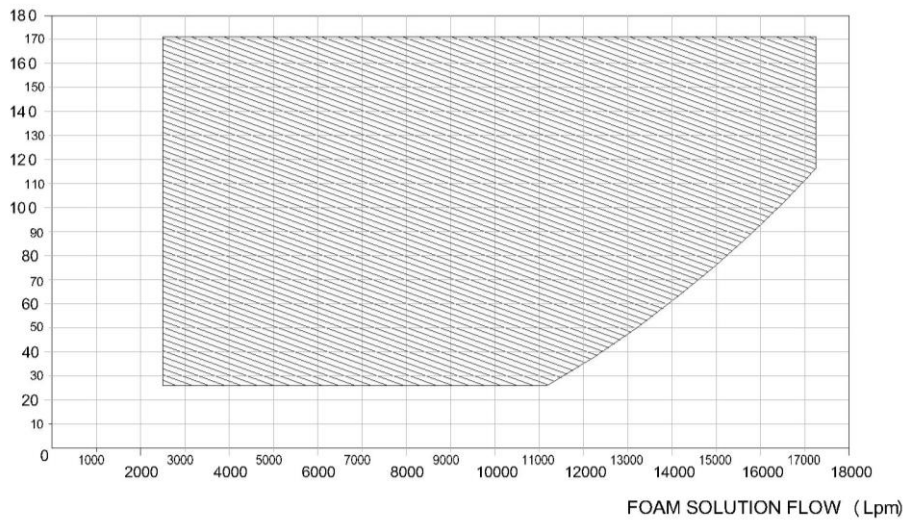
INLET PRESSURE (psi) 100NB



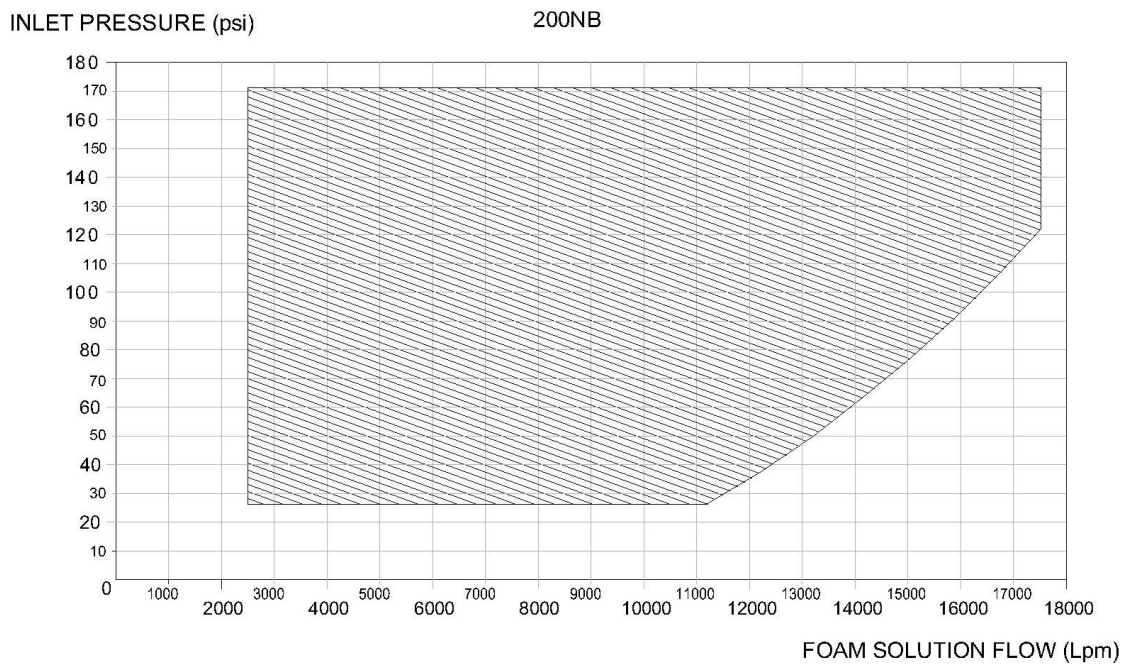
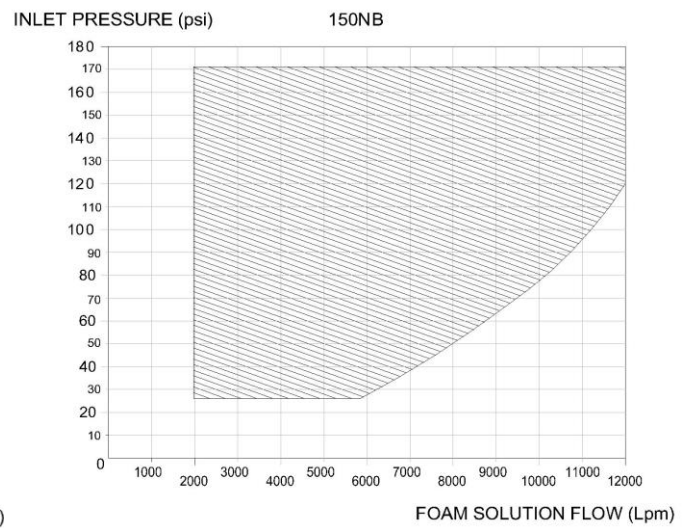
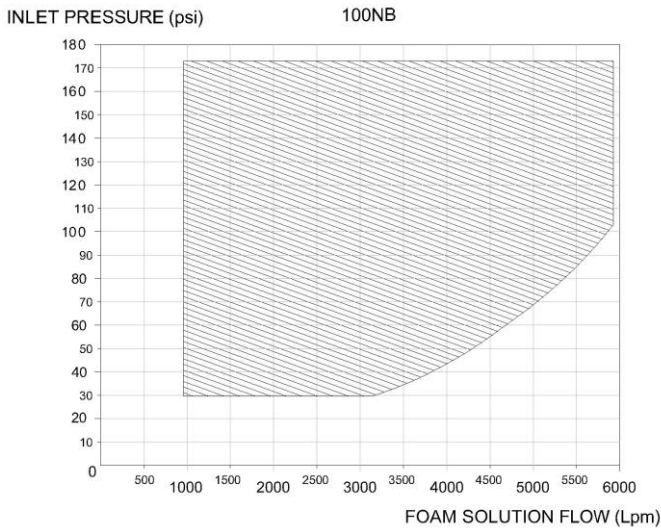
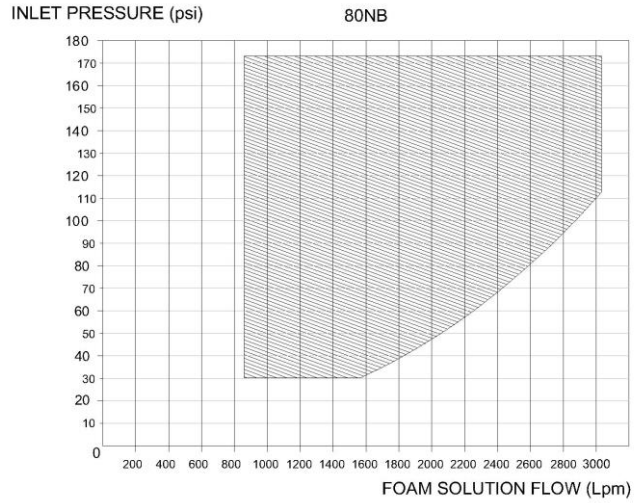
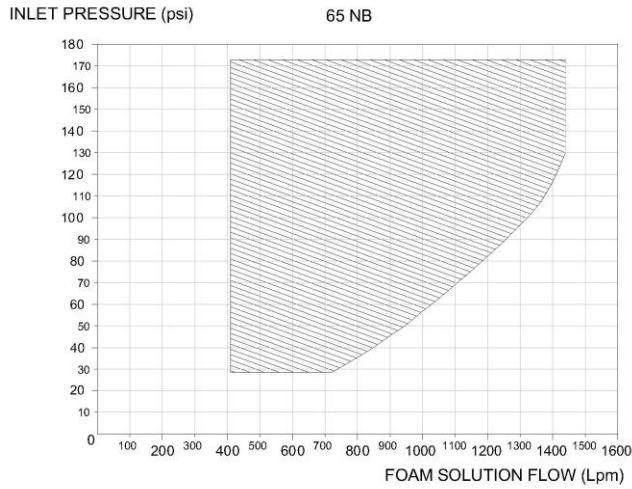
INLET PRESSURE (psi) 150NB



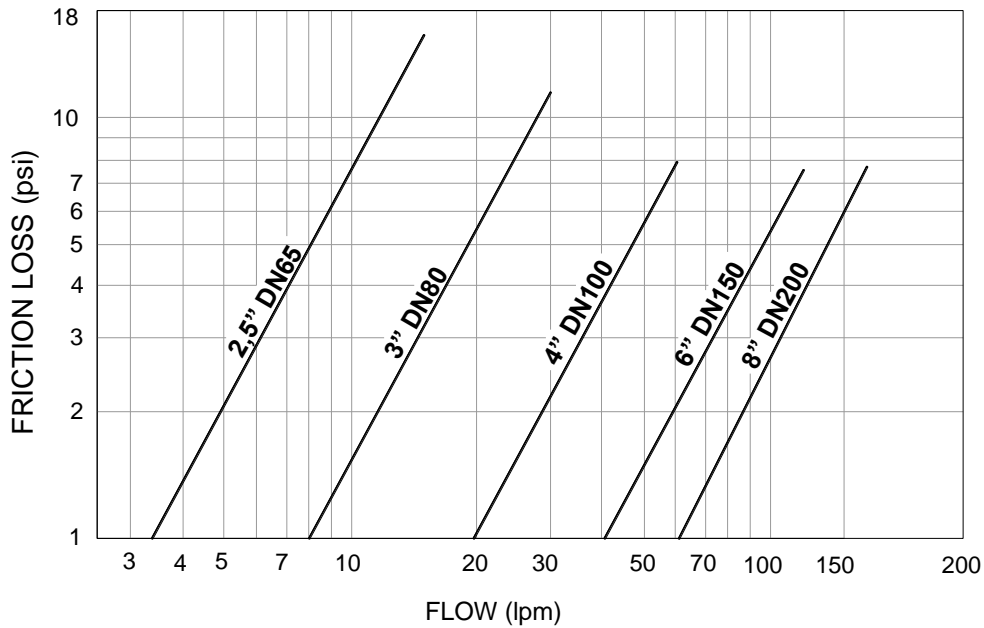
INLET PRESSURE (psi) 200NB



FOAM CONCENTRATE AR-AFFF 3X3%



FLOW VS PRESSURE LOSS



INSTALLATION, TESTING AND MAINTENANCE

The ratio controller must be installed, inspected and tested by a qualified and trained person.

Installation must respect the flow direction indicated by an arrow on the body.

This Ratio Controller is wafer style to be mounted in SCH40 pipe between two flanges.

Minimum straight unobstructed pipe of five diameters is required before and after ratio controller.

It must be inspected regularly for possible damage or dirt around the moving parts. If any abnormal conditions are observed such as poor discharge, excessive wear, water leak, corrosion effect, damage etc., then ratio controller must be taken out of service and repaired by qualified technician or replaced.

Do not act on the ratio controller before relieving the pressure in the water line and having isolated the foam concentrate supply line.

When removing for maintenance pay attention not to damage the connections and the lines.

The owner is responsible for maintenance of the ratio controller in proper operating condition.

ORDERING INFORMATION

SIZE	MATERIAL	
	STAINLESS STEEL	BRONZE
2 1/2" DN65	PCVI-065U	PCVB-065U
3" DN80	PCVI-080U	PCVB-080U
4" DN100	PCVI-100U	PCVB-100U
6" DN150	PCVI-150U	PCVB-150U
8" DN200	PCVI-200U	PCVB-200U

Specify:

Model	
Quantity	
Size	
Minimum and maximum pressure	
Flow rate	
Induction percentage	
Type of foam concentrate used	

AG FIRE SPRINKLER

AG Fire Sprinkler offers a wide selection of components. Then a list of products is presented by AG Fire Sprinkler, we can offer all these components, made with precision to protect people, anywhere, anytime.

- Sprinklers
 - Standard Coverage
 - Extended Coverage
 - Storage
 - Dry
 - Accessories

- System Valves
 - Wet
 - Dry
 - Preaction Equipment
 - Accessories

- Spray System Open Nozzles
 - High Velocity Nozzles
 - Medium Velocity Nozzles
 - Window Nozzles
 - Hydroshield Nozzles
 - Mushroom Type Nozzles

- Foam equipment
 - Tanks
 - Proportioners
 - Foam Discharge Equipment
 - Foam Concentrates

- Deluge equipment for Water Spray and Foam
 - Clapper Deluge Valves
 - Diaphragm Deluge Valves

- Monitors
 - Manual Monitors
 - Remote Monitors
 - Monitor Nozzles
 - Towers and Trolleys

- Valves
 - Butterfly Valves
 - Gate Valves
 - Check Valves
 - Pressure Control Valves
 - Test and Drain
 - Hose, Hydrant and Fire Connection Valves
 - Fire Department Connections

The equipment presented in this bulletin is to be installed in accordance with the latest published Standard of the National Fire Protection Association, Factory Mutual Research Corporation, or other similar organizations and also with the provisions of governmental codes or ordinances whenever applicable. This documentation is not contractual. AG Fire Sprinkler reserves the right to any kind of change without notice.
