

ULTRA-WIDE CL Variable Range Proportioner

Features

The ULTRA-WIDE CL Variable Range Proportioner has the following features:

- Designed to meet the proportioning requirements of NFPA 16
- Fast response
- Foam proportioning as low as 49 gpm (185 Lpm)
- Maximum/minimum flow rate ratio of 60:1
- Allows the use of lower cost bladder tank systems
- Less total system hardware required
- Less total system maintenance required
- Easy installation – can be pre-piped to bladder tank
- Minimal moving parts
- No electrical hook-up required
- Fits between two flanges without spool piece

Application

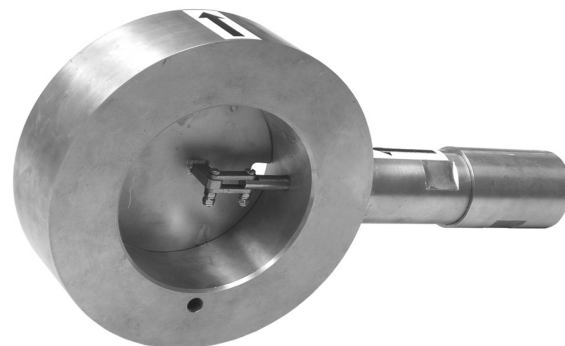
The ULTRA-WIDE CL Variable Range Proportioner is both UL Listed and FM Approved for use with CHEMGUARD C334-LV 3x3 AR-AFFF and CHEMGUARD C3B 3% AFFF. In addition, it is also UL Listed with CHEMGUARD C306-MS 3% AFFF. The proportioner is designed to proportion and control the mixing of the foam concentrate into a water stream over a wide range of water flow rates and pressures.

The ULTRA-WIDE CL proportioner is designed for use with bladder tank systems only. The proportioner can be located up to 35 equivalent ft (10.7 m) from the bladder tank outlet. The normal swing check, concentrate isolation, and hydraulic valve(s) do not have to be included in this equivalent length calculation. The ULTRA-WIDE CL proportioner has a maximum working pressure of 250 psi (17.2 bar).

Note: A minimum of 2 in. (50 mm) pipe size is required for water supply to tank and foam concentrate supply to proportioner.

Designed with NFPA 16 in mind, these proportioners are well suited for closed head foam-water sprinkler application where the system flow may start low and increase as more sprinklers open.

Historical data on closed head sprinkler systems has proven that on average only four or five sprinklers operate during a fire. As a result, NFPA 30 requires properly proportioned foam solution to be generated with as few as four sprinklers flowing, otherwise control of the fire might not be established. In many foam-water sprinkler systems, this flow condition would produce flows considerably less than the minimum design flow of conventional proportioning equipment. With the flow capacity of the ULTRA-WIDE CL Variable Range Proportioner, foam would be proportioned properly with even fewer sprinklers operating.



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Other common applications include the following:

- Tank farm protection systems, as per NFPA 11 using foam chambers or other means of foam delivery, where varied flow rates are encountered in conjunction with requirements for supplementary foam handline(s).
- Typical applications in conjunction with a closed head foam-water sprinkler system include warehouse storage, chemical processing, loading racks, and anywhere flammable liquids are used, stored, processed, or transported.

Description

The ULTRA-WIDE CL Variable Range Proportioner consists of a brass body, stainless steel deflector, stainless steel spring, and stainless steel foam metering cone and orifice.

The proportioner body is designed to fit between 6 in. pipe flanges.

Note: A minimum of 30 in. (762 mm) of straight pipe is required in the water line before entering the proportioner.

The body is marked with an arrow to indicate the direction of flow. The foam concentrate inlet is a female 2 in. NPT.

When installed in a closed head, wet sprinkler system, the proportioner operates as follows:

- With the proportioner properly installed in the sprinkler riser, the water pressure is equal on both sides of the proportioner. As sprinkler heads open in a fire situation, foam concentrate is metered into the water stream through a precisely machined cone and orifice.
- As more sprinkler heads open, the increase in water flow causes the deflector to open more, thus opening the cone versus the orifice, allowing more foam concentrate into the water stream. This feature gives the proportioner the ability to properly proportion at both extremely low flow rates and at extremely high flow rates.

System Information

Model	ULTRA-WIDE CL	ULTRA-WIDE CL	ULTRA-WIDE CL
Agent	CHEMGUARD C3B 3% AFFF	CHEMGUARD C334-LV 3x3 AR-AFFF	CHEMGUARD C306-MS 3% AFFF
Size in. (mm)	6 (150)	6 (150)	6 (150)
Listed Flow Range gpm (Lpm)	49 – 3122* (185.5 – 11,818)	55 – 3535* (208 – 13,381)	54 – 3092** (204.5 – 11,705)
Maximum Working Pressure psi (bar)	250 (17.2)	250 (17.2)	250 (17.2)

*UL Listed and FM Approved flow range

**UL Listed flow range

Ordering Information

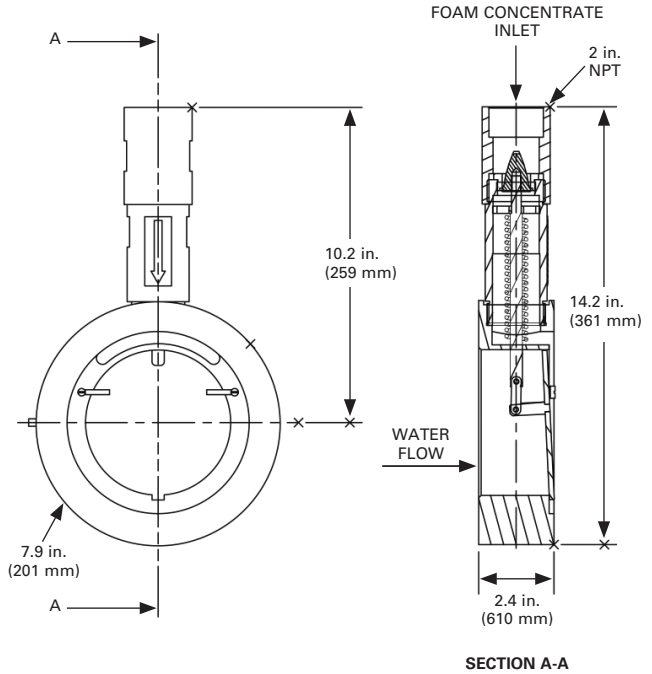
Part No.	Description	Shipping Weight lb (kg)	Approvals
702000	ULTRA-WIDE CL Variable Range Proportioner for CHEMGUARD C3B 3% AFFF	30 (13.6)	UL Listed, FM Approved
702001	ULTRA-WIDE CL Variable Range Proportioner for CHEMGUARD C334-LV 3x3 AR-AFFF	30 (13.6)	UL Listed, FM Approved
704181	ULTRA-WIDE CL Variable Range Proportioner for CHEMGUARD C306-MS 3% AFFF	30 (13.6)	UL Listed

Note: The proportioner weight without shipping packaging is 27.1 lb (12.3 kg).

Approvals and Listings

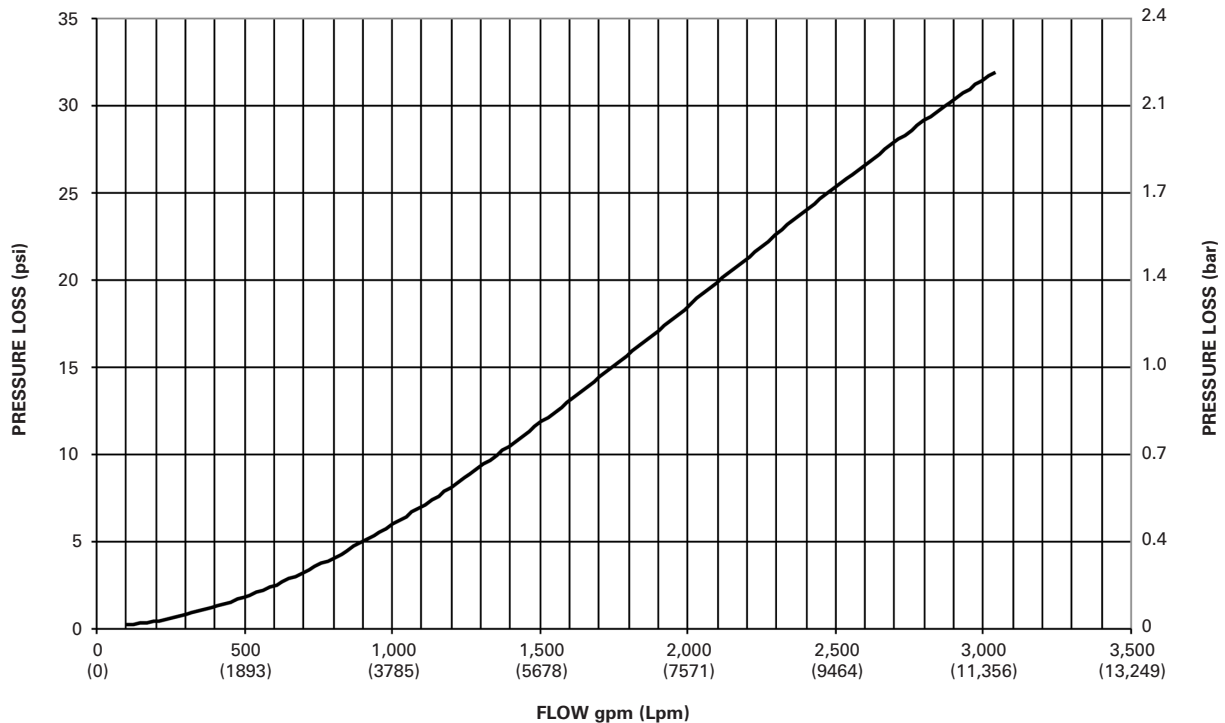
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Note: ULTRA-WIDE CL proportioners are only FM Approved when used in conjunction with the specific foam concentrates and equipment shown in the Approval Guide available at www.ApprovalGuide.com.



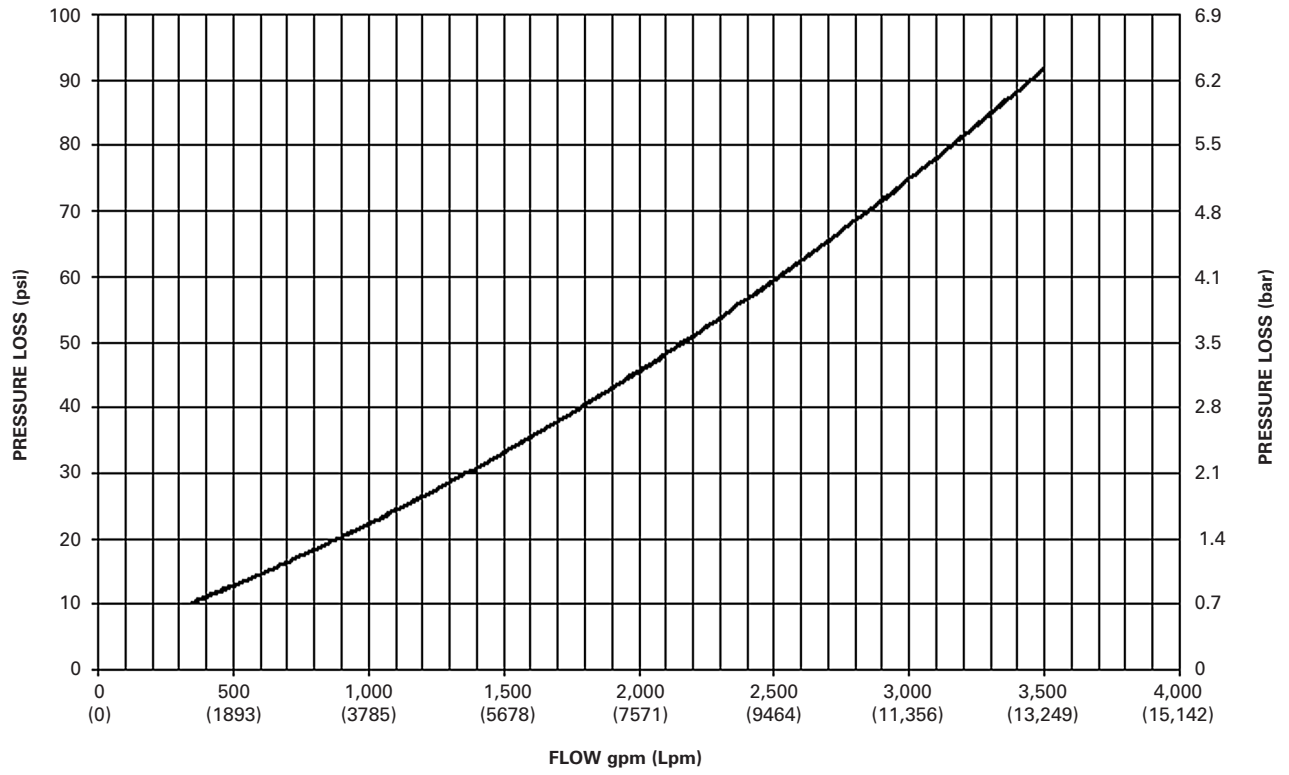
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FRICION LOSS OF CHEMGUARD ULTRA-WIDE CL



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MINIMUM INLET PRESSURE VERSUS WATER FLOW



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