



## WSPX 407

### Solids-ejecting centrifuge for cleaning of wash liquids, coolants or mineral oils

Centrifugal separation allows you to greatly extend the life of your service liquids. Alfa Laval's disc-stack centrifuges accomplish a fast and efficient simultaneous three-phase separation of, for instance, oil, water and sludge.

WSPX 407 removes all traces of contaminating oil, grease and solid particles from wash liquids and coolants. The result is lower costs due to reduced fluid consumption, lower disposal costs and improvements in both product quality and working environment. The WSPX 407 removes fine solids and water from oils, thus avoiding wear, corrosion and breakdowns.

#### Standard design

All metallic parts in contact with the process liquid are made of high-grade stainless steel. Liquid-wetted rubber gaskets are made of nitrile rubber. The centrifuge is available with main connections according to ISO standard.

#### Innovative separator design

Innovations in separator design increase separation efficiency and minimize service requirements to once every 3–6 months.

- The disc-stack design and disc inlet, Optiflow, gives optimal separation efficiency minimizing residues in water and oil, as well as increasing capacity.
- An innovative design called a porcupine outlet avoids creation of air bubbles in the oil or fluids foaming.
- Frequency controlled motor minimizes power consumption.
- A pre-clarification stage in the bowl protects the system from fibres and coarse particles. (Only available in concentrator.)
- The controlled partial discharge system minimizes sludge volumes and loss of liquids. This ensures less sludge for deposit.
- The bowl design prevents bowl fouling and reduces the need for cleaning.



WSPX 407.

#### Standard equipment

The WSPX 407 centrifuge is supplied complete with motor, set of tools, speed sensor, vibration dampening feet and a standard set of spares.

#### Options

Unbalance sensor cover interlocking kit to make it impossible to start the centrifuge if it is not properly assembled.

#### Meeting your needs

Alfa Laval offers a wide range of separators designed to meet your needs; stationary or mobile systems, for all types of fluids. With capacities suitable for smaller workshops to larger systems that are designed to clean complex and heavily contaminated fluids.

Our global organization guarantees easy start-up and if you need a helping hand, a service engineer is always close by. We call this Nonstop Performance.

## Working principle

The feed is introduced to the rotating centrifuge bowl (see figure) from the top via a stationary inlet pipe (1), and is accelerated in the disc inlet (2) of the distributor (3) before entering the disc stack (4).

**Purifier/concentrator:** Separation of the two liquids and the solids takes place between the discs.

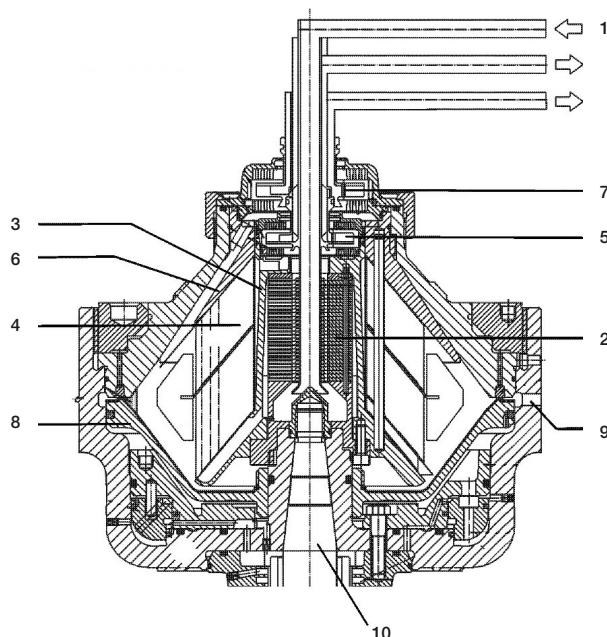
The oil phase moves towards the centre of the bowl and is discharged by a paring disc (5).

The water phase leaves the bowl over the top disc (6) and through a paring disc (7).

**Clarifier:** The liquid phase moves to the centre and leaves the bowl through the paring disc (7).

The heavier solids phase is collected at the bowl periphery, from where it is discharged intermittently. The solids discharge is achieved by a hydraulic system below the separation space in the bowl, which at preset intervals forces the sliding bowl bottom (8) to drop down, thus opening the solids ports (9) at the bowl periphery.

The bowl is mounted on a vertical spindle (10) driven by a vertically mounted motor, via a belt drive.



## Technical specifications

### Capacity

Coolants and wash liquids	3000–7000 l/h (13–31 US gpm)
Lubricating oils	2400–5000 l/h (10–22 US gpm) at correct viscosity

Feed temperature range	0–100°C
Ambient temperature	+5 to +55°C

### Frequency drive equipment required

Installed power	7.5 kW
Sound pressure	78 dB(A)*

### Utilities consumption

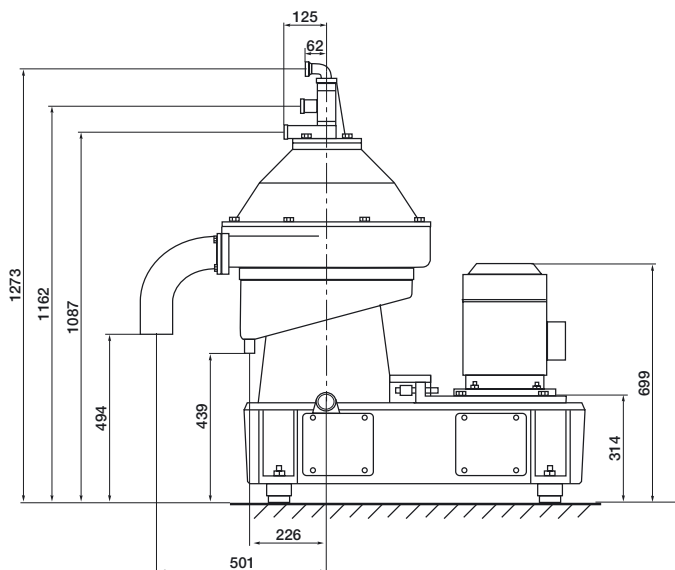
Electrical power at 8.0 m³/h	7.3 kW
Operating liquid	1 l/h + 0.8 l/discharge

### Shipping data (approximate)

Centrifuge with bowl and motor	700 kg (1543 lbs)
Gross weight	880 kg (1940 lbs)
Volume	2.8 m³ (99 ft³)

\* According to EN ISO 3744 or 3746.

## Dimensions



EFU00026EN 0709

Alfa Laval reserves the right to change specifications without prior notification.

## 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](http://www.alfalaval.com)