

TSP300

Description

The DSE TSP300 is a compact separation plant and specially designed for processing of slurries and removal of mineral solids from the slurry circuit in drilling or other associated applications with high content of silt.

Instead of a collection of equipment from various sources, the DSE TSP300 is a field-proven network of separation components specifically designed to function as a single unit. During each separation stage, a maximum of solid particles is removed from the slurry. The modular system guarantees continuous and fast advance rates, reducing downtimes to a minimum.

The innovative screening technology combined with hydrocyclones constitutes a complete recycling concept, providing optimal removal of critical fine particles down to 45 microns and guaranteeing constant slurry properties.

Structure

The DSE TSP300 is composed of one (1) linear motion vibration screening machine for separation of coarse solids such as gravel, pebble and coarse to medium sand, three (3) hydro-vacuum-cyclones with a cone size of 12" or two (2) hydro-vacuum-cyclones with a cone size of 15", one (1) linear motion vibration screening machine for removal and dewatering of the

hydrocyclone's underflow containing solids such as fine sand and silt, one (1) 20 ft. process tank with one (1) integrated centrifugal feed pump, one (1) central control cabinet and accessories.

Adjustable discharge chutes, fold-away platform and pluggable railing for safe working and good access provide a plug-and-play solution. Assembly time is therefore reduced to a minimum. Feeding of shakers and cyclones is accomplished by an integrated fixed piping and wiring system in a minimal footprint.



front view TSP300

The single-deck vibration screening machines can be easily and flexibly equipped with a wide range of different panel screens made of steel or polyurethane which are available from 4 mm mesh width down to 45 µm.



back view TSP300

Overall dimensions for transportation¹:

Tank (incl. pumps and folded working platform)

Length	6 080	mm
Width	2 439	mm
Height	4 542	mm (with unfolded working platform)
Height	3 820	mm

Screening machine 4PSM

Length	3 300	mm
Width	1 880	mm
Height	3 820	mm

Screening machine with cyclone unit

Length	3 200	mm
Width	2 400	mm
Height	2 720	mm
Height	5 700	mm (installed)

Total weight (ca.) 16 250 kg

¹ approximately; assembled on site

Technical specification:

Nominal fluid capacity (max.) ²	300	m ³ /h
Total power supply	70	kW

Vibration screening machine 4PSM

Number installed	2	no
Number of decks (each)	1	no
Deck angle adjustment	-5° to +3°	
Total screen area	6.4	m ²
Screen panels per shaker	4	no

Vibration motors

Rated power (each with)	4 x 3.6	kW
Voltage	400V / 50Hz / 3phase	

Hydro-vacuum-cyclones 15"

Number installed	2	no
Diameter/ cone size	381	mm (15")
Cut point d ₅₀	43	µm ³

Hydro-vacuum-cyclones 12"

Number installed	3	no
Diameter/ cone size	305	mm (12")
Cut point d ₅₀	25	µm ⁴

² The capacity of the DSE TSP300 is subject to the slurry properties, solids loading, grain size distribution, screen selection, and properties along with operating conditions, and might be differ than specified.

³ (at 0.8 bar + 2 x 120 m³/h)
regarded to - viscosity: 80kg/m*s ; density suspension: 1,47 kg/l ; density dry content: 2,48 t/m³

Centrifugal feed pump

Number installed	1	no
Rated power ⁵	55	kW
Voltage	400V / 50Hz / 3phase	

Contact

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⁴ (at 1.1 bar + 3 x 78 m³/h)
regarded to - viscosity: 80kg/m*s ; density suspension: 1,47 kg/l ; density dry content: 2,48 t/m³
⁵ subject to change