

Solids-retaining centrifuge, type MAB 103B-24

Applications

The MAB 103 is a solids-retaining centrifuge in clarifier or purifier execution. It is used for separating mineral oils such as (fuel and lubricating oils, hydraulic, running in and metal working oils).

Working principle

The feed is introduced to the rotating centrifuge bowl (fig 2) from the top (1) and is accelerated in a distributor (2) before entering the disc stack (3). It is between the discs that the separation takes place.

The water and the heavier solids are forced towards the bowl wall where the solids accumulate and the water proceeds over the top disc (4) to an open outlet (5).

The light phase moves towards the centre and leaves the bowl through an open outlet (6). In clarifier design the heavy phase outlet is closed by the top disc without neck (7). The light phase proceeds out through the discharge neck (8).

The machine needs to be stopped at intervals for manual removal of the solids.

The bowl is mounted on a vertical spindle (9) driven by a horizontally mounted motor, via a worm gear.

Features and benefits

Robust design with the following benefits:

- Simple installation, operation and maintenance.
- Flexibility: The bowl may be used either as purifier or clarifier.

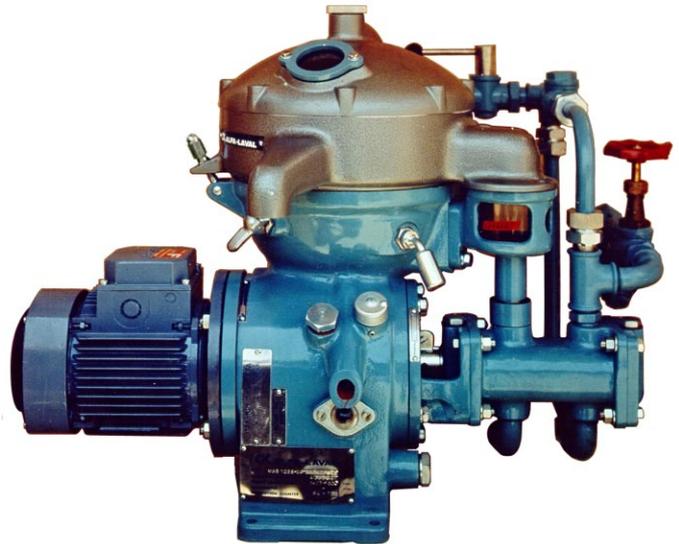


Fig 1. MAB 103B-24, with feed and discharge pump.

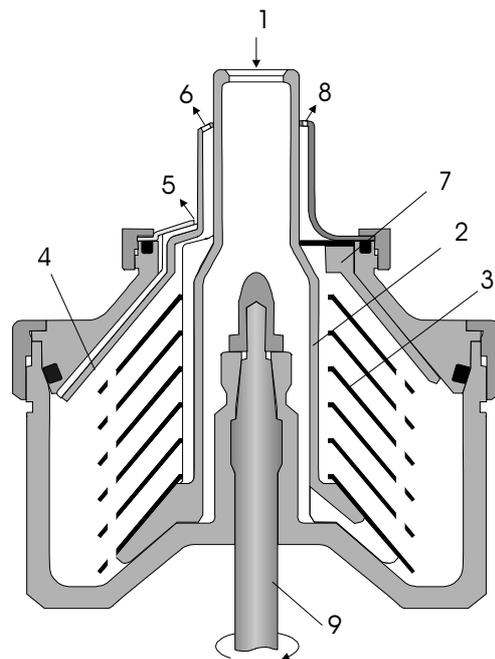


Fig 2. Typical bowl drawing for a solids-retaining centrifuge. The right side shows clarifier execution and the left purifier execution. Drawing details do not necessarily correspond to the centrifuge described.

Standard design

Solids retaining separator comprising a frame containing in its lower part a horizontal drive shaft with friction clutch and brake, worm gear and vertical bowl spindle. The worm gear is placed in an oil bath.

The bowl is fixed on the top of the spindle inside the space formed by the upper part of the frame and the frame hood. The frame hood is hinged to facilitate easy access for cleaning the bowl, which is of solid-wall disc type.

The separator is equipped with a built-in feed and discharge pump.

Technical specification

Max. throughput capacity	1.4 m ³ /h ¹⁾
Sludge and water space	0.57 l
Feed temperature range	0 - 100 °C
Installed motor power	0.75 kW
Noise level (ISO 3744 or 3746)	64 dB(A)

¹⁾ Actual capacity depends on composition of feed and separation demands.

Utilities consumption

Electric power	0.4 – 0.6 kW ¹⁾
----------------	----------------------------

¹⁾ Actual consumption depends on throughput capacity, feed characteristics.

Shipping data (approximate)

Centrifuge with bowl and motor	
Net weight:	101 kg
Gross weight:	121 kg
Volume:	0.4 m ³

Main dimensions (approximate)

