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Intermediate Solar expansion vessel

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Intermediate solar expansion vessel

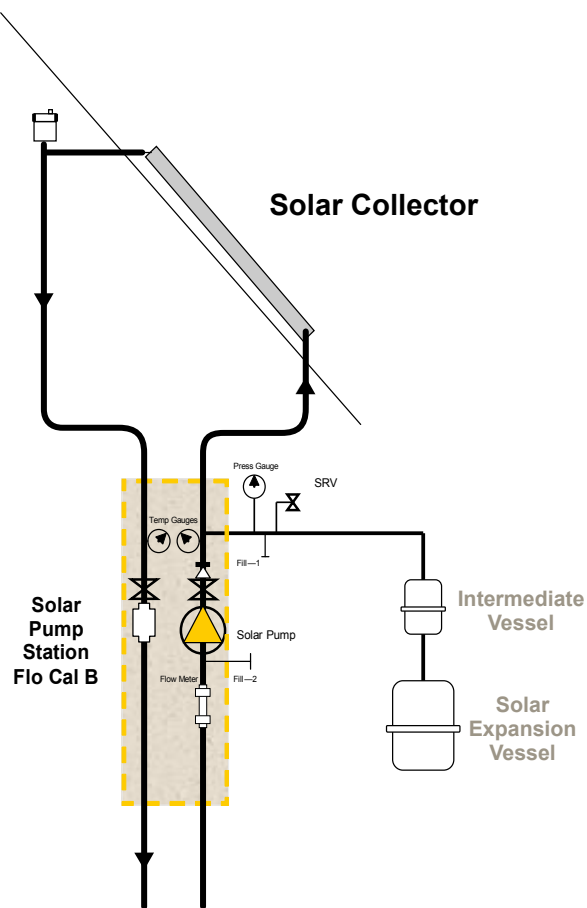
Long periods of high temperature fluid in the expansion vessel has the effect of shortening its useful life - ultimately causing premature failure of the diaphragm.

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.

This intermediate additional vessel should be installed without insulation. As well as dissipating heat before it reaches the diaphragm in the main expansion vessel, the heat is also diluted into the cooler volume of the vessel, while expansion continues to occur in the main vessel, but at a lower temperature than might otherwise occur. The appropriate size of the intermediate vessel is proportional to that of the main vessel - see the chart to the right.



Intermediate solar expansion vessel



Typical arrangement

solar expansion vessel	intermediate vessel size
18 litre	5 litre
24 litre	8 litre
35 litre	12 litre
50 litre	18 litre

product code	volume	diameter (mm)	height (mm) without connections	connections x 2
10000512	5 litres	160	300	3/4"
10000837	8 litres	200	300	3/4"
10001212	12 litres	270	270	3/4"
10001836	18 litres	270	350	3/4"



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