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Specialist equipment to separate solids from liquids worldwide

SUPERCLEAN[®] 150DP

PIGOTT SHAFT DRILLING LIMITED

tel: +44 1772 690076 email: info@psdmud.co.uk

The SUPERCLEAN[®] 150DP (SC150DP) is a very versatile high-performance mud cleaner that can be used in a wide variety of applications in the civil engineering, diaphragm walling, tunnelling and drilling industries. The machine will handle a flowrate of up to $150m^3/hr$ of mud having a Marsh Funnel viscosity of less than 70 seconds per U.S. Quart. The machine consists of two parts, a shaker module, and a pump tank module. In use the shaker module mounts directly above the pump tank module. The site footprint is $6.1m \times 3.4m$ with an overall height of 5.2m.

The shaker module houses an inclined double deck, linear motion, primary shaker. The bottom deck, onto which the dirty mud is fed, would usually be dressed in a combination of wedge wire and coarse aperture polyurethane screens for the separation of rocks, gravels, clayballs, large pieces of timber and roots etc, and the top deck would usually be dressed in 0.3x12mm slotted aperture polyurethane screens for dewatering the underflow from the 2 No. 10" diameter desanding hydrocyclones, which are mounted above the shaker. The shaker module also has mounted within it, 8 No. long bodied 5" desilting hydrocyclones and a high speed,



linear motion secondary shaker used for the dewatering of the underflow from these hydrocyclones. This shaker has one inclined deck, using 4 No. pretensioned, woven wire stainless steel screen panels, which are held in place by a pneumatic clamping system. The time required to change a set of screens with this clamping system is usually just a few minutes and this makes the machine suitable for use when processing a wide variety of soil types. The secondary shaker can be dressed with of API 100, API 140 or API 170 screens, or a combination of these, depending on operating conditions.

The primary shaker will separate up to 20 tonnes per hour of gravel-sized and coarse to medium sand-sized particles, the secondary shaker will handle up to 18 tonnes per hour of finer solids, with the appropriate screens fitted.



Each of the two modules of the SC150DP is built to the dimensions of a type 1CC 20-foot freight container, complete with ISO corner castings, which makes them easy to transport and handle on site. The shaker module has a heavy-duty hollow section frame, permanently enclosed on three sides and with a roof clad in marine quality plywood. A tarpaulin is fitted to the front in order to provide weather protection to the equipment and operator.

The pump tank module incorporates an internal staircase and a control room with electrical panels and a small compressor. The pump tank module also houses tank compartments and three Metso centrifugal pumps, one is used to supply mud to the 10" desanding hydrocylones, one is used to supply mud to the 5" desilting hydrocyclones and the other pump is inverter controlled and is used for the discharge of the cleaned mud from the unit.

TECHNICAL DATA

• · · ·	up to 150m ³ /hr of mud having a Marsh Funnel viscosity of less than 70 seconds per U.S. Quart. 20t/hr on the primary shaker and 18 t/hr on the secondary shaker. 2 No. units each 6058x2438x2591mm, complete with ISO corner castings The machine can be transported as two standard type 1CC containers.
Weight:	Pump tank at 10 tonnes, shaker module at 10 tonnes.
Operating size:	6058mm (L) x 3365mm (W) x 5200mm (H)
Power:	415V, 50Hz, 3 phase and earth no neutral is required.
Running current:	up to 140A. Starting current: 200A per phase.
Generator:	Normally a 150kVA generator would be required to run this machine.
Desanding feed pump:	Metso HM150 centrifugal with 30kW motor with soft start.
Desilting feed pump:	Metso HM150 centrifugal with 30kW motor with soft start.
Discharge pump:	Metso HM150 centrifugal with 30kW motor with inverter control.
Primary shaker:	2 No. 4kW motors with direct-on-line starting.
Secondary shaker:	2 No. 2kW motors with direct-on-line starting.
Compressor:	3kW motor with direct-on-line starting.
Lighting & small tools: Noise emission:	1 No. 220V, 3kW, single phase transformer for lighting and small tools. 74 dB at 5m.
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