

#### **SWIMMING POOL HEAT EXCHANGERS**

For Use With Boilers, Solar Panels & Heat Pumps



# Installation, Operation & Maintenance Guide

www.poolexchangers.com

#### **Approved Use**

**SEC** "Swimming Pool Heat Exchangers" are only approved for heating or cooling pools with boiler water, solar and heat pump installations.

Any other use unless specified by **SEC** is not approved. **SEC** declines all liability for any damage associated with or arising from such use.

#### PRESSURE:

The maximum operating pressure must not exceed: Heating / Cooling (primary side) 75 psi / 6 bar max. Pool water (secondary side) 75 psi / 6 bar max.

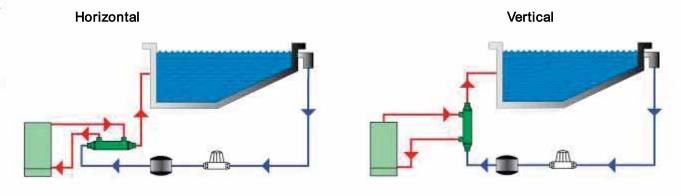
#### **TEMPERATURE:**

The maximum operating temperature must not exceed:
Heating / Cooling (primary side) 210 Degrees F / 100 Degrees C
Pool water (secondary side) 210 Degrees F / 100 Degrees C

#### Installation

**SEC** "Swimming Pool Heat Exchangers" should only be installed in a frost-free, dry area with a non aggressive atmosphere.

Before connecting the pool exchanger check for visible signs of damage, the exchanger can be installed above or below the pool water level, positioned either horizontally or vertically with the pipe work.



The Pool Exchanger can be damaged by chemicals. Dosing systems must be placed downstream from the exchanger with a non return valve. If chemicals used, gases must be prevented from entering the exchanger when the filtration system is in use.

The exchanger should always be installed downstream of the pumping and filtration equipment. The boiler/solar water must be pump assisted and the usual precautions taken to prevent air locks. The pool water pump should be controlled by a thermostat in the pool water pipe before the heat exchanger and set at the required pool temperature.

Under no circumstances should our pool exchanger be used in conjunction with ozone systems.

## Connecting / Disconnecting

**SEC** "Swimming Pool Heat Exchangers" should only be installed in a frost-free, dry area with a non aggressive atmosphere.

Before connecting the pool exchanger check for visible signs of damage, the exchanger can be installed above or below the pool water level, positioned either horizontally or vertically with the pipe work.

Before connecting/disconnecting shut off all drainage valves in the piping. When connecting the exchanger check that no debris has been introduced into the primary or secondary circuit pipes.

### Operation

The following will help prevent corrosion/damage to your *SEC* pool exchanger. Stainless steel exchangers should not be used with seawater or salt water pools. Titanium pool exchangers are available for these applications.

Always maintain the water pH levels between 7.4 and 7.6. The pH levels should never go below 7.2 or above 7.8. Check levels regularly. The pH level does not apply to Titanium exchangers.

| Chemical               | Levels              |
|------------------------|---------------------|
| Free Chlorine          | 1.0 - 3.0 ppm       |
| рН                     | 7.2 to 7.8          |
| Calcium Hardness       | 200 - 400 ppm       |
| Alkalinity             | 100 - 150 ppm       |
| Total Dissolved Solids | less than 1,000 ppm |
| Bromine                | 2.4 - 4.0 ppm       |
| Chloride               | less than 140 ppm   |

If a by-pass is installed ensure all valves are correctly positioned to allow the recommended pool water flow to pass through the pool exchanger.

The filter should be checked regularly, especially sand filters. If sand filters are not working correctly fine particles of sand can flow around the pool circuit causing erosion of the piping, exchanger and pump.

Keep pool free from leaves, grass cuttings, debris etc. This material can decay and increase the pH level.

It is essential that the correct of chemical is added to the pool. To allow dispersion in the pool water, the dose should be made in several areas of the pool. Do not dose near the pool return as this will create a high acidic area which can cause corrosion of the pool equipment.

#### **Shutdown**

In Winter areas we recommend draining the exchanger or removing it, in warm areas keep the exchanger full and air lock free.

## SPARE PARTS / ASSEMBLY DIAGRAM





# Identify Part Required on Models above:

| Name:                       |                |
|-----------------------------|----------------|
| Address:                    |                |
| City:                       |                |
| State:                      |                |
| Zip:                        |                |
| Model#:                     | Serial #:      |
| Date Purchased:             |                |
| Fax to SEC Heat Exchangers: | 1.902.659.2800 |

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