



LRB 810

Separator for concentration of field latex

The Alfa Laval LRB 810 is a solid-retaining disc-stack separator used for the process of latex concentration. The design of LRB 810 rely on over 130 years practical design experience from high speed separators. In particular, LRB 810 has been specially designed to withstand the tough and demanding latex process environments and at the same time provide maximum recovery efficiency.

Latex concentration generally takes place at flow rates of between 300 to 550 litres/hour. At a flow rate of 500 litres/hour, the Alfa Laval LRB 810 latex separator consistently provides a separation efficiency above 90%¹⁾ during the entire operating cycle.

1) Actual efficiency depends on DRC content of field latex, desired DRC content of concentrate, harvesting conditions etc.

Applications

The LRB 810 is an excellent choice to handle the concentration of field latex.

Standard design

The machine consists of a frame with a base that contains a horizontal drive shaft, worm gear, lubricating oil bath and a vertical spindle. The bowl is affixed to the top of the vertical spindle just below the frame top and regulating and collecting covers.

The electric motor is of a standard type, suitable for variable frequency drive (VFD). The regulating cover feeds the field latex to the machine; the collecting covers transport the concentrate and the skim away from the machine.

All metallic parts that come in contact with the process liquid are made of high-grade stainless steel. The design of the LRB 810 conforms to EC directives, including the general directives for machinery and centrifuges.

Options

Bowl clamp tool to facilitate cleaning of the bowl. Additional service kits and set of tools are also available.



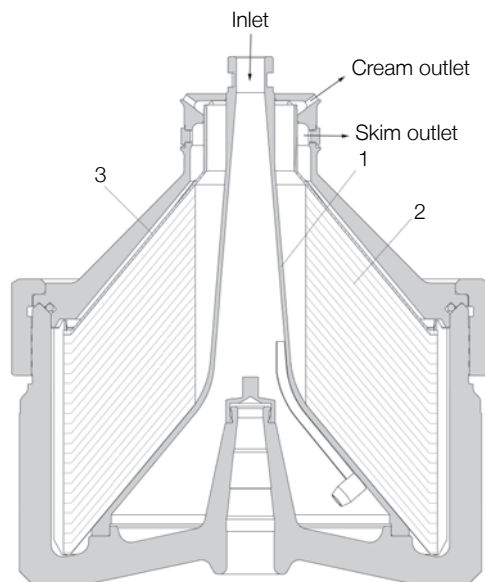
LRB 810 complete with motor

Special features

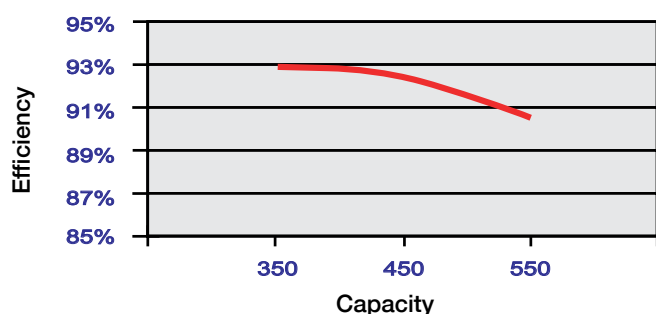
- Variable frequency drive system. Low starting current and short start-up time are two of the many benefits of the LRB 810's specially designed variable frequency drive (VFD) system.
- Integrated overflow protection. To prevent contamination of the concentrate with field latex, the Alfa Laval LRB 810 is equipped with integrated overflow protection.
- Innovative feed cup. The Alfa Laval LRB 810 feed cup is specially designed to minimize field latex wastage during stoppages.

Operating principles

Field latex enters the separator bowl through the regulating cover and the regulator tube. A distributor (1) gently accelerates the field latex into the disc stack (2) where separation takes place between the discs. The field latex is split into two fractions; the heavy phase, or skim, and the light phase, or cream. The light phase moves towards the centre of the bowl. The heavy phase moves towards the bowl periphery and then along the upper side of the top disc (3). The two liquid phases leave the separator bowl through separate outlets. Sludge settles at the inner surfaces of the bowl and distributor where it can be manually removed during cleaning.



Separation efficiency and capacity



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

Technical specification

Motor power installed	11 kW (14.8 hp)
Bowl speed	7 300 rpm
Sound pressure	78 dB(A) ¹⁾
Overhead hoist lifting capacity	min. 700 kg (1 544 lbs)

¹⁾ According to EN ISO 3744

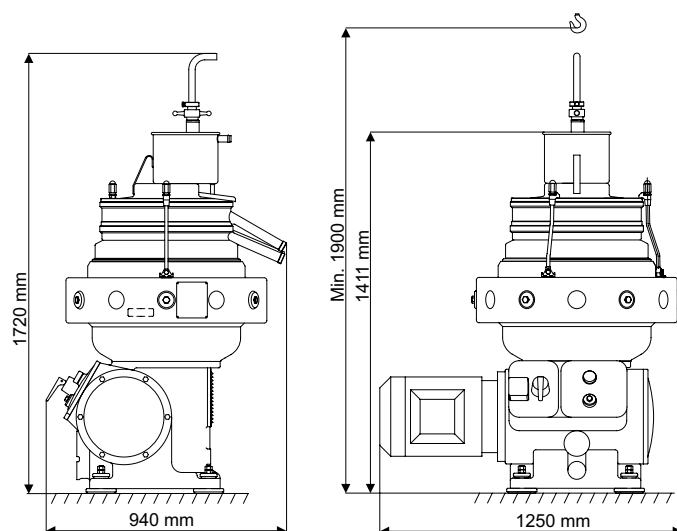
Material data

Bowl body	EN 1.4418
Bowl hood	EN 1.4462
Lock ring	EN 1.7218
Distributor	EN 1.4408
Frame parts	Cast iron
Gaskets and O-rings	Nitrile rubber

Shipping data (approximate)

Centrifuge incl. bowl and motor	942 kg (2 076 lbs)
Bowl weight	267 kg (589 lbs)
Gross weight	1 510 kg (3 329 lbs)
Volume	3-4 m ³ (106-142ft ³)

Dimensions



PCHS00106EN 1306

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