NEW GENERATION OF HOT WATER TANKS FOR HEAT PUMPS AND SOLAR WATER HEATERS FROM 100 LTRS TO 5000 LTRS

Greek Product

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1st Award for Business Excellence
Ministry of Development
General Secretariat of Industry
Group of Companies HELIOAKMI SA
ASSOS BOILERS introduces the New Generation of hot water tanks for heat pumps

With an ergonomic and innovative design, it has eight unique advantages over the common hot water tanks with steel exchanger.

1. Economical mode of operation
   They operate with simple heat pumps of constant speed and lower cost in comparison to ordinary tanks with steel exchanger which demand only INVERTER heat pumps and have higher costs.

2. Continuous operation without interruption and ALARMS
   The design of the hot water tank ASSOS BOILERS enables the heat pump to operate without interruption or reduction of compressor speed without overheating ALARMS, something that happens in most hot water tank usage with fixed metal exchanger (coil), especially if the heat pump is not an INVERTER.

3. Lower Electricity Consumption
   The immediate loading of the tank from the heat pump and without the mediation of the metal exchanger allows the pump to have greater operation intervals (without stop and start) of the compressor or without lowering the speed when it comes to heat pumps of the INVERTER type, thus offering lower consumption of electric power.

4. They do not require annual service costs
   The water in use comes into contact with the stainless steel exchanger and not with the interior of the boiler, which would require anode protection (anode) which must be replaced every 1-2 years with additional costs.

5. Economical installation costs
   The ASSOS BOILERS hot water tanks (Fresh Water) are cheaper to install because they do not require cold water (blue) Expansion Tanks as well as pressure reducer because of the stainless steel exchanger that has smaller capacity and the operating pressure is 10 bar.

6. 30% greater savings, 30% fewer losses
   ASSOS BOILERS products, Buffer tanks and boilers provide 65 to 70mm insulation compared with most buffer-boiler tanks where the insulation does not exceed 50 mm, resulting in heat losses and energy consumption of 25 to 30% more.

7. Clean, Hot Water
   The water used passes through the stainless steel exchanger 316L without being stored permanently and thus preventing the development of dangerous bacteria (Legionella phenomena). Moreover, the spiral design of the heat exchanger does not allow deposits that would require a calcium collection filter with additional cost.

8. Expansion capability of the system also after installation
   The design of the container allows the installation of a solar exchanger or other heat source (gas, wood boiler, fireplace, etc.) over the existing flange that each tank has for this purpose, even following its installation.

The Lower exchanger (11) is ONLY available upon order.

- COLD WATER ENTRANCE 3/4”
- HOT WATER OUTLET 3/4”
- ADDUCTION FROM HEAT PUMP 1”
- POSITION SENSOR DHW 1/2”
- LOCATION SOLAR SENSOR 1/2”
- RETURN FROM HEAT PUMP 1”
- SUPPLY FLOW FROM SOLAR PANELS 3/4”
- RETURN FROM SOLAR PANELS 3/4”
- POSITION OF ELECTRICAL BACKUP 1/2”
- POSITION OF VENT 1/2”
- LOWER EXCHANGER
Solar water heaters ASSOS BOILERS provide a large flange Φ 170 which fits a specially designed stainless steel spiral heat exchanger that can work perfectly with heat pumps (INVERTER).

The large surface area of the heat exchanger allows continuous operation of the pump (without stops and starts), working with a satisfactory temperature difference (supply and return), offering up to four times the electricity savings for days with little or no sunshine or when the requirements of hot water is much greater than can be offered by a solar panel even with full sunshine.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>SOLAR HEAT EXCHANGER POWER IN KW</th>
<th>ELECTRICAL RESISTANCE POWER IN KW</th>
<th>INSTALLATION CAPACITY OF SOLAR COLLECTORS m²</th>
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<tbody>
<tr>
<td>ASSOS 120</td>
<td>7.8</td>
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<td>ASSOS 300E</td>
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<td>5.20</td>
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INTERNATIONAL RECOGNITION RECEIVED BY HELIOAKMI INTERNATIONALSA

QUALITY ASSURANCE SYSTEM ISO 9001
Typical Installation of Hot Water Tank FRW (Fresh Water) for connection to heat pump and solar water heaters

Typical Installation Buffer-1 Tank with INOX heat exchanger for Domestic Hot Water
To connect with solid fuel boiler, diesel/gas boiler, heat pump, high temperature heating system (radiator), low temperature heating systems (under floor heating) and solar heating system.