Plate and Shell Heat Exchangers
Designed for High Thermal Efficiency

The Best of Two Worlds
Sondex Plate and Shell heat exchangers combine the benefits of plate heat exchangers and turbular heat exchangers.

Retaining the high working pressure and temperatures of turbular heat exchangers coupled with the high efficiency of plate heat exchangers; plate and shell heat exchangers provide unmatched performance for a wide range of applications.

Recommended Applications
Sondex Plate and Shell heat exchangers are able to handle a wide range of thermal duties:
- Evaporation
- Condensation
- Heat recovery
- Fuel oil heaters
- Chemical processes
- NH₃ Applications
- Liquid/liquid Applications
- Steam/liquid Applications

The Plate and Shell heat exchanger is available as a fully-welded or a bolted solution, depending on your specifications. The heat exchanger features a fully welded plate pack making it well-suited for handling aggressive media, as well as high pressure and temperatures.

The single-pass plate and shell heat exchanger is ideal for handling duties with low thermal requirements that need short plates for efficient heat transfer.

For higher thermal requirements, the plate and shell heat exchanger can be designed as a multi-pass solution.

Benefits of Choosing a Sondex Plate and Shell Heat Exchanger
Why choose a plate and shell heat exchanger instead of a shell and tube heat exchanger?

Reduced foot print – A plate and shell heat exchanger requires far less space and is much lighter than a shell and tube heat exchanger. Minimal space and foundation requirements!

The plate technology provides high heat transfer coefficient that reduces the surface area needed – A plate and shell heat exchanger requires less material for construction compared to a shell and tube heat exchanger. If exotic construction materials are required by the duty, the savings are even greater. Much more economically viable!

Reduced risk of fouling, with the right plate range available – plate and shell heat exchangers are particularly well-suited for applications where fouling and corrosion is a problem. The corrugated surfaces of the heat exchanger plates create a turbulent flow. This greatly reduces the fouling tendency!

Easy and cost effective maintenance – due to less fouling etc., inspections of the plate and shell heat exchanger are needed in much less frequent intervals. In contrast, a shell and tube heat exchanger needs to be opened frequently for cleaning which leads to severe production and product loss, due to the larger volumes in the turbular heat exchanger. Enjoy minimal down time and reduced maintenance costs!

Return of investments – There are a lot cost benefits from using a Sondex Plate and Shell heat exchanger, not just from the initial investment savings but also from lower installation costs as well as reduced space requirements, decreased maintenance costs and minimal down time. Receive a faster return of investment!
Plate and Shell Heat Exchangers
Technical Specifications

Sondex Plate and Shell Heat Exchangers Offer:

- Customized solutions that perfectly match your requirements.
- A large plate portfolio for any duty.
- A small footprint compared to tubular heat exchangers.
- Safe operation with minimal risk of leaking.
- Operation with high working pressure and temperatures.
- Operation with small liquid volumes.
- High efficiency.
- Reduced energy consumption.
- Easy maintenance.
- A proven, technologically superior solution.

All Sondex Plate and Shell heat exchangers are customized according to your specifications and requirements!

Material Specifications:
Shell Material:
Carbon steel (P355GH)
Stainless steel (AISI 316L)

Paint and Colour Specifications:
RAL, colour 5010 up to 140 °C
Hempeil Silicone Acrylic 56940, colour Aluminium 19000, up to 400 °C

Plate Material: AISI 316

Construction Standard: EN 13445 (PED 2014/68/EU)

Extra Equipment:
Insulation jacket
Floor mounting bracket

Other specifications available upon request.

<table>
<thead>
<tr>
<th>Type</th>
<th>Plate diameter (mm)</th>
<th>Plate side</th>
<th>Shell side</th>
<th>Connection (DN)</th>
<th>Design Pressure (MPa)</th>
<th>Design Temperature (°C)</th>
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* SPS1201 is specially developed for evaporation and condensing duties.
Other specifications available upon request!