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Miniature-scale research & development technology

REVERSE OSMOSIS/ULTRAFILTRATION UNIT FT18

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ISO 9001:2008

2YR EXTENDED WARRANTY

The Armfield Reverse Osmosis/Ultrafiltration Unit (RO/UF) unit is the smallest known industrial membrane system of its type in the world. It is designed specifically for laboratory-scale testing of both reverse osmosis and ultrafiltration techniques.

FEATURES

- Dual operation, RO/UF
- Uses proprietary membranes available from PCI
- Clean-In-Place facility
- Mobile and self-contained operation
- Computer linked for data logging and analysis

BENEFITS

- Rapid changeover from R0 to UF and back
- Easily cleaned and maintained

ISSUE - 8

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Armfield R&D products include:

- 316 Stainless steel ✓
- CE certification ✓
- Extended warranty as standard ✓

Description

*The **FT18** is fully self-contained in a mobile cabinet. Comprehensive instrumentation is provided with digital meters displaying temperatures and system pressure. In addition to the membrane module, the cabinet also houses feed and permeate tanks, a plate heat exchanger and positive displacement pumps.*
Connection to cooling water and a suitable electrical supply is all that is required for normal operation.

All parts in contact with the process fluid are constructed from hygienic design materials such as stainless steel, PTFE and silicone rubber.

The RO/UF unit has an efficient Clean-In-Place (CIP) facility and is easily dismantled for servicing or maintenance.

It uses a PCI MICRO 240 membrane module, which accommodates all PCI membrane types. The unit is supplied with a pack of both R.O. membranes (AFC99) and U.F. membranes (ES625)

(other membranes not supplied by Armfield).

Membranes can be installed or removed rapidly for use in either process.

The filtration membranes differ only in length and quantity from those installed in the full-scale plant. Using small quantities of process fluid, operating parameters can be established and then optimised to effect a confident transition to full-scale.

APPLICATIONS

- *Concentration/clarification/fractionation and standardisation of:*
  - *milk*
  - *whey*
  - *fruit juices*
  - *vegetable juices*
  - *alcoholic beverages*
- *Treatment of effluent*
- *Enzymes, antibiotics and organic acids*

Removing the membrane from the module

**PCI invites contact regarding membrane information and can provide details of local suppliers:*

Tel: +44 (0) 1256 303800 Fax: 44 (0) 1256 303801

Specifications

Flowrates:	30, 18, 15 and 9 l/m
Pressures:	Variable up to 55 bar
PCI MICRO-240 Membrane Module suitable for two PCI* membranes	
Diameter:	1.25cm
Area:	0.024m²
Tubeside volume:	75ml
Typical permeate flow:	5-50ml/min
Feed tank capacity:	15 litres
Permeate tank capacity:	15 litres

Requirements

Electrical supply: Three phase *(see ordering codes)*

Water supply: 10 l/m @ 12°C: a normal laboratory cold water supply will suffice.

Ordering codes

FT18-C:	415V/3ph/50Hz
FT18-D:	208V/3ph/60Hz
FT18-E:	380V/3ph/50Hz
FT18-F:	220V/3ph/60Hz

(all units 2.2kW)

Optional accessories

FT18-DTA-ALITE: Data Logging Accessory

Requires user supplied PC with USB interface running Windows XP or later.

FT18-15: Splash screen

Shipping specification

Volume:	1.4 m³
Gross weight:	220kg

Overall dimensions

Height:	1.1m
Width:	0.7m
Depth:	0.7m

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.

armfield
An ISO 9001 Company

Head Office:
Armfield Limited
Bridge House, West Street,
Ringwood, Hampshire.
BH24 1DY England

Tel: +44 1425 478781
Fax: +44 1425 470916
E-mail: sales@armfield.co.uk

U.S. Office:
Armfield Inc.
9 Trenton - Lakewood Road
Clarksburg NJ 08510
Tel/Fax: (609) 208-2800
E-mail: info@armfieldinc.com

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explorearmfield.**wordpress**.com

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