



## No Heat Dump Required

Hot Solar Water panels do not require a Heat Dump

The panels are designed with 4 connections. The meander within the panel negates the need for a heat dumps as in stagnation the glycol will flash to steam.

The glycol will then get pushed out of the collector into the expansion vessel. For this reason it is better to have collectors with four connections.

There are two kinds of absorber types;

### 1st – Collectors that cook out

Certain panels or all tube systems with only 2 connections. Easy to install but the disadvantage is that once they start to stagnate all of the glycol needs to steam up to get transported out of the absorber. This means very high stress on the glycol and the membrane of the expansion vessel because of the large amount of steam which reaches all the way down to the vessel. On larger system you would always need to install a pre expansion vessel to protect the membrane of the main expansion vessel.

### 2nd – Collectors that steam out

These are collector types like the Hot Solar Water panels with 4 connections. This type of absorber will push the glycol out of the absorber as soon as steam develops, pushing it to the expansion vessel. The glycol will then be protected inside the expansion vessel. As soon as the panel cools down and the steam starts to condensate the glycol will get pushed back into the panels, this design increases the longevity of the glycol and the entire solar system, without the need for expensive heat dumps

The expansion vessel should have at least the pressure related to the height of the system + 0.5bar. Though the system should have a minimum pressure of 1.5bar on the entrance of the pump. This pressure is important for the pump to work properly.