

## Water Heater PROECO JNHX-150 ( )

Price: **2,499.00 PLN** gross

**2,499.00 PLN** for kpl.

Manufacturer: - **Pro Eco Solutions Ltd.**

Referention number: **PROECO JNHX-150#B**

Condition:: **New**

Quantity: 0 pcs.



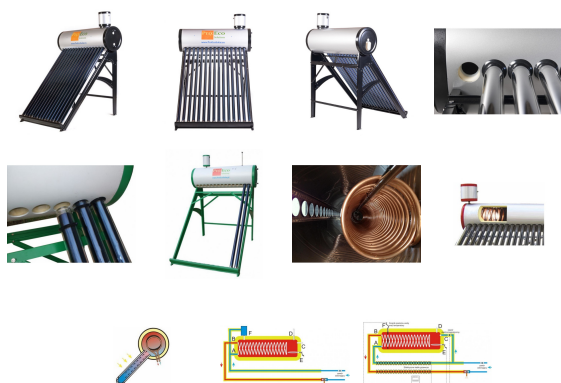
### Other product combinations:

Choose a color of bracket / tank (check availability)	quantity	net price	gross price
black / silver	0 pcs.	2,031.71 PLN	2,499.00 PLN

### Information:

Compact Pre-heated Water Heater PROECO JNHX-150:

- Solar collector consisting of **15 vacuum tubes**
- Insulated water tank with coil with a capacity of **147 liters (170 liters the entire system)**
- Versatile steel frame



## Product features

Heater capacity (l.):	170
Average demand for:	for 2 to 4 person
Hot water collection:	under pressure from the water mains
Surface mounting:	for flat or sloping from 21 to 35 degrees
Vacuum tube size (mm):	58 mm / 1800 mm
Use of Heat-Pipe:	NO
Water tank:	stainless steel SUS 304 0,4 mm
Heat exchanger in the tank:	copper coil
Cover of the tank:	PVDF
Bracket:	galvanized steel, powder coated
Equipment:	magnesium anode

Equipment:	expansion tank
Warranty period:	36 months

## Full product description

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Solar System PROECO HX-150 consists of:

- vacuum solar collector (15 tubes with triple absorption layer ALN/AIN-SS/CU)
- insulated water tank made of stainless steel with capacity of 150l. With copper coil
- steel frame

### Use:

An ideal solution for obtaining utility hot water for single-family houses, guest houses, recreation centers, camping sites, farms, and construction sites.

### Design:

The solar collector consists of vacuum tubes made of borosilicate glass. High operational safety of borosilicate glass has been achieved thanks to the use of an appropriate mix of SiO<sub>2</sub> and B<sub>2</sub>O<sub>3</sub> oxides, which results that the product has high chemical resistance as well as extraordinary purity and uniformity. Borosilicate glass is environment-friendly and can be recycled many times. The process of thermal annealing (hardening) with the low thermal expansion typical for borosilicate glass gives it a particularly high resistance to changes of temperature in comparison to standard glass. Tubes are resistant to hail size up to 25 mm. The use of tubes with a diameter of 47 mm and 58 mm allows concentric placement of one inside the other. The air between the pipes is pumped out, and the pipes are welded together. Solar radiation on the absorber on the inner tube is converted into thermal energy and causes heating of the inside of the tube. The vacuum between the pipes is an excellent insulator and prevents heat loss.

The tank is made of SUS 304-2B stainless steel and is insulated with polyurethane foam with a thickness of at least 50 mm.

The models from the HX systems have a copper coil installed inside the tank, which can be directly connected to the water supply. In order to automatically top up the water in the tank, they also have a small assistant tank. After topping up water, the intake valve is automatically closed with the use of the float.

### Operating principle:

There is water in both in the tank and the tubes. Under the influence of sunlight, the water in the tubes heats up. Thanks to convective movements, it goes up to the tank. Water circulates continuously between the tank and the vacuum tubes, which causes a constant increase of temperature. of water. High efficiency of the collector results from the ability to absorb diffused radiation (for example, on cloudy days) and maximum reduction of heat loss. The collector works excellent also in winter. It obtains energy not only from direct sunlight but also from light reflected from snow.

The small assistant tank installed is used for automatic topping up of water in the tank directly from the water supply. The systems from the HX series have a copper coil mounted inside the tank and can be directly connected to the water supply. In this case, the water in the tank is not used. It only serves as a heat buffer for the water flowing under pressure in the coil. The advantage of this solution is the possibility of obtaining utility hot water under higher pressure. There is no need for gravity drainage or the use of pumps. Instead of water, there may be a glycol solution in the tank, which can circulate additionally in the central heating system.


The system does not require pumps or controllers for proper operation, which makes it very reliable. Thank to the open circuit, even boiling water does not increase the pressure inside the tank. Thanks to this, the system is trouble-free and safe.

### Advantages:

- The higher efficiency of the vacuum collector in comparison to a standard, flat collector.
- Simple design, low failure rate - service life of tubes over 15 years.
- Direct connection of the collector to the tank (no heat loss).
- Excellent insulation of the tank (daily loss of water temperature from 6 to 10 degrees C)
- No need to use pumps or controllers.
- Simple installation that does not require modification of the current system.
- Easy servicing and self installation possible.

### Installation and operating instructions:

 Instructions HX.pdf

 Instructions for installation on oblique surface (annex).pdf

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Warranty: 5 years

NOTE: All prices include 23% VAT tax. The price of the installation service is not included.

-----	<b>Collector:</b>
number of vacuum tubes	15
"heat pipe" use	nie
size of the vacuum pipe	średnica: 58 mm.zew. /47 mm. wew., grubość ścianki: 1,6 ± 0,15 mm., długość: 1800 mm.
type of absorber	(azotek aluminium z warstwami miedzi i stali) CU/SS-ALN(H)/SS-ALN(L)ALN
absorption efficiency	$\alpha = 0.92 \square 0.96$ (AM1.5)
lossy emission	$\epsilon = 0.04 \square 0.06$ (80°C ± 5°C)
degree of vacuum	P. $\leq 5.0 \times 10^{-3}$ (PA)
temperature of stagnation	260 $\square$ 300°C (wewnątrz pustej rury)
average heat loss	ULT 0.4 $\square$ 0.6 W/(m2 $\square$ °C)
resistance to hail	$\Phi 25$ mm
lifespan	> 15 years
-----	<b>FRAME:</b>
material	steel
resistance to wind	180 km/h
-----	<b>TANK:</b>
method of connecting with collector	direct
material (tank inside)	stainless steel SUS304
material (tank outside)	steel
thermal insulation of the tank	polyurethane foam min. 50 mm.
time of maintaining the temperature	about 72 hours
heat exchanger in the tank	copper coil
max. water pressure in the tank	0 bar
additional accessories	electric heater, controller, pump

## Related products

