

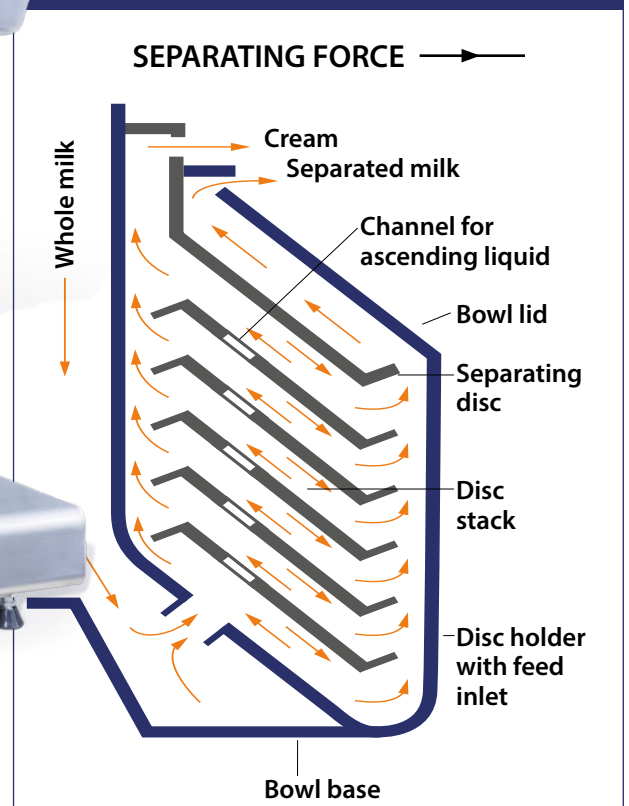
Disc Bowl Centrifuge - FT15

A self contained centrifugal separator, demonstrating all aspects of cream/milk separation. Instrumentation is provided to measure varying bowl speeds and throughput rates.

**THROUGHPUT 125 LITRES PER HOUR
12 MOTOR SPEED UP TO 10,000rpm**



Diagram showing the separation of cream from milk with a disc bowl centrifuge



Features / benefits

- ▶ The centrifuge provides practical instruction exercises in all aspects of cream/milk separation including:
- ▶ Production of a variety of creams having milk fat contents from 12% to 55%
- ▶ Demonstration of the effect of temperature and bowl speed on separator performance
- ▶ Demonstration of the effect of product type on throughput
- ▶ Learning the importance of cleanliness and hygiene in food processing
- ▶ Understanding the mode of operation of this type of centrifuge, using instructive diagrams and ease of strip-down to component parts

Technical Details

- ▶ Throughputs up to 125 litres per hour can be obtained depending on degree of separation
- ▶ The feed reservoir has a capacity of 10 litres, which can be replenished as necessary
- ▶ Separator bowl incorporates 19 discs
- ▶ 12 motor speeds between 8,500 and 10,000rpm are selectable by switch on the motor control housing
- ▶ The tachometer has a five-digit display and a measuring range of 60 to 19,999rpm
- ▶ Resolution 1rpm
- ▶ Two graduated sample collecting vessels, glass, 1.0-litre and 0.4-litre
- ▶ One stop clock, 100mm dial, 30-hour spring-driven movement with start/stop and reset push buttons

Description

A supporting framework intended for bench mounting houses the separator, complete with its variable-speed drive control unit, food reservoir and the necessary ancillary equipment.

The feed reservoir, positioned over the centrifuge, is made from grey anodised aluminium and contains a polypropylene on/off valve. The separator bowl assembly is made up of stainless steel disks and an anodised aluminium casing with nitrile rubber sealing ring, housed in a polypropylene shroud which incorporates the cream and skimmed milk outlets.

A motor, directly coupled to the separator bowl, is mounted vertically in a cast aluminium casing with cushioned clamping feet. The casing acts as the support for the separator.

Ancillary equipment to facilitate a thorough investigation into this type of separation consists of:

- ▶ Optical tachometer
- ▶ Product collecting vessels
- ▶ Stop clock
- ▶ Tools

The backboard includes a sectioned diagram detailing the component parts of the separator bowl and describing its mode of operation.

Requirements

Scale



▶ Electricity supply:

FT15-A: 220-240V/1ph/50Hz/1 amp

FT15-B: 120V/1ph/60Hz/2 amp

FT15-G: 220-240V/1ph/60Hz/1 amp



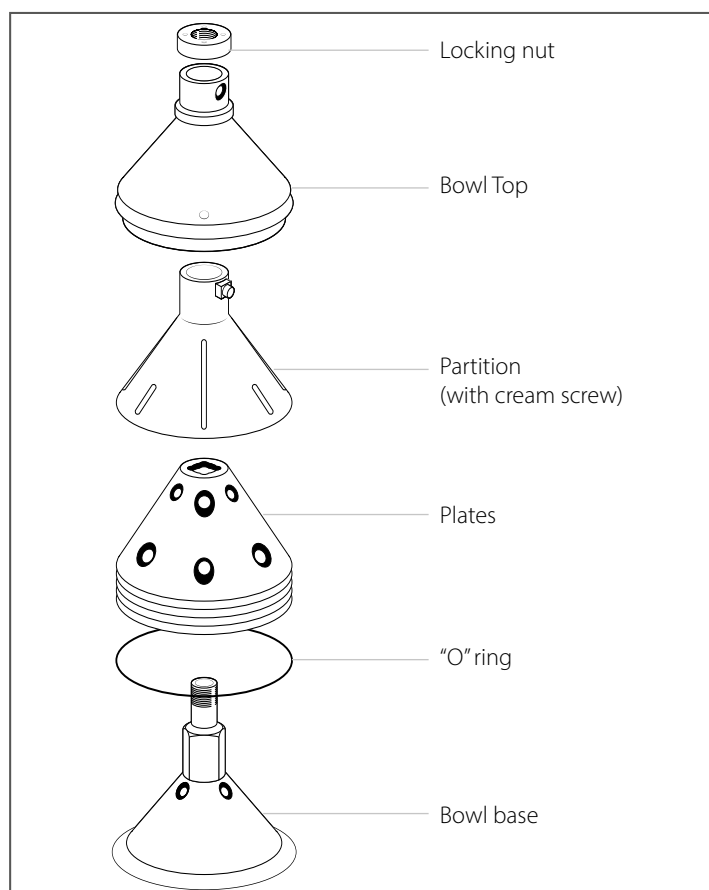
FT15 Optical Tachometer

Overall dimensions

Length	0.60m
Width	0.40m
Height	0.60m

Packed and created shipping specifications

Volume	0.4m ³
Gross Weight	60Kg



FT15 Separator Bowl Components

Ordering Specification

- ▶ A self-contained centrifugal separator training unit which allows thorough investigation of the separation of a heavy-phase liquid from a lighter-phase liquid
- ▶ Using milk as the process fluid, cream having a fat content from 12-55% can be obtained. Accessories are included to allow variation and measurement of bowl speed and throughput rate measurement. Ease of strip-down to component parts is facilitated by tools included in the supply
- ▶ Throughput up to 125 l/hr can be obtained from a 10l capacity feed tank, which can be continuously replenished. Materials in contact with the process fluid are anodised aluminium, stainless steel, nitrile rubber and polypropylene. 12 motor speeds between 8,500-10,000rpm are selectable
- ▶ Accessories mounted on the framework include:
 - Optical tachometer
 - Stop clock
 - Product collecting vessels
 - Tools
- ▶ A comprehensive instruction manual is included, detailing installation, commissioning and operation

Ordering codes

- ▶ FT15-A: 220-240V / 1ph / 50Hz
- ▶ FT15-B: 120V / 1ph / 60Hz
- ▶ FT15-G: 220-240V / 1ph / 60Hz

Knowledge base

- > 30 years expertise in research & development technology
- > 52 years providing engaging engineering teaching equipment

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