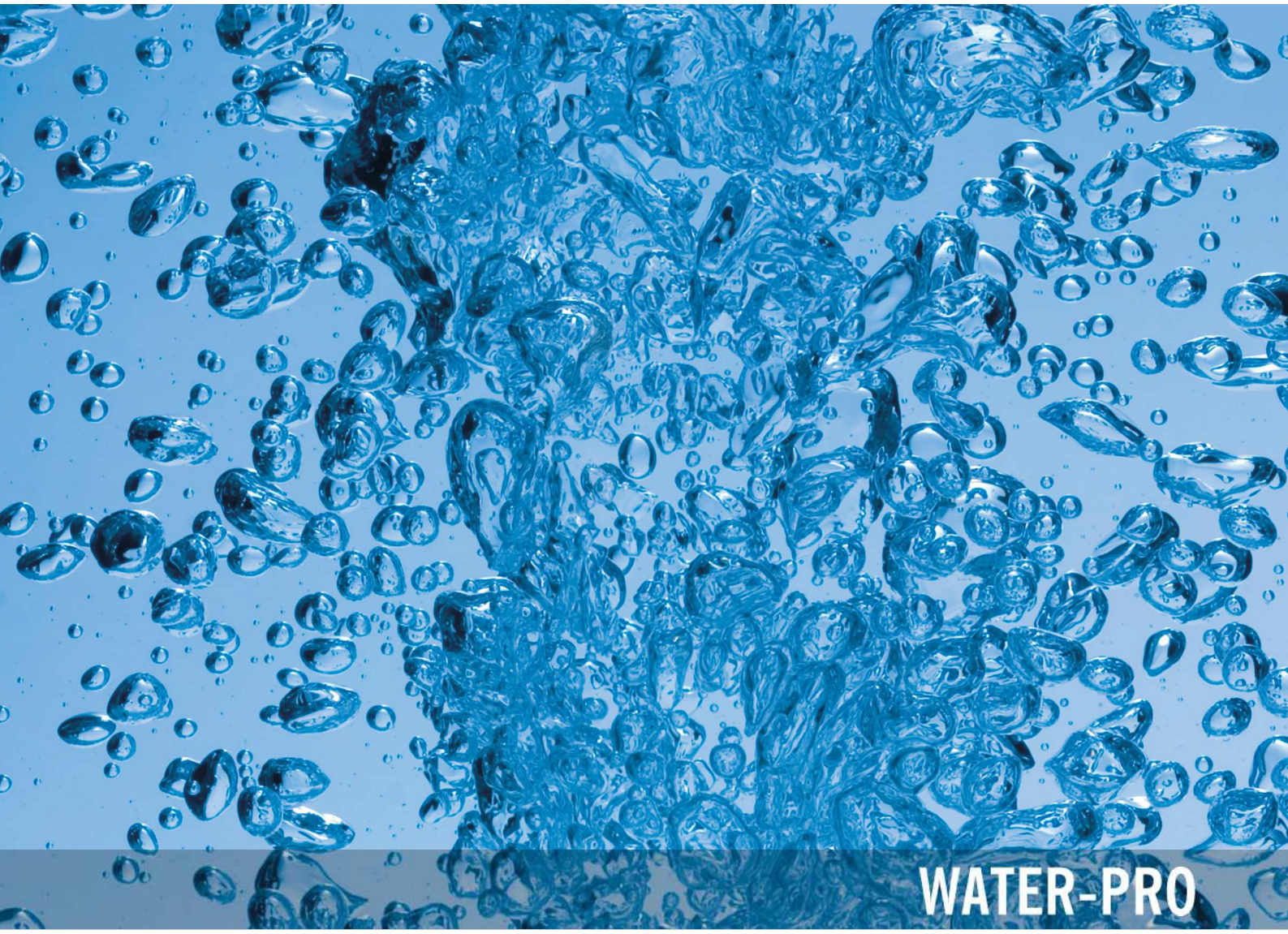


WATER-PRO

ZILMET®

sanitary water

water-pro

Applications : water heaters and for electric pumps

general features

Advantages

Compact design with seamless diaphragm inhibits bacterial growth.
This range is certified according to PED 97/23/EC, WRAS/WRc, ACS, IAPMO, and NSF.
Stainless steel connections

Technical features

These are compact expansion tanks for sanitary hot water with a fixed potable water butyl membrane and internal epoxy coating.
These tanks are provided with a stainless steel fitting.
MIG welding eliminates any sharp cutting edges inside the tank.
The shape of the membrane is designed to avoid any water stagnation and therefore the growth of any bacteria. External epoxy-polyester coating: no rusting.

Working

The Zilmet WATER-PRO tank leaves the factory already tested and pre-pressurized.
Air and water do not mix eliminating any possibility of “waterlogging” through loss of air to the system water; no corrosion possibility.
When the pump starts, water enters the tank as system pressure passes the minimum pressure precharge. 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 the maximum capacity.
When water will be needed again, pressure in the air side will push the water in the system.
Since the Zilmet WATER-PRO tank does not waterlog and delivers the water, minimum pump starts are assured.

MADE IN ITALY

technical and dimensional data

Model	Code	Capacity	Ø Diameter	H height	Ø Connection
		litri / *litres*	mm	mm	
WATER - PRO 8	11A0000857	8	200	280	1" BSP THREAD
WATER - PRO 18	11A0001842	18	270	349	1" BSP THREAD
WATER - PRO 24	11A0002425	24	300	392	1" BSP THREAD

operating conditions

max. operating pressure	10 bar
operating temperatures	-10 ÷ 99 °C
factory precharge 8 litres	3 bar
factory precharge 12 ÷ 24 litres	2 bar

material description

description	material
shell	carbon steel*
connections	stainless steel
membrane	butyl**
colour	blue

* internally coated with powder for alimentary purposes
** or alimentary purposes

technical drawings

vessel volume

Model		precharge (psi)							
		20	40	60	80	100	120	140	150
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
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

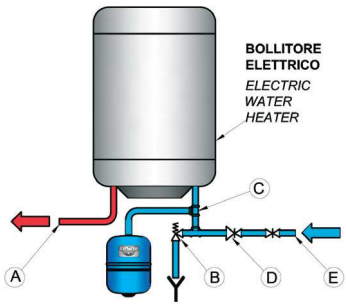
Selection table for: Pprec = 2 bar Pmax =5 bar	Maximum working temperature (°C)					
	50	60	70	80	90	99
	Coefficient of water expansion with respect to 10 °C					
	0,012	0,017	0,022	0,029	0,036	0,043
System capacity litres	Minimum theoretical volume / Recommended vessel volume					
50	-	-	2,2 / 5	2,9 / 5	3,6 / 5	4,3 / 5
75	-	2,5 / 5	3,4 / 5	4,3 / 5	5,3 / 8	6,5 / 8
100	2,4 / 5	3,4 / 5	4,5 / 5	5,7 / 8	7,1 / 8	8,6 / 12
125	3 / 5	4,2 / 5	5,6 / 8	7,2 / 8	8,9 / 12	10,8 / 12
150	3,5 / 5	5 / 8	6,7 / 8	8,6 / 12	10,7 / 12	13 / 18
175	4,1 / 5	5,9 / 8	7,9 / 8	10,1 / 12	12,5 / 18	15,1 / 18
200	4,7 / 5	6,7 / 8	9 / 12	11,5 / 12	14,3 / 18	17,3 / 18
250	5,9 / 8	8,4 / 12	11,2 / 12	14,4 / 18	17,8 / 18	21,6 / 24

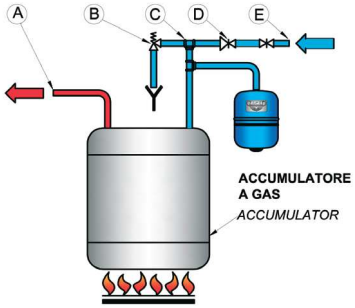
The formula for the calculation is: $V = e\,C\,[1-((P_{prec}+1)/(P_{max}+1))]$

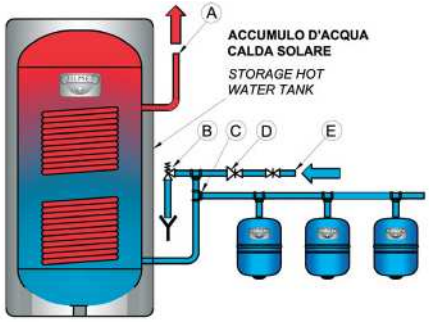
V = Volume of the vessel (litres) **e** = *Coefficient of water expansion* **C** = *System water volume (litres)*
Pmax = *System pressure (bar)* **Pprec** = *Precharge pressure (bar).*

***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

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