

**Plate Heat Exchanger – HT32**

**Description - requires HT30XC base unit**

The plate heat exchanger is extremely versatile and commonly used in the food and chemical processing industries. Different combinations of plates and gaskets can be arranged to suit a particular application.

The miniature exchanger supplied, consists of a pack of plates with sealing gaskets held together in a frame between end plates. Hot and cold fluids flow between channels on alternate sides of the plates to promote heat transfer.

The HT32 has a single heating section configured for multi-pass operation with passes in series. It comprises seven individual plates, which are clamped together using two stainless steel threaded bars and nuts. It is possible to dismantle and reassemble the heat exchanger using only three plates to demonstrate a single pass.

**Technical specifications**

Number of plates	▶ 7 (5 effective plates)
Heat transfer area	▶ 0.04m <sup>2</sup>
Heat exchanger configuration	▶ Single heating stage
Temperature measurements points	4 off: ▶ Hot fluid inlet ▶ Hot fluid outlet ▶ Cold fluid inlet ▶ Cold fluid outlet
Clamping mechanism	Dual screw threads with nuts

**Overall dimensions**

Length	0.17 m
Width	0.18 m
Height	0.39 m

**Packed and created shipping specifications**

Volume	0.03 m <sup>3</sup>
Gross weight	6 kg

**Ordering codes**

- ▶ HT32 - Plate heat exchanger - See HT30XC for power options

**Technical Details**

The plates used in these heat exchangers have been specifically developed by Armfield for use in miniature heat exchanger systems. They are fabricated from 316 stainless steel, with a pressed chevron pattern to promote turbulence and provide multiple support points. Silicone rubber gaskets are used on each plate to seal the adjacent flow channels from each other.

**Plate details:**

Plate overall dimensions:	75mm x 115mm
Effective diameter:	3.0mm
Plate thickness:	0.5mm
Wetted perimeter:	53.0mm
Projected heat transmission area:	0.008m <sup>2</sup> per plate

The plates are mounted in a frame incorporating fixed and moving end plates with connections for hot and cold fluids. The exchangers are easily dismantled for inspection of the heat transfer surfaces.

**Features**

- ▶ A small scale plate heat exchanger system for use with an Armfield Heat Exchange Service Unit to teach the fundamental concepts of heat exchangers
- ▶ Comprises a number of stainless steel plates, each with a pressed chevron pattern and a food grade silicon rubber sealing gasket, mounted in a frame
- ▶ Easily dismantled for cleaning
- ▶ A comprehensive instruction manual is included

**HT32 Essential Accessories**

- ▶ HT30XC Computer controlled service unit

