



## VSG Vessel Installation & Operations Guide



## Installation & Maintenance Guide

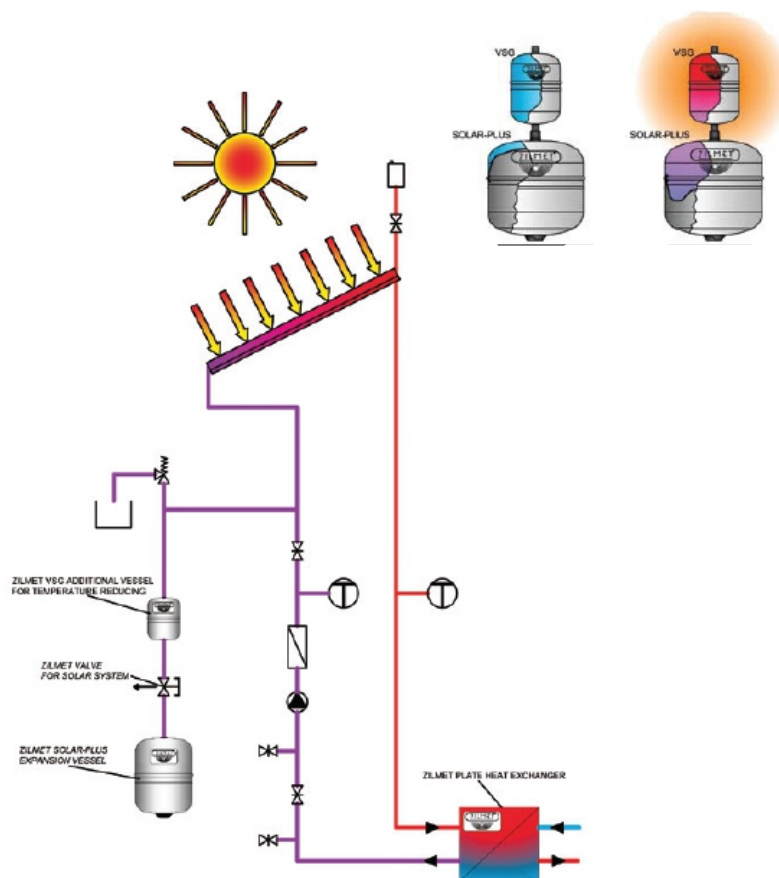
### Operation

The VSG range of Vessels is specifically designed for Solar Thermal Systems to provide a buffer of un-circulated liquid. This buffer of cooler water is displaced during expansion and contraction of the fluid caused by heating and cooling of the system. Having this buffer means that it is the cooler un-circulated liquid which is in direct contact with the main expansion vessel, the lower temperature preserves the integrity of the membrane.

The correct size of vessel must be considered prior to installation and installed by appropriately trained engineers.

### Installation Siting

It may be necessary to fit an Intermediate VSG Vessel between the Solar Thermal Circuit and the Primary Solar vessel in order to lower the temperature of the liquid in direct contact with the SOLAR PLUS membrane.





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### Sizing

The appropriate sizing of an expansion vessel must be undertaken by qualified or appropriately trained engineers. The appropriate size of VSG Vessel is proportional to the main vessel. On the rare occasions when an unusually high acceptance factor is used for the main vessel, a larger intermediate vessel may be required.

Main Solar Vessel Size	VSG Vessel Size
18	5
25	5
35	12
50	12
80	18
105	35
150	35
200	100
250	100
300	100
400	200
500	200
600	200

### Maintenance

Because this vessel has no membrane, only a periodic visual inspection is necessary, the vessel has no pre-charge other than standard system cold fill pressure.

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### Materials

Shell: Carbon Steel

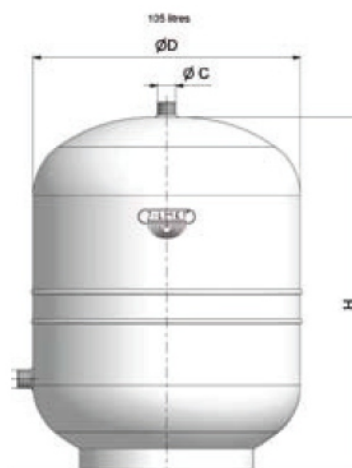
Flange: Galvanised /plastic

Max Pressure: 10 Bar

Colour: White

Operating Temperature: -10°C - 110°C

Code	Capacity	Diameter	Height	Connection Height "E"	Pmax	Connection
11A0000512	5	160	270	-	10	3/4"G
11A0000837	8	200	280	-	10	3/4"G
11A0001216	12	270	264	-	10	3/4"G
11A0001244	12	270	264	-	10	3/4"G
11A0001836	18	270	349	-	10	3/4"G
11A0003510	35	380	367	125	10	3/4"G
11A0005022	50	380	505	146	10	3/4" G
11A0010518	105	500	665	165	10	1" G
11A0020013	200	by request	by request	by request	10	1" G
11A0040017	400	by request	by request	by request	10	1" G





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## Notes



Solar VSG



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