

FT22 RISING FILM EVAPORATOR



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 litres/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









Miniature-scale R & D technology

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

Concentration of: Juices (fruit and vegetable) Milk and milk products Extracts (non-flammable) Effluents Nutritional products

Specifications

Product flow range: 1-16lph
Cold Water flow range: 1-10lpm
Evaporator tube length: 1.36m
Heat transfer area: 0.06m²
Max. evaporation rate: 10lph
Max. steam consumption: 15kg/hr
Max. steam pressure

(working): 1.7bar
Condenser area: 0.17m²
Feed tank capacity max: 30 litres
Concentrate tank capacity: 5.0 litres
Condensate tank capacity: 5.0 litres
CIP pump: 8 lpm @ 20ft H₂0

System vacuum: 225mm Hg abs (increased when

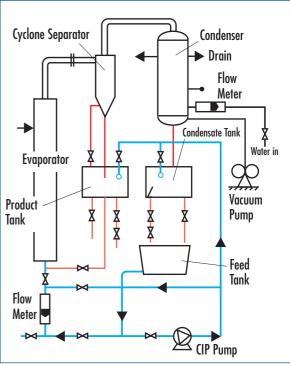
pump heads in series)

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: 2.4m³
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.