

expansion vessel range



2018



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Zilmet is Europe's largest manufacturer of expansion vessels and plate heat exchangers.

In order to maintain its position as a leading supplier in the thermo-hydraulic market, the company focuses on the research and development of new products, together with devising innovative, original solutions for its customers.

During the lifetime of its business, Zilmet has invested wisely in technology. This translates into highly automated production facilities which enable the company to consistently deliver the highest quality possible.

All Zilmet products carry the appropriate certification for use in UK and European markets. So, with the wide portfolio of products within these pages, you should be able to find the product to match your particular project.

Zilmet UK is certified and meets the requirements of ISO 14001:2015, ISO9001:2015 and BS OHSAS 18001:2007.





we are committed to the growth of our company through a programme of investment in jobs, the continual improvement of products and processes and the flexibility to serve our customers better



heating



potable



sanitary



solar



pressure

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heating



expansion vessels
for heating systems

Tanks are equipped with a high quality seamless chlorobutyl diaphragm to assure long life and safety. The diaphragm never stretches or creases



expansion vessels for heating systems



CAL-PRO

expansion vessel for heating systems
capacity: from 4 - 900 litres

Advantages

The Cal-Pro expansion vessels absorb the water volume variations in closed heating systems maintaining constant pressure and help to reduce energy consumption. The wide range available meets the requirements of various heating system sizes.

Technical features

Crimped or welded carbon steel shells and synthetic SBR rubber conforming to DIN 4807-3 norms are suitable for every capacity for maximising tank draw down. Vessels are painted externally with long-lasting epoxy polyester powder coating and are 100% factory tested.

Working

In a closed heating system, water cannot be compressed and any increase in water volume due to the increase in its temperature is absorbed by the expansion vessel. When water is cold, the pre-charge pressure of the tank presses the diaphragm against the tank. As the temperature increases, the expanded water volume pushes against the membrane and water enters the tank, providing additional space to the system. When the temperature decreases, the air cushion forces water back into the system. This permits the system to maintain the pressure, helping to reduce energy consumption of the heating system.

Certification



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CAL-PRO

Technical and dimensional data

Code	Capacity (ltr)	Ø Diameter	Height	E	Connection
1300000400B	4	225mm	195mm	-	3/4"G
1300000800B	8	220mm	295mm	-	3/4"G
1300001200B	12	294mm	281mm	-	3/4"G
1300001800B	18	290mm	400mm	-	3/4"G
1300002400B	24	324mm	415mm	-	3/4"G
1300003503	35*	404mm	387mm	119	3/4"G
1300005003	50*	407mm	507mm	157	3/4"G
1300008000	80	450mm	608mm	150	3/4"G
1300010500	105	500mm	665mm	165	3/4"G
1300015000	150	500mm	897mm	216	3/4"G
1300020000	200	600mm	812mm	225	3/4"G
1300025000	250	630mm	957mm	245	3/4"G
1300030000	300	630mm	1105mm	245	3/4"G
1300040000	400	630mm	1450mm	245	3/4"G
1300050000	500	750mm	1340mm	290	1"G
1300060000	600	750mm	1555mm	290	1"G
1300070000	700	750mm	1755mm	290	1"G
1300080000	800	750mm	1855mm	290	1"G
1300090000	900	750mm	2105mm	290	1"G

*with feet

NB: CAL-PRO vessels 4 litre to 24 litre are sold complete with bracket. If you don't need the bracket, use the same product code, but without the B at the end.

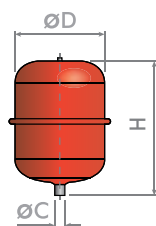
Material description

Description	Material
Shell	Carbon Steel
Connections	Carbon Steel
Membrane	SBR synthetic rubber
Colour	Red

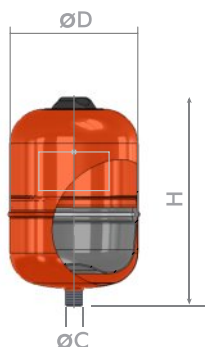
Operating conditions

Maximum working pressure 4-8 litres	5 bar
Maximum working pressure 12-50 litres	4 bar
Maximum working pressures 80-900 litres	6 bar
Maximum operating temperature	-10 to +90°C
Factory pre-charge 4-50 litres	1.5 bar
Factory pre-charge 80-150 litres	2 bar
Factory pre-charge 200-900 litres	2.5 bar

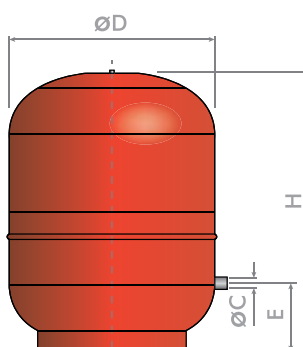
Technical drawings



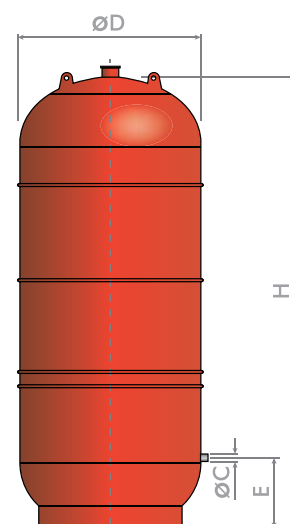
4 - 24 Litres



5-8-12-18-24-35-50 Litres



80 - 500 Litres



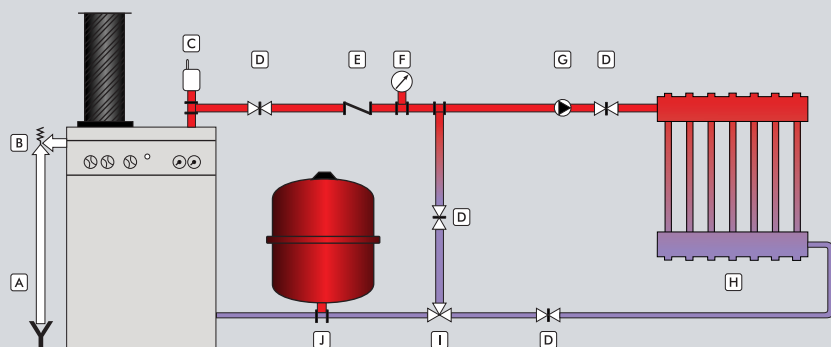
400 - 900 Litres



expansion vessels for heating systems



Assembly diagram



- A - Draining
- B - Safety valve
- C - Air vent
- D - Gate valve (where needed)
- E - Back flow preventer (where needed)
- F - Pressure gauge
- G - Pump
- H - Utilities (radiator / UF coils etc)
- I - Mixing valve (where needed)
- J - Zilmet expansion vessel

Sealed System kit

Comprising: Filling loop, safety relief valve c/w pressure gauge, four way connector

Our ref: ZKITA075

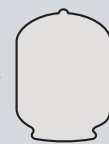
Please note that Cal-Pro vessels of 4 to 24 litre capacity are supplied complete with bracket



for illustrative purposes only



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EASY-PRO

expansion vessel for water heaters and electric pumps
capacity: from 4 - 24 litres

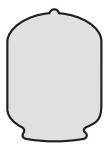
Advantages

Tanks are equipped with a high quality seamless chlorobutyl diaphragm to assure long life and safety. The diaphragm does not stretch or crease. A corrosion and bacteria resistant plastic dome ensure water purity and the tank has no corners that might trap sediment.

Working

The Zilmet Easy-Pro tank leaves the factory already tested and pre-pressurized. Air and water cannot mix, eliminating the possibility of water-logging through loss of air to the system. In a hot water system, the increase in water volume due to the increase in of its temperature is absorbed by the expansion vessel. When water is cold, the pre-charge pressure of the tank presses the diaphragm against the tank. As the temperature increases, the expanded water volume pushes against the membrane and water enters the tank, providing additional space to the system. When the temperature decreases, the air cushion forces water back into the system. This allows the system to maintain the pressure helping to reduce energy consumption of the heating system.





EASY-PRO

Technical and dimensional data

Code	Capacity (ltr)	Ø Diameter	Height	Connection
11E0000800	8	200	280	3/4" G
11E0001200	12	270	264	3/4" G
11E0001800	18	270	349	3/4" G
11E0002400	24	300	392	3/4" G

Material description

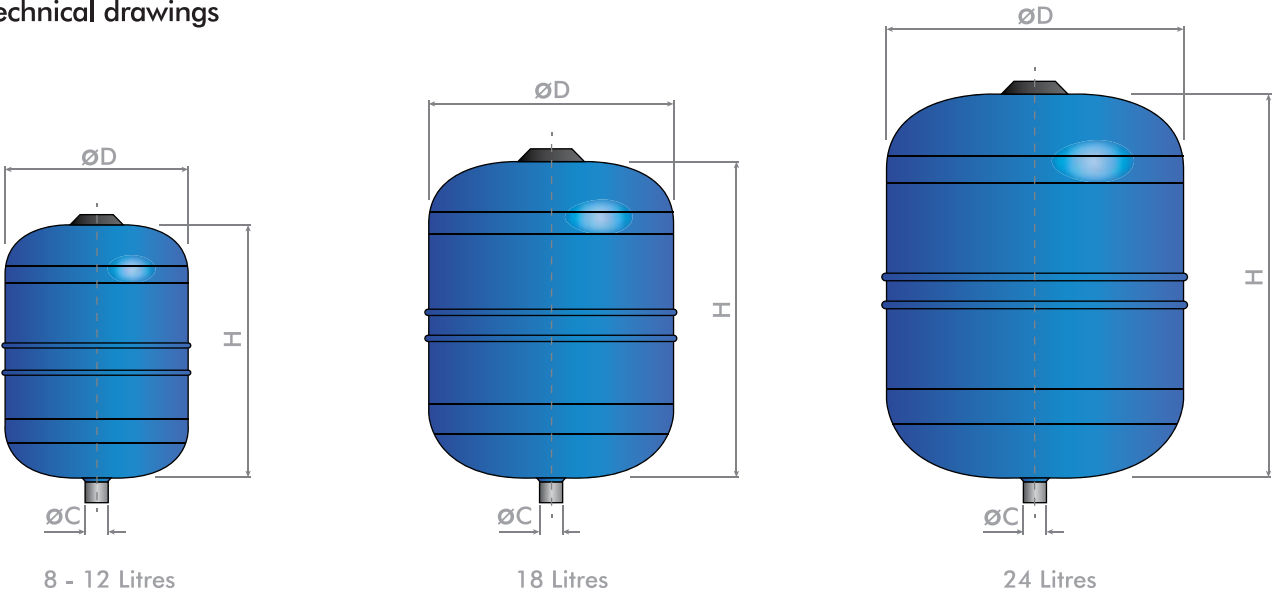
Description	Material
Shell	Carbon Steel
Liner	Polypropylene
Connections	Stainless Steel
Membrane	Chlorobutyl**
Colour	Blue/White

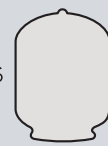
** for alimentary purposes

Operating conditions

Maximum working pressure	10 bar
Maximum operating temperature	70° C
Factory pre-charge	2 bar

Technical drawings





OEM-PRO

expansion vessel for boilers
capacity: from 6 - 24 litres

Advantages

The wide range of vessel (shapes, capacity, connection and attachment systems) helps to satisfy the specific requirements of any boiler manufacturer.

In addition, Zilmét can provide high quality and compact expansion vessels suitable for the sanitary circuits of boilers.

Technical features

Crimped or welded carbon steel shells and synthetic SBR rubber conforming to DIN 4807-3 norms are suitable for every capacity for maximising tank draw down. Vessels are painted externally with long-lasting epoxy polyester powder coating and are 100% factory tested.

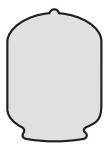
Working

In a closed heating system, water cannot be compressed and any increase in water volume due to the increase in its temperature is absorbed by the expansion vessel. When water is cold, the pre-charge pressure of the tank presses the diaphragm against the tank. As the temperature increases, the expanded water volume pushes against the membrane and water enters the tank, providing additional space to the system. When the temperature decreases, the air cushion forces water back into the system. This allows the system to maintain the pressure helping to reduce energy consumption of the heating system.

NB: While the list of standard products overleaf is extensive, if your applications need pressures other than those shown, please ask us to quote.

Certification





expansion vessels for heating systems



OEM-PRO

Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	pre-charge	Connection
13B6000713	7	387mm	90mm	3 bar	1 bar	3/8" G
13B6000802	8	387mm	100mm	3 bar	1 bar	3/8" G
13B6001000	10	387mm	110mm	3 bar	1 bar	3/4" G
13B6001206	12	387mm	140mm	3 bar	1 bar	3/8" G
13B6001407	14	387mm	150mm	3 bar	1 bar	3/4" G
13B0001800	18	387mm	200mm	3 bar	1 bar	3/4" G

Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory pre-charge	1±20% bar
Colour	Silver



Drawing 531/L

Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	pre-charge	Connection
13A6000600	6	324mm	103mm	3 bar	1 bar	3/4" G
13A6000800	8	324mm	130mm	3 bar	1 bar	3/4" G
13A6001000	10	324mm	140mm	3 bar	1 bar	3/4" G
13A6001200	12	324mm	166mm	3 bar	1 bar	3/4" G

Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory pre-charge	1±20% bar
Colour	Silver



Drawing 541/L

Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	pre-charge	Connection
13C0000603	6	392mm	61mm	3 bar	1 bar	3/8" G
13C0000807	8	392mm	72mm	3 bar	1 bar	3/8" G

Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory pre-charge	1±20% bar
Colour	Silver



Drawing 521/L





potable



expansion vessels
for potable water

The use of stainless steel flanges and butyl membranes are the main features of this range of expansion vessels. Suitable for potable water (including alimentary purposes) as for cold and hot water with temperatures between minus 10°C and 90°C



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expansion vessels for potable water



INOX-PRO

expansion vessel for anti-hammer, use in coastal areas and in the presence of brackishness.

capacity: from 0.16 - 18 litres

Advantages

Stainless steel tanks are an excellent choice for situations which require high hygienic standards and a practically limitless product life. The vessels are compact, permitting installation in plants producing sanitary hot water using water heaters or heat exchangers. They are also suitable for each type of water-surge plant connected to limited-flow pumps.

Working

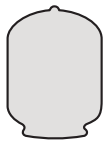
Stainless steel with a membrane which is suitable for alimentary purposes - for cold and hot water with temperatures between minus 10° and 90°C. The range of stainless steel expansion vessels we produce is equipped with a non-toxic membrane suitable for contact with drinking water, in accordance with the British WRAS/WRc and French ACS regulations. The high quality materials, efficient manufacturing procedures and continuous quality control combine to provide a product with long lasting operation and minimal need for special maintenance.

Certification





expansion vessels for potable water



INOX-PRO

Technical and dimensional data (these models with a polished finish)

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	pre-charge	Connection
11B000AA00	0.16	82mm	72mm	15 bar	3.5 bar	½"G
11B000BB00	0.5	94mm	119mm	10 bar	3.5 bar	½"G
11B0000100	1	116mm	155mm	10 bar	3.5 bar	½"G
11B0000200	2	140mm	196mm	10 bar	3.5 bar	½"G
11B0000800	8	198mm	275mm	10 bar	2.5 bar	¾"NPT
11B0001200	12	270mm	270mm	10 bar	2.5 bar	¾"G
11B0001800	18	270mm	349mm	10 bar	2.5 bar	1"G

These models with a dull finish

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	pre-charge	Connection
11B000AA18	0.16	82mm	72mm	15 bar	3.5 bar	¼"G
11B000AA02	0.16	82mm	72mm	15 bar	3.5 bar	½"G
11B000BB02	0.5	94mm	119mm	10 bar	3.5 bar	½"G
11BB0000104	1	116mm	155mm	10 bar	3.5 bar	½"G
11B0000205	2	140mm	196mm	10 bar	3.5 bar	½"G

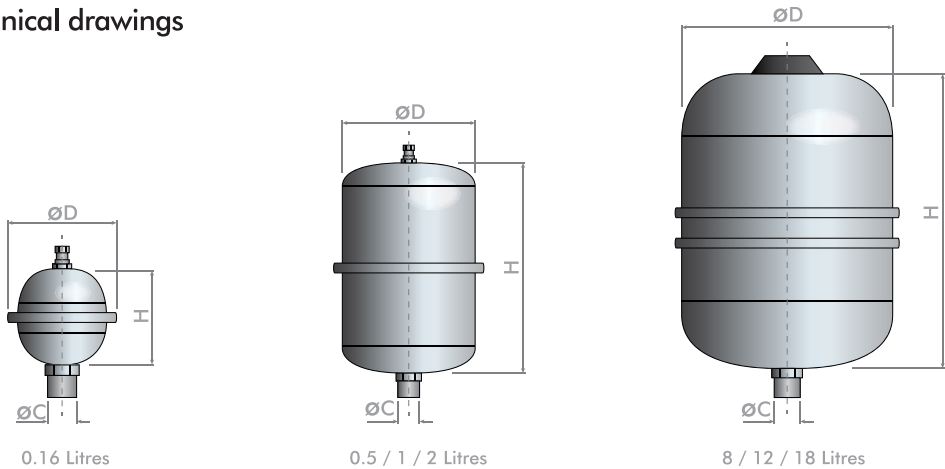
Material description

Description	Material
Shell	Stainless steel
Membrane	Butyl

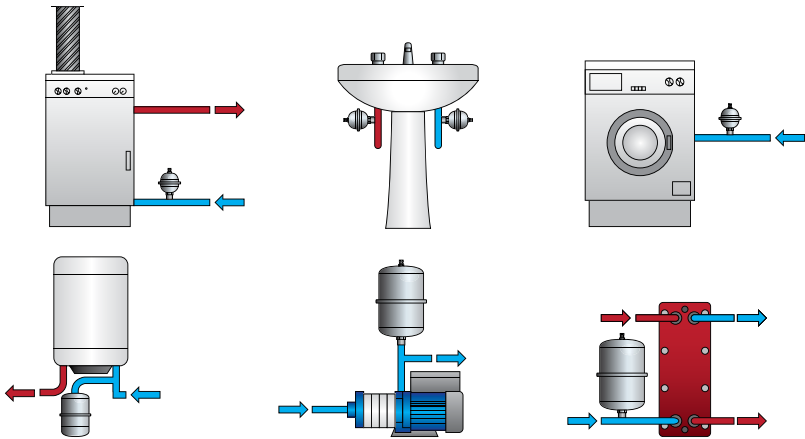
Operating conditions

Maximum working pressure 0.16 litres	15 bar
Maximum working pressure 0.5 to 18 litres	10 bar
Maximum operating temperature	70° C
Factory pre-charge 0.16 to 2 litres	3.5 bar
Factory pre-charge 8 to 18 litres	2.5 bar

Technical drawings



Application diagrams





expansion vessels for potable water



potable



ULTRA INOX-PRO

expansion vessel for potable water, pumps and booster sets.
capacity: from 24 - 100 litres

Advantages

The usable capacity of these membrane pressure tanks is superior to that of a normal tank. They also offer a smaller footprint at equal water yield, minimum pump starts and savings in energy consumption. The wide range (vertical and horizontal) make Zilmet pressure tanks suitable for many applications. The tank is supplied already tested and certified by our factory in accordance with the European Directive 97/23/EC. Maximum durability of the membrane is assured as the membrane cannot bend or rub against the plate, as it is fixed at both ends of the tank.

Technical features

The use of A151 304 stainless steel with a membrane is suitable for cooled water, hot water and alimentary purposes. This range of expansion vessels is equipped with a non-toxic membrane suitable for contact with drinking water, in accordance with the British WRAS/WRc and French ACS regulations. The high quality materials, efficient manufacturing procedures and continuous quality control combine to provide a product with long lasting operation and minimal need for special maintenance.

Working

When the pump starts, water enters the membrane tank as system pressure passes the pressure pre-charge using the available capacity of the tank (only usable water is stored). When the pressure in the chamber reaches the maximum system pressure, the pump stops working and the tank is filled to its maximum capacity. Pressure in the air side of the tank will push water into the system when there is a further requirement. The Ultra-Inox Pro tank does not get waterlogged and delivers all water possible, with minimum pump starts assured, saving energy and increasing the pump life.

Certification



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expansion vessels for potable water



ULTRA-INOX PRO
Technical and dimensional data

Vertical vessels

Code	Capacity (ltr)	Ø Diameter	Height	E	Max pressure	pre-charge	Connection
1110002403	24	270mm	485mm	-	10 bar	1.5 bar	1"G
1110006002	60	380mm	860mm	170mm	10 bar	1.5 bar	1"G
1110010002	100	450mm	910mm	153mm	10 bar	1.5 bar	1"G

Horizontal vessels

Code	Capacity (ltr)	Ø Diameter	Height	L	Max pressure	pre-charge	Connection
1110002402	24	270mm	290mm	485mm	10 bar	1.5 bar	1"G
1110006003	60	380mm	380mm	640mm	10 bar	1.5 bar	1"G
1110010003	100	450mm	480mm	730mm	10 bar	1.5 bar	1"G

Material description

Description	Material
Shell	Stainless steel
Membrane	Butyl*
Flange	Stainless steel

Operating conditions

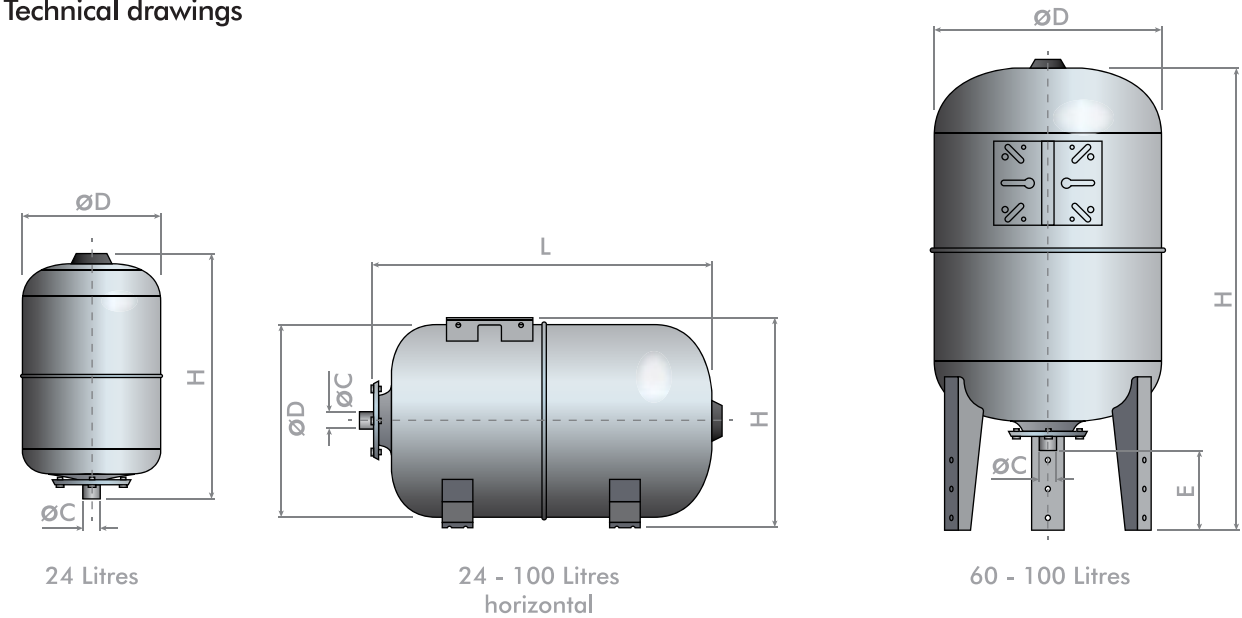
Maximum working pressure	10 bar
Maximum operating temperature	-10 to +99°C
Factory pre-charge	1.5 bar

*replacement membrane for alimentary purposes

Spare membranes

A comprehensive list of spare membranes together with their capacity and code numbers is located on page 22.

Technical drawings





expansion vessels for potable water



ULTRA-PRO EVO

expansion vessel for potable water, pumps and booster sets.
capacity: from 19 - 50 litres

Advantages

The Ultra-Pro Evo pressure tanks (accumulators) are suitable for any modern installation. They can be applied to any type of irrigation pump, centrifugal pump and booster sets. The food grade membrane is replaceable and the innovative patented Zilmex flange is made of tecnoprene®, a high performance technopolymer with outstanding technical features.

Technical feature

Zilmex pays constant attention to technological progress and is always on the lookout for market innovation. We have introduced this new product as part of our range of replaceable membrane pressure tanks. Based on a thorough analysis of the stress and strain endured by the flange, the study followed definition of shapes through FEM (finite element method).

Working

Tecnoprene® technopolymer is a material that lends the new flanges great stability and mechanical resistance, as well as resistance to temperature variations. Tecnoprene® is completely recyclable and therefore eco-friendly. This material is also certified food safe by the Food and Drug Administration.

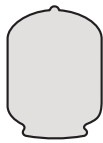
Certification



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expansion vessels for potable water



ULTRA-PRO EVO

Technical and dimensional data

Vertical vessels

Code	Capacity (Ltr)	Ø Diameter	Height	E	Max pressure	pre-charge	Connection
11V0002400	24	270mm	517mm	-	10 bar	1.5 bar	1"G
11V0005000	50	380mm	770mm	148mm	10 bar	1.5 bar	1"G

Horizontal vessels

Code	Capacity (Ltr)	Ø Diameter	Height	L	Max pressure	pre-charge	Connection
11V0001901	19	270mm	290mm	397mm	10 bar	1.5 bar	1"G

Material description

Description	Material
Shell	Carbon steel
Bag membrane	Butyl/EPDM
Flange	Tecnoprene®
Colour	Blue

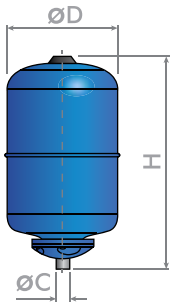
Operating conditions

Maximum working pressure	10 bar
Maximum operating temperature	70° C
Factory pre-charge	1.5 bar

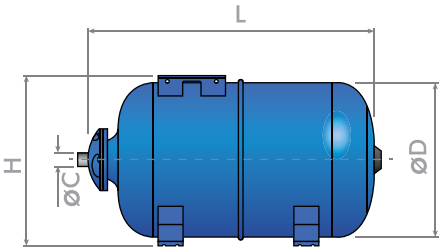
Spare membranes

Code	Capacity (Ltr)
260100020	24
1800002403	19 - 24
260100021	50
260100001	60 - 80
260100002	100
260100013	100 (for Inox-Pro)
260100003	200
260100004	300
260100005	500
260100006	750 - 1000

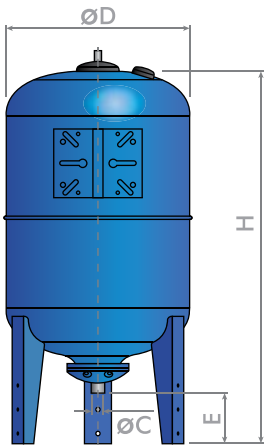
Technical drawings



24 Litres
Vertical



19 litres
Horizontal



50 Litres
Vertical



expansion vessels for potable water



ULTRA-PRO

expansion vessel for potable water, pumps and booster sets
capacity: from 24 - 3000 litres (12 and 19 litres can also be supplied).

Advantages

Ultra-Pro pressure tanks are the best choice for irrigation pumps, centrifugal pumps, submersible pumps and for booster sets. The capacity of a bladder tank is larger than the capacity of common storage tanks: the same performance can be obtained with a smaller volume, allowing minimum pump starts and therefore saving energy.

The range of different sizes, the availability of horizontal and vertical models, together with the choice between galvanized or stainless steel flanges, ensure that Ultra-Pro pressure tanks meet the requirements of the end user.

Pressure tanks from Zilmet undergo 100% factory testing procedures and are certified according to PED 97/23/EC.

The bladder is suitable for alimentary purposes and is fixed at both ends avoiding any possibility of contact with the inner tank surface. Ultra-Pro pressure tanks offer unlimited service life as the bladder is easily replaceable.

Technical features

MIG welded carbon steel body without internal rough spots or sharp edges. Replaceable bladder is suitable for use with potable water. External surfaces finished with long lasting epoxy powder. Mild steel or stainless steel flanges for use with aggressive water.

Working

When the pump starts, water enters the membrane tank as system pressure passes the pressure pre-charge using the whole capacity of the tank. Only usable water is stored. When the pressure in the chamber reaches the maximum system pressure, the pump stops working. The tank is filled to its maximum capacity. When water is needed again, pressure in the airside will push water into the system. Since Zilmet Ultra-Pro tanks do not water-log and deliver all possible water, pump starts are reduced resulting in savings in energy consumption and a longer pump life.

Certification





expansion vessels for potable water



ULTRA-PRO

Technical and dimensional data

Vertical vessels

Code	Capacity (Ltr)	Ø Diameter	Height	E	Max pressure	pre-charge	Connection
1100002419	24	270mm	485mm	-	10 bar	1.5 bar	1"G
1100005006	50	380mm	770mm	180mm	10 bar	1.5 bar	1"G
1100006006	60	380mm	860mm	170mm	10 bar	1.5 bar	1"G
1100008006	80	450mm	830mm	153mm	10 bar	1.5 bar	1"G
1100010006	100	450mm	910mm	153mm	10 bar	1.5 bar	1"G
1100020006	200	550mm	1235mm	210mm	10 bar	1.5 bar	1 1/2"G
1100030006	300	630mm	1365mm	188mm	10 bar	1.5 bar	1 1/2"G
1100050006	500	750mm	1560mm	188mm	10 bar	1.5 bar	1 1/2"G
1100075057	750	750mm	2075mm	150mm	10 bar	2 bar	1 1/2"G
1100100056	1000	850mm	2100mm	120mm	8 bar	2 bar	1 1/2"G

Horizontal vessels

Code	Capacity (Ltr)	Ø Diameter	Height	L	Max pressure	pre-charge	Connection
11000024A8	24				10 bar		3/4"G
1100002406	24	270mm	485mm	485mm	10 bar	1.5 bar	1"G
1100005007	50	380mm	560mm	560mm	10 bar	1.5 bar	1"G
1100006007	60	380mm	640mm	640mm	10 bar	1.5 bar	1"G
1100008007	80	450mm	640mm	640mm	10 bar	1.5 bar	1"G
1100010007	100	450mm	730mm	730mm	10 bar	1.5 bar	1"G
1100020007	200	550mm	985mm	985mm	10 bar	1.5 bar	1 1/2"G
1100030007	300	630mm	1140mm	1140mm	10 bar	1.5 bar	1 1/2"G

Material description

Description	Material
Shell	Carbon Steel
Membrane	Butyl*/EPDM*
Flange	Galvanized/Stainless steel
Colour	Blue

*replaceable membrane for alimentary purposes

Operating conditions

Maximum working pressure	10 bar
Maximum pressure 750 litres CE	8/10 bar
Maximum pressure 1000 litres CE	6/8 bar
Maximum operating temperature	70° C
Factory pre-charge	1.5 to 2 bar

NB: If your particular application needs pressures different to those shown above, please ask us to quote.

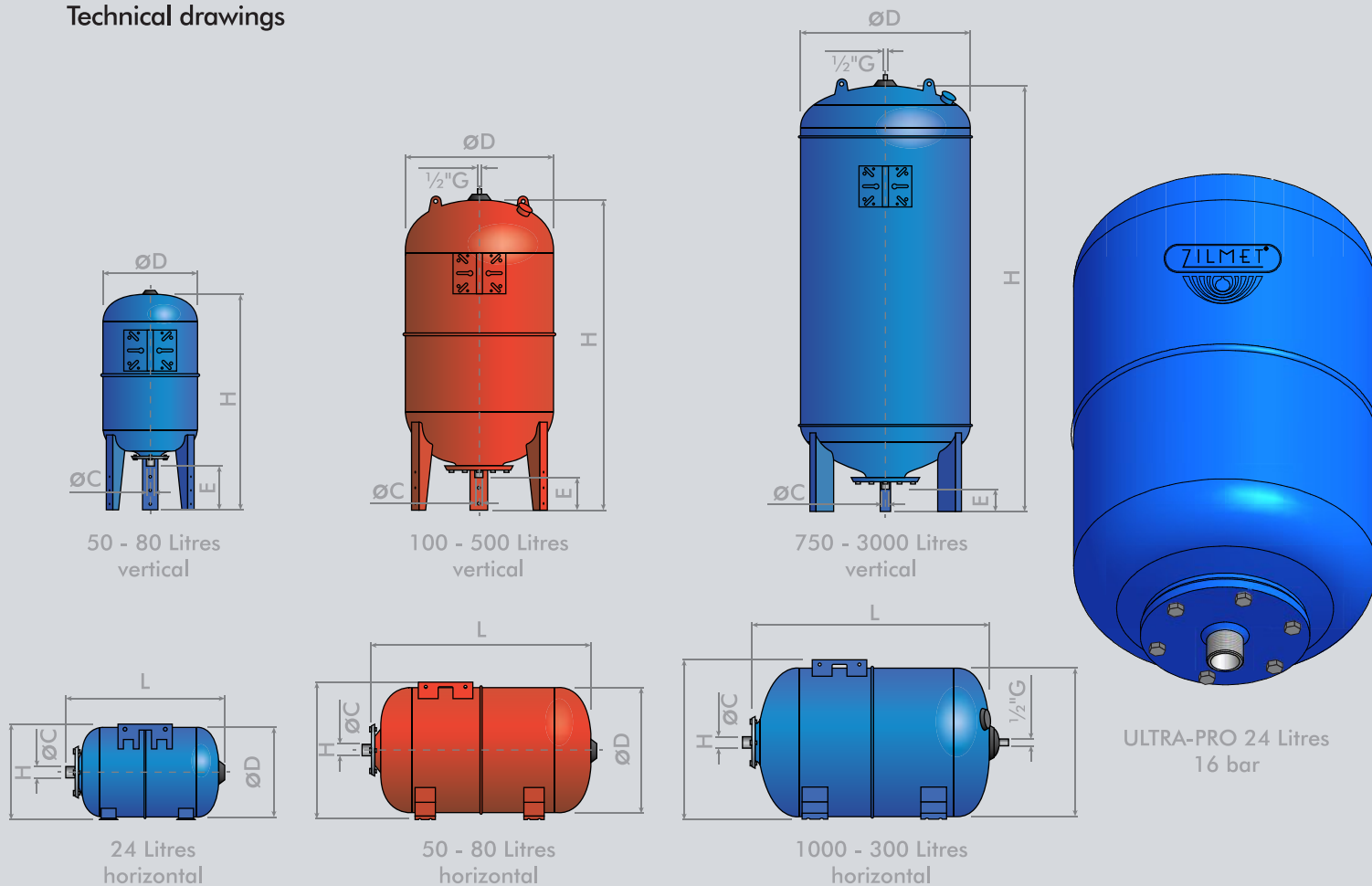


expansion vessels for potable water



potable

Technical drawings



Zilmet is an international manufacturer of high quality expansion tanks, with a large number of production sites, branches and distributors in Europe and throughout the world.

As a leader in the thermo-hydraulic market, our objectives are constant research for new products and innovative solutions, always keeping quality at the forefront of everything we do.





ULTRA-PRO 16 BAR

Technical and dimensional data

Vertical vessels

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	pre-charge	Connection
11000024B4	24	270mm	485mm	16 bar	2 bar	1" G
1100010055	100	450mm	910mm	16 bar	2 bar	1" G
1100020052	200	550mm	1235mm	16 bar	2 bar	1 1/2" G
1100030048	300	630mm	1365mm	16 bar	2 bar	1 1/2" G
1100050053	500	750mm	1560mm	16 bar	2 bar	1 1/2" G

Material description

Description	Material
Shell	Carbon Steel
Membrane	Butyl*/EPDM*
Flange	Painted flange
Colour	Blue

*replaceable membrane for alimentary purposes

Operating conditions

Maximum working pressure	16 bar
Maximum operating temperature	70° C
Factory pre-charge	see chart above

Elastomers

Membrane	Use	working temperature
Butyl	Potable and non potable water	minus 10°C - 70°C
EPDM	Potable and non potable water	minus 10°C - 70°C

Spare membranes

Code	Capacity (Ltr)
260100020	24
1800002403	19 - 24
260100021	50
260100001	60 - 80
260100002	100
260100013	100
260100003	200
260100004	300
260100005	500
260100006	750 - 1000



expansion vessels for sanitary water



HYDRO-PRO

expansion vessel for electrical pumps, ant water-hammer and water heaters
capacity: from 2 - 600 litres

Advantages

Compact design with a seamless diaphragm which doesn't stretch or crease. Without bubbles or corners to trap sediment, including bacterial growth, with international approvals for use with potable water. Wide range available.

Technical features

Protected pre-charge valve. Durable steel tank. Deep drawn steel shell for extra strength. The MIG welding process eliminates internal rough spots and sharp edges, preventing damage to the diaphragm and liner. Pre-pressurised air chamber. The butyl diaphragm isolates water from air. Exclusive internal epoxy-polyester coating. No rusting. Mild steel connection.

Working

The Zilmét Hydro-Pro tank leaves the factory already tested and pre-pressurised. Air and water do not mix, eliminating any possibility of "water logging" due to loss of air in the system. No corrosion.

Certification



made in italy - globally renowned



HYDRO-PRO

Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	E	Connection
11A000200	2	142mm	196mm	-	1/2"G
11A0003500	35	380mm	360mm	-	1"G
11A0003519	35	380mm	360mm	-	3/4"G
11A0005000	50	380mm	505mm	153mm	1"G
11A0005002	50	380mm	418mm	-	1"G
11A0008000	80	450mm	608mm	150mm	1"G
11A0010500	105	500mm	665mm	165mm	1 1/4"G
11A0015000	150	500mm	897mm	216mm	1 1/4"G
11A0020000	200	600mm	812mm	225mm	1 1/4"G
11A0025000	250	630mm	957mm	245mm	1 1/4"G
11A0030000	300	630mm	1105mm	245mm	1 1/4"G
11A0040000	400	630mm	1450mm	245mm	1 1/4"G
11A0050000	500	750mm	1340mm	290mm	1 1/4"G
11A0060000	600	750mm	1555mm	290mm	1 1/4"G

Material description

Description	Material
Shell	Carbon steel*
Connections	Carbon steel*
Membrane	Butyl**
Colour	Blue/Grey (2 litres)

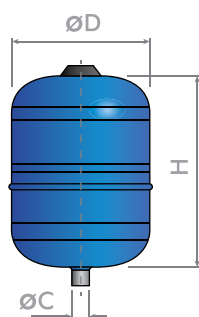
Operating conditions

Maximum working pressure	10 bar
Maximum operating temperature	-10 to +99°C
Factory pre-charge (2 litres)	3.5 bar
Factory pre-charge (35 litres - 600 litres)	2 bar

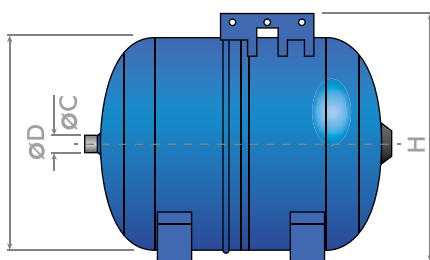
* internally coated with powder for alimentary purposes

**for alimentary purposes

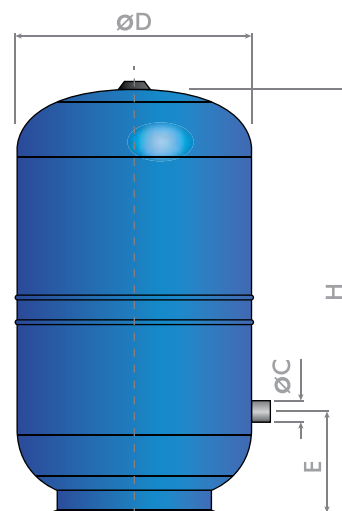
Technical drawings



2 - 35 Litres



50 Litres
Horizontal



50 - 600 Litres



expansion vessels for sanitary water



HY-PRO

expansion vessel for water heaters and any type of pump
capacity: from 2 - 24 litres

Advantages

Hy-Pro expansion tanks are equipped with interchangeable membranes to ensure a long life, with a stainless steel flange (galvanized on 2 litre) making the majority of the tanks suitable for use with aggressive water.

Working

The membrane guarantees that air and water do not mix, eliminating the possibility of water logging through loss of air to the system. In a hot water system, the increase in water volume due to the increase in temperature, is absorbed by the expansion vessel. When the water temperature decreases, the pre-charge pressure of the vessel presses the air cushion and forces the water back into the system.

In a potable water system, when the pump starts, water enters the membrane using the whole capacity of the tank. When the pressure in the chamber reaches the maximum system pressure, the pump stops working. The tank is filled to its maximum capacity. When water is needed again, pressure in the air side will push water into the system. In both applications the system maintains the pressure, helping to reduce energy consumption.

Certification



made in italy - globally renowned



HY-PRO

Technical and dimensional data

Code	Colour	Capacity (Ltr)	pre-charge	Flange	ø Diameter	Height	Connection
11H0000200	Grey	2	1.5 bar	Galv	125mm	214mm	½"G
11H0000502	White	5	3 bar	S/Steel	160mm	310mm	¾"G
11H0000504	Red	5	3 bar	S/Steel	160mm	310mm	¾"G
11H0000803	Blue	8	3 bar	S/Steel	200mm	322mm	¾"G
11H0001208	White	12*	3 bar	S/Steel	270mm	295mm	¾"G
11H0001202	White	12	3 bar	S/Steel	270mm	295mm	¾"G
11H0001910	White	19*	3 bar	S/Steel	270mm	390mm	¾"G
11H0001902	White	19	3 bar	S/Steel	270mm	390mm	¾"G
11H0002402	White	24	3 bar	S/Steel	270mm	470mm	¾"G
11H0002407	White	24*	3 bar	S/Steel	270mm	470mm	¾"G

* with welded bracket

Material description

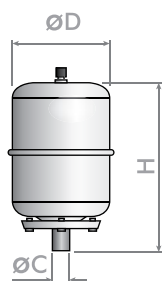
Description	Material
Shell	Carbon steel
Flange	Stainless steel
Membrane	EPDM
Colour	White

Operating conditions

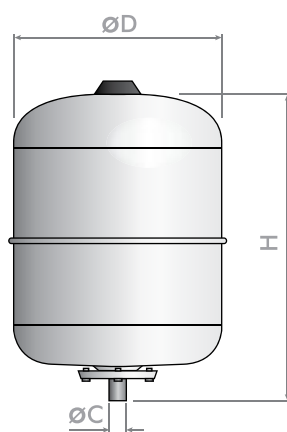
Maximum operating pressure	10 bar
Maximum operating temperature	-10 to +99°C
Factory pre-charge	1.5 - 3 bar

* galvanized steel flange on 2 litre model

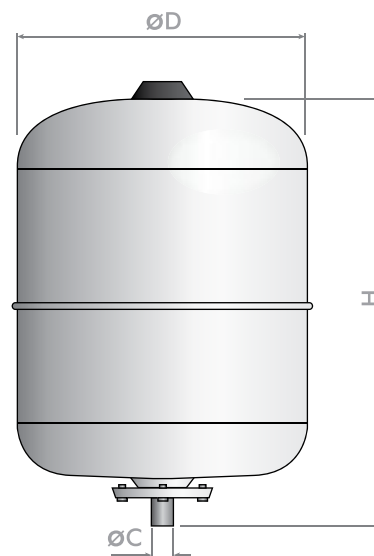
Technical drawings



2 Litres



5 - 19 Litres



24 Litres



expansion vessels for sanitary water



WATER-PRO

expansion vessel for electrical pumps and water heaters
capacity: from 5 - 24 litres

Advantages

A compact design with seamless diaphragm inhibits bacterial growth. This range is certified in conformity with PED 97/23/EC, ACS, IAPMO. They have a stainless steel connection.

Technical features

The Water-Pro range offers compact expansion tanks for sanitary hot water with a fixed potable water butyl membrane and an internal epoxy coating. These tanks are provided with a stainless steel fitting. MIG welding eliminates sharp cutting edges inside the tank. The shape of the membrane is designed to avoid water stagnation and the growth of any bacteria. With an external epoxy-polyester coating, the vessels are less liable to rust.

Working

The Water-Pro tank leaves the factory already tested and pre-pressurised. When the pump starts, water enters the tank as system pressure passes the minimum pressure pre-charge. When the pressure in the chamber reaches the maximum system pressure, the pump stops working. The tank is filled to maximum capacity and when water is needed again, pressure in the air side will push the water into the system.



Certification



made in italy - globally renowned



WATER-PRO

Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Connection
11A0000517	5	160mm	270mm	¾"G
11A0000822	8	200mm	280mm	¾"G
11A0001214	12	270mm	264mm	¾"G
11A0001821	18	270mm	349mm	¾"G
11A0002425	24	300mm	392mm	1"G

Material description

Description	Material
Shell	Carbon steel*
Connectors	Stainless steel
Membrane	Butyl**
Colour	Blue

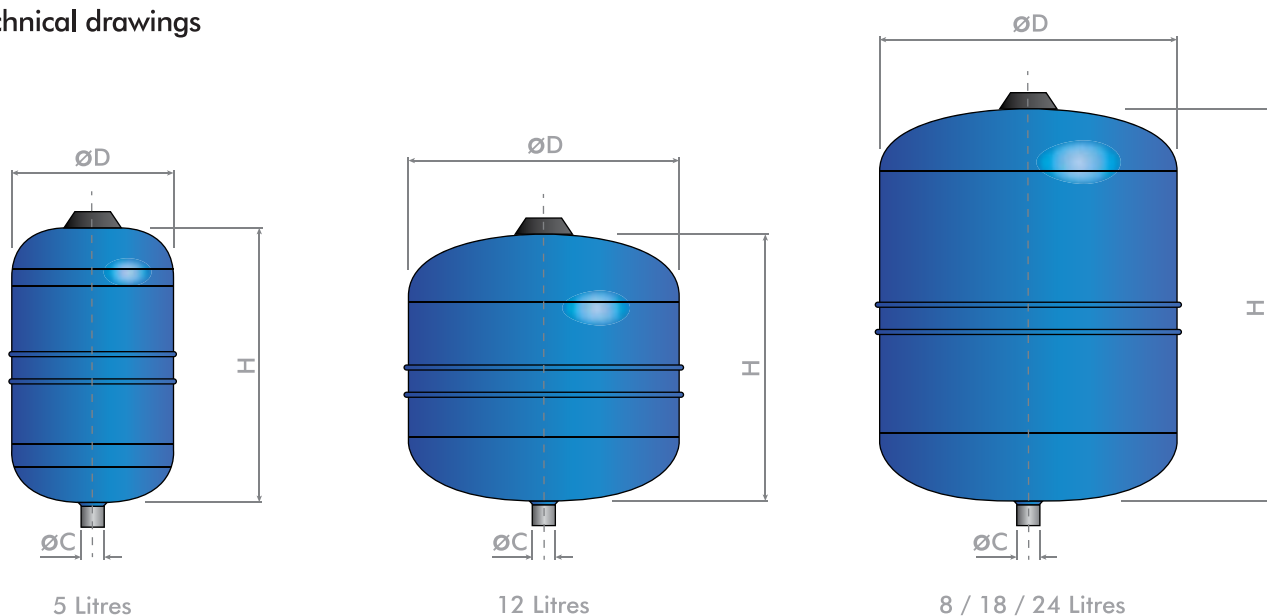
Operating conditions

Maximum operating pressure	10 bar
Maximum operating temperature	-10 to +99°C
Factory pre-charge (5 - 8 litres)	3 bar
Factory pre-charge (12 - 18 litres)	2 bar
Factory pre-charge (24 litres)	3 bar

* internally coated with powder for alimentary purposes

** for alimentary purposes

Technical drawings





solar

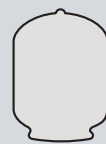


expansion vessels
for solar systems

A complete range of expansion
vessels suitable for solar systems



expansion vessels for solar systems



SOLAR-PLUS

expansion vessel for solar systems
capacity: from 12 - 600 litres

Advantages

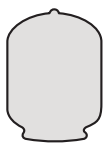
A complete range of tanks suitable for solar systems. Each model features a butyl membrane.

Technical features

These membrane expansion vessels are manufactured in accordance with PED 97/23/EC and EN 13831 standards and are suitable for solar systems according to DIN 4757 and EN 12977. The vessels are fitted with a special solar membrane designed as a diaphragm, which separates the gas from the solar liquid.

Certification





expansion vessels for solar systems



SOLAR-PLUS

Technical and dimensional data

Code	Colour	Capacity (Ltr)	Ø Diameter	Height	Connection
11A2001210	White	12	270mm	264mm	¾"G
11A2001811	White	18	270mm	350mm	¾"G
11A2002506	White	25	300mm	392mm	¾"G
11A2003304	White	35*	380mm	367mm	¾"G
11A2005002	White	50*	380mm	505mm	¾"G
11A2008001	White	80	450mm	608mm	1"G
11A2010503	White	105	500mm	665mm	1"G
11A2015000	Red	150	500mm	897mm	1"G
11A2020000	Red	200	600mm	812mm	1"G
11A2025000	Red	250	630mm	957mm	1"G
11A2030000	Red	300	630mm	1105mm	1"G
11A2040000	Red	400	630mm	1450mm	1"G
11A2050000	Red	500	750mm	1340mm	1"G
11A2060000	Red	600	750mm	1555mm	1"G

* with feet

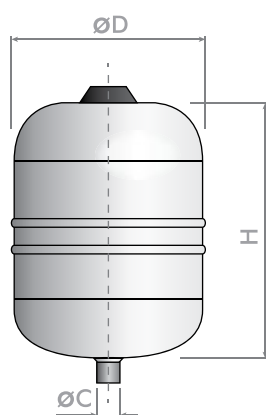
Material description

Description	Material
Shell	Carbon steel
Connectors	Carbon steel
Membrane	Zilon solar membrane
Colour	White/Red

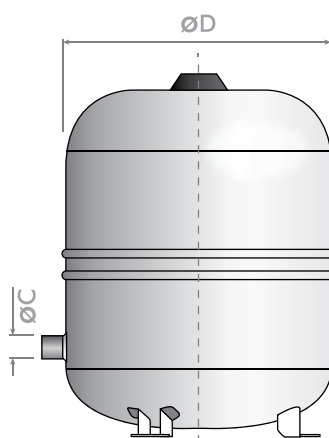
Operating conditions

Maximum operating pressure	10 bar
System operating temperature	-10° to +110°C
Factory pre-charge	2.5 bar

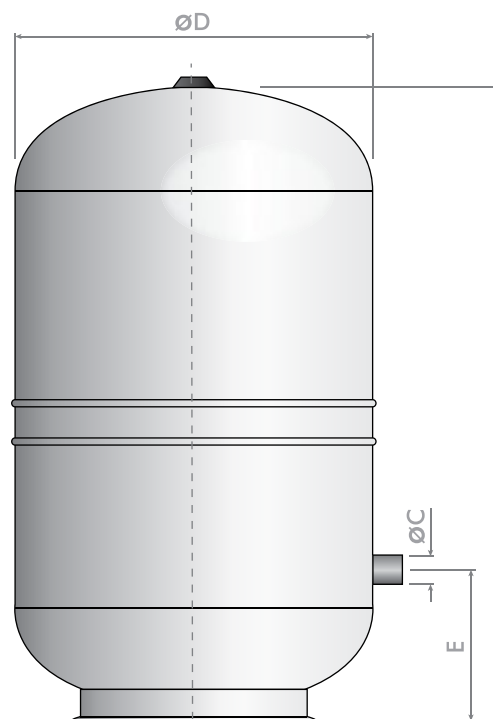
Technical drawings



12 - 25 Litres



35 - 50 Litres



80 - 600 Litres



SOLARPLUS TM

expansion vessel for solar systems with replaceable membrane
capacity: from 12 - 500 litres

Advantages

Solarplus TM is a range of vertical vessels with a bottom flange, allowing the membrane to be replaced when necessary.

Technical and dimensional data

Code	Capacity (ltr)	Ø Diameter	Height	Connection
11H2001200	12	270mm	296mm	¾"G
11H2001800	18	270mm	387mm	¾"G
11H2002400	24	270mm	461mm	¾"G
11H2008000	80	450mm	830mm	1"G
11H2010000	100	450mm	910mm	1"G
11H2020000	200	550mm	1235mm	1½"G
11H2030000	300	630mm	1365mm	1½"G
11H2050000	500	750mm	1560mm	1½"G

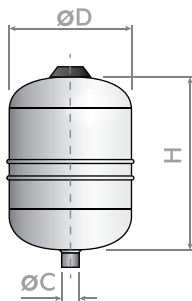


Accessories

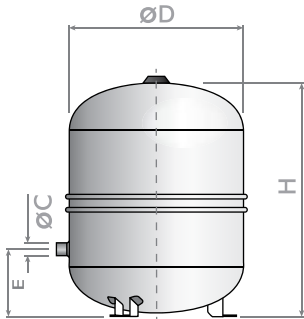
Zilmét offers various accessories for all working conditions of solar energy systems. These accessories allow for the quick and safe replacement of the tank as well as the addition of another tank. The stop valve with discharge makes the annual pressure check just a matter of a few minutes.

Code	Description	Connection
912508	Universal bracket for wall assembly up to 25 litres	-
912503	Fast assembly for 35 and 50 litres	-
910105	Butterfly solar valve completely in metal	¾"G
910106	Butterfly solar valve completely in metal	1"G
930106	Fast escape clutch	-
944007	Connecting vessel set, made up of flexible pipe 0.5m, butterfly solar valve and wall support.	-

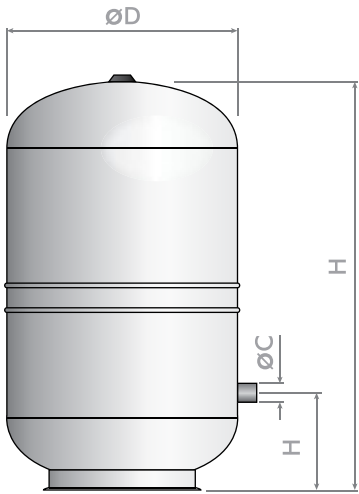
Technical drawings



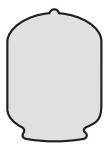
12 -24 Litres



35 - 50 Litres



80 - 600 Litres



expansion vessels for solar systems



VSG VESSEL

expansion vessel for temperature reduction in solar systems

capacity: from 5 - 200 litres

Advantages

An additional tank is recommended for solar systems when the fluid volume between the collector and the expansion vessel is approximately 50% or less than the "wet" side volume. The additional tank protects the membrane from excessive temperatures by allowing a decrease in temperature of the solar liquid in the expansion system.



Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Connection
11A0000512	5	160mm	270mm	No2 x 3/4"G
11A0000837	8	200mm	280mm	No2 x 3/4"G
11A0001216	12	270mm	264mm	No2 x 3/4"G
11A0001836	18	270mm	349mm	No2 x 3/4"G
11A0003510	35	300mm	367mm	No2 x 3/4"G
11A0005022	50	380mm	505mm	No2 x 3/4"G
11A0010158	105	380mm	665mm	No2 x 1"G
11A0020013	200	500mm	812mm	No2 x 1"G

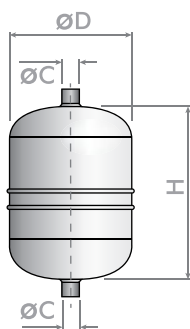
Material description

Description	Material
Shell	Carbon steel
Connectors	Carbon steel
Colour	White

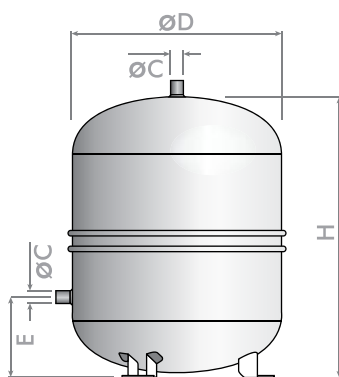
Operating conditions

Maximum operating pressure	10 bar
Operating temperature	minus 10° - 110° C

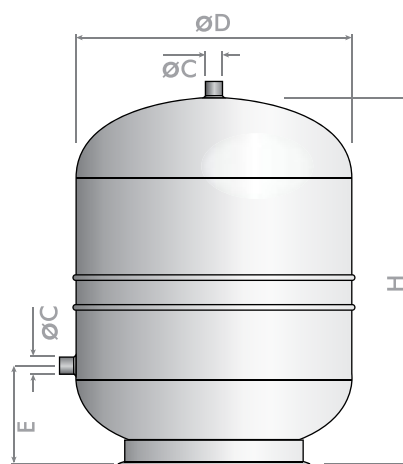
Technical drawings



5 - 18 Litres



35 - 50 Litres



105 - 200 Litres



SOLAR-PLUS SAFE

expansion vessels for solar systems
capacity from 18 to 50 litres

Advantages

Solar-Plus Safe is a product which combines Solar-Plus and VSG vessels into only one vessel. This vessel is suitable for use in solar systems according to EN 12976 and EN 12977 (DIN 4757). The vessel ensures safe operation even in the case of excessive temperatures.

Technical and dimensional data

Code	Capacity (ltr)	Ø Diameter	Height	Connection
11A2001822	18 solar + 6 VSG	270mm	453mm	¾" G
11A2002522	25 solar + 10 VSG	300mm	526mm	¾" G
11A2003319	35 solar + 12 VSG*	380mm	480mm	¾" G
11A2005010	50 solar + 15 VSG*	380mm	650mm	¾" G

* with feet

Material description

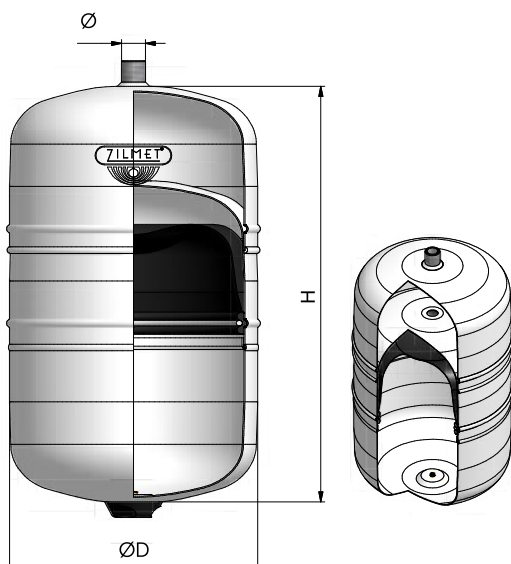
Description	Material
Shell	Carbon steel
Connectors	Carbon steel
Colour	White epoxy powder coating

Operating conditions

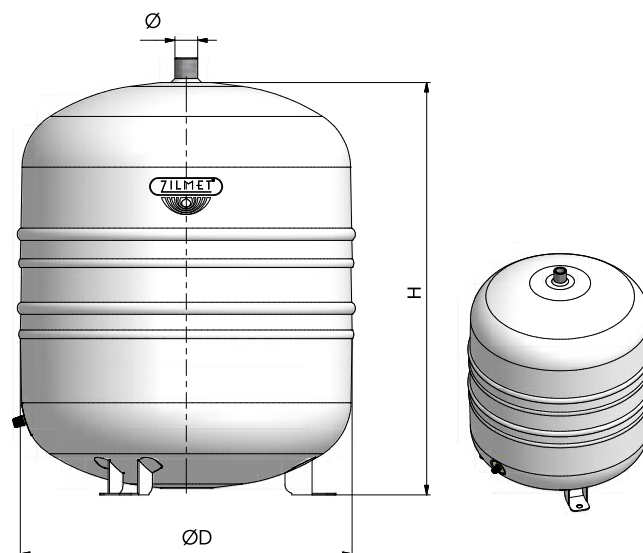
Maximum operating pressure	10 bar
Factory pre-charge	2.5 bar
Maximum temperature on the membrane	100°C
Membrane	Zilan membrane
Approval	European directive 97/23/EC

Technical drawings

(12L SOLAR + 3.5L VSG)
(18L SOLAR + 6L VSG)
(25L SOLAR + 10L VSG)



(35L SOLAR + 12L VSG) W.F.

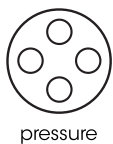




pressure

expansion vessels for
pressure maintaining

The de-gassing and automatic
reintegration allows the system to
operate in conditions that permit
efficiency and energy consumption
optimisation



pressure

expansion vessels for pressure maintaining



MATIC-PRO

pressure maintaining station with automatic
water make-up and deaeration
capacity: from 300 - 1000 litres

Advantages

The de=gassing and automatic reintegration allows the system to operate in conditions which permit efficiency and energy consumption.

Technical features

The main feature of MATIC-PRO is pressure maintenance, along with increased volume and liquid compensation in heating and air conditioning systems. It is made up of a pump group (one or two high pressure centrifugal pumps) equipped with both soft start and stop, preventing extreme pressure variations. Included, is a system of modulating valves and non-pressurised tank.

The system is regulated by a control panel with a micro processor.
Maximum working pressure: 10 bar.





expansion vessels for pressure maintaining

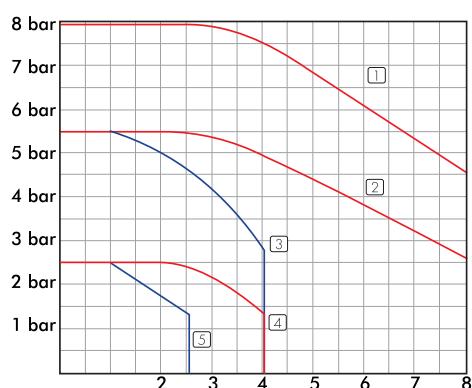


pressure

MATIC-PRO

Technical and dimensional data

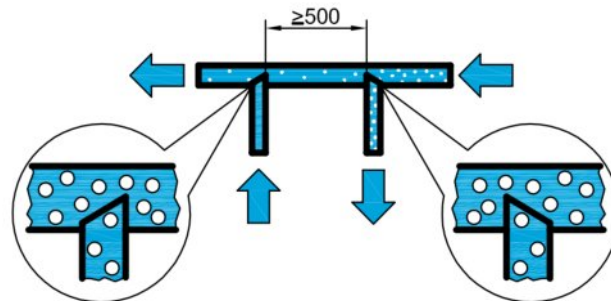
Code	H max	Pump	Soft start	Power	Size (mm)
1M10351001	35mm	1 nr	YES	0.7kw	460 x 650 x 700
1M10551001	55mm	1 nr	YES	0.9kw	460 x 650 x 700
1M20351001	35mm	2 nr	YES	1.4kw	460 x 650 x 700
1M20551001	55mm	2 nr	YES	1.8kw	460 x 650 x 700
1M20951001	95mm	2 nr	YES	2.2kw	460 x 650 x 700



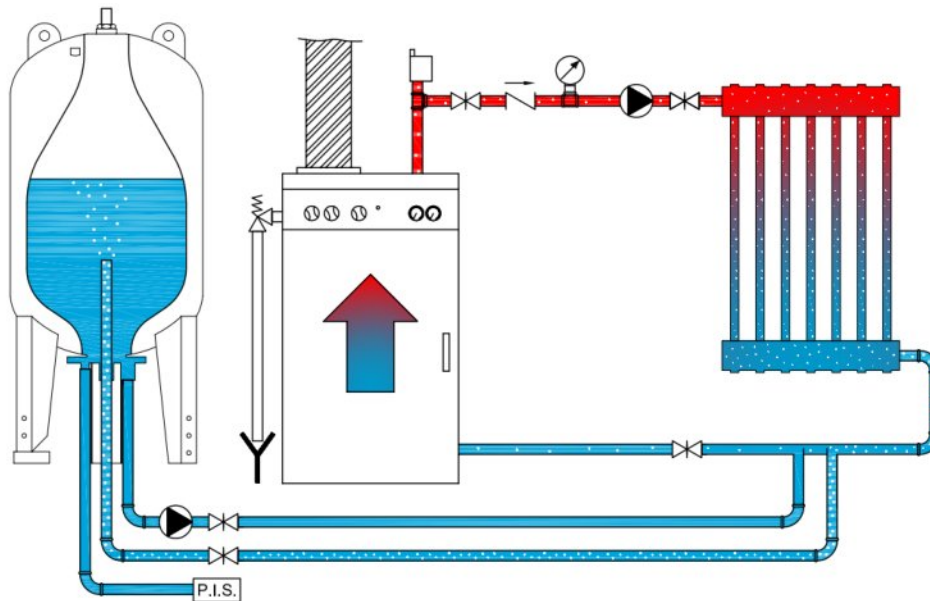
- 1 MATIC PRO 2 - 95
- 2 MATIC PRO 2 - 55
- 3 MATIC PRO 2 - 95
- 4 MATIC PRO 2 - 35
- 5 MATIC PRO 2 - 95

- Pressure maintain
- Automatic filling
- Central degassing
- Security system
- Saving storage volume

Connection scheme



Degassing cycle principle



Zilmet UK general information

Office hours:	Monday to Friday 8.30am to 5.00pm
Prices:	Prices shown on our price list are exclusive of VAT and are subject to change without notice. All prices are recognised as list.
Terms:	A copy of Zilmet UK's terms and conditions is available at the Zilmet UK website:- www.zilmet.co.uk .
Property of goods:	Until full payment is received, all goods supplied remain the property of Zilmet UK.
Ordering:	If the nett order value is less than £100.00, a small order charge of £7.50 will be applied.
Delivery:	Carriage paid 3 day service - UK mainland only. Overnight delivery available at extra cost. Please enquire at time of ordering.

Customer care notice:

In-warranty claims and authorised good stock returns, collected and processed within 28 days of written notification. Warranty is 5 years from date of purchase and is limited to replacement (product) value only. Please note that re-handling charges are applicable on good stock returns.

Important notes:

1. A standard re-handling charge of 20% of nett value of product authorised for good stock returns.
2. Goods returned to Zilmet UK without authorisation or correct paperwork may not be accepted for processing.
3. Warranty claims are subject to proof that the product has been correctly installed in accordance with installation instructions and good working practice.
4. Warranty claims exceeding £50.00 can only be authorised by the Zilmet UK customer care department.
5. As a part of our quality procedure, we validate a warranty claim by product test procedures.

Directions to our offices and warehouses

If you have SatNav, enter our postcode - ST18 0PF. The SatNav may claim that we are in an unreachable area. But we are not!

The nearest major road is the A51 which runs between Lichfield and Stone in Staffordshire. The nearest motorways are the M6 to the west and the M1 to the east. The following directions will enable you to navigate from either to the A51 and then to our location.

From M6 to A51

Leave the M6 at junction 14 and follow signs for RAF Stafford and The University. This will take you onto the A518 towards Uttoxeter. Follow this road to Weston. At the main junction with the A51, turn right towards Hixon and Rugeley.

From M1 to A51

Leave the M1 at junction 24a and take the A50 towards Uttoxeter. At Uttoxeter, take the A518 towards Stafford, until reaching the junction with the A51 at Weston. Turn left onto the A51 towards Hixon and Rugeley.

From the A51 to us

A mile or so after joining the A51 at Weston, take the left turn signed Hixon and Airfield Industrial Estate.

Cross the railway bridge and continue for approx ¼ mile and turn left into the estate on reaching the building signed "Central Fasteners".

After entering the estate, follow the road and take the second right, signed SandMaster. Follow the road for 150 yards and you'll see our offices located on the right hand side.



Zilan N
for standard heating vessels

Zilan LP
Low permeability for special
high-quality flat vessels

ZILAN

membranes

Zilan DW
drinking water for
sanitary vessels

Zilan HT
High temperature for
solar vessels



heating



potable



sanitary

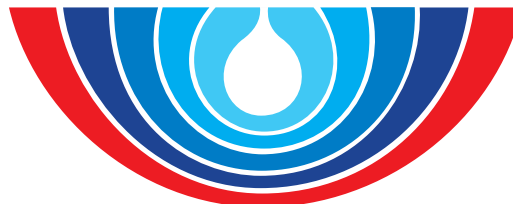


solar



pressure

ZILMET®



 made in italy - globally renowned



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Hixon, Staffordshire ST18 0PF

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e: sales@zilmet.co.uk
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