



# STRUCTURAL PRESSURE VESSELS

# ABOUT STRUCTURAL



Founded in 1954 as “Structural Fibers”, the company originally produced aircraft and defense components. However, that quickly changed when Structural developed a patented process that revolutionized the water treatment market by introducing small composite pressure vessels.

Structural quickly became the recognized world leader in pressure vessel technology, later expanding its product line to include larger tanks for industrial applications. In 1999, Structural was acquired by Pentair, the world’s leading manufacturer and marketer of composite pressure vessels, as part of its Water Treatment business unit.

This acquisition expanded Pentair’s global reach and added to its product offerings.

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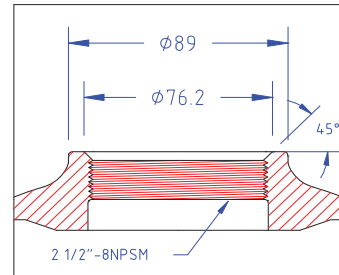
Structural production site  
Herentals, Belgium



## RESIDENTIAL POLYGLASS VESSELS

The ideal pressure vessel for residential and light commercial water softener/filtration applications. Structural PolyGlass Pressure Vessels provide years of reliable service for water conditioning and filtration applications. These slim diameter tanks hold up to 103 liters of water and offer unmatched strength and chemical resistance.

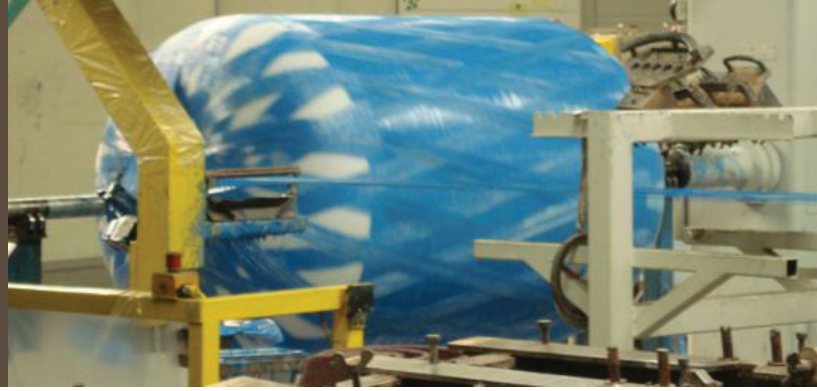
DETAIL 2 1/2" THREAD



**Standard Color:**  
Blue RAL 5015  
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 50°C

Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
Q-0513-A*	336-340	136	3.4	0.90	-
Q-0516-A*	408-412	136	4.3	1.10	-
Q-0517-A*	434-438	136	4.5	0.90	-
Q-0521-A*	523-527	136	5.8	1.50	-
Q-0613-A*	340-344	159	4.6	1.00	40
Q-0618-A*	473-477	159	6.9	1.20	40
Q-0621-A*	549-553	159	8.2	1.30	40
Q-0713-A*	339-343	184	6.3	1.40	60
Q-0717-A*	444-448	184	8.8	1.30	60
Q-0724-A*	611-615	184	13.5	1.80	60
Q-0730-A*	776-780	184	16.8	2.10	60
Q-0735-A*	899-903	184	20.4	2.50	60
Q-0813-A*	345-349	208	8.2	1.20	75
Q-0817-A*	433-437	208	11.0	1.50	75
Q-0818-A*	445-449	208	11.4	1.50	75
Q-0822-A*	572-576	208	15.4	2.10	75
Q-0830-A*	781-785	208	22.0	3.10	75
Q-0835-A*	900-904	208	25.7	2.80	75
Q-0836-A*	921-925	208	26.4	3.00	75
Q-0919-A*	488-492	233	16.0	2.10	75
Q-0935-A*	901-905	233	31.3	3.50	75
Q-1012-A*	334-338	257	11.5	2.10	140
Q-1013-A*	353-357	257	13.3	2.20	140
Q-1016-A*	423-427	257	16.1	2.50	140
Q-1019-A*	500-504	257	19.1	2.00	140
Q-1023-A*	601-605	257	24.0	2.60	140
Q-1035-A*	901-905	257	38.9	4.20	140
Q-1354-A*	1368-1374	334	103.1	9.20	225

Note: All references are provided with or without base and with top opening



## INDUSTRIAL COMPOSITE VESSELS

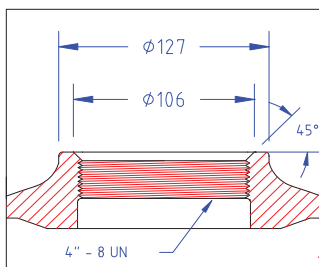
The non-corrosive, cost-effective solution for commercial/ industrial water treatment and storage. Structural Composite Pressure Vessels offer fiberglass construction for outstanding performance and durability in harsh chemical environments.

With the capacity up to 7000 liters and a variety of options, it is possible to tailor a vessel that meets your personal needs. All Structural Composite Vessels are tested for 250'000 cycles.

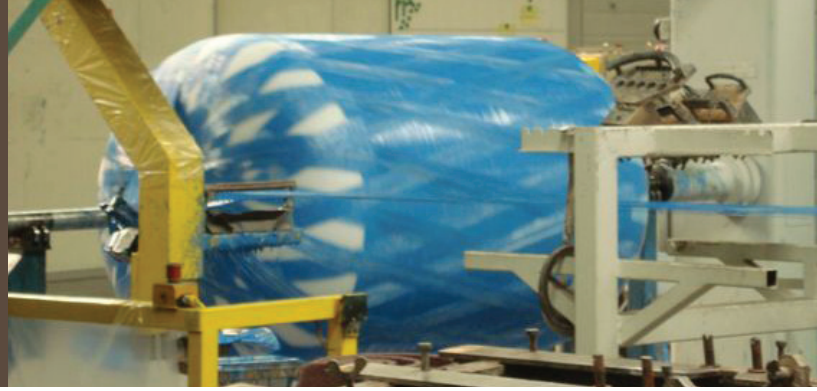
Connection type: 4" Thread - Base: SMC - Opening: Top & Bottom - Standard Color: Blue RAL 5015					
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
C-1443-F7	1303-1333	369	96	15.00	325
C-1452-F7	1512-1542	369	122	17.50	325
C-1465-F7	1800-1830	369	140	21.60	325
C-1649-F7	1384-1424	406	125	18.00	420
C-1665-F7	1790-1830	406	170	24.00	420
C-1865-F7	1865-1890	469	245	33.00	690
C-2136-F7	1141-1171	552	164	21.00	690
C-2160-F7	1740-1770	552	310	35.00	690
C-2469-F7	1990-2020	610	435	43.00	990
C-3072-F7	2010-2050	770	712	84.00	1590
C-3672-F7	2120-2150	927	1072	99.00	2240
C-1443-A3	1139-1169	369	93	14.20	320
C-1452-A3	1345-1375	369	122	15.50	320
C-1465-A3	1630-1660	369	140	19.00	320
C-1649-A3	1260-1278	406	128	16.10	410
C-1665-A3	1615-1650	406	170	20.50	410
C-1865-A3	1706-1746	4669	250	32.00	685
C-2136-A3	1010-1040	552	164	20.00	685
C-2138-A3	1049-1079	552	175	21.00	685
C-2160-A3	1610-1640	552	309	32.00	685
C-2469-A3	1850-1890	610	436	41.00	985

**C-XXXX-F7:** Top and Bottom opening  
**C-XXXX-A3:** Top opening only

DETAIL 4" THREAD

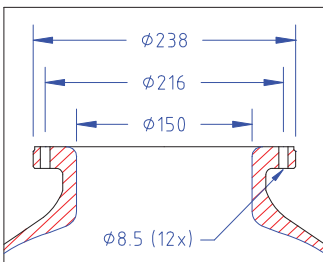


**Operating Pressure:**  
 Min 0 bar - Max 10 bar  
**Operating Temp:**  
 Min 1°C - Max 50°C



Connection type: 6" Flange - Base: SMC - Opening: Top - Standard Color: Blue RAL 5015					
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
<b>C-1445-A3</b>	1389-1409	369	98	16.00	320
<b>C-1468-A3</b>	1693-1713	369	138	22.00	320
<b>C-1668-A3</b>	1704-1724	406	170	24.60	410
<b>C-1868-A3</b>	1762-1792	469	248	34.00	685
<b>C-2166-A3</b>	1663-1683	552	308	34.60	685
<b>C-2475-A3</b>	1898-1918	610	450	42.00	985
<b>C-3078-A3</b>	2043-2073	770	710	81.20	1590
<b>C-3678-A3</b>	2119-2149	927	1020	104.00	2240
<b>C-4278-A3</b>	2050-2090	1074	1360	168.50	2990
<b>C-4882-A3</b>	2103-2133	1226	1840	194.00	4040

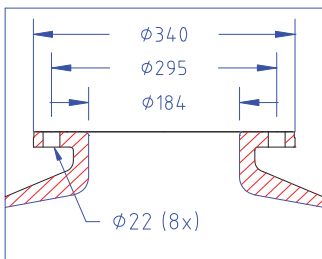
DETAIL 6" FLANGE



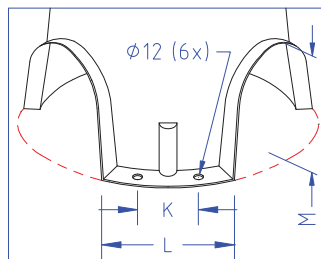
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C

Connection type: DN200 Flange - Base: 3-leg - Opening: Top & Bottom - Standard Color: Blue RAL 5015					
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
<b>C-55105-F7</b>	2648-2688	1429	2617	286.00	11000
<b>C-55121-F7</b>	3048-3088	1429	3219	335.00	11000
<b>C-55131-F7</b>	3298-3338	1429	3600	361.00	11000
<b>C-55141-F7</b>	3548-3588	1429	3902	387.00	11000
<b>C-63102-F7</b>	3225-3265	1623	4270	368.00	13600
<b>C-63112-F7</b>	3475-3515	1623	4765	397.00	13600
<b>C-63122-F7</b>	3725-3765	1623	5260	427.00	13600

DETAIL DN200 FLANGE



DETAIL BASE



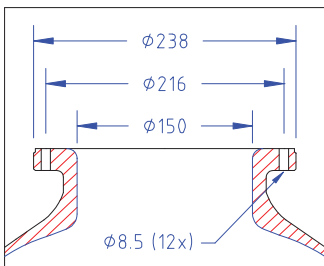
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C



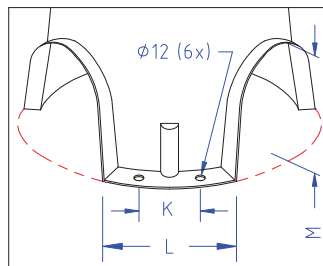
## INDUSTRIAL COMPOSITE VESSELS

Connection type: 6" Flange - Base: 3-leg - Opening: Top & Bottom - Standard Color: Blue RAL 5015					
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
<b>C-1468-F7</b>	2064-2084	369	140	27.00	405
<b>C-1668-F7</b>	2088-2108	406	172	30.00	405
<b>C-1868-F7</b>	2105-2135	469	250	36.00	710
<b>C-2166-F7</b>	2000-2020	552	310	43.00	710
<b>C-2475-F7</b>	2210-2230	610	450	47.00	995
<b>C-3078-F7</b>	2270-2300	770	710	85.00	1590
<b>C-3678-F7</b>	2310-2350	927	1020	101.00	2245
<b>C-4278-F7</b>	2382-2422	1074	1360	133.00	2990
<b>C-4882-F7</b>	2420-2465	1226	1840	178.00	4040
<b>C-55104-F7</b>	2641-2681	1429	2619	284.00	11000
<b>C-55120-F7</b>	3041-3081	1429	3220	348.00	11000
<b>C-55130-F7</b>	3291-3331	1429	3602	375.00	11000
<b>C-55140-F7</b>	3541-3581	1429	3984	401.00	11000
<b>C-63103-F7</b>	3230-3270	1623	4265	364.00	13600
<b>C-63113-F7</b>	3480-3520	1623	4760	394.00	13600
<b>C-63123-F7</b>	3730-3770	1623	5255	423.00	13600

DETAIL 6" FLANGE



DETAIL BASE



**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C

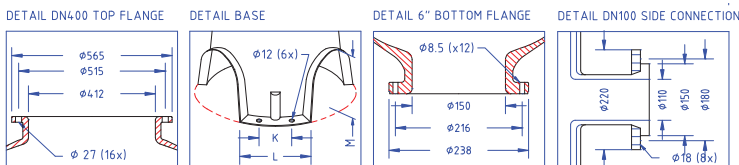


## COMPOSITE INDUSTRIAL SIDE HOLE TANKS

A composite industrial side hole water storage tank is a media storage tank that is used for industrial water treatment installation like filter (sand, anthracite, in-depth, multi-media or activated carbon) softeners, dealcalization, contaminant removal (nitrate removal or arsenic, perchlorate, lead, uranium or MTBE removal) demineralizer and deionizer system,

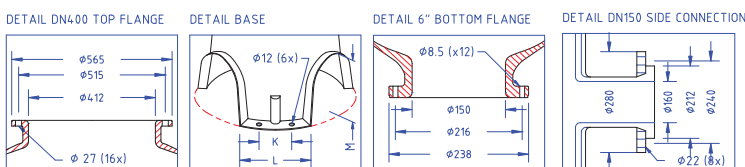
ultrapure water and reverse osmosis equipment. Coupling those system with a composite industrial side hole tank means reduced maintenance and installation costs of about 50% less versus using stainless steel storage tanks.

Top opening: DN400		Bottom opening: 6" Flange		Side opening: DN100 x1		Standard Color: Blue RAL 5015	
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)		
C-4281-S100	2375-2415	1071	1381	199.00	2990		
C-4883-S100	2411-2456	1220	1851	210.00	4040		
C-55106-S100	2679-2719	1429	2653	314.00	11000		
C-55122-S100	3073-3113	1429	3255	363.00	11000		
C-55132-S100	3323-3363	1429	3636	390.00	11000		
C-55142-S100	3573-3613	1429	4018	416.00	11000		
C-63106-S100	3291-3331	1623	4238	439.00	13600		
C-63116-S100	3541-3581	1623	4731	476.00	13600		
C-63126-S100	3791-3831	1623	5223	508.00	13600		



**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C

Top opening: DN400		Bottom opening: 6" Flange		Side opening: DN150 x1		Standard Color: Blue RAL 5015	
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)		
C-4281-S150	2375-2415	1071	1381	206.00	2990		
C-4883-S150	2411-2456	1220	1851	217.00	4040		
C-55106-S150	2679-2719	1429	2653	321.00	11000		
C-55122-S150	3073-3113	1429	3255	370.00	11000		
C-55132-S150	3323-3363	1429	3636	397.00	11000		
C-55142-S150	3573-3613	1429	4018	423.00	11000		
C-63106-S150	3291-3331	1623	4238	446.00	13600		
C-63116-S150	3541-3581	1623	4731	783.00	13600		
C-63126-S150	3791-3831	1623	5223	515.00	13600		



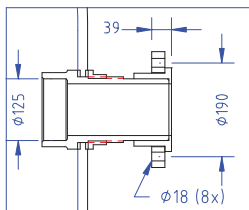
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C



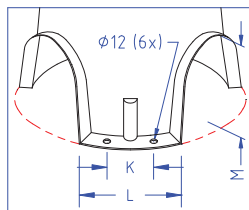
## COMPOSITE INDUSTRIAL SIDE HOLE TANKS

Top opening: DN400		Bottom opening: 6" Flange		Side opening: DN125 x1		Standard Color: Blue RAL 5015	
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)		
C-79098-S125	3271	2045	5438	719.00	22000		
C-79108-S125	3521	2045	6184	776.00	22000		
C-79118-S125	3771	2045	6930	832.00	22000		
C-79128-S125	4021	2045	7675	890.00	22000		

DETAIL SIDE CONNECTION



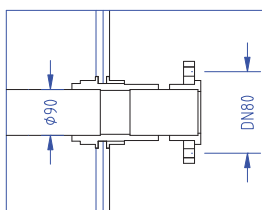
DETAIL BASE



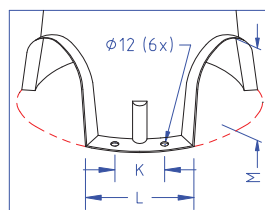
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C

Top opening: DN400		Bottom opening: 6" Flange		Side opening: DN80 x1		Distribution system assembled	
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)		
C-4281-S911	2375-2415	1071	1381	206.00	2990		
C-4883-S911	2411-2456	1220	1851	217.00	4040		
C-55106-S911	2679-2719	1429	2653	321.00	11000		
C-55122-S911	3073-3113	1429	3255	370.00	11000		
C-55132-S911	3323-3363	1429	3636	397.00	11000		
C-55142-S911	3573-3613	1429	4018	423.00	11000		
C-63106-S911	3291-3331	1623	4238	446.00	13600		
C-63116-S911	3541-3581	1623	4731	783.00	13600		
C-63126-S911	3791-3831	1623	5223	515.00	13600		

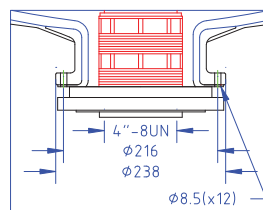
DETAIL DN80



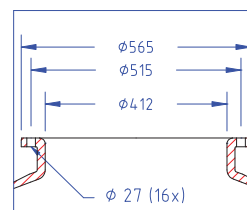
DETAIL BASE



DETAIL 6" BOTTOM FLANGE



DETAIL DN400 TOP FLANGE

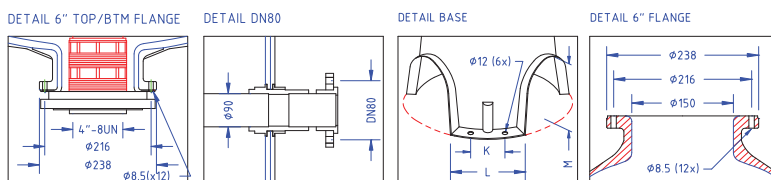


**Standard Color:**  
Blue RAL 5015  
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C




**Top opening: 6" Flange - Bottom opening: 6" Flange - Side opening: DN80 x2 - Distribution system assembled**

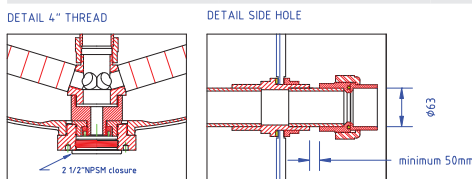
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
C-4278-S911	2382-2422	1074	1360	133.00	2990
C-4882-S911	2420-2465	1226	1840	178.00	4040
C-55104-S911	2641-2681	1429	2619	284.00	11000
C-55120-S911	3041-3081	1429	3220	348.00	11000
C-55130-S911	3291-3331	1429	3602	375.00	11000
C-55140-S911	3541-3581	1429	3984	401.00	11000
C-63103-S911	3230-3270	1623	4265	364.00	13600
C-63113-S911	3480-3520	1623	4760	394.00	13600
C-63123-S911	3730-3770	1623	5255	423.00	13600



**Standard Color:**  
Blue RAL 5015  
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C

**Top opening: 4" Thread - Bottom opening: 4" Thread - Side opening: 63mm x2 - Distribution system assembled**

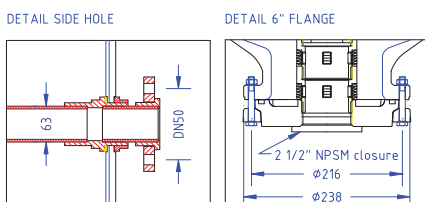
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
C-2160-S611	1740-1770	552	310	35.00	690
C-2469-S611	1990-2020	610	435	43.00	990
C-3072-S611	2010-2050	770	712	84.00	1590
C-3672-S611	2080-2110	927	1039	99.00	2240



**Standard Color:**  
Blue RAL 5015  
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 50°C

**Top opening: 6" Flange - Bottom opening: 6" Flange - Side opening: DN50 x2 - Distribution system assembled**

Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
C-2166-S611	2000-2020	552	310	43.00	710
C-2475-S611	2210-2230	610	450	47.00	995
C-3078-S611	2270-2300	770	710	85.00	1590
C-3678-S611	2310-2350	927	1020	101.00	2245



**Standard Color:**  
Blue RAL 5015  
**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 65°C



## HOT WATER TANKS (UP TO 80°)

A hot water storage tank (also hot water tank, thermal storage tank, hot water thermal storage unit) is a water tank that is used for storing hot water for space heating or domestic use.

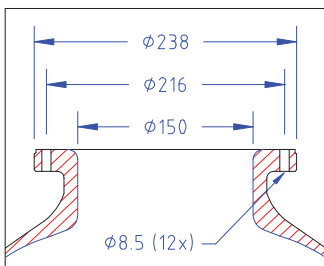
Hot water tanks may use an external heat exchanger to heat water from another energy source system. Existin on the market in either stainless steel or in composite material, hot water tanks have similar operational performances. However, whilst composite tanks can store water having a high concentration of dissolved minerals without altering the tank structure, corrosion will develop only after a few years on stainless steel tanks.

This also applies for dissolved oxygen in the water, which accelerates the corrosion of the stainless steel tanks but composite tanks are made with a non-corrosive raw material (LDPE) able to avoid this effect.

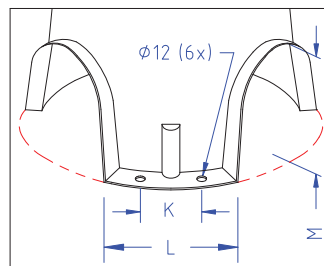
Water heater for washing, bathing, laundry or solar heating system must be coupled with a Structural Hot Water Tanks.

Base: 3-leg - Opening: Top & Bottom - Standard Color: Blue RAL 5015					
Type	Total Height (mm) min-max	External Diameter (mm)	Volume Vessel (liter)	Weight empty (kg)	Maximum base load (kg)
<b>C-1468-F7HW</b>	2064-2084	369	140	33.00	405
<b>C-1668-F7HW</b>	2088-2108	406	172	42.00	405
<b>C-1868-F7HW</b>	2105-2135	469	250	45.00	710
<b>C-2166-F7HW</b>	2000-2020	552	310	48.00	710
<b>C-2475-F7HW</b>	2210-2230	610	450	58.00	995
<b>C-3078-F7HW</b>	2270-2300	770	710	112.00	1590
<b>C-3678-F7HW</b>	2310-2350	927	1020	143.00	2245
<b>C-4278-F7HW</b>	2382-2422	1074	1360	176.00	2990
<b>C-4882-F7HW</b>	2420-2465	1226	1840	250.00	4040

DETAIL 6" FLANGE



DETAIL BASE



**Operating Pressure:**  
Min 0 bar - Max 10 bar  
**Operating Temp:**  
Min 1°C - Max 80°C



## THE TECHNOLOGY AND ADVANTAGES OF COMPOSITE PRESSURE VESSELS

Designing and producing reliable engineered solutions by using high-performance composites is Pentair's core competency. By perfecting its technology and know-how in the thermoplastic molding of inner liners, Pentair has succeeded in developing seamless, corrosion-free, nonmetallic vessels suitable for virtually all applications.

Structural high performance vessels are guaranteed to provide years of dependable service from water treatment and filtration, to chemical storage and process. Unlike steel tanks

that deteriorate over time, Structural's composite fiberglass pressure vessels stand for outstanding performance and durability.

These high strength, light-weight vessels are 100% corrosion free and will not alter water's quality. Weighing about 50% less than steel, composite vessels are easier to handle and require less labor at installation. Plus they're virtually maintenance free!

## THE PRODUCTS YOU DEMAND

A large and growing product line keeps us first on our customers' lists for depth and breadth. Ranging from residential pressure vessels for water softening and filtration to composite vessels for industrial water applications, Structural offers you more with many value-driven accessories designed to make installation and service easier.



## CUSTOMIZATION

We work closely with our customers to help them specify the right vessel for their requirements. And, if a standard vessel won't do, we're happy to customize one. In fact, Structural is one of the few companies capable of rotomoulding very large vessels to exactly match all customer needs. The colour of the tank can even be customized. Moreover, Pentair's super tank line can be designed according to any specific requirements.\*

\* Note: For more information, please see the brochure dedicated to Special Tanks.



## QUALITY

Structural tanks are CE PED (Pressure Equipment Directive) certified, which is the basic requirement for the EU market. Our manufacturing experience allows us to select the best raw materials in order to be compliant to Regional Potable Water Directives.

For all these reasons and because for us quality is a word that should be taken seriously, Structural tanks are covered with a 5 year warranty.

## Pentair Water Purification regional offices in EMEA

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