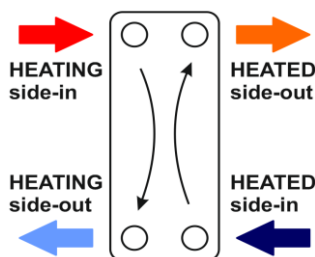


## Plate heat exchanger DV800, insulated

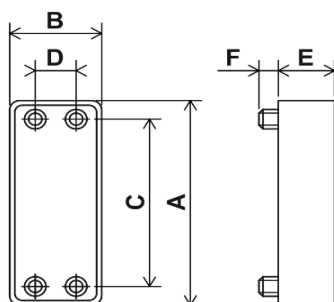
v2.0\_10/2020



Inlet / outlet marking



Dimensions



### Main features

<b>Application</b>	suitable for large solar thermal systems, district heating transfer stations or high-performance systems due to its design
<b>Description</b>	consisting of thin pressed stainless-steel plates, copper soldered, it comes in thermal insulation
<b>Working fluid</b>	water, antifreeze fluid for heating and solar thermal systems and heat pumps

### Codes

<b>10490</b>	DV800-30E
<b>10491</b>	DV800-50E

### Technical data

Type	DV800-30E	DV800-50E
Number of plate	30	50
Heat-exchange surface	4,80 m <sup>2</sup>	8,00 m <sup>2</sup>
Liquid volume (heating)	4,40 l	7,70 l
Liquid volume (heated)	4,40 l	7,70 l
Max. working pressure	10 bar	6 bar
Max. working temp.	185 / 150 / 175 °C *	

\* without insulation / with insulation permanent / with insulation short term

### Materials

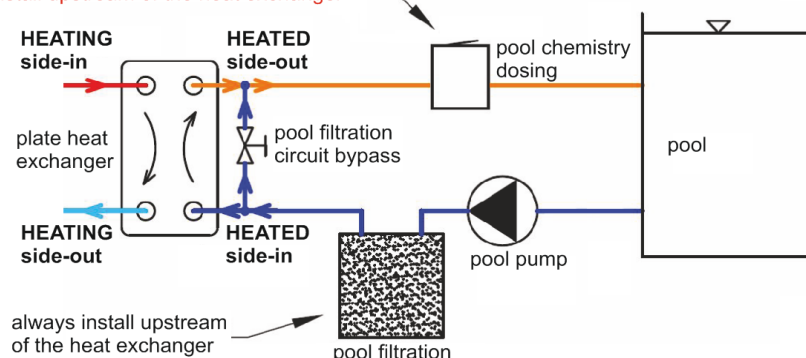
Heat exchanger	AISI 316 L
Insulation	EPDM

### Dimensions with insulation and weight

	DV800-30E	DV800-50E
Size of connection pipes	G 2" M	G 2" M
Height (dim. A)	605 mm	605 mm
Width (dim. B)	310 mm	310 mm
Thickness (dim. E)	115 mm	165 mm
Pitch (dim. C)	475 mm	475 mm
Pitch (dim. D)	185 mm	185 mm
Socket height (dim. F)	35 mm	35 mm
Weight incl. insulation	34 kg	47 kg

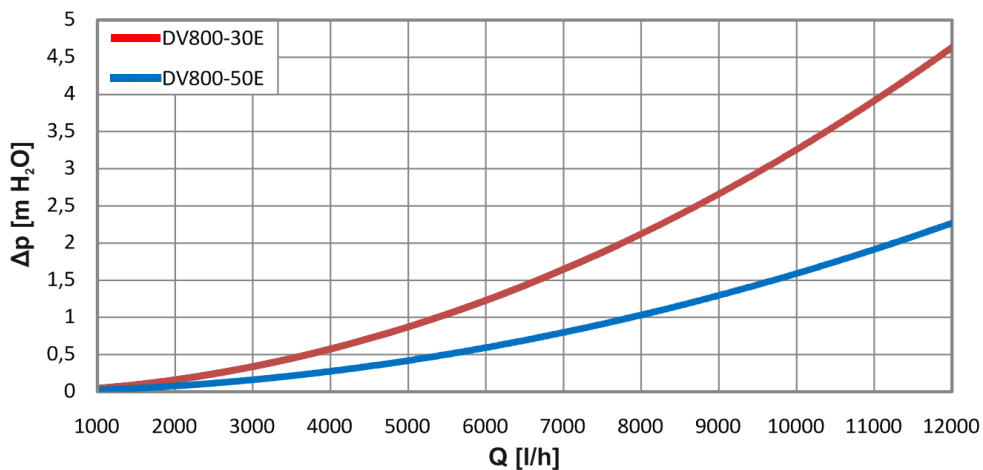
### Connection of the heat exchanger with a pool by-pass

always install downstream of the heat exchanger  
NEVER install upstream of the heat exchanger



The heat exchangers are designed individually on order, based on the specific parameters of a heating system.

Pressure drop of the heat exchangers



**Calculations**

Output curves

$$P = \dot{m}_1 \cdot c_1 \cdot \Delta T_1 = \dot{m}_2 \cdot c_2 \cdot \Delta T_2 \text{ [W]}$$

Mean temperature drop of a heat exchanger  $\Delta T_{stř}$ :

$$\Delta T_{stř} = \frac{\Delta T_1 - \Delta T_2}{\ln \frac{\Delta T_1}{\Delta T_2}} \text{ [W]}$$

WHERE:

- $m_{1,2}$  [kg/s] ... mass fluid flow rate on the primary (1) and secondary (2) sides
- $\Delta T_{1,2}$  [K] ... temp. diff. between the incoming and outgoing temp. of the primary (1) and secondary (2) side of a H.E.
- $c_{1,2}$  [J/kg·K] ... specific heat capacity