

Alfa Laval MAB 206

Solids-retaining Centrifugal Separator

Introduction

Clean oil is crucial for the safe, reliable and economical running of virtually all kinds of equipment that uses oils for either fuel, lubrication or in hydraulic systems. Clean oil reduces wear and corrosion on all equipment installed downstream, thus helping avoid breakdowns and cutting back on downtime throughout a plant or installation.

Contaminants in lubricating and hydraulic oils have serious effects on system performance, operating costs and durability. For example, the presence of solid particles abrades metal surfaces, increases friction and clogs filters.

Similarly, if water is present in the oil, this causes corrosion, reacts with additives, forms oil/water emulsions and causes significant deterioration in the performance of the oil.

Application

Purification or clarification of mineral oils used in marine installations and power stations (fuel and lubricating oils).

The separator can treat distillate fuels according to ISO 8217 comprising FAME or HVO in any blend ratio,

- where FAME at the time of blending shall be in accordance with the requirements of EN 14214 or ASTM D6751.
- where HVO at the time of blending shall be in accordance with the requirements of EN 15940.

Other types of biofuels, such as vegetable oils or blends of FAME and HVO components outside the above-mentioned standards, should be evaluated on a case-by-case basis. For these types of fuels, please consult your local Alfa Laval office.

Benefits

- Simple installation, operation and maintenance
- Internal paring disc for discharge of clean oil
- Large sludge space
- Sludge basket for easy removal of sludge
- Flexibility: the bowl may be used either as purifier or clarifier
- Extremely reliable, ensuing long service life eliminates or reduces corrosion by removing any water present in the oil

Design

Solids-retaining separator comprising a frame containing in its lower part a horizontal drive shaft with friction clutch and



brake, worm gear and a 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 which also carries the feed and discharge systems. The frame hood is hinged to facilitate easy access for cleaning the bowl which is of the solid-wall disc type.

Scope of supply

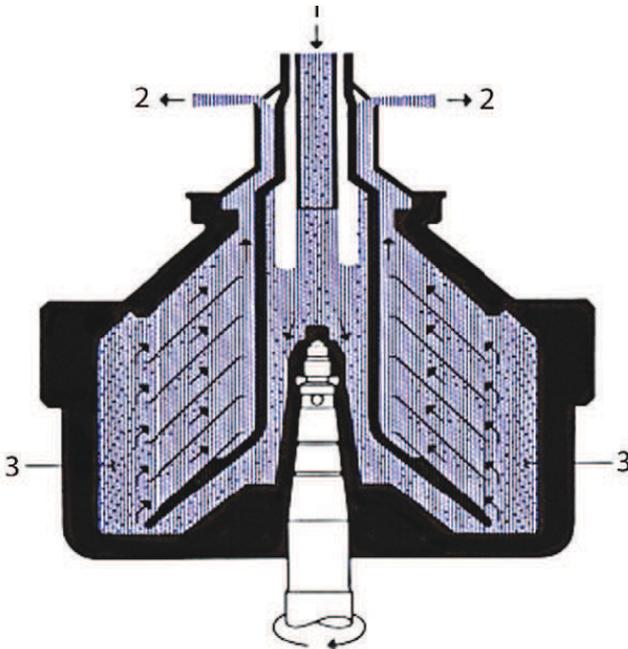
- Dirty oil inlet device
- Clean oil outlet device with sight glass
- Water outlet spout

- Liquid seal water inlet
- Set of gravity discs
- Clarifier parts comprising discharge collar, top disc without neck, and bottom disc without holes
- Revolution indicator
- Set of resilient mountings
- Set of standard spare parts
- Built-in gear type pump (combined feed/discharge pump)

Options

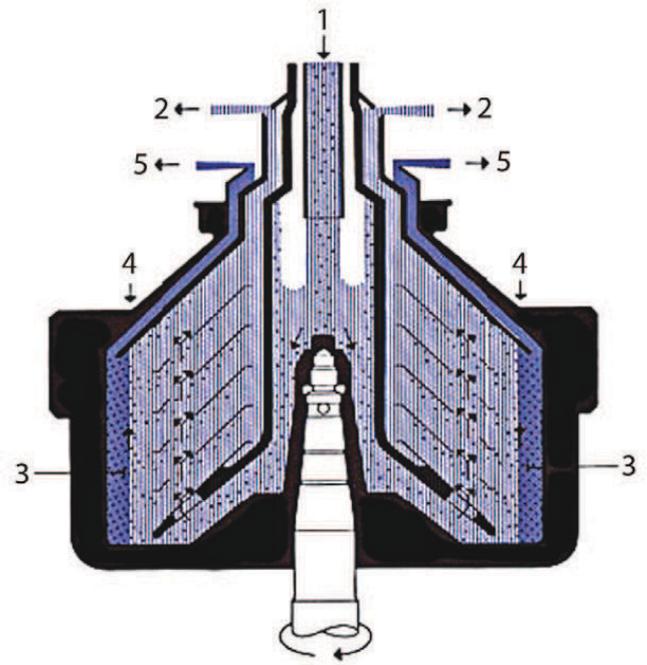
- Electric motor
- Starter
- Set of tools
- Set of recommended additional spares for long-time service
- Flexible connections
- Preheater
- Alarm device for broken liquid seal
- Documentation
- Service

Working principle



MAB bowl arranged as a **clarifier** for separating oils containing sludge and a very small quantity of water

1. Oil inlet
2. Clean oil outlet
3. Sludge



MAB bowl arranged as a **purifier** for separating oils containing sludge and an appreciable quantity of water

1. Oil inlet
2. Clean oil outlet
3. Sludge
4. Oil/water interface
5. Water outlet

Separation takes place in a solids-retaining bowl that can be arranged for either clarification or purification. In both cases, the contaminated oil is fed into the separator through the centre, and it is separated by centrifugal force into its various phases, the heaviest phase (sludge and water) being forced outwards to the periphery of the bowl. The accumulation of sludge is periodically removed from the bowl by hand.

Technical data

Shipping data

Net weight	420 kg (926 lbs)
Gross weight	525 kg (1157 lbs)
Volume	2.1m ³

Technical specifications

Max throughput capacity	10.6 m ³ / h ¹
Sludge and water space	3.4 l
Feed temperature range	0 – 100 °C
Installed motor power	5.5 / 12 kW ²
Sound pressure	75 dB(A) ³

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

² Without built-on pump 5.5kW. With built-on pump 12 kw.

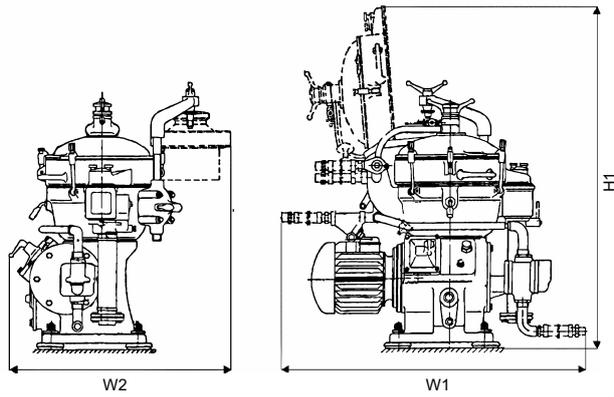
³ According to ISO 53744 or 3746

Utilities consumption

Electric power	3.3 – 8 kW ¹
----------------	-------------------------

¹ Actual consumption depends on throughput capacity, feed characteristics

Dimensional drawing



MAB 206

Dimensions

H1	1430 mm (4 ft 8 19/64 inch)
W1	1810 mm (5 ft 11 17/64 inch)
W2	1055 mm (3 ft 5 17/32 inch)

This document and its contents are subject to copyrights and other intellectual property rights owned by Alfa Laval AB (publ) or any of its affiliates (jointly "Alfa Laval"). No part of this document may be copied, re-produced or transmitted in any form or by any means, or for any purpose, without Alfa Laval's prior express written permission. Information and services provided in this document are made as a benefit and service to the user, and no representations or warranties are made about the accuracy or suitability of this information and these services for any purpose. All rights are reserved.

200009998-1-EN-GB

© Alfa Laval AB

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com