SANITARY HEAT EXCHANGERS

S-TFM-I

SANITARY LINE

Optimized designs to favor a good CIP (Clean In Place) cleaning of the product channel, guaranteeing the best finishes and the drainability of the equipment.

OPERATION

The S-TFM-I is a heat exchanger with a tube bundle within a shell. The product flows by the inner tubes while the service does it by the external channel.

APPLICATIONS

Heating (pasteurization, esterilization, UHT, etc.) or cooling processes of medium - low viscosity products which may contain fibres and small particles. This model is designed for dairy products, juices, margarines, drinks, food grade oils and others which may require good product channel finish.

ADVANTAGES OF CORRUGATION

HYGIENIC PROFILE

DIFFERENT CORRUGATION GEOMETRIES (HARD/SOFT/PLAIN)

TURBULENT FLOW (LOWER REYNOLDS NUMBER THAN FOR SMOOTH TUBES)

HIGHER HEAT TRANSFER COEFFICIENTS AND LOWER EXCHANGE AREA

HOMOGENEOUS THERMAL TREATMENT

LOWER FOULING

SHORTER RESIDENCE TIMES

LONGER RUNNING TIMES

ADVANTAGES OF TUBULAR HEAT EXCHANGER

LOW MAINTENANCE COSTS

HIGH WORKING Pressures

HIGH WORKING TEMPERATURES

PROCESSING OF PARTICULATE OR FIBRE PRODUCTS

EASY INSPECTION AND DISASSEMBLY

HIGH SECURITY IN ASEPTIC PROCESSES

EASY TO ENLARGE

Discover all the advantages of corrugation in tubular heat exchangers
sacome.com/en/corrugated-tube-heat-exchangers/
**STANDARD DESIGN CONDITIONS**

Design temperature  
180 °C

Design pressure  
10 barg

For higher design pressure or temperatures as well as hazardous fluids, the heat exchangers can be checked according to AD 2000 Merkblatt, ASME VIII Div.1, PD 5500, EN13445 or by Finite Elements Analysis and CE certificated by individual inspection modules.

* Included: CE Marking according to 2014/68/UE.

**STANDARD MEASURES**

Shell side diameter  
52 mm – 204 mm

Inner tube diameter  
≥ 16 mm

Length  
1-1.5-2-3-6 m

* Other available sizes under request.

**MATERIALS**

Shell & Tubes  
Stainless Steel 304 or 316L

* Other materials available on request (2205, 2507, 254 SMO among others).

**AVAILABLE CONNECTIONS**

Clamp  
Flange  
DIN 11851

* Other connections available on request.

### SURFACE FINISH

- External
- External Polished
- Product side
- Product channel designed to promote CIP (Clean In Place).

### OPTIONS

**INSULATION**

Mineral wool coated in 304 stainless steel metal sheet.

**INTERCONNECTIONS**

In case the equipment contains several units in series, SACOME can provide the interconnections for the product channel and the service channel. Thinking of the easy drainability we propose eccentric reductions.

**FRAME**

In 304 stainless steel. The type and shape of the frame will be selected to fit the needs of each project. If required, equipment may be sloping for better drainage.

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**STANDARD DESIGN CONDITIONS**

**SHELL SIDE MATERIAL**

Stainless Steel 304 or 316L

* Other materials available on request (2205, 2507, 254 SMO among others).

**TUBE SIDE MATERIAL**

H/S/P  
CORRUGATION INDICATOR  
(HARD / SOFT/ PLAIN)

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**SACOME HEAT EXCHANGER TYPE DEFINITION**

S-TFM-I-7-1-85/18-6000-304/316L-H

**SANITARY LINE**

TFM  
MULTITUBULAR  

**NON REMOVABLE TUBE BUNDLE**

0/1  
WITHOUT/WITH EXPANSION JOINT

**NUMBER OF INNER TUBES**

7

**Ø SHELL (mm)**

304

**Ø INNER TUBE (mm)**

18

**NOMINAL LENGTH (mm)**

6000

**SHELL SIDE MATERIAL**

316L

**TUBE SIDE MATERIAL**

H/S/P

**SACOME**

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