



# SONDEX

## S21/S22 + S47 + S64

### Plate Heat Exchanger



#### Recommended Applications:

The **S21/S22, S47 and S64** range of **Sondex** plate heat exchangers is specially designed for the HVAC area, the geothermal-, marine- and heat recovery area as well as for the industrial- and chemical market.

#### Design Principle:

The **Sondex** plate range with lengths up to 1.9 m and up to extra "long" thermal pattern, will cover many duties up to 150 m<sup>3</sup>/h in a single pass solution, which means that all 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.

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. Countercurrent flow creates the optimum efficiency.

#### Technical Information

##### Frame:

Painted frame and stainless steel frame, with the clamping bolts placed around the frame edge. Standard colour by painted frame: Blue RAL 5010. Available in other colours.

##### Working pressure:

The painted frames are designed for working pressure: 0.6/1.0/1.6/2.5 MPa  
Stainless steel frames are designed for 1,0/1.6 MPa.

##### Intermediate Frames:

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

##### Construction Standard:

According to PED 97/23/EC:  
A-D "Merkblätter"  
According to ASME CODE:  
ASME VIII, DIV. 1

##### Connections:

DN100 flange Carbon steel, rubberlined or clad, with AISI316 or titanium.

The plate- and inlet design allows an effective and 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 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:

Duty, flow rate, type of media, temperatures, working pressure, pressure losses and thermodynamic properties determine the choice of exchanger type, size of heat surface and plate pattern.

According to all known standards.  
•3" & 4"/DN80/100 dairy unions.  
According to all known standards.

#### Plates:

Standard material  
AISI 304, AISI 316 and titanium, 254 SMO.  
Also 2 x 0.4 mm "Sonder Safe" plates.  
Not standard: Hastelloy C 276 and other pressable materials.

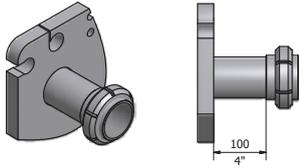
#### Gaskets:

The gaskets are the unique "Sonder Lock" or "hang-on", non-glued type. Standard material: Nitrile, EPDM and Viton.

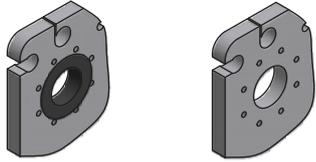
#### Extra Equipment:

Safety covers in stainless steel.  
Insulating jacket.  
Assembling spanner.  
Foundation feet for frame.

**CONNECTIONS:**



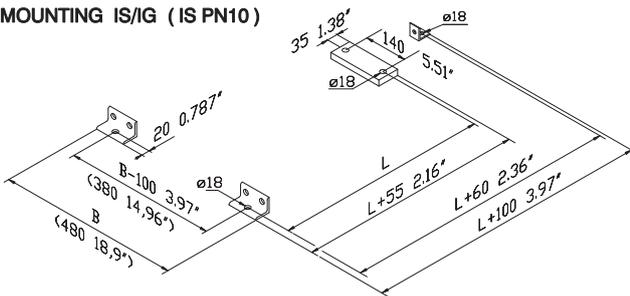
**DAIRY UNION**



**RUBBERLINE / CLADDED**

**PAINTED**

**MOUNTING IS/IG (IS PN10)**



FRAME

SUBJECT TO CHANGE IN CONSTRUCTION CONDITIONS

L = 400 - 1000  
L = 15.75" - 39.37"

FRAME SIZE	DIMENSION H	DIMENSION C
S21a/S22	1069/42.09"	719/28.31"
S47	1715/67.52"	1365/53.74"
S64	2121/83.50"	1771/69.72"

PLATE HEAT EXCHANGER GROUP:  
**S21a/ S22/ S47/ S64 - IG PN10**

FRAME

SUBJECT TO CHANGE IN CONSTRUCTION CONDITIONS

L = 600 - 2000  
L = 23.62" - 78.74"

FRAME SIZE	DIMENSION H	DIMENSION C	DIMENSION B
S21a/S22	1108/43.62"	719/28.31"	495/19.49"
S47	1755/69.09"	1365/53.74"	480/18.90"
S64	2162/85.12"	1771/69.72"	480/18.90"

PLATE HEAT EXCHANGER GROUP:  
**S21a / S22 / S47 / S64 - IS PN10-16-25**

FRAME

SUBJECT TO CHANGE IN CONSTRUCTION CONDITIONS

L = 2500 - 4000  
L = 98.43" - 157.48"

FRAME SIZE	DIMENSION H	DIMENSION C	DIMENSION B
S21a/S22	1238/48.74"	719/28.31"	495/19.49"
S47	1884/74.17"	1365/53.74"	480/18.89"
S64	2291/90.20"	1771/69.72"	480/18.89"

PLATE HEAT EXCHANGER GROUP:  
**S21a / S22 / S47 / S64 - IS PN10-16-25**

**SONDEX PORTUGAL**  
**ARMACAN LDA**  
Tel +351 218 438 750  
Fax +351 218 438 759  
Email info@armacan.com



**SONDEX A/S · JERNET 9 · DK-6000 KOLDING · DENMARK**

**SONDEX**

Phone +45 76 30 61 00 • Telefax +45 75 53 89 68 / +45 75 50 50 19 • E-mail: info@sondex.dk