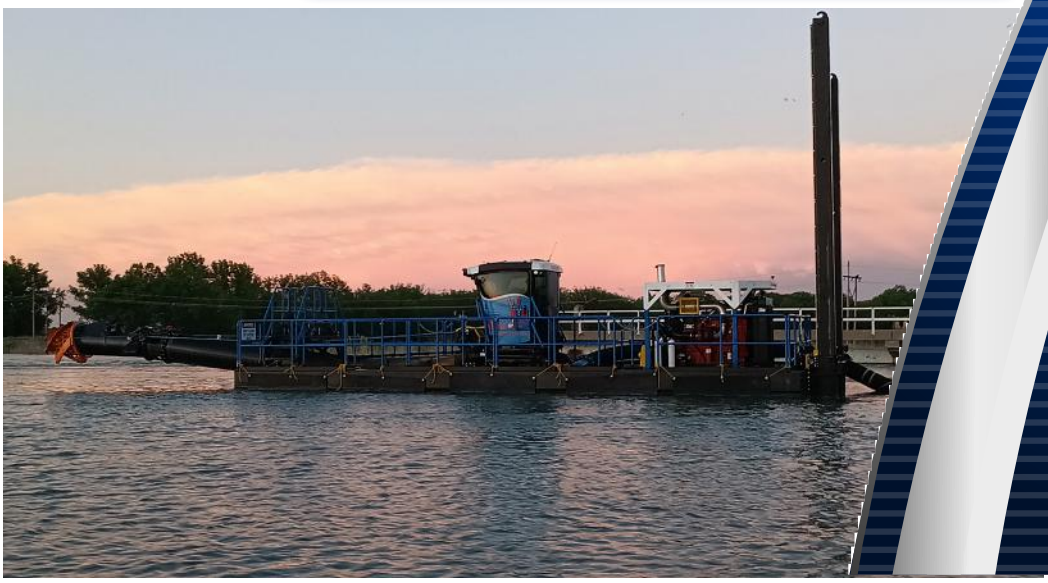
TITAN SERIES CUTTER SUCTION DREDGES

TITAN 8 & TITAN 10



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Cushing, OK 74023
1-800-762-2257
1-918-225-7000
www.vmidredges.com
info@vmi-dredges.com

Optional Spuds

Spuds may be used to pivot and hold the dredge up to a 27.5ft (8.38m) digging depth. Rack and pinion spud drives eliminate the use of cable to lift and lower the spuds. The rack and pinion provides positive force in both upward and downward directions. Hinged spud holder doors allow the spuds to be quickly and easily installed and removed. Free float allows the spuds to adjust to changing water levels when not in use.

Optional Tail Winch

An optional tail winch can be provided to pivot and anchor the rear of the dredge with or without being equipped with spuds. A tail winch is required for dredging depths greater than 27.5ft (8.38m).

Power Units

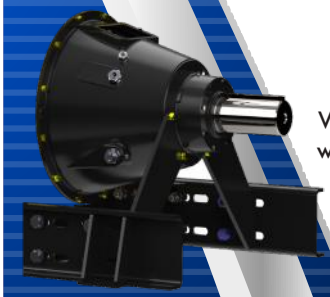
VMI offers John Deere, Cummins and Caterpillar diesel engines. Multiple emissions options are available to meet your emissions requirements.

John Deere Engine

Cummins Engine

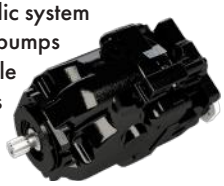
Caterpillar Engine

Heavy-Duty PTO & Belt Drive



VMI uses a heavy-duty hydraulically engaged PTO along with a toothed synchronous belt and sprockets to maintain consistent transfer of power to the dredge pump.

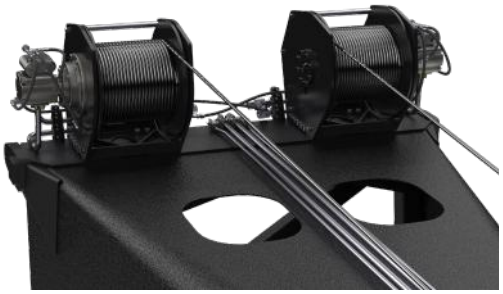
Hydraulic System



VMI's cutting-edge smart hydraulic system utilizes high efficiency axial-piston pumps to power hydraulic components while minimizing energy waste and excess heat. Load sense technology monitors hydraulic system demand and adjusts flow to meet the exact power requirements at any instant. Enhanced filtration and dedicated hydraulic tanks extend the life of all hydraulic components

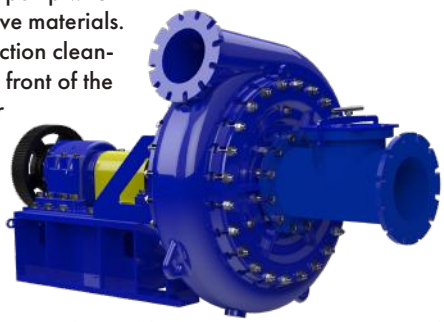
Swing Winches

Heavy-duty swing winches provide plenty of pulling power and cable capacity to dredge in tough conditions. The swing winches are mounted directly to the boom to maximize the cutting force and reduce stress against the boom pivot pins.

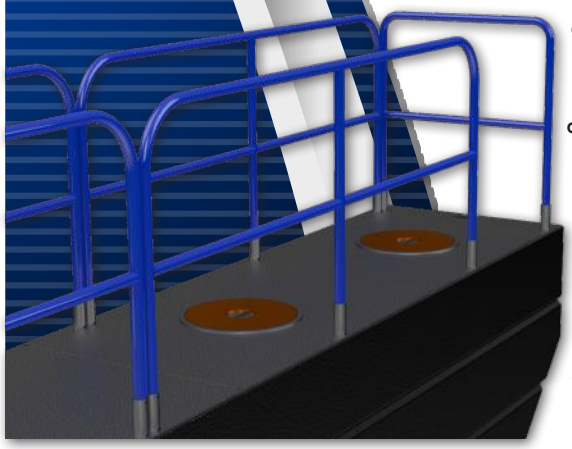


Hi-Chrome Cast Iron Closed Vane Impeller Pumps

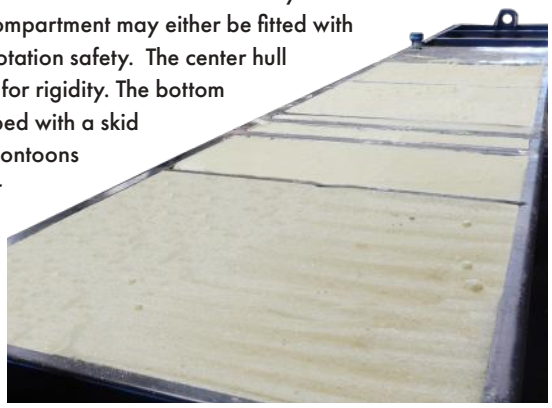
VMI offers centrifugal pumps able to meet or exceed the requirements of even the most demanding dredging applications. VMI utilizes hi-chrome cast iron to the maximize the life of the pump when dredging abrasive materials. A convenient suction clean-out is located in front of the pump suction for easy removal of large debris



Rigid Pontoon Hull



VMI's pontoons include v-brakes, internal cross bracing and multiple baffled compartments for increased rigidity. The pontoon seams are continuously welded and factory tested for leaks. Each individual compartment may either be fitted with a man hole or filled with foam for added flotation safety. The center hull also includes v-brakes and internal bracing for rigidity. The bottom of the pontoons and center hull are equipped with a skid channel to allow the dredge to slide. The pontoons are fully separable from the center hull for transportation.

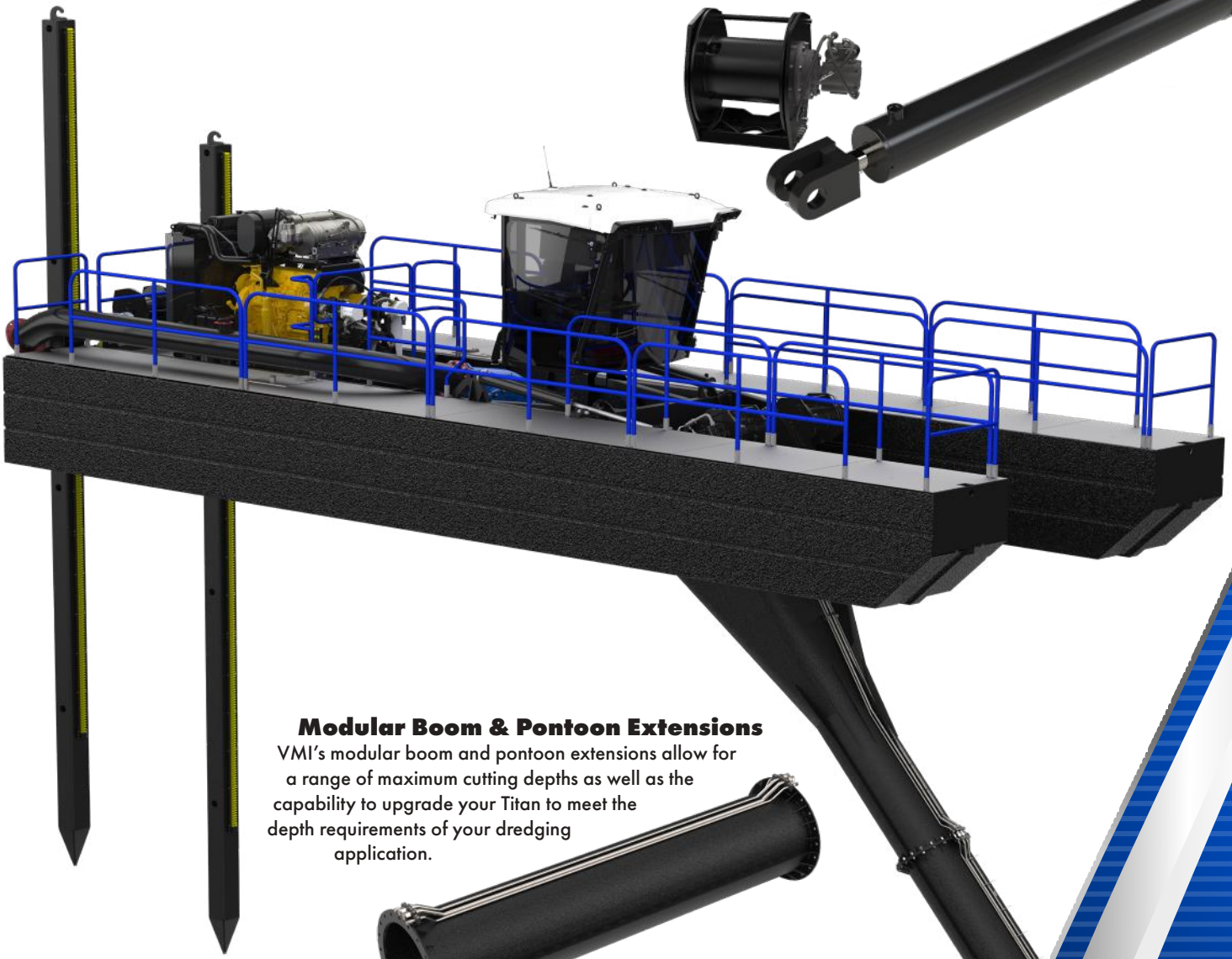


Cab

VMI's comfortable cab features excellent visibility with full front glass and full view side doors. An integrated buddy seat, ergonomic arm rest controls, retractable sun shades, stereo, and an optional refrigerator add to the level of quality this cab provides.

Boom Lift

The boom may be lifted and lowered by use of either hydraulic cylinders or a winch cable system depending on boom length. Hydraulic cylinders provide the advantage of additional downward force on the cutter head, increasing cutting efficiency.



Modular Boom & Pontoon Extensions

VMI's modular boom and pontoon extensions allow for a range of maximum cutting depths as well as the capability to upgrade your Titan to meet the depth requirements of your dredging application.

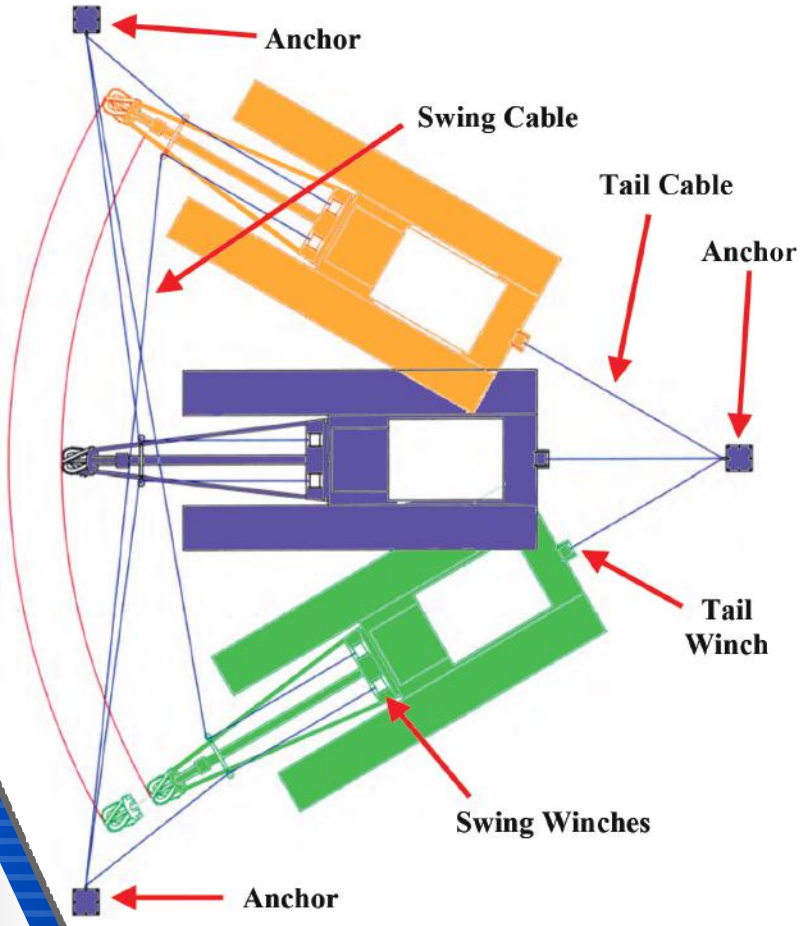
Flow Meters

A flow meter is installed standard in the operator's cab and allows you to monitor your discharge flow while operating the dredge. You are able to monitor your flow speed, volume rate, and totalize your volume with the flow meter.

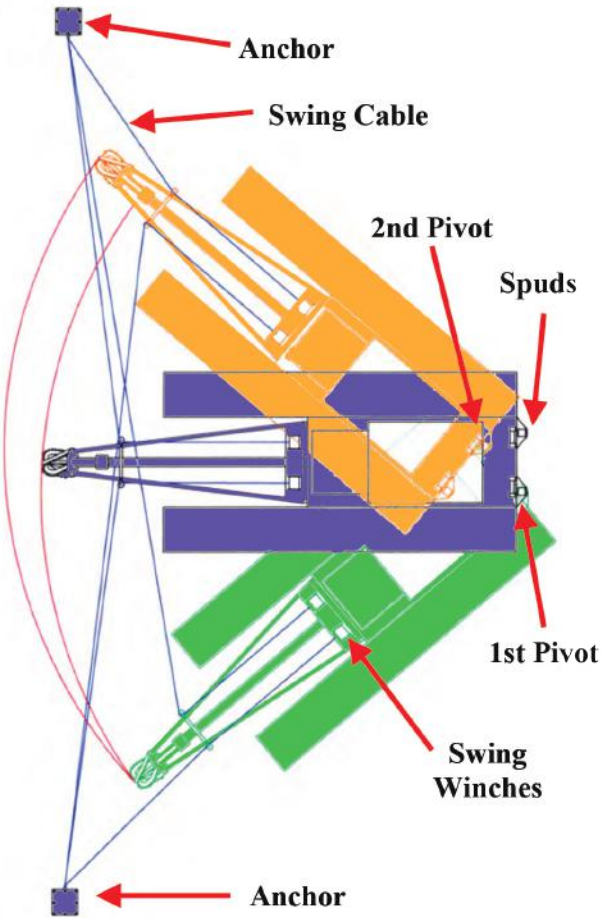
Cutter Head

A variety of cutter head configurations are available to meet your dredging needs. Whether you are dredging sand, gravel, or mud VMI can offer a cutter head to meet your digging requirements. Cutter drives are fully variable both forward and reverse allowing you to adjust the cutter rpm for various dredging conditions.

Tail Winch Setup



Spud Setup



OPTIONAL SUCTION VALVE

An optional suction valve may be installed to assist in maximizing dredge production. The suction valve may be operated manually or in automatic mode to regulate the slurry mixture being sucked into the dredge pump to avoid pump cavitation and discharge pipe plugging. The suction valve helps to maintain the optimum mixture of solids and liquid for maximum material intake.

OPTIONAL DENSITY METERS

An optional density meter may be installed and allows you to monitor the density of the slurry in your pipeline discharge. The density meter readout may be installed in the operator's cab for easy viewing while operating the dredge.

STANDARD SPECIFICATIONS

GENERAL	TITAN 8	TITAN 10
Max Cutting Depth	Ranging from 20ft (6.1m) up to 50ft (15.25m) in 7.5ft (2.25m) intervals	
Length	48ft - 9in (14.86m) to 87ft - 11in (26.8m)	49ft - 8in (15.14m) to 88ft - 10in (26.95m)
Height w/o Spuds	11ft -10in (3.4m)	
Width	14ft - 1in (4.29m)	
Dry Weight	61,000lb (27,669kg)	65,000lb (29,483kg)
Draft	28in (711mm) to 30in (762mm)	
Fuel Capacity	800 U.S. Gallons (3,050L)	

ENGINE				
Type	Caterpillar	John Deere	Caterpillar	Cummins
Model	C9.3B	6090	C13B	QSX15
Power	375 BHP (280kW) @1900 RPM	375 BHP (280kW) @1900 RPM	536 BHP (400kW) @1800 RPM	509 BHP (380kW) @1700 RPM
Emissions Rating	US EPA Tier 4 Final / EU Stage V	US EPA Marine Tier 3	US EPA Tier 4 Final / EU Stage V	US EPA Marine Tier 3

CUTTER		
Speed	Variable 0-40 RPM, Bi-Directional	
Torque	69,191in-lbs (7,818Nm)	102,139in-lbs (11,540Nm)
Diameter (ID)	28in (711mm)	31.5in (800mm)

PUMP		
Suction Pipe	10in (254mm)	12in (305mm)
Discharge Pipe	10in (254mm)	12in (305mm)
Max Capacity (Water @68° F)	4,200 GPM (15,900L/min) @ 222ft Head	5,850 GPM (22,145L/min) @260ft Head
Material	High Chrome Cast Iron	

SPUDS	
Length	26ft (7.92m) to 33ft-6in (10.21in)

PONTOONS	
Description	Full length formed steel with integral bulkheads and stiffeners for added rigidity. Foam filled or with optional man holes

We Make Revenue Flow

Did You Know?

When rivers and canals become impassable due to sedimentation, dredging is used to facilitate boat and barge traffic or aid in flood control. In this application the cutter suction dredges are the machine of choice as they are capable of high pumping volumes and the spud drive mechanism provides much needed stability in faster moving currents.