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LP220 LAMELLA PLATE CONCENTRATOR

PSD's LP220 Lamella Plate Concentrator is designed to encourage the separation of flocculated particles from fluids and can be used in conjunction with high capacity S6-1, S5-1, S4-1 or S3-01 centrifuges or belt presses. The flocculated process fluid is pumped to the LP220 and is distributed throughout the settlement compartment where the flocculated solids tend to settle towards a low level ribbon screw conveyor while the virtually solids free fluid rises and passes over a weir to a discharge compartment. The solids rich sludge is conveyed towards the low-level outlets for pumping to dewatering equipment. The LP220 Lamella Plate Concentrator can process flow rates of up to 220m³/hr of contaminated water or up to 100m³/hr of flocculated sludge.



The unit comprises a 20' container sized tank with 6"

flanged inlets, distribution ducting, an inclined plate settlement compartment, low level electrically powered ribbon screw conveyor with 4 No. 4" flanged sludge extraction points per side, fluid phase overflow weir, discharge compartment with 8" flanged outlet and a vertical access ladder all mounted in a heavy duty hollow section steel frame. The unit is designed to the same dimensions as a type 1CC 20' freight container, complete with ISO corner castings and the frame design is Lloyds Register certified to enable the unit to be transported as a shipping container.

The Lamella plate settlement compartment is fitted with steeply inclined stainless steel plates that together provide a settlement area of more than 78m². The 4.8m long low level ribbon screw conveyor is driven by an inverter controlled 3 phase 5.5kW motor, driving through a reduction gearbox.

Sludge is extracted through 4 No. low level 4" outlets per side. After the separated fluid has passed over the high level weir it flows in to a small holding tank fitted with 8" flanged outlet.

The tank has an overall holding capacity of up to 15m³.

TECHNICAL DATA:

Power: 380 to 415V, 50 Hz.

5.5kW electric motor with inverter control

Overall size: 6058x2438x2591mm high.

Weight: Dry for transit: 9 Tonnes.

Capacity: Contaminated water process capacity: Up to 220m³/hr. Flocculated sludge process capacity: Up to 100m³/hr.

Fluid feed: Mid level 6" flanged inlets.

Fluids discharge: 1 No. mid-level 8" flanged outlet for fluid phase.

4 No. low-level 4" flanged outlets per side for sludge extraction.