VARIABLE RANGE PROPORTIONER

HARDWARE

Features

FM Approved with RE-HEALING RF3, 3% and Arctic 3x3% ATC Foam Concentrates

UL Listed with RE-HEALING RF3, 3%, ARCTIC 3% AFFF and ARCTIC 3x3% ATC Foam Concentrates

Bronze and stainless steel construction for performance and durability

Fresh, salt and brackish water compatible

Horizontal or vertical mounting

Description

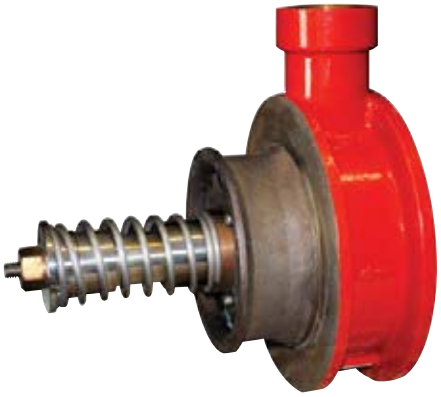
The SOLBERG® Variable Range Proportioner is a foam solution proportioning device, designed to accurately proportion the foam concentrate into the water stream at both high and low system flow rates. The SOLBERG Variable Range Proportioner is designed as an integral component of the SOLBERG Bladder Tank proportioning system, to be used with SOLBERG foam concentrates in foam-water systems.

The SOLBERG Variable Range Proportioner complies with NFPA 30, the Flammable and Combustible Liquids Code, Paragraph 16.5.1.6.2, which states that foam/water sprinkler systems are to provide foam solution to operating sprinklers with 4 sprinklers flowing. The SOLBERG Variable Range Proportioner was designed to meet this Code requirement.

Application

The SOLBERG Variable Range Proportioner is designed for closed-head foam-water sprinkler systems where proportioning of foam concentrate will begin at low flow rates, but where the proportioner will automatically adjust for changes in system flow rates as additional sprinklers operate and maintain accurate foam concentrate proportioning. Considering that the fire data shows that only 4 to 5 sprinklers will be necessary to control the flammable liquid fire risks, the SOLBERG Variable Range Proportioner is the perfect solution for low system flow proportioning.

The primary applications for the SOLBERG Variable Range Proportioner include closed-head foam/water sprinkler systems, protecting risks such as flammable and combustible liquid storage rooms, chemical processing, loading racks, aircraft hangars, and tank farm protection systems using foam chambers.



Specifications

The SOLBERG Variable Range Proportioner is certified for use with SOLBERG RE-HEALING RF3, 3%, ARCTIC™ 3% AFFF and ARCTIC 3x3 ATC* foam concentrates, when used as an integral component of a SOLBERG bladder tank proportioning system. The SOLBERG Variable Range Proportioner is designed to be installed as a between-the-flange proportioner, in standard DN150 (6") system piping. The foam concentrate inlet is 50 mm (2") NPT female pipe size.

The proportioner will accurately proportion foam concentrate at flow rates from 302 and 7949 l/min (80 to 2100 gpm) for 3% AFFF concentrate, from 302 to 6428 l/min (80 to 1698 gpm) for 3x3 ATC concentrate and from 405 to 6435 l/min (108 to 1700 gpm) for RE-HEALING RF3 3% foam concentrate.

The SOLBERG Variable Range Proportioner is manufactured using a bronze body and cone shaped piston, stainless steel spring, and stainless steel foam metering orifice. The SOLBERG Variable Range Proportioner is to be installed with a minimum of 5 pipe diameters (762 mm (30.0")) of straight pipe both upstream and downstream of the proportioner. The proportioner body is cast with a directional flow arrow on the proportioner body indicating the proper orientation of installation.

The SOLBERG Variable Range Proportioner operation in closed-head sprinkler systems is as follows:

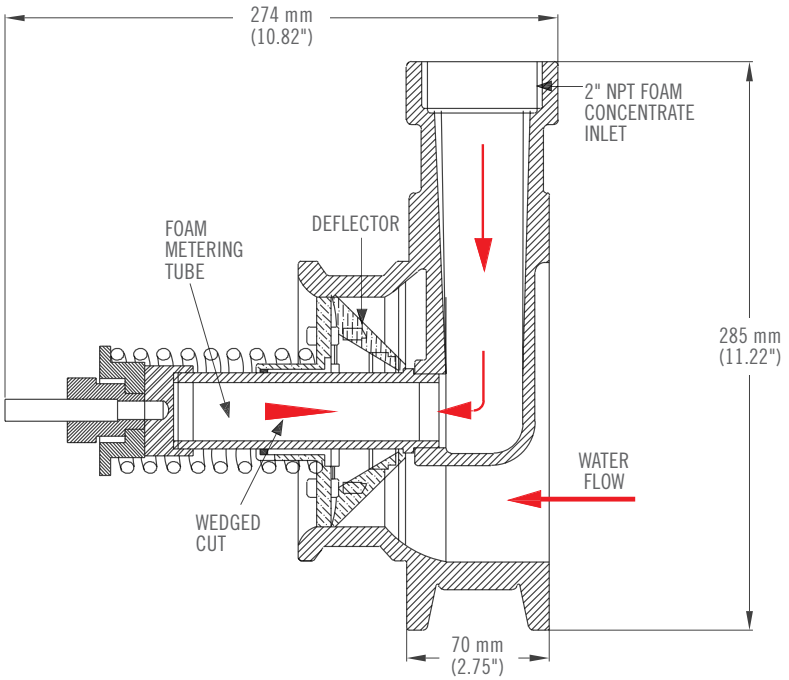
Under static (no flow) conditions in the water supply piping, the water and foam concentrate pressures are equal. During a fire, as sprinklers begin to open, the foam concentrate is injected into the water supply through the foam concentrate metering orifice at the listed solution rate. As more sprinklers begin to operate, the change in foam-water solution demand is automatically adjusted for by the SOLBERG Variable Range Proportioner, by injecting a carefully calibrated increased quantity of foam concentrate into the piping.

Certifications

Underwriters Laboratories, Inc. (UL) Listed – Standard 162, FM Approved per Approval Standard 5130 with RE-HEALING RF3, 3% and ARCTIC 3x3 ATC Foam Concentrates.

**See FM Approval Guide for Details*

Dimensions

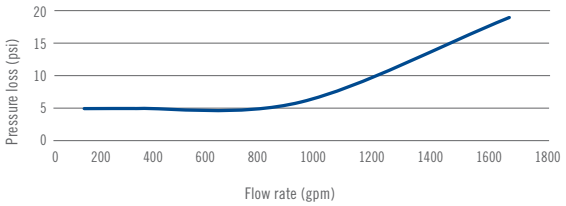


Pressure Loss Curves

NOMINAL FLOW RATES

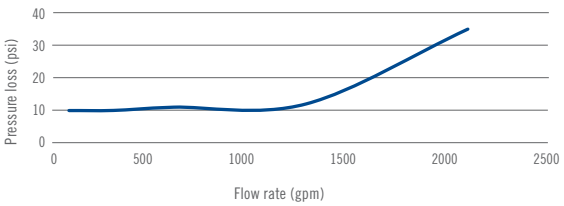
UL LISTED
RE-HEALING™ RF3, 3% FOAM CONCENTRATE

6 Inch Ratio Controller



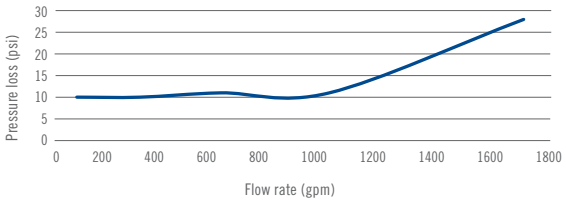
UL LISTED
ARCTIC™ 3% AFFF FOAM CONCENTRATE

6 Inch Ratio Controller



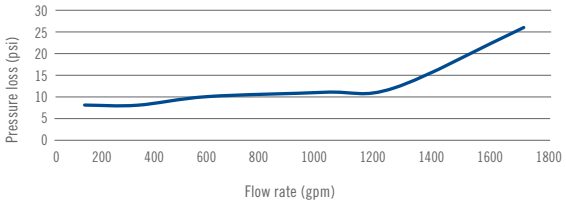
UL LISTED
ARCTIC™ 3x3% ATC™ FOAM CONCENTRATE

6 Inch Ratio Controller



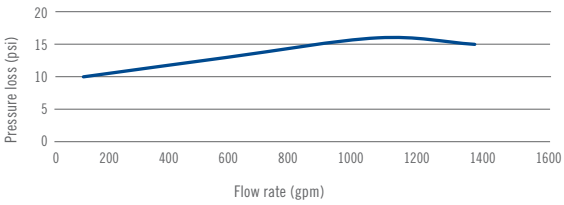
FM APPROVED
RE-HEALING™ RF3, 3% FOAM CONCENTRATE

6 Inch Ratio Controller



FM APPROVED
ARCTIC™ 3x3% ATC™ FOAM CONCENTRATE

6 Inch Ratio Controller

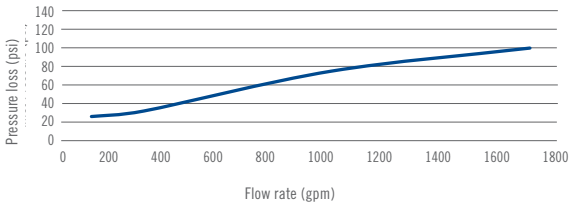


Pressure Loss Curves

NOMINAL FLOW RATES

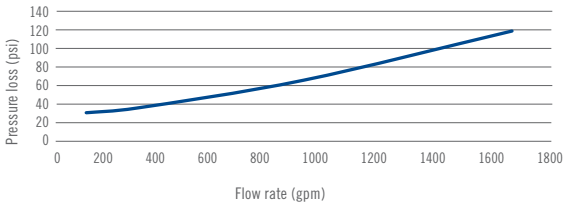
FM APPROVED
RE-HEALING™ RF3, 3% FOAM CONCENTRATE

2 Inch Ratio Controller



FM APPROVED
ARCTIC™ 3x3% ATC™ FOAM CONCENTRATE

2 Inch Ratio Controller



Performance Information

MODEL SRVP		UL LISTED NOMINAL FLOW RATE			FM APPROVED NOMINAL FLOW RATE	
		RE-HEALING RF3, 3% l/min (gpm)	ARCTIC 3% AFFF l/min (gpm)	ARCTIC 3x3% ATC l/min (gpm)	RE-HEALING RF3, 3% l/min (gpm)	ARCTIC 3x3% ATC l/min (gpm)
Proportioning rate (pre-calibrated)		115 - 1700 (435 - 6435)	87 - 2171 (329 - 8218)	84 - 1761 (318 - 6666)	108 - 1700 (405 - 6435)	94 - 1355 (356 - 5129)
Size	150 mm (6.0")					
Foam inlet female	Threaded					
Inlet working pressure (max.)		12 bar (175 psi)	12 bar (175 psi)	12 bar (175 psi)	12 bar (175 psi)	12 bar (175 psi)
Inlet working pressure (min.)		2 bar (30 psi)	2 bar (30 psi)	2 bar (30 psi)	2 bar (30 psi)	2 bar (30 psi)
Pipe length upstream	762 mm (30.0")					
Pipe length downstream	762 mm (30.0")					
Flange size	150 mm (6.0")					
Between flange dimensions	69 mm (2.75")					
Height	280 mm (11.0")					
Weight	13 kg (29 lb)					
Material	Bronze					

Note: DO NOT exceed 11 m (35.0 ft) of equivalent length of pipe and fittings.

Ordering Information

VARIABLE RANGE PROPORTIONER			SHIPPING WEIGHT	
PART NO.	DESCRIPTION		kg	lb
30200	Ratio Controller – Variable Range, Model SVRP 6.0" (150 mm), ARCTIC 3% AFFF	UL	13	28.6
30201	Ratio Controller – Variable Range, Model SVRP 6.0" (150 mm), ARCTIC 3x3 ATC	UL, FM	13	28.6
30210	Ratio Controller – Variable Range, Model SVRP 6.0" (150 mm), RE-HEALING RF3, 3%	UL	13	28.6
30211	Ratio Controller – Variable Range, Model SVRP 6.0" (150 mm), RE-HEALING RF3, 3%	FM	13	28.6

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