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Specialist equipment to separate solids from liquids worldwide

SD2400DP & 4 No. SM500PSDP's

The SD2400DP combined with 4 No. SM500PSDP's forms a high capacity desanding plant suitable for use in a wide variety of applications in the civil engineering industry, including but not limited to diaphragm walling and tunnelling. The steeply declined, large area, scalping screen of the SD2400DP shaker can be dressed with polyurethane or stainless steel wedge wire screens for proficient handling of cobbles, coarse to medium gravels and even clay balls. The large combined screen area of the SM500PSDP's dressed with fine stainless steel wedge wire screens, is ideally suited for removing the fine gravels and coarse sands separated by the large 660 hydrocyclones and the sand and silt sized particles separated by the 5" hydrocyclones.



TECHNICAL DATA

Maximum fluid throughput capacity: Up to 2000m³/hr (of slurry having a Marsh Funnel viscosity of less than 70 seconds per U.S. Quart)

Maximum solids removal rate: 250t/hr on the SD2400DP and 100 t/hr per SM500PSDP

Stage 1: Dirty fluid fed via header box onto SD2400DP shaker, for the separation of cobbles,

coarse/medium gravels, clay balls, timber, etc.

Stage 2: 4 No. 660mm diameter coarse desanding hydrocyclones, underflow partially dewatered by

the 4 No. SM500PDSP shakers, for the separation of medium/fine gravels and $\,$

coarse/medium sands.

Stage 3: 72-80 No. 5" diameter desilting hydrocyclones, underflow partially dewatered by the 4 No.

SM500PDSP shakers, for the separation of medium/fine sands and some silt.

SD2400DP shaker: Linear motion, steeply declined, single deck scalping screen mounted on isolation springs.

SD2400DP shaker screens: Screens can be selected to suit material to be separated, but can include: Polyurethane,

framed in flow or chevron stainless steel wedge or perforated. Total screen area: 12.18m² (2.03m wide by 6 metres long)

SM500PSDP shaker: Linear motion, partially inclined, single-deck shaker with adjustable solids discharge weir,

mounted on either isolation springs or Rostas.

 $\textbf{SM500PSDP shaker screens:} \quad \text{Steel framed } 500\mu \text{ stainless steel, cross flow, wedge wire.}$

Total screen area: 34.56m² (4 No. shakers each 1.8 m wide by 4.8 m long)

Transport size: 10 No. units each 6058x2438x2591mm (1CC container size), complete with ISO corner

castings, plus SD2400DP shaker (approx. 6420x2060x1550mm), shaker drive gear, platforms, safety handrails, 660 hydrocyclones, external pumps, pipework and hoses.

Weight (dry): SD2400DP - pump tank at 9 tonnes, shaker module frame at 7 tonnes, shaker c/w screens

and motors at 7 tonnes.

SM500PSDP (each) – pump tank at 11 tonnes, shaker module at 12 tonnes.

Operating weight (wet): Up to 167 tonnes

Operating size: Typically 18200mm (L) x 10800mm (W) x 7890mm (H) including platforms and staircase

Access to top level: External staircase(s)

Power: SD2400DP - 243kW installed power, SM500PSDP (each)– 168kW installed power. All

running at 380-415V, 50Hz, 3 phase and earth no neutral is required.

Estimated running current: SD2400DP - 310A per phase (5576A max starting).

SM500PSDP (each) – 193A per phase (341A max starting).

660mm hydrocyclone feed pumps: Metso MM200 centrifugal with overhead mounted star/delta started 55kW motor. (2 No.

integral to SD2400DP pump tank and 2 No. freestanding).

5" hydrocyclone feed pumps: Metso MM200 centrifugal with overhead mounted star/delta started 45kW motor.

Discharge pumps: Metso MM200 centrifugal with overhead mounted 55kW motor with inverter control.

SD2400DP shaker: 2 No. 11kW motors with direct-on-line starting.

SM500PSDP shaker (each): 2 No. 11kW motors with direct-on-line starting.

Noise emission: 74 dB at 5m