

Thermal Insulation PB

DN 100, DN 150 and DN 200

Description

PB is an insulation box specifically designed for HVAC applications with our gasketed plate heat exchangers.

It is a self-supporting modular structure made with insulating panels (thickness 45 mm) anchored together by means of locking hooks and coupled in such a way as to minimize the thermal bridges.

The particular sandwich structure of the insulating panels, obtained by coupling to the polyurethane foam two Aluminum foils, ensures to the case a high degree of thermal insulation, a good structural rigidity and an appropriate surface finish.

Supplied as a kit, it is easily and quickly assembled without the use of special tools.

Benefits

Heat exchanger completely contained within the insulation: minimized thermal losses and condensation, high degree of safety and comfort for those who work around the heat exchanger.

Low installation costs.

Quick and easy access to the heat exchanger for inspection.

By way of example, the graph to the right illustrates some estimates of the reduction of heat flow to the environment achievable with insulated heat exchangers



Technical data

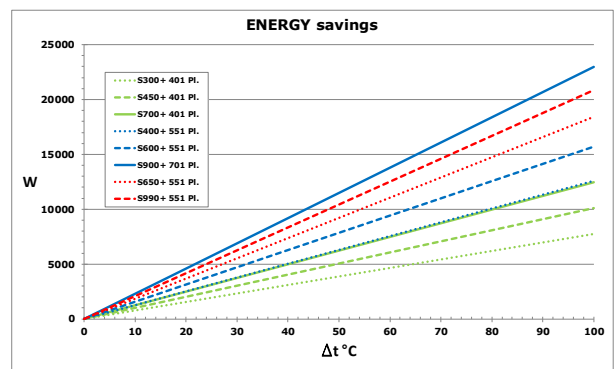
Exterior finish of the panels: smooth sheet of pre-painted Aluminum RAL 2306 (thickness 0.5 mm).

Insulating material: rigid foam of polyurethane with a high percentage of closed cells (above 95%) and a density of 48 kg/m³.

Initial thermal conductivity λ of the insulating material: 0.024 W/m °C (measured at an average temperature of 10°C according to ISO 8302).

Operating temperature: -10°C / + 130°C.

Classification of fire resistance of the insulating material: B - 2s, d0 (according to EN 13501-1: 2007).



Δt °C = Difference between the average temperature inside the GPHE and the environment

W = Potentially reduced heat flow to the surroundings in function of installed No. plates

Example:

Model S600+ 551 plates

Side 1 = Water 90°C->70°C

Side 2 = Water 60°C->80°C

Average temperature inside the GPHE (90 + 70 + 60 + 80) / 4 = 75°C

Ambient temperature 10°C

$\Delta t = 75 - 10 = 65$ °C

The reduced heat flow to the surroundings will be approx. 10 kW (*)

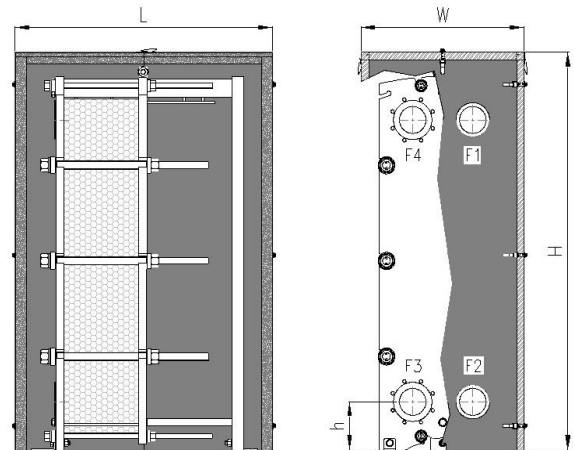
(*) Estimated results which highly depend on real working conditions and mounting accuracy

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Main dimensions

DN 100				
S300+	L	H	W	h
Max. 101 plates	1074	1180	678	198
Max. 201 plates	1574	1180	678	198
Max. 301 plates	2074	1180	678	198
Max. 401 plates	2574	1180	678	198
S450+	L	H	W	h
Max. 101 plates	1074	1625	678	198
Max. 201 plates	1574	1625	678	198
Max. 301 plates	2074	1625	678	198
Max. 401 plates	2574	1625	678	198
S700+	L	H	W	h
Max. 101 plates	1074	2070	678	198
Max. 201 plates	1574	2070	678	198
Max. 301 plates	2074	2070	678	198
Max. 401 plates	2574	2070	678	198



DN 150				
S400+	L	H	W	h
Max. 101 plates	1074	1433	757	256
Max. 201 plates	1574	1433	757	256
Max. 301 plates	2074	1433	757	256
Max. 401 plates	2574	1433	757	256
Max. 551 plates	3374	1433	757	256
S600+	L	H	W	h
Max. 101 plates	1074	1881	757	256
Max. 201 plates	1574	1881	757	256
Max. 301 plates	2074	1881	757	256
Max. 401 plates	2574	1881	757	256
Max. 551 plates	3374	1881	757	256
S900+	L	H	W	h
Max. 101 plates	1074	2374	757	256
Max. 201 plates	1574	2374	757	256
Max. 301 plates	2074	2374	757	256
Max. 401 plates	2574	2374	757	256
Max. 551 plates	3374	2374	757	256
Max. 701 plates	4204	2374	757	256

DN200				
S650+	L	H	W	h
Max. 151 plates	1504	1764	957	285
Max. 251 plates	2104	1764	957	285
Max. 351 plates	2504	1764	957	285
Max. 551 plates	3404	1764	957	285
S990+	L	H	W	h
Max. 151 plates	1504	2263	957	285
Max. 251 plates	2104	2263	957	285
Max. 351 plates	2504	2263	957	285
Max. 551 plates	3404	2263	957	285

All dimensions in mm. Dimensional tolerance compatible with the precision allowed by manufacturing process of insulating panel .

The dimensions shown do not include the dimensions of the locking hooks. Total size: W + 30 mm / 30 mm L + / H + 15 mm.