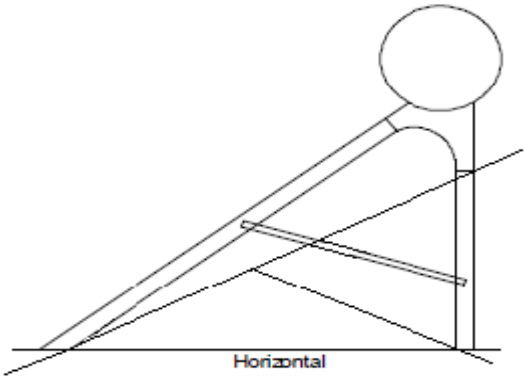
HIGH PRESSURE GEYSER INSTALLATION

Tips on installing high pressure systems:

- The system works best when facing north.
- The optimal angle for the glass tubes is latitude +10°. For the Pretoria area it will be ± 35° .The stand is designed for 38°, so the stand can be used without any modification.
- When installing on a 26° pitch roof the short leg with the right angle end is not installed. The angle of the roof plus the remaining angle of the stand will give the required ± 35°.

How to assemble the stand:

- The cradles, thus the parts on which the tank rests,
- are in the box marked "water tank".
- All the other parts are in the long, thin box marked "bracket"
- If the stand is mounted on a 26° roof, the rear upright leg is not installed.
- The white plastic washer is fitted on the side of the nut.
- There are three horizontal bars (J profiles):
- One has only the two holes at the ends: Always fitted at the rear of the stand, in the lowest hole (for horizontal or 26° roofs)
- The one with the two holes closest to the middle is always to the rear, under the tank, together with the long cross struts. In the 100 litre systems, when fitted on a 26° roof, the cross struts actually cross.



- The horizontal bar with the two holes the farthest from the middle, goes in the front of the stand, under the glass tubes, together with the two short cross struts.

Glass tubes with heat pipes (High pressure systems):

- Before sliding the copper protrusions (condensers) into the sleeves in the tank, draw the copper tube out about 10cm, so it can be **pushed as deep as possible into the sleeves**
- The condensers can be coated with grease if lubrication is needed to slide the condensers into the sleeves.
- The mirror side of the tube fits into the black cup and ring which clips into the two rectangular slots in the bottom rail of the stand.

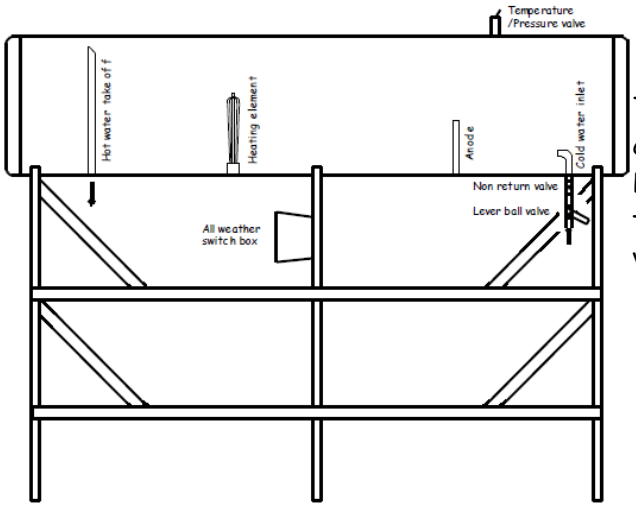
- If the condenser does not slide into the sleeve easily, pull the copper tube out slightly. Using pliers, move the condenser, using a anticlockwise / clockwise screw motion, until it slides in. The copper is very soft, so be careful not to damage the copper tube.
- Take care not to make the angle between the stand and the tube too big, as it may damage the sleeve or the condenser.

Anode:
Like any metal geyser, these solar geysers must also be fitted with an anode. Made from magnesium, corrosion will first happen on the anode. Yearly inspection of the anode, and replacement when necessary, will make the geyser last longer.
The anode is attached to the drain plug on the underside of the tank. If the drain plug is unscrewed, the anode can be pulled out of the tank.

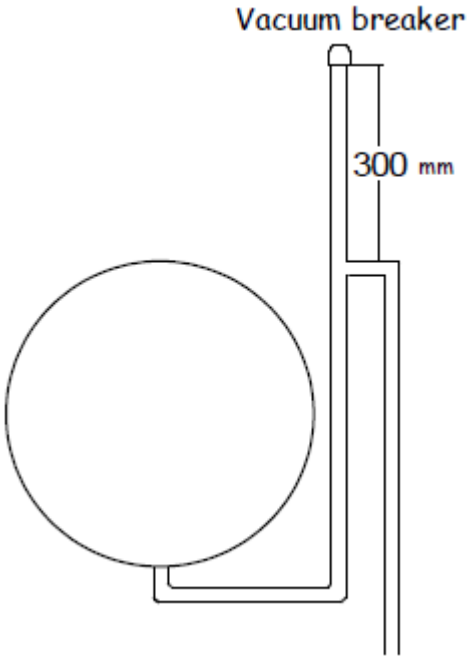
Electric element:
A standard screw in electric element with a pocket for the thermostat can be fitted. Remove the washer from the element and prevent leaks with plumbers tape or hemp on the thread.

There are two main methods of connection:

1) NON RETURN VALVE:



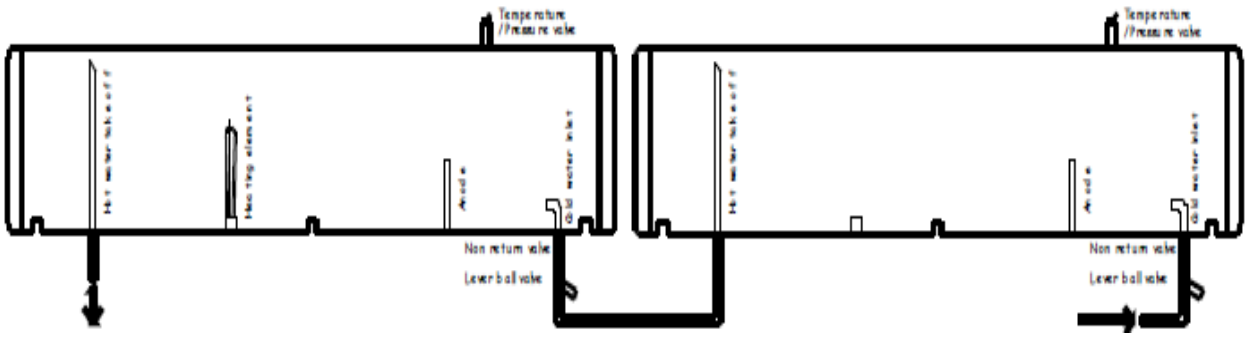
The factory prefers to use a non return valve at the cold inlet. This is the easiest and quickest method. Because the hot water is drawn from the top of the tank, the tank cannot run dry when the non return valve is closed, and the element will not overheat.



2) ANTI SIPHON LOOPS:

- The SABS prefers an anti siphon loop to be installed
- on both the in- and outlets, like with standard electric geysers. The advantage of this method is that the valve cannot stick or make noise, and water hammer can be avoided.
- Remember the lever ball valve at the inlet.
- Because there is a long pipe inside the tank which draws hot outlet water from the top, it is not necessary to install an anti siphon loop on the outlet.
- When connected in series, these anti siphon loops need only be installed at the first inlet.

Series installation:



- The backup element need only be in the last tank.

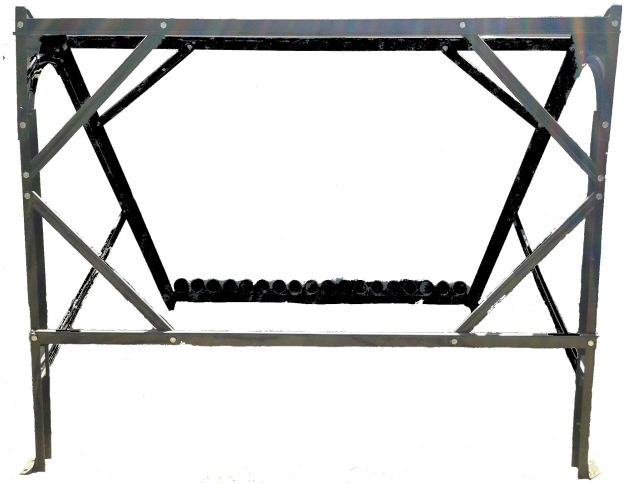
Warranty:

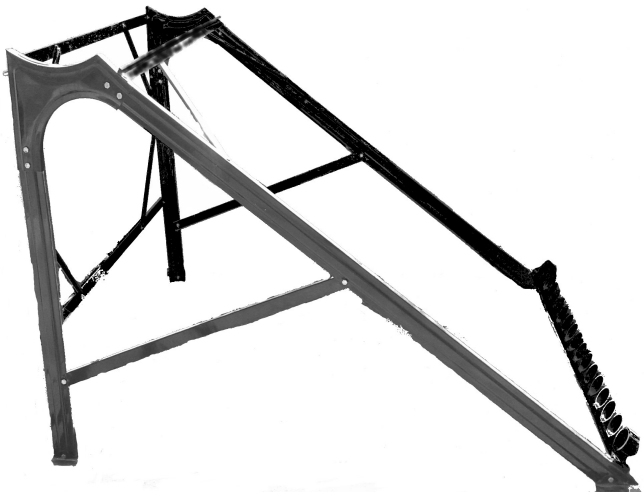
· Five years from purchase on all Black & White high and low pressure systems and manifold systems.
· Two years from purchase on all Green & White high and low pressure systems.
· One year on electronic control panels.
· Glass tubes cannot be guaranteed against breakage or cracking.
· Locally sourced elements, thermostats and valves are covered by the local suppliers.
· The warranty is subject to water quality similar to the norm in the metropolitan areas.
· Improper installation will void the warranty.
· Please keep your invoice, so the date can be ascertained.

Please note that leaks in the copper sleeves are almost always caused by water quality problems. The reason why these sleeves start leaking before the other plumbing pipes is that the temperature around the solar "element" increases the rate of chemical reactions far above the rate in the cooler pipes.
If leaks occur, the sleeves can be removed, soldered tight and replaced as a temporary measure..

Stand Installation

Rear view



Front view

Side view