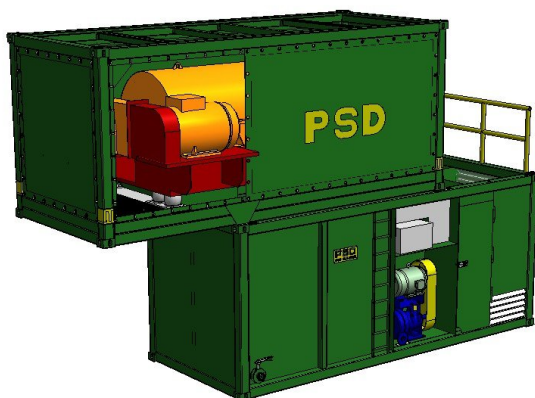


S5-1-G CENTRIFUGE



The S5-1-G Centrifuge is the largest high-speed decanting centrifuge that can be installed in a 20 foot container sized module. It is manufactured with high strength carbon steel parts and ceramic protection on the tips of the scroll. The centrifuge has an 1.1m diameter 3.3m long bowl with variable speed drive, powered by a 160kW motor with inverter control, running on two main bearings with pumped oil lubrication with forced fan cooling. The centrifuge is carried on a base frame fitted with anti-vibration rubber pads. The machine is equipped with a variable speed twin start 300mm pitch scroll, driven by a heavy duty planetary gearbox, powered by a 55kW electric motor with inverter speed control. This enables the centrifuge to be used for many applications ranging from de-sanding of drilling fluids through silt removal to waste fluid clean-up using artificial gravity de-watering of flocculated solids.

The S5-1-G consists of two main modules, each 6058x2438x2591mm high being the size of a standard 20 foot, type 1CC freight container, complete with twistlock corners. In operation the centrifuge module mounts on top of the power house module. The bowl drive motor is mounted on the side of the centrifuge frame in the upper module and projects approximately 450mm so the complete machine requires a working space of 8.5m x 3.0m (plus pumps) and stands 5.2m high. The S5-1-G is fed by one or two free-standing, inverter controlled peristaltic (tube) pumps. The rate of fluid feed to the centrifuge is controlled by altering the speed of these feed pumps.

The centrifuge module has a heavy duty hollow section frame in which the centrifuge, the bowl drive motor, the scroll drive motor, the oil cooler and the fluid feed pipe are mounted. A solids discharge chute with retractable diverter plate and centrate discharge pipe are built in to the centrifuge module. Normally the separated solids would discharge on to the ground, for removal by back-hoe or front-end loader or on to a conveyor for transport to a storage area.

The power house module houses a tank for storage of the centrate and a control room containing the electrical control panels, switchgear and inverters for the operation of the centrifuge and pumps. A supply isolation transformer with air circulation fan and air conditioning can be provided. A Metso HM100 pump with 22kW motor and inverter speed control is sited within this module and is used for the discharge of the centrate.

TECHNICAL DATA:

Centrifuge module:	Dimensions:	6058x2438x2591mm high.
	Weight:	22 tonnes.
	Power:	220 kW.
	G force:	Up to 740 'G' at 1100 rpm.
Power house module:	Dimensions:	6058x2438x2591mm high
	Weight:	8 tonnes empty.
	Power:	66kW.
In operation:	Footprint:	8.5m x 3.0m plus pumps.
	Weight:	Up to 50 tonnes depending of fluid volume in tank.
Process capacity:		Up to 150m ³ /hr of ideal fluids but typically up to 90m ³ /hr of drilling fluids with silts or up to 80m ³ /hr with flocculated solids with clay contaminated fluids.
Solids removal rate:		Up to 30 tonnes/hr of easily separated solids but typically up to 20 tonnes/hr of silts or flocculated solids.
Solids discharge:		From the underside of the centrifuge module, at the opposite end to the fluid feed input hose.
Fluid discharge:		By Metso HM100 inverter controlled pump, through a 3" or 4" Bauer fitting.
Power requirements:		The unit requires a 380 to 415 volt, 50Hz, 3 phase and earth electric supply. Starting current for the unit is 500A, the typical running current is 195A per phase. A 300KVA generator would normally be required to run the S5-1-G centrifuge.