ENERGY SYSTEMS

Solarico®

Innovative
Composite
New Generation

Composite Expansion Vessels

The Enduring Ones!

Heating expansion vessel

Flow through expansion vessel

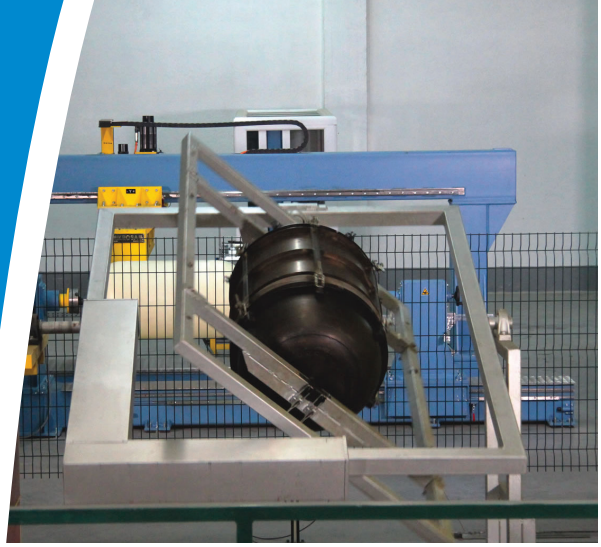
Potable water expansion vessel

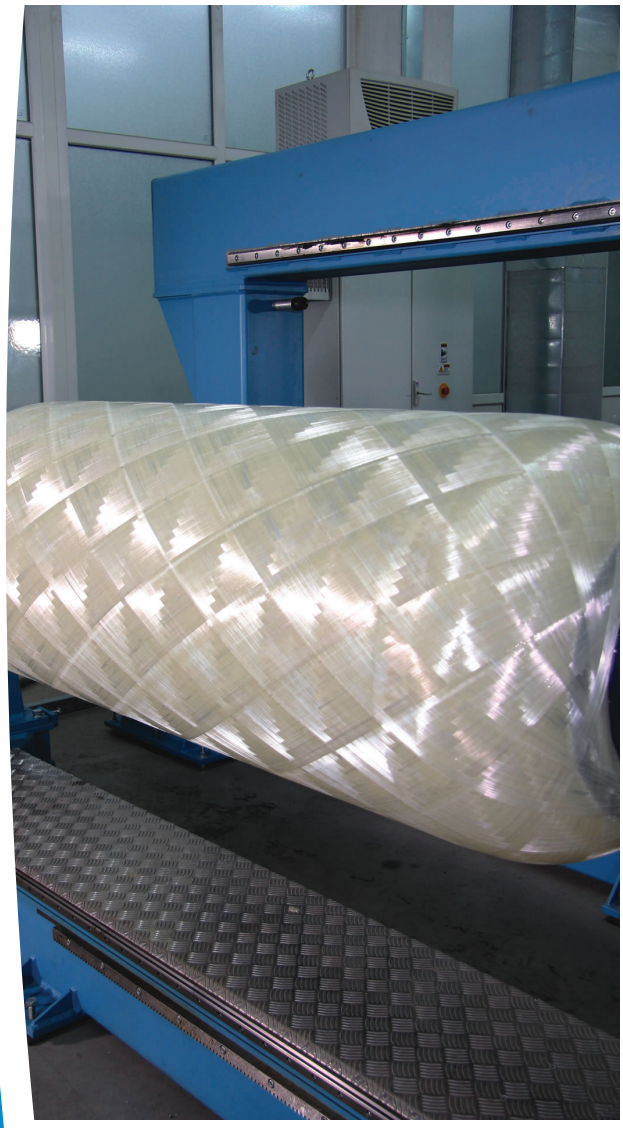
NEW

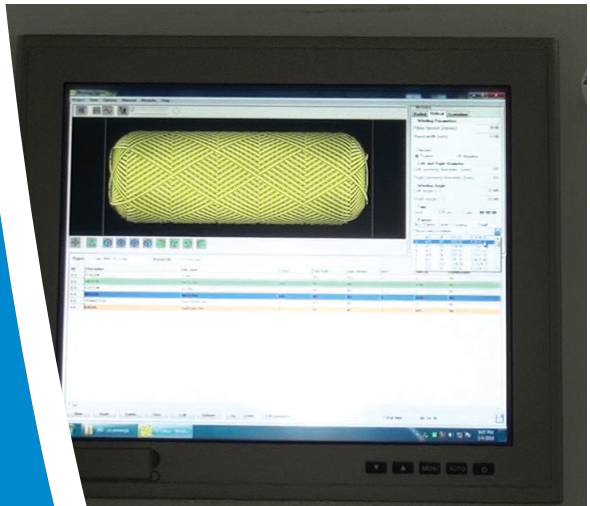
CE PED

ISO 9001
LL-C (Certification)

QUALITY 5 YEARS GUARANTEE







Solarico manufacturing

Plastic-composite technology

Due to specific technology and materials used, reservoirs for our expansion vessels are long-lasting and thermal insulating vessels.

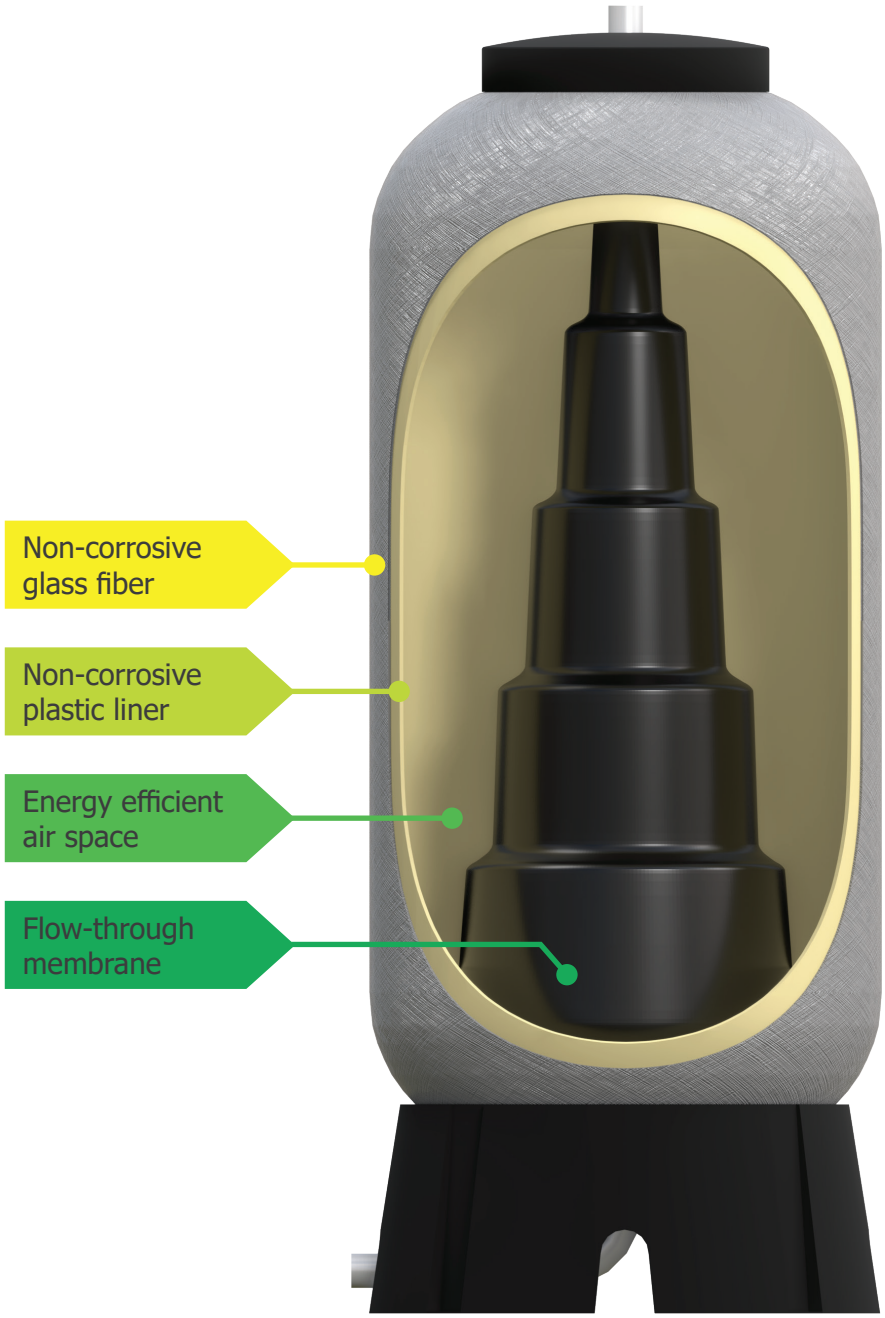
The **inner plastic reservoir** is made of cross-linkable HDPE:

- It does not rust
- It is inactive in contact with a long list of chemicals
- Operates at temperatures up to 90ºC
- Reliable for at least 30 years!
- Less than half the weight of steel expansion vessels
- Smooth inner surface
- Reduced heat transfer

Composite filament winding is applied on the plastic reservoir:

- It does not rust
- It is inactive in contact with a long list of chemicals
- Operates at temperatures up to 90ºC
- Operates at pressure up to 9 bars
- Ability to short-run production - we do not ask for a minimum order quantity
- Outstanding strength
- Impact resistance

- latest technology of filament winding
- laser-cut precision
- roto molding of thermal plastic
- computer controlled automated processes
- high quality materials



- **HEAVY-DUTY MEMBRANE**
  Does not support the build-up of nutrients key to forming biofilms.
- **AIR SPACE**
  Up to 60% less heat losses compared to membrane types, due to minimized contact surface between warm water and vessel.
- **PLASTIC COMPOSITE RESERVOIR**
  Does not rust and is inactive in contact with a long list of chemicals.
- **CONTAMINATION PREVENTION**
  No stagnant warm water.
- **WARRANTY TERM**
  this reservoir is warrantied by 5 years.

AVAILABLE TYPES

Volumes: 310, 440 and 800 liters
Color: red, blue and gray

Why plastic-composite expansion vessels are a good choice:

Solarico plastic composite expansion vessels are suitable for booster systems, HVAC systems, cooling tower systems, spa systems, and evaporative condenser systems.

These expansion vessels will not corrode from the inside and outside too. There are no pieces of rust that may damage the inner membrane. The outside moisture and chemically active environment may not damage it too. That's why these are long lifetime vessels compared to conventional steel vessels.

Extended lifetime of reservoir and membrane

Using this technology in the production of expansion vessels results in a long-lasting product that saves a lot of energy, and increases reliability, boosting cost-effectiveness.

- Lightweight vessels, easy to manipulate and transport.
- Low heat losses
- Corrosion free

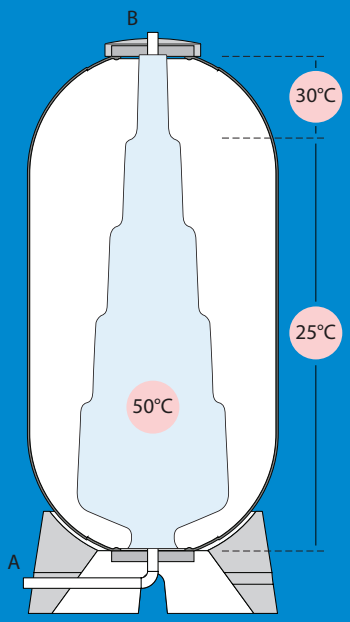
Composite Expansion Vessels

For heating systems

NEW

Plastic-composite type expansion vessels are designed the way the water expands inside the membrane without contact with the vessel's walls. There is also an air space between the membrane and the vessel which is acting as a thermal insulator. It can be designed in flow-through type on request.

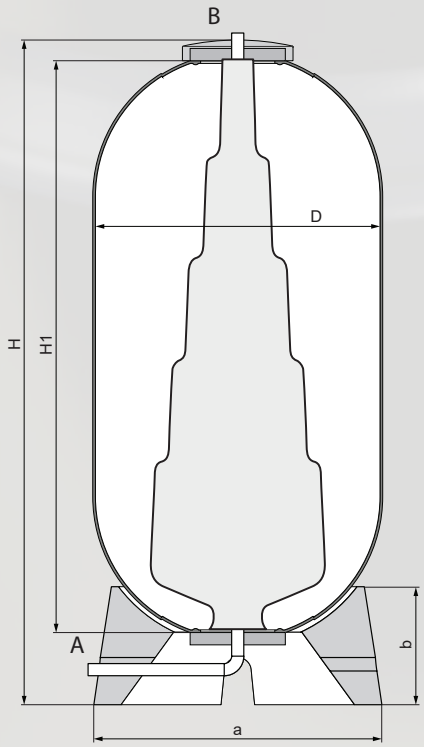
- Up to 60%, fewer heat losses compared to diaphragm types, due to the minimized contact surface between warm water and vessel.
- Low heat losses due to minimum captured quantity of warm water.
- Low heat losses due to thermal inertia of a plastic-composite reservoir.
- No stagnant warm water - contamination prevention.
- Maintenance-free
- Limitless installation application; It can be installed in a moist environment, near the seaside, in basements, industrial space.
- The heavy-duty butyl membrane does not support the build-up of nutrients key to forming biofilms.
- Extended membrane lifetime. Lower elongation of our membrane provides less stress during operation.



Achieved benefits for end users

- Low energy bill
- Minimized maintenance costs
- Efficient system performance
- Clean and safe fresh water
- Prevention of Legionella or other bacteria
- Highly reliable heating system
- Smooth and safe operation

COMPOSITE EXPANSION VESSELS FOR HEATING SYSTEMS				
		310	440	800
D (diameter)	(mm)	620	620	880
H1 (height)	(mm)	1300	1730	1730
H (height)	(mm)	1500	1950	1950
a (width)	(mm)	700	700	850
b (height)	(mm)	300	300	350
max. working temp.	(°C)	90	90	90
max. working pressure	(bar)	6	6	6
max. test pressure	(bar)	9	9	9
Net tank capacity	(liters)	310	440	800
Approx. weight	(kg)	60	75	94
Connection A		up to 6/4"		
Connection B		1/2" - 3/4"		

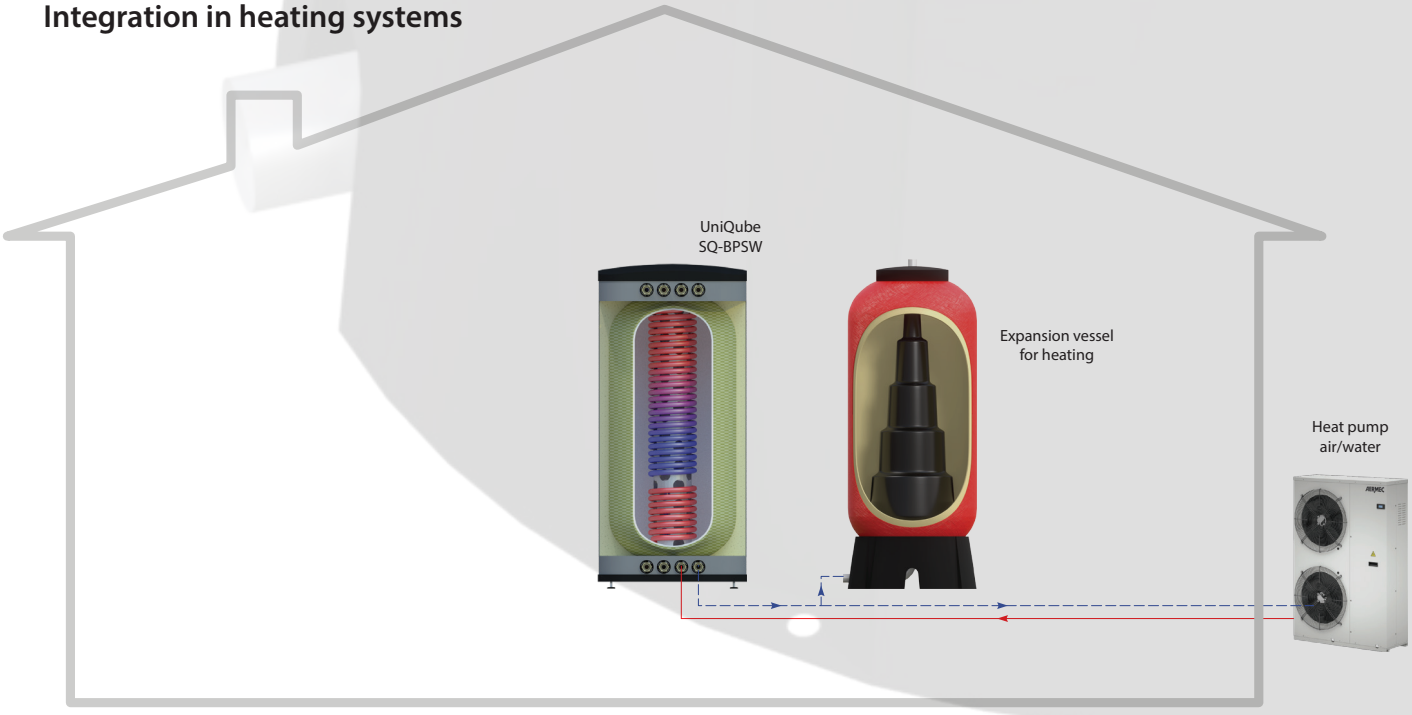


A - Inlet
B - Outlet

Technical characteristics

- Expansion vessel for central heating systems
- Approved in accordance with pressure equipment guidelines 2014/68/EU
- Pressurized gas chamber
- Replaceable membrane
- Dimensions of top and bottom connectors may be changed on request
- Flow-through available on request
- With threaded connection, made from corrosion-resistant steel

Integration in heating systems



Composite Expansion Vessels

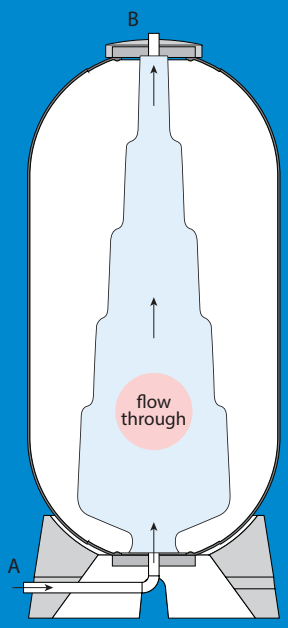
For potable water systems

NEW

Plastic-composite expansion vessels for potable water

Potable water systems must be supported by expansion/ pressure vessel that stabilizes the hydronic system operation, and must assure water cleanness. The flow-through type is the best option in this case. Bladder type of potable water expansion vessels are also available.

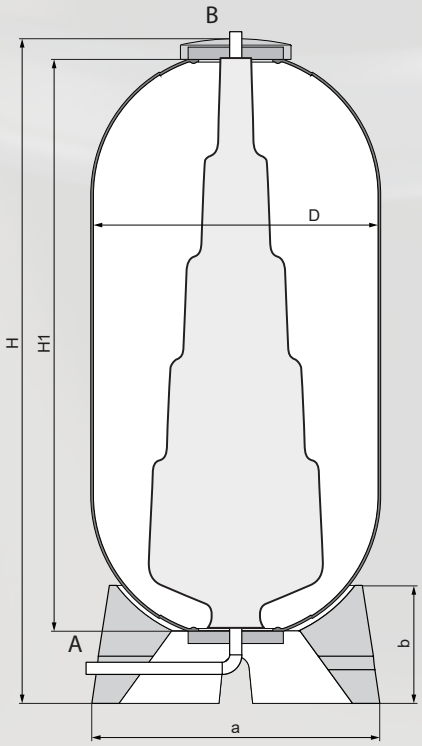
- Reduces start/srtops of the driving pump , saving energy, maintenance costs and improving lifetime of the pump.
- Ensures constant water flow, even in case of pressure fluctuations.
- Water just flows through this vessel, without stagnation, and keeps its primary quality.
- Absorbs water hammers
- Ensuring smooth operation, protecting other system components.



Achieved benefits for end users

- Efficient system performance
- Clean and safe fresh water
- Prevention of Legionella or other bacteria
- Highly reliable hydraulic system
- Smooth and safe operation

COMPOSITE EXPANSION VESSELS FOR POTABLE WATER				
		310	440	800
D (diameter)	(mm)	620	620	880
H1 (height)	(mm)	1300	1730	1730
H (height)	(mm)	1500	1950	1950
a (width)	(mm)	700	700	850
b (height)	(mm)	300	300	350
max. working temp.	(°C)	90	90	90
max. working pressure	(bar)	6	6	6
max. test pressure	(bar)	9	9	9
Net tank capacity	(liters)	310	440	800
Approx. weight	(kg)	60	75	94
Connection A, B		6/4"		

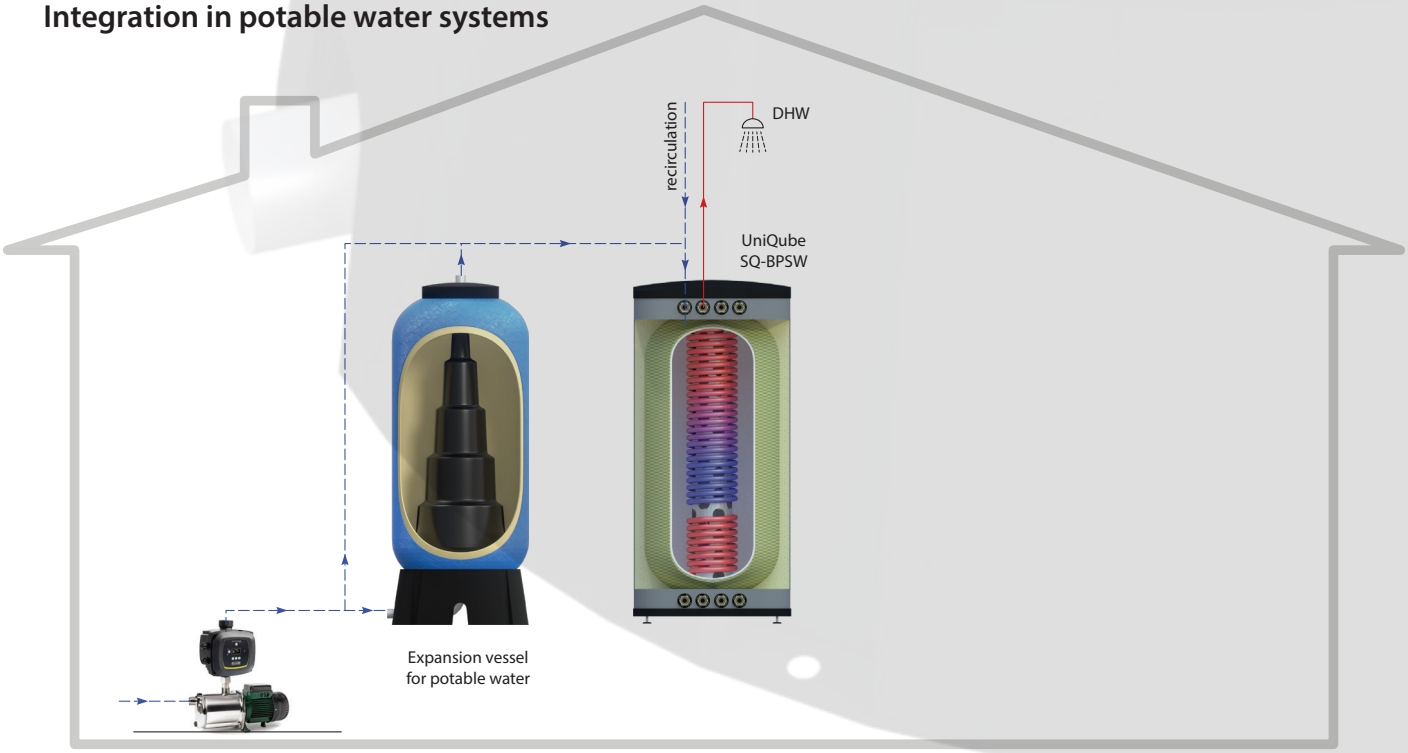


A - Inlet
B - Outlet

Technical characteristics

- Approved in accordance with pressure equipment guidelines 2014/68/EU
- Pressurized gas chamber
- Replaceable membrane
- Dimensions of top and bottom connectors may be changed on request
- For potable water, pressure booster systems with or without flow-through
- With threaded connection, made from corrosion-resistant steel

Integration in potable water systems



Solarico®

UniQube
Heart of your energy systems

SUPPORTED BY
FUND FOR INNOVATION AND
TECHNOLOGY DEVELOPMENT
OF NORTH MACEDONIA

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