

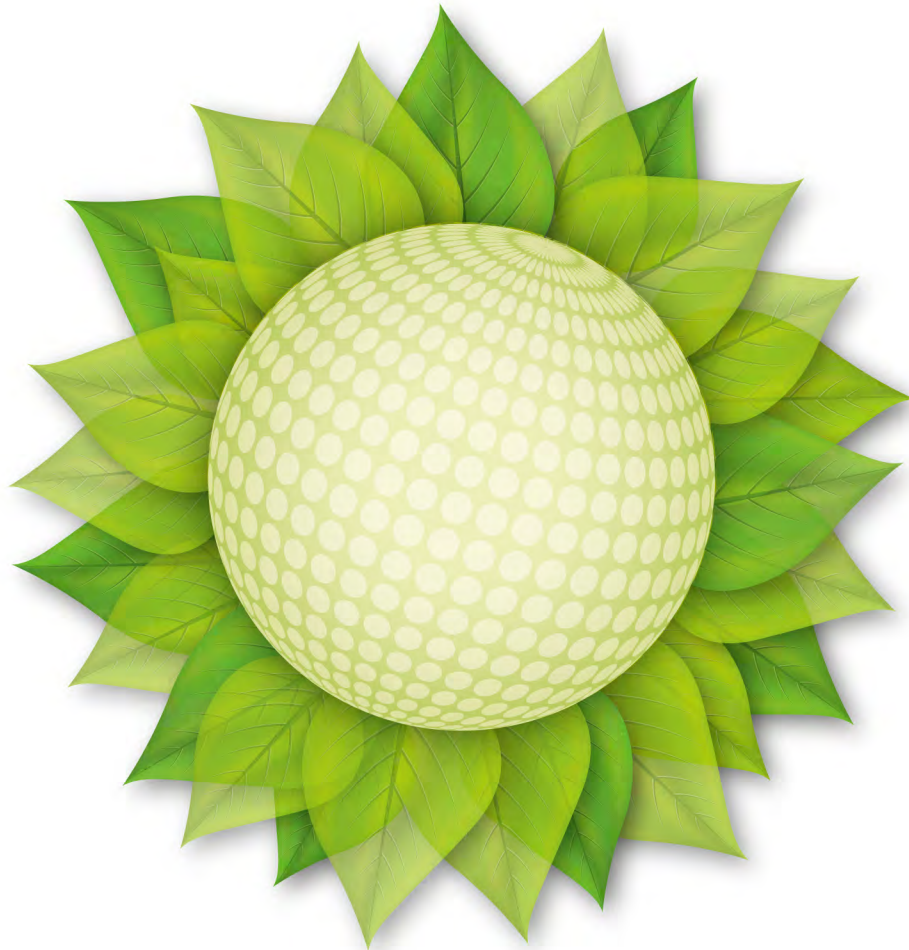
Products catalogue

THERMODYNAMIC SOLUTIONS
FOR EFFICIENCY CHALLENGES



EcoSmart
TECHNICAL SERVICES





Once again, the Energy Panel team has put all their excitement and enthusiasm in to create this new publication. We want to make you aware of technology, alongside innovative ideas to achieve smart saving, in the most friendly and efficient way. Welcome to the world of thermodynamics.

THANK YOU, for trusting in us.

The Energy Panel Team



ENERGY PANEL: Consolidated trajectory based on quality

Energy Panel SL emerged as an investment in the future of the renewable energy sector. We are dedicated to the development and manufacture of thermodynamic solar systems and other high energy efficiency equipment.

The objective of Energy Panel is the development of innovative products adapted to the current needs of the markets in which we work. In recent years, Energy Panel has exponentially increased its world presence due to the confidence shown by our customers with our products, manufactured according to European quality standards.





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HIGH
ENERGY
OUTPUT



THERMODYNAMIC SOLAR PANELS

OUR INNOVATIVE TECHNOLOGY

The thermodynamic solar systems to obtain domestic hot water (DHW) or heating are based on heat pump system supported by solar energy, able to capture solar and environmental energy to heat water in a efficient way, with very low energy consumption compared to conventional systems.

Why solar panels are different?

- Obtain hot water under any atmospheric condition, functioning at night time as well as in wet or windy weather.
- Without glass or electrical components.
- Ventilation and de-icing unnecessary.
- Don't need maintenance or cleaning.
- Dirtiness does not affect the output of the panel.



🌡️ THERMODYNAMIC SOLAR TECHNOLOGY

How does it work?

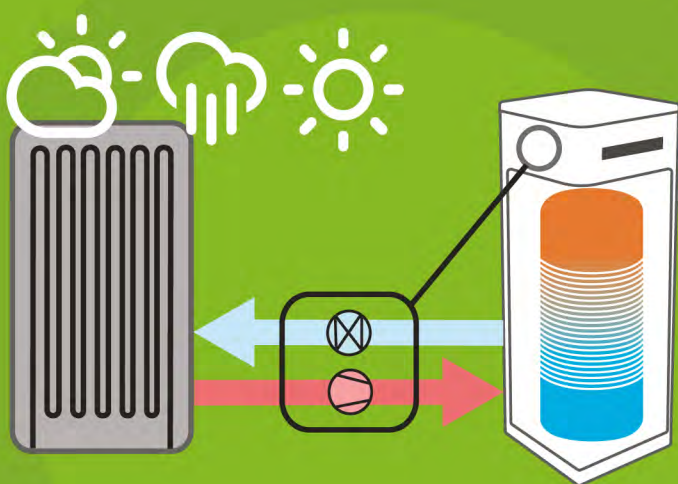
A refrigerant fluid at low temperature (that could be less than 0°C) circulates in the interior of the thermodynamic panel. The fluid captures the incidental solar radiation in the panel as well as other environmental energy. The thermodynamic cycle condenser transfers the heat to the water in order to heat it. The ecological refrigerant R134-A or R407C, which enters into the panel at a negative temperature, runs through the closed circuit situated in the interior of the panel. The difference in temperature provoked by external agents such as the sun, rain or the wind guarantees the gasification of the fluid. The compressor sucks the heated gas and reduces its volume, raising its temperature and transmitting it to the water circuit through a heat exchanger, managing to obtain domestic hot water up to 55 or 65°C.

At high pressure and after having transfer a large part of its heat to the condenser, the refrigerant fluid arrives at the expansion valve again in liquid phase. Here the pressure is reduced which means the fluid is in condition to enter into the panels once again. The valve regulates the outflow depending on its temperature. Like this, the refrigerant will be sent again, in the form of micro drops, through the dehydrated copper piping to the panels, where it will be compressed once again, and the cycle will be repeated until the desired temperature is reached.

PANEL SOLAR TERMODINÁMICO

Advantages:

- Easy installation, low weight only 6.2 kg
- Architectural integration: up to 12 colours
- High quality rust-proof materials that ensure a long and reliable life-span
- Reduced dimensions 1700 x 800 x 25 mm



ARCHITECTURAL INTEGRATION

Up to 12 colours available to adapt to your required location



Thermboil

DOMESTIC LINE

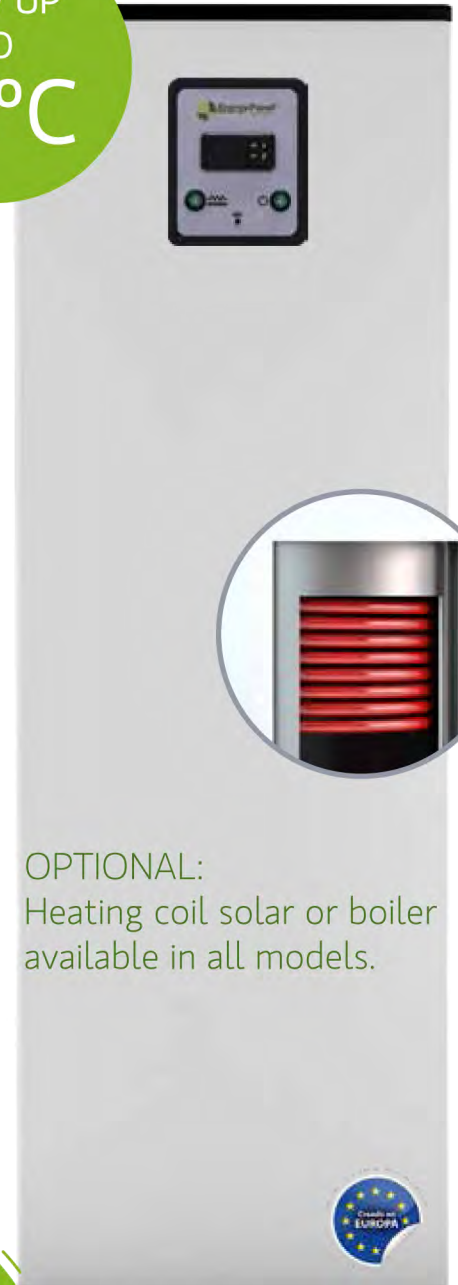
75/100/180/200/250/300 L

The Thermboil range is manufactured according to European quality standards, using only the best materials and components to assure the maximum reliability and durability of the equipment.

The main characteristics of the range are:

- Stainless steel tank.
- External aluminium condenser.
- Ecological gas R134a.
- Auxiliary electric system reinforced of ceramic resistance for anti legionella treatment and thermal support.
- Cathodic protection, Correx UP: Impressed current system with titanium anode to prevent water corrosion problems.
- Lacquered steel external casing.
- Includes security elements against overpressure and high temperatures.
- Large range of capacities to satisfy any requirement.
- Minimum maintenance required, thanks to its design.
- Equipment tested under European regulations: ISO 9001, ISO 14001, CE, NTB, MCS, etc.
- The best thermal insulation of the market, average of 8cm of Polyurethane, with a maximum heat losses of 40 W/h.

DHW UP
TO
55°C



OPTIONAL:
Heating coil solar or boiler
available in all models.



Savings up to
80%
compared to conventional
systems.



Works continuously 24 h.
a day, 365 days a year under all
weather conditions.



Thermboil E Series

The new concept in thermodynamic compact systems.

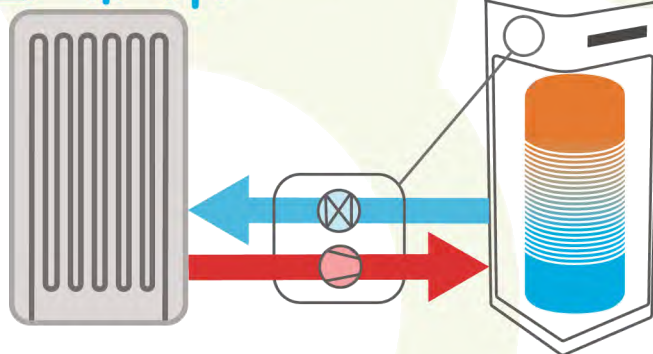
The **Thermboil E Series** is a heat pump system supported by solar energy capture. It is characterized by its incorporation of a thermodynamic solar panel that generates a high performance thanks to the collection of incidental solar radiation as well as the energy contained in the external environment (air, rain, etc).



Why choose E Series?

- 1 Architectural integration: the panel can be installed in any area: wall, terrace, roof, etc.
- 2 It is more efficient than other heat pumps as it harvests solar radiation and external environmental energy supplying a higher performance.
- 3 Suitable for new installation or to substitute an electric/gas/oil boiler. High efficiency system that improves the home energy rating.

DHW

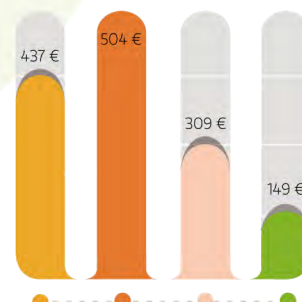


MODEL

100E 180E 200E 250E 300E 500E

COMPARATIVE

| | | | | | | |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Thermic power W* | 2200 | | | 4400 | | |
| Range of power absorbed, W | 350-600 | | | 700-1200 | | |
| Absorbed power electrical support, W | 1500 | | | 3000 | | |
| COP range | 2 - 5 | | | 2 - 5 | | |
| Maximum water temperature °C | 60 | | | 60 | | |
| Capacity, L | 100 | 180 | 200 | 250 | 300 | 500 |
| Dimensions (Height x Width x Depth), mm | 1002x 550x 635 | 1920x 460x 539 | 1452x 550x 635 | 1760x 550x 635 | 2008x 550x 635 | 2008x 715x 735 |



*Condition: thermodynamic functioning, T° outside 15°C / T° Water entrance 10°C



Thermboil E + I Series

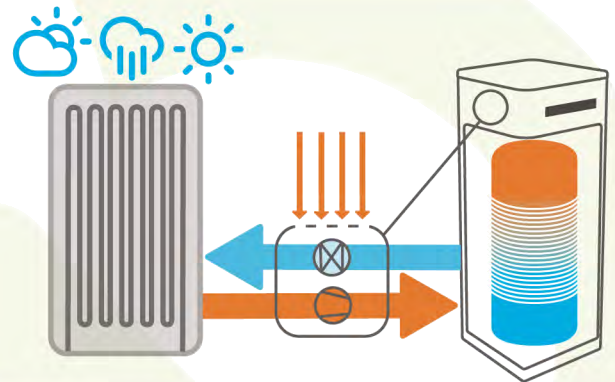
The new concept in thermodynamic compact systems.

The **Thermboil E+I Series** is a unique technology capable of harvesting energy in two ways: combining a thermodynamic solar panel which collects solar radiation and external environmental energy and an inner heat exchanger that extracts energy from indoors. In this way, it assures a continuous output even with low temperatures.



Why choose E+I Series?

- 1 Architectural integration: the panel can be installed in any area: wall, terrace, roof, etc.
- 2 Suitable for cold climates: Efficient even at low temperatures because it can capture solar radiation and external / indoors environment energy.
- 3 Suitable for a new installation or to substitute an electric/gas boiler. High efficiency system that improves the home energy rating.



Double evaporator

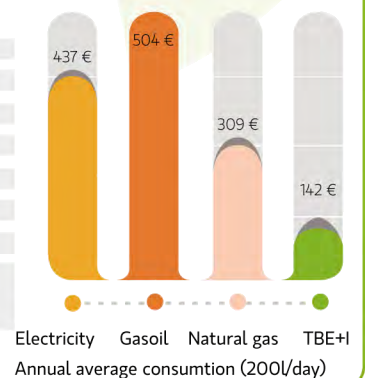
Thermodynamic solar panel combined with an inner heat exchanger. Ideal for cold climates.

MODEL

| | 100E+I | 180E+I | 200E+I | 250E+I | 300E+I | 500E+I |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Thermic power, W | | | 2200 | | | 4400 |
| Absorbed power fun, W | | | 60 | | | 120 |
| Range of power absorbed, W | | | 350-600 | | | 700-1200 |
| Absorbed power (antilegionella system), W | | | 1500 | | | 3000 |
| COP range | | | 2 - 5 | | | 2 - 5 |
| Maximum water temperature, °C* | | | 60 | | | 60 |
| Capacity, L | 100 | 180 | 200 | 250 | 300 | 500 |
| Dimensions (Height x Width x Depth), mm | 1002x 550x 635 | 1920x 460x 539 | 1452x 550x 635 | 1760x 550x 635 | 2008x 550x 635 | 2008x 715x 735 |

*Condition: thermodynamic functioning, T° outside 15°C / T° Water entrance 10°C

COMPARATIVE





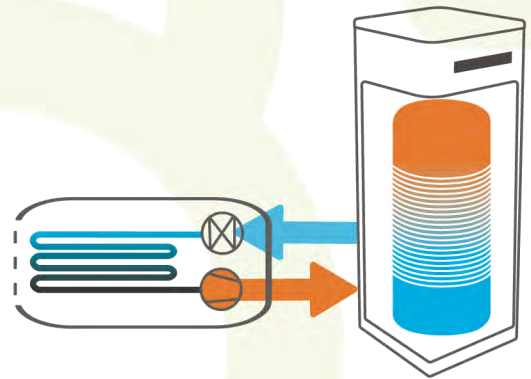
Thermboil I Series

The new concept in thermodynamic compact systems.

The **Thermboil I Series** is characterized by incorporating an inner heat exchanger that takes advantage of indoors energy to heat domestic hot water (DHW).

Why choose I Series?

- 1 Easy installation: only requiring hydraulic connections.
- 2 Continuous efficiency: extracts the excess energy contained in the air from indoors. Its connection allows the air to be vacuated outside or to cooling interior spaces.
- 3 Suitable for new installation or to replace the electric/gas boiler. High efficiency system that improves the home energy rating.



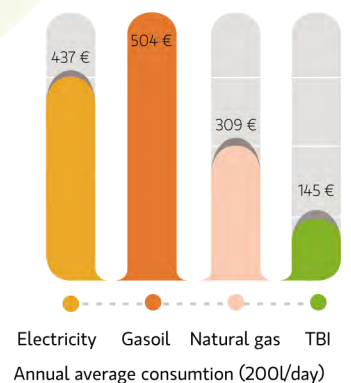
DHW

MODEL

| | 100l | 180l | 200l | 250l | 300l | 500l |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Thermic power, W | | | 2200 | | | 4400 |
| Absorbed power fun, W | | | 60 | | | 120 |
| Range of power absorbed, W | | | 350-600 | | | 700-1200 |
| Absorbed power (antilegionella system), W | | | 1500 | | | 3000 |
| COP range | | | 2 - 5 | | | 2 - 5 |
| Maximum water temperature, °C* | | | 60 | | | 60 |
| Capacity, L | 100 | 180 | 200 | 250 | 300 | 500 |
| Dimensions (Height x Width x Depth), mm | 1002x 550x 635 | 1920x 460x 539 | 1452x 550x 635 | 1760x 550x 635 | 2008x 550x 635 | 2008x 715x 735 |

*Condition: thermodynamic functioning, T° outside 15°C / T° Water entrance 10°C

COMPARATIVE





Thermboil FX Series

A thermal-thermodynamic system
100/200/250/300/500 L

The **Thermboil FX** is a thermal-thermodynamic system, the result of mixing a thermal solar system with a thermodynamic heat pump. The thermal panel is directly exposed to the sun and receives its energy, transmitting it to the water in order to heat it. After transfer the energy to the water, the thermal fluid still contains energy that the evaporator in the heat pump system takes advantage of.

Why choose FX Series?

1 Double energy capture: Raises the output of the thermal solar installation, taking advantage of the remaining energy at low temperature as well as extracting the energy from the interior of the house, etc.

2 Minimum renewable contribution of 90%. The major part of the energy obtained is renewable thanks to the free harvesting of solar radiation and environmental heat. It can be installed in new installations that demand renewable systems without any other system support.

3 Huge energy savings in comparison with other systems so you can obtain a reduction in your energy bills, avoiding CO emissions and improving your home energy rating.



Compact unit, easy to connect with the existing or new thermal solar installations.



Thermboil 500 FX

This system is a heat pump with a solar collection, through a thermodynamic solar panel and thermal solar panel. This innovative system also incorporates an inner heat exchanger that extracts the energy contained in the air from indoors.

- *Rapid recovery systems thanks to its greater thermal power.*
- *Incorporates two high performance compressors and two condensers.*



DHW



| MODEL | TB 100 _{FX} | TB 200 _{FX} | TB 250 _{FX} | TB 300 _{FX} | TB 500 _{FX} |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|
| Thermic power W* | | | 2000 | | 4000 |
| Absorbed power fun, W | | | 60 | | 155 |
| Range of power absorbed, W | | | 300-600 | | 600-1200 |
| Absorbed power (antilegionella system), W | | | 1500 | | 3000 |
| COP range | | | 2 - 5 | | 2 - 5 |
| N° Compressors | | | 1 | | 2 |
| Maximum water temperature, °C* | | | 55 | | 55 |
| Capacity, L | 100 | 200 | 250 | 300 | 500 |
| Dimensions (Height x Width x Depth), mm | 985x590x545 | 1435x590x545 | 1753x590x545 | 2000x590x545 | 2000x710x695 |

*Condition: thermodynamic functioning, T^o outside 15°C / T^o Water entrance 10°C



Thermboil Wall-Hung

Heat pump of reduced dimensions



The **Thermboil Wall-Hung** is a heat pump of reduced dimensions designed to be installed on the wall, allowing its architectural integration in places with limited space.



- Excellent recovery time.
- Storage: 75 / 110L.
- Low-noise system.
- Immersion heating element.
- Low energy consumption.
- Maximum comfort and adaptability.

MODEL

Thermic power, W
 Absorbed power fun, W
 Range of power absorbed, W
 Absorbed power (antilegionella system), W
 COP range
 Maximum water temperature, °C*
 Capacity, L
 Dimensions (Height x Width x Depth), mm

Wall-Hung I

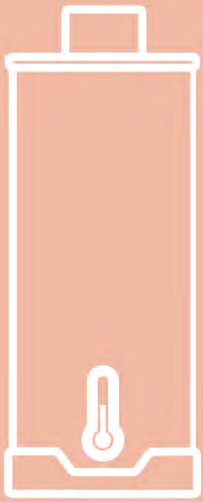
Wall-Hung E

| | | |
|---|--------------|---|
| Thermic power, W | 2000 | |
| Absorbed power fun, W | 60 | - |
| Range of power absorbed, W | 350-600 | |
| Absorbed power (antilegionella system), W | 1500 | |
| COP range | 2 - 5 | |
| Maximum water temperature, °C* | 55 | |
| Capacity, L | 75/110 | |
| Dimensions (Height x Width x Depth), mm | 1340x450x450 | |

*Condition: thermodynamic functioning, T° outside 15°C / T° Water entrance 10°C

Two solutions for your home:

- * Series E: Possible to install the panel outside.
- * Series I: When the panel cannot be installed, energy can be extracted from indoors.



Thermoboil Wall-Hung I

Compact wall-hung heat pump that incorporates an inner heat exchanger and a fan that use the energy contained in the air indoors for the production of domestic hot water (DHW).

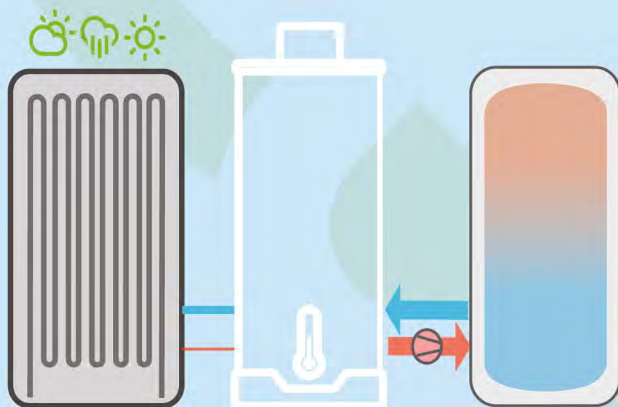
- Use the energy of the air.
- Easy installation, only required connections to DHW.
- No maintenance.



Thermoboil Wall-Hung E

Compact wall heat pump with solar energy capture that incorporates a thermodynamic solar panel that collects the energy from solar radiation, as well as the energy contained in air for DHW production.

- Captures both solar radiation and environmental energy.
- Easy installation, lightweight panel.
- Low energy consumption, high performance.



New Retro-fitting Application

Combine your Thermoboil with this new revolutionary retrofitting application. The kit Store is based on thermodynamic technology, which can reach until 50°C in the existing cylinder and 55°C at the primary cylinder.

- Fast first shower.
- Increases DHW accumulation.
- Applicable through all our range of products.

KIT
Store

DHW

Thermboil

Serie RH: Rapid Heating
300/350/400/500 L

DHW
60°C

The **Thermboil RH** line is especially designed to satisfy greater volumes of DHW through one compact equipment that accelerates the heating time due to its greater thermodynamic power.

- Includes two compressors connected to two independent circuits.
- Short recovery time. Ideal for homes / properties with large of demand of DHW.
- Auxiliary electrical system.
- Anti-legionella system.

Applications:

- Commercial spaces, gyms, rural houses, hostels, laundrettes, etc.
- The thermodynamic panels can be placed inside or outside of the establishment to capture solar and environmental energy.
- The E+I / I Series take advantage of inside energy from indoors, ideal for gyms, hairdressers, etc. Due the high temperature reached on those establishments increases the performance.

OPTIONAL
HT SERIE
to
Produce DHW
up to

80°C

Thermodynamic heating up to 80°C due to immersion heater. When the heat pump reaches 60°C the immersion heater start to work to reach 80°C.

- Ideal for industrial use.
- Option available on Rapid Heating Serie.



E Series

Compact thermodynamic equipment with double heating power and two thermodynamic panels. This system is made up of two independent circuits that assure that demand is covered in the shortest time.



E+I Series

The compact equipment in this series incorporates one thermodynamic panel and one inner heat exchanger. This system accelerates the recovery time due to its greater thermodynamic power. This power is generated thanks to the energy captured from the sun and the environment through the thermodynamic panel, and the energy extracted from the inside of the living space thanks to the inner heat exchanger.



I Series

A heat pump with double heating power that includes an inner heat exchanger that collect the energy from the indoor in which it is installed. Due to the greater thermodynamic power generated by two compressors, you will have DHW quickly.

DHW

MODEL

Thermic power, W
 Absorbed power fun, W
 Range of power absorbed, W
 Absorbed power (antilegionella system), W
 COP range
 N° Compressors
 Maximum water temperature, °C*
 Capacity, L
 Dimensions (Height x Width x Depth), mm

| | TB 300 RH | TB 350 RH | TB 400 RH | TB 500 RH |
|---|--------------|--------------|--------------|--------------|
| Thermic power, W | | | 4000 | |
| Absorbed power fun, W | | | 155 | |
| Range of power absorbed, W | | | 600-1200 | |
| Absorbed power (antilegionella system), W | | | 1500 | |
| COP range | | | 2 - 5 | |
| N° Compressors | | | 2 | |
| Maximum water temperature, °C* | | | 55-80 | |
| Capacity, L | 300 | 350 | 400 | 500 |
| Dimensions (Height x Width x Depth), mm | 1425x710x695 | 1585x710x695 | 1740x710x695 | 2000x710x695 |

*Condition: thermodynamic functioning, T^a outside 7°C / T^a Water entrance 55°C

Thermboil Modular

100/180/200/250/300/500 L

The Thermboil Mural is composed of two different blocks, one is the the water accumulator and the another include the thermodynamic system.

It work exactly in the same way as Thermboil. The thermodynamic unit contains the compressor, expansion valve, boiler and all the elements for regulation and control. This unit is connected to the condenser of the accumulator.

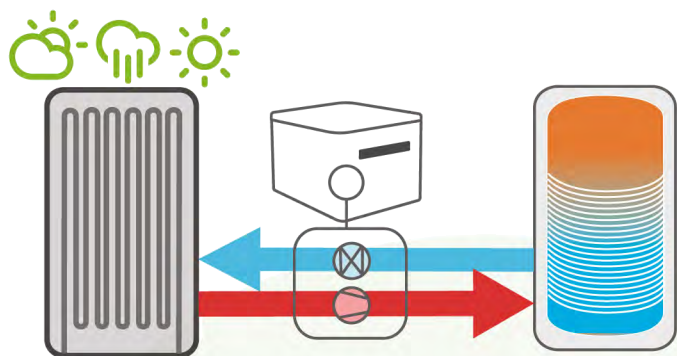
Maximum
flexibility
and
adaptability





Total versatility for any home or property, due the thermodynamic system can be placed in a different location than the accumulator tank.

Why choose the Thermboil Modular?



1

Maximum adaptability: the low height of both blocks permits their installation in unused spaces in the home.

2

Accessibility: In supplying the units separately, the thermodynamic control unit can be installed in more accessible areas.

3

Applicable solution for all the models in the range. Accumulator tank available in two distinct formats.

DHW



MODEL

TB 180M TB 100M TB 200M TB 250M TB 300M

| | | | | | |
|---|-------------|-------------|--------------|--------------|--------------|
| Thermic power, W | | | 2000 | | |
| Absorbed power ventilador, W | | | 60 | | |
| Range of power absorbed, W | | | 300-600 | | |
| Absorbed power (antilegionella system), W | | | 1500 | | |
| COP range | | | 2 - 5 | | |
| N° Compressors | | | 1 | | |
| Maximum water temperature, °C* | | | 55 | | |
| Capacity, L | 180 | 100 | 200 | 250 | 300 |
| Dimensions thermodynamic block | 300x430x340 | 300x430x340 | 300x430x340 | 300x430x340 | 300x430x340 |
| Dimensions accumulator block | 650x590x545 | 650x590x545 | 1100x590x545 | 1420x590x545 | 1665x590x545 |
| Dimensions accumulator block XL (Height x Width x Depth) | 500x710x690 | 500x710x690 | 800x710x690 | 950x710x690 | 1100x710x690 |

*Condition: thermodynamic functioning, T° outside 15°C / T° Water entrance 10°C



GREEN E-PACK

Retro-fitting

An innovative solution to cover the demand of domestic hot water in properties and houses that already have a cylinder installed. The system is extremely easy to install, as it connects the water tanks to the flow and return connectors providing hot water continuously.

DHW
or
Heating

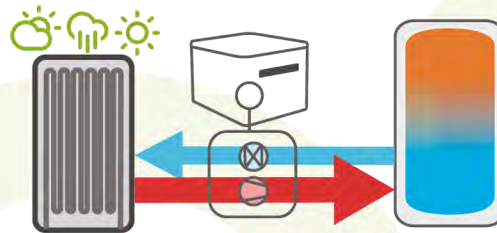
- Highly efficient compressor.
- Lacquered steel exterior casing.
- DHW water pump included.
- Condenser included.
- Ecological gas R134a.
- Includes security elements against overpressure and high temperatures.
- Due to its design and production have not maintenance.
- Equipment tested under European regulations.
- An external condenser for low pressure installations.
- Adaptable to any existing cylinder in the house.





Green e-Pack E

This is a compact unit which includes all the elements of the heat pump as well as the thermodynamic solar panel. The energy captured by the panel is transmitted to the water in the inside of the unit and is pumped to the storage cylinder.

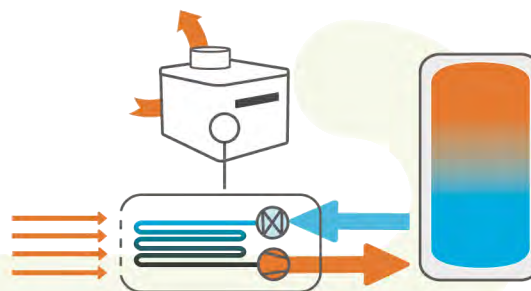


DHW



Green e-Pack I

This is a compact unit which includes all the elements of the heat pump as well as the inner heat exchanger. The built-in fan uses the air from inside of the living space and transmits it to the water pumped to the storage cylinder. The output air can be conducted to the outside via ducts.



MODEL

| | Green e-Pack E | Green e-Pack I |
|---|----------------|----------------|
| Thermic power, W | 2000 | 2000 |
| Range of power absorbed, W | 350-600 | 350-600 |
| Absorbed power fan, W | 1500 | 1500 |
| Maximum water temperature, °C* | - | 60 |
| COP range | 2 - 5 | 2 - 5 |
| Capacity, L | 2 - 4,5 | 2 - 4,5 |
| Dimensions (Height x Width x Depth), mm | 406x418x330 | 650x430x340 |

*Condition: thermodynamic functioning, T^a outside 15°C / T^a Water entrance 10°C

THERMODYNAMIC SOLAR EQUIPMENTS

Large volume DHW / Heating HIGH CAPACITY

In contrast with conventional heat pumps, Energy Panel equipment includes groups of thermodynamic solar panels exposed directly to the sun and external weather conditions, allowing them to harvest all available energy.

High performance systems due to solar energy harvesting, ideal to cover the demand for DHW in larger installations as well as heating requirements.

- Scroll compressor of highly energy efficiency.
- Electronic expansion valve, that provides a precise and continuous control of the evaporation process.
- High quality stainless steel heat exchanger.
- Includes advanced protection and control components.
- Suitable for all kinds of heating appliances: underfloor heating, radiators, fan-coils, etc.

 **EnergyPanel**[®]
Eficiencia alternativa

Saving
up to

80%
over
conventional
systems





GTC

Water heating of up to 55°C for large consumers of DHW and heating installations.



A range of 8 models available to satisfy large variety of demand for DHW, and which can be identified by the number of panels associated with the model. Various systems can be combined to achieve greater power.



Eco-Friendly
R407C
Gas

Water
heating
up to
55°C

LARGE VOLUME DHW / HEATING

Why Choose Solar Thermodynamic Units?

High performance with low consumption: Solar gain of thermodynamic solar panels provides significant savings in heating large volumes of DHW and heating installations.

Wide range of models: Designed to adapt to specific user demand.

Custom design: Ideal for large projects. You can combine multiple equipments to archive the heating power required.

| MODEL | Units | GTC 04 | GTC 06 | GTC 08 | GTC 12 |
|--------------------------------------|---------|--------------|--------|--------|--------|
| Thermic power | KW | 5 | 8,6 | 13,1 | 15,8 |
| Absorbed Intensity by the compressor | KW | 1,7 | 2 | 3,4 | 4 |
| Cooling power | KW | 3,3 | 6,6 | 9,7 | 11,8 |
| Absorbed intensity | A | 7,8 | 9,1 | 16,1 | 9,4 |
| Power supply | V/ph/HZ | 230 / 1 / 50 | | | |
| Compressor type | | Piston | | Scroll | |
| N° panels | ud. | 4 | 6 | 8 | 12 |
| MODEL | Units | GTC 16 | GTC 24 | GTC 32 | GTC 40 |
| Thermic power | KW | 23,4 | 32,3 | 46,5 | 57,3 |
| Absorbed Intensity by the compressor | KW | 5,8 | 8 | 11,6 | 13,6 |
| Cooling power | KW | 17,6 | 24,2 | 34,7 | 43,5 |
| Absorbed intensity | A | 9,9 | 13,2 | 18,9 | 23,8 |
| Power supply | V/ph/HZ | 380 / 3 / 50 | | | |
| Compressor type | | Scroll | | | |
| N° panels | ud. | 16 | 24 | 32 | 40 |

* Heating: T condensation= 54.4 °C; T evaporation = 7.2 °C



GTC HT

Heating water up to 65°C.

Water heating up to 65°C for large consumers of DHW and heating installations. These systems are suitable for use with conventional radiators.

This compact equipment also includes an interior recirculation pump.

Range of 8 available models to satisfy the large variety of demand for DHW, and which can be identified by the number of panels associated with the model. Various systems can be combined to achieve greater power.



Heating water up to 65°C

Eco-Friendly
R134A
Gas

A total of 8 models are available to satisfy a large volumes of DHW demand. They are identified by the number of panels that are associated with the model.

| MODEL | Units | GTCHT 04 | GTCHT 06 | GTCHT 08 | GTCHT 12 |
|--------------------------------------|---------|------------|----------|----------|----------|
| Thermic power | KW | 6,6 | 8,4 | 9,6 | 12,6 |
| Absorbed Intensity by the compressor | KW | 1,7 | 2,2 | 2,4 | 2,8 |
| Cooling power | KW | 5 | 6,3 | 7,3 | 9,8 |
| Absorbed intensity | A | 9,66 | 13,68 | 15,92 | 20,08 |
| Power supply | V/ph/HZ | 230 / 1/50 | | | |
| Compressor type | | Piston | | Scroll | |
| N° panels | ud. | 4 | 6 | 8 | 12 |

| MODEL | Units | GTCHT 16 | GTCHT 24 | GTCHT 32 |
|--------------------------------------|---------|--------------|----------|----------|
| Thermic power | KW | 24 | 30 | 37,2 |
| Absorbed Intensity by the compressor | KW | 6 | 7,7 | 9,5 |
| Cooling power | KW | 18,2 | 23,2 | 28,2 |
| Absorbed intensity | A | 14,84 | 17,6 | 21,38 |
| Power supply | V/ph/HZ | 400 / 3 / 50 | | |
| Compressor type | | Scroll | | |
| N° panels | ud. | 16 | 24 | 32 |

* Heating: T condensation= 54.4 °C; T evaporation = 7.2 °C.



GTC Plus & GTC HT Plus

The new concept in thermodynamic compact systems



Compact system that includes on a single unit, the thermodynamic equipment and the buffer tank. These units are supplied with an electric auxiliary system to increase the power when the demand requires.



• GTC Plus: Hot water up to 55°C.

• GTC HT Plus: Hot water up to 65°C..

- Compact or modular system: according to the equipment power, the buffer tank is supplied in the same or in a separate casing.
- Electrical auxiliary system that increases the power with independent control for monitoring.
- Drive pump included.
- Stainless steel buffer tank 150/250 L.

LARGE VOLUME DHW / HEATING

| | | | | | |
|--------------|--------------|-----------------|-----------------|-----------------|-----------------|
| MODEL | Units | GTCHT 04 | GTCHT 06 | GTCHT 08 | GTCHT 12 |
| Volume | L | 150 | 150 | 150 | 150 |
| MODEL | Units | GTCHT 16 | GTCHT 24 | GTCHT 32 | |
| Volume | L | 250 | 250 | 250 | |



GTP

SWIMMING POOL HEATING HIGH CAPACITY

The GTP systems are designed to heat swimming pools, extending the bathing season for outdoor pools and jacuzzis and to heat covered pools throughout the year with a low energy consumption due to the use of solar energy.

The panels exposed to the sun and outdoor weather conditions harvest the required energy to heat water, with an extremely high output energy.






MODEL

| | Units | GTP 04 | GTP 06 | GTP 08 | GTP12 |
|--------------------------------------|---------|-------------|--------|--------|-------|
| Thermic power | KW | 5 | 8,6 | 13 | 15,7 |
| Absorbed Intensity by the compressor | KW | 1,7 | 2 | 3,3 | 3,9 |
| Cooling power | KW | 3,3 | 6,6 | 9,6 | 11,7 |
| Absorbed intensity | A | 6,8 | 7,9 | 12,8 | 15,2 |
| Power supply | V/ph/HZ | 230 / 1/ 50 | | | |
| Compressor type | | Piston | | Scroll | |
| N° panels | ud. | 4 | 6 | 8 | 12 |

*Condition: Evaporating temp. 7°C/Condensing temp. 55°C



Characteristics:

-  Scroll compressor highly energy efficiency.
-  Electronic expansion valve, provides a precise and continuous control of the evaporation process.
-  Rust-proof titanium heat exchanger.
-  Includes advanced protection and control components .



Eco-Friendly
R407C
Gas

Our swimming pool heating systems include a high efficiency Scroll compressor and a titanium heat exchanger, as well as a system which protects against high and low pressure, overheating and high discharge temperatures.

We use a high output ecological refrigerant, R407c and an electronic expansion valve that guarantees optimum functionality and the excellent efficiency of our products.



| MODEL | Units | GTP 16 | GTP 24 | GTP 32 | GTP40 |
|--------------------------------------|---------|--------------|--------|--------|-------|
| Thermic power | KW | 23,4 | 32,3 | 46,4 | 57,2 |
| Absorbed Intensity by the compressor | KW | 5,8 | 8 | 11,6 | 13,6 |
| Cooling power | KW | 17,6 | 24,2 | 34,7 | 43,5 |
| Absorbed intensity | A | 7,5 | 10,2 | 14,3 | 20,2 |
| Power supply | V/ph/HZ | 400 / 3 / 50 | | | |
| Compressor type | | Scroll | | | |
| N° panels | ud. | 16 | 24 | 32 | 40 |

*Condition: Evaporating temp. 7°C / Condensing temp. 55°C



HYBRID SYSTEM



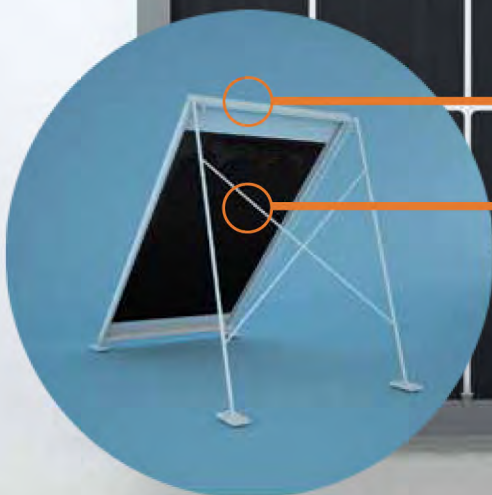
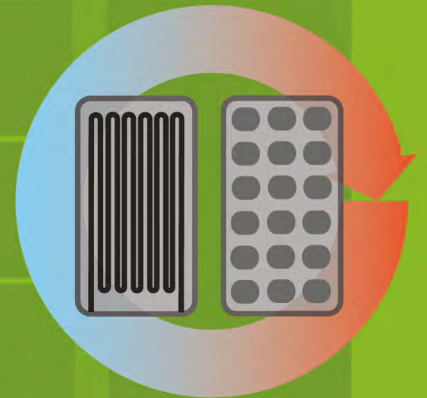
HYBRID THERMODYNAMIC PANEL

PERFORMANCE AND EFFICIENCY

The hybrid thermodynamic photovoltaic panel is a revolutionary system which combines a photovoltaic panel for the production of electricity alongside a thermodynamic panel connected to a heat pump.

The photovoltaic panel is found directly exposed to the sun and receives solar radiation to produce electricity. It is common knowledge that the electricity output of the photovoltaic panels diminishes when temperatures are higher, which usually coincides with periods of greater solar radiation. This system solves this problem, as it reduces the temperature of the photovoltaic panel through withdrawing heat via the thermodynamic panel, using this for the evaporation of a refrigerant fluid that forms part of a heat pump circuit. The reduction in temperature of the photovoltaic panel is translated into the increased output of the panel itself.

In this way, this is an innovative system that takes advantage of solar radiation for the production of electricity and environmental energy for the production of DHW and/or heating.



Photovoltaic panel

Thermodynamic panel



Thermodynamic-Photovoltaic system

How it works?

Combines our systems with the Hybrid Panel for maximum solar harvesting!

Innovative systems which include the Hybrid Panel alongside the heat pump. The photovoltaic solar panel produces electricity that can be discharged to the electricity network or can be accumulated in batteries. The thermodynamic panel takes advantage of the calorific energy of the photovoltaic and environmental energy, allowing it to cover the DHW demand even without solar radiation. With the electricity produced the thermodynamic system can be supplied directly and produce the maximum output.



This technology is available for the Thermboil systems (E Serie and E+I Serie), Green e-Pack and GTC.

- Adaptable number of panels according to the installation's required power
- Inverter included.
- Batteries included in case of isolated installation.
- Appropriate for micro generation installations.

HYBRID THERMODYNAMIC PANEL

Retro-Fitting

Thermodynamic kit for existing photovoltaic installations



This kit enables the incorporation of thermodynamic technology into already installed photovoltaic solar panels. This increases the output of the photovoltaic installation and supports the provision of hot water in the establishment or home.

In the absence of solar radiation, the thermodynamic system continues providing hot water due to its use of environmental energy.

The thermodynamic solar panel is provided with a special circuit adaptable to the rear of the majority of models of photovoltaic panels available on the market, as well as the bolts for the correct adaptation of both panels. The kit can also include the Thermboil if accumulation is needed or the Green e-Pack in the case of an already installed tank.



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