

# **D86SE - D110SE** PLATE HEAT EXCHANGERS

## Technical Data Sheet

## **Recommended Applications:**

The Sonder Lock Energy Saving Plates (SE) are specially developed to meet the future demands for high-efficient heat exchangers. This design makes the plates exceptionally well-suited for use in the HVAC industry as well as in solar plants, and geothermal installations where high performance is of outmost importance.

## **Design Principle:**

The D86SE and D110SE plates with a length up to 7.5ft (2,3 m) and a "long" thermal pattern will cover many duties up to 1.541 gpm (350 m<sup>3</sup>/h) in a single pass solution, meaning that all the connections are on the head side. This will ensure easy pipeand service work, and by dismantling the exchanger for service, no pipes need to be removed.

TThe 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



Model: D110SE shown

optimal efficiency. The plate- and inlet design allows effective, easy CIP (Cleaning in Place) of all "flow" surfaces.

#### Flow plates:

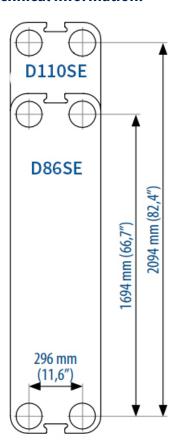
The corrugated "herringbone" pattern ensures turbulent flow in the whole effective area. Furthermore, this pattern brings "metallic" contact between the plates, and together with "Sonder Lock" lock devices on the gaskets, the plate pack is easily assembled. The plate pack is held firm and safely between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

## **Data Required for Correct Quotation:**

The below data determines the choice of heat exchanger

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

#### **Technical Information:**



#### Frame:

- Painted frame, color RAL 5010 (available in other colors)
- Both frames comes with clamping bolts placed around the frame edge.

### Design Pressure:

Painted frames: 145/217/362 PSI (1.0/1.5/2.5 MPa.)

#### Construction Standard:

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

#### Connections:

- DN150/6" flange in carbon steel, rubberlined or cladded with AISI 316 or titanium
- According to all known standards

#### Plate Material:

- AISI 304/316, 254 SMO and titanium.
- Also 2 x 0.4 mm "Sonder Safe" plates.
- Other materials available on request

#### Gaskets:

- The gasket is placed in the closed gasket groove, that is formed by the plates. This design makes the plate suitable for high working pressures. 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
- Insulating jacket
- Assembling spanner
- Foundation feet for IS frame
- Instrument flange
- Thermometer and manometer

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