

COMPOSE IT[®] Innovative Tanks



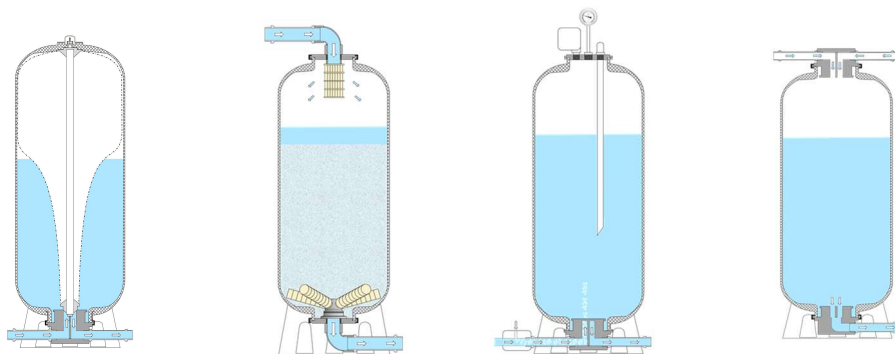
Composite tanks for Pressure Boost & Water Treatment

COLD WATER

Bladder tank (captive air)	3
Hydropneumatic air/water tank	5
Filtration tank	7
Retention tank	9

HOT WATER (soon available)

Compressed air (soon available)



BLADDER TANK (CAPTIVE AIR) COMPOSE IT



GENERAL OVERVIEW

Composite tank with captive air bladder (air contained inside the bladder) adapted for **water pressure installations** using any type of pump (domestic, agricultural, industrial, commercial and community applications)

Tanks from 60 to 450 liters: Pipe fittings from DN 32 (1¹/₄) to DN 65 (2¹/₂)
Working pressure 8 bar: hydraulic pressure test: 12 bar; burst pressure > 30 bar
 Compliant with the European Pressure Equipment Directive 2014/68/EU

Extreme lifetime

Bladder designed to resist

Bladder replacement in 5 minutes

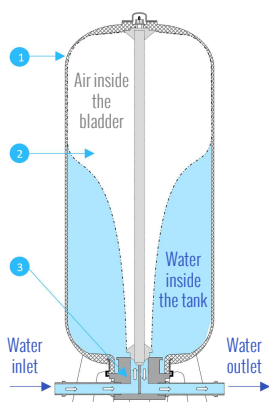
Ultra light tank

Tank warranty : 10 years ; bladder warranty : 2 years

Multiple connections configuration

Limited, easy and cost effective maintenance

ADVANTAGES



1 Extreme lifetime

Tank warranty 10 years. Maintenance free. Patented Compose It™ technology for an improved mechanical resistance. Composite monolithic structure without any welded part, raw materials selected for their extreme durability (High fatigue resistance to cycling, 100% corrosion free).

2 Bladder design to resist

Polyurethane bladder with a long service time (compressed air inside the bladder). The bladder volume is greater than the tank volume (to avoid mechanical stress on the bladder).

2 Bladder replacement in 5 minutes

Wide opening of 160 mm diameter opening, with lower PVC lid fixed with a stainless steel clamp allowing **an easy and quick access** to the inside of the tank and a bladder change in 5 minutes after emptying the tank.

3 Customisation of pipe fittings

3 configurations of fittings DN32 (1¹/₄) are available to suit all installation configurations: 1 elbow, 2 Tee fittings with or without separate wall between the water inlet and outlet.

INNOVATIVE BLADDER DESIGNED TO RESIST



The innovative bladder has been specially designed for Compose It™ tanks, to guarantee a long operational life.

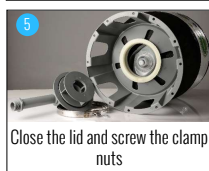
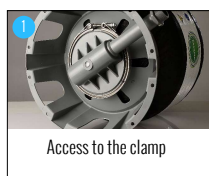
The polyurethane polymer has been selected and formulated to provide the bladder with excellent mechanical properties, high abrasion resistance and a high tightness. **The volume of the bladder, greater than the tank volume,** avoid bladder expansion in operation.

To go even further in performance, **the air is compressed inside the bladder,** which limits the stresses, and therefore the thickness of the bladder, for an optimized usable water volume.

All Compose It™ bladders are tested at 2 bar before assembling to ensure quality.

BLADDER REPLACEMENT IN 5 MINUTES

Tank conception has been designed to easily and quickly replace the bladder in order to **decrease maintenance cost**, and take advantage of the extreme long lifetime of the tank made of selected composite materials.



THE MOST ECONOMICAL SOLUTION OVER TIME

Decomposition of the average cost of use of a bladder/membrane tank

Period of use : 20 years : 100% base : metallic bladder tank.

From left to right : Installation cost / Maintenance cost (bladder tanks) / Total cost

	25%	25%	50%
Compose It bladder tanks			
Composite membrane tank		72%	72%
Composite bladder tank	63%	13%	76%
Metallic membrane tank		82%	82%
Metallic bladder tank	65%	35%	100%

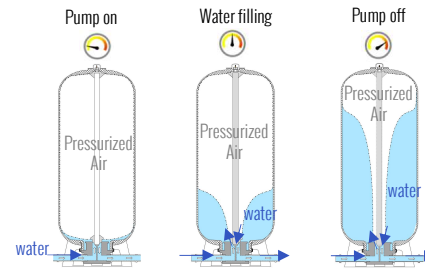
BLADDER TANK (CAPTIVE AIR) COMPOSE IT

SPECIFICATIONS

Tanks	Volume (Liters)	Weight* (kg)	Dimensions* (mm)				
			H	h	D	d	a
Bladder tank (captive air) 60 L	60	9,9	650	555	460	160	13
Bladder tank (captive air) 115 L	115	13,1	975	880	460	160	13
Bladder tank (captive air) 150 L	150	16,3	1 220	1110	460	160	13
Bladder tank (captive air) 230 L	230	22,0	1 070	910	610	160	13
Bladder tank (captive air) 300 L	300	23,4	1 315	1 200	610	160	13
Bladder tank (captive air) 450 L	450	31,1	1 825	1 710	610	160	13

Minimum operating temperature of 1 °C, Maximum operating temperature of 50 °C. Maximum working pressure of 8 bar. Bladder initial preload at 1,3 bar. Bladder tank compliant with the European Pressure Equipment Directive 2014/68/EU
* Diameter, height and weight are subject to change without previous notice

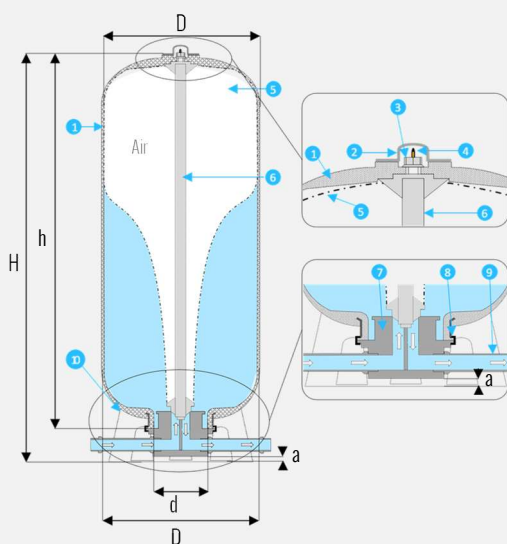
IN OPERATION



Compose It™ bladder tanks pressure cycle

The air pressurized inside the bladder, gradually increases in pressure as the tank is filled with water. In operation, the pressurized air in the bladder is pushing out the water from the tank. This system offers a higher flexibility in the pressure range settings to maximize the useful volume of water inside a Compose It™ tanks.

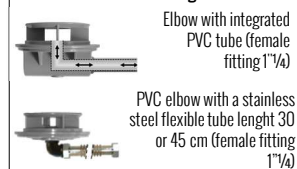
DESCRIPTION



- 1 Tank in recyclable thermoplastic composite materials reinforced with glass fibers (monolithic structure with improved mechanical properties) with an extreme lifetime, high fatigue resistance to cycling and 100% corrosion free. Tank compliant with chemical agents, aggressive and saline waters
- 2 PVC valve protection cap
- 3 Valve fixing nut
- 4 Air valve connected to the bladder
- 5 Polyurethane bladder with pressurized air inside
- 6 PVC tube to maintain the bladder position
- 7 PVC lid with 160mm of diameter easy to remove
- 8 Stainless steel clamp fixed with a nut, simple and quick to use
- 9 3 configurations of fittings: Elbow, Tee with or without wall separation between the water inlet and outlet (see details on the right boxes)
- 10 PVC support

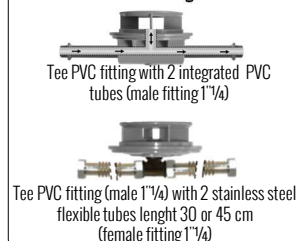
OPTIONS

Elbow fitting



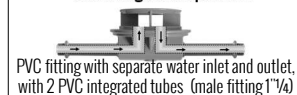
Elbow with integrated PVC tube (female fitting 1"¼)
PVC elbow with a stainless steel flexible tube length 30 or 45 cm (female fitting 1"¼)

Tee fitting



Tee PVC fitting with 2 integrated PVC tubes (male fitting 1"¼)
Tee PVC fitting (male 1"¼) with 2 stainless steel flexible tubes length 30 or 45 cm (female fitting 1"¼)

Tee fitting with separation

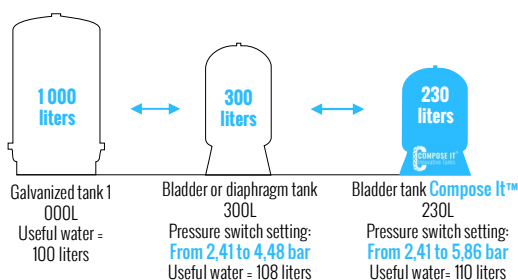


PVC fitting with separate water inlet and outlet, with 2 PVC integrated tubes (male fitting 1"¼)

Horizontal version on request

AN OPTIMIZED USEFUL WATER VOLUME

The design of the Compose It™ bladder (air in the bladder and bladder volume > tank volume) allows a higher operational pressure differential range (between switching on and off of the pump) in order to maximize the useful water volume of Compose It™ tanks. Thus, in terms of useful water volume, **a 1,000 liters without bladder tank is equivalent to a 300 liters bladder or diaphragm tank, or a 230 liters Compose It™ bladder tank**, as detailed below:



COMPOSE IT™ BLADDER TANK DRAWDOWN FACTORS

Switch on pump pressure - bar

bar	1,37	1,72	2,06	2,41	2,75	3,10	3,44	3,79	4,13	4,48	4,82	5,17	5,51	5,86	6,20	6,55	6,89	7,23	
2,06	21																		
2,41	28	19																	
2,75	34	26	17																
3,10	39	32	24	16															
3,44	44	37	30	22	15														
3,79	47	41	34	28	21	14													
4,13	50	44	38	32	26	19	13												
4,48	53	48	42	36	30	24	18	12											
4,82	56	50	45	41	34	29	23	17	11										
5,17		53	48	43	38	32	27	22	16	11									
5,51			50	46	41	36	31	26	21	15	10								
5,86				48	43	39	34	29	24	20	15	10							
6,20					46	42	37	32	28	23	19	14	9						
6,55						44	41	35	31	27	22	18	13	9					
6,89							42	38	34	30	26	21	17	13	9				
7,23								41	37	33	29	25	20	16	12	8			
7,52									39	35	31	27	24	20	16	12	8		
7,92										38	34	30	26	23	19	15	11	8	

All the values are calculated with a preload pressure 0,3 bar below the desired switch on pump pressure. A lower preload pressure may be desired to increase the outlet flow rate. In accordance with state of the art industry standards, drawdown ratios are based on Boyle-Mariotte law. Drawdown factors may slightly vary depending on system accessories, including accuracy of the pressure switch, the pressure gauge and water temperature.

HYDROPNEUMATIC AIR/WATER TANK COMPOSE IT



GENERAL OVERVIEW

Compose It™ hydropneumatic air / water tanks are the most efficient, durable and economical solution for all your applications:

Water treatment: oxygenation, aeration before filtration, release of methane or other well gases

Overpressure: domestic or professional use, alternative to galvanized tank

The extremely durable and maintenance free Compose It™ tanks can be adapted to any application thanks to the customization of the fittings on the upper and lower lids and the accessories.

Tanks from 60 to 450 liters: Pipe fittings from DN 32 (1"¼) to DN 65 (2"½)

Working pressure 8 bar: hydraulic pressure test: 12 bar; burst pressure > 30 bar Compliant with the European Pressure Equipment Directive 2014/68/EU

Extreme lifetime (100% corrosion free)

Warranty 10 years

Maintenance free

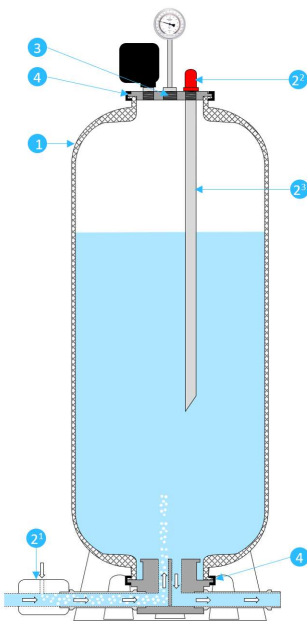
Ultra light tanks

Automatic air regulation system

Easy to disassemble for a quick access

Customisation of pipe fittings

ADVANTAGES



1 Extreme lifetime

Tank warranty 10 years. Maintenance free. Patented Compose It™ technology for an improved mechanical resistance. Composite monolithic structure without any welded part, raw materials selected for their extreme durability (High fatigue resistance to cycling, 100% corrosion free).

2 Automatic air regulation system

An automatic air injection system (2) coupled to a pressure regulation system (air vent - 2 - connected to a dip tube - 2), allow the tank to be pressurized, ensure air renewal and automatic regulation.

3 Customisation of pipe fittings and accessories

Flexible customization of the fittings on the upper and lower lids (fittings up to DN 65 (2"½), number of fittings depending on diameters). Side hole connection (1") possible on request.

4 Easy to disassemble for a quick access

Wide opening of 160 mm of diameter with upper and lower PVC lids fixed thanks to a stainless steel clamp for a quick and easy access inside the tank.

Upper lid including the air vent connected to the dip tube, the pressure gauge and the pressure switch



THE MOST ECONOMICAL SOLUTION OVER TIME

Decomposition of the average cost of use of a hydropneumatic tank without bladder/membrane

Period of use : 20 years ; 100% base : galvanized tank

From left to right : Cost of the tank / Installation cost / Total cost

Compose It air / water
hydropneumatic tank
(2*450 liters)



Galvanized tank
1000 liters



Upper lid with 3 connection fittings



HYDROPNEUMATIC AIR/WATER TANK COMPOSE IT

SPECIFICATIONS

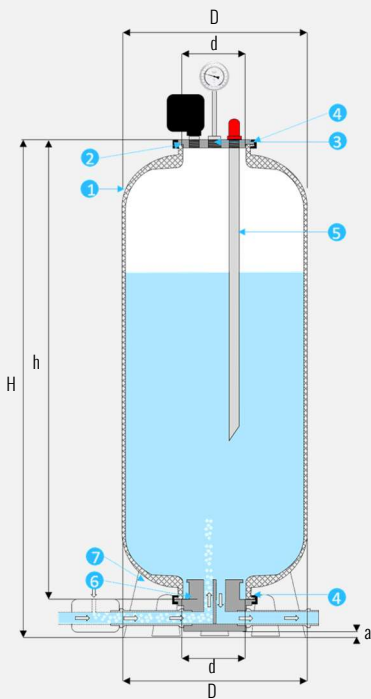
Tanks	Volume (Liters)	Weight* (kg)	Dimensions* (mm)				
			H	h	D	d	a
Hydropneumatic air/water tank 60 liters	60	9,9	650	555	460	160	13
Hydropneumatic air/water tank 115 liters	115	12,9	975	880	460	160	13
Hydropneumatic air/water tank 150 liters	150	14,8	1220	1110	460	160	13
Hydropneumatic air/water tank 230 liters	230	19,8	1070	910	610	160	13
Hydropneumatic air/water tank 300 liters	300	22,8	1315	1200	610	160	13
Hydropneumatic air/water tank 450 liters	450	32,6	1825	1710	610	160	13

Minimum operating temperature of 1 °C, Maximum operating temperature of 50 °C. Maximum working pressure of 8 bar.

Hydropneumatic air/water tanks in accordance with the European Pressure Equipment Directive 2014/68 / EU

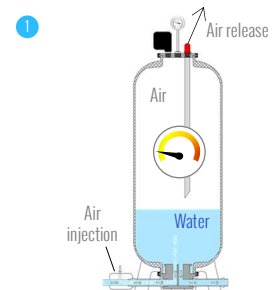
* Diameter, height and weight are subject to change without previous notice

DESCRIPTION

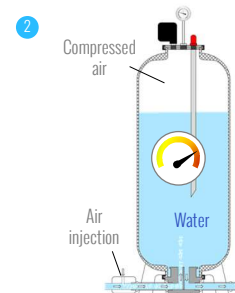


- 1 Tank in recyclable thermoplastic composite materials reinforced with glass fibers (monolithic structure with improved mechanical properties) with an extreme lifetime, high fatigue resistance to cycling and 100% corrosion free Tank compliant with chemical agents, aggressive and saline waters
- 2 Upper lid 160 mm of diameter
- 3 PVC lid 160 mm of diameter including 3 connections fittings maximum (up to DN 65 (2"1/2))
- 4 Stainless steel clamp fixed with a nut, simple and quick to use
- 5 PVC dip tube connected to the air vent
- 6 Lower PVC lid 160 mm of diameter with water separation between inlet and outlet, including 2 PVC tubes (male 1"1/4)
- 7 PVC support

IN OPERATION



When the pump is started, the air is automatically injected into the tank, the excess of air is evacuated by the air vent as long as the water level does not exceed the dip tube.



Once the water is above the dip tube, the air is compressed as the water level rises.

OPTIONS

Fittings customisation (number and diameter)



Up to 3 connections (diameter of fittings up to 2"1/2)

Air vent and dip tube



Air vent model and tube length on request

Side hole on request



Other accessories on request

Air injection system
Pressure gauge
Pressure switch

FILTRATION TANK COMPOSE IT



GENERAL OVERVIEW

Physical filtration tank adapted for **applications of water treatment** for drilling water, swimming pool water, community water, industrial water and recreational water.

Tanks from 60 to 450 liters: Pipe fittings from DN 32 (1"¼) to DN 65 (2"½)
Working pressure 8 bar: hydraulic pressure test: 12 bar; burst pressure > 30 bar
 Compliant with the European Pressure Equipment Directive 2014/68/EU

Extreme lifetime

Easy to disassemble for a quick access

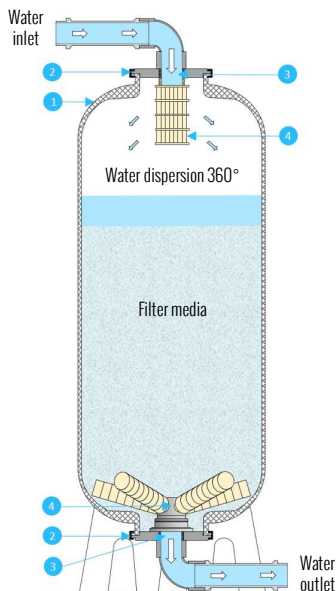
Customisation of pipe fittings and accessories (Strainers)

Ultra Light tanks

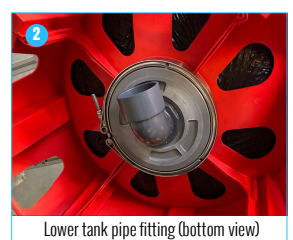
Tank warranty : 10 years

Accessories warranty : 2 years

ADVANTAGES



- 1 Extreme lifetime**
 Tank warranty 10 years. Maintenance free. Patented Compose It™ technology for an improved mechanical resistance. Composite monolithic structure without any welded part, raw materials selected for their extreme durability (High fatigue resistance to cycling, 100% corrosion free).
- 2 Easy to disassemble and to access**
 Wide openings diameter of 160 mm with upper and lower PVC lids fixed with stainless steel clamp easy to disassemble allowing a quick access inside of the tank.
- 3 Customisation of pipe fittings**
 Various pipes fittings are available on the upper and lower PVC openings from DN32 (1"¼) to DN65 (2"½).
- 4 Customisation of accessories**
 Various strainers models of water dispersion are available (4¹) for a homogenous 360° water distribution in order to maximise the filtration rate.
 Various star strainers models (4²) are available to collect the filtrated water.
 The strainers (4¹) and (4²) are easily accessible thanks to the removable lids (160 mm diam.)



FILTRATION TANK COMPOSE IT

SPECIFICATIONS

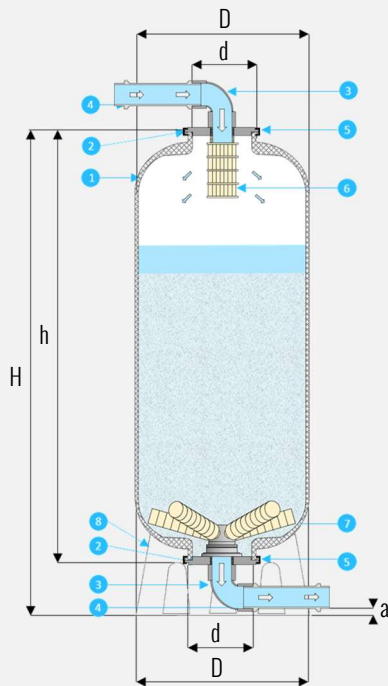
Tanks	Volume (Liters)	Weight* (kg)	Dimensions* (mm)				
			H	h	D	d	a
Filtration tank 60 liters	60	9,9	650	555	460	160	13
Filtration tank 115 liters	115	12,9	975	880	460	160	13
Filtration tank 150 liters	150	14,8	1 220	1110	460	160	13
Filtration tank 230 liters	230	19,8	1 070	910	610	160	13
Filtration tank 300 liters	300	22,8	1 315	1200	610	160	13
Filtration tank 450 liters	450	32,6	1 825	1710	610	160	13

Minimum operating temperature of 1 °C, Maximum operating temperature of 50 °C. Maximum working pressure of 8 bar.

Filtration tanks in accordance with the European Pressure Equipment Directive 2014/68 / EU

* Diameter, height and weight are subject to change without previous notice

DESCRIPTION



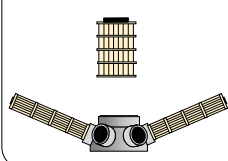
- 1 Tank in recyclable thermoplastic composite materials reinforced with glass fibers (monolithic structure with improved mechanical properties) with an extreme lifetime, high fatigue resistance to cycling and 100% corrosion free
Tank compliant with chemical agents, aggressive and saline waters
- 2 Wide top opening of 160 mm. PVC lid diam. 160 mm with pipe fitting up to DN 65 (2"1/2)
- 3 PVC pipe fitting up to DN 65 (2"1/2), elbow or Tee
- 4 Male PVC tube up to DN 65 (2"1/2)
- 5 Stainless steel clamp fixed with a nut, simple and quick to use
- 6 Upper strainer for water dispersion in the tank, female fitting up to DN 65 (2"1/2)
- 7 Lower star strainer for filtrated water recovery, female fitting up to DN 65 (2"1/2)
- 8 Reinforced PVC support

OPTIONS

Fittings customisation
(number and diameter)



Accessories selection
(Strainers in option)



Side hole on request



Alternative configurations
available on request

RETENTION TANK COMPOSE IT



GENERAL OVERVIEW

Compose It™ retention tanks are the most efficient, durable and economical solution for all your applications, even in the most aggressive environments:

Water treatment (contact time, high pressure toilets, ...)

Custom configuration of lids according to your needs (configuration and diameter of inlet and outlet flows, configuration and diameter of fittings for accessories)

Tanks from 60 to 450 liters: Pipe fittings from DN 32 (1"¼) to DN 65 (2"½)

Working pressure 8 bar; hydraulic pressure test: 12 bar; burst pressure > 30 bar

Compliant with the European Pressure Equipment Directive 2014/68/EU

Extreme lifetime (100% corrosion free)

Warranty 10 years

Maintenance free

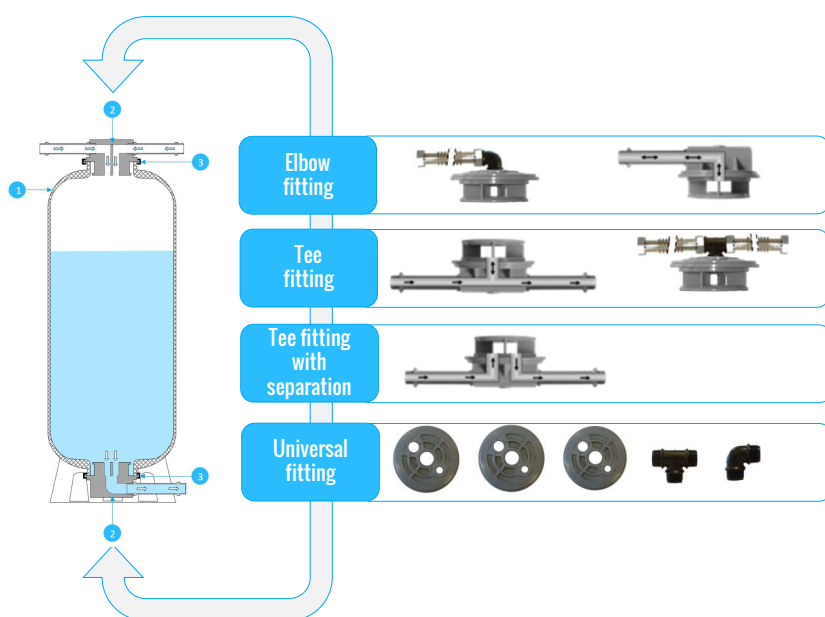
Easy to disassemble for a quick access

Fully customizable

Ultra light tanks



THE ONLY FULLY CUSTOMIZABLE COMPOSITE TANK !



1 Extreme lifetime

Tank warranty 10 years. Maintenance free. Patented Compose It™ technology for an improved mechanical resistance. Composite monolithic structure without any welded part, raw materials selected for their extreme durability (High fatigue resistance to cycling, 100% corrosion free).

2 Fully customisable

Customisation of the fittings on the upper and lower lids for more flexibility (fittings up to 2"½, number of fittings variable according to their diameter). Sidehole 1" possible on request.

3 Easy to disassemble for a quick access

Wide opening of 160 mm of diameter with upper and lower PVC lids fixed thanks to a stainless steel clamp for a quick and easy access inside the tank.

RETENTION TANK COMPOSE IT



SPECIFICATIONS

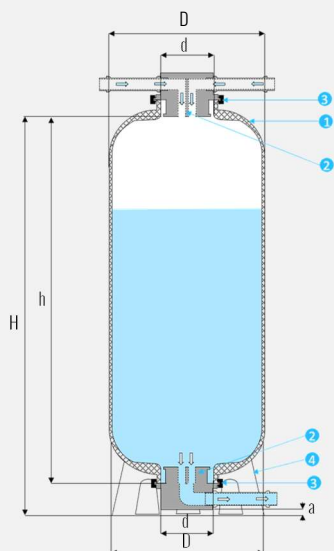
Réservoirs	Volume (Liters)	Weight * (kg)	Dimensions* (mm)				
			H	h	D	d	a
Retention tank 60 liters	60	9,9	650	555	460	160	13
Retention tank 115 liters	115	12,9	975	880	460	160	13
Retention tank 150 liters	150	14,8	1 220	1110	460	160	13
Retention tank 230 liters	230	19,8	1 070	910	610	160	13
Retention tank 300 liters	300	22,8	1 315	1 200	610	160	13
Retention tank 450 liters	450	32,6	1 825	1 710	610	160	13

Minimum operating temperature of 1 °C, Maximum operating temperature of 50 °C. Maximum working pressure of 8 bar.

Hydropneumatic air/water tanks in accordance with the European Pressure Equipment Directive 2014/68 / EU

* Diameter, height and weight are subject to change without previous notice

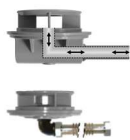
DESCRIPTION



- 1 Tank in recyclable thermoplastic composite materials reinforced with glass fibers (monolithic structure with improved mechanical properties) with an extreme lifetime, high fatigue resistance to cycling and 100% corrosion free
Tank compliant with chemical agents, aggressive and saline waters
- 2 160 mm diameter openings with PVC lid 160 mm of diameter including 3 connections fittings maximum (up to DN 65 (2^{1/2}))
- 3 Stainless steel clamp fixed with a nut, simple and quick to use
- 4 PVC support

OPTIONS

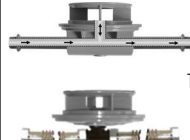
Elbow fitting



Elbow with integrated PVC tube (female fitting 1^{1/4})

PVC elbow with a stainless steel flexible tube length 30 or 45 cm (female fitting 1^{1/4})

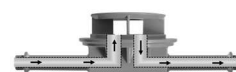
Tee fitting



Tee PVC fitting with 2 integrated PVC tubes (male fitting 1^{1/4})

Tee PVC fitting (male 1^{1/4}) with 2 stainless steel flexible tubes length 30 or 45 cm (female fitting 1^{1/4})

Tee fitting with separation



PVC fitting with separate water inlet and outlet, with 2 PVC integrated tubes (male fitting 1^{1/4})

Universal fitting

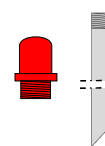


Up to 3 fittings possible according to their diameter (fitting diameter up to 2^{1/2})

Sidehole on request



Accessories



Height of tube and model of air vent on request