



*heating and plumbing products
that won't cost the **earth***

**SolarSafe primary
solar expansion vessel
and VSG intermediate inline vessel**

July 2010



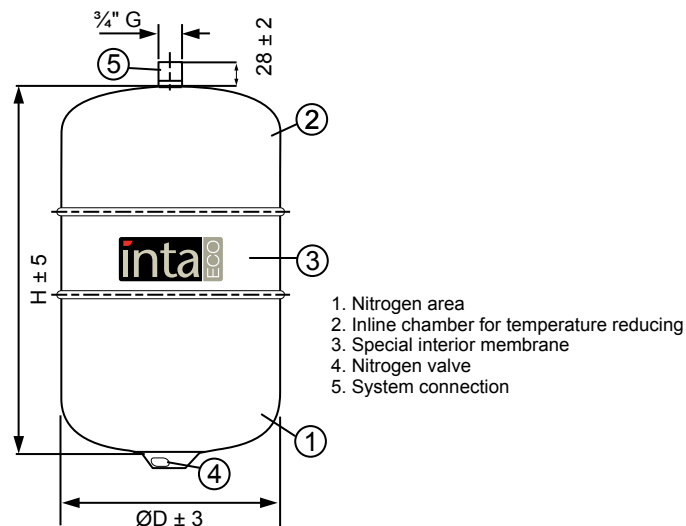
SolarSafe solar expansion vessel

Long periods of high temperature fluid in the expansion vessel has the effect of shortening its useful life - ultimately causing premature failure of the diaphragm.

To avoid this situation, an additional "flow-through" expansion vessel is recommended when the fluid volume between the collector and the expansion vessel is approx 50% or less than the 'wet' side volume (between the expanded diaphragm and the vessel inlet). This approach is covered by European directive VDI 6002.

The SolarSafe range provides a new and comprehensive solution for this type of installation - and especially where space is at a premium. The SolarSafe combines a primary high specification Solar Plus solar expansion vessel with a VSG solar inline vessel, reducing the amount of space required by 40% and the time taken for fitting by 50%.

It's available in two size combinations as the chart below illustrates.



Type Volume in litres	D diameter in mm	H height in mm	Connection
SolarPlus Safe 18 + 6	270	455	$\frac{3}{4}"$
SolarPlus Safe 25 + 10	300	525	$\frac{3}{4}"$
SolarPlus Safe 33 + 15	380	422	$\frac{3}{4}"$

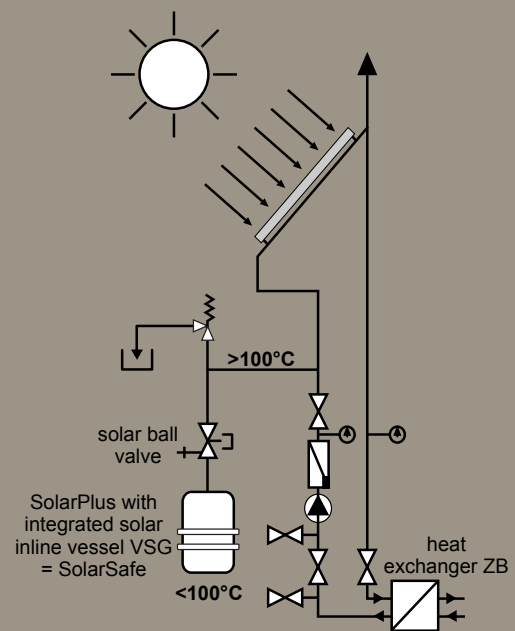
Approval European directive 97/23/EG
 Sizes SolarPlus 18 & 25 litre
 VSG inline vessel 6 & 10 litre
 Max. working pressure 10 bar
 Max. working temperature $-10^{\circ}\text{C}/263\text{K}$ up to $+110^{\circ}\text{C}/383\text{K}$
 Max. temperature at the membrane $+100^{\circ}\text{C}/373\text{K}$
 Surface Powder coating white

The reduced permeability membrane design in these expansion vessels is the direct result of many years of experience in the installation of expansion vessels in thermal solar systems.

Loading of the membrane through the solar liquid is possible up to 130°C and is suitable for a Glycol ratio of up to 50%.



SolarSafe primary solar expansion vessel and VSG intermediate inline vessel



Installation schematic

description	product code
SolarPlus Safe 18 + 6 expansion vessel with built-in intermediate chamber	2001822
SolarPlus Safe 25 + 10 expansion vessel with built-in intermediate chamber	2002522
SolarPlus Safe 33 + 15 expansion vessel with built-in intermediate chamber	2003319

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