The PSD350 Plain Suction Dredger is designed for dredging inland lakes, up to – 40 m below water level. Reduced dredging depth can be achieved by reducing the length of the lower dredge pipe.

The dredger is equipped with a high pressure jetwater system and a specially developed plain suction head which enables dredging free flowing sand-like material (d50= 0.23 mm).

The dredger is equipped with 1 submerged dredge pump on the ladder and 1 deck-based booster pump, enabling the dredger to pump the dredged material to discharge distance of approximately 3000 m.

Both dredge pumps and jetwater pumps are controlled by means of frequency converters.

The nominal output performance is approximately 250 m³ in-situ soil per effective dredging hour.

The dredge is moored by means of 4 electric mooring winches. The ladder and lower dredge pipe are raised by electric winches as well.

The fully air-conditioned control cabin is mounted on top of electric switchboard room, providing a clear overview of the dredging operations.

The dredge is equipped with production measurement system, dredge monitoring system and dredge-track position system.

The dredge is electric powered via shore supply (10kV).

For emergency operations, a 10 KVA diesel powered generator and electric bilge water pump are foreseen.
### Main Dimensions
- Length overall, ladder raised: 53.0 m
- Length over pontoons: 24.0 m
- Breadth moulded: 8.5 m
- Depth hull: 1.8 m
- Draught: 1.0 m
- Maximum dredging depth: 40.0 m
- Internal diameter of suction pipes: 350 mm
- Internal diameter of discharge pipes: 350 mm
- Total installed power: 1400 kVA
- Light ship weight: 120 ton

### Tank capacities
- Water ballast tanks: 2 x 8 m³
- Water ballast tanks aft: 2 x 8 m³

### Dredge pump
- Submerged pump, power: 350 kW
- Booster pump, power: 550 kW

### Jetwater pump
- Installed pump power: 150 kW
- Operating pressure, maximum: 6 bar

### Winch system

<table>
<thead>
<tr>
<th>Winch Type</th>
<th>Line pull</th>
<th>Max Speed</th>
<th>Wire storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladder hoisting winch (1 unit)</td>
<td>100 kN</td>
<td>20 m/min</td>
<td>50 M</td>
</tr>
<tr>
<td>Ladder hoisting winch (1 unit), lower pipe</td>
<td>50 kN</td>
<td>20 m/min</td>
<td>100 M</td>
</tr>
<tr>
<td>Mooring winches (4 units)</td>
<td>50 kN</td>
<td>20 m/min</td>
<td>100 M</td>
</tr>
</tbody>
</table>

### Electrical system
- Shore supply Voltage: 10 kV
- Main electric users; pumps, winches: 690/440 V
- Auxiliary systems: 440/110 V
- Control systems: 24 V

### Auxiliary equipment
- Deck crane hoisting capacity @ max reach: 35 kN @ 4 m