

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



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## 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 broad range available meets the requirements of various heating system sizes.

### Technical features

Crimped or welded carbon steel shells, synthetic SBR rubber according to DIN 4807-3 norms are suitable to every capacity for maximising tank drawdown. 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 of its temperature is absorbed by the expansion vessel. When water is cold, the precharge pressure of the tank presses the diaphragm against the tank. As temperature increases, the expanded water volume pushes against the membrane and water enters the tank, providing additional space to the system. With the temperature decrease, 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



## Technical and dimensional data

Model	Our ref	Market ref	Capacity (Ltr)	Ø Diameter	Height	E	Connection
CAL-PRO 4	130000400B	Z1-301004	4	225 mm	195 mm	-	3/4" G
CAL-PRO 8	130000800B	Z1-301008	8	220 mm	295 mm	-	3/4" G
CAL-PRO 12	1300001200B	Z1-301012	12	294 mm	281 mm	-	3/4" G
CAL-PRO 18	1300001800B	Z1-301018	18	290 mm	400 mm	-	3/4" G
CAL-PRO 24	1300002400B	Z1-301024	24	324 mm	415 mm	-	3/4" G
CAL-PRO 35	1300003500		35	404 mm	408 mm	-	3/4" G
CAL-PRO 35*	1300003503	Z1-302035CP	35	404 mm	387 mm	119	3/4" G
CAL-PRO 50	1300005000		50	407 mm	530 mm	-	3/4" G
CAL-PRO 50*	1300005003	Z1-302050CP	50	407 mm	507 mm	157	3/4" G
CAL-PRO 80	1300008000	Z1-302080	80	450 mm	608 mm	150	3/4" G
CAL-PRO 105	1300010500	Z1-302105	105	500 mm	665 mm	165	3/4" G
CAL-PRO 150	1300015000	Z1-302150	150	500 mm	897 mm	216	3/4" G
CAL-PRO 200	1300020000	Z1-302200	200	600 mm	812 mm	225	3/4" G
CAL-PRO 250	1300025000	Z1-302250	250	630 mm	957 mm	245	3/4" G
CAL-PRO 300	1300030000	Z1-302300	300	630 mm	1105 mm	245	3/4" G
CAL-PRO 400	1300040000	Z1-302400	400	630 mm	1450 mm	245	3/4" G
CAL-PRO 500	1300050000	Z1-302500	500	750 mm	1340 mm	290	1" G
CAL-PRO 600	1300060000	Z1-302600	600	750 mm	1555 mm	290	1" G
CAL-PRO 700	1300070000	Z1-302750	700	750 mm	1755 mm	290	1" G
CAL-PRO 800	1300080000		800	750 mm	1855 mm	290	1" G
CAL-PRO 900	1300090000		900	750 mm	2105 mm	290	1" G

\* With feet

NB: CAL-PRO vessels 4 litre to 24 litre are sold complete with bracket

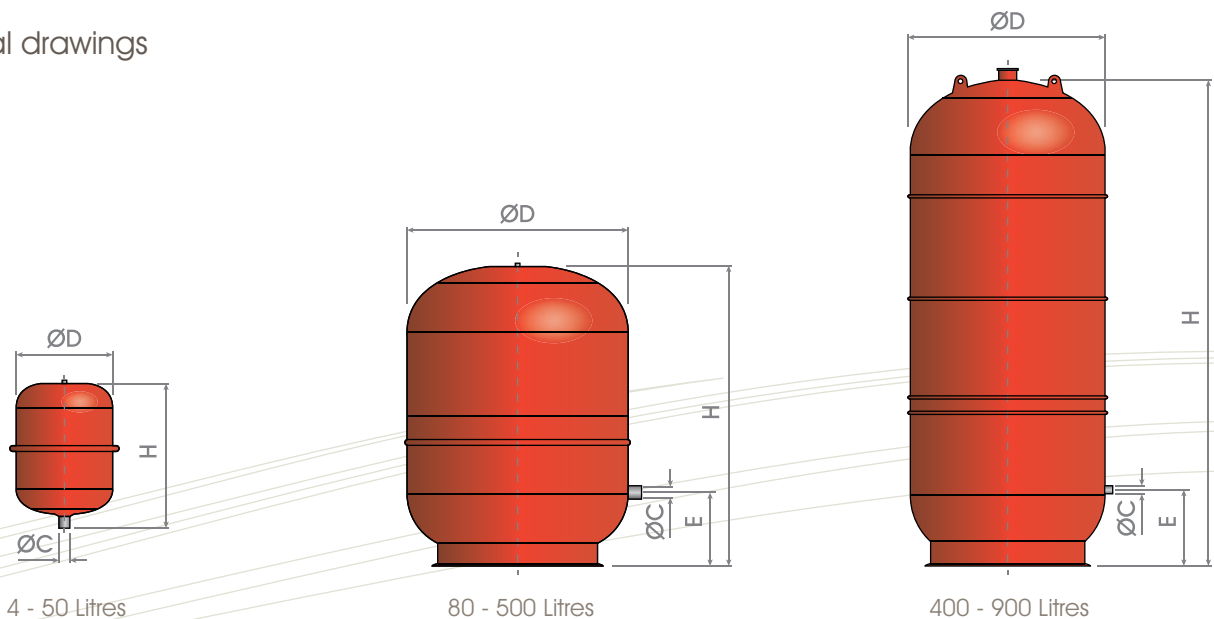
## Material description

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

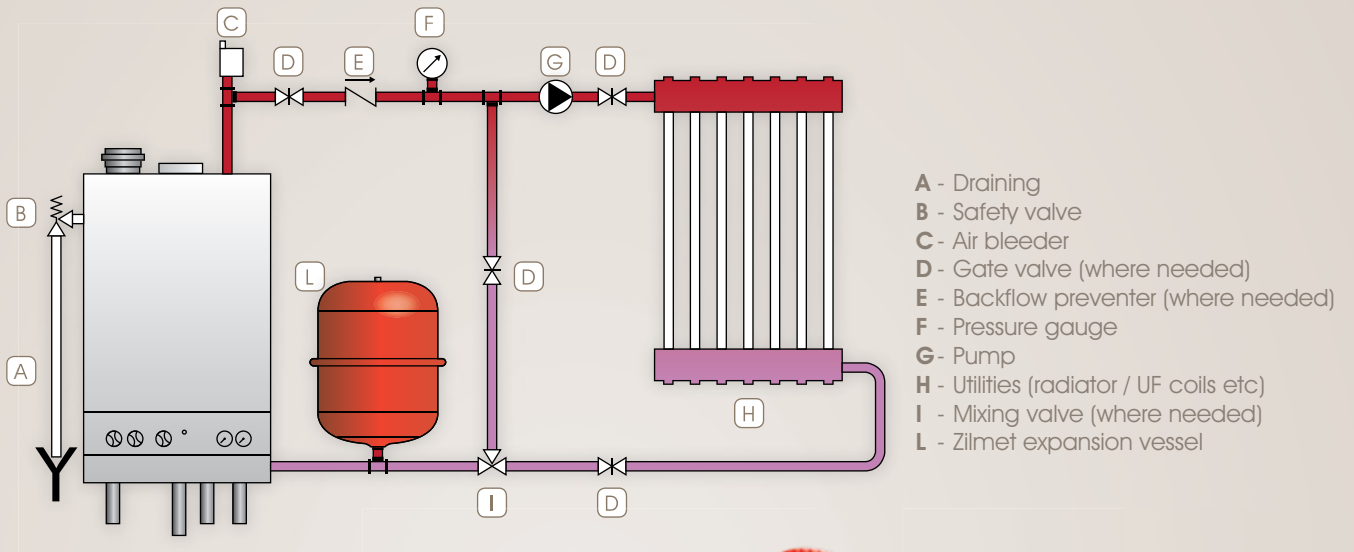
## Operating conditions

Maximum working pressure 4-8 litres	5 bar
Maximum working pressure 12-50 litres	4 bar
Maximum working pressure 80-900 litres	6 bar
Maximum operating temperature	90°C
Factory precharge 4-8 litres	1.5 bar
Factory precharge 12-50 litres	2 bar
Factory precharge 80-900 litres	2.5 bar

## Technical drawings



Assembly diagram



SEALED SYSTEM KIT

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

Our reference: ZKITA075

N.B. CAL-PRO vessels 4 litre - 24 litre are complete with bracket



for illustrative purposes only





heating

## EASY-PRO



expansion vessels  
for heating systems

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



## 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 is without corners to trap sediment.

### Working

The Zilmet EASY-PRO tank leaves the factory already tested and pre-pressurised. 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 of its temperature is absorbed by the expansion vessel. When water is cold, the precharge pressure of the tank presses the diaphragm against the tank. As temperature increases, the expanded water volume pushes against the membrane and water enters the tank, providing additional space to the system. With the temperature decrease, 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.



## Technical and dimensional data

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

## Material description

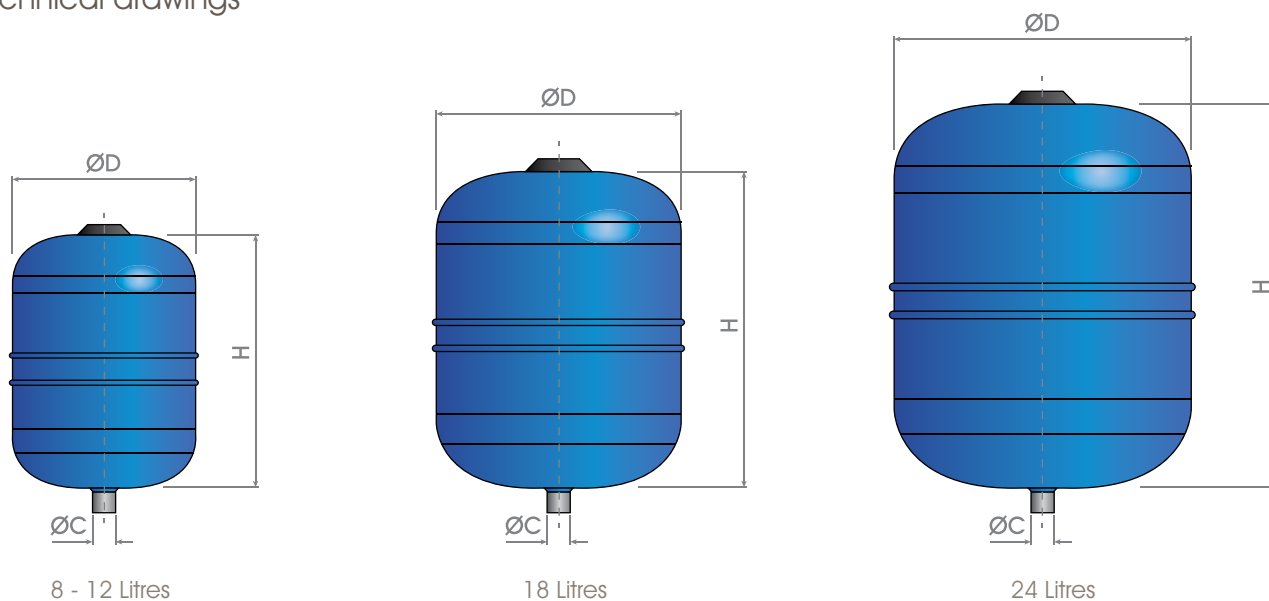
Description	Material
Shell	Carbon Steel
Liner	Polypropylene
Connections	Stainless Steel
Membrane	Chlorobutyl**
Colour	Blue / White

\*\*For alimentary purposes

## Operating conditions

Maximum working pressure	10 bar
Maximum operating temperature	70°C
Factory precharge	2 bar

## Technical drawings



## Vessel Volume

Precharge (psi)		20	40	60	80	100	120	140	150
Model									
US Gal	Litres	Acceptance volume (US Gal) with 150 psi applied pressure							
2.11	8	1.56	1.27	1.03	0.79	0.55	0.35	0.15	0.11
3.17	12	2.46	2.11	1.82	1.32	1.06	0.57	0.23	0.16
4.76	18	3.30	2.77	2.24	1.98	1.40	0.80	0.35	0.24
6.34	24	4.89	4.09	3.30	2.64	1.72	1.10	0.46	0.32

## Vessel choice

Selection table for:	Maximum working temperature °C					
	50	60	70	80	90	99
$P_{PREC} = 2 \text{ bar}$	Coefficient of water expansion with respect to 10°C					
$P_{MAX} = 5 \text{ bar}$	0.012	0.017	0.022	0.029	0.036	0.043
System capacity	Minimum theoretical volume / recommended vessel volume					
75 Litres	-	-	-	-	5.3 / 8	6.5 / 8
100 Litres	-	-	-	5.7 / 8	7.1 / 8	8.6 / 12
125 Litres	-	-	5.6 / 8	7.2 / 8	8.9 / 12	10.8 / 12
150 Litres	-	5 / 8	6.7 / 8	8.6 / 12	10.7 / 12	13 / 18
175 Litres	-	5.9 / 8	7.9 / 8	10.1 / 12	12.5 / 18	15.1 / 18
200 Litres	-	6.7 / 8	9 / 12	11.5 / 12	14.3 / 18	17.3 / 18
250 Litres	5.9 / 8	8.4 / 12	11.2 / 12	14.4 / 18	17.8 / 18	21.6 / 24

The formula for the calculation is:  $V = e C [1 - ((P_{PREC} + 1) / (P_{MAX} + 1))]$

$V$  = Volume of the vessel (litres)    $e$  = Coefficient of water expansion    $C$  = System water volume (litres)

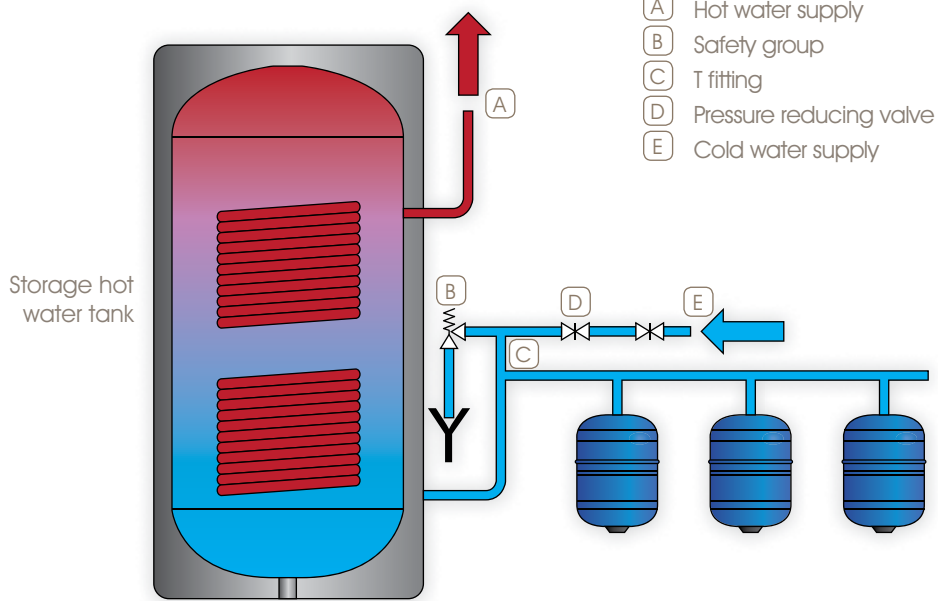
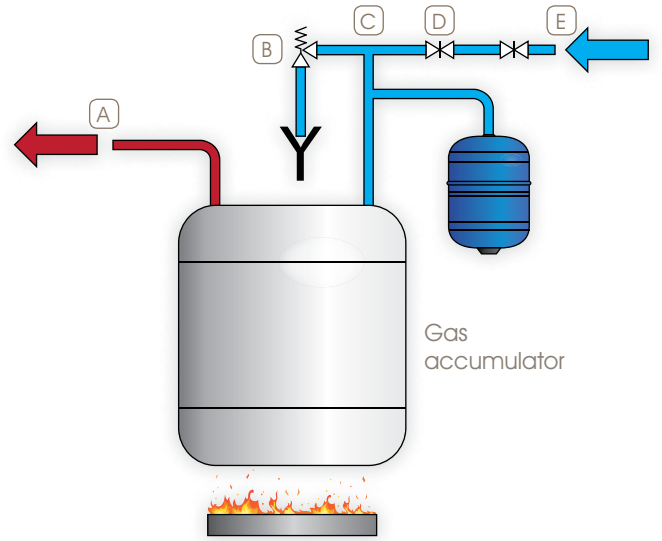
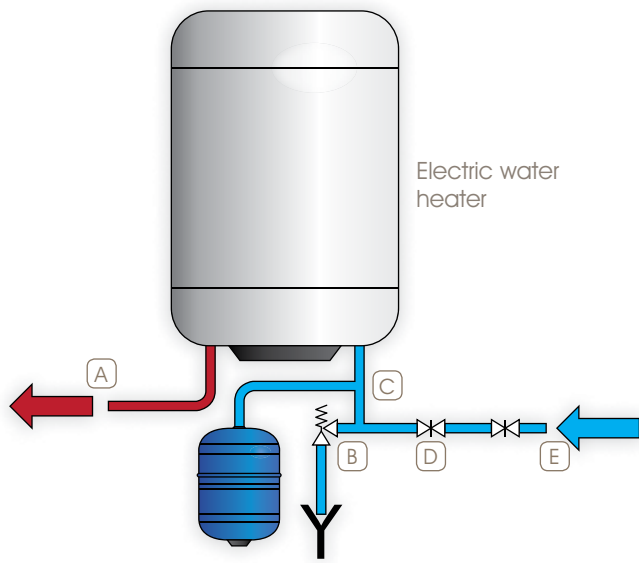
$P_{MAX}$  = System pressure (bar)    $P_{PREC}$  = Precharge pressure (bar)

### ATTENTION

The calculation, that is valid provided that the expansion vessel and the safety valve are at the same height, gives only an approximation of the volume needed for the expansion vessel and, anyway, has to be verified by a specialized and authorized technician for keeping into account the real characteristics of the system and of the used fluid. The choice of the vessel has to be made considering that its max. working pressure must be at least equal to the max. system pressure (pressure setting of the safety valve).



# Application examples



- (A) Hot water supply
- (B) Safety group
- (C) T fitting
- (D) Pressure reducing valve
- (E) Cold water supply



## OEM-PRO

expansion vessel for boilers  
capacity: from 6 - 24 litres

### Advantages

The wide range of vessels (shapes, capacity, connection and attachment systems) makes this line satisfy any boiler manufacturers specific requirements.

Added to this line are also high quality and compact expansion vessels suitable for sanitary circuits of boilers.

### Technical features

Crimped or welded carbon steel shells. Synthetic SBR rubber according to DIN 4807-3 norms are suitable to every capacity for maximising tank drawdown. 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 of its temperature is absorbed by the expansion vessel. When water is cold, the precharge pressure of the tank presses the diaphragm against the tank. As temperature increases, the expanded water volume pushes against the membrane and water enters the tank, providing additional space to the system. With the temperature decrease, 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



### Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	Precharge	Connection
13B6000713	7	387 mm	90 mm	3 bar	1 bar	3/8" G
13B6000802	8	387 mm	100 mm	3 bar	1 bar	3/8" G
13B6001000	10	387 mm	110 mm	3 bar	1 bar	3/4" G
13B6001200	12	387 mm	140 mm	3 bar	1 bar	3/4" G
13B6001400	14	387 mm	150 mm	3 bar	1 bar	3/4" G
13B0001800	18	387 mm	200 mm	3 bar	1 bar	3/4" G

### Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Red / Silver

### Drawing 531/L



### Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	Precharge	Connection
13A6000600	6	324 mm	103 mm	3 bar	1 bar	3/4" G
13A6000800	8	324 mm	130 mm	3 bar	1 bar	3/4" G
13A6001000	10	324 mm	140 mm	3 bar	1 bar	3/4" G
13A6001200	12	324 mm	170 mm	3 bar	1 bar	3/4" G

### Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Red

### Drawing 541/L



### Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	Precharge	Connection
13C0000600	6	392 mm	61 mm	3 bar	1 bar	3/8" G
13C0000800	8	392 mm	81 mm	3 bar	1 bar	1/2" G
13E6001000	10	389 mm	92 mm	3 bar	1 bar	1/2" G

### Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Red

### Drawing 521/L



### Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	Precharge	Connection
13D0000803	8	416 mm	75 mm	3 bar	1 bar	3/8" G

### Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Red

### Drawing 522/L



### Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	Precharge	Connection
13F0000600	6	337 mm	76 mm	3 bar	1 bar	3/8" G

### Operating conditions

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

### Drawing 533



### Technical and dimensional data

Code	Capacity (Ltr)	Dimensions	Height	Max pressure	Precharge	Connection
13N6000600	6	492 x 203 mm	105 mm	3 bar	1 bar	3/4" G
13N600FG00	7.5	492 x 203 mm	118 mm	3 bar	1 bar	3/4" G
13N6001000	10	492 x 203 mm	150 mm	3 bar	1 bar	3/4" G
13N6001200	12	492 x 203 mm	170 mm	3 bar	1 bar	3/4" G

### Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Red

### Drawing 537/L



### Technical and dimensional data

Code	Capacity (Ltr)	Dimensions	Height	Max pressure	Precharge	Connection
13N6000810	8	561 x 203 mm	80 mm	3 bar	1 bar	3/8" G
13N0001001	10	561 x 203 mm	90 mm	3 bar	1 bar	3/8" G

### Operating conditions

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

### Drawing 537/XL



### Technical and dimensional data

Code	Capacity (Ltr)	Dimensions	Height	Max pressure	Precharge	Connection
13S0000804	8	438 x 250 mm	95 mm	3 bar	1 bar	3/8" G

### Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Red

### Drawing 539/L





### Technical and dimensional data

Code	Capacity (Ltr)	Dimensions	Height	Max pressure	Precharge	Connection
13M0001002	10	518 x 232 mm	100 mm	3 bar	1 bar	3/8"G

### Operating conditions

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

### Drawing 518



### Technical and dimensional data

Code	Capacity (Ltr)	Dimensions	Height	Max pressure	Precharge	Connection
13Q6001204	12	435 x 342 mm	100 mm	3 bar	1 bar	3/4"G
13Q2001800	18	445 x 350 mm	158 mm	3.5 bar	1 bar	3/4"G
13Q2002400	24	445 x 350 mm	178 mm	3.5 bar	1 bar	3/4"G

### Operating conditions

Maximum working pressure	3 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Red

### Drawing P637/L



### Technical and dimensional data

Code	Capacity (Ltr)	Dimensions	Height	Max pressure	Precharge	Connection
13L0000801	8	561 x 232 mm	81 mm	3 bar	1 bar	1/2"G

### Operating conditions

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

### Drawing 539/XL



### Technical and dimensional data

Code	Capacity (Ltr)	Dimensions	Height	Max pressure	Precharge	Connection
1500000203	2	121 x 83 mm	291 mm	8 bar	3.5 bar	1/2"G SST
1500000300	3	121 x 83 mm	454 mm	8 bar	3.5 bar	1/2"G SST
1500000413	4	121 x 83 mm	602 mm	8 bar	3.5 bar	1/2"G SST

### Operating conditions

Maximum working pressure	8 bar
Maximum operating temperature	90°C
Factory precharge	1 ± 20% bar
Colour	Silver

### Drawing 564



### Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	Precharge	Connection
15H0000200	2	93 mm	401 mm	10 bar	3.5 bar	1/2" G
15H0000300	3	93 mm	493 mm	10 bar	3.5 bar	1/2" G
15H0000400	4	93 mm	603 mm	10 bar	3.5 bar	1/2" G

### Operating conditions

Maximum working pressure	10 bar
Maximum operating temperature	90°C
Factory precharge	3.5 bar
Colour	Silver

### Drawing 564/F



### Technical and dimensional data

Code	Capacity (Ltr)	Ø Diameter	Height	Max pressure	Precharge	Connection
11A0000200	2	142mm	196mm	10 bar	3.5 bar	1/2" G
11A0000204	2	125mm	187mm	10 bar	3.5 bar	1/2" G
11A0000300	3	125mm	255mm	10 bar	3.5 bar	1/2" G

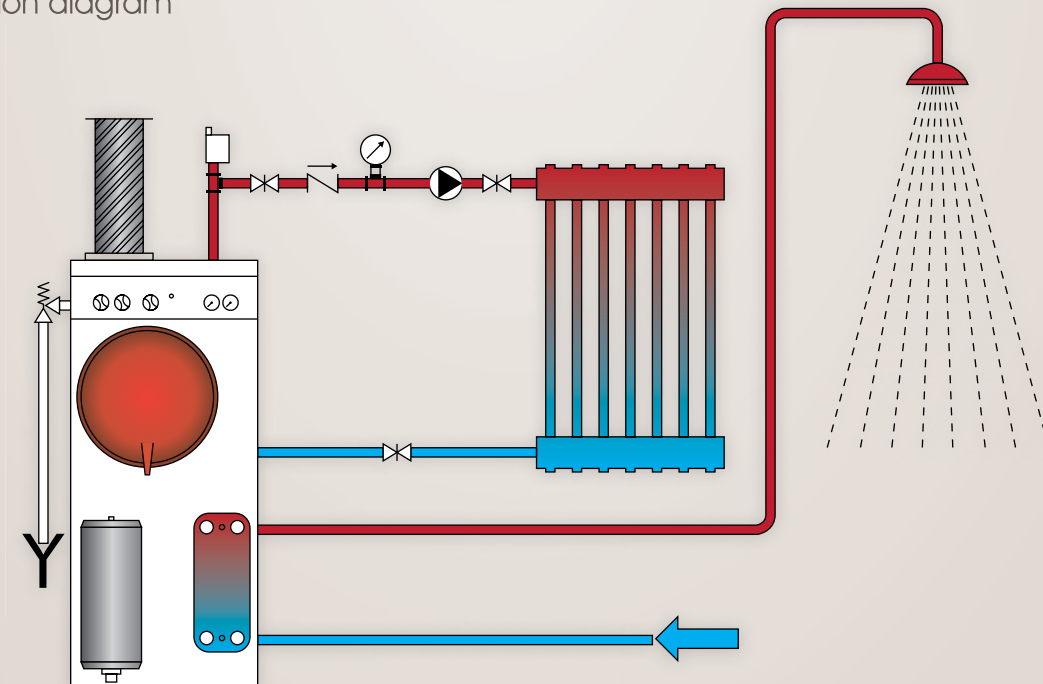
### Operating conditions

Maximum working pressure	10 bar
Factory precharge	3.5±20% bar
Nominal volume	2 litre
Colour	Silver

### Drawing 20016



### Application diagram





potable

## INOX-PRO



expansion vessels  
for potable water

The use of stainless steel and butyl membrane are the main features of this range of expansion vessels. Suitable for potable water (including alimentary purposes) as for cold or hot water with temperatures between  $-10^{\circ}\text{C}$  and  $90^{\circ}\text{C}$





## 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.

### Technical features

The use of stainless steel with a membrane, which is suitable for alimentary purposes, as for cold and hot water with temperatures between -10°C - 90°C. The range of stainless steel expansion vessels we produce is equipped with a non toxic membrane suitable for contact with drinking water according to the British WRAS/WRC and French ACS regulations. The high quality of materials, efficient manufacturing procedures and continuous quality control these stainless steel expansion vessels allow long lasting operation with little need for special maintenance.

### Certification





## Technical and dimensional data

Model	Code	Capacity (Ltr)	Ø Diameter	Height	Maximum Pressure	Precharge	Connection
INOX - PRO Z 160	11B000AA00	0.16	82 mm	72 mm	15 bar	3.5 bar	1/4 - 1/2" G inox
INOX - PRO Z 50	11B000BB00	0.5	94 mm	119 mm	10 bar	3.5 bar	1/2" G inox
INOX - PRO Z 100	11B0000100	1	116 mm	155 mm	10 bar	3.5 bar	1/2" G inox
INOX - PRO Z 200	11B0000201	2	140 mm	196 mm	10 bar	3.5 bar	1/2" G inox
INOX - PRO Z 8	11B0000800	8	198 mm	275 mm	10 bar	2.5 bar	3/4" NPT inox
INOX - PRO Z 12	11B0001200	12	270 mm	270 mm	10 bar	2.5 bar	3/4" G inox
INOX - PRO Z 18	11B0001800	18	270 mm	349 mm	10 bar	2.5 bar	1" G inox

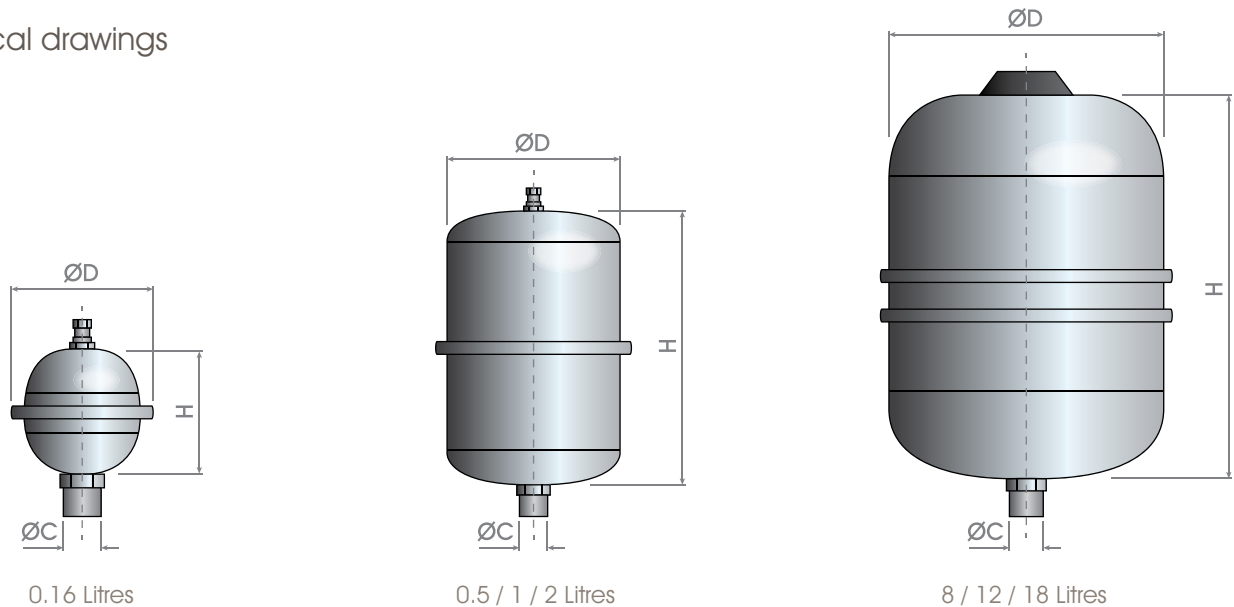
## Material description

Description	Material
Shell	Stainless Steel
Membrane	Butyl
Flange	Stainless Steel

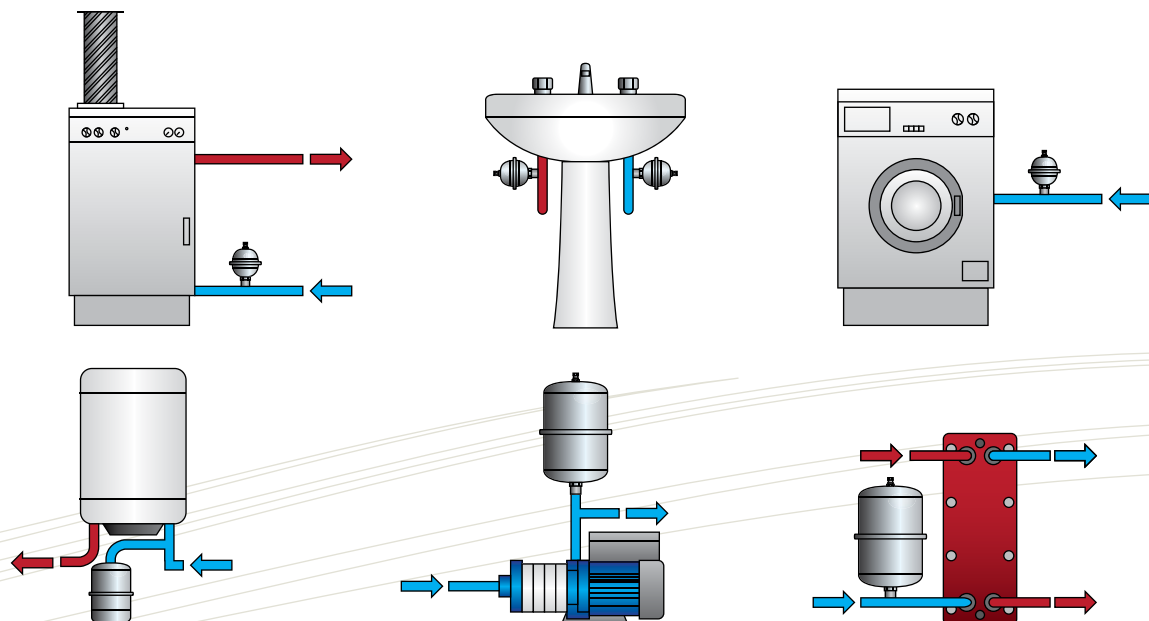
## Operating conditions

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

## Technical drawings



## Application diagrams





## 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. Less footprint at equal water yield, minimum pump starts and saving in energy consumption. The wide range (vertical and horizontal) makes Zilmel pressure tanks suitable for many applications. The tank is supplied already tested and certified by our factory according to 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 stainless steel with a membrane suitable for cold water, hot water and alimentary purposes are the main features of this range of vessels. Our range of stainless steel expansion vessels is equipped with a non toxic membrane suitable for contact with drinking water according to the British WRAS/WRc and French ACS regulations. The high quality of materials, efficient manufacturing procedures and continuous quality control, these stainless steel expansion vessels allow long lasting operation with minimal special maintenance.

### Working

When the pump starts, water enters the membrane tank as system pressure passes the pressure precharge using the available capacity of the tank (only useable 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 logged with water and delivers all water possible, minimum pump starts are assured, saving energy and increasing the pump life.

### Certification



## Technical and dimensional data

Vertical vessels								
Model	Code	Capacity (Ltr)	Ø Diameter	Height	E	Maximum Pressure	Precharge	Connection
ULTRA PRO-INOX 24 V	1110002403	24	270 mm	485 mm	-	10 bar	1.5 bar	3/4" - 1"G
ULTRA PRO-INOX 60 V	1110006002	60	380 mm	860 mm	170 mm	10 bar	1.5 bar	1"G
ULTRA PRO-INOX 100 V	1110010002	100	450 mm	910 mm	153 mm	10 bar	1.5 bar	1"G

Horizontal vessels								
Model	Code	Capacity (Ltr)	Ø Diameter	Height	L	Maximum Pressure	Precharge	Connection
ULTRA PRO-INOX 24 H	1110002402	24	270 mm	290 mm	485 mm	10 bar	1.5 bar	3/4" - 1"G
ULTRA PRO-INOX 60 H	1110006003	60	380 mm	410 mm	640 mm	10 bar	1.5 bar	1"G
ULTRA PRO-INOX 100 H	1110010003	100	450 mm	480 mm	730 mm	10 bar	1.5 bar	1"G

## Material description

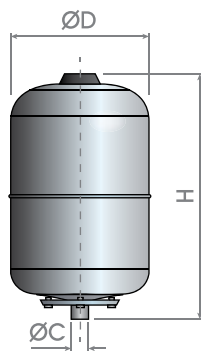
Description	Material
Shell	Stainless Steel
Membrane	Butyl*
Flange	Stainless Steel

\* Replacement membrane for alimentary purposes

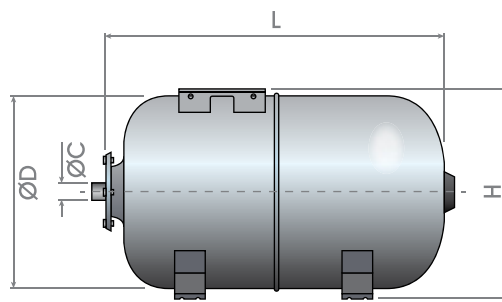
## Operating conditions

Maximum working pressure	10 bar
Maximum working temperature	70°C
Factory precharge	1.5 bar

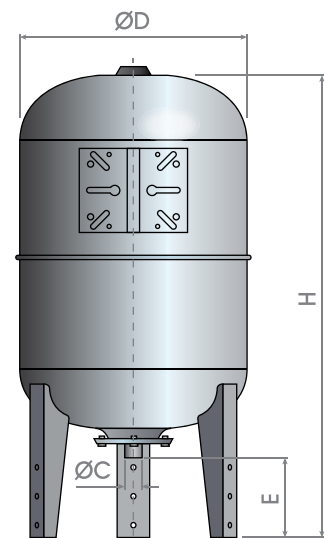
## Technical drawings



24 Litres



100 Litres  
Horizontal



60 - 100 Litres



## ULTRA-PRO EVO

expansion vessel for potable water, pumps and booster sets  
capacity: from 19 - 100 litres

### Advantages

The pressure tanks ULTRA-PRO EVO are suitable for any modern installation. Can be applied to any type of irrigation pump, centrifugal pump and booster sets.

The food-grade membrane is replaceable.

The innovative patented Zilmét flange is made of tecnoprene®, a high performance technopolymer with outstanding technical features.

### Technical features

Zilmét pays constant attention to technological progress and is always on the lookout for market innovation. We have introduced this new product to be included in 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, a material that lends the new flanges great stability, mechanical resistance as well as resistance to temperature variations. Not only is the material highly resistant, but it's also completely recyclable and therefore eco-friendly. This material was certified as food safe by the Food and Drug Administration (FDA).

### Certification



picture 1





## Technical and dimensional data

Vertical vessels								
Model	Code	Capacity (Ltr)	Ø Diameter	Height	E	Maximum Pressure	Precharge	Connection
ULTRA PRO E V	11V0002400	24	270 mm	517 mm	-	10 bar	1.5 bar	1" G
ULTRA PRO E V	11V0005000	50	380 mm	770 mm	148 mm	10 bar	1.5 bar	1" G
ULTRA PRO E V	11V0006000	60	380 mm	860 mm	138 mm	10 bar	1.5 bar	1" G
ULTRA PRO E V	11V0008000	80	450 mm	830 mm	121 mm	10 bar	1.5 bar	1" G
ULTRA PRO E V	11V0010000	100	450 mm	910 mm	121 mm	10 bar	1.5 bar	1" G

Horizontal vessels								
Model	Code	Capacity (Ltr)	Ø Diameter	Height	L	Maximum Pressure	Precharge	Connection
ULTRA PRO E H	11V0001901	19	270 mm	290 mm	397 mm	10 bar	1.5 bar	1" G
ULTRA PRO E H	11V0002401	24	270 mm	290 mm	471 mm	10 bar	1.5 bar	1" G
ULTRA PRO E H	11V0005001	50	380 mm	410 mm	592 mm	10 bar	1.5 bar	1" G
ULTRA PRO E H	11V0006001	60	380 mm	410 mm	672 mm	10 bar	1.5 bar	1" G
ULTRA PRO E H	11V0008001	80	450 mm	480 mm	672 mm	10 bar	1.5 bar	1" G
ULTRA PRO E H	11V0010001	100	450 mm	480 mm	762 mm	10 bar	1.5 bar	1" G

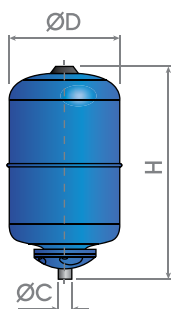
### Material description

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

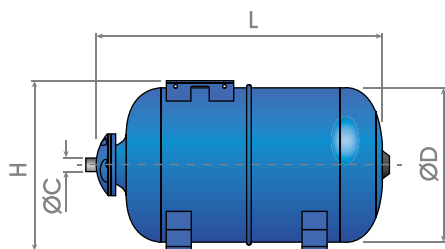
### Operating conditions

Maximum working pressure	10 bar
Maximum working temperature	70°C
Factory precharge	1.5 bar

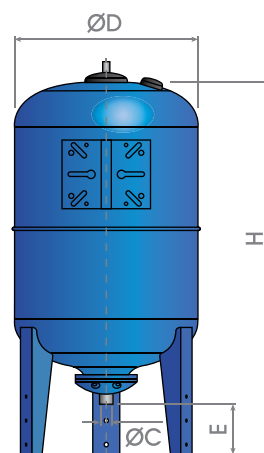
### Technical drawings



24 Litres  
Vertical



19 - 100 Litres  
Horizontal



50 - 100 Litres  
Vertical



## ULTRA-PRO

expansion vessel for potable water, pumps and booster sets  
capacity: from 24 - 3000 litres

### 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 therefore saving energy.

The range of different sizes, availability of vertical and horizontal models, together the choice between galvanised or stainless steel flanges ensure that the 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, which is suitable for alimentary purposes, is fixed at both ends avoiding any possible contact against the inner tank surface.

ULTRA-PRO pressure tanks offer unlimited service as the bladder is easily replaceable.

### Technical features

MIG welded carbon steel body without internal rough spots or sharp edges. Replaceable bladder suitable for use with potable water. Painted externally 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 precharge 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 will be needed again, pressure in the airside will push water into the system. Since Zilmet ULTRA-PRO tank does not water log and delivers all possible water, minimum pump starts are assured with saving on energy consumption and increasing the pump life

### Certification



## Technical and dimensional data

Vertical vessels								
Model	Code	Capacity (Ltr)	Ø Diameter	Height	E	Maximum Pressure	Precharge	Connection
ULTRA PRO 24 V (SPH)	1100002452	24	362 mm	355 mm	-	8 BAR	1.5 BAR	1"G
ULTRA PRO 24 V	1100002418	24	270 mm	485 mm	-	10 BAR	1.5 BAR	1"G
ULTRA PRO 50 V	1100005006	50	380 mm	770 mm	180 mm	10 BAR	1.5 BAR	1"G
ULTRA PRO 60 V	1100006006	60	380 mm	860 mm	170 mm	10 BAR	1.5 BAR	1"G
ULTRA PRO 80 V	1100008006	80	450 mm	830 mm	153 mm	10 BAR	1.5 BAR	1"G
ULTRA PRO 100 V	1100010006	100	450 mm	910 mm	153 mm	10 BAR	1.5 BAR	1"G
ULTRA PRO 100 V (SPECIAL)	1100010020	100	450 mm	910 mm	153 mm	10 BAR	1.5 BAR	1"G
ULTRA PRO 200 V	1100020006	200	550 mm	1235 mm	210 mm	10 BAR	1.5 BAR	1 1/2"G
ULTRA PRO 300 V	1100030006	300	630 mm	1365 mm	188 mm	10 BAR	1.5 BAR	1 1/2"G
ULTRA PRO 500 V	1100050006	500	750 mm	1560 mm	188 mm	10 BAR	1.5 BAR	1 1/2"G
ULTRA PRO 750 V	1100075051	750	750 mm	2075 mm	150 mm	8 BAR	1.5 BAR	1 1/2"G
ULTRA PRO 750 V	1100075057	750	750 mm	2075 mm	150 mm	10 BAR	2 BAR	1 1/2"G
ULTRA PRO 1000 V	1100100052	1000	850 mm	2100 mm	120 mm	6 BAR	1.5 BAR	1 1/2"G
ULTRA PRO 1000 V	1100100056	1000	850 mm	2100 mm	120 mm	8 BAR	2 BAR	1 1/2"G

Horizontal vessels								
Model	Code	Capacity (Ltr)	Ø Diameter	Height	L	Maximum Pressure	Precharge	Connection
ULTRA PRO 24 H	1100002406	24	270 mm	290 mm	485 mm	10 bar	1.5 bar	1"G
ULTRA PRO 50 H	1100005007	50	380 mm	410 mm	560 mm	10 bar	1.5 bar	1"G
ULTRA PRO 60 H	1100006007	60	380 mm	410 mm	640 mm	10 bar	1.5 bar	1"G
ULTRA PRO 80 H	1100008007	80	450 mm	480 mm	640 mm	10 bar	1.5 bar	1"G
ULTRA PRO 100 H	1100010007	100	450 mm	480 mm	730 mm	10 bar	1.5 bar	1"G
ULTRA PRO 200 H	1100020007	200	550 mm	580 mm	985 mm	10 bar	1.5 bar	1 1/2"G
ULTRA PRO 300 H	1100030007	300	630 mm	660 mm	1140 mm	10 bar	1.5 bar	1 1/2"G

### Material description

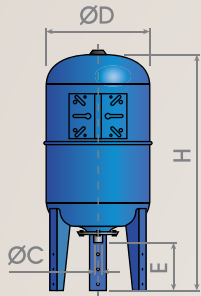
Description	Material
Shell	Carbon Steel
Membrane	Butyl*/EPDM*
Flange	Galvanised / Stainless Steel
Colour	Blue / Red

\* Replaceable membrane for alimentary purposes

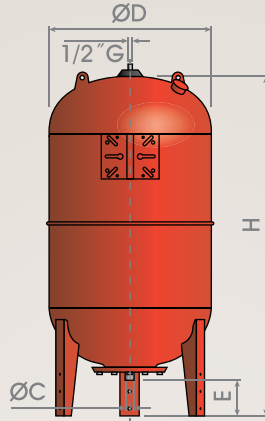
### Operating conditions

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 precharge	1.5 - 2 bar

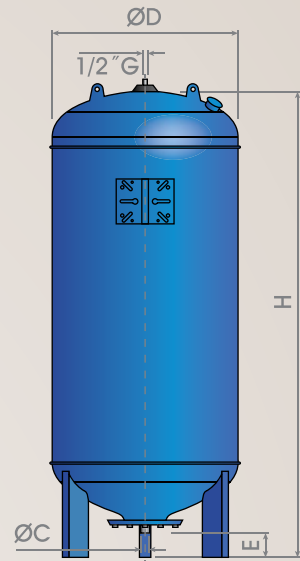
Technical drawings



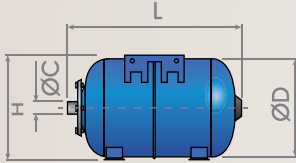
50 - 80 Litres  
Vertical



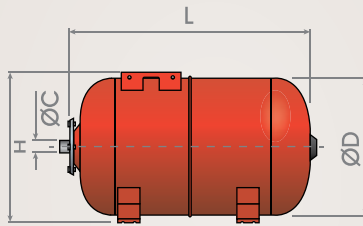
100 - 500 Litres  
Vertical



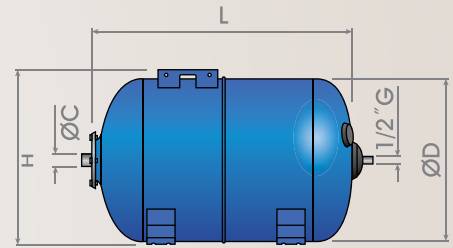
750 - 3000 Litres  
Vertical



24 Litres  
Horizontal



50 - 80 Litres  
Horizontal



100 - 300 Litres  
Horizontal



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 as our characteristic element.



# ULTRA-PRO 16 bar

## Technical and dimensional data

Vertical vessels							
Model	Code	Capacity (Ltr)	Ø Diameter	Height	Maximum Pressure	Precharge	Connection
ULTRA PRO 24 V	11000024B4	24	270 mm	485 mm	16 bar	2 bar	1" G
ULTRA PRO 100 V	1100010055	100	450 mm	910 mm	16 bar	2 bar	1" G
ULTRA PRO 200 V	1100020052	200	550 mm	1235 mm	16 bar	2 bar	1 1/2" G
ULTRA PRO 300 V	1100030048	300	630 mm	1365 mm	16 bar	2 bar	1 1/2" G
ULTRA PRO 500 V	1100050053	500	750 mm	1560 mm	16 bar	2 bar	1 1/2" G
ULTRA PRO 750 V	1100075060	750	750 mm	2075 mm	16 bar	2 bar	1 1/2" G
ULTRA PRO 100 V	1100100060	1000	850 mm	2100 mm	16 bar	2 bar	1 1/2" G

## Material description

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

\* Replaceable membrane for alimentary purposes

## Operating conditions

Maximum working pressure	16 bar
Maximum operating temperature	70°C
Factory precharge	2 bar

## Elastomers

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

## Spare membranes

Model	Code	Capacity (Ltr)
260100020	Z1-260100020	24
1800002403	Z1-1800002403	19 - 24
260100021	Z1-260100021	50
260100001	Z1-260100001	60 - 80
260100002	Z1-260100002	100
260100013	Z1-260100013	100
260100003	Z1-260100003	200
260100004	Z1-260100004	300
260100005	Z1-260100005	500
260100006	Z1-260100006	750 - 1000



## HYDRO-PRO

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

### Advantages

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

### Technical features

Protected precharge valve. Durable steel tank. Deep drawn steel shell for extra strength. MIG welding process eliminates interior 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" through loss of air to the system; no corrosion.

### Certification



## Technical and dimensional data

Model	Our ref	Market ref	Capacity (Ltr)	Ø Diameter	Height	E	Connection
HYDRO PRO 2	11A0000211	ZI-30002S	2	142 mm	196 mm	-	1/2"G
HYDRO PRO 35	11A0003500	ZI-11A0003500	35	380 mm	370 mm	-	1"G
HYDRO PRO 50	11A0005000	ZI-11A0005000	50	380 mm	505 mm	146 mm	1"G
HYDRO PRO 50 H	11A0005002	ZI-11A0005002	50	380 mm	418 mm	-	1"G
HYDRO PRO 50 IN LINE	11A0005017	ZI-11A0005017	50	380 mm	497 mm	-	1"G
HYDRO PRO 80	11A0008000	ZI-11A0008000	80	450 mm	608 mm	150 mm	1"G
HYDRO PRO 105	11A0010500	ZI-11A0010500	105	500 mm	665 mm	165 mm	1 1/4"G
HYDRO PRO 150	11A0015000	ZI-11A0015000	150	500 mm	897 mm	216 mm	1 1/4"G
HYDRO PRO 200	11A0020000	ZI-11A0020000	200	600 mm	812 mm	225 mm	1 1/4"G
HYDRO PRO 250	11A0025000	ZI-11A0025000	250	630 mm	957 mm	245 mm	1 1/4"G
HYDRO PRO 300	11A0030000	ZI-11A0030000	300	630 mm	1105 mm	245 mm	1 1/4"G
HYDRO PRO 400	11A0040000	ZI-11A0040000	400	630 mm	1450 mm	245 mm	1 1/4"G
HYDRO PRO 500	11A0050000	ZI-11A0050000	500	750 mm	1340 mm	290 mm	1 1/4"G
HYDRO PRO 600	11A0060000	ZI-11A0060000	600	750 mm	1555 mm	290 mm	1 1/4"G

## Material description

Description	Material
Shell	Carbon Steel *
Connections	Carbon Steel *
Membrane	Butyl **
Colour	Blue/grey (2 litres)

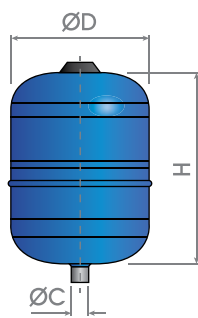
\* Internally coated with powder for alimentary purposes

\*\* For alimentary purposes

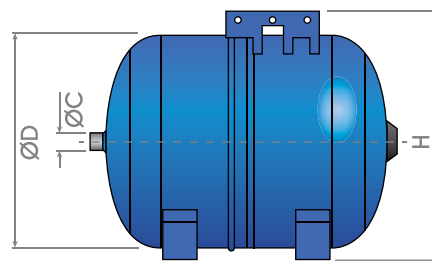
## Operating conditions

Maximum operating pressure	10 bar
Maximum operating temperature	70°C
Factory precharge (2 litres)	3.5 bar
Factory precharge (5 - 8 litres)	3 bar
Factory precharge (12 - 600 litres)	2 bar

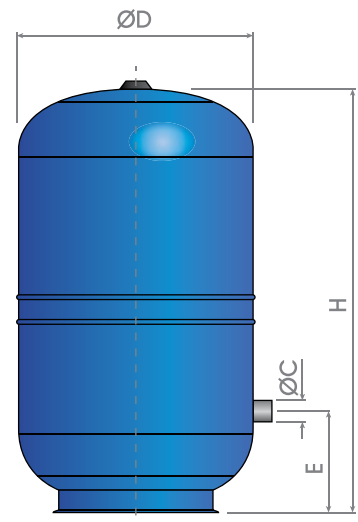
## Technical drawings



2 - 35 Litres



24 - 50 Litres  
Horizontal



50 - 600 Litres



## HY-PRO

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

### Advantages

HY-PRO expansion tanks are equipped with inter-changeable membranes to ensure a long life, with a galvanised flange making the tank suitable for use with aggressive water.

### Working

The membrane guarantees that air and water do not mix, eliminating the possibility of waterlogging 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 precharge pressure of the vessel presses the air cushion and forces 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 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



\*12, 19, 24 litres only



## Technical and dimensional data

Model	Code	Capacity (Ltr)	Ø Diameter	Height	Connection
HY - PRO 2	11H0000200	2	125 mm	214 mm	1/2" G
HY - PRO 8	11H0000800	8	200 mm	322 mm	3/4" G
HY - PRO 12	11H0001200	12	270 mm	295 mm	3/4" G
HY - PRO 19	11H0001900	19	270 mm	390 mm	3/4" G
HY - PRO 24	11H0002400	24	270 mm	470 mm	3/4" G

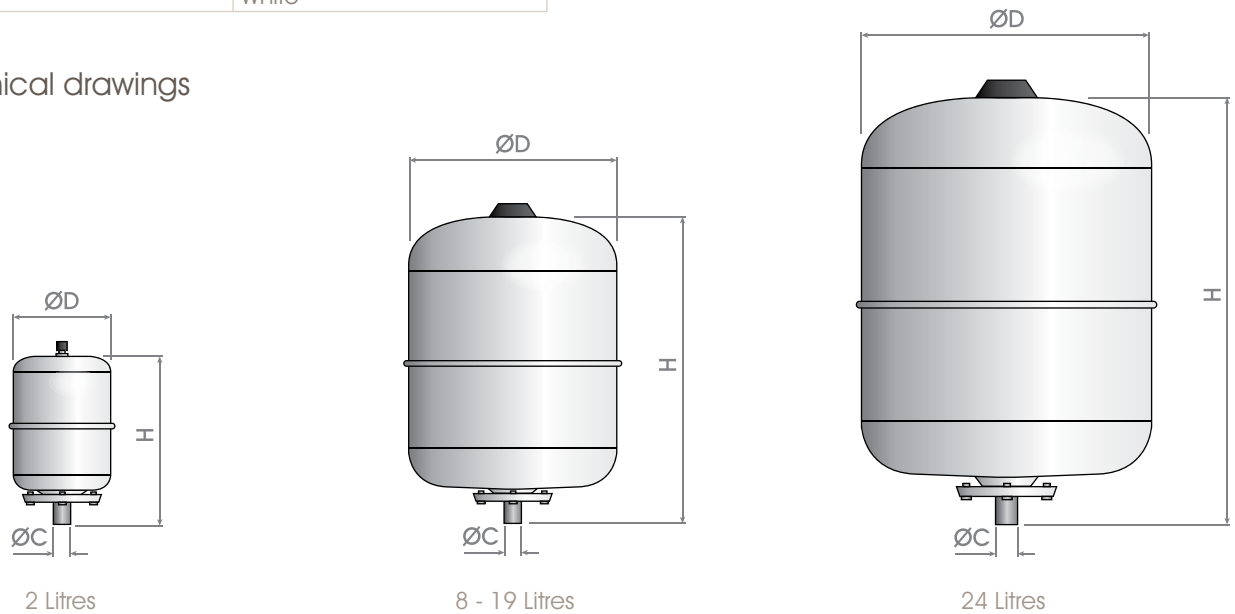
## Material description

Description	Material
Shell	Carbon steel
Flange	Galvanised/ Plastic
Membrane	EPDM
Colour	White

## Operating conditions

Maximum operating pressure	10 bar
Maximum operating temperature	70°C
Factory precharge	1.5 - 3 bar

## Technical drawings





## WATER-PRO

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

### Advantages

Compact design with seamless diaphragm inhibits bacterial growth. This range is certified according to PED 97/23/EC, ACS, IAPMO, 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



## Technical and dimensional data

Model	Code	Market ref	Capacity (Ltr)	Ø Diameter	Height	Connection
WATER - PRO 5	11A0000517	Z1-300005WH	5	160 mm	270 mm	3/4" NPT
WATER - PRO 8	11A0000822	Z1-300008WH	8	200 mm	280 mm	3/4" NPT
WATER - PRO 12	11A0001214	Z1-300012WH	12	270 mm	264 mm	3/4" NPT
WATER - PRO 18	11A0001821	Z1-300018WH	18	270 mm	349 mm	3/4" NPT
WATER - PRO 24	11A0002425	Z1-300024WH	24	300 mm	392 mm	1" G

## Material description

Description	Material
Shell	Carbon Steel *
Connections	Stainless Steel
Membrane	Butyl **
Colour	Blue

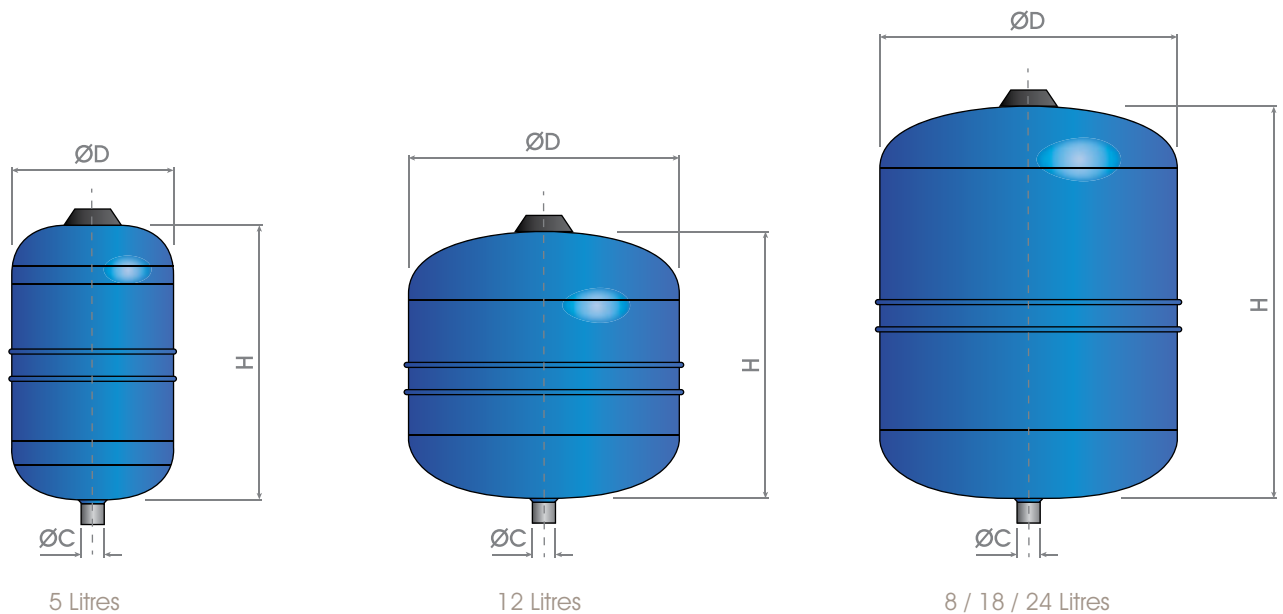
\* Internally coated with powder for alimentary purposes

\*\* For alimentary purposes

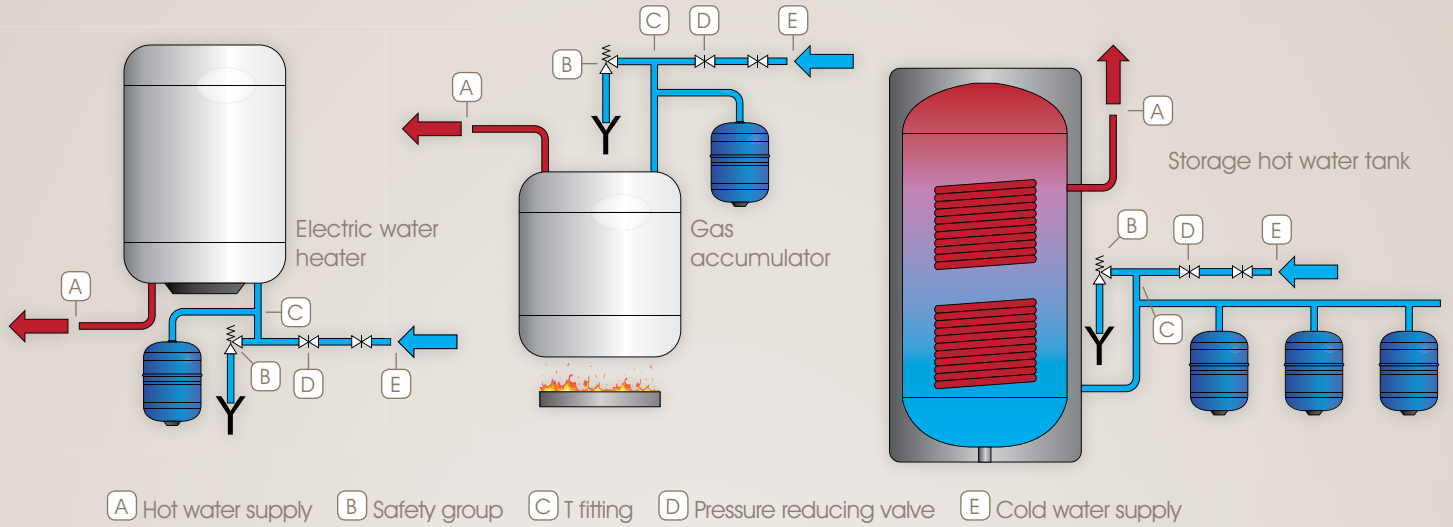
## Operating conditions

Maximum operating pressure	10 bar
Maximum operating temperature	70°C
Factory precharge (5 - 8 litres)	3 bar
Factory precharge (12 - 24 litres)	2 bar

## Technical drawings



Application examples



made in Italy - globally renowned

**ZILMET®**

Airfield Industrial Estate, Hixon, Stafford, ST18 0PF T. 01889 272185 F. 01889 272191  
sales@zilmet.co.uk www.zilmet.co.uk

**sealed system expansion vessel sizing calculator**

SET BOILER OUTPUT (KW)	25.00	30.00	35.00
BTU/HR	85300	102600	119900

APPROX SYSTEM VOLUME LITRES	237	331	337
STEEEL RADIATOR	231	337	343
IRON RADIATOR			
STANDARD BOILER			
LOW WATER CONTENT BOILER			

**step 1** **step 2**

SYSTEM VOLUME IN LITRES	300	122	18	15.1	18	20.2	24
SYSTEM STATIC HEAD TO M	0.5 M	1.0 M	1.5 M	1.0 M	1.5 M	1.5 M	1.5 M
VESEL PRE-CHARGE PRESSURE	0.5 BAR	1.0 BAR	1.5 BAR	1.0 BAR	1.5 BAR	1.5 BAR	1.5 BAR

1. SET THE BOILER OUTPUT IN THE WINDOW MARKED "SET BOILER OUTPUT".
2. NOTE THE APPROPRIATE SYSTEM VOLUME FROM THE RADIATOR TYPE AND BOILER TYPE IN THE WINDOW BELOW.
3. SET THE VOLUME IN THE WINDOW MARKED "SET SYSTEM VOLUME". ALWAYS TAKE THE NEXT HIGHEST VOLUME IF NOT EXACT.
4. READ THE VESSEL VOLUME AGAINST THE APPROPRIATE STATIC HEAD AND ORDER THE VESSEL(S) IN THE BOTTOM OF THE WINDOW.

1. IS THE BOILER SUITABLE FOR SEALED SYSTEMS? ASK THE MANUFACTURER.
2. IS THE BOILER CAST IRON, OR LOW WATER CONTENT (FABRICATED)?
3. WHAT TYPE OF RADIATOR - CAST IRON OR LOW WATER CONTENT, STEEL PANEL, CAST IRON OR ALUMINIUM?
4. WHAT IS THE STATIC HEAD OF THE SYSTEM, THE VERTICAL HEIGHT BETWEEN THE UPPERMOST POINT OF THE HEATING SYSTEM AND THE CENTRE LINE OF THE EXPANSION VESSEL? AS A GUIDE: SINGLE STOREY 5.0M, TWO STOREYS 10.0M AND THREE STOREYS 15.0M



Zilmet UK  
sizing calculator

The new Zilmet UK sizing calculator is now available for FREE. Get your FREE calculator by visiting

[www.zilmet.co.uk](http://www.zilmet.co.uk)





solar

## SOLARPLUS



expansion vessels  
for solar systems

A complete range of expansion  
vessels suitable for solar systems.



## SOLARPLUS

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

### Advantages

A complete range of tanks suitable for solar systems. The butyl membrane is also suitable for potable water applications.

### Technical features

Membrane expansion vessel manufactured according to PED 97/23/EC and EN 13831 standards, suitable for solar systems, according to DIN 4757 and EN 12977. The vessel is equipped with a special solar membrane designed as a diaphragm, which separates the gas from the solar liquid.

### Certification



## Technical and dimensional data

Model	Code	Capacity (Ltr)	Ø Diameter	Height	E	Connection
SOLAR-PLUS 12	11A2001210	12	270 mm	264 mm	-	3/4"G
SOLAR-PLUS 18	11A2001811	18	270 mm	350 mm	-	3/4"G
SOLAR-PLUS 25	11A2002506	25	300 mm	392 mm	-	3/4"G
SOLAR-PLUS 35 W.F.*	11A2003304	35 W.F.	380 mm	367 mm	125 mm	3/4"G
SOLAR-PLUS 50 W.F.*	11A2005002	50 W.F.	380 mm	505 mm	155 mm	3/4"G
SOLAR-PLUS 80	11A2008001	80	450 mm	608 mm	150 mm	1"G
SOLAR-PLUS 105	11A2010503	105	500 mm	665 mm	165 mm	1"G
SOLAR-PLUS 150	11A2015000	150	500 mm	897 mm	216 mm	1"G
SOLAR-PLUS 200	11A2020000	200	600 mm	812 mm	225 mm	1"G
SOLAR-PLUS 250	11A2025000	250	630 mm	957 mm	245 mm	1"G
SOLAR-PLUS 300	11A2030000	300	630 mm	1105 mm	245 mm	1"G
SOLAR-PLUS 400	11A2040000	400	630 mm	1450 mm	245 mm	1"G
SOLAR-PLUS 500	11A2050000	500	750 mm	1340 mm	290 mm	1"G
SOLAR-PLUS 600	11A2060000	600	750 mm	1555 mm	290 mm	1"G

\* With feet

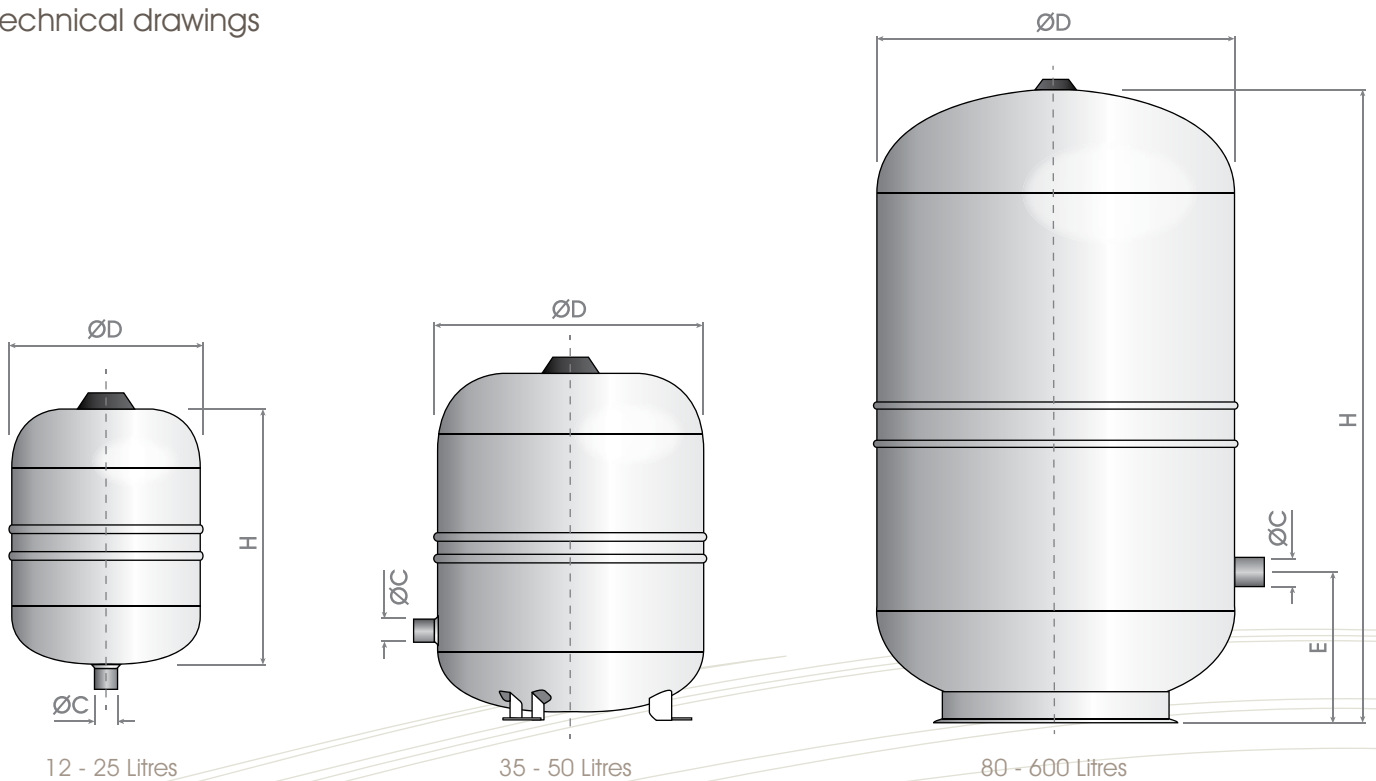
## Material description

Description	Material
Shell	Carbon Steel
Connections	Carbon Steel
Membrane	ZILAN solar membrane
Colour	White/red

## Operating conditions

Maximum operating pressure	10 bar
System operating temperature	-10°C - 110°C
Factory precharge	2.5 bar

## Technical drawings





## SOLARPLUS TM

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



### Advantages

SOLARPLUS TM is a vertical vessel with a bottom flange to allow replacing the membrane whenever necessary.

This tank can handle pressures up to 10 bar.

### Technical and dimensional data

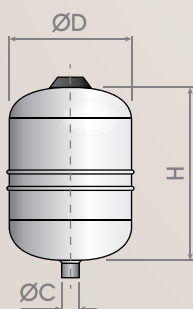
Model	Code	Capacity (Ltr)	Ø Diameter	Height	Connection
SOLARPLUS TM 12	11H2001200	12	270 mm	296 mm	3/4" G
SOLARPLUS TM 18	11H2001800	18	270 mm	387 mm	3/4" G
SOLARPLUS TM 24	11H2002400	24	270 mm	461 mm	3/4" G
SOLARPLUS TM 80	1102008000	80	450 mm	830 mm	1" G
SOLARPLUS TM 100	1102010000	100	450 mm	910 mm	1" G
SOLARPLUS TM 200	1102020000	200	550 mm	1235 mm	1 1/2" G
SOLARPLUS TM 300	1102030000	300	630 mm	1365 mm	1 1/2" G
SOLARPLUS TM 500	1102050000	500	750 mm	1560 mm	1 1/2" G

### Accessories

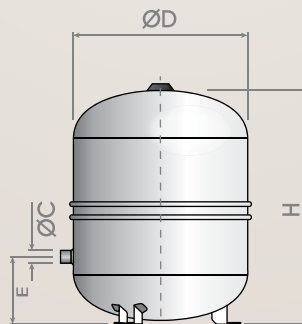
Zilmet offers various accessories for all working conditions of the solar energy system. These accessories are for the quick and safe replacement of the tank as well as the addition of another tank. The stop valve with discharge makes the annual pressure check just a matter of a few minutes.

Code	Model	Description	Connection
912508	ZWH B	Universal bracket for wall assembly up to 25 litres	-
912503	ZWH M	Fast assembly for 35 and 50 litres	-
910105	ZSKV	Butterfly solar valve completely in metal	3/4" G
910106	ZSKV	Butterfly solar valve completely in metal	1" G
930106	ZSKE	Fast escape clutch	-
944007	ZSP1	Connecting vessel set, made up of flexible pipe 0.5m, Butterfly solar valve and wall support	-

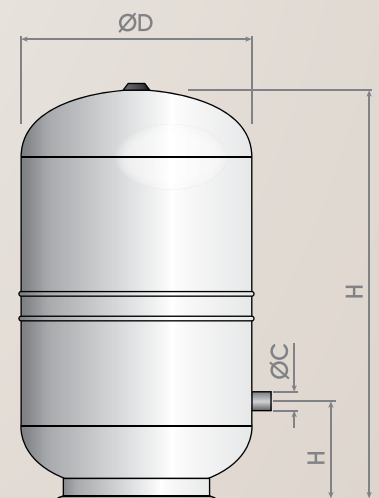
### Technical drawings



12 - 25 Litres



35 - 50 Litres



80 - 600 Litres



## VSG VESSEL

expansion vessel for temperature reducing in solar systems  
capacity: from 5 - 400 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

Model	Code	Capacity (Ltr)	Ø Diameter	Height	E	Connection
VSG 5	11A0000512	5	160 mm	270 mm	-	No2 x 3/4"G
VSG 8	11A0000837	8	200 mm	280 mm	-	No2 x 3/4"G
VSG 12	11A0001216	12	270 mm	264 mm	-	No2 x 3/4"G
VSG 18	11A0001836	18	270 mm	349 mm	-	No2 x 3/4"G
VSG 35	11A0003510	35	380 mm	367 mm	125 mm	No2 x 3/4"G
VSG 50	11A0005022	50	380 mm	505 mm	146 mm	No2 x 3/4"G
VSG 105	11A0010518	105	500 mm	665 mm	165 mm	No2 x 1"G
VSG 200	11A0020013	200	600 mm	812 mm	225 mm	No2 x 1"G
VSG 400	11A0040017	400	630 mm	1450 mm	245 mm	No2 x 1"G

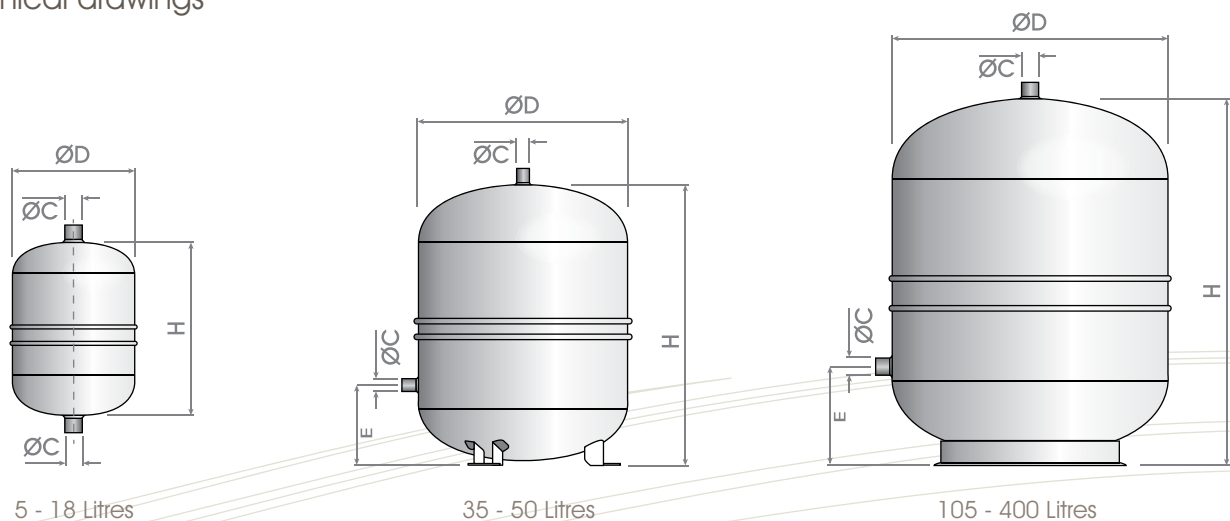
### Material description

Description	Material
Shell	Carbon Steel
Connections	Carbon Steel
Colour	White

### Operating conditions

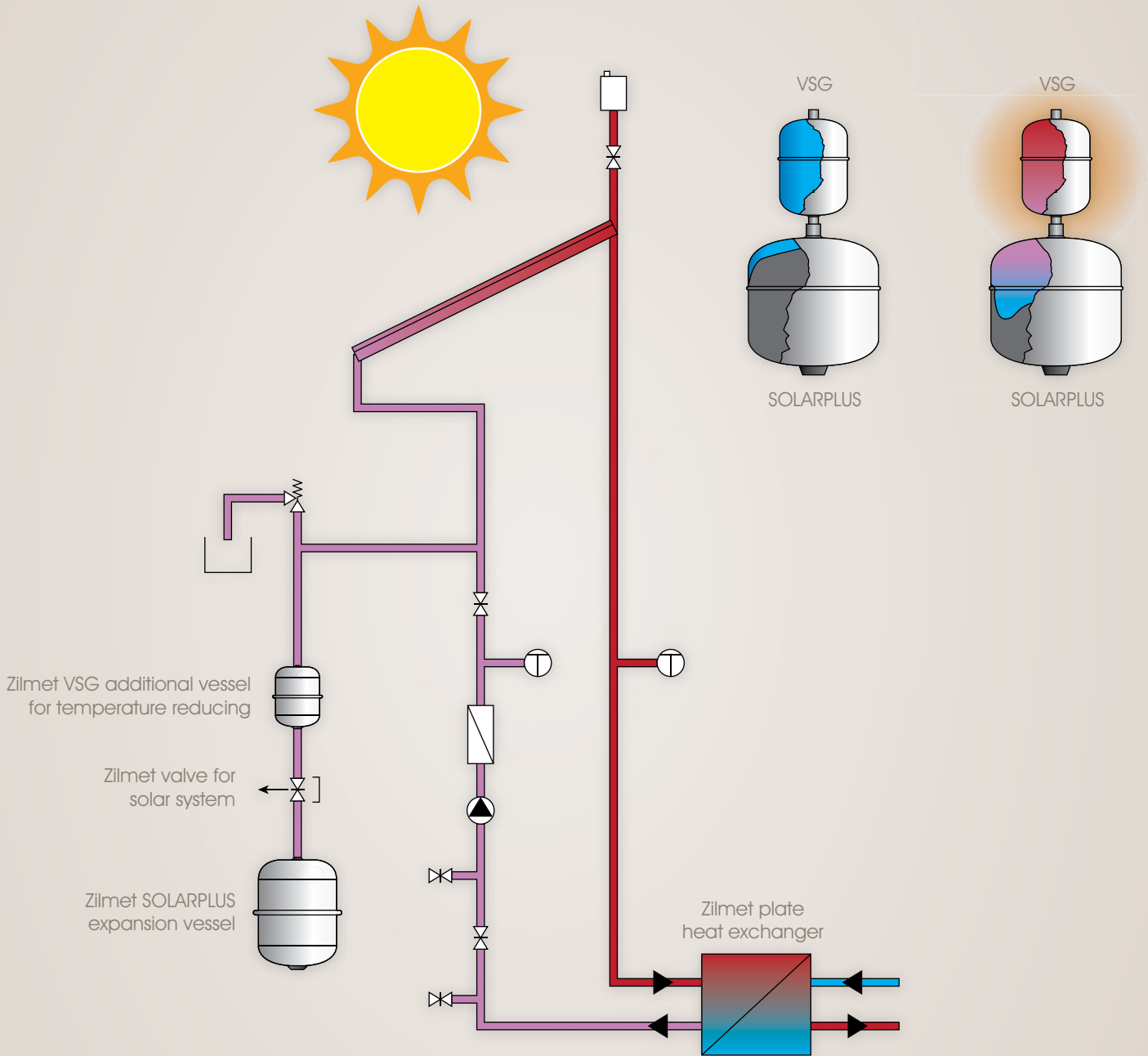
Maximum operating pressure	10 bar
Operating temperature	-10°C - 110°C

### Technical drawings



### Operation of VSG vessel

When there is excessively high temperature in the solar energy system (in some cases even vapour), the hot fluid mixes with the cold stagnant fluid in the additional tank VSG. Therefore we have a cooling of the hot fluid dispersion in the VSG tank. In this way the membrane of the SOLARPLUS vessel is protected from the excessive temperatures.



# SOLARPLUS SAFE

expansion vessel for solar systems  
capacity: from 18 - 50 litres



## Advantages

SOLARPLUS SAFE is a product which combines SOLARPLUS 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

Model	Code	Capacity (Ltr)	Ø Diameter	Height	Connection
SOLAR PLUS SAFE	11A2001822	18 Solar + 6 VSG	270 mm	453 mm	3/4" G
SOLAR PLUS SAFE	11A2002522	25 Solar + 10 VSG	300 mm	526 mm	3/4" G
SOLAR PLUS SAFE	11A2003319	35 Solar + 12 VSG *	380 mm	480 mm	3/4" G
SOLAR PLUS SAFE	11A2005010	50 Solar + 15 VSG *	380 mm	650 mm	3/4" G

\* With feet

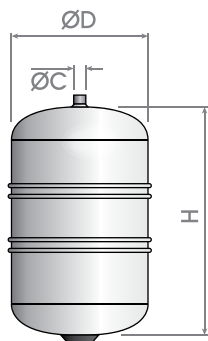
## Material description

Description	Material
Shell	Carbon Steel
Connections	Carbon Steel
Colour	White epoxy-powder coating

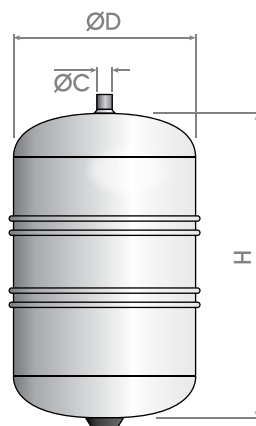
## Operating conditions

Maximum operating pressure	10 bar
Factory precharge	2.5 bar
Maximum temperature on the membrane	100°C
Membrane	ZILAN membrane
Approval	European directive 97/23/EC

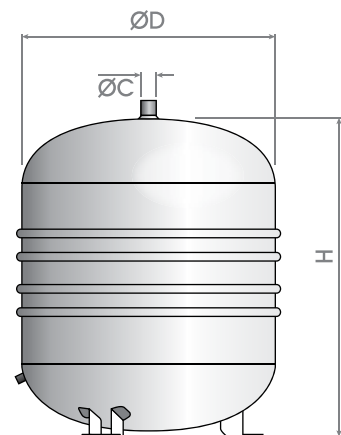
## Technical drawings



18 litre SOLAR + 6 litre VSG



25 litre SOLAR + 10 litre VSG



35 litre SOLAR + 12 litre VSG  
50 litre SOLAR + 15 litre VSG





made in italy - globally renowned

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 as our characteristic element.





pressure

## MATIC-PRO



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



## 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 optimisation.

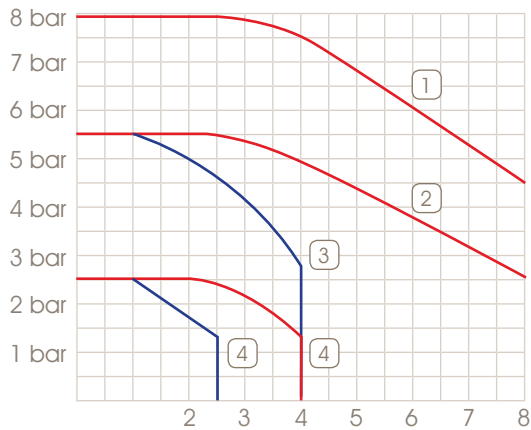
### Technical features

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



## Technical and dimensional data

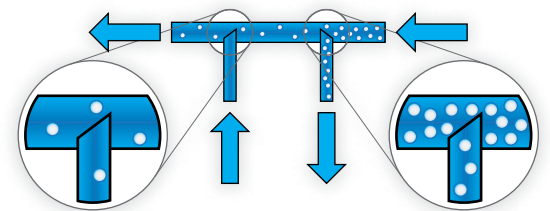
Model	H max	Pump	Soft start	Power	Size
1M10351001	35 mm	1 nr	YES	0.7 kw	460 x 650 x 700 mm
1M10551001	55 mm	1 nr	YES	0.9 kw	460 x 650 x 700 mm
1M20351001	35 mm	2 nr	YES	1.4 kw	460 x 650 x 700 mm
1M20551001	55 mm	2 nr	YES	1.8 kw	460 x 650 x 700 mm
1M20951001	95 mm	2 nr	YES	2.2 kw	460 x 650 x 700 mm



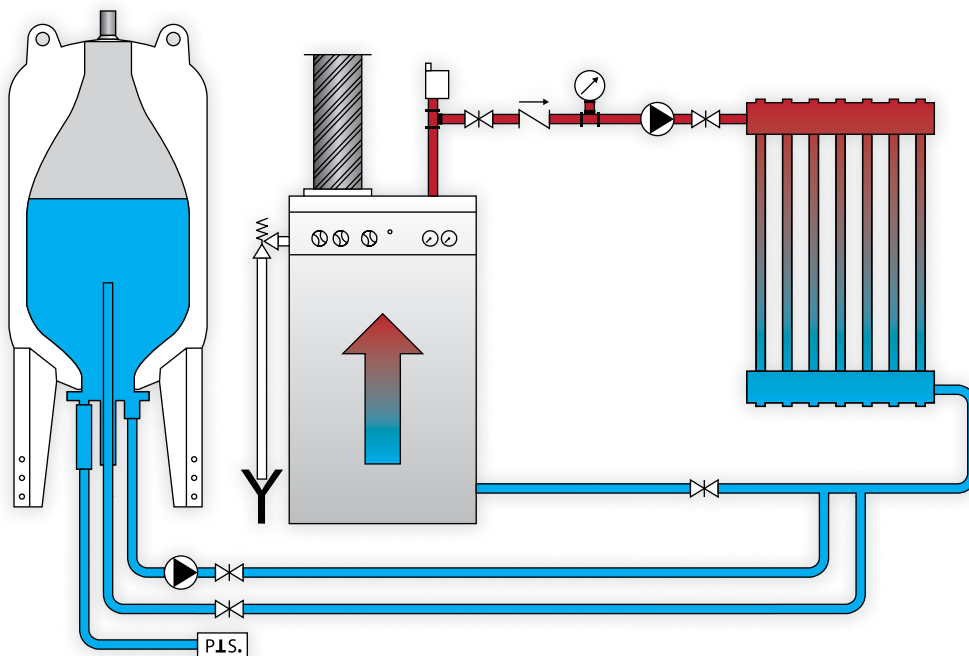
- ① MATIC PRO 2 - 95
- ② MATIC PRO 2 - 55
- ③ MATIC PRO 2 - 95
- ④ MATIC PRO 2 - 35
- ⑤ MATIC PRO 2 - 95

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

## Connection scheme



## Degassing cycle principle







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To view our full range of expansion vessels, and in-depth technical data sheets please visit our new dedicated UK website:

[www.zilmet.co.uk](http://www.zilmet.co.uk)