

# Crisafulli Dredges

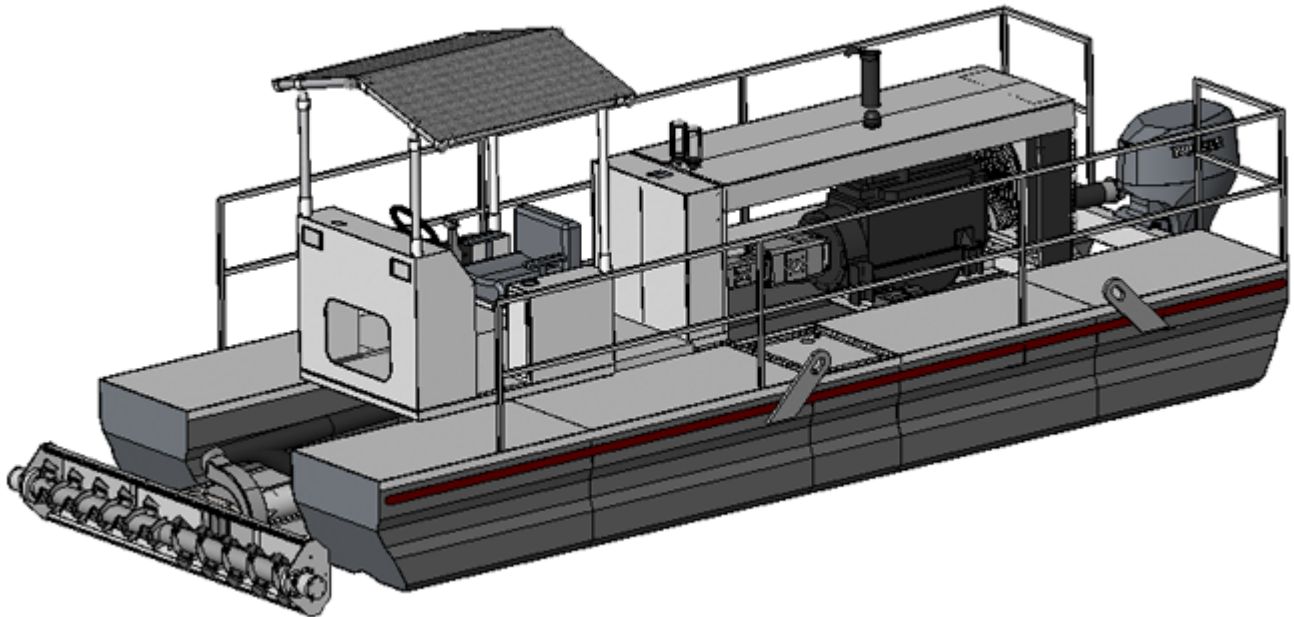


## Crisafulli Rotomite™ - SD-110 Capabilities - Features

### Rotomite-SD-110 (Shallow Draft; 110 HP) Performance Capabilities

**“The world’s lightest, high production, shallow draft manned dredge”**

**“Provides customers with BEST VALUE”**



**Dredge profile.** Diesel powered pump & auger, manned, self-propelled, steerable, propulsion by 40 HP Outboard engine

**Dredging Depth.** 10 foot standard

**Cubic yards of sludge processed per hour.** Up to 85 cubic yards

**Discharge volume.** Up to 1,475 gallons per minute @ 123 feet of TDH (water)

**Speed when not dredging.** Up to 10 miles per hour

**Width of dredging Cut.** 8.5 feet.

**Available Cutterhead Torque.** 11,000 inch/lbs.

**Draft.** 17 inches.

**Maximum discharge distance from Rotomite without booster pump.** 3,000 feet plus



Pumps - Dredges - Power Units - Custom or Standard

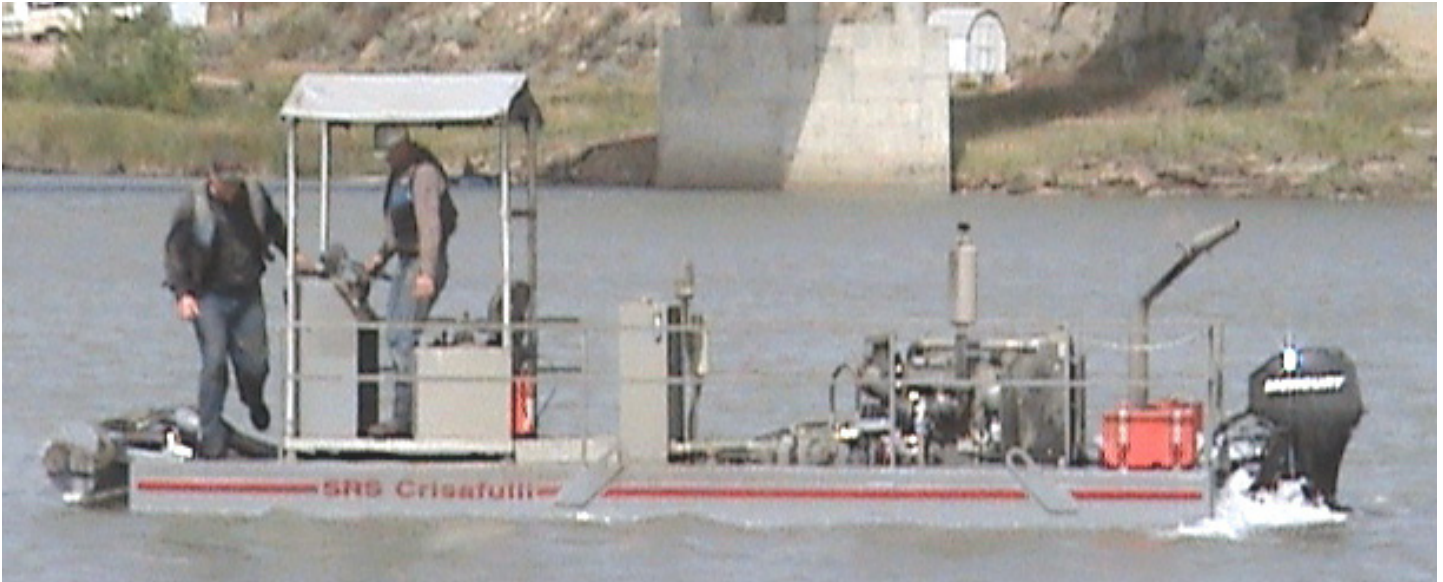
Manufacturers of reliable Crisafulli products supported by superior service worldwide

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## Crisafulli Rotomite™ - SD-110 Capabilities - Features



### **New and Unique Features of Rotomite-SD-110 Shallow draft, manned, self-propelled, diesel powered, versatile**

**Best Efficiency Point.** The Rotomite-SD-110 operates at the nominal design Best Efficiency Point (BEP) of 1,475 GPM at 123 feet of TDH (in clean water). The dredge can reach flows of 2,000 GPM and 155 feet TDH.

**Easy to operate.** Designed with the operator in mind, the dredge has on-board storage in the operator's station and a 12 VDC power point for the operator's personal items - i. e., cell phone - with four additional 12V DC circuits, an adjustable helm, and even a built in cup holder. A walkway behind the operator's station enables safe, easy operator movement from one side of the dredge to the other.

**Portability.** Weighting only 6,500 lbs, with an aluminum super structure and integrated mounts for most features and four lifting eyes, the SD-110 measures only 24.5 x 8 feet, can be lifted by almost any crane, and is transportable anywhere in the US without special permitting on a regular deck-over trailer.

**102 inch wide Cutterhead; 10 foot dredge depth.** The Rotomite-SD-110's 102" wide cutterhead provides 8.5 feet of actual dredging width and 10' of dredge depth.

**Electrical & fuel systems.** The outboard motor for propulsion and 110 HP diesel engine to power the pump and auger have independent 12 VDC systems. The redundant electrical system provides the operator the luxury of an extra battery onboard in case of unforeseen power loss incidents. The diesel engine includes a marine-duty gauge package and an emergency (high temperature/low oil pressure) shutdown system.

**Dual power systems achieve quiet and economic operations.** Running the outboard to navigate and the diesel engine to dredge enables the SD-110 to navigate quietly and at lower cost than competitive products. When the dredge reaches its destination, just fire up the diesel engine and proceed with dredging, with as little as 17 inches of water depth!

**Pontoons.** Pontoons are 20' long, aluminum, urethane foam filled, internally reinforced, with integral lifting eyes. The pontoons are divided into 5 sections each of which has a rub strip on the leading and bottom edges for safety.

**Propulsion.** Equipped with a 40 HP four stroke outboard the SD-110 has a high power to weight ratio. Clean, quiet, and environmentally friendly, the SD-110 attains speeds of 10 mph in still water. The outboard is mounted on a hydraulically movable transom that the operator can turn up to 120 degrees from center line. The movable transom together with the steerable motor enable the SD-110 to maneuver in very tight spots, such as around boat docks. The 40 HP outboard motor with propeller is hinged to enable lifting above water level.

**Operator controls.** Helm and operational controls, hydraulic ram pivot system for additional maneuverability.

**Sludge pump by Crisafulli.** 4" J-Series, submersible, variable speed, hydraulic dredge pump with dual mechanical seal bearing frame.

**Auger/cutterhead.** Crisafulli's Cobra cutterhead/auger assembly directly mounted to pump intake, is equipped with dual hydraulic auger drive motors (11,000 in.-lbs) of total digging torque with overall dimensions of 8.5' width and 1.5' deep

**Fuel capacity.** 10 hour diesel fuel capacity (dual tanks with switch over); 24 Gallon gas fuel tank for outboard motor

**Operator's station with:** Aluminum frame construction, canvas canopy over Operator Station, steering wheel and hydraulic control levers, a foam cushioned, vinyl fabric-backed covered operator's seat.

**Pump option.** The SD-110 is also available with a Chrome Carbide SRSC 4" J-Series pump for additional abrasion resistance.



## Crisafulli Rotomite™ - SD-110 Capabilities - Features

<b>Features - Standard Models</b>	
Discharge volume - gallons per minute - 1,475 @ 123' DH (water)	
Engine horsepower	110 continuous HP @ 2000 RPM
Sludge pump	SRS Crisafulli 4" J-Series
Pump/dredge discharge diameter	4" x 6"
Spherical solids passage - maximum	2.93"
Propeller	Low speed, high thrust
Dredging depth	Ten feet
Propulsion type	Four stroke outboard
Adjustable transom	Hydraulically tilting transom
Adjustable steering	Remote from operator's station
Cutterhead width	8.5 feet (2.59 m)
Cutterhead drive	Dual
Cutterhead rotation	Bi-rotational variable speed
Cutterhead torque	11,000 inch/pounds
Cutting teeth	Hardened steel Cobra
Pontoons	Foam-filled, 1/8" aluminum
Draft	17 inches (432 mm)
Freeboard	11 inches (279 mm)
Walkway	Non-skid surface
Length (overall)	24.5 feet (7.47 m)
Length (pontoons)	20 feet (6.01 m)
Width	8.0 feet (2.44 m)
Height (maximum)	6.5 feet (1.98 m) w/o sunshade. 9.5' (3.3 m) with sunshade
Weight (maximum)	6,550 pounds (2,971 Kg)
Lighting	Sealed beam headlights
Operator's cab	Adjustable seat & steering; Sunshade covering
Color	Gray standard; white trim
Electrical power	Dual 12 VDC independent circuits
Diesel fuel capacity	58 U.S. gallons (219.6 liters)
Gasoline fuel capacity	24 U.S. gallons (90.85 liters)
Diesel fuel consumption	5.8 U.S. gallons per hour

<b>Instrumentation</b>	
Diesel engine tachometer	Outboard tachometer
Diesel engine oil pressure	Diesel engine temperature
Diesel engine Volt meter	Hydraulic pressures
Hydraulic oil level & temperature	Filter pressure drop indicator
Filter pressure drop indicator	Outboard warning alarm

# Crisafulli Dredges



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Controls	
Gas & diesel engine speed	Gas & diesel key start
Depth	Sludge pump speed - Forward/N/Reverse
Propulsion speed - Forward/N/Reverse	Traverse winch - Forward/Reverse
Cutterhead - Forward/N/Reverse	Cutterhead speed
Transom tilt	
Options	
Hardened pump surfaces for added abrasion resistance	Mechanical depth indicator
Weed-handling cutterhead - auger type	Weed-handling cutterhead - reel type
Cutterhead articulation	Liner Protection System - cage, wheels, or both
Ultrasonic flowmeter	Discharge nozzle
Increased outboard horsepower	



**Crisafulli Cobra Cutterhead**



SRS Crisafulli's new Rotomite-SD-110 dredge operating on the Missouri River in north eastern Montana. Note the nozzle sludge discharge system that can throw dredged sludge 180 feet. Alternatively, the dredge can be connected to a conventional floating discharge pipe system. The SD-110 can operate in 17 inches of water, and dredge up to 85 cubic yards of sludge per hour.