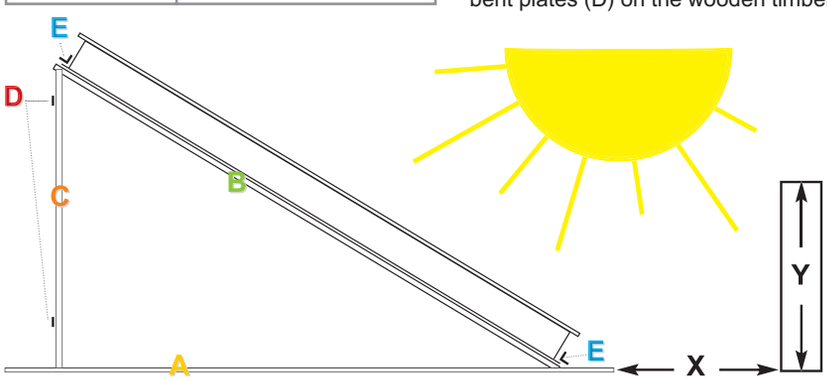
Installation Instructions

1. Before you start installing the solar water heater, please read carefully all the installation instructions stated and illustrated in this manual.
2. Before the installation of the solar water heater, it is very important that the customer and the installer agree on all the details concerning the correct and safe installation of the appliance, (such as location, placement point, static resistance and control of the surface on which the appliance will be placed, piping and wiring run etc).
3. The installation should be done according to the local electric and plumbing regulations.
4. The location you will choose for the installation of the solar collector(s) should not be shaded by any obstacles (trees, buildings...etc.) all around the year. (see obstacle table here below).
5. For optimum performance of the solar system, the collector(s) must face South, for countries located in the Northern hemisphere and North for countries located in the Southern hemisphere. In case that it is not totally possible for the solar collector(s) to face the equator, you must turn it (them) towards East up to 30º if major hot water draw is before 14:00 p.m., or towards West up to 30º if major hot water draw is after 14:00 p.m.

The ideal inclination of the solar collector(s) should be equal to the latitude in which the installation is done.

6. The support base of the collector(s) is the same for both flat and inclined roofs. It is diversified only in the way of it's assembly (see installation instructions on the following pages.)
7. If the surface on which the solar collector(s) will be installed (inclined or flat) is not compatible with the standard equipment supplied with each appliance, then alternate equipment must be used. The installer has to choose, propose and install this alternate equipment, always under the concurrent opinion of the customer.
8. For installation on an inclined roof, the «D» plates must be screwed with the appropriate screws and nuts on the roof timber, in order to secure the right and safe installation of the collector(s).
9. In regions subject to heavy snowfalls, rainfall, storms, strong winds, cyclones, tornadoes it is very important to ensure that the supports of the standard equipment are sufficient to withstand the weight of the expected snow or the intensity of the weather conditions. In these cases the collector(s) must be placed in a stable way on the roof and must be tightened with additional metal straps.

Latitude	Distance between collector and obstacle
0º- 25º	X = 1,0 x Y
25º- 35º	X = 1,5 x Y
35º- 45º	X = 2,0 x Y
45º- 50º	X = 2,5 x Y
50º +	X = 3,0 x Y



ASSEMBLY INSTRUCTIONS

The same support base is used for both flat and inclined surfaces for the collector models ST-2000 and ST-2500.

INSTALLATION ON FLAT SURFACES

Connect the plates A, B, C, and D by screwing them tight to each other as shown on the illustrations on the following pages. Loosely screw the bottom plate E onto the plates B.
Attention: The top plate E is adjusted after the placement of the collector(s). Level the support base on the flat surface. Place the collector(s) on the support base and then screw it with the moly plugs and the bolts onto the concrete, according to your country's regulations.

INSTALLATION ON AN INCLINED SURFACE

Connect the plates (A) and (E) so that to form a rectangular frame, on the support bases with one and three collectors while the plates (A) and (C) on the support base with two collectors (as shown on the following pages).
Bend the 4 plates (D) as shown in the illustrations. Remove the tiles, and place the bent plates (D) on the wooden timbers or on the concrete of the roof. Screw tightly the rectangular frame (A)+(C) or (E) onto the plates (D). Level the support base and screw the plates (D) onto the wooden timbers of the roof as shown in the illustrations. For the safe installation of the support base you must always use the additional metal straps.
Lift the tiles and pass the metal straps under the horizontal wooden timbers of the roof. Tighten them onto the plates (C) for the support base with two collectors or to plates (E) for the support bases with one or three collectors, so that the support base can not move in any direction.
Screw the plates (B) onto the rectangular frame (A) + (C) or (E). Ensure that the plates (B) are tightly screwed on the holes of the plate (A). Loosely screw the the **bottom** plate (E) or (C) onto the plates (B).
Attention: the top plate E or C is adjusted after the placement of the collector(s).
Place the collector(s) on the support base and secure them with the plates (E) or (C) and tightly screw them onto the plates (B).

TECHNICAL CHARACTERISTICS OF THE SUPPORT BASE

Material: heat dipped galvanized metal plates
Thickness: 2,5mm - 3,0mm
Form: Angle of 90º, 35mm x 35mm

DIMENSIONS OF THE PLATES OF THE SUPPORT BASE

A = 2150 mm B = 2150 mm C = 1430 mm	**same for all of the support bases**
D = 1180 mm	**For support bases with 1 & 2 collectors**
D = 1220 mm	**For support bases with 3 collectors**
E = 1150 mm	**For support base with 1 collector**
E = 1430 mm	**For support base with 2 collectors**
E = 2355 mm	**For support base with 3 collectors**

Note:
The specifications of the products, their accessories (e.g. electric resistances, thermostats, valves, liquid….etc) and their materials are in accordance with the Greek standards . You must be informed and check if the specifications of the products and their accessories are in accordance with the local and national standards and regulations that apply in your country. The importer/distributor is responsible for the importation, commercialization and installation of the products.

HELIOAKMI S.A. in no case is liable for any damages caused to third parties for any reason, such as wrong installation of the appliances and their accessories, from the non-observation of the regulations and lows (electrical, urban planning, plumbing, sanitary…etc) applying in your country/area. In case of a defective product apply the terms and conditions of the warranty.