

ULTRA-WIDE CL Variable Range Proportioner

Features

- Designed to meet the proportioning requirements of NFPA 16
- Fast response
- Foam proportioning as low as 51 gpm (193 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 Proportioners are designed to proportion and control the mixing of foam concentrate into a water stream over a wide range of water flow rates and pressures.

The ULTRA-WIDE CL proportioner is to be used 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.

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

The proportioner has the capability to proportion foam concentrate at flow rates between 51 gpm to 3,000 gpm (193 Lpm to 11,356 Lpm) at a maximum working pressure of 250 psi (17.2 bar).

With their low flow capability, these proportioners are especially suited for closed head foam-water sprinkler applications where the system flow starts out low, and if the fire intensifies, more sprinklers will open, increasing the flow rate.

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:

- Aircraft hangar protection per NFPA 409 involving closed head foam-water sprinkler systems whereby the foam handline nozzles can be fed from the same proportioner used for the overhead sprinklers.
- Tank farm protection systems 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 direction of flow.

The foam concentrate inlet is 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.

Approvals

The ULTRA-WIDE CL Variable Range Proportioners are UL Listed with various CHEMGUARD foam concentrates. Consult UL for specific Listed foam concentrates and flow ranges.

Ordering Information

Part No.	Description	Shipping Weight	
		lb	(kg)
702000	ULTRA-WIDE CL Variable Range Proportioner for CHEMGUARD C3B 3% AFFF	30 lb	(13.6 kg)
702001	ULTRA-WIDE CL Variable Range Proportioner for CHEMGUARD C334-LV 3x3 AR-AFFF	30 lb	(13.6 kg)

Note: Weight of proportioner without shipping packaging is 27.1 lb (12.3 kg).

Note: The converted metric values in this document are provided for dimensional reference only and do not reflect an actual measurement.

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