

INSTRUCTIONS



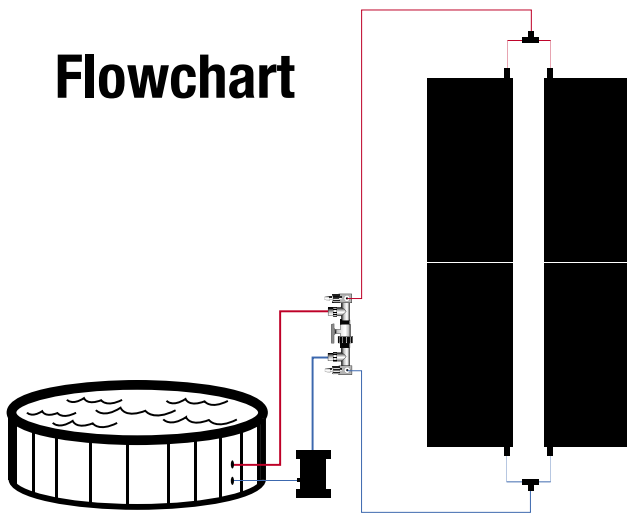
EL NIÑO

TEXSUN

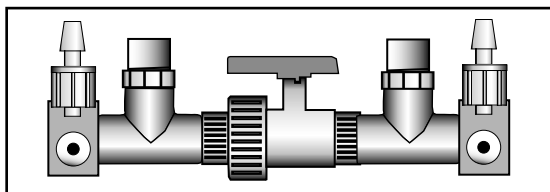
Easy to Assemble

El Niño solar collector for garden pools are delivered ready to assemble to your pools circulation pump. The system is equipped with a by-pass connection that allows you to switch the collectors "on and off" to avoid over heating. The by-pass collectors can also be used to regulate the water flow in case an over-dimensioned pump is used.

Flowchart



1. Place the solar collectors side by side on the ground
2. Connect the inlets and the outlets of the collectors. Use garden hose 12 mm (1/2") and the two t-nipples according to the flowchart
3. Make sure that the power to the pump is disconnected (pull the plug)
4. Cut the return hose of the circulation pump in two
5. Assemble the by-pass connection by connecting the two three-way valves to the by-pass valve (see picture 1). Use thread sealants for all connections

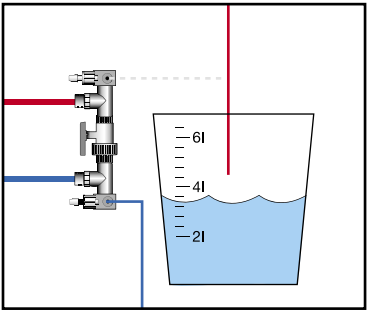


Picture 1: Bypass

6. Assemble the by-pass connection on the return pipes. Use hose clamps to secure the return hose to the by-pass connection
7. Connect the inlet, using garden hose 12 mm (1/2") between the t-nipple and the indented multi-coupling on the by-pass connection. NB: Push the hose entirely over the nipple before tightening the threaded connection
8. Seal all couplings that are not being used by either making a by-pass or by putting the end-cap on a small piece of garden hose (see picture 2 below). Do not connect outlet
9. Start the pump and check the flow rate (see picture 3)

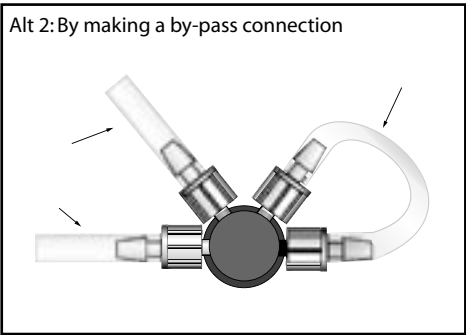
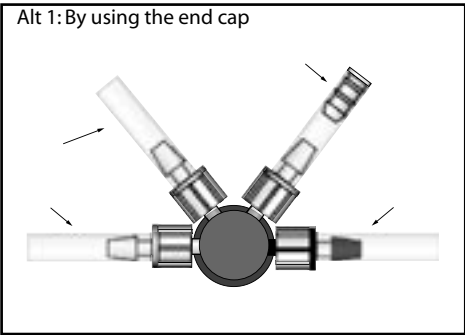
Measuring the Flow Rate

- The flow rate is measured by:
1. Open up the the by-pass valve
 2. Putting the return hose in a volume vessel.
Read the volume after 1 minute
 3. Slowly close the by-pass valve until a flow of 4-10 liters/minute has been achieved
(NOTE: most circulation pumps delivered with small above-ground pools do not give a higher flow rate than recommended. Therefore, most of the time, the by-pass valve should be fully closed when the solar collector are operating.)
 4. Connect the return hose to the by-pass connection



Picture 3: Measuring the flow rate

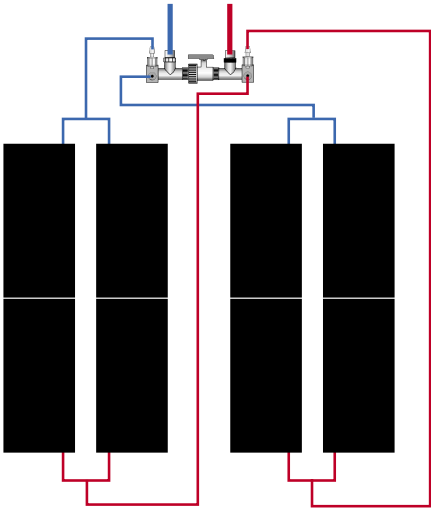
Picture 2: Sealing unused couplings



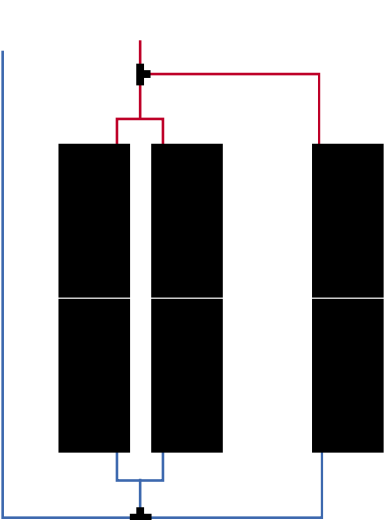
Connecting more collectors to your El Niño

The El Niño system offers two options to increase your solar collector area. Each El Niño Basic Kitt (3,60 m²) can either be connected to the El Niño Extension Kit (1,80 m²) or to more El Niño basic Kitss.

1. Connecting more El Niño basic kits



2. Installing the El Niño extension kit



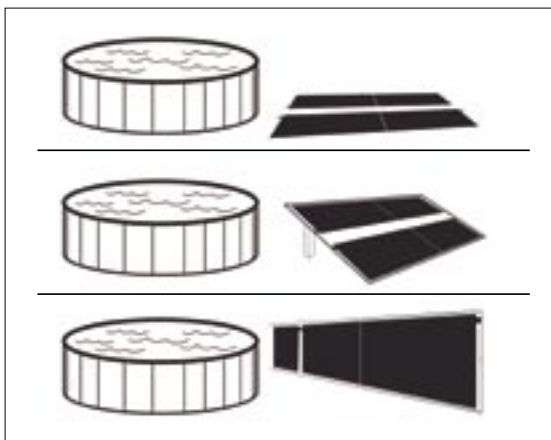
Setting up Your El Niño

1. On the ground next to the pool

2. On a simple stand

– tilt the stand 0-30 degrees

3. Vertically mounted – remember that the pumps lifting capacity will limit the maximum height of the installation



El Niño will have the best efficiency if located:

- Protected from wind
- Due south
- Isolated from the ground

Remember:

- Most pumps delivered with garden pools have low lifting capacity.
- DO NOT place the collectors more than 1 m above the pump.
- DO NOT place the collectors where they may get in contact with sharp objects
- NOTE: El Niño will retract somewhat when water is circulated through the x-channel system. When fixed on a stand or mounted on for example a wall, make sure that collectors are free to move

Information

NOTE: When using a pump not supplied with the pool, the pressure should be checked and adjusted below the maximum level of 0,3 bar

To achieve best efficiency from the El Niño we recommend that the pump is circulating the water in sunny weather and are stopped when raining. Suggestion! Connect the pump to a timer, which should be set to work during sun hours

El Niño should not under any circumstances be dragged or lifted by the hoses.

Always use filter and appropriate pool chemicals to protect the solar collector from dirt and algal bloom

Do not walk on the collector it might damage it

Maintenance

Small cuts or leakages could be fixed with standard PVC glue. Make sure that the surface is clean and dry before attempting to repair the damage. Always follow the instructions given by the glue manufacturer.

After Season Dismantling

1. Make sure that the power to the pump is disconnected (pull the plug)
2. Discharge the hose clamps from the by-pass connection and remove it
3. Discharge the garden hoses from the solar collectors
4. Make sure that the solar collectors are drained from water
5. Wipe the solar collectors clean with a damped cloth
6. Rewind the collectors in to a roll. DO NOT fold them toget