

CUTTER SUCTION DREDGER 450



Main Parameters

Dredging depth	: 12 m	39.4 ft
Power	: 895 kW	1,200 hp
Suction pipe	: 500 mm	20 inch
Discharge pipe	: 450 mm	18 inch
Cutter power	: 110 kW	147 hp
Production	: 900 m ³ / hr	
Pontoons	: 3 dismountable pontoons	

Cutter suction dredger 450 is a dismountable dredger with an integrated dredge pump & drive system. This makes the dredger efficient and compact, allowing for easy transportation and high production rates. DREDGE YARD offers a range of customization options to adapt CSD 450 for any project. The CSD 450 has the following features:

- Low cost per m³
- Short delivery times and competitive pricing
- Fully tested before delivery
- Transportable by road, rail or sea
- Ready for operation on arrival at site
- Productivity and fuel efficiency
- Low Environmental impact
- Ability to use in multiple applications
- Suitable for dredging different types of soil
- Long lifetime by wear-resistant components
- One-man operation usage
- Customization options

Eco-Friendly Design

The CSD 450 is developed with a keen focus on environmental impact. It is engineered to operate with reduced carbon emissions and optimized fuel consumption, aligning with global environmental standards and regulations.

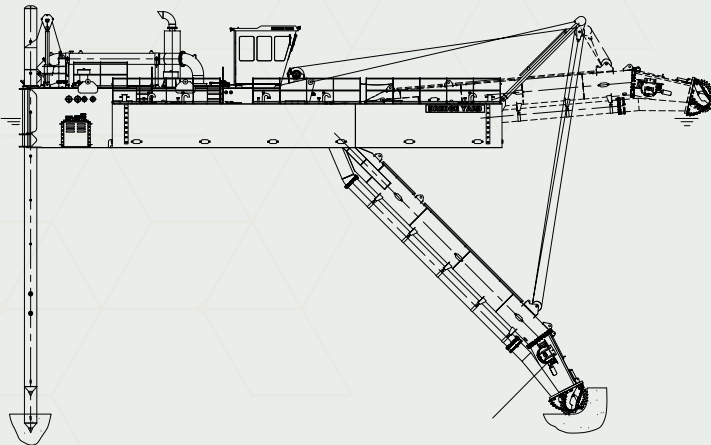
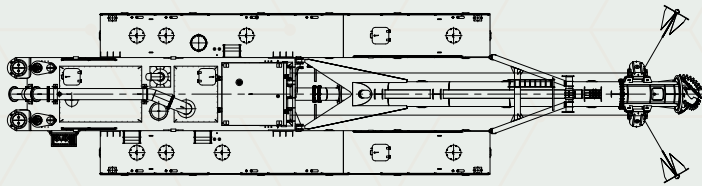
Transportable & Readily Available

DREDGE YARD dredgers are modular and transportable by road, rail, or waterways. The majority of DREDGE YARD's vessels are readily available for prompt delivery, ensuring you can get started without delays.

Service and support

DREDGE YARD's commitment doesn't end with a purchase. DREDGE YARD offers an all-inclusive suite of spare parts, proactive maintenance assistance, equipment training programs, dredging consultancy, and expert operators for practical training and efficient commissioning.

CUTTER SUCTION DREDGER 450



DREDGER MAIN PARTICULARS

Type of dredger	: Cutter suction dredger	
Pontoons	: 3 dismantable pontoons	
Transport	: Dismountable on flat trucks	
Suction pipe diameter	: 500 mm	20 in.
Discharge pipe diameter	: 450 mm	18 in.
Suitable for dredging material	: Clay, medium sand, coarse sand	
Dredging depth @ 45deg	: 12 m	39.4 ft

DREDGER POWER UNIT

Engine power	: 895 kw	1200 hp
Engine speed	: 1,800 rpm	
Cooling system	: Seawater cooling	

DREDGER MAIN DIMENSIONS

Length overall (ladder raised)	: 28.5 m	93.5 ft
No. of pontoons	: 3 dismantable	
Length over pontoons	: 19.9 m	65.3 ft
Width overall	: 6.7 m	22 ft
Width during land transport	: 3.0 m	9.8 ft
Depth, main pontoon	: 2.45 m	8.0 ft
Depth, side pontoon	: 1.8 m	5.9 ft
Design draught	: 1.2 m	3.9 ft

DREDGE PUMP

Type	: DY450-400	
Configuration	: Single-stage centrifugal	
Position	: Inboard; mid-pontoon	
Suction diameter	: 450mm	18 in
Discharge diameter	: 400 mm	16 in
Spherical passage	: 200 mm	8 in
Impeller no. of vanes	: 3	
Drive power	: 895 kW	1,200 hp
Drive	: Direct drive through a single-stage gearbox	

Pump speed	: 400-600 rpm
Wear material	: Wear resistant cast iron
Gearbox	: Single-stage; vertical offset
Shaft seal	: Mechanical face seal

DREDGE CUTTER HEAD

Type	: DY1510-C Multi-purposed	
Configuration	: Crown type interchangeable teeth	
Cutter diameter	: 1.5 m	4.9 ft
Cutter motor power	: 110 kW	147hp
Cutter motor speed	: 0-35 rpm	
Cutting system	: Replaceable (narrow, pick-point, chisel type)	

DREDGING WINCH

Type of winch	: Drum winch	
Movement	: Swing 35 degrees to both sides	
Number of winches	: 2 units	
Wire pull	: 70 kN	15,400 lbs
Hauling speed	: 0-25 m/min	0-82 ft/min
Drive	: Hydraulic motor	
Wire diameter	: 18 mm	0.7 in
Swing range at min depth	: 31.9m	104.6 ft
Swing range at max depth	: 26.2 m	85.9 ft

LADDER HOISTING WINCH

Type of winch	: Drum winch	
Number of winches	: 1 unit	
Wire pull	: 70 kN	15,400 lbs
Hauling speed	: 0-25 m/min	0-82 ft/min
Drive	: Hydraulic motor	
Wire diameter	: 18 mm	0.7 in
Anchor weight	: 500 kg	1,100 lbs

DREDGE SPUDS

Total spud length	: 16.0 m	63 ft
Spud diameter	: 508 mm	24 in
Weight	: 3,100 kg	15,400 lbs
Hydraulic cylinder force	: 150 kN	66,150 lbs
Cylinder stroke	: 1.5 m	5.9 ft

FUEL

Fuel type	: Diesel fuel	
Tank capacity	: 16,000 Liters	4,226 gal

OPERATING CABIN

Total area	: 4 m ²	43 sq ft
Cooling	: Ventilation fan (a/c optional)	
Lights	: 2x exterior; 2x flood light	
Additional	: Screen wiper	
Instrumentations	: • Dredging depth indicator • Discharge pressure gauge • Vacuum pressure gauge	