

## ITS Domestic Heatpump installation basics.

ITS heatpumps feature virtually plug and play operation. We would however just like to bring a few installation requirements to the attention of our installers.

Key installation points:

1. Piping used to connect the heatpump to the hot water storage tank (geyser) must be of an appropriate type as specified by SABS for pressurized hot water systems. Since the heatpump will not produce water warmer than 60 deg C composite PEX pipes can also be used as a cheaper alternative to copper. Piping diameter must match the connection port diameter of the heatpump used.
2. Please consult the heatpump manual for heatpump mounting clearance specifications.
3. All piping must be insulated and anti siphon loops must be installed at the geyser to prevent heat from siphoning away from the geyser while the heatpump is not in operation.
4. ITS recommends the use of ball valves in the “send” and “return” pipe lines of the installation to simplify future maintenance.
5. Always use a Y strainer before the heatpump to prevent possible dirt from building up in the heatpump.
6. Always use a non return valve “check valve” before the heatpump
7. Use slow react circuit breakers for the heatpump as the start-up current may be higher than the operating current. The table below gives the breaker amperage:

Model number	Running Current	Slow react circuit breaker amperage
ITS-4.7HDP	4.4A	10A
ITS-11.8HD	12.5A	20A
ITS-17VD	16.7A	20A
ITS-24.5VD3	7.5A x 3	15A x 3

8. Bleeding the air from the piping and heatpump after installation is very important. Trapped air will cause insufficient heat transfer resulting in the heatpump going into EE1 error mode.
9. Use hot water circulation pump with sufficient flow rate to circulate the water through the heatpump. Please note that only the 4.7kW domestic pump has a circulation pump build in (Wilco RS15/6 set at maximum speed). All the other models require an external circulation pump. A 220Vac circulation pump output is provided for on all heatpumps.
10. The heatpump tank temperature sensor must be inserted into the tank’s thermostat sensor pocket (thermostat can be removed since electrical elements are no longer required).
11. ITS recommends a set point temperature of 55 deg C (default).
12. Remember to provide drainage for the heatpump drainage point as the unit will produce drops of water during normal operation (condensation).

The logo for ITS (International Technology Sourcing) features the lowercase letters 'its' in a bold, sans-serif font. The letters are dark grey and are positioned in the bottom right corner of the page. A large, faint, light grey watermark of the letters 'ITS' is visible in the background of the entire page.

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Figure 1 below shows the typical installation diagram for the 4.7kW domestic heatpump and Figure 2 the typical installation diagram for all the larger domestic heatpump models.

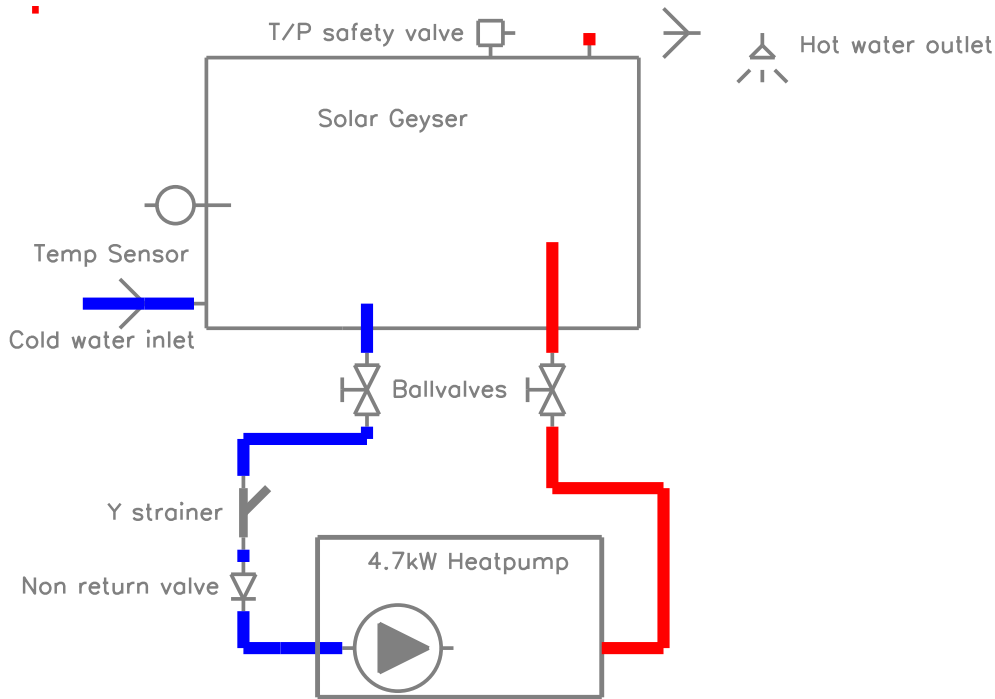


Figure 1.

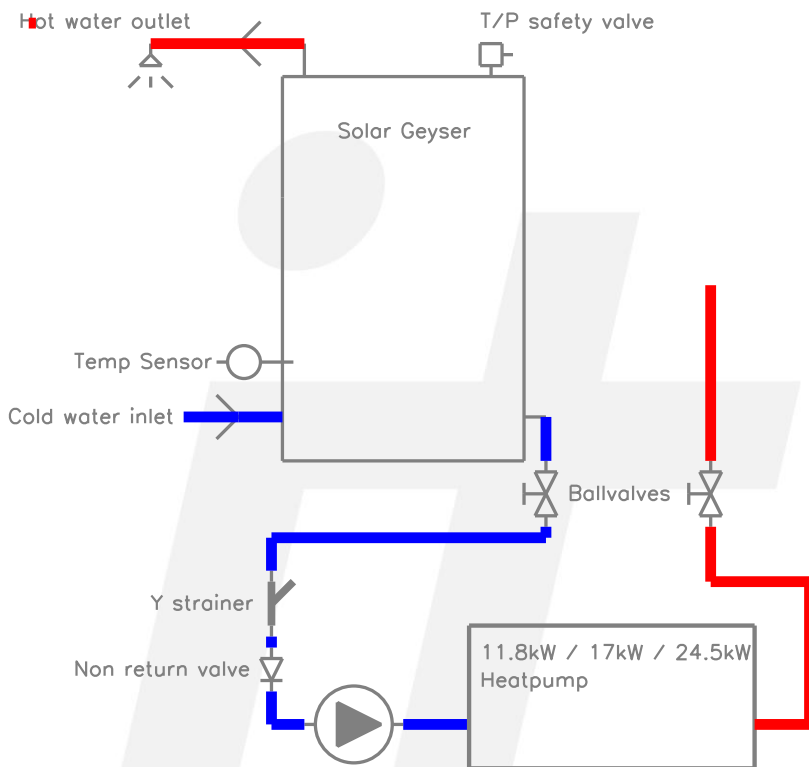


Figure 2

## Start Up - Quick set up

### 1. Start up button

Press Up arrow Twice (x2)  $\Delta$   
Temperature Flashes on right hand side  
Adjust temperature to desired degree using up / down arrows

### 2. Time Window

\*\*\*\* Please note that the time window must be adjusted in such a way to fit into a one day 24h cycle \*\*\*\*

\*\*\*\* Example ~ 05:00AM – 22:00PM

- Press timer button once (x 1)
- **On** Button appear on right hand of display
  - Adjust to desired time to switch unit on
- Press timer button second time
- **OFF** Button appears on right hand of display
  - Both on and off signals are now being displayed
  - Adjust to desired time to switch unit off



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