

SUPERCLEAN® 150DP

The SUPERCLEAN® 150DP (SC150DP) is a versatile, high-performance, all-in-one separation plant with integral discharge pump that can be used in a wide variety of applications in the civil engineering industry, including but not limited to HDD, diaphragm walling, tunnelling and piling. With a high solids handling capacity and a maximum fluid throughput of 150m³/hr, the three stage design of the SC150DP is most suitable to low-cohesion ground conditions including, gravels, sand and silt.



TECHNICAL DATA

Maximum fluid throughput capacity: Up to 150m³/hr (of slurry having a Marsh Funnel viscosity of less than 70 seconds per U.S. Quart).

Maximum solids removal rate: Up to 25t/hr on the primary shaker and 18 t/hr on the secondary shaker depending on the characteristics of the solids.

Stage 1: Dirty fluid is fed onto the bottom deck scalping screen of the primary shaker, for the separation of gravels, large pieces of timber and cohesive clay balls etc.

Stage 2: 2 No. 10" diameter desanding hydrocyclones, with the underflow partially dewatered by the top deck of the primary shaker, for the separation of fine gravels and coarse/medium sands.

Stage 3: 8 No. 5" diameter long-bodied desilting hydrocyclones, with the underflow partially dewatered by the secondary shaker, for the separation of medium/fine sand and some silt.

Primary shaker: Linear motion, partially inclined, double deck shaker with scalping screen and flood screen.

Adjustable solids discharge weirs for controlling the flow of solids, mounted on isolation springs.

Primary shaker bottom deck screens: 1 No. In-flow 6mm aperture stainless steel wedge wire screen & 2 No. 8.2x8.2mm aperture polyurethane screens.

Total screen area: 1.62m² (0.9m wide by 1.8m long)

Primary shaker top deck screens: 3 No. 0.3x12mm slotted aperture polyurethane or 3 No. steel framed 300µ stainless steel, cross flow, wedge wire.

Total screen area: 1.62m² (0.9m wide by 1.8m long)

Secondary shaker: High speed, linear motion, partially inclined single deck PSD150 shaker mounted on isolation springs. Quickly interchangeable screens with pneumatic clamping system.

Secondary shaker screens: 4 No. Pre-tensioned woven stainless steel wire screens (API100, API140 or API170 options available to suit prevailing ground conditions).

Total screen area: 2.21m² (1.3m wide by 1.7m long)

Transport size: 2 No. units each 6058x2438x2591mm (1CC container size), complete with ISO corner castings.

Weight (dry): Pump tank at 9 tonnes, shaker module at 9 tonnes.

Operating weight (wet): Up to 26 tonnes.

Operating size: 6058mm (L) x 3550mm (W) x 5200mm (H).

Access to shaker module: Via internal staircase.

Power: 100kW installed power running at 380-415V, 50Hz, 3 phase and earth (no neutral required).

Estimated running current: 130A per phase.

Estimated starting current: 298A per phase.

10" hydrocyclone feed pump: Metso HM150 centrifugal, with overhead mounted, soft started, 30kW motor.

5" hydrocyclone feed pump: Metso HM150 centrifugal, with overhead mounted, soft started, 30kW motor.

Discharge pump: Metso HM150 centrifugal, with overhead mounted, inverter controlled, 30kW motor.

Primary shaker: 2 No. 2.5kW motors with direct-on-line starting.

Secondary shaker: 2 No. 1.65kW motors with direct-on-line starting.

Compressor: 1.1kW with 50L receiver and direct-on-line starting.

Noise emission: 74 dB at 5m.