

# Combined Systems domestic hot water & backup space heating



Utilising the state of the art Multi Energy Solar Buffer Tank, solar thermal energy is collected through the chosen collector array and is layered and stored in three large stratified zones through the large surface area coil within the tank, the primary energy within the upper zone is then transferred by the charge pump to the plate heat exchanger within the fresh water station, this will provide a continuous supply of solar heated domestic hot water.

The middle heating zone within the stratified tank is for the connection of the high temperature heating circuit and the lower heating zone connections are for the under floor heating circuit.

## Combined systems unique features & benefits

Unique plug & play system for ease of installation.

Hygienic & legionella free domestic hot water due to no storage of potable water.

Completely expandable system, freshwater station flow rates of 30 litres / min and additional units can be linked to deliver higher flow rates, multiple tanks can also be connected in series for greater hot water and space heating requirements.

Multiple buffer storage connections for other alternative energy sources.

Optional secondary hot water circulation pump with in-built timer for fresh water station

### Sizing Guide Domestic Hot Water & Space Heating

| Property size / household occupants                                  | Solar Collector orientation | Vacuum Tube Collector CPC (INOX or OEM)     | Flat Plate Collector FK series                  | Buffer Tank Size |
|--|-----------------------------|---|---|------------------|
| 2 - 3 Bedroom House, 3-4 occupants with 1 bathroom & 2 en-suite      | SE to SW                    | 4 x CPC 12 (8m <sup>2</sup> aperture area)  | 5 x FK 500 (11.75 m <sup>2</sup> aperture area) | 800 litre        |
| 4- 5 Bedroom House, 4-5 occupants with 1 bathroom & up to 3 en-suite | SE to SW                    | 5 x CPC 12 (10m <sup>2</sup> aperture area) | 6 x FK 500 (14.1 m <sup>2</sup> aperture area)  | 800 litre        |
| 4-6 Bedroom House, 5-7 occupants with 2 bathroom & up to 3 en-suite  | SE to SW                    | 4 x CPC 18 (12m <sup>2</sup> aperture area) | 6 x FK 500 (14.1 m <sup>2</sup> aperture area)  | 1000 litre       |

The above examples are only a guideline and further solar thermal pack / sizing combinations can be requested, please consult your sales representative.

TSOL solar thermal simulation software should always be used to correctly dimension each individual system, SOLFEX energy systems dedicated solar thermal sales team will carry this out for all clients free of charge.

Basic hydraulic schematic for solar thermal domestic hot water with backup space heating support.

