

Heat pump HP2 - HP3 for utensil washer serie EDI



WHAT IS THE HEAT PUMP ?

The heat pump is a device which is able to transfer heat from a body with lower temperature to another with higher temperature, thus allowing a significant higher quantity of the electrical energy that drives the heat pump to be returned for water heating and cooling down the working environment.



THE BASIC PRINCIPLE

The heat pump is passed by a special refrigerant fluid that according to the PRESSURE and TEMPERATURE which it is placed at, is able to boil from a liquid to a vapour and then to condense back into a liquid. Thanks to these continuous changes we obtain more energy than the one used for driving the heat pump.

TWO VERSION AVAILABLE

HP2 (for EDI 6 – 8):
1,8 Kw spent > 4,5 Kw recovered
HP3 (for EDI 13 – 13 Alta):
2,5 Kw spent > 6,2 kw recovered

STRUCTURE AND FUNCTIONING

The heat pump is made up of a closed circuit based on 4 main elements: a compressor, a condenser, an expansion valve and an evaporator.

Phase 1 Phase 2 Phase 3 Phase 4

Compression

The medium coming from the evaporator (gas and at low pressure) is brought to high pressure.

In the **COMPRESSOR** the medium is heated and increases in its temperature

Condensation

Into the **CONDENSER** the medium at high temperature transfers the heat, condensing from the **GAS** state to the **LIQUID** state.

The heat released is used to warm the tank water of the warewasher.

Expansion

When passing through the **EXPANSION VALVE** the refrigerant fluid cools down, turning partly into **VAPOUR**.

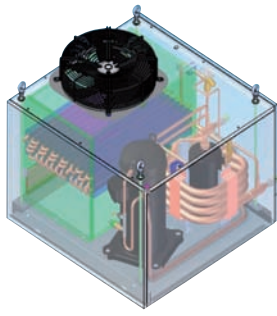
Evaporation

The fluid passing into the **EVAPORATOR** absorbs heat and evaporates completely (gaseous state).

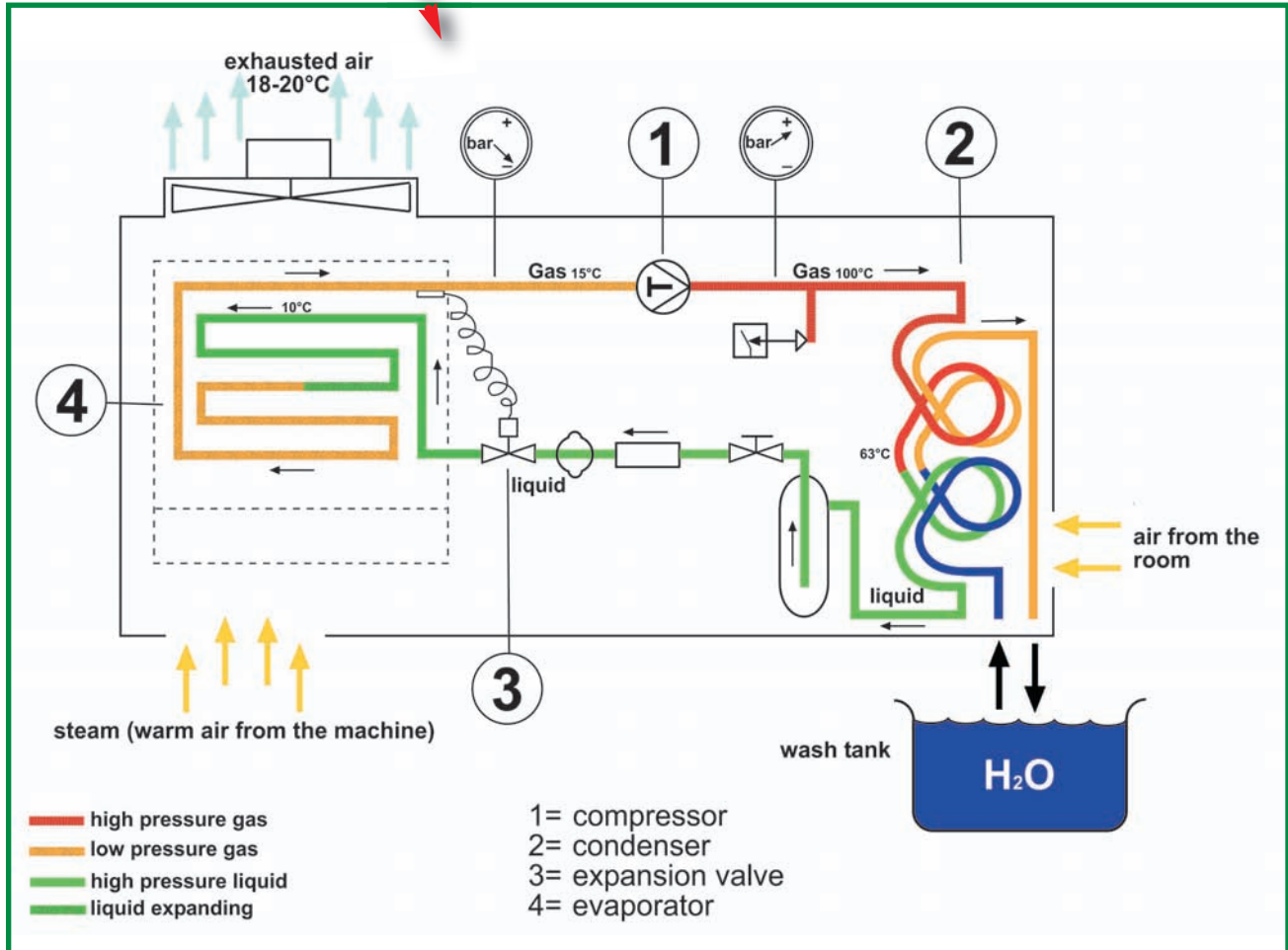
Through this process the heat pump recovers the latent heat produced by the dishwasher during its operation, preventing the release of the steam through the doors at the end of the cycle and reducing electric consumption.

RESULTS

1. 60% energy reduction in heating the water in the tank and keeping it a steady temperature (no more need for a heating element in the tank).
2. Air emission at an average temperature lower than 25°C.
3. No steam while opening the door.
4. Reduction in the humidity into the room.
5. Air-co effect since the functioning of the heat pump prolongs over the cycle.



Function scheme



Model	Machine	Heat Pump	Total Height
EDI 6	mm 830x915x1890H	mm 600H	mm 2490H
EDI 8	mm 990x915x1890H	mm 600H	mm 2490H
EDI 13	mm 1500x915x1890H	mm 600H	mm 2490H
EDI 13 alta	mm 1500x915x2040H	mm 600H	mm 2640H

Manufactured to **CE** specifications

The manufacturer reserves the right to change specifications without notice



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