Spiral Heat Exchanger

Sondex spiral heat exchanger is specially designed for dirty duties where normal plate heat exchangers and tubular heat exchangers are not suitable for the duty.

Sondex many years of experience within heat exchangers is put into the design of the Sondex spiral heat exchanger.

The spiral heat exchanger is designed with the focus on the following market segments:

- Pulp and paper
- Waste water
- Vegetable oil
- Refineries
- Petrochemical
- Biogas

Within these market segments the following fluids and gases can run in the heat exchanger:

- Fouling liquids containing solids and fibres
- Wastewater slurries mixtures with inert gases
- Cooling and heat recovery
- Vapour/liquid condenser
- Vacuum condenser with inert gasses

Technical Information

**Standard Materials:**
Spiral and connections in stainless steel or carbon steel. The frames in carbon steel.

**Surface Area:**
The surface area at the spiral can be from 1-400m²

**Working Pressure:**
The unit is constructed for a max. working/pressure temperature of 10-16-25 Bar/max. 350°C

**Construction Standard:**
According to pressure equipment PED 97/23/EC

**Connections:**
Flange connection according to all known standards. The flange size is depending on the size of the unit and the flow rate.

**Additional Equipment:**
Insulation cover

The manufacturer reserves the right to change the specifications in force at any time.
**Design Principles:**

The design of the spiral heat exchanger is unique with two closed spirals, one for each medium. The flow of the two products is countercurrent, making it possible to have a close temperature approach between the two medias which are treated in the heat exchanger. As the two spirals are each in one closed chamber you can be sure that all that comes in also comes out in the other end.

No applications and duties are the same for a spiral heat exchanger, meaning that all spiral heat exchangers are tailor made according to the specifications from the customer.

**Easy Service**

The design of the Sondex spiral heat exchanger makes service an easy task, as each side of the closed spirals can be accessed by opening the side frame of the heat exchanger.

When opening the side frame there is full access to the heat transmission area on one side. This side can then be cleaned without getting in contact with the other side of the heat exchanger. The side frame is designed with henges so that there is no need for crane.

The opening and closing of the unit is done without use of special tools.