

Plate Heat Exchanger SYNOTHERM®

The metal plate heat exchanger SYNOTHERM is designed as an indirect heating or cooling system for use in galvanising lines and tanks where small assembly dimensions and a good resistance to process fluids are required. The space saved (1/3 compared to pipe coil heat exchangers) with the same performance data is a particularly good reason for using plate heat exchangers.

The heat exchanger is made from stainless steel or titanium and is designed for the passage of hot and cool fluids (e.g. water, heat transfer oil, steam). When heating, the exchanger transfers energy via the entire front and back surface equally, thereby guaranteeing optimal heat transfer to the fluid. Heating power is determined by the supply temperature of the heat transfer medium and its flow rate. Cooling of the process fluid is of course also possible.

The size of the plate is according to customer's requirements on an individual basis, allowing various installation possibilities.

The plate will be connected to the access line (feed and return flow) according to your wishes, meaning you can satisfy a whole range of demands with ease during installation. The use of high-quality metals guarantees long product life and optimal reliability, thereby ensuring the device operates without problems or interruption.

Setup

The plate heat exchanger consists of one metal base plate (two welded, structured metal plates), and an inlet and outlet. The material used will either be stainless steel or titanium. The surface is etched but can also be designed to have an electropolished finish.

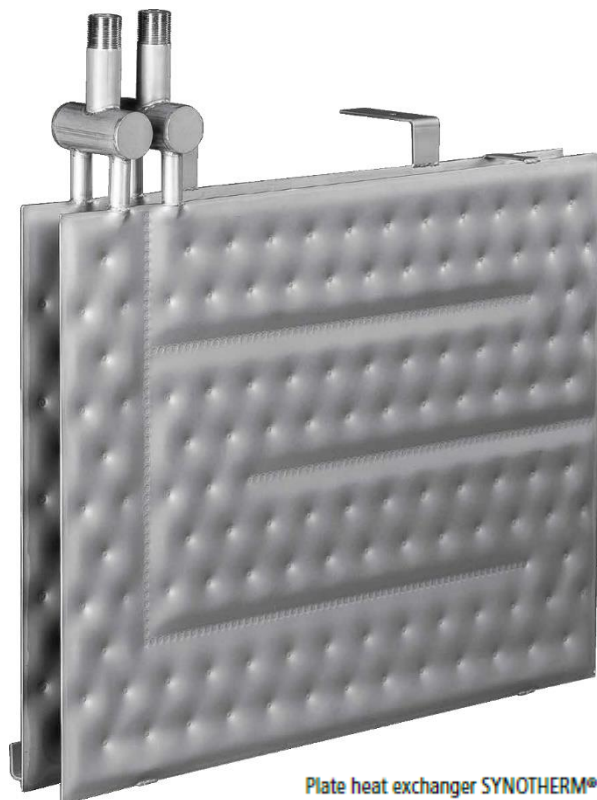


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Welded to the inlet and outlet is a flange or pipe joint (threaded nipple).

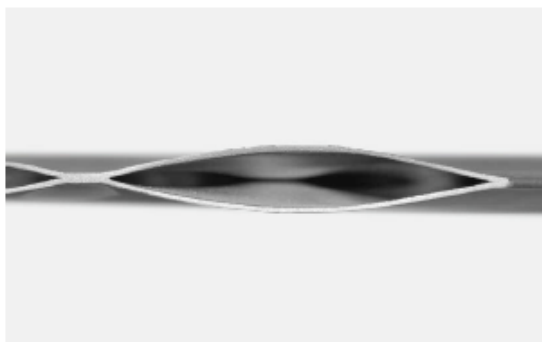
Due to the stability of the heating element, the danger of the plate heat exchanger being mechanically damaged or deformed is significantly reduced, compared to pipe coil heat exchangers. The plate heat exchanger's mechanical set up eliminates the risk of sudden loss of pressure or pressure surges.

In order to securely anchor the heating element, suspensions or holders made of metal can be attached directly to the plate heat exchanger.

Technical data

In order to efficiently plan the heating or cooling of a process fluid, we offer clients our computer-supported heat requirement calculations. The result allows you to select your optimal heating solution and therefore helps to plan processes in a cost efficient manner. Using this calculation, we can work out the level of energy consumption required in order to heat up, cool down and maintain the process fluids you use to the desired temperature.

Use this service!



Cross section of a plate heat exchanger SYNOTHERM®

The plate heat exchanger's universal dimensions and various connection possibilities open up a variety of installation options for you, allowing you to solve complicated installation situations easily. Thanks to the minimal plate thickness (<12 mm), the heat exchangers need only small space for installation. The plate heat exchangers will be designed and created for you on an individual basis.

Monitoring equipment

Temperature and level of process fluids can be monitored in an optimal manner with our temperature sensors, conductive level probes and level switches with corresponding electronic equipment.

Classification

The classification and necessary technical data are printed on the plate heat exchanger in a permanently legible way. In the event of replacements orders, please always state the classification and 10-digit article number. This article number identifies each product clearly!

Standard working materials specifications

Code letter	Material
KA	Stainless steel (Material no. 1.4301 / AISI 304)
KI	Stainless steel (Material no. 1.4404 / AISI 316L)
KB	Stainless steel (Material no. 1.4571 / AISI 316Ti)
TI	Titanium (Material no. 3.7035 / grade 2)

Safety

All plate heat exchangers are subjected to excess pressure and impermeability tests prior to being delivered.



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Service

Each process fluid places specific demands on the materials. Under the heading „Application recommendations for materials for process fluids“ (resistance list) we have listed the durability of frequently used materials for the most popular process fluids.

Please note that all details are related to the status of the technology. We cannot, however, assume liability for correctness or completeness. We reserve the right to changes which serve to advance the product technically. Illustrations are not obligatory.

We are not liable for errors resulting from improper use.

Trust our high-quality products and have a chat with us!

We look forward to your call!