SCAVENGER 2000

TECHNICAL SPECIFICATIONS

Technical data

Length:	*38 ft.*
Beam:	*8 ft.*
Height (from water line):	*10 ft.*
Width at bow, when jaws are open:	*14 - 16 ft.*
Draft:	*4 ft.*
Freeboard:	*3 ft.*
Gross Weight:	*12.5 tons*
Main power plant:	*marine diesel engine*
Water cannon pump:	*1000 U.S.G.P.M. at 100 psi*
Fuel tank capacity:	*120 - 150 U.S. gal*
Crew required:	*1 operator*
Oxygen injection:	*150,000 l.p.h.*
Decontamination rate:	*10,000 - 20,000 g.p.m.*

Boat performance

Normal cruising speed:	*6 - 9.5 knots*
Maximum cruising speed:	*8 - 12 knots*
Working speed:	*1.5 - 3 knots*
Maneuverability Rotates in place:	*360 degrees*
Hours of operation between refueling:	*35 hours*

The Scavenger 2000™ is the most effective de-pollution vessel available in the world today.

Water Management Technologies ™

Water Management Technologies holds the patent to the Oxy-Plus System™, an advanced process that treats and revitalizes waterways by directly aerating the water with a combination of ozone and oxygenation.
For more information visit www.scavenger2000.com

The 38-foot Scavenger 2000 is constructed from COR-TEN ™ steel and built in accordance with internationally recognized marine vessel standards. It stands 10 feet tall from the water line, has an 8-foot beam and weighs 10.5 metric tons. It is equipped with an opening bow and ballasting system and can be operated by one crewmember. The Scavenger 2000 vessel can be easily transported by truck, train or ship.

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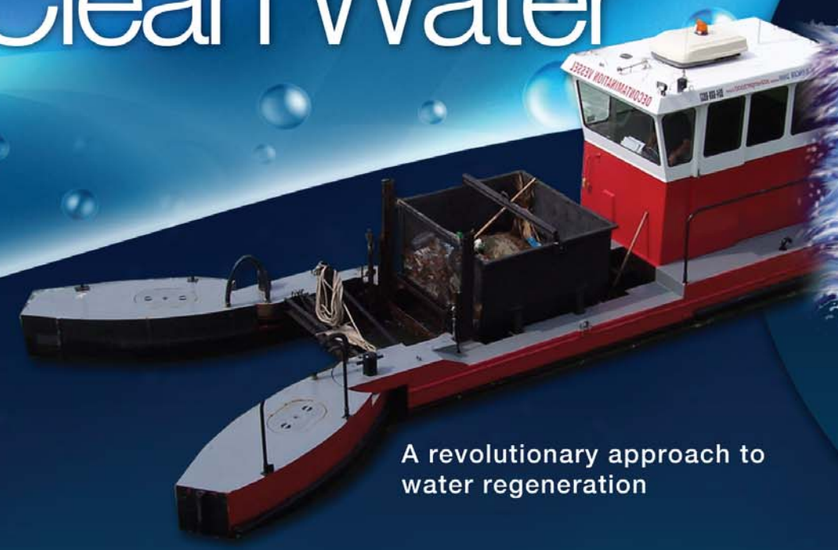
Water Management Technologies presents

The Scavenger 2000™

Your solution to Clean Water



A revolutionary approach to water regeneration

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Restoring health and clarity to **waterways**

The contamination of our waterways by biological and chemical waste, floating debris and runoff is a growing concern worldwide. As a result of human activity, large amounts of nutrients like nitrogen, phosphorous, raw sewage and hydrocarbons are introduced into the water. These, in turn, allow harmful bacteria like E.coli, viruses, algae and insects to breed.

The Scavenger 2000™ is the most effective pollution control and water maintenance vessel available in the world today. It was designed by U.S. based Water Management Technologies™ to clean and rejuvenate waterways such as lakes, rivers, harbors, and industrial waste water in order to promote healthy and safe environments.

The Scavenger 2000™ Decontamination Vessel improves water quality by reducing and eliminating bacteria and viruses, raising D.O. (Dissolved Oxygen) levels, controlling algae growth, improving water clarity and eliminating odors. A multi-purpose boat, the Scavenger 2000™ not only decontaminates and re-oxygenates water, its unique design also allows it to collect floating waste and debris, creating safer and more attractive public waterways.

The Scavenger 2000™'s Oxy-Plus™ system offers the following **BENEFITS:**

Biological

- *Kills bacteria, parasites and microbes*
- *Destroys fecal coliforms*
- *Neutralizes viruses*

Chemical

- *Removes some pesticides, insecticides, herbicides and fungicides that are washed into the watershed*
- *Increases the dissolved oxygen content present in the water*

Physical

- *Improves clarity of the water by reducing turbidity and removing color*
- *Removes odors caused by sulfur, nitrogen, and organic materials*
- *Controls algae growth by removing algae food sources*
- *Eliminates red tides caused by toxic algae*

Areas of Impact

- *Contamination arising from industrial and recreational use of waterways such as lakes, rivers, harbors and ports*
- *Contamination resulting from storm water runoff*
- *Contamination resulting from construction and manufacturing*
- *Beach and shoreline clean-up*
- *Shoreline fire control*

Fields of Use

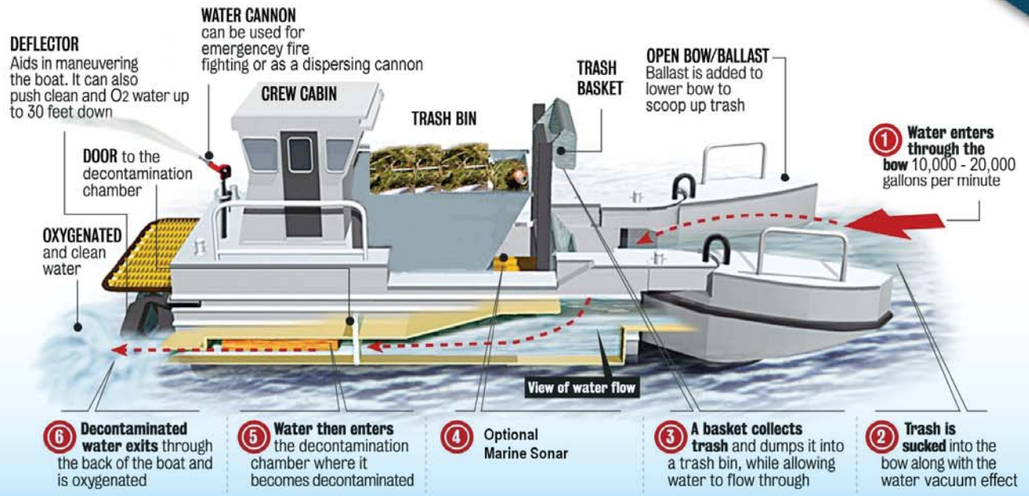
- *Government agencies and departments*
- *Municipalities and cities*
- *Corporations (petroleum, construction and manufacturing companies)*
- *Environmental clean-up departments and groups*
- *Farming industry*

How It Works

The key to the **Scavenger 2000™** vessel is an advanced Patented **Oxy Plus™** water decontamination system that treats and revitalizes waterways by directly aerating the water with a combination of ozone and oxygen. In one swift sucking motion the boat scoops up floating debris, oxidizes bacteria, and injects life-supporting oxygen and cleansing ozone into the water. This process raises the overall dissolved oxygen levels in the water. The moving boat can inject about 150,000 liters of oxygen per hour up to a depth of 30 feet and decontaminate at a rate of between 10,000 and 20,000 gallons of water **per minute**.

CLEANING THE WATER

How the **Scavenger 2000** onboard water treatment system works:



Proven Technology

Oxy-Plus™ water decontamination system

At the heart of the Scavenger vessel is the Oxy-Plus™ advanced water decontamination system. When oxygen is injected into polluted water, the enrichment contributes directly to reducing contaminants suspended in the water. With the addition of ozone to the aeration process a very powerful yet environmentally safe disinfection occurs in the body of water being treated by the Scavenger 2000™.
Ozone has been applied with great success in municipal sewer treatment facilities worldwide because of its ability to disinfect water without leaving the harmful by-products left by chlorine. In fact, ozone has been found to be more than 100 times more powerful than chlorine in destroying E.coli bacteria.

As water enters through the bow of the vessel, the **Oxy-Plus™** system generates ozone and oxygen and injects it into the water. The ozone's life expectancy varies between a few seconds and a few minutes. The ozone then converts into oxygen. This process supports Chemical Oxygen Demand (COD), breaks down substances so that they become digestible to bacteria, and supports the aerobic oxidation of toxic nitrogen compounds. By altering the surface charge, ozone enables suspended particles to coagulate, therefore improving water clarity. In addition ozone effectively oxidizes some pesticides and some algae, eliminates odor and polluting chemicals. Lastly, it improves the dissolved oxygen content of the water which has a rejuvenating effect.

The system can reach depths of up to 30 ft. Hourly injection is 150,000 liters of oxygen. This increases the dissolved oxygen levels in the water, and reduces the number of toxins in the water. The decontamination rate is between 600,000 and 1,200,000 gallons of water per hour. Nova Southeastern University's Oceanographic Center says, "The Scavenger 2000's **Oxy-Plus™** technology can significantly improve water quality". A single pass through the vessel's system can reduce up to 98% of bacteria and coliform in the water, and algae counts by half.

RIVER WATER

Before and after water treatment

Bulk waste and debris collector

The vessel features a retractable trash basket made of stainless steel, which is mounted on the front of the vessel. This trash basket picks up debris floating on the surface of the water, up to a depth of 2 ½ ft. The basket's design, which resembles a comb or grate, is engineered to virtually eliminate any water turbulence during the suction operation. The weight capacity of this basket is approximately 2,500 lbs.

The trash basket has a capacity of 0.25 cubic meters. It is emptied into a containment bin by means of a hydraulic system, which is operated from the main cabin. Continuous debris collection is ensured by a secondary grill that is automatically activated to keep rubbish from entering the channel while the basket is being emptied into the trash bin.

PICKING UP THE TRASH

As trash and water are funneled into the bow, a basket catches the debris and empties it into a large on-board bin.

WATER IS FUNNELED INTO THE BOW

Vacuum effect. The vessel does not have to run after debris.

Water Cannon

The water cannon on the Scavenger 2000 is multipurpose:

- *It cleans hard-to-reach beaches, rocky shorelines and under docks.*
- *The high volume and high pressure make it effective for fighting fires.*
- *It can be used as an auxiliary means of propulsion.*

Powered by an independent marine diesel engine, the water cannon is capable of shooting 1000 gallons of water per minute, at a pressure of 100 psi.

Maneuverability

The Scavenger 2000 can make a 360-degree turn, in place, with the bow open and in recuperation mode. This maneuver can be done without interrupting the decontamination process, using the special rear deflector that is attached to the stern of the vessel. Thus, the Scavenger 2000 never has to interrupt its recovery systems.

Transport

The Scavenger 2000™ can be easily transported anywhere in the world.