

Atmospheric Poly Foam Concentrates Tanks

Description

The atmospheric poly foam concentrate tanks are supplied with fittings as shown on drawings enclosed. There are two return fittings provided on all tanks located 180 degrees apart to enable ease and flexibility for piping on site. Either connection can be used as the foam concentrate return with the other return connection having the provided pipe plug installed. The poly tanks are translucent and have a level gauge strip for approximating tank contents.

Optional tank trim components are also available including:

- Tank Trim Package (2 in. pressure/vacuum vent and 1 1/2 in. drain valve)
- Low Liquid Level Float Switch – normally open or normally closed contact
- Flex Connectors (1 1/2 in. to 6 in.)
- Seismic Restraints (Contact Johnson Controls Technical Services for details.)

Poly tanks of alternate sizes and configurations are also available. Johnson Controls can also provide tanks in fiberglass, carbon steel, and stainless steel. Contact Johnson Controls Applications Engineering Department for additional information.

Application

An atmospheric foam concentrate storage tank is one component of a foam proportioning system. The high density cross-linked polyethylene (XLPE) storage tanks supplied by Johnson Controls are compatible with all ANSUL® foam concentrates including ANSULITE AFFF, ANSULITE Alcohol Resistant AFFF, JET-X High Expansion, SILV-EX, along with ANSUL 3% Protein and Fluoroprotein concentrates. Because of the excellent properties of XLPE relating to stress crack resistance, impact strength, light weight and overall toughness, poly tanks are an excellent choice for many foam system applications. An atmospheric concentrate tank is typically used in conjunction with an ANSUL balanced pressure pump proportioning skid unit or in-line balanced pressure proportioning system. Additionally, similar tanks could be used with an ANSUL line proportioning system.

Specifications

Storage tanks shall be designed for storage of foam concentrate at atmospheric pressure and shall be of vertical, cylindrical, high density cross-linked polyethylene construction. Tanks shall be equipped with the following: valved drain/fill connection, foam concentration pump suction and return connections, inspection hatch, pressure/vacuum vent valve, and gauge or unbreakable sight glass to permit visual determination of level of tank contents. The foam concentrate storage tank shall have a minimum capacity to provide sufficient foam concentrate for the time specified when the system is discharging foam solution at total maximum system flow.

Ordering Information

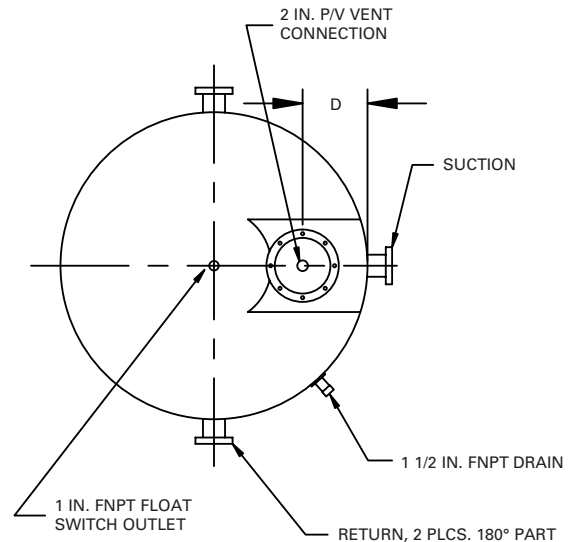
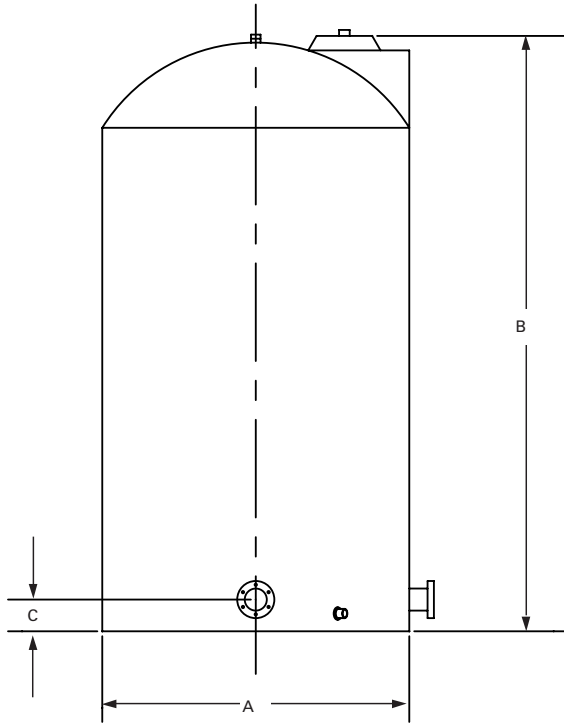
Part No.	Description	Approximate Shipping Weight	
		lb	(kg)
416850	100 gal (379 L) Poly Foam Tank	75	(34)
416851	205 gal (776 L) Poly Foam Tank	100	(45)
416852	295 gal (1,117 L) Poly Foam Tank	125	(57)
416853	475 gal (1,798 L) Poly Foam Tank	130	(59)
416854	540 gal (2,044 L) Poly Foam Tank	150	(68)
416855	805 gal (3,047 L) Poly Foam Tank	220	(100)
416856	1,000 gal (3,785 L) Poly Foam Tank	250	(113)
416857	1,150 gal (4,353 L) Poly Foam Tank	300	(137)
416858	1,450 gal (5,489 L) Poly Foam Tank	350	(159)
416859	2,250 gal (8,517 L) Poly Foam Tank	350	(159)
416860	2,550 gal (9,653 L) Poly Foam Tank	450	(204)
416861	3,000 gal (11,356 L) Poly Foam Tank	550	(250)
416862	3,900 gal (14,763 L) Poly Foam Tank	800	(363)
416863	5,050 gal (19,116 L) Poly Foam Tank	1300	(590)
404377	Tank Trim Package (2 in. P/V Vent and 1 1/2 in. Drain Vent)	25	(11)
403508	Low Liquid Level Switch (Normally Closed Contact)	15	(7)
405777	Low Liquid Level Switch (Normally Open Contact)	15	(7)
405613	Flex Connector – 1 1/2 in.	3	(1.4)
404886	Flex Connector – 2 in.	4	(1.8)
404854	Flex Connector – 3 in.	7	(3.2)
404855	Flex Connector – 4 in.	9	(4.1)
405538	Flex Connector – 6 in.	14	(6.4)
404382	Mineral Oil Concentrate Sealer 5 gal Pail	45	(20)

Seismic Zone Restraints are available.

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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Storage Tank Dimensional Information



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Part No.	Nominal Tank Size*		Liquid Full Capacity		A		B		C		D		Suction Diameter	Return Diameter	Shipping Weight		Wall Thickness	
	gal	(L)	gal	(L)	in.	(cm)	in.	(cm)	in.	(cm)	in.	(cm)			lb	(kg)	in.	(cm)
416850	100	(379)	106	(401)	23.0	(58.4)	66.50	(168.9)	8.0	(20.3)	11.5	(29.2)	2 in. FNPT	1.5 in. FNPT	75	(34)	0.25	(0.64)
416851	205	(776)	214	(810)	31.0	(78.7)	73.50	(186.7)	8.0	(20.3)	15.5	(39.4)	2 in. FNPT	1.5 in. FNPT	95	(43)	0.25	(0.64)
416852	295	(1,117)	319	(1,208)	46.0	(116.8)	53.00	(134.6)	8.0	(20.3)	23.0	(58.4)	2 in. FNPT	1.5 in. FNPT	115	(52)	0.25	(0.64)
416853	475	(1,798)	503	(1,904)	48.0	(121.9)	75.00	(190.5)	8.0	(20.3)	24.0	(60.9)	2 in. FNPT	1.5 in. FNPT	125	(57)	0.25	(0.64)
416854	540	(2,044)	565	(2,139)	48.0	(121.9)	81.75	(207.6)	8.0	(20.3)	17.5	(44.5)	3 in. Flange	2 in. FNPT	165	(75)	0.25	(0.64)
416855	805	(3,047)	834	(3,157)	48.0	(121.9)	119.00	(302.3)	8.0	(20.3)	14.0	(35.6)	3 in. Flange	2 in. FNPT	215	(98)	0.25	(0.64)
416856	1,000	(3,785)	1,164	(4,406)	86.0	(218.4)	56.50	(143.5)	8.0	(20.3)	17.5	(44.5)	3 in. Flange	2 in. FNPT	230	(104)	0.31	(0.79)
416857	1,150	(4,353)	1,229	(4,652)	64.0	(162.6)	98.50	(250.2)	8.0	(20.3)	18.0	(45.7)	3 in. Flange	3 in. Flange	290	(132)	0.31	(0.79)
416858	1,450	(5,489)	1,611	(6,098)	86.0	(218.4)	75.00	(190.5)	8.0	(20.3)	16.0	(40.6)	3 in. Flange	3 in. Flange	310	(141)	0.31	(0.79)
416859	2,250	(8,517)	2,492	(9,433)	96.0	(243.8)	93.25	(236.9)	8.0	(20.3)	18.5	(47.0)	4 in. Flange	3 in. Flange	360	(163)	0.38	(0.97)
416860	2,550	(9,653)	2,701	(10,224)	85.0	(215.9)	123.50	(313.7)	8.0	(20.3)	19.0	(48.3)	4 in. Flange	3 in. Flange	455	(206)	0.38	(0.97)
416861	3,000	(11,356)	3,173	(12,011)	85.0	(215.9)	139.50	(354.3)	8.0	(20.3)	19.0	(48.3)	4 in. Flange	3 in. Flange	655	(297)	0.44	(1.12)
416862	3,900	(14,763)	4,131	(15,637)	94.0	(238.8)	152.75	(388.0)	10.0	(25.4)	23.5	(59.7)	6 in. Flange	4 in. Flange	880	(399)	0.56	(1.42)
416863	5,050	(19,116)	5,244	(19,851)	94.0	(238.8)	192.25	(488.3)	10.0	(25.4)	23.0	(58.4)	6 in. Flange	4 in. Flange	1,550	(703)	0.75	(1.91)

* Nominal tank size is used for design purposes. Up to 1.3% of nominal tank size volume may not discharge from tank based on suction drop tube being 1 in. (2.54 cm) from tank bottom. (liquid pad)

Tank sizing should include room for required agent quantity + liquid pad + thermal expansion of agent (2.5% of fill volume) + required 1/4 in. mineral oil sealer.

Manufacturing tolerance for A and B dimensions are + / - 3% of number shown.

Notes for factory installed fittings:

- 1.5 in. and 2 in. connections are PVC Bulk Head Type with FNPT, 3 in. and larger connections are PVC gusseted bolt on flange type which mate to Standard ANSI Flange Connection for Pipe Size shown.
- All Flanged Connections extend 6.5 in. (17 cm) from tank wall to flange face
- Suction connections supplied with drop tube.
- (1) return connection supplied with appropriate plug or blind flange, float switch connection supplied with pipe plug.
- 100 gal to 295 gal (379 L to 1,117 L) tanks have 7 in. (18 cm) threaded inspection port; 540 gal to 1,450 gal (2,044 L to 5,489 L) tanks have a 19 in. (48 cm) bolted manway with a 10 in. (25 cm) threaded inspection port. (Exception: 475 gal (1,798 L) and 1,000 gal (3,785 L) tanks have 17 in. (43 cm) manway); 2,250 gal to 5,050 gal (8,517 L to 19,116 L) tanks have a 24 in. (61 cm) combination manway.