



Enviro Energy Solutions Ltd
Your Gateway to the Sun

EVHP and EVHPH SERIES
HEAT PUMP TANKS

TECHNICAL MANUAL

...BECAUSE WITH ENVIROENERGY SOLUTIONS THE SUN SHINES FOR EVERYONE...



V1-1.17

Before the installation and use of an ENVIROENERGY SOLUTIONS Solar Tank, Buffer Tank, Heat Pump Tank or electric Calorifier please read and observe carefully all the instructions concerning the installation, maintenance and use of the product, in this manual. The non-observance of these instructions may result in the cancelation of the warranty.

GENERAL SAFETY INSTRUCTIONS

- Attention when lifting the tank and always take precautions in order to avoid possible accidents, injuries and other hazards. During transportation and handling of the tank avoid abrupt movements as they may result in fall and damaging of the Tanks. To avoid damaging the tank, do not remove the packaging, until it reaches the installation location.
- All installations and maintenance must be performed by qualified and certified professionals, following all relevant local norms and regulations (1), industry codes, and according to the manufacturer's instructions.
- Always make sure that the installation site, especially on roof tops, is adapted to the weight and mechanical restraints of Tank when full (and eventually a 30% margin), as well as any further weight expected (snow, rain, etc...). **ENVIROENERGY SOLUTIONS** declines any responsibility that may arise from an improper or defective installation or from incorrect manipulation of the system or accessories composing it.
- Always make sure there is enough space around the Tank for maintenance purposes, as well as for the electric cabling and plumbing. It is recommended to agree with the client for the location of the installation and the routing of pipes and cabling.
- In case the Tank is placed Outdoors in regions with heavy snow fall or strong winds, it may be necessary to further anchor the system to the point of installation. In this case it is up to the installer along with the client to determine the best and safe way to install the Tank. Additional fixing points or equipment may be required.
- Never fill the closed circuit or connect the electric element with an empty tank. The tank must always be filled with water during these operations due to a risk of severe damage to the Tank.
- Before starting the installation or maintenance, the main power supply to the system must always be turned OFF, and the Heat Exchangers in case of Removable Heat Exchangers, must be removed.
- Improper installation and works can contaminate the potable water. Install the Tank hygienically and rinse the Tanks and piping thoroughly with potable water
- Install and use potable water pipes according to current standards and local norms and regulations.
- The use of plastic, PVC or polypropylene piping is not recommended, especially for the closed circuit, due to the very high temperatures developed by the installations. In any case, make sure that all the piping used in contact or close to the systems outlets can withstand minimum temperatures of 100°C, or 180°C if in contact with the primary (closed) circuit.
ENVIROENERGY SOLUTIONS recommends the use of copper or stainless-steel piping for safer and higher performance.
- It is recommended that the Tanks be maintained by a professional, checked and cleaned at least every 2 years. In locations with hard or dirty water an annual maintenance and cleaning is recommended. Please refer to the "Maintenance and Servicing" section of this manual.
- A pressure release and safety valve is mandatory on the cold-water inlet of the tank and a pressure reducing valve is mandatory in case the pressure of the water coming into the tank is above 3 bar.
- A mixing valve is compulsory on the hot water outlet in order to limit risks of burning and Expansion Vessels are recommended in order to limit pressures in the Tank and unnecessary loss of Water.

GENERAL INSTALLATION INSTRUCTIONS

- Always make sure that all the piping of the primary and secondary circuits, going to and coming from the Tank, are very well insulated, even in hot climate regions and treated for UV radiation.
- Avoid leaving the Tanks for long periods without using hot water (holidays, prolonged absences, etc...) due to risks of overheating, or make sure all the heating sources (solar panels, heat pumps, electric elements, burners, etc...) are turned off or inactive during this period.
- In case of use of Electric Heating Elements, the Tanks must be grounded
- It is recommended that the installation location be equipped with functional drainage on the floor
- Hydraulic connections to the tank must be such as to limit the phenomenon of electrolysis
- Every service and maintenance should be recorded in the maintenance book. This record is a key element to the validity of the warranty and should be made available on request
- Under no circumstances should any welding or repairing be made on the tank's metal structure. Risk of deterioration or destruction of the tank and annulation of the warranty.
- The electric heating element is not part of the system but an additional part and it should be installed by a certified electrician. The electric back-up should be used only in case the water temperature in the Tank is under 50°C. The constant and unreasonable use of the electric back-up may cause damage to the tank and cause annulation of the warranty.
- The quality of the water entering the Tanks should be within potable standards and in any case be within the values of the table below. If the quality of the water does not correspond to these values then special filters and water softeners may need to be installed to satisfy these conditions, or the warranty will not be valid.

WATER QUALITY REQUIRMENTS						
Specification	ph	Total Hardness	Chlorides	Free Chlorine	Conductivity	TDS
Value	7-9	<100 mg/l	<0,5 mg/l	<80 mg/l	<650 mS/cm 25°C	<600 mg/l

WARNING:

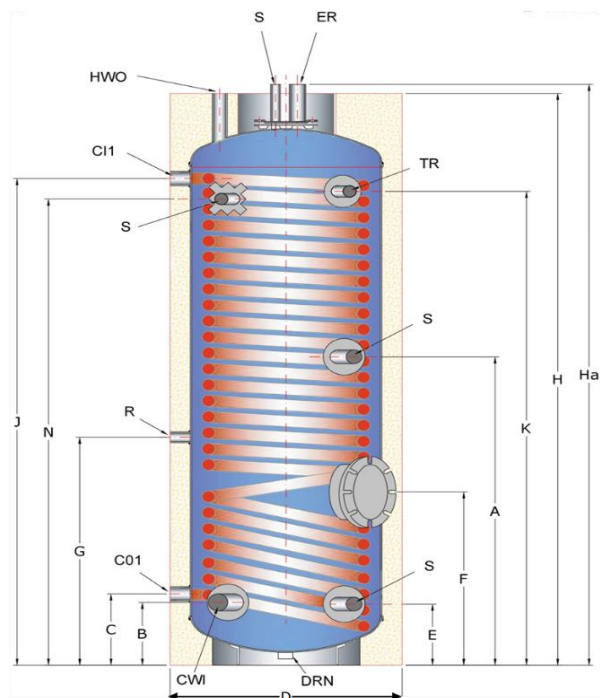
IF THE HOT WATER SYSTEM IS NOT USED FOR TWO WEEKS OR MORE, A QUANTITY OF HIGHLY FLAMMABLE HYDROGEN GAS MAY BE ACCUMULATED IN THE WATER HEATER. TO DISSIPATE THIS GAS SAFELY, IT IS RECOMMENDED THAT A HOT TAP BE TURNED ON FOR SEVERAL MINUTES UNTIL DISCHARGE OF GAS CEASES. USE A SINK, BASIN, OR BATH OUTLET, BUT NOT A DISHWASHER, CLOTHES WASHER OR OTHER APPLIANCE. DURING THE PROCEDURE THERE MUST BE NO SMOKING, OPEN FLAME OR ANY ELECTRICAL APPLIANCE OPERATING NEARBY. IF HYDROGEN IS DISCHARGED THROUGH THE TAP, IT WILL PROBABLY MAKE AN UNUSUAL SOUND AS WITH AIR ESCAPING.

- The safety of the Tanks and validity of the warranty are conditioned by the use of genuine **ENVIROENERGY SOLUTIONS** spare parts and accessories. Please only use genuine **ENVIROENERGY** spare parts and accessories from your nearest **ENVIROENERGY SOLUTIONS** dealer or contact the manufacturer.

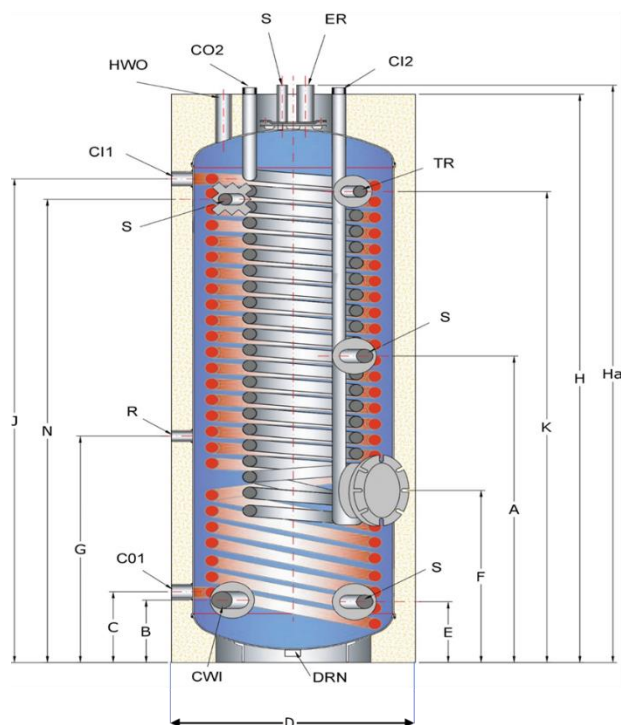
ENVIROENERGY SOLUTIONS declines any responsibility that may arise from the non-observance of the installation, maintenance and use instructions herein, non-observance of relevant local norms, regulations and industry codes, improper or defective installation, or incorrect manipulation of the system or the accessories composing it.

TECHNICAL SPECIFICATIONS

1. TANKS FROM 200lt TO 500lt GENERAL CHARATCTERISTCS



**EVHP Series Tanks with 1
Large Coil for Heat Pump**



**EVHP Series Tanks with 1
Large Coil for Heat Pump
and 1 Coil for Solar**

EVHP and EVHPS SERIES HEAT PUMP TANKS 200lt TO 500lt WITH OR WITHOUT SOLAR COIL

		EVHP/EVHPS 200	EVHP/EVHPS 300	EVHP/EVHPS 500
B	Cold Water Inlet (CWI)	260	210	265
L	Hot Water Outlet (HWO)	1545	1620	1700
J	Heat Pump Coil Inlet CI1	1345	1380	1415
Ha	Electric Element ER Inlet	1600	1675	1755
Ha	Sensor S3 Inlet	1600	1675	1755
Ha	Solar Coil Inlet CI2	1600	1675	1755
Ha	Solar Coil Outlet CO2	1600	1675	1755
C	Heat Pump Coil outlet CO1	305	210	245
G	Recirculation R	655	795	830
F	Cleaning Flange	480	420	475
H	Height of Tank	1545	1620	1700
J	Thermostat T	1355	1330	1385
K	Thermometer TR	1355	1320	1385
A	Sensor S1 Inlet	817	850	915
E	Sensor S2 Inlet	250	190	245

2. EVHP and EVHPS Series TANKS 200Lt TO 500Lt TECHNICAL CHARACTERISTICS



- **Internal Tank Material:** Steel
- **Welding Type:** Automatic
- **Internal Tank Protection:** Alimentary Quality Glass Enamel
- **Anodic Protection:** Magnesium Rod
- **Maximum Working Pressure:** 10 bar
- **Water Test Pressure:** 15 bar
- **Maximum Operating Temperature:** 95°C
- **Insulation:** Polyurethane foam 60mm, Density 52kg/m³
- **Coil:** Steel Tube
- **Maximum Coil Test Pressure:** 25 bar
- **Electric Heater:** Optional, Power Output Upon Request
- **Flange Diameter:** internal Ø170 mm - external Ø140 mm
- **External Cover:** Metallic or Soft PVC (color upon request)

EVHP and EVHPS SERIES HEAT PUMP TANKS 200Lt TO 500Lt WITH OR WITHOUT SOLAR COIL

	EVHP/EVHPS 200	EVHP/EVHPS 300	EVHP/EVHPS 500
Nominal Volume (Lt)	200	300	500
Heat Pump Coil Heat Exchanger C1 Capacity (Lt)	22,7	31,5	36,1
Heat Pump Coil C1 Inlet /Outlet (In)	1 ½"	1 ½"	1 ½"
Heat Pump Coil C1 Surface (m ²)	2,6	3,6	4,2
Heat Pump Coil C1 Cross section (In)	1¼"	1¼"	1¼"
Heat Pump Coil C1 Output at 1000lt/h (kW)*	24	40	50
Heat Pump Coil C1 Output at 2000lt/h (kW)*	60	100	125
Solar Coil Heat Exchanger C2 Capacity (Lt)	5,85	10,8	12,7
Solar Coil C2 Inlet /Outlet (In)	¾"	¾"	¾"
Solar Coil C2 Surface (m ²)	1,2	2,2	2,6
Solar Coil C2 Cross section (In)	¾"	¾"	¾"
Internal Tank Body Thickness (mm)	2,5	2,5	3
Insulation Type	Hard PU	Hard PU	Hard PU
Recirculation R (In)	¾"	¾"	¾"
Cold Water Inlet/Hot water Outlet (In)	1"	1"	1"
Sensor S (In)	½"	½"	½"
Lower Flange Ø (mm)	140	140	140
Upper Flange Ø (mm)	170	170	170
Upper Flange Anode Ø (mm)	Ø22x500	Ø22x500	Ø32x500
Electric Back-up Heating Element (EH1)	Optional – Power Output Upon Request		

* Heat Exchanger Efficiencies for DHW Heating from 15°C to 60°C

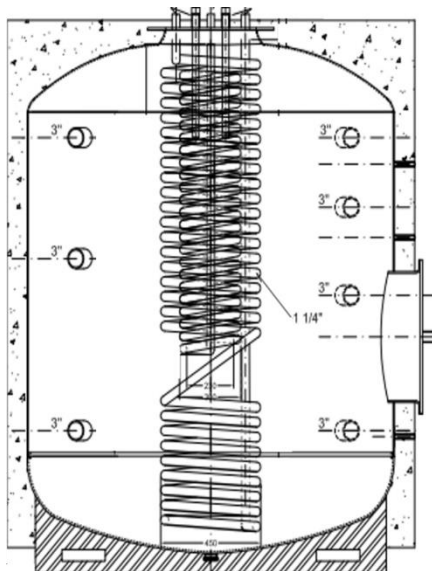
* Heat Exchanger Inlet Temperatures 80°C

3. EVHP and EVHPS Series TANKS 1000Lt TO 9000Lt TECHNICAL CHARATCTERISTCS

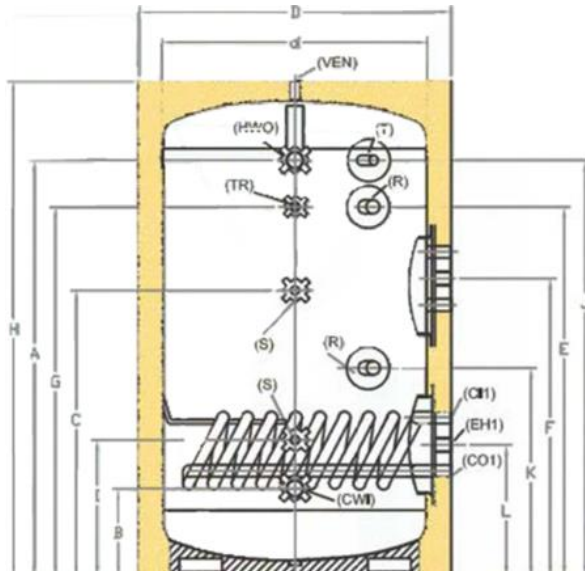


- **Internal Tank Material:** Steel
- **Welding Type:** Automatic
- **Internal Tank Protection:** Alimentary quality Epoxy Resin
- **Anodic Protection:** Magnesium Rod
- **Maximum Working Pressure:** 10 bar
- **Water Test Pressure:** 15 bar
- **Maximum Operating Temperature:** 95°C
- **Insulation:** Removable Polyurethane foam
thickness 55mm, density 52kg/m3
- **Coil:** Steel Tube
- **Maximum Coil Test Pressure:** 25 bar
- **Electric Heater:** Optional, Power Output Upon Request
- **Flange Diameter:** internal Ø420 mm - external Ø508 mm
- **External Cover:** Metallic or Soft PVC (color upon request)

EVHP AND EVHPS SERIES TANKS WITH HORIZONTAL OR VERTICAL HEAT PUMP HEAT EXCHANGER									
Model	EVHP(S) 800	EVHP(S) 1000	EVHP(S) 1500	EVHP(S) 2000	EVHP(S) 3000	EVHP(S) 4000	EVHP(S) 5000	EVHP(S) 7000	EVHP(S) 9000
Nominal Volume (Lt)	750	1000	1500	2000	3000	4000	5000	7000	9000
Actual Volume (Lt)	757	940	1480	1940	2940	3960	4700	6950	8960
Internal Tank Weight (kg)	265	405	420	490	645	850	930	1400	1800
6,5m² Heat Exchanger	Horizontal or Vertical					N/A			
6,5m² Heat Exchanger Weight (kg)	156					N/A			
8m² Heat Exchanger	Horizontal or Vertical								
8m² Heat Exchanger Weight (kg)	187								
11m² Heat Exchanger	N/A						Horizontal or Vertical		
11m² Heat Exchanger Weight (kg)	N/A						218		
Insulation Type	Soft PU								
Tilt Height (mm)	2060	2236	2386	2442	2916	3149	3287	3774	3966
Cold Water Inlet/Hot water Outlet (In)	1½''	1½''	2''	2''	2½''	3''	3''	4''	4''
Internal Tank Body Thickness (mm)	4	4	5			6		7	8
Internal Tank Upper and Lower Caps Thickness (mm)	4	4	6			7		8	9
Tilt Height (mm)	2060	2236	2386	2442	2916	3149	3287	3774	3966
Flange Ø (mm)	508								
Ventilation VEN	1 ½''	---	1 ½''						
Sensor S (In)	½''								
Drain	1 ½''								
Electric Back-up Heating Element (EH1 and EH2)	1 ½''								



**EVHP and EVHPS Series Tanks
with Vertical Heat Exchanger**

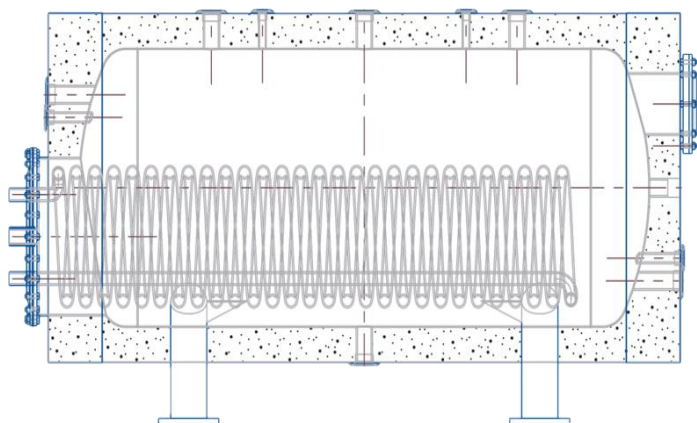


**EVHP and EVHPS Series Tanks
with Horizontal Heat Exchanger**

EVHP AND EVHPS SERIES TANKS WITH HORIZONTAL OR VERTICAL HEAT PUMP HEAT EXCHANGER

Model	EVHP(S) 800	EVHP(S) 1000	EVHP(S) 1500	EVHP(S) 2000	EVHP(S) 3000	EVHP(S) 4000	EVHP(S) 5000	EVHP(S) 7000	EVHP(S) 9000
POSITION ON TANK/ DIAMETER									
A Hot Water Outlet HWO (mm)	1410/ 1½"	1670/ 1½"	1705/ 2"	1705/ 2"	2245/ 2½"	2243/ 3"	2243/ 3"	2773/ 4"	2773/ 4"
B Cold Water Inlet CWI (mm)	275/ 1½"	295/ 1½"	365/ 2"	365/ 2"	365/ 2½"	383/ 3"	383/ 3"	413/ 4"	413/ 4"
C Sensor S (mm)	1000/ ½"	1155/ ½"	1185/ ½"	1185/ ½"	1482/ ½"	1503/ ½"	1503/ ½"	1833/ ½"	1833/ ½"
D External Diameter (mm)	1000	1000	1300	1400	1500	1700	1800	2000	2200
d Internal Tank Diameter (mm)	800	800	1100	1200	1300	1500	1600	1800	2000
E Recirculation R (mm)	1210/ 1"	1507/ 1"	1532/ 2"	1532/ 2"	2050/ 2 ½"	2050/ 3"	2050/ 3"	2580/ 3"	2580/ 3"
F Middle of Upper Flange and EH2 (mm)	1187	1198	1180	1180	1490	1723	1723	2280	2280
G Thermometer TR (mm)	1210/ 1½"	1507/ 1½"	1532/ ½"	1532/ ½"	2050/ ½"	2050/ ½"	2050/ ½"	2580/ ½"	2580/ ½"
H Total Height (mm)	1800	2000	2000	2000	2500	2650	2750	3200	3300
I Sensor S (mm)	510/ ½"	525/ ½"	565/ ½"	565/ ½"	565/ ½"	583/ ½"	583/ ½"	613/ ½"	613/ ½"
J Thermostat T (mm)	1410/ ½"	1670/ ½"	1725/ ½"	1725/ ½"	2245/ ½"	2245/ ½"	2245/ ½"	2773/ ½"	2773/ ½"
K Recirculation R (mm)	560/ 1"	---	862/ 2"	862/ 2"	1012/ 2½"	1030/ 3"	1030/ 3"	1060/ 3"	1060/ 3"
L Middle of Lower Flange CI1/CO1 and EH1 (mm)	500	515	520	520	530	565	565	593	593

4. EVPH and EVPHS Series TANKS 1000Lt TO 9000Lt TECHNICAL CHARATCTERISTCS



- **Internal Tank Material:** Steel
- **Welding Type:** Automatic
- **Internal Tank Protection:** Alimentary quality Epoxy Resin
- **Anodic Protection:** 4 magnesium rods Ø32 x 500mm
- **Maximum Working Pressure:** 10 bar
- **Water Test Pressure:** 15 bar
- **Maximum Operating Temperature:** 90°C
- **Insulation:** Removable Polyurethane foam
thickness 100mm, density 52kg/m3
- **Coil:** Steel Tube
- **Maximum Coil Working pressure:** 16 bar
- **Coil Test Pressure:** 25 bar
- **Maximum Coil Working temperature:** 130 °C
- **Electric Heater:** Optional, Power Output Upon Request
- **External Cover:** Metallic or Soft PVC (color upon request)

EVHPH AND EVHPHS SERIES HORIZONTAL HEAT PUMP TANKS

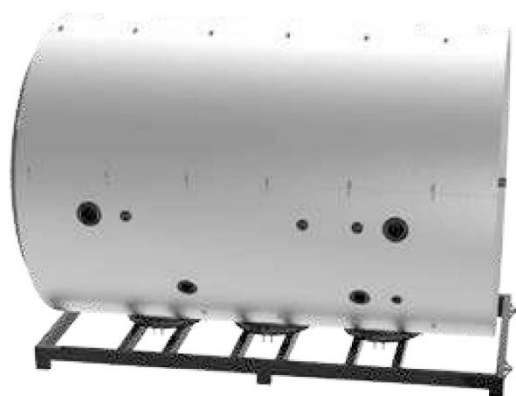
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INSTALLATION INSTRUCTIONS

A. LIFTING THE TANKS INTO POSITION

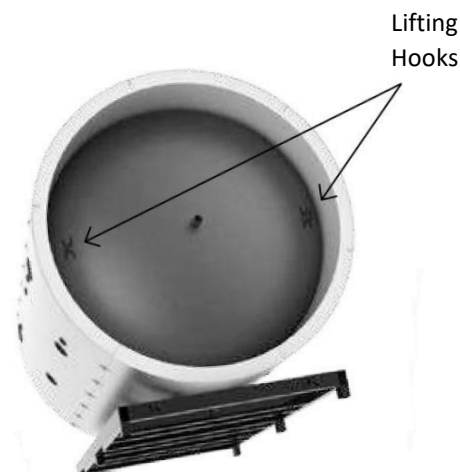


Tanks above 5000Lt come on a metallic Pallet for safe and secure transportation, as per picture 1 on the left. First carefully remove the cardboard covers and tape without using sharp tools in order to avoid damage to the tanks external cover and insulation.

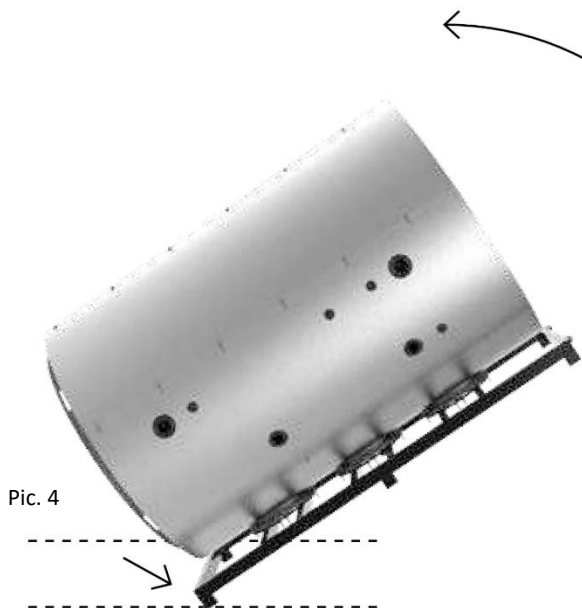


The Tank must be lifted into position using the hooks available either on the Metallic Pallet as per picture 2 on the left, or on the Top of the Internal Tank as per picture 3 on the right. Never lift the tank using the inlets of the Tank or the Heat Exchangers by risk of damaging the Tank.

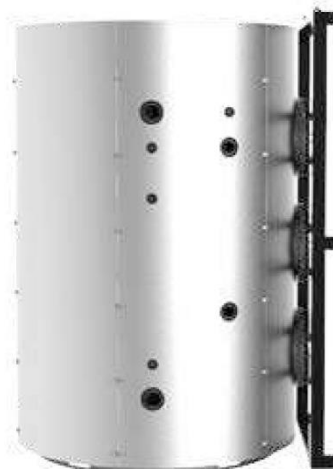
Lifting Hooks



Pic. 3



When lifting the Tank into position, the bottom of the metallic Transportation Pallet must always remain in contact with the Floor as per Picture 4 on the Left. When in Position the Pallet remains fixed on the Tank as per picture 5 on the Right.

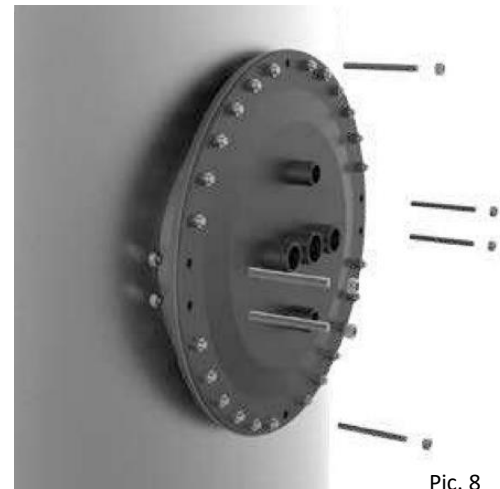




Pic. 6



Pic. 7



Pic. 8

Once the Tank Is placed in its final installation location and positioned properly, unscrew the bolts that fix the Metallic Pallet to the Flanges of the Tank as per picture 6 above left and remove it as per picture 7 above in the middle. Then put the bolts back in place screwing the flanges to the Tank as per picture 8 above on the right.



Pic. 9



Pic. 10

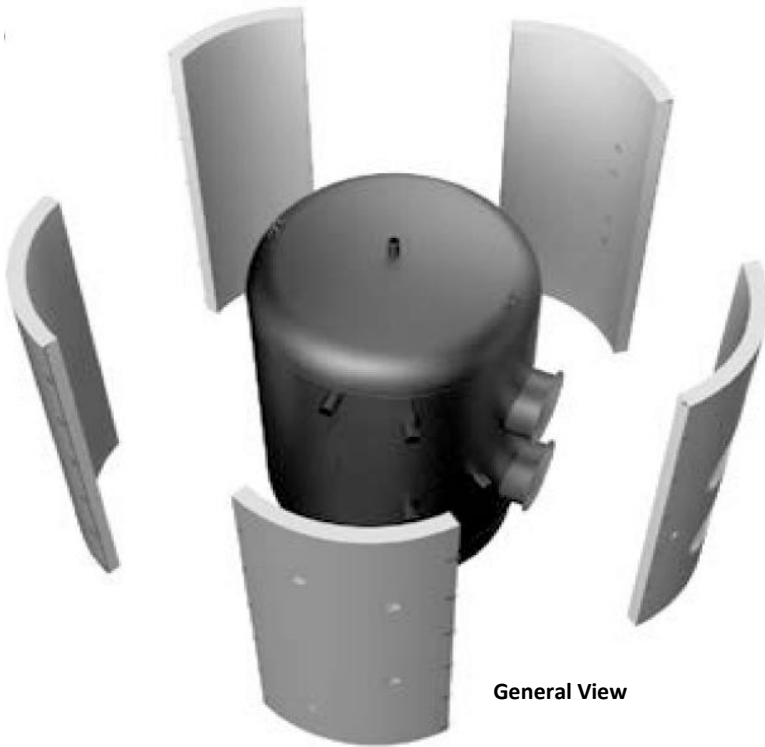


Pic. 11

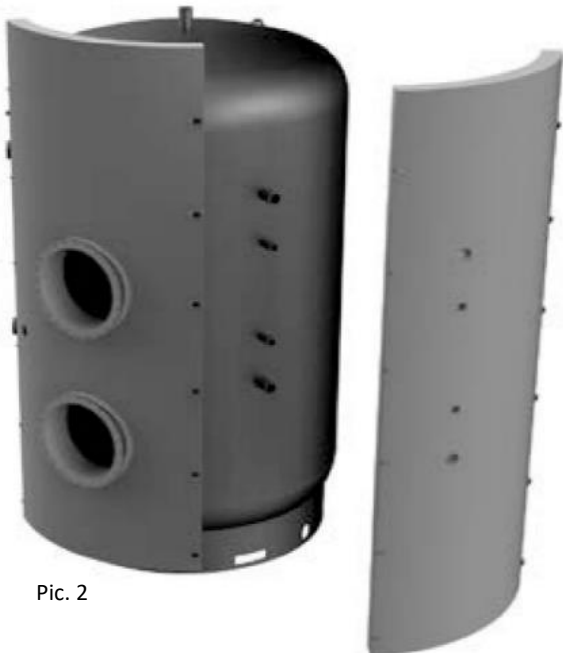
Place the Insulation of the Top of the Tank and the Top Cover as per picture 9 above left. Then Install the Flanges and Flange Covers as per picture 10 above in the middle and finally install the plastic gaskets on the Flange Covers as per picture 11 above right.

B. INSTALLING AND REMOVING THE HARD INSULATION SHELL

When Installing or Removing the Hard Insulation Shell, it is Imperative to follow the order 1 to 7 as per the pictures below. The smallest part is placed last.



Pic. 1



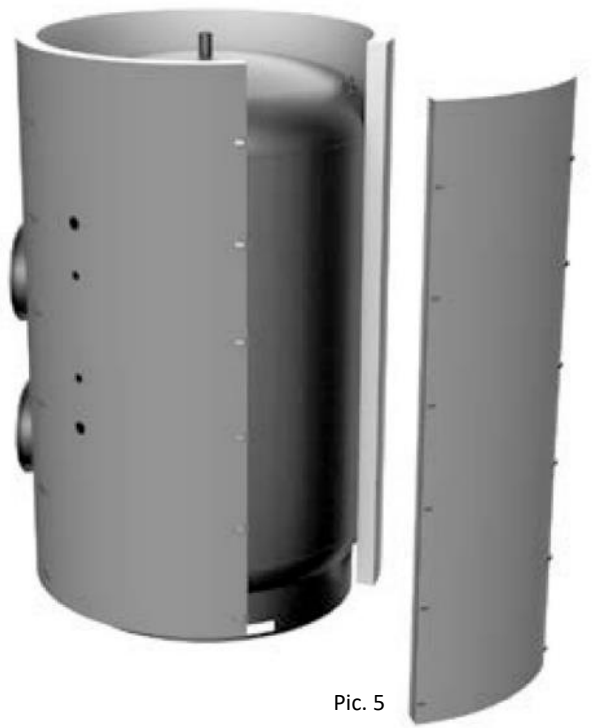
Pic. 2



Pic. 3



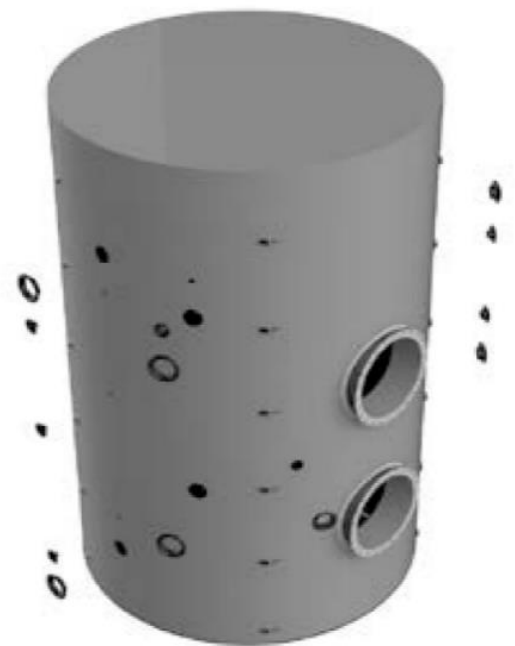
Pic. 4



Pic. 5



Pic. 6



Pic. 7

MAINTENANCE AND TROUBLESHOOTING

A. MAINTENANCE AND SERVICING OF THE SYSTEM

1. General maintenance

In order to ensure the constant well-functioning of the Tanks, they must be reviewed and maintained periodically (see warranty sheet) and the warranty sheet accompanying must be completed accordingly by the installer.

All installations and maintenance must be performed by qualified and certified professionals, following all relevant local norms and regulations (1), industry codes, and according to the manufacturer's instructions.

Before starting any maintenance work, the main power supply to the system must always be turned OFF, and the Heat Exchangers in case of Removable Heat Exchangers, must be removed.

Revisions consists of:

- The optical and physical inspection of the tightness of all joints and connections (hydraulic and electrical), verification that all safety valves, pressure reducing valves and mixing valves are working properly (safety valves on primary and secondary circuit), that the insulation of all the pipes is in good condition.
- Making sure that scale and salts have not accumulated in the valves or in the Tank. Poor water quality at the water can result in scale formation and may block the safety valves and Tank outlets leaving the tank unprotected against very high temperatures above 90°C and high pressure (greater than 10 bars).
- Making sure the electrical heating elements and thermostats are working properly and do not have scale or salts accumulation.
- Cleaning of the Tanks and removal of scale or deposits inside the Tanks, on the Heat Exchangers and on the electric elements, valves, etc...
- Making sure that the Heat exchanger is in good conditions and perfect working order
- The anode (magnesium rod) must be checked every year and replaced if it has been worn-out or reduced to 50% of its initial size or weight or if it has been covered by the accumulation of salts.
- Verifying that the weight of the thermal fluid in the primary circuit is adapted to local climatic conditions. The thermal fluid must in any case be changed at least every 3 years as it loses its properties through time.
- Verifying that the water quality entering the Tank is within standards as per the requirements in the table in the General Installation Instructions in this manual and the eventual filters and water softeners are in proper working order.

Attention: do not use any detergents, acids or any other corrosive products that may damage the enamel lining of the Tanks.

2. Replacing the sacrificial anodes (magnesium rods)

For optimal protection of the system against electrolysis, all **ENVIROENERGY SOLUTIONS** tanks include magnesium rods (sacrificial anodes) which must be checked and replaced if necessary, at least every year depending on the quality of the water. The size of the anode varies depending on local norms and requirements. For replacing the anode, proceed as follows:

- Shut down the main power supply
- Remove the safety valves or expansion vessel.
- Empty the tank.
- Remove the protective cover of the flange and Heat exchanger.
- Pull out the thermostat with caution.
- Remove the flange and unscrew the anode. Screw-on a new anode and following the same procedure backwards prepare and set the system back to work.

3. Removing The Vertical Stainless Steel Coil of EVHP(S) Series Tanks

When Removing the Stainless Steel DHW Coil, it is Imperative to follow the order 1 to 7 as per the pictures below, and reverse order when re-installing it.



Pic. 1



Pic. 2



Pic. 3



Pic. 4

Attention:

The Rubber Flange (joint) must always be changed and replaced by a New Joint every time the Tank is opened and the Stainless-Steel Coil is unscrewed.



Pic. 5



Pic. 6



Pic. 7

Attention:

The Rubber Flange (joint) must always be changed and replaced by a New Joint every time the Tank is opened and the Stainless-Steel Coil is unscrewed.

B. TROUBLESHOOTING

In case the Solar System does not produce enough hot water, please verify the following:

1. That all hydraulic connections of the system are water tight and there are no leaks.
2. That there are no leaks on the taps or on the piping of the building
3. That the heating sources are working properly.
4. If the level of the thermal fluid in the closed circuit is not too low. Set to level filling with thermal fluid mixture through the fluid inlet where the safety valve or expansion vessel is placed.
5. That the pipes connecting the heating source to the tank are not bent twisted nor have any angles.
6. That there is no air trapped in the closed circuit of the system.
7. That the supply of cold and hot water is connected.
8. That the temperature set on the mixing valve is not too low (below 50°C depending on local regulations)
9. If the electric back-up is working. In case it is not working please check the following:
 - That the main power supply is ON
 - That the thermostat is not set too low
 - That the back-up element is not on security mode. The security button must be pushed-in
 - That the thermostat and back-up element are not damaged
 - That the back-up element wiring is properly connected and to the relevant terminals

If problems persist, then please consider:

- a) That the weather conditions allow the proper heating of the system
- b) The hot water consumption does not exceed the installation's capacity, or the consumers' expectations of are not above this capacity.
- c) The consumer has understood the use of the electrical back-up

Note: all verifications and interventions must be carried out by qualified and certified personnel.

WARRANTY CONDITIONS

1. The present warranty covers the repair or substitution of the defective parts or part of the products from authorised personnel. The replacement of the complete product can only happen if the repair is not possible. In any case of failure or malfunction of the product, the buyer must immediately inform the company as well as the distributor.
2. The present warranty covers only the supply of spare parts and in any case does not cover any expenses for shipping costs. Dispatch costs as well as any authorized personnel expenses or expenses for replacement of the defective parts are on clients charge.
3. In case of malfunction, the dispatch of the defective parts/products to the company headquarters or place of repair of the defective product is on clients charge. Otherwise, all costs for on-spot repair from authorised personnel at the client's location is at client's expense. The company reserves the right of decision on the type and how the repair will be made according to its judgment. Every repair crew visit, even for just auditing and checking the system is charged with the expenses and fees of the technician.
4. Any warranty claim can only be valid if this original warranty card is presented accompanied with the original purchase receipt edited by the distributor and the Maintenance Book. Furthermore, for the warranty to be valid the buyer must complete and sign both parts of the warranty (clients copy and distributors copy) and send the relative parts to the parties intended within 10 days from the date of installation.
5. All spare parts or parts repaired or replaced have the same benefit of warranty period as the remaining period of the general warranty of the system.
6. The electric parts of the system (electric element, thermostat, etc...) carry only two (2) years warranty from the date of purchase.
7. The warranty does not cover the anode (magnesium rod) or its replacement
8. The manufacturer assumes no responsibility and the present warranty is invalid in the following cases:
 - A. When the product has not been checked, repaired, altered or installed by non-authorized personnel by the manufacturer or the distributor – or his partners
 - B. If the ordinary services of the product have not been performed by authorised by the company personnel and as per Maintenance Recommendations in the product Installation Manual. The 1st service must be conducted within 1 year (12 months) after the date of purchase of the product at the clients care and expense. Proof of service is the signature and stamp of the authorised personnel at the bottom of the present warranty card in combination with the original invoice of the service from the service technician.
 - C. When any damage or malfunction is done to people or thing or the product itself due to accident, mishandling, improper or inappropriate use (intentional or unintentional), negligence, maltreatment or bad installation of the product, lack of servicing of the product, wrong technical intervention on the product or its parts, or to wrong connexions – cabling of the electrical resistance or other electrical parts, other the instructions provides by the manufacturer.
 - D. If damage or malfunction of the system is due to bad weather conditions and natural disasters or vandalism (such as: natural disaster, frost, storms, floods, hail, earthquakes, fires, arson, etc...)
 - E. Damage to the heating element of the tank or the Tank itself due to excessive salt, scale, dirt or other external bodies concentration. Damage of the tank caused by overheating or excessive pressure of the water supply network or generally by extreme operating conditions and extrinsic factors. Damage due to lack of safety equipment installation to protect the Tank or people (such as safety valves, mixing valves, pressure reducing valves, etc...). Damage caused by improper maintenance, or unauthorized third-party intervention.
 - F. In case of normal wear and deterioration (due to time, etc...) of the external parts of the product which do not affect the proper use of the system, or in case of damage to any valves (safety valves, mixing valves, pressure reducing valves, etc...). Or in case water standards do not correspond to the standards and values as these are specified in this manual.
9. Manufacturer retains the right of control of the validity of the warranty at each stage of product repair and to charge the owner for the costs of the repairs (value of the parts included) in this case the conditions described in detail in the present warranty card are not met.
10. The present warranty does not affect the owner's and consumer's rights, as these are foreseen by Cypriot law.

<div>1st</div>	<div>2nd</div>	<div>3rd</div>	<div>4th</div>	<div>5th</div>	<div>6th</div>	<div>7th</div>	<div>8th</div>
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DATE STAMP AND SIGNATURE OF MAINTENANCE PERSON



Enviro Energy Solutions Ltd

Your Gateway to the Sun

**We do not inherit the earth
from our fathers,
We borrow it
from our children..."**



...BECAUSE WITH ENVIROENERGY SOLUTIONS THE SUN SHINES FOR EVERYONE...



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