

SS200DP DESANDER

The SS200DP is a very high performance, compact desander with a 'steady-state' discharge pump. It provides two-stage mud cleaning suitable for civil engineering, slurry shield tunnelling and directional drilling applications and will process flowrates of up to 200m³/hr. The unit will separate coarse solids and medium sands from bentonite mud with a Marsh Funnel viscosity of less than 120 seconds per U.S. Quart. The SS200DP consists of two modules that are joined together for transport to form a standard 20 foot, type 1CC freight container, complete with twistlock corners. In use, the shaker module mounts above the pump tank module so that the site footprint is 3.5m by 2.5m with a height of 5.2m. Access to the unit, pumps and stores compartment is from the rear 3.5m face, with solids being discharged to the front. No side access or clearance is required.

The shaker module has a heavy-duty frame, housing a double deck linear motion shaker, 3 No. long bodied 10" hydrocyclones, feed box for the dirty mud entry pipework, remote control panel and fold-down work platform. The sides of the module and the roof are enclosed with exterior quality plywood sheeting and a tarpaulin is fitted to the rear of the machine to provide weather protection for the equipment and operating personnel. A removable tarpaulin is fitted to the front of the unit for security during transport only.

The pump tank module houses 2 No. Svedala 150x100 centrifugal pumps, each driven by an overhead electric motor. The main control panel and discharge pump speed controller are mounted inside a lockable, walk-in, stores compartment within the pump tank module. This module also contains tanks for dirty mud, part-processed mud and output mud. The speed of the discharge pump is controlled by a microchip programme, which matches the rate of clean mud output to the rate of dirty mud supply, resulting in a 'steady-state' discharge.



In use the dirty mud is pumped to the shaker module and is discharged onto the primary screen where large solids are separated and discharged off the front of the shaker on the 3.5m face. The partially screened mud falls, by gravity, into the pump tank module below, from where it is pumped to the 3 No. long bodied, high performance 10" hydrocyclones mounted in the shaker module, above the linear motion de-watering screen. The hydrocyclone overflow falls, by gravity, into the pump tank module for recycling, or passes to the clean mud compartment for discharge by the variable speed pump. The hydrocyclone underflow is de-watered by the shaker and the solids are discharged off the front of the machine. The screen underflow is returned to the pump tank module for re-treatment. The rate of solids separation can be up to 50 tonnes/hr with suitably sized solids.

TECHNICAL DATA

Fluid throughput capacity:	Up to 200m ³ /hr. Mud to have a Marsh Funnel viscosity of <120 secs / U.S. Quart.
Solids removal rate:	Up to 50 tonnes/hr of coarse solids to medium sand.
Transport size:	6058x2438x2591mm high. The machine can be transported as a standard container.
Weight:	13 tonnes, complete with twistlock fasteners at standard dimensions.
Shaker module weight:	6 tonnes.
Pump tank module weight:	7 tonnes.
Operating size:	3500x2500x5200mm high.
Operating weight:	22 tonnes (inc mud in tanks).
Power:	415V, 50Hz, 3 phase and earth; no neutral is required. Normally a 150 KVA generator would be required.
Running current:	125A.
Starting current:	240A per phase.
Hydrocyclone feed pump:	Svedala 150x100 centrifugal with 45kW motor with star-delta starting.
Discharge pump:	Svedala 150x100 centrifugal with 30kW motor with inverter control and soft start.
Shaker:	2 No. 4kW motors with direct-on-line starting.
Lighting & small tools:	1 No. 220V, 3kW, single phase transformer.
Other:	2 No. 32A, 3 phase auxiliary sockets.