

HIGH BACK PRESSURE FOAM MAKER

HARDWARE



Features

150 lb flanged inlet and outlet

Compatible with Solberg foam concentrates for subsurface injection

Engineered to operate with total back pressure up to 25% of inlet pressure

Inlet orifice machined and sized to match specific flow and pressure rates

Optional stainless steel material (upon request)

Description

SOLBERG® High Back Pressure Foam Makers (HBPFM) are available in four models with nominal flow rates ranging from 100 - 400 gpm (379 - 1514 lpm) with flange inlets and outlets. The carbon steel discharge tube has four air induction holes placed 90 degrees apart to allow air into the foam solution stream to generate expanded foam.

Application

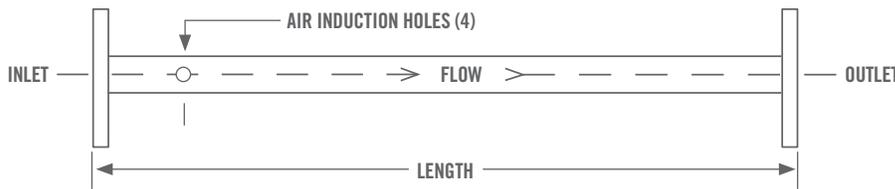
SOLBERG HBPFM is a device designed to provide expanded foam to hydrocarbon cone roof storage tanks for subsurface application. The HBPFM is located outside the diked area and piped to a dedicated fire protection line or tank product line. The HBPFM is capable of producing expanded foam. HBPFMs are designed to discharge expanded foam against a back pressure up to 25% of operating inlet pressure. SOLBERG HBPFM operate at pressures of 50 - 300 psi (3 - 21 bar). A 100 psi (7 bar) minimum operating pressure is typically required for satisfactory operation.



Solberg is a global company that is a one-stop resource for firefighting foam concentrates and custom-designed foam suppression systems hardware, offering both traditional and innovative firefighting foam technology. www.solbergfoam.com

Dimensional Information

MODEL	FLOW AT PRESSURE	APPROXIMATE DIMENSIONS Inches (Millimeters)		
		INLET	OUTLET	LENGTH
SFS-100-20	100 gpm at 150 psig (379 lpm at 10 bar)	2.0 (51)	2.0 (51)	15.69 (399)
SFS-200-25	200 gpm at 150 psig (757 lpm at 10 bar)	2.5 (64)	2.5 (64)	20.81 (529)
SFS-300-30	300 gpm at 150 psig (1136 lpm at 10 bar)	3.0 (76)	3.0 (76)	23.02 (585)
SFS-400-40	400 gpm at 150 psig (1514 lpm at 10 bar)	4.0 (1016)	4.0 (1016)	29.02 (737)



Note: Inlets and Outlets are 150# Flanges

For the flow rate at other pressures, use the “K” Factor listed below for each model in the formula $Q = K \sqrt{P}$ where Q is the flow in gpm (lpm), K is a constant factor and P is the inlet pressure for psig (bar).

MODEL	“K” FACTOR
SFS-100-20	8.18
SFS-200-25	16.33
SFS-300-30	24.49
SFS-400-40	46.13

The back pressure within a system is calculated by the formula:

$$\text{BACK PRESSURE (psig/bar)} = (\Delta P/\text{FT}) (X+Y) + \frac{(\text{DENSITY})(Z)}{2.3}$$

Where ΔP = pressure drop in pipe size used (psig/bar). X = the fitting (in equivalent feet (meters) of pipe), Y = pipe length in feet and Z = fuel depth. Total back pressure must be \leq 25% of inlet pressure.

SOLBERG High Back Pressure Foam Makers operate at 50 - 300 psi (3 - 21 bar) and produce foam expansion of 2.2 - 4.0:1 ratios. All back pressure and inlet velocities are based on a normal 4:1 expansion.

Ordering Information

PART NO.	DESCRIPTION	APPROXIMATE SHIPPING WEIGHT	
		lb	kg
HIGH BACK PRESSURE FOAM MAKER			
32170	HBP Foam Maker, Model SFS-100-20	32	14
32171	HBP Foam Maker, Model SFS-200-25	34	15
32172	HBP Foam Maker, Model SFS-300-30	36	16
32173	HBP Foam Maker, Model SFS-400-40	38	17