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Atmospheric Foam Concentrate Storage Tank

Part No. CAST2, CAST3, CAST4, CAST5, CAST8, CAST10, CAST12, CAST15, CAST20, CAST25, CAST30, CAST40, CAST42, CAST50, CAST55, CAST64, CAST70, CAST80, CAST100, CAST120

DESCRIPTION

Chemguard offers Atmospheric Foam Concentrate Storage Tanks manufactured in stainless or carbon steel, fiberglass and polyethylene. Vertical tanks are normally manufactured with flat bottoms and dome tops and horizontal tanks sit on saddles.

All tanks offered by Chemguard are suitable for use with Chemguard manufactured and supplied foam concentrates.

The fiberglass and plastic tanks do not have expansion domes due to the dome shape of the top of the tank. Inspection hatches are provided on both style tanks. Regardless of the material of construction, a pressure/vacuum vent must be installed. This is normally installed on the inspection hatch on the fiberglass or molded polyethylene tanks and on the cover of the expansion dome on the carbon or stainless steel tank.

Fig. 16 shows a typical style tank in carbon steel.

IMPORTANT

If using a carbon or stainless steel tank with AFFF type foam concentrates, it is recommended by Chemguard to NOT line the inside of the tank shell. The reason is that the tank and the liner have different coefficient expansion ratios during various ambient temperature cycles. Over time, pin holes may occur in the lining. AFFFs having a very good wetting ability, will penetrate the pin holes and get in between the lining and the tank shell.

Eventually portions of the lining may flake off and travel into the foam concentrate system, subsequently blocking orifices, strainers, etc.

Fig. 17 shows a custom built tank in 316 stainless steel. Other configurations are available. Contact the engineering department at Chemguard for further assistance.

Upon receipt of the Chemguard manufactured/supplied Atmospheric Foam Concentrate Storage Tank and before any installation, inspect the tank for any damage that may have occurred during shipping to trim valves, piping, etc.

INSTALLATION

If the tank has been received in a satisfactory condition, place the tank in the desired level location and if necessary, anchor to the floor. If possible, leave an area around the tank free from any walls, obstacles, etc. This gives working space for connecting the foam system piping to/from the tank.

Fig. 7 shows a typical piping arrangement of a foam concentrate pump atmospheric tank supplying an in-line balanced pressure proportioning system.

IMPORTANT

Chemguard does not supply any inter-connecting piping, strainers, valves, etc. that are not specifically mentioned on any quotation or order acknowledgment.

Fig. 9 illustrates the typical piping layout for a pressure proportioning pump skid system.

IMPORTANT

When using AFFF or AR-AFFF type foam concentrates in any atmospheric type storage tank, it is recommended by Chemguard that a thin layer (approximately 1/4 inch) of a quality mineral oil be placed on the surface of the foam concentrate after filling the tank with the correct quantity. This alleviates the problem associated with evaporation of the foam concentrate.

If any AFFF concentrate spills on any painted surface during any filling of the storage tank(s) immediately wash the area with water. The solvents in the AFFF may cause streaking of any painted surface.

It is recommended that when using non-freeze protected foam concentrates, that the foam tanks be located in an area that is kept between 35° F –120°F.

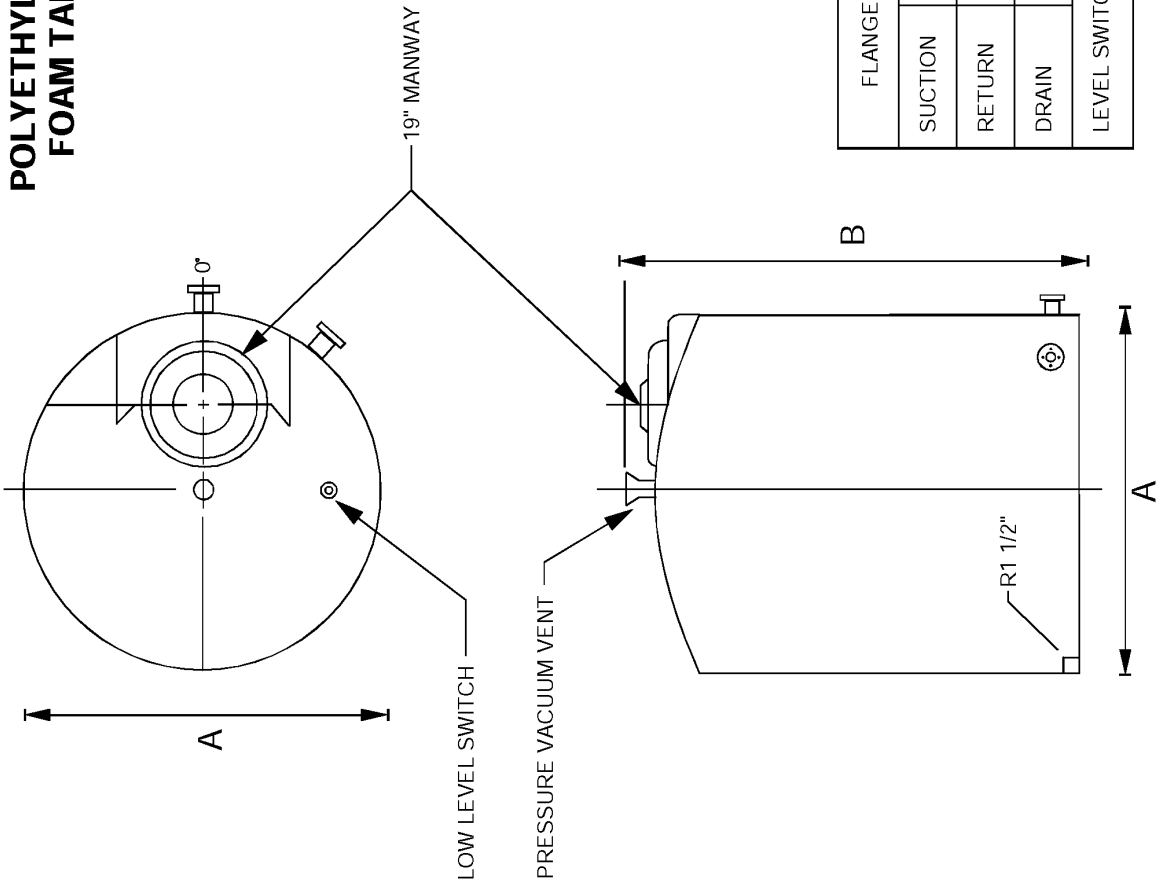
GENERAL INFORMATION

Piping Materials: Standard schedule 40 black steel (when kept full of foam concentrate or a "dry pipe" system) and stainless steel pipe is suitable for use with Chemguard manufactured AFFF/AR-AFFF types of foam concentrates.

Galvanized pipe should not be used with any AFFF/AR-AFFF concentrates.

AFFFs have a solvent in their formulation, which may dissolve standard pipe joint compound (pipe dope) normally used with plain water sprinkler systems. When installing a foam water fire protection system using AFFF concentrates, it is recommended where the concentrate or the solution is in contact with any pipe joints etc., a quality Teflon TM tape in accordance with MIL-T-27730 and a Telfon TM based pipe joining compound be used on all threaded fittings.

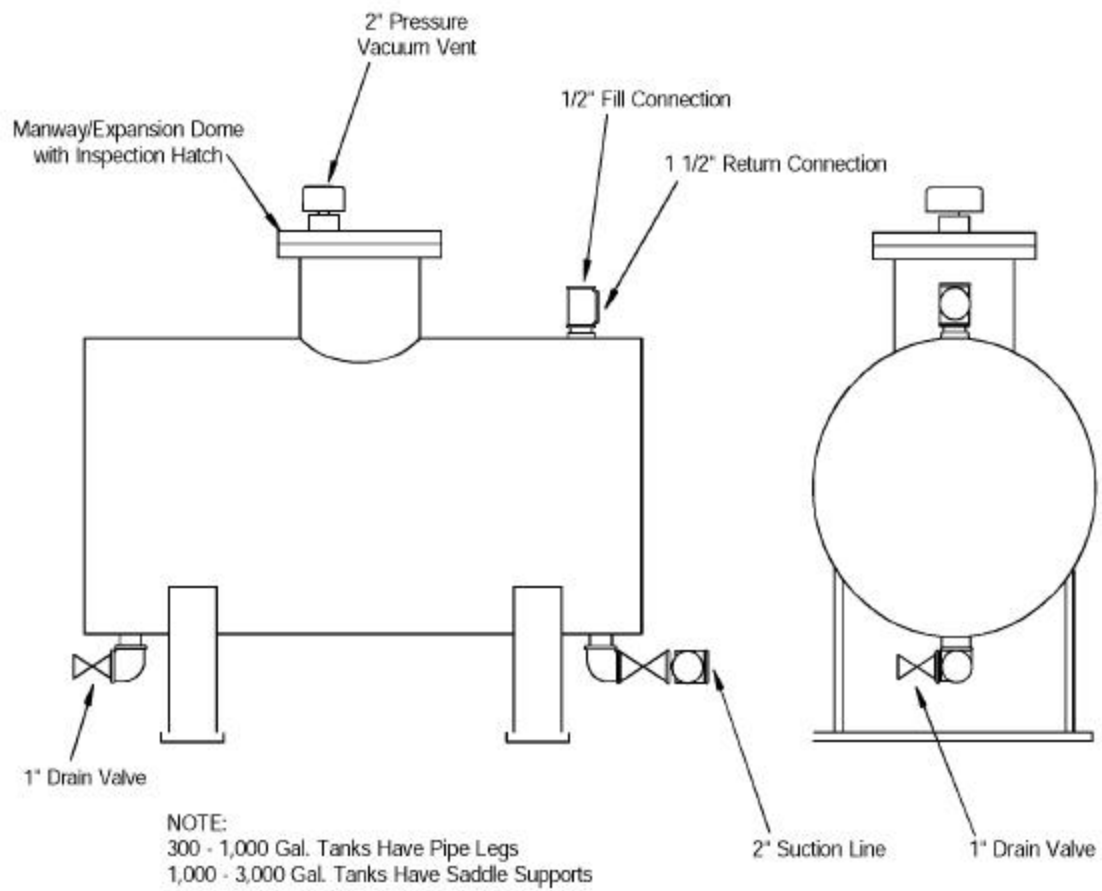
**POLYETHYLENE
FOAM TANK**



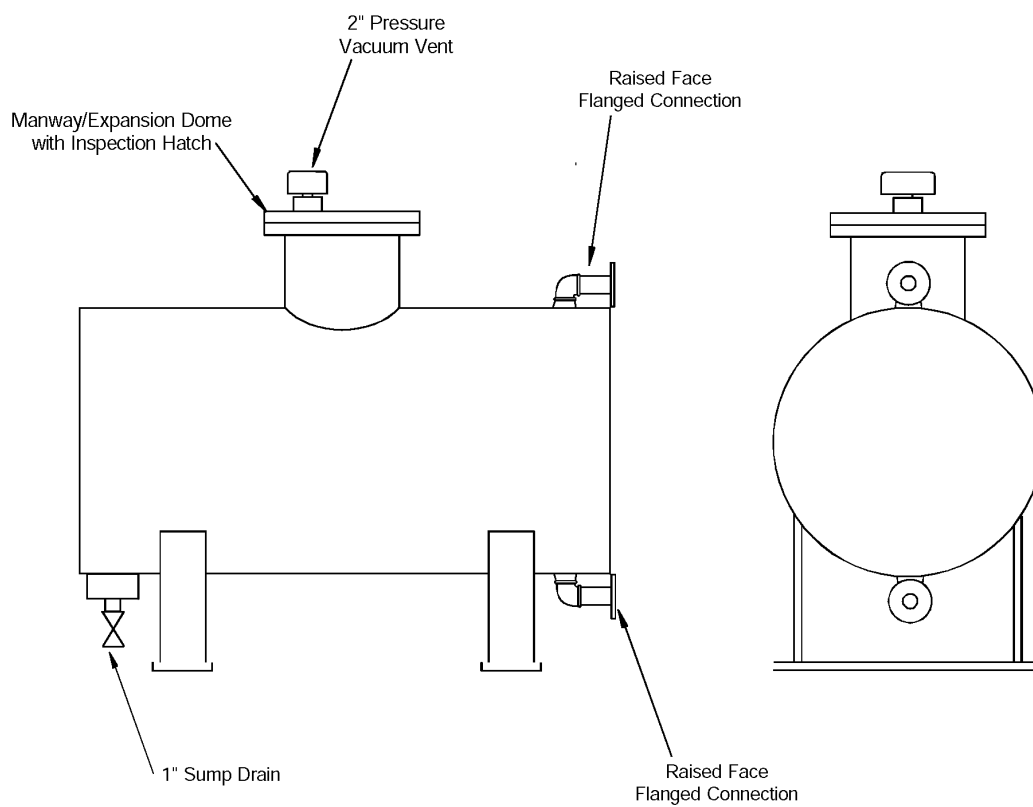
CAPACITY	DIA. "A"		HEIGHT "B"	
	GALS.	IN.	IN.	(MM)
200	31	(787)	78	(1982)
300	46	(1168)	59	(1500)
400	46	(1168)	80	(2032)
550	48	(1219)	89	(2260)
800	48	(1219)	124	(3150)
950	64	(1626)	90	(2286)
1200	64	(1626)	106	(2692)
1450	64	(1626)	128	(3251)
1850	96	(2438)	82	(2083)
2400	96	(2438)	99	(2514)
2900	96	(2438)	117	(2972)
4000	94	(2134)	159	(4038)
4200	102	(2591)	145	(3683)
5000	93	(2312)	198	(5029)
5500	112	(2845)	150	(3810)
6400	120	(3048)	150	(3810)
7000	120	(3048)	174	(3854)
8000	143	(3633)	140	(3556)
10000	143	(3633)	177	(4495)
12000	132	(3353)	202	(5130)

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TYPICAL HORIZONTAL CARBON STEEL TANK



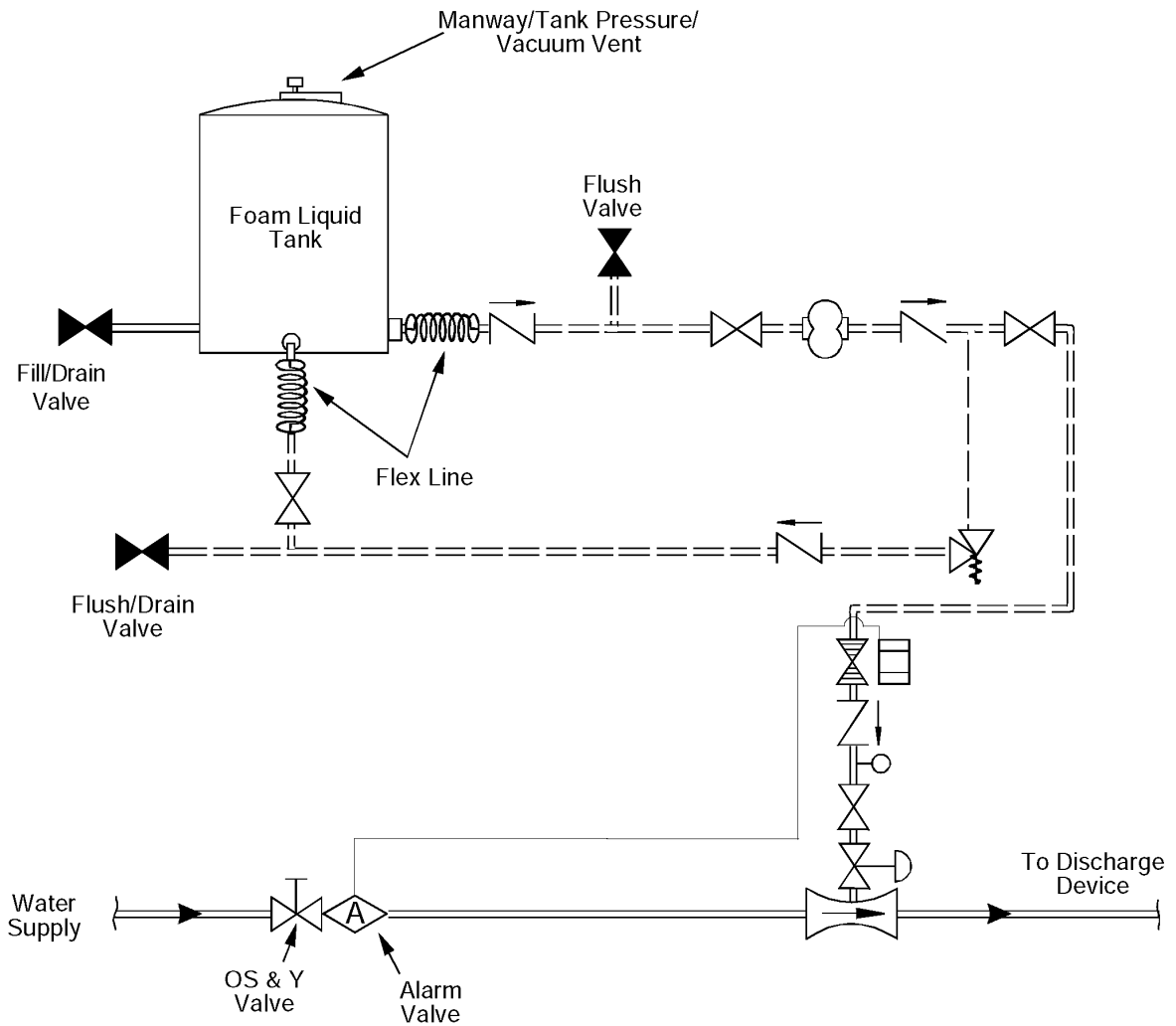
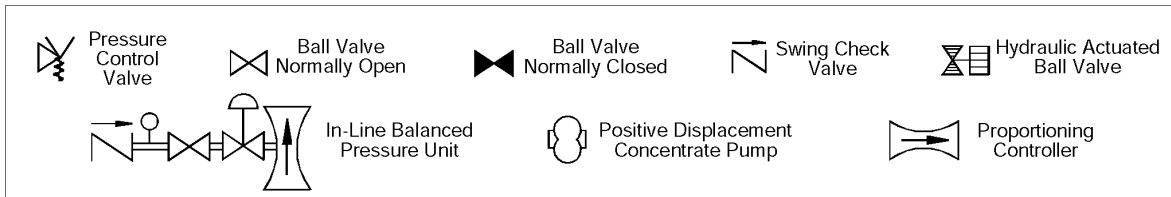
CUSTOM BUILT 316 STAINLESS STEEL TANK



MATL:
316 S.S., 12 GA.

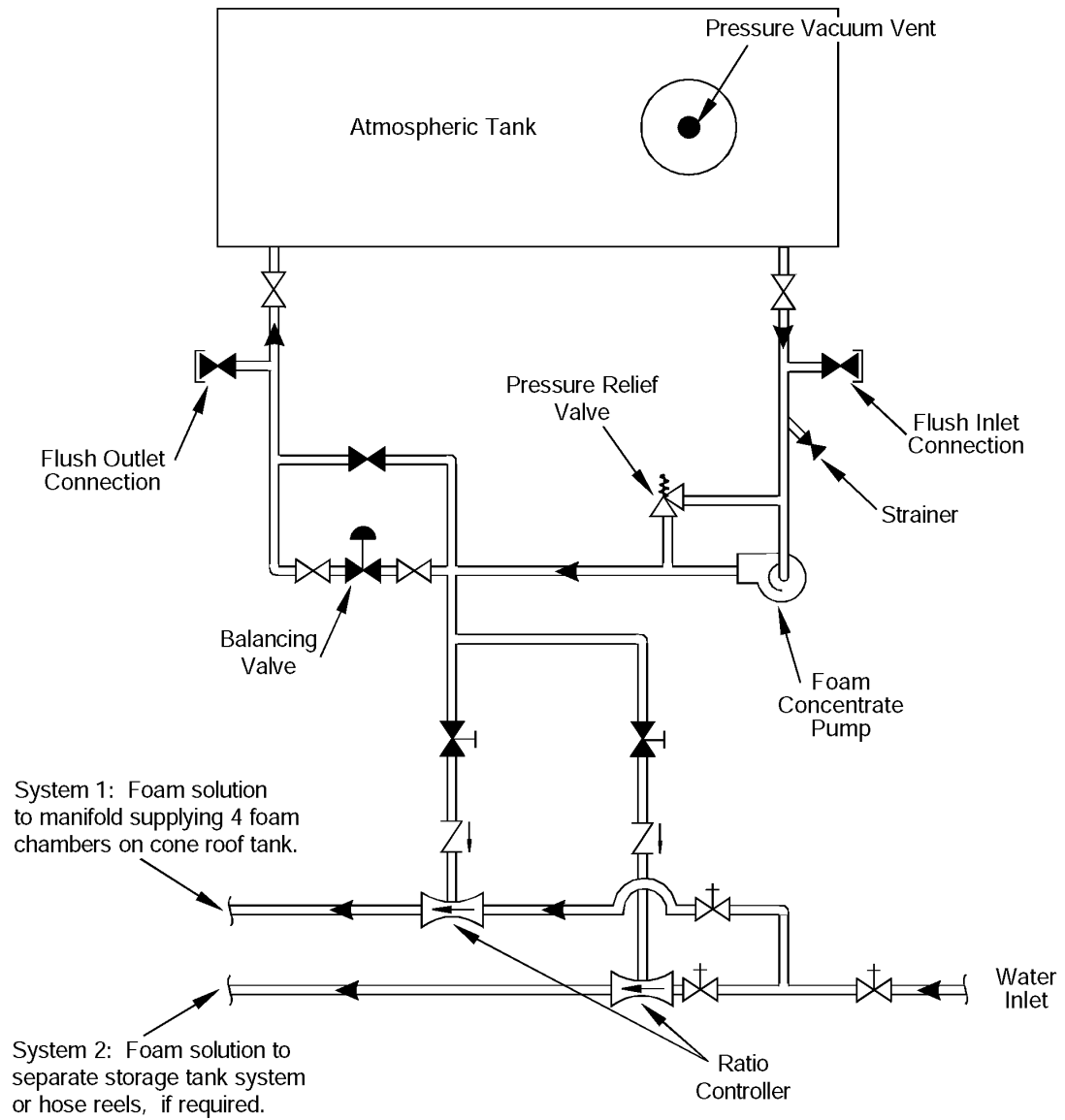
D087rv1199

BASIC IN-LINE BALANCED PRESSURE PROPORTIONING SYSTEM



D-ILB2v1199

EXAMPLE OF BALANCED PRESSURE PUMP SKID WITH TWO PROPORTIONERS



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