



by Tyco Fire Suppression & Building Products

BETWEEN FLANGE PROPORTIONERS (3, 4, 6, AND 8 IN.)

Data/Specifications

APPLICATION

- ANSUL proportioners are specifically designed to accurately proportion and control the mixing of pressurized ANSUL foam concentrates into a water stream with minimum pressure loss. ANSUL proportioners are UL listed with certain ANSUL foam concentrates and are used in conjunction with bladder tanks and pump proportioning skids. Typical applications include flammable liquid storage tanks, loading racks, aircraft hangars, heliports, and anywhere flammable liquids are used, stored, processed, or transported.

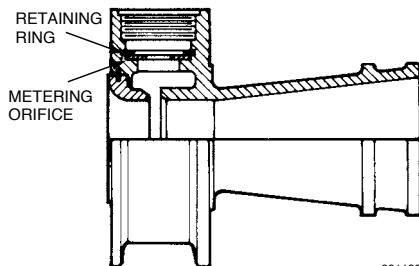
DESCRIPTION

Each ANSUL proportioner consists of a body, inlet nozzle, and metering orifice, all of which are corrosion-resistant brass.

The proportioner body is designed in four sizes to fit between 3 in., 4 in., 6 in., or 8 in. pipe flanges. Clearly marked on the proportioner body are the flow direction arrow, as well as the type and percentage of concentrate for which the proportioner was designed.

The inlet nozzle is secured by a stainless steel retaining ring that is internally concealed to prevent removal after installation.

The metering orifice is sized according to the type and percentage of concentrate used and is also secured with a stainless steel retaining ring.



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SPECIFICATIONS

The proportioner body and inlet nozzle shall be of low zinc (less than 15%) brass. The nozzle and foam orifice retaining rings shall be of stainless steel.

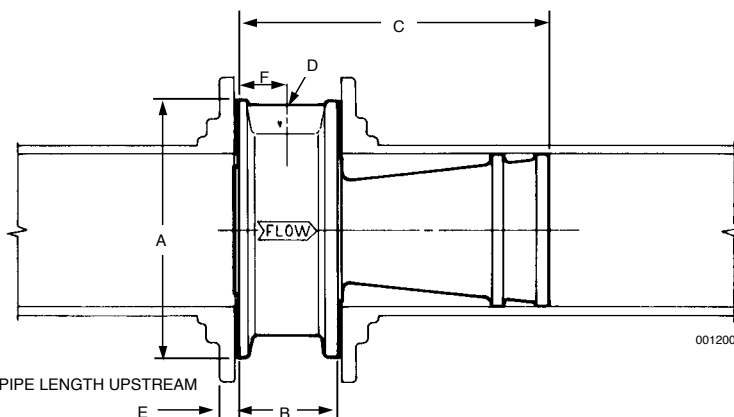
The proportioner body shall be designed so that it fits between two 150 lb pipe flanges. Only the recovery section of the proportioner shall protrude into the system water piping. To capture and seal against the flange gaskets, the mating face shall be machined with 32 grooves per inch (2.5 cm) for the 4, 6, and 8 in. models, and 64 grooves per inch (2.5 in.) for the 3 in. model. The body shall be clearly marked with a flow direction arrow, and the type and percent of foam concentrate that it was designed to proportion.

The convergent inlet nozzle shall have a rounded inlet and a smooth machined finish to ensure minimum stream constriction and maximum velocity. It shall be retained by an internally concealed retaining ring that prevents removal after installation. The inlet nozzle shall terminate in the foam concentrate annulus chamber and be concentric with and set back from the proportioner recovery section.

The foam concentrate metering orifice shall be machined to the proper diameter for the agent. It shall rest on a machined surface to prevent leakage and shall be secured by a removable stainless steel retaining ring.

PROPORTIONER DIMENSION TABLE

Proportioner Size	Dimensions										
	A		B		C		D	E		F	
	in.	(cm)	in.	(cm)	in.	(cm)	in.	in.	(cm)	in.	(cm)
3 in.	5.3	(13.5)	2.50	(6.35)	6	(15.2)	1 1/4 NPT	15	(38)	1.19	(3.02)
4 in.	6.8	(17.3)	2.54	(6.45)	8	(20.3)	1 1/2 NPT	20	(51)	1.27	(3.23)
6 in.	8.6	(21.8)	3.25	(8.26)	12	(30.5)	2 NPT	30	(76)	1.63	(4.14)
8 in.	11.0	(27.9)	3.56	(9.04)	12	(30.5)	2 1/2 NPT	40	(102)	1.78	(4.52)



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STRAIGHT PIPE LENGTH UPSTREAM

ORDERING INFORMATION

Concentrate Used	Proportioner Part No.			
	3 in.	4 in.	6 in.	8 in.
1% AFFF	70800*	69350*	69370*	69390
3% AFFF	70801**	69351**	69371**	69391**
3% AFFF @ 2% (Sub-surface)	70817*	69367*	—	—
3% AFFF (Freeze Protected)	70802	69352	69372	69392
3% AR-AFFF	70803**	69353**	69373**	69393**
6% AFFF	70804*	69354*	69374*	69394*
6% AR-AFFF	70806*	69356*	69376**	69396**
3% Protein Foam	70807	69357	69377	69397
3% Fluoroprotein Foam	70811	69361	69381	69401
▶ 2% JET-X Foam	70817*	69369*	69387*	69407*
2 3/4% JET-X Foam	70816*	69366*	69386*	69406*
▶ 0.5% SILV-EX Foam	70818	—	—	—
Shipping Weight	10 lb (4.5 kg)	20 lb (9.1 kg)	40 lb (18.1 kg)	70 lb (31.8 kg)

* UL Listed with Bladder Tanks

** UL Listed and FM Approved with Bladder Tanks

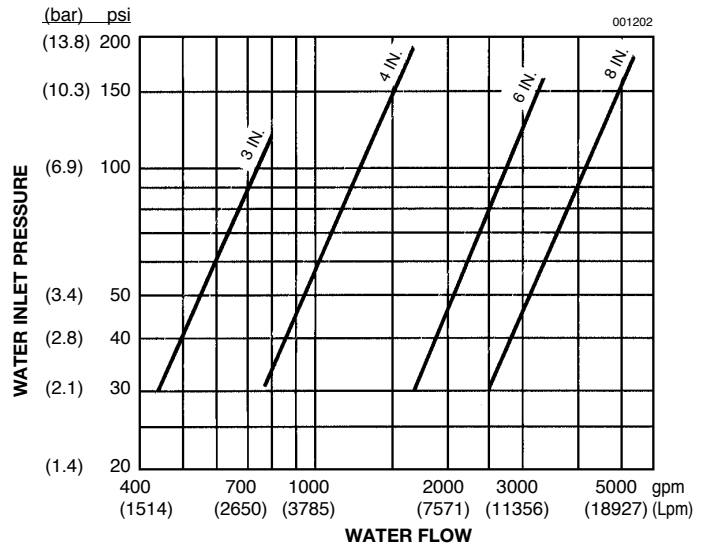
NOMINAL FLOW RANGES

The following table lists the nominal flow range for each proportioner size. For flow ranges using specific concentrates, consult ANSUL Technical Services.

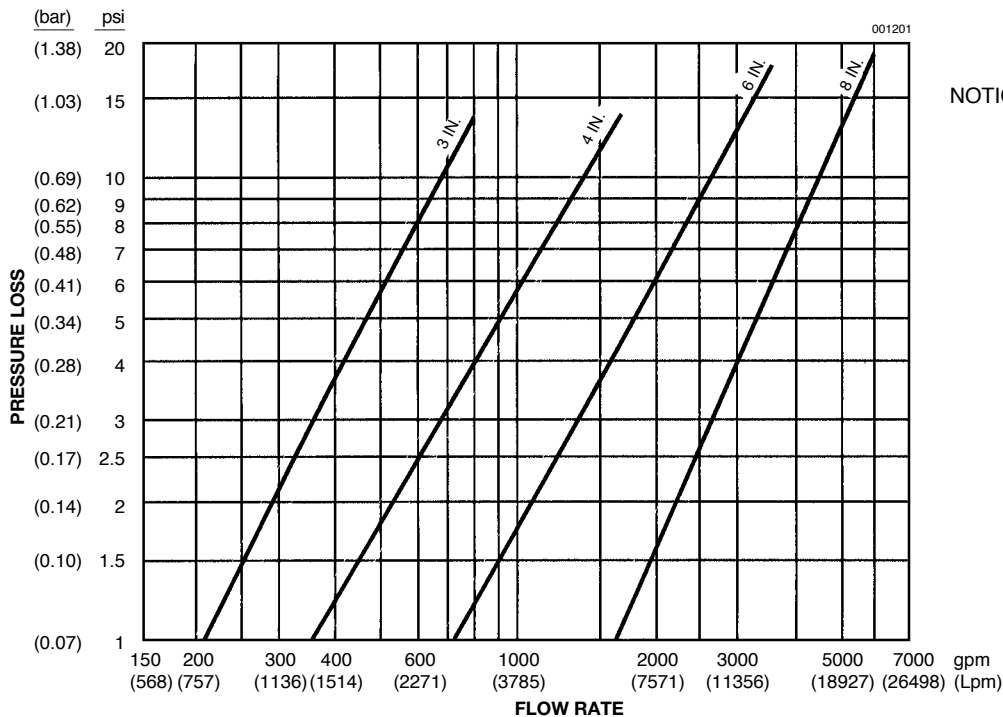
Proportioner Size	Nominal Flow Range	
	gpm	(Lpm)
3 in.	70 – 800	(265 – 3028)
4 in.	200 – 1600	(757 – 6057)
6 in.	300 – 3400	(1136 – 12870)
8 in.	500 – 5500	(1892 – 20819)

NOTICE: Listed Nominal Flow Ranges do not apply for Alcohol Resistant Concentrate.

MINIMUM INLET PRESSURE VERSUS WATER FLOW



FRICTION LOSS CURVES



NOTICE: Consult ANSUL Technical Services to determine proportioner size and maximum pipe run between foam tank and proportioner when using Alcohol Resistant Concentrate AFFF.