



PD LINE

DECANTER CENTRIFUGE



High Performance ■ Easy Maintenance ■ Ease of operation



Prime Decanter Centrifuge are designed in the USA to provide value of separation technology for the palm oil industry.

Reliability, maximum availability and performance are success factors that make Prime decanter centrifuge extremely cost effective. Our goal with the Prime "PD" line decanters is to bring the American design decanter experience with its well-known low maintenance and robust construction and superior performance at a more affordable price to the market.



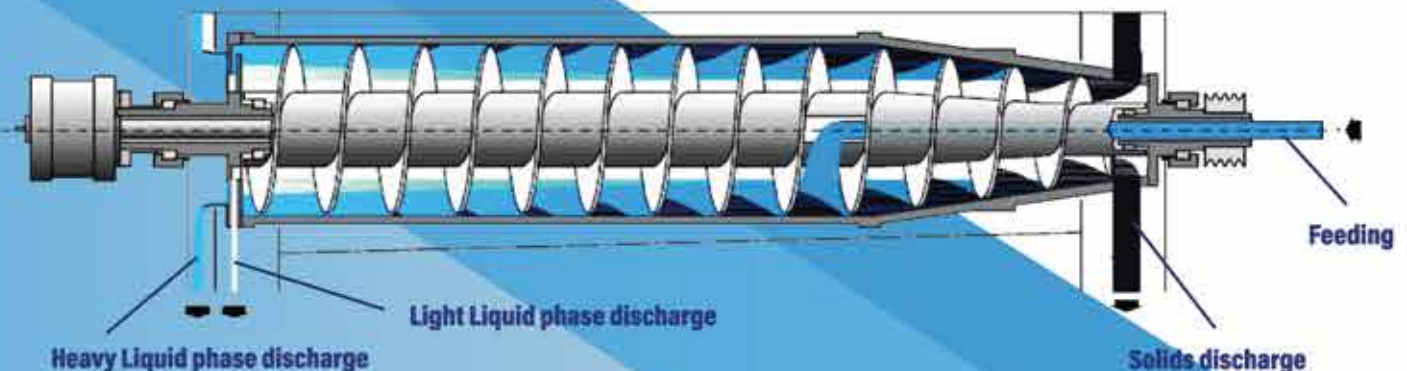
Decanter centrifuge for palm oil industry process

The PD series 3-phase decanter separates the pressed crude oil mixture that comes from the underflow of the main settling tank into an oil phase, a dry solids cake and virtually oil-free wastewater. The oil phase is sent to a purifier, which polishes the palm oil and reliably removes even extremely small contaminants.

The palm oil sludge enters the rotating bowl through a stationary feed tube and is thrown radially outwards into the bowl through feed ports in the conveyor hub. By means of centrifugal force, the solids and liquids are separated from each other in the bowl.

While the solids particles settle to the bowl wall and are discharged by means of a screw conveyor, the cleared liquid phase accumulates above the separated solids phase and is discharged at the opposite end of the bowl. The oil phase and water phase pass to their respective outlets. The light liquid phase (oil) discharged by means of adjustable dip tubes by gravity, and the heavy liquid phase discharged through overflow weirs.

The PD-series 3-phase decanter centrifuge comes with two motors, which are controlled by two separate VFD. The VFD system optimizes the differential speed without changing belts or pulleys during operation.

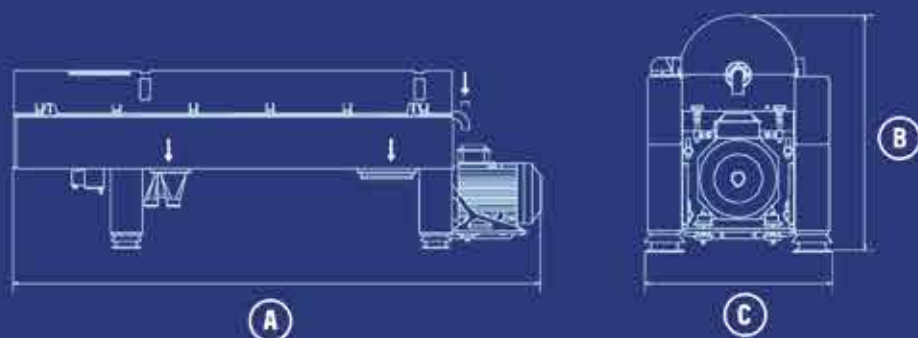
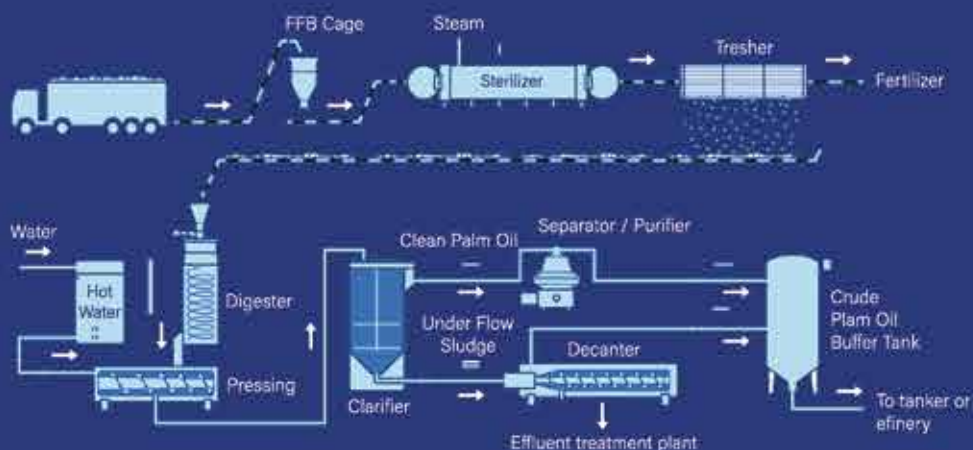




The PD decenter centrifuge offers the best wear protection. The different zones and elements in a decenter centrifuge need different wear protections. A variety of materials ensure that the operations are able to withstand high temperatures as well as heavy duty and corrosive products.

- To protect the bowl, the inner surface has strips. Bowl outlets are protected with easily replaceable hardfacing bushings.
- To protect the screw conveyor, the flights are protected with sintered tungsten carbide tiles.
- To protect the sludge discharge ports, these ports are protected with erosion resistant bushings.
- To protect the solids casing, the receiving surface has a thick stainless steel plate.

Prime Separator supply centrifugal separation solutions for all procedures and processes for recovering palm oil. The continuously operating technology combines extremely robust design with high product yield and excellent oil quality. Prime decenter centrifuge cover the whole throughput range required in the palm oil industry with capacities from 30 t to 100 t FFB/hr.



Model	Type	PD40	PD50	PD55	PD60
Capacity	Ton/hr FFB	25 - 30	35 - 45	50 - 60	80 - 100
Capacity	m3/hr oil sludge	12 - 15	18 - 22	25 - 30	40 - 50
Drum diameter	mm	400	500	550	600
Weight	kg	2300	3500	4000	6500
Length (A)	mm	3750	4200	4500	5300
Width (C)	mm	980	1100	1230	1425
Height (B)	mm	1180	1300	1400	1800
Power	kW	30	45	70	95
Max speed	RPM	2800 - 3500			
BackDrive system	Type	Variable Frequency Drive			



When the primary consideration is the initial cost of a decanter for the palm oil industry; PRIME decanter centrifuge units are the ideal choice. They have proven their performance as reliable, low maintenance and ease of operation.

These machines feature heavily ribbed, horizontally split casings designed for easy access to the internal components.

"PRIME PD Decanter centrifuge can be designed to customer specification with superior separation technology. It incorporates the best features & values from all commercially available decanter centrifuges in terms of cost, delivery, reliability and performance"

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