Mud Cat™ 40E 30 ft. (9.1m) Deep Digging - Electric Dredge

MUD CAT
Ellicott Dredge Enterprises, LLC

GENERAL

Length (O.A.):	*42 ft - 11 in (13.08 m)*
Operational Width (O.A.):	*8 ft - 6 in (2.59 m)*
Transport Width:	*8 ft -4 in (2.54 m)*
Height (O.A.):	*7 ft - 6 in (2.29 m)*
Weight:	*15,500 lbs. (7,030 kg) dry*
Draft:	*20 in (0.5 m)*

FLOATATION

Pontoons:	*Two 28 in diameter x 34-in. x 36 ft (0.71 m diameter x 0.86 m x 6.09 m) 10 gauge (3.4 mm) steel pontoons*

CUTTER ASSEMBLY

Mud Shield:	*Semi-enclosed; anti-turbidity*
Drive System:	*Two (2) low speed, high torque motors*
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:	*3/8 in (9.5 mm)*
Speed:	*Fixed at 60 RPM*
Cutter Knives:	*Detachable heat-treated blades*
Auger Torque:	*3,600 in-lbs. (407 N-m)*

WORKING CAPACITY

Cut:	*7 ft-6 in (2.3 m) wide*
Operating Depth:	*30 ft (9.1 m)*

SLURRY PUMP

Electric driven 40 HP (30 kW) submersible slurry pump with high chrome 450 Brinell volute and impeller. (Other material options available.)

Centrifugal Vortex Impeller:	*Max solids diameter 6 in (152.4 mm)*
Suction Diameter:	*6 in (152.4 mm)*
Discharge Diameter:	*6 in (152.4 mm)*
Nominal Pump Performance:	*900 GPM (204 m^3/hr) against 50 ft (15.2 m) head* *Up to 56 yds^3/hr (42 m^3/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:	*3/8 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

10 HP (7.5 kW) electrical-driven hydraulic power unit

40 gallons (151 liters) at full mark

Circuit One: *Auger, Travel, and Hoist Winch*

CONTROL SYSTEM

Wireless Radio Remote Control:

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

ELECTRICAL SYSTEM

Electrical Requirement:	*460 V - 3 Phase - 60 Hz - 82 FLA (standard)* *380 V - 3 Phase - 50 Hz - 103 FLA (optional)*

RADIO REMOTE SENSE™ [Standard Feature]

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 (if equipped with VFD), 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.

AUTO SENSE™ [Standard Feature]

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.

BOTTOM SENSE™ [Optional Feature]

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.

LATERAL SENSE™ [Optional Feature]

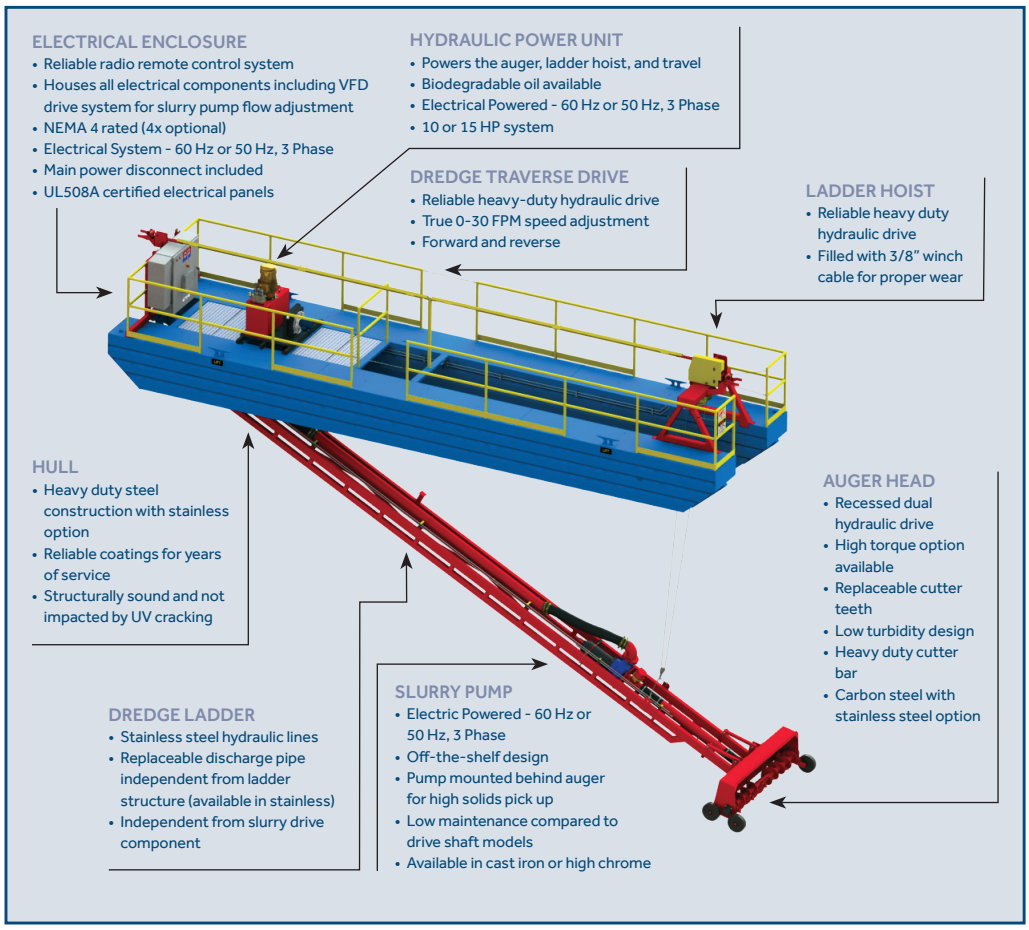
When your project requires automated lateral movement, LATERAL SENSE™ is the perfect complement to AUTO SENSE™. In combination with a rail and cable system, this feature allows for the automatic lateral shifting of the dredge after each linear pass. The utilization of AUTO & LATERAL SENSE™ allows the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

AUTOMATED REMOTE CONTROL DREDGING [Optional Feature]

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 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.

Mud Cat™ 40E 30 ft. (9.1m) Deep Digging - Electric Dredge



A Mud Cat 40E 30 ft. DD dredge cleans out an aggregate wash plant pont in Texas.

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.
Liner Protection System	Mud Cat uses 4 liner protection wheels instead of 2 wheels drastically reducing the chance of poly lagoon liner damage. Also, the pump will never hit or drag on liner like hanging pump unit designs.
Heavy Duty 10 Gauge Steel Hull	Insures 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 over 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.

ISO 9001:2015 BUREAU VERITAS Certification

Ph: 913-642-5100 or 866-467-4010 (USA Only)
Fax: 913-642-5119
E-mail: sales@mudcatdredge.com

MUD CAT
Ellicott Dredge Enterprises, LLC
Mud Cat, *A Division of* ellicott DREDGE ENTERPRISES

1750 Madison Avenue
New Richmond, Wisconsin U.S.A. 54017
Website: www.mudcatdredge.com