

## INDUSTRIAL HEAT EXCHANGER

# I-TFM-I

**Multitube. Non removable tube bundle.**

### INDUSTRIAL LINE

Designed both thermal and mechanically to ensure long life and high reliability.

### OPERATION

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

### APPLICATIONS

Processes of heating, evaporation, condensation or cooling of products such as oils, effluents, sewage, asphalts, hydrocarbons, biogas, exhaust gases, biodiesel, methanol and others.

### 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/corrugated-shell-and-tube-heat-exchangers](http://sacome.com/corrugated-shell-and-tube-heat-exchangers)

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## SACOME HEAT EXCHANGER TYPE DEFINITION

I-TFM-I-7-1-85/18-6000-304/316L-H →



### STANDARD DESIGN CONDITIONS

Design temperature

**180 °C**

Design pressure

**10 barg**

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

\* Included: 3.1 Quality certificate and CE Marking according to 2014/68/UE.



### STANDARD MEASURES

Shell side diameter

**60,3 mm – 1500 mm**

Inner tube diameter

**≥ 10 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

**Flange**

\* Other connections available on request.



### SURFACE FINISH

External

**Matt**



### 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.

#### 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.

INDUSTRIAL LINE

**TFM**

MULTITUBULAR

NOT REMOVABLE TUBE BUNDLE

NUMBER OF INNER TUBES

**0/1**

WITHOUT / WITH EXPANSION JOINT

**85**

Ø SHELL (mm)

**18**

Ø INNER TUBE (mm)

**6000**

NOMINAL LENGTH (mm)

**304**

SHELL SIDE MATERIAL

**316L**

TUBE SIDE MATERIAL

**H/S/P**

CORRUGATION INDICATOR

(HARD / SOFT/ PLAIN)



## SACOME

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