Advantages of SYNOTHERM®
Plate Heat Exchangers
over Coil Heat Exchangers

More efficient heat transfer characteristics
The special design of the pillow plate heat exchangers creates a strong flow of the heat exchange medium:

→ Higher heat transfer coefficient $k$:
  - Coil heat exchanger $k = 150 – 1400 \text{ W/m}^2\text{K}$ \[^{[1]}\]
  - Plate heat exchanger $k = 1000 – 4000 \text{ W/m}^2\text{K}$ \[^{[1]}\]
→ Up to 33 % more energy efficient than coil heat exchangers
  \[
  Q = k \times A \times \Delta \Theta_{m} \[^{[2]}\]
  \]
  $Q = \text{Power}$
  $A = \text{Heat Transfer Area}$
  $\Delta \Theta_{m} = \text{mean logarithmic temperature difference}$
→ SYNOTHERM® plate heat exchangers save on space, weight and material costs of up to 50 %

Easier cleaning and maintenance
The flat and smooth surface can be cleaned easily and quickly (steam jet, high pressure cleaner, mechanical brushing).

Reduction of risk mechanical damage
The compact, lightweight and pressuretight design reduces the risk of mechanical damage.
This reduces the risk of a line breakdown with associated costs

More uniform and more homogeneous tempering
Special channel allocations allow a uniform heat transfer over the entire heat transfer surface.

More individual design options
Individual design of the connection technology (type and position). Wide variety of dimensions of the base plates (length and width).

SYNOTHERM®
HEAT EXCHANGER
For our product heat exchanger SYNOTHERM®,
visit our new homepage!
www.synotherm.de

Literature: