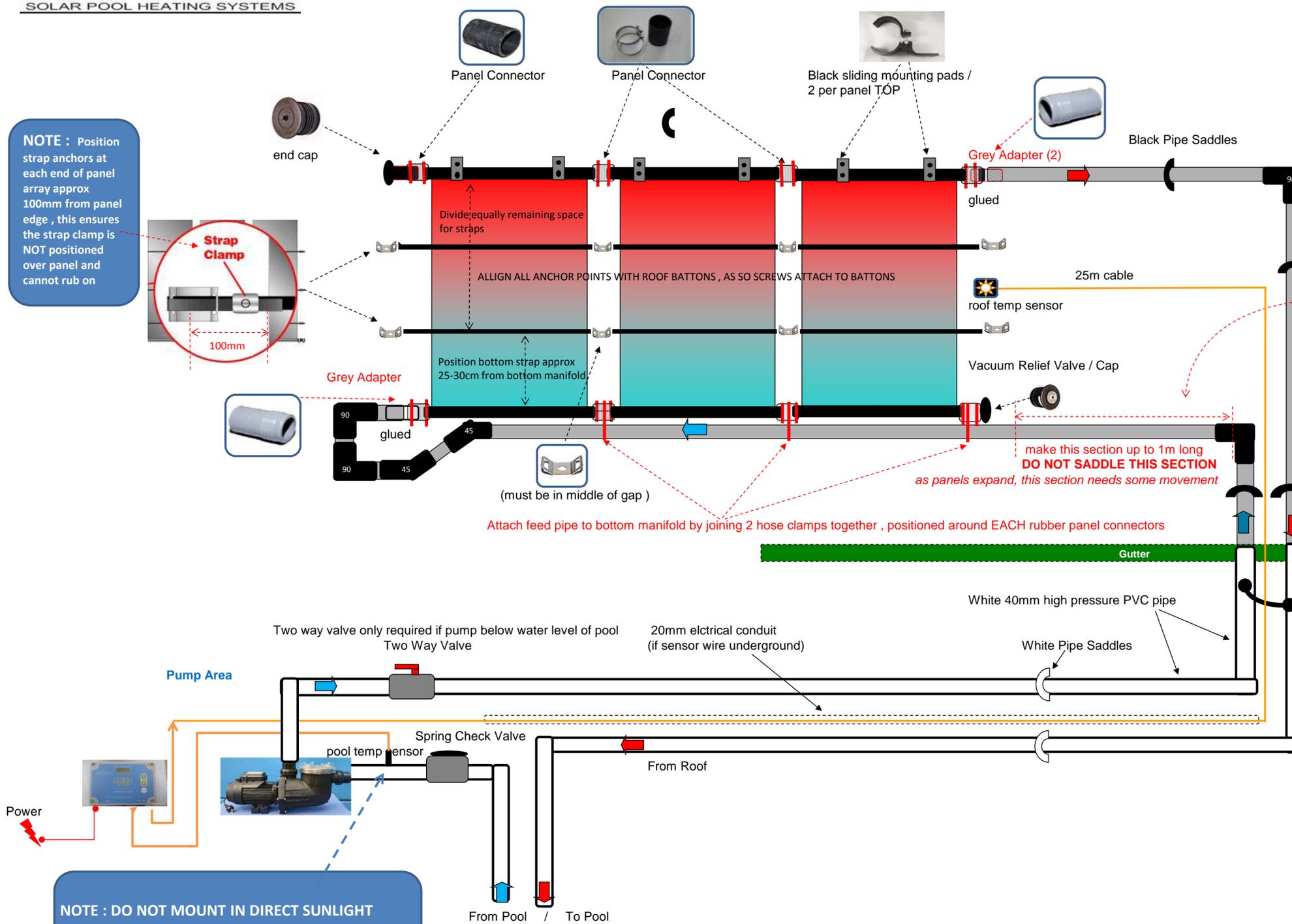
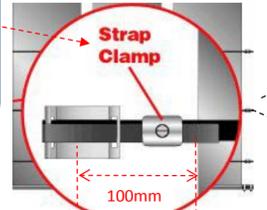


# Metal Roof Component illustration

## INDEPENDENT PLUMBING SYSTEM DESIGN



**NOTE :** Position strap anchors at each end of panel array approx 100mm from panel edge , this ensures the strap clamp is NOT positioned over panel and cannot rub on



**NOTE**  
**SYSTEM MUST DRAIN**  
Please ensure when mounting feed and return pipes , to allow the system to gravity drain . When pump swithes off, the supplied Vacuum Releif Valve will allow air to enter the system , as gravity pulls the water out of the system back to the pool. The system will need to drain from both feed (Inlet) and return (outlet) pipes.  
  
Allowing water to remian in panels , especially over long peiods, (eg stagnant water) can result in the build up water born organisms , also if panels have water in them over winter, when frost or snow is present, water can ice , expanding and damage the panels . This is NOT covered under the manufactueres warranty.

**IF SYSTEM CANNOT GRAVITY DRAIN - WINTER MODE MUST BE USED FROM THE CONTROLLER , OVER WINTER MONTHS**  
Winter Mode flushes the system for 5mins every 24hrs.

**NOTE :** Allow for expansion

In some system plumbing designs , there is a one way valve (non return valve) mounted either before or after the pump on the feed line. This is designed to keep the pump primed, but can also prevent panels from draining back through the feed line.  
  
In this plumbing design we recommend a " balance pipe" ( also called an "equalizer pipe") be fitted between the feed and return pipes , on the verticle pipes mounted on the wall , just below the gutter.  
  
This will allow any water trapped in the feed line , to DRAIN slowly through the balance pipe to

**NOTE : DO NOT MOUNT IN DIRECT SUNLIGHT**  
Note : Incorrect water temp readings may occur if pool water temp sensor is exposed to direct sunlight