

Rising Film Evaporator – FT22

INCLUDES INTEGRATED DATA LOGGER

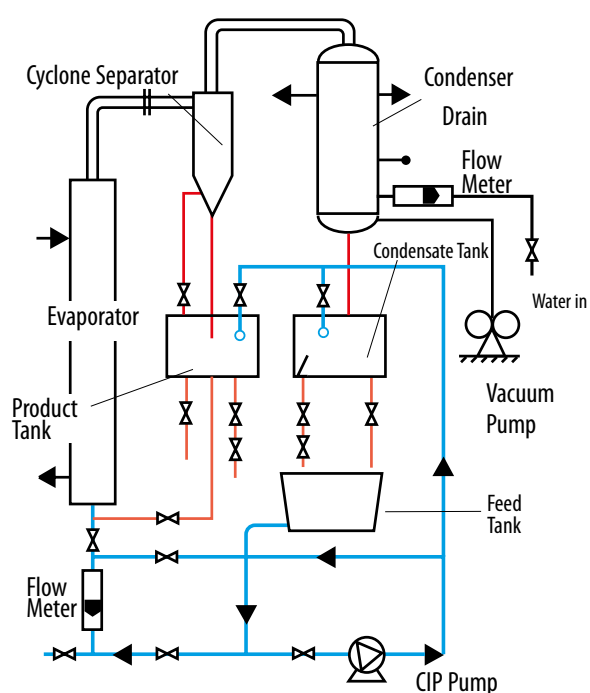
The Armfield evaporator processes samples as small as 2.0 litres under conditions identical to those in production, sufficient to reveal the effect of heating on any ingredients newly introduced to the recipe.

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.

FT22 Product and condensate tank



Schematic diagram of the FT22



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 0.65m² of floor space is required to install the evaporator and it has been designed to fit easily into a room of standard height.



Technical specifications

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

Overall dimensions

Length	0.78 m
Width	0.65 m
Height	2.6 m

Packed and created shipping specifications

Volume	2.4 m ³
Gross weight	330 kg

Requirements

Scale



- ▶ Electrical Supply: Single phase (see Ordering codes)
- ▶ Mains water @ 10 l/min

Applications

Concentration of:

- ▶ Juices (fruit and vegetable)
- ▶ Milk and milk products
- ▶ Extracts (non-flammable)
- ▶ Effluents
- ▶ Nutritional products

Features / benefits

- ▶ Small quantities of liquid products can be concentrated
- ▶ Easily cleaned and maintained
- ▶ Low product usage eases the disposal of waste
- ▶ Nominal throughput only 10 l/hr
- ▶ Single tube heat exchanger
- ▶ Integral CIP system
- ▶ Integral control console
- ▶ Integrated data logging and analysis

Optional Accessories

UOP10: Steam Generator

Provides an adequate supply of steam as the heat transfer medium

Related products

- | | |
|-------------|-----------|
| ▶ UOP10 | ▶ FT84-12 |
| ▶ FT17 | ▶ FT85 |
| ▶ FT18-MKII | ▶ FT90-91 |
| ▶ FT20 | ▶ FT94X |
| ▶ FT25 | ▶ FT94LT |
| ▶ FT27 | ▶ FT102X |
| ▶ FT36 | ▶ FT104X |
| ▶ FT51 | ▶ FT102LT |
| ▶ FT52 | ▶ FT110 |
| ▶ FT74XA | ▶ FT111 |
| ▶ FT80-81 | ▶ FT140 |
| ▶ FT83 | ▶ FT174X |

Ordering codes

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

Knowledge base

- > 28 years' expertise in research & development technology
- > 50 years' providing engaging engineering teaching equipment

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