

## Datasheet Plain Suction Dredger PSD350



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 ( $d_{50} = 0.23$  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 m<sup>3</sup> in-situ soil per effective dredging hour.

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

The dredger 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	m <sup>3</sup>
Water ballast tanks aft	2 x 8	m <sup>3</sup>

## 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

	Line pull	Max Speed	Wire storage
Ladder hoisting winch (1 unit)	100 kN	20 m/min	50 M
Ladder hoisting winch (1 unit), lower pipe	50 kN	20 m/min	100 M
Mooring winches (4 units)	50 kN	20 m/min	100 M

## 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
--	----	----------