Recommended applications:
The “Plate & Shell” plate heat exchanger uses laser welded cassettes which are made up of two round plates welded together using modern laser welding machines. These cassettes are designed for chemical processes, the refrigeration industry as condensers and evaporators, in the marine area, power stations, heat recovery and many other tasks where high pressure and very high / low temperatures are demanded.
The design pressure is up to 2.5 MPa / 363PSI.
The design temperature is from – 10 to + 200 deg. C.

Design principles:
The “Plate & Shell plate heat exchanger contains a round plate pack in which the waved “herringbone” pattern is pressed into each plate. The products passes through the port holes and into the gap between the plates.

The heat transfer happens when the warmer product transfers energy through the flow plates and delivers it to the colder opposing product without mixing the both products.

The design of the plate and inlet allows for effective and easy CIP (cleaning in place) cleaning of all surfaces in touch with the products.

The “herringbone” pattern ensures turbulent flow within the effective area. Furthermore this pattern brings “metallic” contact between the plates, then optimal differential pressure is achieved.

Duty, type of product, temperatures, pressure drop and the thermal dynamic properties influence the choice of type, size of heat surface and thermal design of the plate pattern.

The plate pack is firmly fixed into the round shell.
Plate material:
Standard is AISI 316 and titanium. When requested also Hastelloy C 276, 254 SMO or other pressable materials.

Technical information:
The painted shell is made of St S355J263 / P25GH / P235GH. Painting standard colour Blue RAL 5010. Other colours can be supplied.

The unit is constructed for up to 2.5 MPa / 363 PSI working pressure.

Construction standard:
Our “Plate & Shell” plate heat exchangers are approved according to PED 97/23/EC.

Connections:
Dn 25 flanges according to all known standards.

Accessories:
Insulation jacket. Device for floor mounting.