



**SONDEX®**

## ► S21/22 - S47 - S64 Plate Heat Exchangers for Food and Dairy

### Recommended Applications:

The S21/22, S47 and S64 range of Sondex food and dairy plate heat exchangers is especially designed to meet all sanitary requirements.

### Design Principle:

The Sondex type S21/22, S47 and S64 plate range with lengths up to 1,9 m (6,2 ft) and a "long" thermal pattern will cover many duties up to 150 m<sup>3</sup>/h (661 gpm) in a single pass solution, meaning that all the connections are on the head side. This will ensure easy pipe- and service work, and by dismantling the exchanger for service, no pipes need to be removed.

This plate is designed for a large-sized pasteurization up to 75.000 l/h (depending on the type of product and the temperature profile) and ensures a gentle and soft product treatment.

The heat transfer is obtained, when the warm medium transfers energy through the thin, strong flow plates between the channels and delivers it to the cold opposing medium without mixing the two media. Counter-current flow creates the optimal efficiency. The plate- and inlet design allows effective, easy CIP (Cleaning in Place) of all "flow" surfaces.

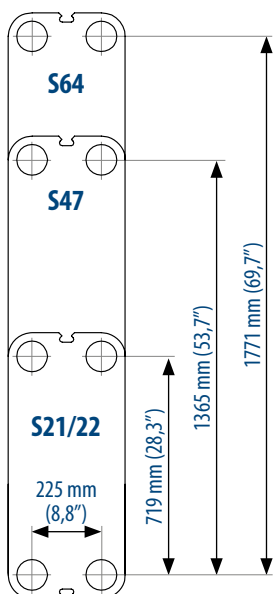
### Flow plates:

The corrugated "herringbone" pattern ensures turbulent flow in the whole effective area. Furthermore, this pattern brings "metallic" contact between the plates, and together with "Sonder Lock" locking devices on the gaskets, the plate pack is easily assembled. The plate pack is held firm and safely between the fixed head and movable follower of the frame.

### Data Required for Correct Quotation:

- Duty
- Flow rate
- Temperature
- Type of media
- Working pressure
- Working Temperature
- Pressure loss
- Thermodynamic properties

Above data determines the choice of heat exchanger.



For exact dimensions of the PHE please refer to the dimension drawing

### Technical Information

#### Frame:

Stainless steel frame, designed for the food and dairy industry. The frame comes with clamping bolts placed around the frame edge. The clamping bolts can be equipped with ball rings and is partly protected. The frame are equipped with adjustable ball feet. The tightening of the bolts is done from the head side, this makes service easy.

#### Design Pressure:

- FS stainless steel frame: 1.6 MPa. (232 PSI)
- FG stainless steel frame: 1.0 MPa. (145 PSI)

#### Intermediate Frames:

Intermediate frames and corner blocks for FS frames in stainless steel.

#### Construction Standard:

- EN13445 (PED 2014/68/EU)
- ASME sec VIII, Div. 1

#### Connections:

- 3"/DN80 dairy union.
- 4"/DN100 counter flanges or compact flanges

According to all known standards.

#### Plate Material:

AISI 316, 254 SMO and titanium. Also 2 x 0,4 mm "Sonder Safe" plates. Other materials available on request.

#### Gaskets:

The gasket is the unique non-glued "Sonder lock" gasket which locks the plates together with strong rubber buttons, so that the plates are strongly guided during the assembly of the plate heat exchanger. Materials: NBR, EPDM and Viton. Other materials available on request.

#### Extra Equipment:

- Safety cover in stainless steel
- Assembling spanner