

**ST**

# TUBE IN TUBE HEAT EXCHANGERS



# ST TUBE IN TUBE HEAT EXCHANGERS

ST tube in tube heat exchangers find their application where fluids of high viscosity, density or high fiber or solid particle contamination are subjected to heat treatment, e.g. at waste water treatment plants. The presence of different types of mechanical contamination causes their sedimentation on the walls, which blocks the flows in the exchanger.

Large diameter of the ST exchanger tubes ensures their free flow and the dismountable design allows for mechanical cleaning of the heat exchange surface. Stainless steel make ensures corrosion resistance and the simple design ensures long-term failure-free operation.

## ADVANTAGES



OPTION TO INCREASE HEAT EXCHANGE SURFACE  
BY ADDING FURTHER SECTIONS.



STAINLESS STEEL MAKE ENSURES  
CORROSION RESISTANCE.



EASY ASSEMBLY.



BROAD RANGE WITH VARIOUS NOMINAL  
DIAMETERS AND MODULES WITH 3 METERS AND  
6 METERS IN LENGTH ENSURES FLEXIBILITY IN  
SYSTEM DESIGN.

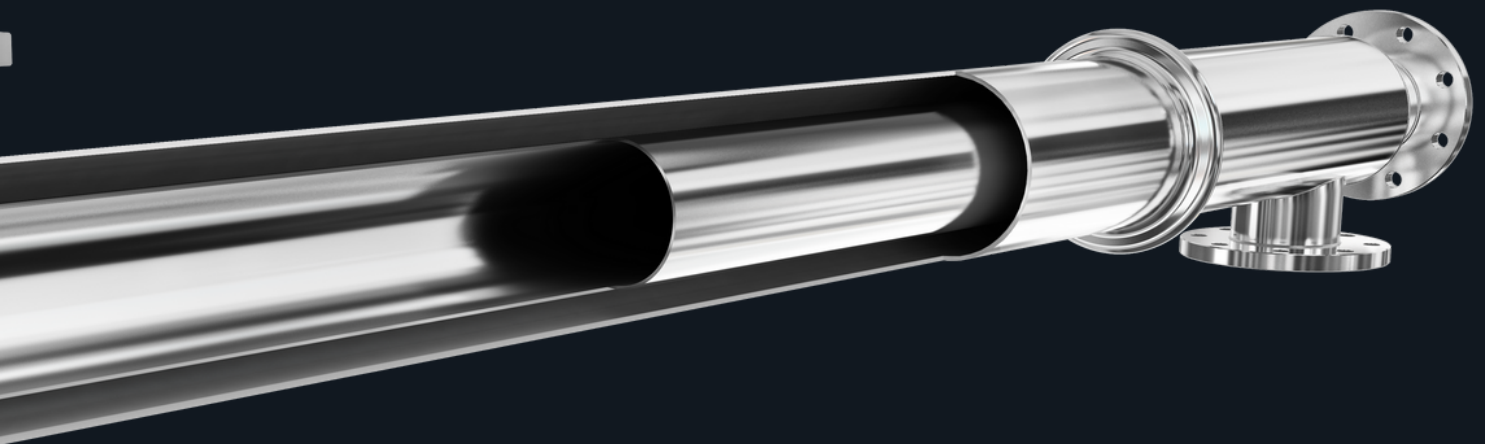


DISMOUNTABLE DESIGN ALLOWS FOR  
MECHANICAL CLEANING.



## DESIGN

- The heat exchanger consists of an appropriate number of sections connected in series, using connections located on the frame.
- A single section is constructed with a smaller diameter tube (product side) installed inside a larger diameter tube (shell side).
- The quantity and size of the sections depend on the specified thermodynamic parameters.
- In the case of a significant temperature difference between the product side and the shell side, thermal expansion compensators are used for the tubes.
- There is also an option to manufacture the heat exchanger with welded connections instead of flanged connections on the shell side.



# MATERIALS

- INNER TUBE (PRODUCT SIDE): STAINLESS STEEL 316L / 1.4404
- OUTER TUBE (SHELL): STAINLESS STEEL 304L / 1.4307
- FRAME: STAINLESS STEEL 304L / 1.4307

# EXEMPLARY MEDIA

- WATER
- WASTEWATER AND SLUDGE
- SUSPENSION
- PASTE
- SLURRY
- OTHER MEDIA CONTAINING FIBRES AND SOLID PARTICLES
- LIQUIDS OF HIGH VISCOSITY AND /OR DENSITY

# APPLICATION



SEWAGE TREATMENT PLANT, COOLING OR HEATING OF  
WASTEWATER AND SLUDGE



PAPER INDUSTRY



CHEMICAL INDUSTRY, E.G HEATING OF PASTES IN  
PRODUCTION OF PET PALLETS



FOOD AND BEV INDUSTRY

## WORKING PARAMETERS

MAX. TEMP.: – 110°C

MAX. PRESSURE:

- PRODUCT SIDE – 1,6 MPA
- SHELL SIDE – 1,0 MPA

It is possible to adapt the construction of a heat exchanger to obtain gigher working parameters.

Type	External diameter of the product side	External diameter of the shell side	Connection size of the product side	Connection size of the shell side option I	Connection size of the shell side option II	Heat exchange area 3M	Heat exchange area 6M
	mm	mm				m2	m2
ST 32/50	42,4	60,3	DN32	DN32	-	0,37	0,77
ST 50/80	60,3	88,9	DN50	DN50	-	0,53	1,10
ST 65/100	76,1	114,3	DN65	DN65	DN80	0,67	1,39
ST 80/100	88,9	114,3	DN80	DN65	DN80	0,78	1,62
ST 100/125	114,3	139,7	DN100	DN80	DN100	1,00	2,08
ST 100/150	114,3	168,3	DN100	DN100	DN125	1,00	2,08
ST 125/150	139,7	168,3	DN125	DN100	DN125	1,23	2,54
ST 150/200	168,3	219,1	DN150	DN125	DN150	1,48	3,07
ST 200/250	219,1	273	DN200	DN150	DN200	1,93	3,99

Exemplary designation  
ST32/50 - 3M/12

ST - Tube in Tube HE  
32/50 - nominal diameter of inner/outer tube

3M - section length 3m  
12 - quantity of the sections

3M - section length 3 m  
6M - section length 6 m

