ESTECH
ENERGY

VT-ECP
VACUUM TUBE THERMOSIPHON SYSTEM

ESTECH ENERGY LLC

ESTECH ENERGY

PRODUCT DESCRIPTION

ESTECH ENERGY VT-ECP tanks have been designed and manufactured after long research and testing so that their performance could be improved and lack of success could be eliminated. They are manufactured upon the european norm EN 12976 and are TUV certified.

This type of tanks is connected to vacuum tubes (up to 20 pieces) of **"Heat Pipe»** technology.

The advantages of these tanks, towards competition, are that they can function properly even in circumstances where there is salt accretion and thanks to their special design there is no need for a softener in the installation, whilst their pressure resistance reaches 15bar and the owner doesn't have to install a pressure reducer or similar accessories.

This way the installation cost is reduced and there is no possibility to have a destroyed system because of an accessory failure.

In addition during the tank's study have been taken into consideration the weather conditions in places with intense sunshine, so that the system can withstand against extreme situations created especially during summer period.

Moreover, the system does not need any special maintenance, apart from the magnesium anode replacement, which is held in scheduled period.

In technical terms they dispose high density polyurethane insulation and anticorrossion protection provided by enamel coating and magnesium anode. They can be connected to the central heating system and the electrical network.

ESTECH
ENERGY

TECHNICAL SPECIFICATIONS

- Ability to install 15 to 20 vacuum tubes depending on tank capacity
- Made for operation in the whole range of the European climate. From extreme low tem peratures with low sunlight to high temperatures with intense sunlight.
- Specially designed for 100% performance even in areas with hard water and an intense phenomenon of salt accretion.

ADVANTAGES

- Antibacterial design for heated drinking water.
- Practically requires no maintenance.
- Consistent and immediate hot water supply.
- Functional design.
- Easy and fast installation.
- Small footprint.
- 5 year warranty.
- Can be connected with central heating system and electricity. Long life .

ESTECH ENERGY

DIMENSIONS TABLE & SPECI-FICATIONS

Inner Tank Material:
Metal steel sheet DC for the main tank (EN 10130/2006)

Internal Anticorrosion Protection:
a) LIQUID enamel (DIN 4753-3), totally safe for public health (DIN 51032 & EN 1388-2) and b) magnesium anode (EN 12438)

Welding: MAG

Insulation:

Hard polyurethane foam of 48kg/m3 (DIN 53420), self-extinguishing (DIN 4102)

Maximum Working Pressure for the Main Tank: 10 bar

Test Pressure for the Main Tank: 15 bar (EN 12976-1, 4.1.6)

Maximum Working Temperature of the Main Tank: 95oC

Heating Element: Optional, upon request

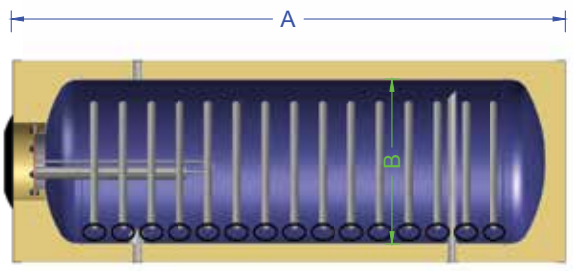
External Cover: Pre-painted galvanized steel sheet 0,5mm (EN 10204/2.2)

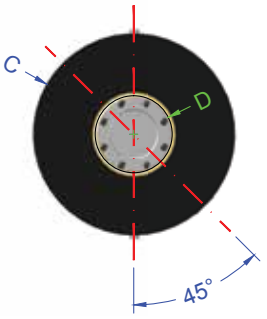
AVAILABLE COLORS

BLACK WHITE GREY INOX

ADDITIONAL MATERIALS

ALUMINIUM INOX





ESTECH
ENERGY

	TYPE	150	200
	Effective Capacity (lt)	143	196
A	Tank Length (mm)	1435	1835
B	Main Tank's Diameter (mm)	Ø400	Ø400
C	External Diameter (mm)	Ø500	Ø500
D	Flange Diameter (mm)	Ø140	Ø140
	Number of vacuum tubes	15	20

TECHNICAL DATA	
ITEM SPECIFICATION	**THREE LAYERS**
Absorptance of Selective Coating (AM1.5)	≥ 93,5%
Emission of Selective Coating(80°C E5°C)	≤ 6,5%
Stagnation Parameter	Y ≥ 240m² °C /kW
Solar Radiance Exposure	H ≤ 3.0MJ/m²
Average Heat Loss Coefficient	U_{LT} ≤ 0.70W/(m² °C)
Selective Coating Material	SS-AL-NiCu
Vacuum Quality	P = 3 X 10^{-3} Pa
Pressure-proof	0,6 MPa
Impact Resistance	Steel Ball Test: steel ball with diameter of 30 mm fall on the evacuated tube vertically from 450 mm height, the evacuated tube is not damaged.
Transmittance of Glass Tube	T ≥ 0,89 (AM1.5ISO9806-1:1994)
Material of Glass Tube	Borosilicated Glass 3.3
Vacuum Solar Tube Coating	SS-AL-NiCu
Thermal Expansion	3.3 X 10^{-6} K^{-1}
Absorption(a)	i ≥ 92%
Emission	≤ 7% (80°C E 5°C)
Stagnation Temperature	> 230°C
Heat Loss	< 0.80W/m²°C
Material	TP2 Copper
Copper Pipe Dimension	∅8mm, δ 0.7mm
Condenser Dimensions	∅ 24mm x 78mm, δ 0.8mm
Heat Transfer Material	Super Conductivity Technology - Inorganic Media
Startup Temperature	≤ 30°C
Heat Transfer Fins	3003 Aluminum Alloy
Material	Silicon Rubber
Density	1.1 Mg/m³

High quality-
We believe that quality is the best business plan

R&D team-
Professional R&D team for new and high-efficiency heat pumps

Reasonable prices-
Competitive prices which help you to occupy your market

ESTECH ENERGY

RENEWABLE ENERGY SYSTEM

Best components-
World class components suppliers for your heat pumps

Fast delivery-
We always keep the promise to you, you always keep the promise to your customers

Long warranty-
TWO years for heat pumps, THREE years warranty for Compressor and Condenser

ESTECH ENERGY

ESTECH ENERGY LLC

Estech Energy LLC.
Address: 4228, Hamphire Lane, El Paso, TX 79902
E-mail: mail@estechenergy.com
Web: www.estechenergy.com