

# Mud Cat™ 100E - Electric Dredge



## GENERAL

Length (O.A.):	33 ft-7 in (10.2 m)
Width (O.A.):	8 ft-7 in (2.6 m)
Height (O.A.):	8 ft-8.5 in (2.65 m)
Weight:	9,000 lbs. (4,082 kg) dry
Draft:	18 in (0.4 m)

## FLOATATION

Pontoons:	Two 30 in diameter x 26 ft (0.8 m diameter x 7.9 m) 10 gauge (3.4 mm) steel
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## CUTTER ASSEMBLY

Mud Shield:	Semi-enclosed; anti-turbidity
Drive System:	Two (2) low speed, high torque motors; dual seals
Auger Diameter:	10 in (254 mm) without cutter knives 15-¼ in (387 mm) with cutter knives
Auger Pitch:	9 in (228 mm)
Auger Flighting:	¾ in (9.5 mm)
Speed:	Fixed at 60 RPM
Cutter Knives:	Detachable heat-treated blades
Auger Torque:	6,000 in-lbs. (680 N-m)

## WORKING CAPACITY

Cut:	7 ft-6 in (2.3 m) wide
Operating Depth:	20 ft (6 m)

## SLURRY PUMP

Electric driven 100 HP (76 kW) submersible slurry pump with cast iron volute and impeller. (Other material options available.)	
Centrifugal Dual Vane Impeller:	Max solids diameter 3 in (76 mm)
Suction Diameter:	8 in (200 mm)
Discharge Diameter:	8 in (200 mm)
Nominal Pump Performance:	3,000 GPM (680 m³/hr) against 60 ft (18.3 m) head Up to 260 yds³/hr (200 m³/hr) of production at 30% solids content. Results may vary.

## PROPULSION

Double sheave hydraulic-driven winch 10 in (254 mm)	
Traverse Speed:	0 - 30 FPM (0 - 9.4 m/min) maximum forward & reverse
Average Cutting Speed:	8 - 12 FPM (2.4 - 3.7 m/min)
Wire Rope Diameter:	¾ in (9.5 mm)

## LADDER HOIST

Hydraulic winch with a maximum line pull of 4,000 lbs (17.8 kN) first layer

## HYDRAULIC POWER UNIT

15 HP (11.2 kW) electrical-driven hydraulic power unit  
30 gallons (113.5 liters) at full mark

Circuit One: Auger, Travel, and Hoist Winch

## CONTROL SYSTEM

Wireless Radio Remote Control:

- Slurry Pump - On / Off / Speed
- Hoist - Up / Off / Down
- Auger - On / Off
- Travel - Fwd / Off / Reverse / Speed

## ELECTRICAL SYSTEM

Electrical Requirement:	460 V - 3 Phase - 60 Hz (standard) 380 V - 3 Phase - 50 Hz (optional)
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## RADIO REMOTE SENSE™

EDT has designed the Mud Cat™ product line to allow for remote control of the dredging operation via a portable hand-held transmitter called RADIO REMOTE SENSE™ (RMS). RMS controls the following functions: power on/off, travel direction and speed, slurry pump on/off and speed, auger on/off and dredging depth. The hand-held transmitter may be operated up to 1,000 feet from the dredging unit. Current operating functions of the system will be indicated via a dredge mounted five-color light tree.



## BOTTOM SENSE™

EDT's BOTTOM SENSE™ system is designed to protect a pond's subsurface or liner. This feature allows the dredge to automatically raise the auger when the bottom is contacted and lower the auger when the bottom is not present, thereby maximizing production rates while preserving the subsurface integrity by following the bottom contours of the pond.



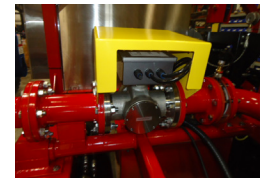
## AUTO SENSE™

This incorporates metal plates that act as stops at the beginning and end of the traverse cable to set distance limits along the dredging area. With AUTO SENSE™ enabled, when the dredge contacts the forward cable stop, it will reverse direction until it contacts the rear cable stop, at which time the dredge will be placed in shut down mode.



## SOLIDS SENSE™

If your downstream operation needs a consistent slurry density for maximum productivity, EDT's SOLIDS SENSE™ is your answer. Adding SOLIDS SENSE™ to your dredging process will allow the system to automatically adjust the dredging functions to maintain a constant delivery of desired solids density. SOLIDS SENSE™ utilizes a density meter to monitor the slurry and react to composition changes faster than an operator, thereby increasing system efficiency and maintaining the desired slurry characteristic.



## LATERAL SENSE™

When your project requires automated lateral movement, LATERAL SENSE™ is the perfect complement to AUTO SENSE™. In combination with a rail and cable system, this feature allows for the automatic lateral shifting of the dredge after each linear pass. The utilization of AUTO & LATERAL SENSE™ allows the dredge to harvest an entire sediment pond automatically without requiring an operator's assistance.



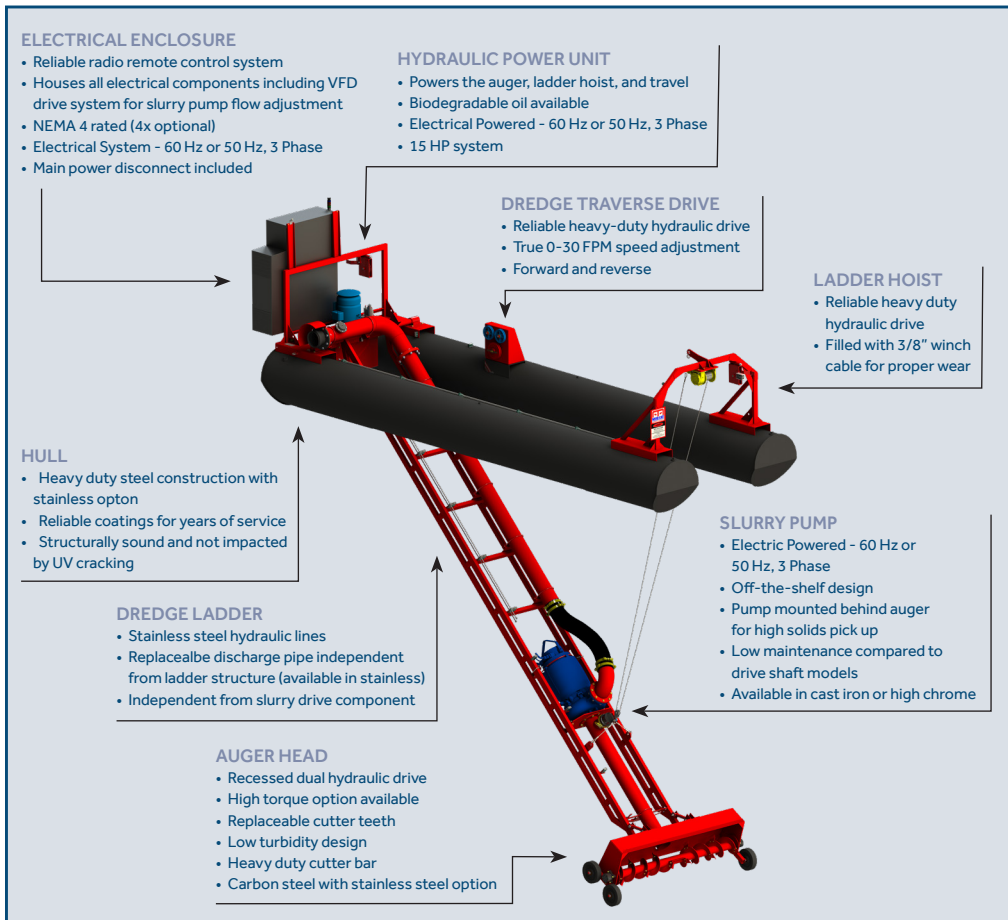
## AUTOMATED REMOTE CONTROL DREDGING

Add as many options as you like and EDT will integrate them into a fully automated remote controlled dredging system. This is achieved through the addition of a shore mounted control station. The NEMA 4 control panel allows the user to operate all on-board functions of the dredge while receiving continuous feedback from the unit's sensors and instrumentations. The shore panel features wireless communication to the on-board PLC, which eliminates the problems associated with hard wired systems. EDT can customize the shore panel control station to your specific project requirements.



**NOTE: Specifications subject to change without notice.**

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The Mud Cat MC-100E

FEATURES	BENEFITS
Cast Iron Pump	Volute and impeller have longer lifespan than fabricated steel pumps.
Larger Sphere Passage	Less clogging than fabricated steel pumps on competitors' dredges.
Electric Submersible Pump	Requires less maintenance on seals and bearings than pumps powered by long drive shafts.
4-Wheel Liner Protection System	Uses 4 wheels instead of 2, drastically reducing chance of costly poly lagoon liner damage. Pump will never hit or drag on liner like hanging pump units.
Heavy Duty 10 Gauge Steel Hull	Ensures long lifespan, durability, and will not crack like plastic / poly floats which have inherent issues with UV exposure.
Hydraulic Driven Traverse System	Provides full torque and power at all speeds.
Ladder Mounted Cutterhead	Creates even bottom profile instead of dragging through material or creating a swiss cheese effect which calls for re-dredging.
Faster Cutting Speed	System moves at double the speed of other auger remote controlled dredges increasing productivity.
Radio Remote Sense™	Hand-held transmitter may be operated up to 1,000 ft. away. Operating functions indicated by dredge mounted 5-color light tree.
Automated Remote Control Dredging	Mud Cat is the world leader for dredge automation and can integrate a series of functions into a NEMA 4 or 4x control panel.
4-Moving Parts	Less parts equals ease of operation, reduced cost, and less maintenance.
Customization	Available with stainless hull and components, various coatings, low profile design for low bridges, slurry pump options. Special requests are welcome.



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