PENTAIR

STRUCTURAL TANKS

COMPOSITE PRESSURE VESSELS

DESIGNED FOR COMMERCIAL SOFTENING AND FILTRATION APPLICATIONS

Pentair Structural§ Composite Pressure Vessels offer reinforced fiberglass construction for outstanding performance and durability. Available in capacities up to 1,600 gallons, composite vessels are available with a variety of different configurations. ASME code available.

FEATURES/BENEFITS

For commercial and industrial water treatment and storage

100% composite fiberglass construction

Outstanding performance and durability in harsh chemical environments

Absolutely will not – and cannot – rust

Requires little or no maintenance

Capacities up to 1,600 gallons

Factory-backed five-year warranty

Commercial softening and filtration

MATERIAL OF CONSTRUCTION

Polyethylene inner shell

INSTALLATION TIPS

Bolt base to floor

Calculate height for valve and base combined

COLOR OPTIONS

AL – Almond
BL – Blue
BK – Black
GR – Gray
NA – Natural

OPERATING PARAMETERS

Maximum operating pressure – 150 psi

Maximum operating temperature – 120° F (threaded); 150°F (flanged)

PENTAIR DESIGN PARAMETERS

Safety factor: 4:1

Minimum burst at 600 psi

Tested to 250,000 cycles without leakage

NSF DESIGN PARAMETERS

Safety factor: 4:1

Minimum burst at 600 psi

Tested to 100,000 cycles without leakage

ASME DESIGN PARAMETERS

Top/Bottom Flange
- Safety factor – 5:1
- Minimum burst at 750 psi
- Tested to 33,000 cycles without leakage

Side Flange
- Safety factor – 6:1
- Minimum burst at 900 psi
- Tested to 100,000 cycles without leakage

NSF COMPONENT

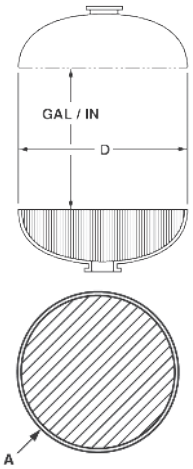
Vessels Tested and Certified by NSF International to NSF/ANSI Standard 61 for material and structural integrity requirements.

SPECIFICATIONS

VESSEL	DESCRIPTION	HEIGHT W/BASE INCHES / MM	HEIGHT W/O BASE INCHES / MM	CAPACITY GALLONS / LITERS	CUBIC FEET	BASE	SHIP WEIGHT LBS.
18" DIA.	18X65 COMP 4"T	67 / 1702	65.7 / 1669	64 / 242	8.56	SMC	67
	18X65 COMP 4"T 4"B	73.13 / 1858	65.6 / 1666	64 / 242	8.56	SMC EXT	74
	18X65 COMP 6"TF 6"BF	84.12 / 2137	70.5 / 1791	62 / 235	8.29	TRIPOD	92
21" DIA.	21X36 COMP 4"T	41.7 / 1059	38.2 / 970	46 / 174	6.15	SMC	49
	21X36 COMP 4"T 4"B	47.5 / 1207	38.2 / 970	45 / 170	6.02	SMC EXT	53
	21X62 COMP 4"T	67 / 1702	63.4 / 1610	84 / 318	11.23	SMC	95
	21X62 COMP 4"T 4"B	72.8 / 1849	63.5 / 1613	84 / 318	11.23	SMC EXT	102
24" DIA.	24X38 COMP 4"T	42.6 / 1082	38.5 / 978	61 / 231	8.15	SMC	65
	24X50 COMP 4"T	55.6 / 1412	51.5 / 1308	84 / 318	11.23	SMC	90
	24X50 COMP 4"T 4"B	63 / 1600	52.9 / 1344	84 / 318	11.23	SMC EXT	97
	24X65 COMP 4"T	65.2 / 1656	61.1 / 1552	100 / 379	13.37	SMC	109
	24X65 COMP 4"T 4"B	70.1 / 1781	60 / 1524	100 / 379	13.37	SMC EXT	115
	24X65 COMP 6"TF	65 / 1651	61.2 / 1554	100 / 379	13.37	SMC	114
	24X65 COMP 6"TF 6"BF	79 / 2007	65 / 1651	100 / 379	13.37	TRIPOD	124
	24X72 COMP 4"T	74.19 / 1884	70.12 / 1781	118 / 447	15.77	SMC	109
	24X72 COMP 4"T 4"B	80.4 / 2042	70.3 / 1786	119 / 450	15.91	SMC EXT	124
	24X72 COMP 6"TF	77 / 1956	73.4 / 1864	119 / 450	15.91	SMC	137
	24X72 COMP 6"TF 6"BF	88.5 / 2248	74.5 / 1892	119 / 450	15.91	TRIPOD	147
30" DIA.	30X60 COMP 6"TF	71.6 / 1819	64.3 / 1633	151 / 572	20.19	SMC EXT	195
	30X60 COMP 6"TF 6"BF	82.5 / 2096	68.5 / 1740	151 / 572	20.19	TRIPOD	205
	30X72 COMP 4"T	78.9 / 2004	69.8 / 1773	187 / 708	25.00	SMC EXT	198
	30X72 COMP 4"T 4"B	77.2 / 1961	69.8 / 1773	187 / 708	25.00	SMC EXT	205
	30X72 COMP 6"TF	79.73 / 2025	70 / 1778	187 / 708	25.00	SMC EXT	195
	30X72 COMP 6"TF 6"BF	88.24 / 2241	74.67 / 1897	187 / 708	25.00	TRIPOD	211
36" DIA.	36X36 COMP 6"TF 6"BF	55.3 / 1405	41 / 1041	118 / 447	15.77	TRIPOD	148
	36X57 COMP 6"TF	68 / 1727	59.3 / 1506	205 / 776	27.40	SMC EXT	195
	36X57 COMP 6"TF 6"BF	77.3 / 1963	63 / 1600	205 / 776	27.40	TRIPOD	225
	36X72 COMP 4"T	80.4 / 2042	71.8 / 1824	264 / 999	35.29	SMC EXT	264
	36X72 COMP 4"T 4"B	80.4 / 2042	70.5 / 1791	264 / 999	35.29	SMC EXT	285
	36X72 COMP 6"TF	82.29 / 2090	73.54 / 1868	264 / 999	35.29	SMC EXT	295
	36X72 COMP 6"TF 6"BF	90.1 / 2289	76.2 / 1935	264 / 999	35.29	TRIPOD	305
	36X72 COMP 6"TF 6"BF 4"TBSF	89.6 / 2276	75.3 / 1913	264 / 999	35.29	TRIPOD	315
42" DIA.	42X72 COMP 6"TF	72.5 / 1842	71.1 / 1806	345 / 1306	46.12	SMC SHORT	370
	42X72 COMP 6"TF 6"BF	90.1 / 2289	73 / 1854	345 / 1306	46.12	TRIPOD	400
	42X72 COMP 6"TF 6"BF 4"TBSF	94.6 / 2403	77.5 / 1969	345 / 1306	46.12	TRIPOD	415
48" DIA	48X72 COMP 6"TF	81.5 / 2070	75.2 / 1910	463 /1753	61.89	SMC SHORT	494
	48X72 COMP 6"TF 6"BF	91.91 / 2335	76 / 1930	463 /1753	61.89	TRIPOD	500
	48X72 COMP 6"TF 6"BF 4"TBSF	96.75 / 2457	80.75 / 2051	463 /1753	61.89	TRIPOD	504
63" DIA.	63X67 COMP 6"TF 6"BF	81.5 / 2070	67.1 / 1704	600 / 2271	80.21	TRIPOD	680
	63X86 COMP 6"TF 6"BF	98.88 / 2512	84.5 / 2146	900 / 3407	120.31	TRIPOD	950
	63X86 COMP 16"TMWY 6"BF	99 / 2515	84.5 / 2146	900 / 3407	120.31	TRIPOD	950
	63X86 COMP 16"TMWY 6"BF 4"TBSF	99 / 2515	85 / 2159	900 / 3407	120.31	TRIPOD	960
	63X116 16"TMWY 6" BF 4" TBSF	130 / 3302	116 / 2946	1250 / 4732	167.10	TRIPOD	1190
	63X144 16"TMWY 6" BF 4" TBSF	158 / 4013	144 / 3658	1600 / 6057	213.89	TRIPOD	1398

*Measurements are subject to change without notice and are for reference only.
NOTE: Flexible connections must be installed between hard piping and tank openings. Failure to install flex connection properly with the vessel will void the warranty.
NOTE: Different base options can be selected on different tank diameters. The bases selected above illustrate most common base selection.

DOME VOLUME (GALLONS) AND STRAIGHT WALL GALLON PER INCH

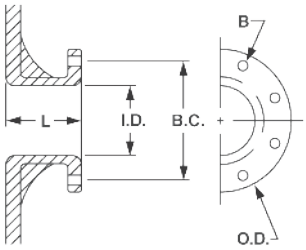


NOMINAL DIAMETER			
D (INCHES)	GALLONS* (ONE DOME)	GALLON/ INCH (APPROX.)	A (SQ. FEET)
12	1.0	0.5	0.7
13	1.4	0.5	0.9
14	1.7	0.6	1.1
16	2.7	0.8	1.3
18	3.7	1.0	1.8
21	6.2	1.4	2.4
24	9.3	1.9	3.0
30	18	2.9	4.6
36	33	4.2	6.7
42	52	5.7	9.0
48	74	7.5	12.0
63	168	13.0	20.0

*Cubic Ft. = 0.1337 x Gallons

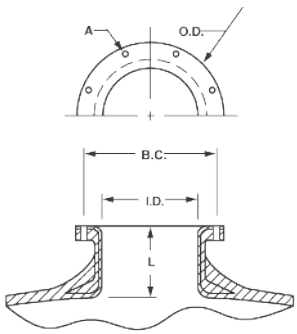
SIDE FLANGE

DIMENSIONS							
SIZE	L	I.D.	B.C.	O.D.	A BOLT DIA.	NUMBER OF HOLES	WEIGHT (LBS.)
4" ANSI	4.1"	4.0"	7.5"	9.0"	0.63"	8	6.4

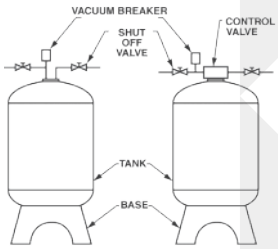


TOP AND BOTTOM OPENING FLANGES/MANWAY

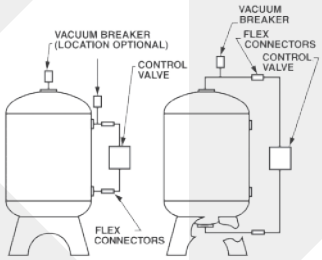
DIMENSIONS							
SIZE	L	I.D.	B.C.	O.D.	A BOLT DIA.	NUMBER OF HOLES	WEIGHT (LBS.)
6" SNA	3.6"	5.9"	8.5"	9.4"	0.31"	12	5.8
10" ANSI	3.7"	10.0"	14.3"	16.0"	0.88"	12	17.8
16" Manway SNA	4.3"	16.0"	20.4"	21.3"	0.50"	24	34.0



VACUUM BREAKER INSTALLATION



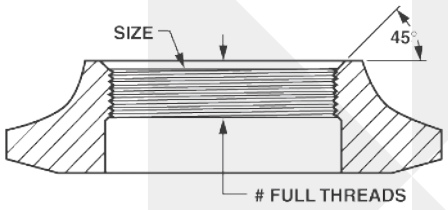
FLEX CONNECTORS INSTALLATION



NOTE: Flexible connectors must be installed between hard piping and tank openings. These pressure vessels are treated for an internal negative pressure of 5y HG (17 Pa) vacuum below atmospheric. If negative pressure could ever exceed 5y Hg (17 Pa), an adequate vacuum breaker must also be properly installed. Failure to install flex connection properly, or improper installation of a vacuum breaker when required, may void the warranty.

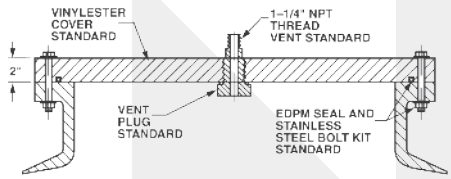
TOP AND BOTTOM OPENING THREADS

SPECIFICATIONS			
SIZE	COMPOSITE/ POLY GLASS	NUMBER OF FULL THREADS	COMPOSITE
2.5" - 8" NPSM	6	3 min	6
4" - 8" UN	7	3 min	7
4.5" - 8" Buttress	7	3 min	7



MANWAY COVER

SPECIFICATIONS		
MATERIAL	PRESSURE RATING	TAPPING
CPVC	100 psi	As requested
VE	150 psi	As shown only



ADDER DIMENSIONS

*Measurements are subject to change without notice and are for reference only.

DIMENSIONS		
FLECK VALVE	TANK DIA. (INCHES/MM)	ADDER HT. (X) (INCHES/MM)
2750	18/475	6.5/165
2850	21/533	6.5/165
2900	24, 30/610, 762	12/305
3150	42/1067	10/254
3900	48-63/1219-1600	15/381

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