

Chemguard In-Line Balanced Pressure Proportioners (ILBP's) are used with positive displacement foam concentrate pumps and atmospheric foam concentrate storage tanks to form an in-line balanced pressure proportioning system. Chemguard Model CVILBP units can also be used with Viking Low Flow Foam Systems. The Chemguard Model CVILBP is designed to balance the incoming foam concentrate pressure with the incoming water pressure and meter the correct proportion of foam concentrate into the water stream over a wide range of flows and pressures. These units are suitable for use with all types of foam concentrates. The CVILBP is a completely self contained device consisting of all necessary components including the ratio controller, pressure balancing spool valve and duplex pressure gauge. A check valve is standard on all CVILBP units.

An ILBP proportioner system uses a positive displacement foam concentrate pump or Viking low flow system to supply foam concentrate to the CVILBP at a higher pressure than the water supply inlet pressure by a minimum of 15 psi. A pressure sustaining (control) valve, located in the return line back to the foam concentrate tank, is set to maintain a regulated pressure to the CVILBP which is higher than the pressure of the water supply. The excess foam concentrate not required by the CVILBP is returned to the foam concentrate tank through the pressure sustaining valve. The balancing spool valve senses the foam concentrate pressure and balances it with the water pressure. Balancing is achieved through two sensing lines, one from the water supply, the other from the foam concentrate line. Both lines connect to the spool valve and a duplex pressure gauge which provides readings for foam concentrate and water pressure. The foam concentrate is then metered through a fixed orifice in the proportioning controller into the water stream.

FEATURES

- UL Listed / FM Approved.
- Four Standard Sizes available.
- 3", 4", 6" & 8" Proportioning Controllers are designed to fit between two 150 lb. ANSI flanges.
- Balancing spool valve ensures accurate proportioning over a wide flow range.
- Compatible with all Chemguard foam concentrates.
- All Brass construction with flexible stainless steel braided sensing hoses. Hoses have stainless steel fittings.

FLOW RANGE

The CVILBP Flow Range Table on page 3 lists the flow range for each size with respect to the foam concentrate type. Please consult the Chemguard Engineering department for specific applications.

DESIGN INFORMATION

To ensure correct operation of the CVILBP, Chemguard recommends the pressure of the foam concentrate at the inlet to the CVILBP be minimum of 15 psi and maximum of 50 psi higher than the water pressure at the CVILBP proportioning controller.

ORDERING INFORMATION

When ordering a Chemguard CVILBP please supply the following information:

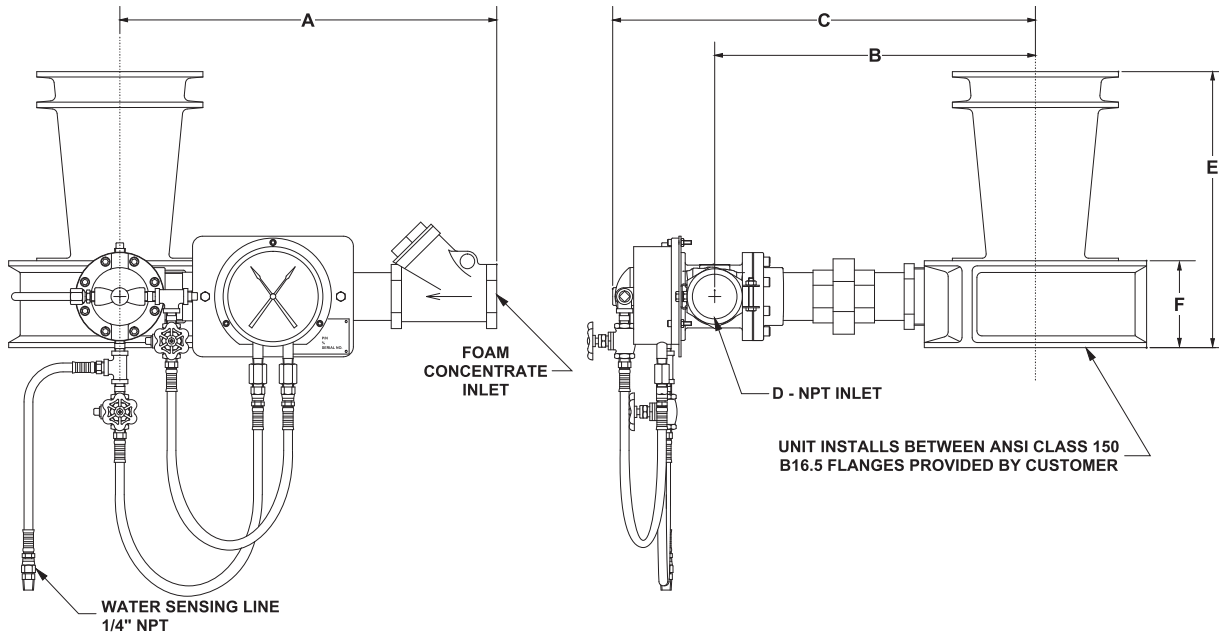
1. Type and percentage of foam concentrate.
2. Minimum and maximum static and residual water inlet pressure available at the proportioning controllers.
3. Minimum and maximum foam solution flows expected.

Note: (1) Other foam concentrates available and need to be specified at time of order. (2) In-line balanced pressure proportioner systems will proportion at slightly higher concentrations at the low end of the nominal flow range.

Foam Concentrate Type	CVILBP PART NUMBER	
	3"	4"
1 % AFFF - C103	EF11559	EF11566
3% AFFF - C303	EF11561	EF11568
3% AR-AFFF - CUG	EF11562	EF11569
3%/6% AR-AFFF @ 3% - C363-3	EF11563	EF11570
3%/6% AR-AFFF @ 6% - C363-6	EF11564	EF11571
2% HIGH EXANSION - C2	EF11565	EF11572
3% MS-AFFF - C301MS	EF11560	EF11567
3% FP - CP2305	EF12354	EF12355

Foam Concentrate Type	6"	8"
	1 % AFFF - C103	EF11573
3% AFFF - C303	EF11575	EF11579
3% AR-AFFF - CUG	EF11576	EF11580
3%/6% AR-AFFF @ 3% - C363-3	N/A	N/A
3%/6% AR-AFFF @ 6% - C363-6	N/A	N/A
2% HIGH EXPANSION - C2	N/A	N/A
3% MS-AFFF - C301MS	EF11574	EF11578
3% FP - CP2305	EF12356	EF12357

CVILBP DIMENSION DRAWING AND TABLE



Dimensions, IN. (CM)

CVILBP Size	A	B	C	D - NPT	E	F
3"	17-3/4 (45.1)	11-7/8 (30.2)	17 (43.2)	1-1/4	6-1/4 (15.9)	2-1/2 (6.4)
4"	17-3/4 (45.1)	12-3/8 (31.4)	17-3/8 (44.1)	1-1/2	8 (20.3)	2-3/4 (7.0)
6"	18-3/4 (47.6)	13-7/8 (35.2)	18-7/8 (47.9)	2	12-3/8 (31.4)	3-1/4 (8.3)
8"	18-3/4 (47.6)	15-7/8 (40.3)	21 (53.3)	2	12-3/8 (31.4)	3-1/2 (8.9)

Note: Reference Ratio Flow Controller Data Sheet for detailed dimensions and minimum recommended length of pipe required upstream and downstream on proportioning controllers. Dimensions are approximate

CVILBP FLOW RANGE TABLE

Model CVILBP Flow Ranges - GPM (LPM)

Foam Concentrate Type	3"	4"	6"	8"
1% AFFF - C103	113-837 (428-3168)	176-1819 (666-6886)	335-3006 (1268-11379)	743-3279 (2813-12412)
3% AFFF - C303	104-779 (394-2949)	305-1381 (1155-5228)	298-3051 (1128-11549)	926-3290 (3505-12454)
3% AR-AFFF - CUG	203-783 (768-2964)	146-1400 (553-5300)	461-2990 (1745-11318)	933-3347 (3532-12670)
3%/6% AR-AFFF @ 3% - C363-3	113-791 (428-2994)	259-1207 (980-4569)	N/A	N/A
3%/6% AR-AFFF @ 6% - C363-6	219-738 (829-2794)	686-1148 (2597-4346)	N/A	N/A
2% HIGH EXPANSION - C2	160-771 (606-2919)	292-1223 (1105-4630)	N/A	N/A
3% MS-AFFF - C301MS	105-856 (397-3240)	211-1414 (799-5353)	324-2811 (1226-10641)	909-3359 (3441-12715)
3% FP - CP2305	200-750 (757-2839)	350-1250 (1325-4732)	500-2900 (1893-10978)	1600-5100 (6057-19306)