



IMS Model DSSS2000R (Dredge Slurry Separation System)[®]

The IMS Model 2000DSSSR has been designed specifically to accept feed directly from the dredge at a maximum rate of 2000 gpm. IMS's unique self contained solid removal technology separates solids from dredged slurry via a three stage system down to 25 um. In addition, the solids that are removed are dewatered to a stackable "pass paint filter" state, which can be readily moved with front end loader, conveyor and/or dump trucks. The effluent or discharged fluid is pumped off by a centrifugal pump. The separation process is continuous and operates completely mechanically without any chemical enhancement. The entire system is designed onto a "rock over" type trailer that is highway legal for ease of transporting.

Specifications:

Dimensions

45'L x 8'W x 13'4" at highest point

Operator Station

Single NEMA 4 steel enclosure 36" x 36" x 10" allowing one person to control entire unit.

Tank

Three compartment crimp wall tank mounted on tandem axle rock over trailer.

Pumps

Three side pocket mounted 6x8 75Hp with hardened impeller.

Electrical Requirements

460v, 60 Hz, 3Ph, 350 Amps

Solid Separation Equipment

Two IMS Scalping Shakers model 148E, two IMS 2-10/ 146E Desanders Shakers and two IMS 16-4/146E Desilter Shakers

Thru put Capacity

2000 gallons per minute, continuous.

Agitators

Two 7.5Hp with 32" Impeller

Solids Loading in Feed

15% by weight for best performance

Mud Guns

Two IMS 2" Mud Guns

- Three telescopic halogen lights
- Collapsible, partial wrap around catwalk with removable stairs and handrails

Operation:

1. The dredged slurry enters the DSS directly from the dredge.
2. In the first phase the slurry passes over scalping shale shakers to remove debris and larger particles. The debris can include: grass, roots, leaves, cans, plastic, rags and bottles.
3. The slurry, with the above debris removed drops into an isolated section of the tank where it is picked up by a centrifugal pump.
4. This pump moves the slurry to the second phase, which is the De-sanding phase.
5. Here the slurry is pumped through the de-sanding Hydro-cyclones, which removes the solids above the 75 micron size.
6. The overflow from these hydro-cyclones drops into a second isolated tank section, while the underflow is deposited onto vibrating screens for drying of the solids.
7. The slurry, which now has solids removed above 75 microns is picked up from this tank section by a second centrifugal pump and pumped through a bank of de-silting hydro-cyclones to remove the solids passed by the de-sanding hydro-cyclones. This phase removes solids down to the 25 micron size. Again the overflow from the de-silting hydro-cyclones drops into the third tank section, while the under flow is deposited onto vibrating screens for drying.
8. The now "cleaned" fluid is picked up by the third centrifugal pump to be transported to a point designated by the client.

Features:

- Operation is continuous at 2,000 GPM. NO BATCHING.
- Produced solids are stackable, can be transported in open dumptrucks, can be readily moved with front end loaders or conveyors and will pass "paint filter".
- The entire system is designed onto a rock-over type trailer for fast and easy transport in the field or on the highways. It is a legal highway load.
- The system is totally mechanical; no chemicals are used in this process.

