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INTRODUCTION

Established in 2013, Weihai Wes-Tech Equipment Co., LTD is mainly engaged in the research and development, production and sales of water floating object collection equipment. Product series include: oil spill recovery equipment (remotely operated skimmer equipment and oil spill recovery boat), garbage salvage boat (Unmanned/manned mode), and other different type equipment, as well as oil spill monitoring buoy, underwater robots, oil spill monitoring instrument and other related products.

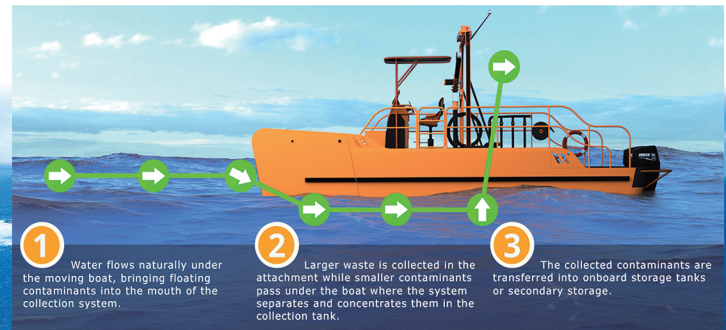
The oil spill recovery equipment series produced by our company adopts the company's unique patented technology. There' re the characteristics of multi-function, quick recovery, safety, simplicity and easy operation. It can clean up all kinds of organic, inorganic, solid, liquid wastes and other floating objects on water surface in all kinds of fresh water or sea water. The product can be used for recycling, storage and transfer.

At present, our company has one invention patent, a number of utility model patents. And through the Ministry of Science and Technology achievements evaluation: the technology has reached the domestic first-class, the international leading level.

The recycling process

Basic principle of Seafoil Systems: Floating objects enter the bottom of the boat through the entrance of the recovery boat. Through the bottom guide plate, it is guided to the negative pressure/collection tank for oil and water separation, and the oil after separation is transferred to other containers outside the cabin, or the oil tank of the auxiliary boat, or the tank car.

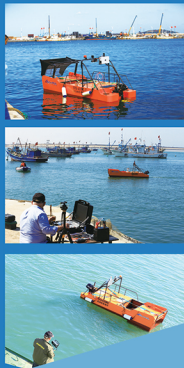
1. Water flows naturally under the moving boat bringing floating contaminants into the mouth of the collection system*
 2. Big contaminants are collected at the garbage collection system. Small contaminants pass under the boat where our system separates and concentrates the waste in the collection tank
 3. The collected waste contaminants are transferred into on-board storage tanks or other storage container.
- * Typical Boat Operation Speed: 0.5-3 kts (dependent on waste type and collection conditions)



Oil spill recovery equipment

Remotely Operated Skimmer series

It is suitable for shallow water or narrow water area, the current speed is less than 1kt, which can realize the long-distance control about 300-400m. Used for small oil spill, operate easily, collect quickly.



Name	Model	Operation mode	Control range	Motor	Power	Recycling ability (m ³ /h)		Collection tank capacity (L)
						0.5kts	1.5kts	
	SFS-430RC-P	Handheld	300-400M	Petrol	5HP, 4 stroke	13.9	41.7	400L
	SFS-550RC-P	Handheld	300-400M		9.9HP, 4 stroke	18.5	55.5	600L
	SFS-600RC-P	Handheld	300-400M		15HP, 4 stroke	18.5	55.5	600L

small and Medium oil spill recovery vessel

It is suitable for coastal and inland river waters, the current speed is less than 3kts, Beaufort wind level 5, according to the boat model, the speed is about 6-8 knots, it can be used in ports, docks, within 5 nautical miles from the shore line. In addition, it can also collect various types of floating objects on the water, such as garbage and algae, and can also be used as booms deploy boats and daily work boats

Name	Model	Operation mode	Recycling ability (m ³ /h)		Motor	Power	Option
			1.5 kts	3 kts			
small and Medium oil spill recovery boat	SFS-750D	Manned drive	69.5	138.9	Petrol	60HP, 4 stroke	90HP, 4 stroke
	SFS-950D		83.4	167	2*90HP, 4 stroke	1270HP, stern drive	
	SFS-1050D		83.4	167	Diesel	270HP, stern drive	outboard engine
	SFS-1250D		88.9	177.8	270HP, stern drive	outboard engine High power	

Note: All use Marine generators (diesel)



Large oil spill recovery vessel

It is suitable for coastal, gulf and open waters, with high oil spill emergency response ability, recovery efficiency and storage capacity, and can deal with large environmental disasters and oil spills

Crew quarters, galley, wheelhouse and a range of storage and high-level upgrade options are available, with a large operating range and more powerful engines, pumps and collection systems to respond more quickly and effectively to large oil spills



Name	type	Collection capacity (m ³ /H)		motor	power
		1.5kts	3 kts		
Large oil spill recovery vessel	SFS-1650D	125.1	250.2	Stern driv	2*270HP
	SFS-1850D	168	335		2*320HP
	SFS-2200D	182	363		2*350HP
	SFS-2700D	236	473		2*430HP

Customization and upgrade options are available for customers, including increased engine power, generators, ancillary facilities, custom barge storage and delivery systems, deck, bridge configurations, remote and autonomous controls, spraying units, cranes, and more

Upgrade options

Surface garbage salvage vessel

Based on the type of oil spill recovery boat, focusing on the water surface solid salvage, including surface garbage, enteromorpha, water hyacinth, etc., a series of manned and remotely operated garbage salvage boat have been developed.

Seafoil Systems recovery boat is designed to collect all kinds of floating objects on the water surface. The specially designed garbage collection system can catch and collect all kinds of garbage and floating objects on the water surface

Name	Model	Operation mode	Control range	Motor	Power
remotely operated garbage salvage boat	SFS-450RC	Remote control	300-400/ 800-1000m	petrol	5HP, 4stroke
	SFS-600RC				15HP, 4stroke
Surface garbage salvage boat	SFS-750SG	Manned drive	/		60HP, 4stroke
	SFS-950SG				2*60HP, 4stroke



SaveSorb

It is carefully selected from finely sieved peat moss, pure natural plant fiber, pollution-free. It has stable chemical and physical properties, with high absorption capacity. It can lock the oil molecule firmly, doesn't leak. It can also absorb hundreds of products including fuels, hydrocarbon solvents and most chemical liquids.

The oil absorbent mat and oil absorbent sock made of Savesorb as filling material can be laid and recovered more efficiently and conveniently in emergency.

Name	Manufacturer	Model	specification
Savesorb	Savesorb	LF-XCB	About 25 Kg / bag 8 bags/box
		LF-TCB	About 430 Kg/bag
MF-SPM22		2 '2' (600*600MM)	
MF-SPM33		3 '3' (900*900MM)	
Oil absorption mat		MF-S6	6 '3" (1800*100mm)
oil absorbent sock	MF-S8	8 '3" (2400*100Mm)	



oil Boom

PVC oil boom is especially suitable for the interception and control of oil spill and other floating objects in the quiet coastal waters. It can be fixed and laid for a long time. It has been widely used in inland pollutant discharge inlet, rivers, harbors, lakes and offshore oil drilling platforms.

Advantages:

High overall strength, long service life,

convenient layout, easy to clean, maintenance.

Large buoyancy reserve and strong oil stagnation performance.

Excellent performance/price ratio.

Product model	WGV-600	WGV-900
Total height (mm)	600	900
Standard section length (m)	20	20
Maximum anti-wave height (m)	0.5	1.5
Maximum wind resistance (m/s)	10	15
Maximum resistance flow rate (kN)	1.5	1.5
20m Package size (m)	1*1*0.6	1.3*1.1*1.1



Oil Absorbent Felt

Oil absorbent felt is made from polypropylene , wrapped in treated polypropylene fibres or non-woven fabric with an extremely strong and durable outer layer.Fast oil absorption, large oil absorption (10 to 20 times of weight), the product can be reused after being twisted and extruded. It can be burned or mixed with fuelThis material also has the advantages of flame retardant, no dust, no storage limit time.

PP-2 general purpose, suitable for high viscosity oil, PP-1 is suitable for low viscosity oil.

Packing	sheet/package	Specifications(m)	Weight	Packing size	Bulk density
Textile	15	1*2*0.05	20kg/bag	1*0.5*0.45	89kg/m3



Monitor alarm buoy, tracking buoy

Developed by Water Transportation Research Institute in ministry of Communications, it can send alarm signal at any time through mobile phone or monitoring system, and has its own power system

Work 24/7, rain or shine

Flexible placement, or mobile monitoring position

Satellite positioning, integration with wireless networks and electronic maps

Graphical monitor platform

Light, easy to operate, low cost, easy to maintain

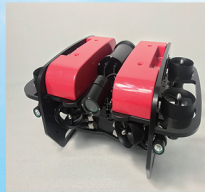
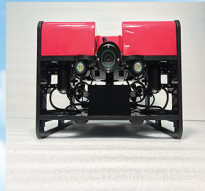
Buoy performance	GPS positioning, 10M accuracy, data transmission form maritime satellite
traffic environment	Internet and GSM mobile data communication network
terminal software	Electronic map display alarm points, positioning, tracking, track drawing and playback, SMS alarm for specific users
Adaptive temperature	Storage :-20-40°C work: -10-40°C, no freezing
power supply	12V(alarm) working time > 240H 24V(tracking) working time > 145H rechargeable type
Size	Outside diameter OD 400 mm
Weight	15Kg
Alarm sensitivity	Crude oil, diesel, Marine fuel oil - film thickness > 100µm
payment method	Traffic, annually



》 Underwater robot

Underwater robot is a product specially developed for underwater search and rescue, underwater salvage, underwater reconnaissance, underwater scientific research and archaeology, Marine breeding and other fields. It is suitable for ocean, lake, river and other environments.

Operating depth $\leq 100\text{m}$, maintenance-free, fully sealed deep-water oil-filled propeller, equipped with manipulator, multi-beam sonar, underwater acoustic positioning and other equipment, shore-based power supply, fixed depth hovering, directional navigation.

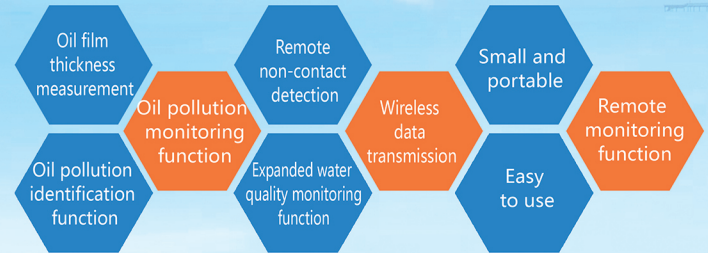


Model name	ROV5T-AJ Underwater robot	ROV8T-AJ Underwater robot
ROV main body	Operating water depth	$\leq 100\text{m}$

》 Surface oil contamination thickness gauge

A new method of laser fluorescence Raman ratio was adopted. By analyzing and calculating the fluorescence intensity generated by laser excitation with oil film covered and the water Raman signal intensity without oil film covered, oil film thickness can be obtained at different distances and the measurement range of oil film thickness is wide.

》 Product features



》 Scope of application

Lakes and rivers oil pollution monitoring

Sea water oil spill monitoring

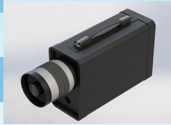
Domestic sewage oil pollution monitoring

Industrial waste water oil pollution monitoring

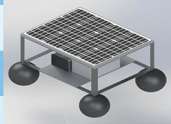
Ship oil leakage monitoring

Technical index

Index	performance index
detection range	0-500m (customized)
Oil film thickness	1 μ m-30mm (Related to oil species)
Thickness accuracy	<10%
Identification of oil	optional
optical scanning	$\pm 30^\circ$ (optional)
spectral region	400-800nm
spectral resolution	2-3nm
measuring time	2S
data transmission	WiFi; GPRS; 4G
monitor platform	Mobile phones; PC
Other parameters	COD,TOC,CDOM, chlorophyll, turbidity, etc.
monitoring data	Save 15 days
power supply	External power supply; Solar cell
supply voltage	12V
supply power	20W (portable)
working hours	24 h/day



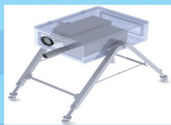
(a) Portable



(b) Floating



(c) drone



(d) Remote controlled

Activities we have participated in

