



UVPX 507

Olive Oil Separator

The UVPX 507 separator lives up to the highest standards for efficiency and functionality. The design is based on criteria that include customer demands for gentle oil treatment, outstanding separation efficiency, easy installation and operation, and good serviceability. The final quality of the olive oil depends on the level of purity obtained from the final separator, which makes the UVPX 507 separator the ideal choice for clarification of olive oil.

Applications

The UVPX 507 separator is designed for intermittent discharge of solids, while separating two intermixed and mutually insoluble liquid phases of different densities. It is most frequently used to clarify oil and to recover any traces of residual oil in the olive vegetable water.

Standard design

The machine consists of a frame, containing in its lower part a horizontal drive shaft with clutch and brake, worm gear, lubricating oil bath and vertical bowl spindle. The bowl is fixed on top of the spindle inside the space formed by the upper part of the frame, the ring solids cover, the collecting cover, and the frame hood which also carries the feed and liquid discharge system. The bowl is of the solids-ejecting disc type with a manual hydraulic operating system for discharge. Automatic discharge system is available on request.

Standard Equipment

The following are included as standard equipment: a safety microswitch, a set of bowl gaskets, a set of tools, a set of regulating disc for the water outlet, anchoring feet and a displacement water tank.

Optional Extras

These include the Combimatic system, which makes it possible to pre-set an automatic discharge cycle with preventive oil ejection and automatic discharge of solids



UVPX 507 complete with motor

Material data

Bowl body, hood and lock ring	Stainless steel 1.4418 UNS
Frame top part and hood	Stainless steel 1.4401 UNS 31600
Frame bottom part	Cast grey iron
Gaskets and O-rings	Nitrile rubber

Operating principles

Separation takes place inside a rotating bowl. The oil is introduced to the rotating centrifuge bowl (fig 2) from the top via a stationary inlet pipe (1), and is accelerated in the distributor (2), which is specially designed to ensure smooth acceleration of the feed liquid. Leaving the distributor, the oil enters the disc stack (3). The separation of oil–water–solids takes place between the discs, with the oil phase moving through the disc stack to the center and is discharged into the upper collecting frame (4). The water and heavy solids separated from the oil moves out to the periphery, the water is led via channels in the top disc (5) to the lower collecting frame. The solids are collected in the periphery, from where it is discharged intermittently into the solids collecting cover below the bowl. The solids discharge is achieved by a hydraulic system which at preset suitable intervals forces the sliding bowl bottom (6) to drop down and thus opening the solids ports at the bowl periphery.

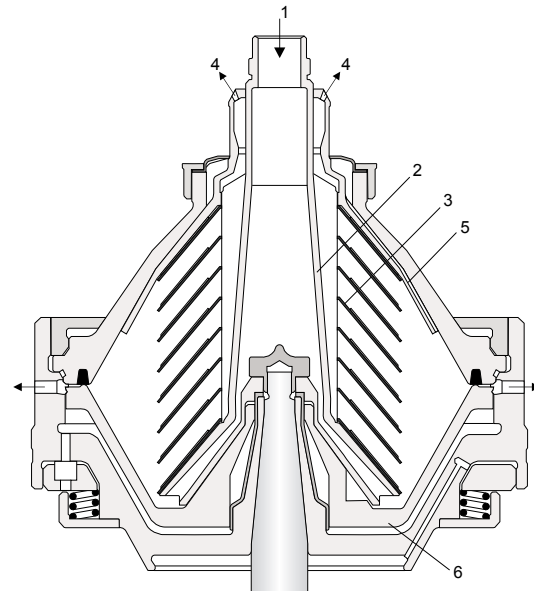


Fig. 2 Typical bowl drawing for a solids-ejecting centrifuge. Drawing details do not necessarily correspond to the centrifuge described.

Energy consumption

Start-up	10 kW
No-load	3.2 kW
Max capacity	3.7 kW

Shipping data (approximate)

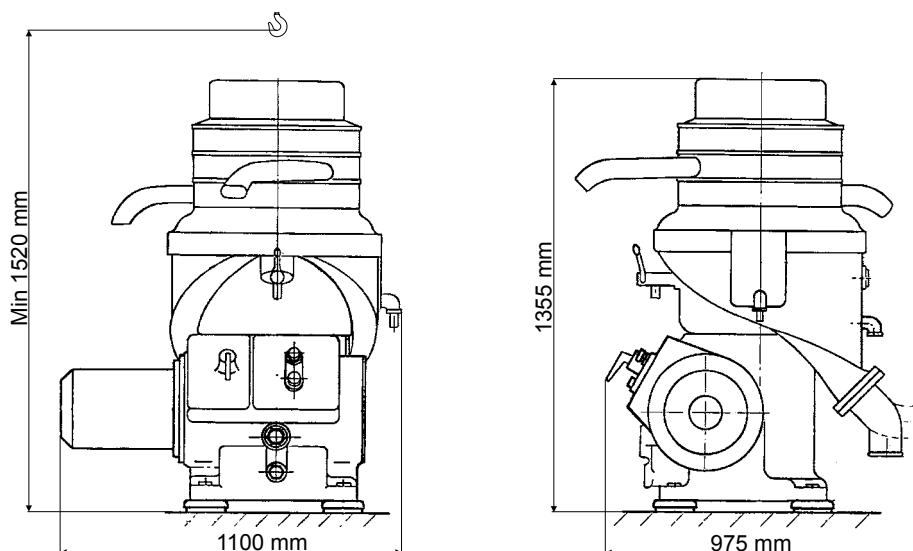
Centrifuge incl. bowl and motor	630 kg
Bowl weight	113 kg
Gross weight	850 kg
Volume	2.85 m ³

Technical specification

Throughput capacity	2.7 m ³ /h
Feed temperature	max. 100°C
Operating liquid density	max. 1100 kg/m ³
Discharge volume	7.5 l
Motor power	5.5 kW
Starting time	3.5 min
Stopping time, with brake/without brake	3.5/30 min
Vibration level, max:	New separator 7.1 mm/sec Used separator 9.1 mm/sec
Sound pressure	81 dB(A) ¹⁾

¹⁾ According to EN ISO 4871

Dimensions



PPM00047EN 0307

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

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