IMS Model 7012 HP Versi-Dredge®

IMS DREDGES®

OPERATING DIMENSIONS

Length	*52 ft. 6 in. (16 m)*
Width	*12 ft. (3.66 m)*
Height	*10 ft. 6 in. (3.2 m) w/muffler removed*
Weight (less fuel)	*52,000 lbs. (23,587 kg)*

FLOTATION

Dimensions	*Two (2) pontoons, 45 in. x 43 in. x 468 in. (1,150 mm x 1,090 mm x 11,900 mm); 10 ga. Steel sides, bottom and 1/4" plate tops, internal bulkheads and stiffeners, and painted w/ a marine grade epoxy paint*
Displacement	*63,300 lbs. (28,700 kg)*
Draft	*35 in. (890 mm)*

WORKING CAPACITY

Cut	*135 in. (3,430 mm) wide x 26 in. (660 mm) deep*
Working Depth	*30 ft. (9.1 m)*
Depth Extension	*None available*

ENGINE

Type	*John Deere 500 HP (373 kW); 6-cylinder Engine*
Fuel Capacity	*400 gal. (1,510 liters)*

HYDRAULIC SYSTEMS

Circuit #1	*Slurry Pump* *14.4 in³/rev.* *115 gpm (7.3 liter/sec.) @ 5000 psi (34.5 MPa)*
Circuit #2	*Cutterhead, Boom, Winches and STARWHEELS®* *8.5 in3 /rev. loadsense* *82 gpm (5.2 liter/sec) @ 2,500 psi (17.2 MPa)*
Reservoir	*120 gal. (454 liters)*
Filtration	*1 reservoir mounted return filter with a 10-micron (min.) rating with an indicator and cab warning light. Slurry pump circuit remote charge filter 6-micron (min.) rating with an indicator and cab warning light. Filter with water removal capability are optional.*

CUTTERHEAD

Cutterbar Diameter	*26 in. (660 mm)*
Cutterbar Length	*135 in. (3,430 mm)*
Drive	*Recessed dual hydraulic motor; direct drive with no gear reduction*
Speed (variable)	*0 to 60 rpm @ 2,500 psi*
Cutterhead Torque	*23,885 in.-lbs. (2,969 N-m) @ 2,500 psi (peak)*
Cutterhead Tip Force	*1,837 lbs. (8,171 N)*
Cutterhead Teeth	*Replaceable carbide steel teeth*

DREDGE PUMP

Type	*GIW*
Discharge Diameter	*10 in. (254 mm)*
Suction Diameter	*12 in. (304 mm)*
Sphere Passage	*5.0 (127 mm)*
Pump Performance	*5,000 gpm (1136 m³/hr) @ 141 ft. (43.0 m) TDH (water) @ 800 rpm*
Speed (variable)	*0 to 790 rpm*

PROPULSION

Propulsion	*STARWHEEL® Drive Self-Propulsion system; cable drive infrastructure in place (cables & anchor pltes sold separately)*
Speed (variable)	*0 to 31 rpm @ surface* *0 to 7 rpm @ underwater* *0 to 55 fpm (cable drive)*

ELECTRICAL SYSTEM

Voltage	*24 volt, negative ground*
Alternator Output	*200 Amp*

SAFETY FEATURES

Includes	*2 fire extinguishers, hand rail system, dual folding cabin doors, dual warning horns, 1 life ring, 2 life jackets, locking power unit*

ANTI-CORROSION FEATURES

Includes	*Hull below deck is painted with a marine-grade epoxy, above hull deck painted with polyurethane epoxy, and remaining components are coated with heavy duty powder coating all suitable for salt water service. Also includes stainless steel hydraulic lines, fittings, and all suitable hardware.*

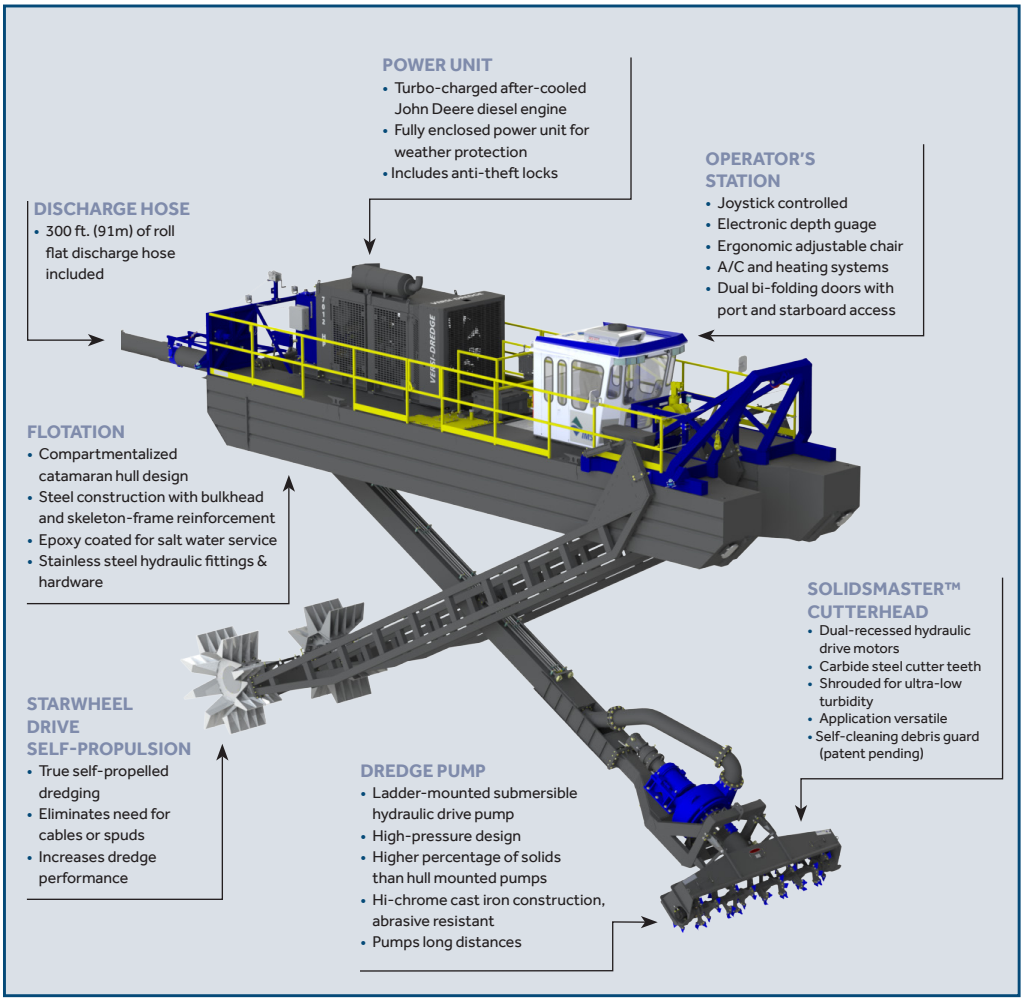
HOURLY ESTIMATED OPERATING COSTS ($USD)

Fuel @ $3.00/gallon	*$51.50*
Insurance	*2.00*
Labor (2 men @ $16/hr.)	*32.00*
Maintenance (filters, seats, etc.)	*1.20*
Accrued Mechanical Overhaul	*4.00*
Pump & Cutterhead Wear	*6.00*
Hull Maintenance	*3.60*
Estimated Hourly Operating Cost	**$126.30**

Prices subject to local economics

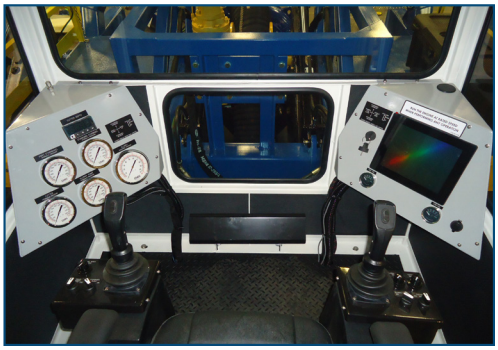
NOTE: Specifications subject to change without notice.

IMS Model 7012 HP Versi-Dredge®



FEATURES	BENEFITS
Superior Pump Design	10 in. (254mm) x 12 in. (305mm) hi-chrome pump for continuous abrasive service. Ladder mounted for higher solids than the competition. Pump longer distances without a booster pump. 1,135m³/hr. (1,475 yds³/hr) nominal pump capacity & 284m³/hr. (371 yds³/hr.) total solids capacity.
High Solids Pump	Standard pump passes 5 inch (127mm) spherical solids.
Self-Propelled	Includes Patented Starwheel Drive self-propulsion system that allows for maximum maneuverability in lakes, canals, and rivers where setting anchors is not ideal. Patent pending Traction Master technology allows for higher speed paddling on surface that automatically switches to high torque mode when operating on the bottom of the water body for maximum traction control.
Powerful Cutterhead	23,885 in-lbs. torque with replaceable hard faced carbide steel trencher teeth.
Fully Enclosed Power Unit	Power unit has locking security doors and full shroud to protect from the elements and potential vandalism.
One Truck Transportable	Ships fully assembled and requires no installation of side tanks, spuds, or separate dredge ladder.
Dredging Depth	30 ft. (9.1m) standard dredging depth allows for greater project versatility. Deepest in its class.
Modern Operator's Cab	Spacious, climate controlled operators cabin with electronic over hydraulic joystick controls , rear back up camera w/ color monitor, 360 degree spot light, digital depth gauge, CANbus system for easy trouble shooting with factory, oversized analog back-lit gauges, sound system, fan, horn, windshield wipers, and dual folding doors for easy access to port and starboard decks.
Pump Defender (PATENTED)	Standard patented Pump Defender allows for cleaning of the pump inlet after every revolution of the cutterhead to greatly reduce down time in debris rich environments by up to 80%.
Clean Dredge Deck	No obstructions on deck and clear pathways from front to back and port and starboard decks. All components are designed for easy access and maintenance.
Complimentary Flexible Discharge Package	Includes 300 ft. (91m) of heavy duty flexible, roll-flat discharge hose and floats to give the dredge maximum maneuverability when connected to the hard discharge line.
Service & Support	12 month warranty with phone and e-mail support. Warranty site visits if problem cannot be solved over the phone.

A Model 7012 HP Versi-Dredge® mines sand from a river in Monrovia, Liberia.



All Versi-Dredge® models come standard with joystick controls and oversized gauges for ease of operation.

STANDARD EQUIPMENT:

300 ft. (91m) of roll flat discharge hose
12 saddle type hose floats
Fully enclosed engine compartment
Patented Pump Defender® self-cleaning debris guard
Patented Starwheel Drive® self-propulsion system
Slurry sample line with toggle switch in cab
Modern climate-controlled operators' cabin (A/C & Heat)
Easy to use joystick controls for all dredge functions
Back up cable drive system for lined ponds, etc.
Rear back up camera w/ color display in cabin
Digital depth gauge
Nighttime operating lights
360-degree spotlight with toggle switch in cab
Marine grade sound system
Safety package (life ring, first aid kit, life vests, and fire extinguisher)
Anti-Corrosion package (stainless fittings & hardware)

OPTIONAL EQUIPMENT:

12 in. (305 mm) discharge pipe/hose
Bi-Directional Broadcaster
Dredging GPS System
Cable Drive set-up package
Dredge navigation lights
Spare Parts
Booster Pumps w/ custom instruments
Environmental Plus Cutterhead
Patented WeedMaster® Cutterhead for cutting and pumping vegetation

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IMS DREDGES®
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Recipient of the U.S. President's E-Award

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