



PAPX 10 – Maximizing your output

Solids-ejecting disc stack purifier for palm oil

Since the early days, Alfa Laval's goal has been to give our customers in the palm oil industry maximum mileage on their equipment at minimum costs. The introduction of the PAPX 10 fulfills these two demands and sets a new benchmark for the industry.

Applications

The PAPX 10 is a solids ejecting disc stack centrifuge designed for intermittent discharge of solids, while separating a mixture of two liquids. It is mainly used to purify the oil that overflows from the skimming of the Pure Oil Tank. It removes impurities and insoluble water from the crude palm oil. The operation of the PAPX 10 is fully automated.

Special features

The focus while developing the PAPX 10 has been reliability, robustness and increased capacity. The discharge system allows variable discharge for process optimization and minimized product losses. The compact design and small footprint results in high serviceability and easy maintenance even at higher capacities.

Reduce maintenance costs

The PAPX 10 is equipped with discharge port liners, a wear liner for the discharge slide and a liner for the sludge collecting cover which substantially prolongs the life time of your equipment. To add to this the separator bowl is made out of quenched and tempered high grade stainless steel. All other bowl parts are made of stainless steel to minimize any corrosion. The frame top part is designed for the tough conditions and demands of the palm oil industry. The bearing system is of well proven design and easy to maintain. Hence, maintenance costs are substantially reduced.

Standard design

The bowl is mounted on a vertical spindle that is driven by a motor via a gear contained in the machine bottom part. The upper part of the machine, the frame, carries the in- and outlet device and is equipped with a built in paring disc which transports the separated liquids away from the machine. The design conforms to a number of EC directives, and is made in accordance with the general directives for machinery.



PAPX 10 complete with motor

Standard equipment

Separator with feed and discharge devices, vibration dampers, standard set of spare parts, set of tools and revolution counter. It is supplied as a complete system with control panel, flow meter, operating water and oil feed pumps.

Utilizing Alfa Laval's proven track record

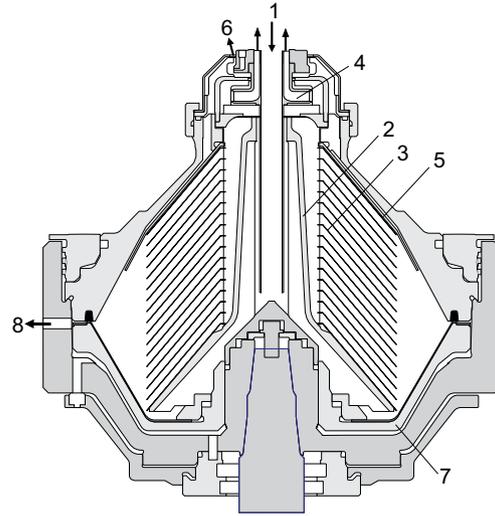
Buying the PAPX 10 means acquiring equipment from a supplier with long experience in the palm oil industry. Building on this experience we have developed this purifier to meet the demand of the industry.

Minimal oil losses

The variable discharge system cycle is designed to ensure that oil losses are kept to the absolute minimum. This is done by introducing displacement water just before discharge. This displaces all oil out of the centrifuge before discharge commence.

Operating principles

Separation takes place inside a rotating bowl. The feed is introduced to the rotating centrifuge bowl from the top via a stationary inlet pipe (1), and is accelerated in the distributor (2), before entering the disc stack (3). The separation of liquid-liquid-solids takes place between the discs, with the oil phase moving through the disc stack to the center and is discharged via a stationary paring disc (4). The water and solids separated from the oil moves out to the periphery, the water is led via channels in the top disc (5) to the paring chamber, where it flows out via holes in the gravity disc (6). The solids are collected in the periphery of the rotor, from where it is discharged intermittently. The solids discharge is achieved by a hydraulic system which at preset suitable intervals forces the discharge slide (7) to bend down and thus opening the solids ports (8) at the bowl periphery.

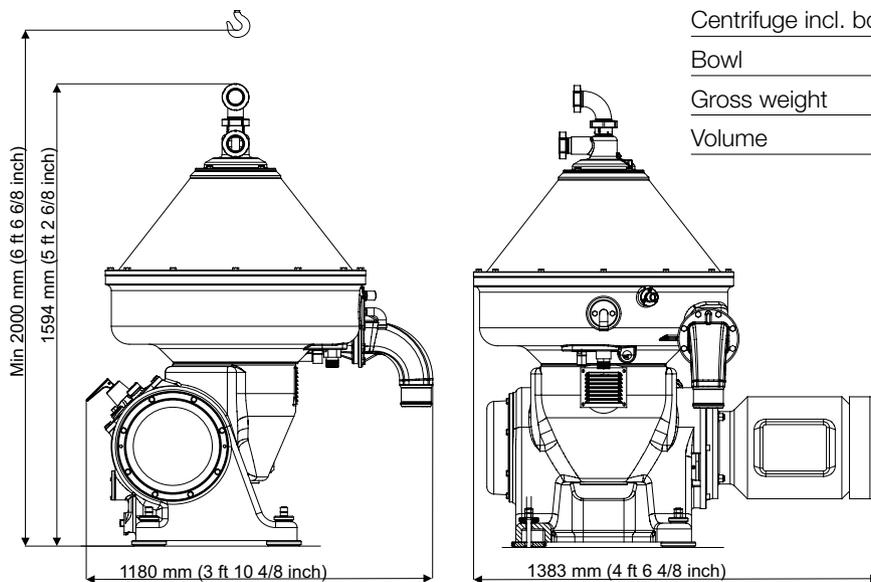


Typical bowl drawing for a solids-ejecting centrifuge. The details illustrated do not necessarily correspond to the centrifuge described.

Service never far away

Based in all the major palm oil centres in the world, Alfa Laval is more than just an equipment supplier. Our strategically placed resources and experience will help you generate cost savings through the efficient management of your maintenance. Our customers can make use of our worldwide network of service workshops and distribution centres. Fast guaranteed service, expert advice, supply of genuine spare parts or customized total service contracts are just some of the services we have to offer.

Dimensions



Technical specifications

Capacity on crude palm oil	max. 16m ³ /h
Bowl speed	max. 6,240 rpm
Motor power installed	18.5 kW
Power consumption, idling/running	9.5/12 kW
Running up time	4–6 min
Stopping time without brake	50–70 min
Stopping time with brake	6–10 min
Operating water pressure	200–600 kPa
Salinity max	100 ppm NaCl
Sound pressure	80 dB(A) ¹⁾

Shipping data (approximate)

Centrifuge incl. bowl and motor	1,742 kg (3,840 lbs)
Bowl	279 kg (615 lbs)
Gross weight	2,100 kg (4,630 lbs)
Volume	5 m ³ (176 cuft)

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.