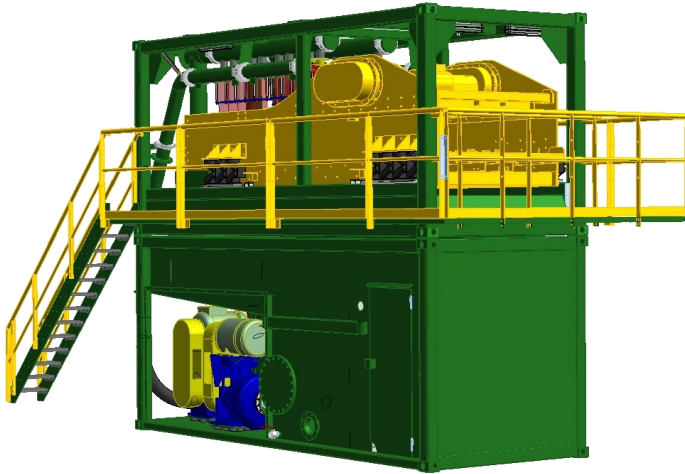


## SOLIDSMASTER® 400SDP DESANDER



The SOLIDSMASTER® 400SDP is a high performance desander that consists of two 20-foot container sized modules; the lower pump tank module and the upper shaker/hydrocyclone module. The machine is designed for use in civil engineering applications such as mud cleaning for directional drilling, slurry treatment for tunnelling, soil washing for land reclamation and bentonite cleaning for piling and diaphragm walling. The plant is suitable for treating bentonite based muds having a Marsh Funnel viscosity of up to 100 seconds per U.S. Quart. It will treat fluids with a sand content of up to 25% by volume. The throughput capacity of the unit is up to 400m<sup>3</sup>/hr with low viscosity fluids but is reduced as the sand content and viscosity increase.

The machine can clean to better than 100µm with low viscosity feed muds having less than 15% solids content. Increases in feed mud viscosity and solids content coarsen the separation point. The SOLIDSMASTER® 400SDP is equipped with a very powerful large stroke, heavy duty, long bed linear motion shaker. The 1.8m wide by 4.8m long

shaker is dressed with stainless steel wedge wire screens. The machine is particularly suitable for the treatment of Thanet Sand or other fine or single sized sands. The unit is equipped with 20 No. high performance, long bodied 5" desilting hydrocyclones.

Each module of the SOLIDSMASTER® 400SDP is built to the dimensions of a type 1CC 20 foot freight container, 6058x2438x2591mm high, and is complete with twistlock corner castings. The two modules will fit on to a standard 40' artic trailer or can be shipped as containers for seafreight.

The upper module houses the shaker which has twin 11kW motors. Contaminated fluid is fed to the unit by means of a primary feed chute mounted over the 480mm wide by 4.8m long centre deck of the shaker which is dressed with 2.5mm aperture heavy duty, wedge wire, slotted screens. Coarse solids separated at this stage are discharged off the front of the shaker, and the remaining fluid falls into the pump tank below, from where it is pumped by 2 No. Metso MM200 centrifugal pumps each with 45kW electric motor, to 20 No. 5" high performance hydrocyclones (arranged in two banks of 10). Each bank of hydrocyclones discharges its underflow on to a 650mm wide by 4.8m long dewatering bed fitted with 0.5mm aperture stainless steel wedgewire screens. Dewatered solids separated at this stage are discharged off the front of the shaker, and the remaining fluid falls into the pump tank module below for recycling. The hydrocyclone overflows discharge via pipework into the pump tank module below where some is recycled and some passes to the clean mud compartment for discharge by an inverter-controlled Metso MM200 discharge pump powered by a 55kW electric motor, for onward transfer.

The SOLIDSMASTER® 400SDP can be used on its own, downstream of a primary screen such as an SD1000DP or upstream of desilters such as SU10DP or SU300DP. The rate of solids removal from the SOLIDSMASTER® 400SDP is governed by the characteristics of the dirty mud but can be up to 100 tonnes/hour.

### TECHNICAL DATA

<b>Shaker module:</b>	<b>Transport size:</b>	6058x2438x2591mm high, with twistlock castings
	<b>Weight:</b>	12 tonnes.
	<b>Hydrocyclones:</b>	20 No. 5" high performance hydrocyclones.
	<b>Shaker:</b>	1.8 x 4.8m bed driven by 2 No. 11kW motors.
<b>Pump tank module:</b>	<b>Transport size:</b>	6058x2438x2591mm high, with twistlock castings
	<b>Weight:</b>	11 tonnes.
	<b>Hydrocyclone feed pumps:</b>	2 No. Metso MM200 centrifugal with 45kW motors.
	<b>Clean mud discharge pump:</b>	1 No. Inverter controlled Metso MM200 with 55kW motor.
<b>Transport:</b>	The machine can be transported as two standard type 1CC containers.	
<b>Operating size:</b>	6058x3000x6500mm high.	
<b>Operating weight:</b>	30 tonnes.	
<b>Power:</b>	380-415V, 50Hz or 60Hz, 3-phase & earth no neutral. Total installed power is 168kW.	
<b>Running current:</b>	Up to 200A per phase.	
<b>Starting current:</b>	Up to 341A per phase.	
<b>Fluid throughput:</b>	Up to 400m <sup>3</sup> /hr.	
<b>Solids removal rate:</b>	Up to 100 tonnes/hr depending on the characteristics of the dirty mud.	
<b>Noise emissions:</b>	82dB at 5m	