

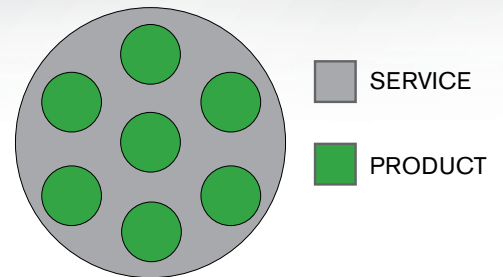
## ParaTube<sup>®</sup> MultiTube Heat Exchangers - Welded Design

FOR SANITARY APPLICATIONS

Multitube heat exchangers consist of several smaller diameter tubes aligned in parallel within a larger diameter outer shell. In welded designs, the inner tubes and shell are welded to the tube sheets.

Suitable for heating, cooling, pasteurising and UHT processing, Multitube heat exchangers can cover a large range of products (dairy, juices, sauces, beverages, processed food) from low viscosities up to medium/high viscosities, depending on the application. They can also be used for products with particles when fitted with a conical tubesheet.

Due to their construction, with different configurations of inner tubes bundled inside an outer shell, Multitube heat exchangers create a large heat exchange surface in a relatively small volumetric space. This makes them ideal for processing a wide range of flow capacities, with higher flows than other standard tubular heat exchanger configurations.



### MAIN FEATURES



Thermal expansion bellows to absorb difference of expansion.



Conical tube sheet for use with products with particles.



Baffles are used for mechanical resistance and improved heat transfer on the shell side.



Product side can be inspected by removing bends between modules. All inner tubes are visible.



Flexible arrangement. Modules are connected on the product side by means of bends and on service side using fittings.



Low cost, straight forward maintenance with only requirement to change gaskets on connections.

## STANDARD MATERIALS

AISI 316 (1.4401) /316L (1.4404)

AISI 304 (1.4301) /304L (1.4306)

Others (AISI 316Ti, DUPLEX) available on request

## STANDARD FINISH

**PRODUCT SIDE:** 2B finish.

Inner tubes according to A-249.

**SERVICE SIDE:** Grinded

## WORKING CONDITIONS

**DESIGN TEMPERATURE:** Up to 250°C (482°F)

**DESIGN PRESSURE:** Up to 75 bar (1088 psi)

Other available on request for some models.

## CONNECTIONS

### PRODUCT SIDE

Clamp fittings are supplied as standard.

For larger THE sizes, flange connections are supplied (EN-1092-1).

Other options are available for some models on request.

### SERVICE SIDE

Clamp fittings are supplied as standard.

Other options are available on some models on request.

## NOMENCLATURE

### CMT/W-1-2-3-LM - Corrugated Multitube Type Welded Design

1: Number of inner tubes

2: Inner tubes outer diameter (mm)

3: Shell outer diameter (mm)

L: Tubes length (m)

## PRODUCT RANGE

### SHELL outer diameters

From 50.8 mm (2 in) to 508 mm (20 in)

### INNER TUBES outer diameters

12 – 16 – 20 – 25 mm (0.5 - 0.6 - 0.8 - 1.0 in) - Other diameters available, depending on material.

### TUBES LENGTH

Standard supply: 3 m - 6 m (10 ft - 20 ft) - Other lengths available on request.

### CORRUGATION

All models can be supplied with corrugated or smooth inner tubes.

## OTHER AVAILABLE

The Multitube welded design is also available in a version that can be disassembled with up to 154mm (6 in) OD shell tubes bundle, connected to the shell with clamp and o-rings.

### CMT/D-1-2-3-LM - Corrugated Multitube Type Disassemblable Design

1: Number of inner tubes

2: Inner tubes outer diameter (mm)

3: Shell outer diameter (mm)

L: Tubes length (m)

## CERTIFICATIONS

In compliance with European Pressure Equipment Directive 2014/68/EU.

OTHER CERTIFICATES available on request.

Based in Charlotte, North Carolina, SPX FLOW, Inc. (NYSE: FLOW) is a multi-industry manufacturing leader. For more information, please visit [www.spxflow.com](http://www.spxflow.com)

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