

## Tubular Heat Exchanger – HT31

### Description - requires HT30XC base unit

The tubular heat exchanger is the simplest form of heat exchanger and consists of two concentric (coaxial) tubes carrying the hot and cold fluids. In these miniature versions the tubes are separated into sections to reduce the overall length and to enable the temperature at points along both fluid streams to be measured.

Two versions are available, the HT31 is a basic version with two sections and a single interim temperature measurement point.

### HT31 Essential Accessories

- ▶ HT30XC Computer controlled service unit

### Technical specifications

Temperature measurements points	6 off: <ul style="list-style-type: none"> <li>▶ Hot fluid inlet</li> <li>▶ Hot fluid mid-position</li> <li>▶ Hot fluid outlet</li> <li>▶ Cold fluid inlet</li> <li>▶ Cold fluid mid-position</li> <li>▶ Cold fluid outlet</li> </ul>
Number of tube sections	2
Heat transfer area	0.02m <sup>2</sup>

### Overall dimensions

Length	0.16 m
Width	0.51 m
Height	0.39 m
<b>Packed and created shipping specifications</b>	
Volume	0.05 m <sup>3</sup>
Gross weight	4 kg

### Technical Details

On both our HT31 and HT36 heat exchangers, the inner tube is used for the hot fluid and the outer annulus for cold fluid. This minimises heat loss from the exchanger without the need for additional insulation.

The inner tubes are constructed from stainless steel and the outer annulus from clear acrylic, providing visualisation of the heat exchanger construction and minimising thermal losses.

The tubes can be dismantled for cleaning.

### Features

- ▶ A small scale Tubular Heat Exchanger system for use with an Armfield Heat Exchange Service Unit to teach the fundamental concepts of heat exchangers
- ▶ Comprises a number of sections of concentric tubes, the outer section constructed from clear acrylic for visibility and the inner tube from stainless steel
- ▶ The tubes are easily dismantled for cleaning
- ▶ A comprehensive instruction manual is included

### Ordering codes

- ▶ HT31 - Tubular heat exchanger - See HT30XC for power options

