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Miniature-scale research & development technology

**RISING FILM EVAPORATOR FT22**



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ISO 9001:2008  
2YR EXTENDED WARRANTY

The costs incurred by the length of time taken, the large quantities of raw materials required and the interruption of the production process mean it is disadvantageous to test new products using full-scale production equipment. The Armfield evaporator processes samples as small as 2.0 litres under conditions identical to those in production, sufficient to reveal the effect of heating on any ingredients newly introduced to the recipe. As well as investigation of the effect on organoleptic and physico-chemical properties, the equipment can be used to prepare product for taste trials on a daily basis to ensure the quality of incoming raw material is consistent.

## FEATURES

- Nominal throughput only 10 l/hr
- Single tube heat exchanger
- Integral CIP system
- Integral control console
- Computer linked for data logging and analysis

## BENEFITS

- Small quantities of liquid products can be concentrated
- Easily cleaned and maintained
- Low product usage eases the disposal of waste

ISSUE - 8



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Armfield R&D products include:

316 Stainless steel ✓

CE certification ✓

Extended warranty as standard ✓



An ISO 9001 Company

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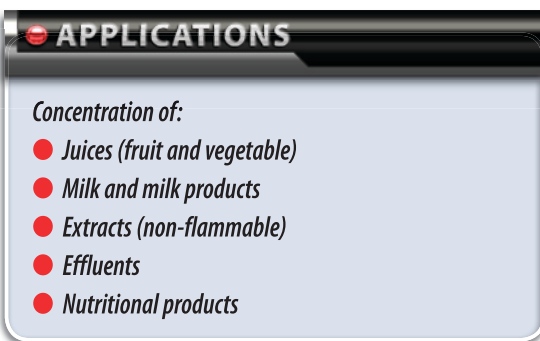
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## Description

The single tube-in-jacket evaporator replicates industrial units, which often contain scores of much longer tubes within the steam space. The component parts of the industrial process have been scaled down, feed tank, vapour/liquid separator, condenser, concentrate tank, condensate tank, CIP pump and vacuum pump, all manufactured from hygienic materials such as stainless steel, PTFE and glass.

The system is supported within a stainless steel framework and requires only connection to suitable steam, electrical and water services for operation. Only 0.65m<sup>2</sup> of floor space is required to install the evaporator and it has been designed to fit easily into a room of standard height.



## Specifications

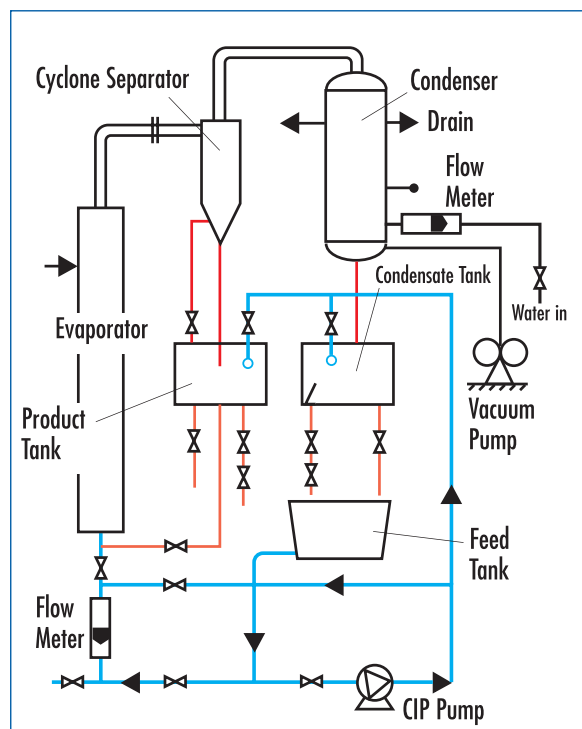
Product flow range:	1-16 l/hr
Cold Water flow range:	1-10 l/hr
Evaporator tube length:	1.36m
Heat transfer area:	0.06m <sup>2</sup>
Max. evaporation rate:	10 l/hr
Max. steam consumption:	15kg/hr
Max. steam pressure (working):	1.7bar
Condenser area:	0.17m <sup>2</sup>
Feed tank capacity max:	30 litres
Concentrate tank capacity:	5.0 litres
Condensate tank capacity:	5.0 litres
CIP pump:	8 lpm @ 20ft H <sub>2</sub> O
System vacuum:	225mm Hg abs (increased when pump heads in series)

## Requirements

Electrical Supply: Single Phase (see Ordering Codes)  
Mains water @10l/m

## Ordering Codes

FFT22-A:	220-240V/1ph/50Hz, (3kW)
FT22-B:	120V/1ph/60Hz, (3kW)
FT22-G:	220-240V/60Hz, (3kW)



Schematic diagram of the FT22



Receiver vessels being cleaned using integral CIP facility.

## Optional Accessories

- UOP10:** Steam Generator  
Provides an adequate supply of steam as the heat transfer medium
- FT22-90IFD-USB:** Data Logging Accessory  
Requires user supplied PC with USB interface running Windows XP or later.

## Shipping specification

Volume: 2.4m<sup>3</sup>  
Gross weight: 330kg

## Overall dimensions

Height: 2.6m  
Width: 0.78m  
Depth: 0.65m

The Armfield range includes HTST/UHT/aseptic systems, carbonator/filler/cappers, spray dryers/chillers, multifunction batch processors, ice cream freezers, margarine crystallisers, extractors, edible oils processors and more. For further information about our products and services, or to book a trial at one of our trials facilities, please contact us.