

HS3000DP CENTRIFUGE

The HS3000DP Centrifuge is a high-speed decanting centrifuge made with stainless steel parts and tungsten carbide tiles on the scroll tips. PSD have equipped the unit with independent electro-hydraulic variable speed drives for the bowl and for the scroll, thereby enabling the centrifuge to be used for many applications ranging from de-sanding of muds through silt removal to mud clean-up using forced settling of flocculated solids.

The machine comprises two modules, the centrifuge module and the pump tank module. The two parts fit together for transport and form a unit that is the same size as a standard 20 foot freight container; the overall size being 6058 x 2438 x 2591 high. The unit is fitted with ISO corner castings for ease of transport and handling on site. The weight of the complete unit is 11 tonnes. The centrifuge module weighs 5 tonnes and the pump tank module weighs 6 tonnes. For operation the centrifuge module mounts above the pump tank module on a cantilever frame that extends from the tank unit. The working footprint is 3.5 metres by 3.5 metres by 5.2 metres high. The solids discharge is on the front 3.5 metre face of the tank. Access to the pumps, stores and pipework is at the rear 3.5 metre face. No side clearance is required.

The HS3000 centrifuge, drive motor, backdrive and electrical control panel are mounted within a heavy duty hollow section steel frame measuring 2600x2438x2591mm high. Tarpaulins are normally fitted to the open sides for weather protection.

The pump tank module houses a 65mm peristaltic feed pump with variable speed drive which is used for supplying a controlled flow of fluid to the centrifuge, a collection tank for centrate, a Metso HM50 centrifugal pump for centrate discharge and a stores compartment that houses the main electrical control panel. The variable speed peristaltic feed pump may be controlled manually or automatically in relation to the pressure on the backdrive.

The unique features of a variable speed control for the bowl and independent speed control of the scroll enable the performance of the centrifuge to be accurately matched to the task in hand. The rate of feed of fluid to the unit is controlled by altering the speed of the peristaltic pump.

TECHNICAL DATA:

Centrifuge module:	Dimensions:	2600 x 2438 x 2591mm high.
	Weight:	5 tonnes.
	Power:	22kW electric motor with star-delta starting for bowl. 11kW electric motor with direct-on-line starting for scroll.
Pump tank module:	Dimensions:	3458x2438x2591mm high.
	Weight:	6 tonnes.
	Power:	7.5kW electric motor with inverter control for peristaltic feed pump. 3kW motor with direct-on-line starting for discharge pump.
Transport:	The unit can be transported as 1 No. 20' type 1CC freight container complete with ISO corner castings.	
	Dimensions:	6058x2438x2591mm high.
	Weight:	11 tonnes.
Process capacity:	Up to 9m ³ /hr with low viscosity fluids but typically up to approximately 6m ³ /hr with flocculated solids or heavily contaminated muds.	
Solids removal rate:	Up to 6 tonnes/hr.	
G force:	Variable up to 2400 'G'.	
Solids discharge:	Beneath cantilever onto ground or into skip of client's supply.	
Fluids discharge:	By gravity in to the collection tank and by Metso HM50 centrifugal pump for onward transfer.	

