



Kwik SOL

Cistern Type
SOLAR WATER HEATER



CLOSE COUPLED-

**direct
system**

SYSTEM COMPRISES OF:

**110 LT SOLAR WATER HEATER, SELF-FILLER TANK,
THERMOSTATIC MIXING VALVE, 12 VACUUM TUBES AND STAND**

DOMESTIC SOLAR WATER HEATERS & SOLAR VACUUM TUBES - DIRECT SYSTEM



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close coupled - direct system

The direct system is used where the water quality is good (less than 600ppm Total Dissolved Solids/Minerals).

A direct system is where the water to be used in the household (hot water) is heated by means of solar radiation absorption by the vacuum tubes and directly heats the water in the solar water heater.

In the close coupled system the vacuum tubes are in integral part of the storage tank and the heated water in the tubes rises and heats the water in the tank, known as a thermosyphon system. The system operates according to the basic principles of physics.

product features of the complete Cistern Type system

The complete Cistern Type Solar Water Heating System is ideal for low cost housing, where homes do not have an electric water heater to supply hot water and in rural areas and homes where electricity is not readily available to heat water. It provides hot water to those who do not have the luxury of having hot water on tap.



low pressure solar water heater and self filler tank

- 304 stainless steel 110lt tank covered in galvanised outer casing, IPX4 rated.
- The horizontal solar water operates at zero pressure and relies on gravity to feed water to the taps.
- The self filler tank controls the water flow into the solar water heater. The self-filler tank has a high pressure float ball valve, which allows for a direct connection to the municipal mains supply, without any additional valves.
- The solar water heater relies solely on solar radiation transmitted via an array of vacuum tubes to heat the water and does not have an electrical element and thermostat as a back-up.

Capacity (litres)	Operating Pressure (kPa)	Mass Empty (kg)	Filler Tank Water Inlet Connection & Air Vent (BSP Male)	Solar Tank Water Outlet Connections (BSP Male)	Overflow Connection on End Dome (BSP Female)	Width (mm)	Diameter (mm)
110	0	30	1/2"	3/4"	3/4"	1180	470

solar vacuum tubes features

- Vacuum tubes consist of two glass tubes manufactured from borosilicate glass.
- The outer glass is transparent allowing light rays to pass through with minimum reflection.
- The inner glass is coated with a special solar selective coating (Al-N/A1), which provides excellent solar radiation absorption.
- The tops of the tubes are fused together and the air extracted, which forms a vacuum, which is key to the efficiency of the vacuum tubes.
- If the vacuum is ever lost, the silver inner coating will turn white.
- The water is directly heated in the vacuum tubes.
- Tubes are freeze and hail resistant.



solar vacuum tubes specification data

Tube Dimension (mm)	Assembled Dimensions 12 Tubes (mm)	Absorption Area (m ²)	Mass Empty (kg)
1800 (l) x 58 (diameter)	1700 (l) x 1050 (w) x 1070 (h)	1.2	18

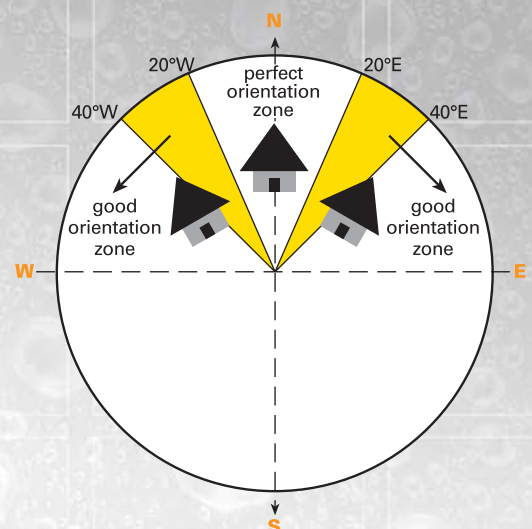
assembly stand

A floor stand is available for flat roofs and this same stand can be cut down to size and used for a pitched roof installation on roof pitches of more than 8° and less than 30°.



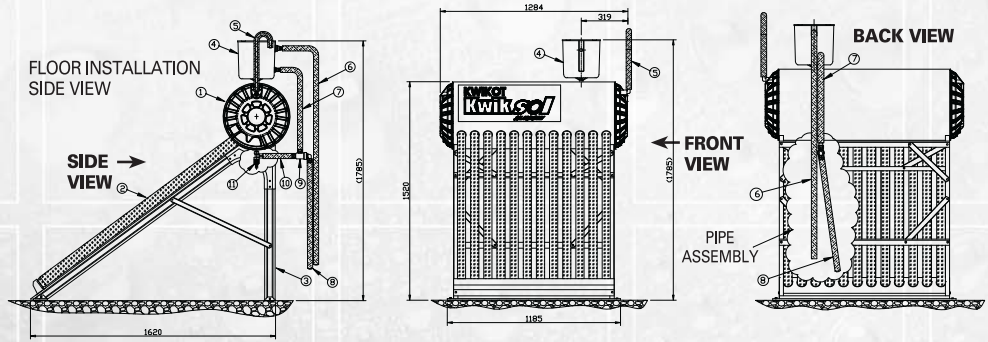
installation location data

- For optimum performance complete assembled system needs to face the equator and facing north for southern hemisphere installations.
- Installations on angles of up to 45° away from the equator are acceptable. Solar radiance from the sun occurs at about 10:00 until about 16:00 and at its peak between 12:00 and 14:00.
- If the solar vacuum tubes are installed with an east facing bias, the best solar capture is in the morning and if installed with a west facing bias, in the afternoon.
- The location should not be subjected to excessive shading from trees and other buildings and particularly between 09:00 and 15:00. Shadows are longer in winter so a location that is free of shadows in summer may have some shadows in winter.



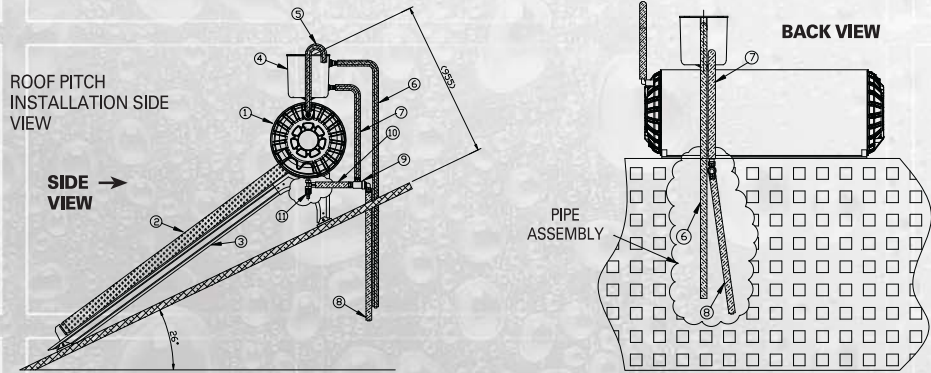
FLAT ROOF INSTALLATION DIAGRAM

KEY	
1	Cistern Type Pressure 110lt Geyser
2	Solar Vacuum Tubes
3	Assembly Stand
4	Cistern Tank Assembly
5	Vent Pipe Assembly
6	Cold Water Supply Pipe
7	Cold Water Supply to Mixing Valve
8	Mixed Water Supply to Consumer
9	Thermostatic Mixing Valve 15mm
10	Hot Water Supply to Mixing Valve
11	15mm Drain Cock with Comp. Inlet

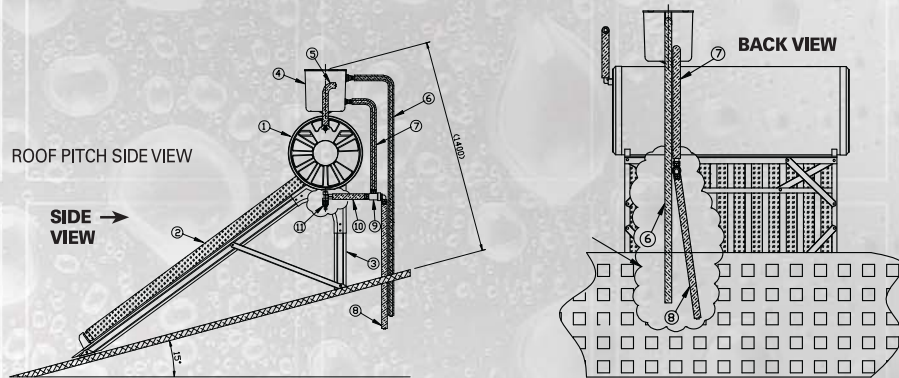


Note: A stand is available for floor mounting (as shown above) & for pitched roof installation with pitches of more than 8° & less than 30°. All dimensions in mm.

PITCHED VIEW INSTALLATION DIAGRAM AT 15° ANGLE



PITCHED VIEW INSTALLATION DIAGRAM AT 26° ANGLE



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product warranty

The warranty period on the Kwikot Cistern Type Solar Water Heater is from date of installation providing that documented proof of installation is furnished, or alternatively from date of manufacture as determined from the serial plate code on the solar water heater.

- One year on the self-filler tank and float ball valve.
- Five years on the inner cylinder (tank), subject to water conditions equivalent to main Metropolitan supply authorities.
- The warranty on the installation is the responsibility of the installer.

The solar vacuum tubes have a comprehensive 5 year warranty from date of installation and subject to the following conditions:

- The warranty only applies to defects, which have arisen solely due to faulty materials and workmanship during the manufacturing process of the vacuum tubes.
- If any component fails during the warranty period, Kwikot will replace or repair the failed component free of charge.
- Breakage or cracks to the vacuum tubes is not covered by the warranty.
- The warranty on the installation is the responsibility of the installer.

product code

Product Code	Product Description
SOL-110-LP (Complete System)	Cistern Type Solar Water Heater with Self-Filler Tank, Array of 12 Vacuum Tubes, Mixing Valve and Floor Stand



Kwikot, first is mind, first in absolute peace of mind