

Description

The ITE TSP300-2 is a compact separation plant and specially designed for processing of slurries and removal of drilled solids from the slurry circuit in tunneling, horizontal drilling or deep hole drilling applications.

The TSP300-2 is composed of two 4-panel vibration screening machines, two 15" hydro-vacuum-cyclones, one 20' process tank with one integrated centrifugal feed pump, one 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 the shakers and cyclones is accomplished by an integrated fixed piping and wiring system in a minimal footprint.

Instead of a collection of equipment from various sources, the ITE TSP300-2 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 are 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.

The vibration screening machines can be equipped with a wide range of different ITE hookstrip and panel screens which are available from 4mm mesh width down to 45µm.



Transport Dimensions

Plant component	Length x Width x Height [mm]	Weight [kg]
Tank (incl. pump & folded in platform)	6062 x 2500 x 3000	approx. 9500
Vibration Screening Machine 4PSM	3410 x 1690 x 1620	approx. 2380
Cyclone unit 2x15"	2300 x 1100 x 2330	approx. 870

Technical Specifications

Capacity (as per spec. below)*¹: max. 300 m³/h

Power consumption (total plant): 54 kW

- **Hydro-vacuum-cyclone - unit**
 - Number: 2 hydro-vacuum-cyclones
 - Dimensions: 15 inch (381 mm)
 - Cut-point (d_{50}): 45 μm *¹
- **Vibration screening machines 4PSM**
 - 1 x 4PSM for separation of coarse solids
 - 1 x 4PSM to dewater the hydro-vacuum-cyclone underflow
 - Total screen area: 6.4 m²
 - Deck inclination adjustment: -4° to +4°
 - Accelerating force: 6.3 G
 - Power (total) (4 x 2.2 kW): 8.8 kW
 - Voltage: 400 V / 50 Hz
- **Cyclone Feed Pump**
 - Wear resistant centrifugal pump, 200/200
 - Number: 1 no
 - Power (total): 45 kW
 - Voltage: 400 V / 50 Hz
- **Tank (2 compartments)**
 - 1. Compartment: Underflow 4PSM
 - 2. Compartment: Overflow hydro-vacuum-cyclones
 - Tank Volume: approx. 24 m³

*¹ The capacity of the ITE TSP300-2 is subject to the viscosity and density of slurry, solids loading, grain size distribution, screen selection, and properties along with operating conditions, and might be actually lower than specified.

