

SUPERCLEAN 350DP

The SUPERCLEAN 350DP (SC350DP) 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 350m³/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 6m x 4m with an overall height of 5.2m.

The shaker module houses a steeply declined deck, linear motion, primary shaker dressed with robust wedge wire panels and used for the separation of rocks, gravels, clay-balls, large pieces of timber and roots etc. The shaker unit also incorporates three 10" diameter desanding hydrocyclones and a near flat deck linear motion shaker fitted with narrow aperture cross-flow wedge wire screens used for the dewatering of the underflow from these hydrocyclones. The upper shaker module also has mounted within it 12 No. long bodied 5" desilting hydrocyclones and a high speed, linear motion shaker used for the dewatering of the underflow from these hydrocyclones. This shaker has two inclined decks, both of which carry 4 No. pre-tensioned, woven stainless steel wire screen panels which are held in place by pneumatic clamping systems. 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 primary shaker will separate up to 50 tonnes per hour of oversized solids, the secondary shaker will separate up to 30 t/hr of suitably sized solids and the tertiary hydrocyclone underflow de-watering shaker will handle up to 25 t/hr of suitable solids with the appropriate screens fitted to the shaker.

Each of the two modules of the SC350DP is built to the dimensions of a type 1CC 20 foot freight container, complete with twistlock 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 a control room with electrical panels and a small compressor. The tank unit houses some tank compartments and three Metso centrifugal pumps, one is used to supply mud to the 10" hydrocyclones, the second feeds mud to the 5" desilting hydrocyclones and the third pump is inverter controlled and is used for the discharge of the cleaned mud from the unit.

TECHNICAL DATA

Fluid throughput capacity:	up to 350m ³ /hr of mud having a Marsh Funnel viscosity of less than 70 seconds per U.S. Quart.
Solids removal rate, up to:	50 t/hr on the primary shaker, 30 t/hr on the secondary shaker and 25 t/hr on the tertiary shaker.
Transport size:	2 No. units each 6058x2438x2591mm high, complete with twistlock corner castings The machine can be transported as two standard type 1CC containers.
Weight:	Pump tank at 12 tonnes, shaker module at 10 tonnes.
Operating size:	6058x4000x5200mm high.
Power:	415V, 50Hz, 3 phase and earth no neutral is required.
Running current:	up to 310A. Starting current: 501A per phase.
Generator:	Normally a 200KVA generator would be required to run this machine.
Desanding feed pump:	Metso MM200 centrifugal with 55kW motor with star-delta starting.
Desilting feed pump:	Metso MM200 centrifugal with 55kW motor with star-delta starting.
Discharge pump:	Metso MM200 centrifugal with 45kW motor with inverter control.
Primary shaker:	2 No. 4.5kW motors with Inverter control.
Secondary shaker:	2 No. 2.7kW motors with direct-on-line starting.
Tertiary shaker:	2 No. 4kW motors with inverter control.
Compressor:	3kW motor with direct-on-line starting.
Lighting & small tools:	1 No. 220V, 3kW, single phase transformer for lighting and small tools.
Noise emission:	74 dB at 5m.

