# 2016 CATALOG







ENVIRONMENTAL SERVICES. INC.



ENVIRONMENTAL SERVICES, INC.

The Best Built to Last





# ENVIRONMENTAL SERVICES, INC.

No one knows more about the treatment of wastewater and the protection of the environment than the technical and developmental team at **redFox® Environmental**.

**redFox®** Environmental was the original pioneer company in the development of packaged sewage treatment systems. **redFox®** Environmental was also instrumental in the development of the MSD federal regulations for the United States Coast Guard back in the mid 1970's. **redFox®** Environmental is the elite manufacturer of wastewater treatment systems.

### **MISSION STATEMENT**

- To meet the needs of our customers with the highest standards
- Provide customers with reliable, high-quality products and services at a reasonable price
- To provide our employees with a safe and healthy work place where each has an equal opportunity to succeed
- To use teamwork that provides our customers with quality products and services

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## redFox® Conventional Units

## **Land Based & Fixed Offshore Platform Sewage Units USCG Certified Type II MSD**



The Conventional Series Sewage Unit is specifically designed for fixed offshore platforms and land based installations. Using the extended aeration process, the unit is portable and easy to install and operate. The structure and components of the *redFox*® units are built for a 20-year service life in the harshest conditions. Some of the first units we ever built are still in operation today.

### **Applications:**

- Facilities Fixed & Temporary
- Fixed Offshore Inshore **Platforms**
- Remote Locations

### **Three Chamber Process**

**Aeration:** Supports naturally occurring bacteria that eliminates the waste.

Clarification: Causes the separation of the bacteria sludge from the treated water.

**Disinfection:** Eliminates the presence of any living bacteria before discharge of the effluent into the environment.

### **Standard Marine Sanitation Device offers these benefits:**

- Capacity: 100 to 20,000 GPD
- From 2 to 666 Persons
- USCG Certified Sewage Treatment Systems
- Offered in standard configuration or customized to meet our customers specifications and space limitations
- Low maintenance time and Operational Costs -Very few moving parts and requirements for maintenance. If maintenance or repairs become necess are required
- Low power/utility consumption
- No odor
- Utilizes common household bleach for disinfection
- Reasonably priced
- Operates with fresh or saltwater

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sary, no special tools
3

<i>redFox</i> ® Model Offshore Platforms	Persons / Black Water	Persons / Black & Gray Water
RF-200-C	10	4
RF-350-C	18	7
RF-500-C	25	10
RF-750-C	38	15
RF-1000-C	50	20
RF-1500-C	75	30
RF-2000-C	100	40
RF-2500-C	125	50
RF-3000-C	150	60
RF-3500-C	175	70
RF-4000-C	200	80
RF-4500-C	225	90
RF-5000-C	250	100
RF-5500-C	275	110
RF-6000-C	300	120
RF-6500-C	325	130
RF-7000-C	350	140
RF-7500-C	375	150
RF-9000-C	450	180
RF-12000-C	600	240

*Designed to meet typical land discharge applications. Your discharge limits may
vary. Please call RedFox for sizing requirements. Larger models are available.

redFox® Model Land Applications*	Persons / Black Water	Persons / Black & Gray Water
RF-200-C	6	3
RF-350-C	10	5
RF-500-C	15	8
RF-750-C	22	11
RF-1000-C	29	15
RF-1500-C	44	22
RF-2000-C	58	29
RF-2500-C	73	36
RF-3000-C	87	43
RF-3500-C	100	50
RF-4000-C	116	58
RF-4500-C	129	65
RF-5000-C	143	72
RF-5500-C	157	79
RF-6000-C	172	86
RF-6500-C	186	93
RF-7000-C	200	100
RF-7500-C	214	107
RF-9000-C	257	126
RF-12000-C	343	172
RF-15000-C	500	215
RF-20000-C	- S 176Y	415avy/A.*

## redFox® Marine Series (Fiberglass) Units

The **redFox**® Marine series clarifier operates under head pressure that ensures proper separation and solids settling. The results are a very clean water discharge quality.

Our competitors utilize an open style clarifier that is susceptible to problems caused by movement. Solids do not separate or settle properly. This will negatively affect the discharge water quality.

redFox® Model	Persons / Black Water	Persons / Black & Gray Water
RF-200-M-FG	10	4
RF-350-M-FG	18	7
RF-500-M-FG	25	10
RF-750-M-FG	38	15
RF-1000-M-FG	50	20
RF-1500-M-FG	75	30
RF-2000-M-FG	100	40

### **BENEFITS:**

### Capacities:

200 GPD To 2000 GPD Crew sizes from 4 To 100

Fiberglass will not corrode - no coatings/paint

Layered to 1/4 to 1/2 thickness

**Two Tank Configuration** - for installations that have limited installation space.

Low Maintenance Time and operational costs very few moving parts and requirements for maintenance. If maintenance or repairs become necessary, no special tools are required.

**Low Power/Utility Consumption** 

No odors

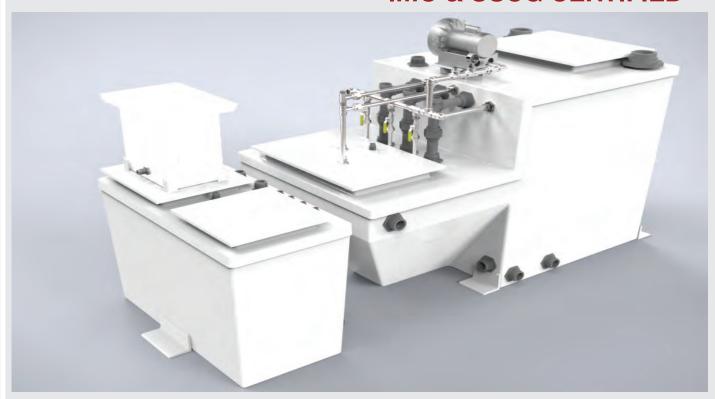
Utilizes common household bleach for disinfection. Operates with fresh or saltwater







### **IMO & USCG CERTIFIED**



The *redFox*<sup>®</sup> Marine series units are Bureau Veritas certified for IMO Resolution **MEPC.227(64)**. This resolution applies to all sewage treatment systems installed after January 1, 2016. The *redFox*<sup>®</sup> Marine series is designed, manufactured, tested and certified to meet or exceed **MEPC.227(64)** effluent standards.

## redFox® Marine Series (Metal) Units

## for Marine Vessels & Offshore Platforms that require IMO approval

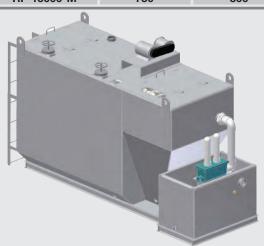








redFox® Model Offshore Platforms	Persons / Black Water	Persons / Black & Gray Water
RF-100M	5	2
RF-200-M	10	4
RF-350-M	15	7
RF-500-M	25	10
RF-750-M	35	15
RF-1000-M	50	20
RF-1500-M	75	30
RF-2000-M	100	40
RF-2500-M	125	50
RF-3000-M	150	60
RF-3500-M	175	70
RF-4000-M	200	80
RF-4500-M	225	90
RF-5000-M	250	100
RF-5500-M	275	110
RF-6000-M	300	120
RF-7500-M	375	150
RF-8000-M	400	160
RF-8500-M	425	170
RF-9000-M	450	180
RF-12000-M	600	240
RF-15000-M	750	300



The redFox® Environmental Marine Series Units are Bureau Veritas certified for IMO Resolution MEPC.227(64). The IMO Marine Environmental Protection Committee resolution applies to all sewage treatment systems installed onboard on or after January 1, 2016. The Marine Model is designed, manufactured and tested to meet or exceed MEPC.227(64) effluent standards.

This wastewater treatment technology has been utilized by **redFox**<sup>®</sup> for over 40 years.

### **Unique Design**

The redFox® Marine series clarifier operates under a fluid head pressure allowing flocculation and settling solids in the clarification chamber to occur even when the vessel is in motion. The clarifier chamber is totally enclosed and between 400 and 600 mm lower than the waterline in the aeration chamber.

This ensures the water discharge quality is superior to all of our competitors. Our competitors utilize an open style clarifier and are susceptible to problems caused by vibration and rolling seas. Solids do not settle properly and will negatively affect the discharge water quality.

#### Standard Marine Sanitation Device offers these benefits:

- Capacity: 100 to 15,000 GPD
- Crew sizes from 2 to 750
- USCG/IMO Certified Sewage Treatment Systems
- Offered in standard configuration or customized to meet our customers specifications and space limitations
- Low maintenance time and operational costs -Very few moving parts and requirements for maintenance. If maintenance or repairs become necessary, no special tools are required
- Low power/utility consumption
- No odor
- Utilizes common household bleach for disinfection
- Reasonably priced
- Operates with fresh or saltwater

## redFox® Fox-Pac® Series Units

## **Marine Vessels & Offshore Platforms** USCG Certified Type II MSD



Persons /

**Black Water** 

3

10

38

50

75

100

& Gray Water

10

15

20

The *FoxPac®* Series is designed primarily for motor vessels that have limited space and weight capacity for a sewage processing system. The FoxPac® Series unit is efficient, low maintenance and provides a trouble free waste disposal solution in compliance with United States Coast Guard regulations. (USCG certified Type II MSD).

This wastewater treatment technology has been utilized by redFox® for over forty years. The **FoxPac®** Series is smaller than our marine units. In order to produce this scaled down version, retention time was reduced and the gravity separation process was combined with a highrate biological aerobic filtration process with two treatment tanks.

#### The FoxPac® offers these benefits:

- Capacity: 50 2,500 GPD
- Crew sizes from 1 to 125
- No odor
- USCG Certified Sewage Treatment Systems
- Utilizes common household bleach for disinfection

Low power/utility consumption

- Offered in standard configuration or customized to meet our customers specifications and space limitations
- Reasonably priced
- Operates with fresh or saltwater
- Low maintenance time and operational costs Very few moving parts and requirements for maintenance. If maintenance or repairs become necessary, no special tools are required

# Marine Sewage Units Fox-Pac® Fiberglass Series



Model

RF-50-FP **RF-200-FP** 

RF-350-FP

RF-500-FP

RF-750-FP

RF-1000-FP

RF-1500-FP

RF-2000-FP

RF-2500-FP

### **Marine Vessels & Offshore Platforms USCG Certified Type II MSD**

The new FoxPac® Fiberglass Series is ideally suited for small vessel applications for the marine and pleasure craft industry. It follows the same proven process as the original **FoxPac®**, gravity separation process with biological aerobic filtration. The only difference is the unit is fabricated out of fiberglass instead of metal.

### The FoxPac® Fiberglass Series offers these benefits:

- Capacity: 50 350 GPD
- Crew sizes from 1 to 18
- **USCG** Certified Sewage Treatment Systems
- Offered in standard configuration to meet our customers specifications and space limitations
- Low power/utility consumption
- No odor
- Utilizes common household bleach for disinfection
- Reasonably priced
- Operates with fresh or saltwater
- Low maintenance time and operational costs Very few moving parts and requirements for maintanance. If maintanance or repairs become nece



<i>redFox®</i> Model	Persons / Black Water	Persons / Black & Gray Water
RF-50-FP	3	1
RF-200-FP	10	4
RF-350-FP	18	7

# redFox® Land Drilling Rig/Camp Units

### **Sewage Treatment Packages**

redFox® Environmental Services, Inc. specializes in manufacturing land drilling rig /camp sewage treatment packages. We provide complete treatment packages for all of the wastewater to ensure your site complies with local, regional and country discharge regulations. Our standard units can be adapted for high or low temperature locations.

### A Typical Package Includes The Following:

- Sewage Treatment Unit For The Rig Site and Camp Sites
- Lift Stations / Tank Feeds the Wastewater from Ground Level to the Inlet of the Treatment Unit
- Grease Trap for the Kitchen Drain Line to Remove Oil from the Wastewater Stream

### Unique Land Drilling Rig / Camp Package Features:

- Structural Skid Base w/Tailboard Loading System
- Extreme Temp Blower Motor with Rotary Lobe Blower Belt Drive Assembly
- Additional Stiffeners and Piping Supports Installed for Transportation in Poor Road Conditions
- 316 Stainless Steel Air Header Piping
- All Control Panels Wiring Configured for Plug N Use, Eliminates Incorrect Motor Rotation
- Lift Station Skids Integrated on the Redfox Treatment Unit Skid for Ease of Transport
- Connection Piping Provided and Stored on the Treatment Plant Skid
- Optional Configurations for Temperatures -40F to 136F

\*Discharge water quality varies from country to country. All of our quotes are based on WHO discharge limits. Verification of location specific discharge limits are to

## redFox® Vacuum (VCHT) Systems **Inline & Collection Holding Systems**

redFox® VHCT systems are made with proven technology and the highest quality components.

redFox® VHCT systems are low maintenance and operator friendly.

redFox® VHCT systems are flexible and can be designed in many different variations. The most popular models are eductor systems and vacuumarator systems.

**redFox®** VHCT systems can be stand alone or integrated into the sewage treatment tank. When integrated with the sewage treatment system, the system is enhanced and in some cases it will allow for a smaller treatment system.

redFox® engineering department can provide custom designed tanks for the VCHT system to fit the customers design and space requirement

#### redFox® VCHT systems are advantageous by design...

- High velocity discharge prevents line clogging
- Small diameter collection piping (1 ¼" to 4")
  - Reduces weight, installation & maintenance costs
- Ability to collect wastewater in situations where the water must go up to accommodate piping constraints
- Conserves water consumption for installations with limited water supply

### **TOUGH ENOUGH FOR** THE US NAVY

CHT for T-AKE Class Vessel



## redFox® Macerator & Grinder Units

Grinder & Macerator tanks are commonly used to transport and reduce the particulate size of the solids in wastewater flows.

These tanks can be used to lift the wastewater stream to the inlet of our **redFox**® units or reduce the size of the particulate to send to the sea.

**redFox**® Grinder Tanks consist of the pump, a tank, and a control panel. A cutting mechanism macerates waste and grinds the sewage. The pump is controlled by a level float sensor on demand.

Options include: duplex pumps and explosion proof electrical configuration.

### **Typical Features:**

- Control Panel for Simplex Pump Operation
- H/O/A Level Control
- Skid Mounted with Lifting Lugs (macerates to ¼"solid or less)
- External or Internal Mounted Pumps
- Submersible Sewage Handling Pump
- Simplex or Duplex Configurations







RedFox also offers customized in-line macerators that are installed directly to the sewage header and operate continuously even when there is no water flow. Please email us for more information.

The new **waterFox®** macerator is designed for the offshore platform which does not require the sewage treatment unit. Regulations specify that waste solids must be no more than ½" in size.

The **waterFox**® macerator operates using high pressure water from the platform fire pump or other source to hydraulically rip the solids apart to 1/4 inch or smaller. Simply connect the **waterFox**® inline to the existing sewage line and the unit is ready to operate.

Note: This macerator requires a continuous sea water feed provided by the platform.

#### waterFox® features:

- Single frame construction
- Schedule 80 piping
- Oversized back plates
- Patent nozzles
- No moving parts
- No electricity required
- No maintenance needed

Tech Data	
Sewage Water Flow:	Gravity In / Gravity Out
Feed Water Flow:	Continuous
Feed Water Type:	Fresh or Salt Water
Minimum Feed Water Pressure:	30 PSI
Maximum Feed Water Pressure:	90 PSI
Sewage Inlet / Outlet Size:	4"
Feed Water Inlet Size	3/4"
Nozzle Size:	3/4"
Dimensions:	4' 10"   1' 7" \\%'-

# redFox® "Cajun Crusher" Compactor

**Trash Compactors** 

### **Top Performance Under Harsh Conditions**

The **redFox**<sup>®</sup> Environmental Cajun Crusher<sup>™</sup> was specifically engineered to perform under the rigorous demands placed on equipment operating in the marine industry. High performance levels and product dependability demanded of all *redFox*® Environmental products are built into every model. The redFox® Environmental "Cajun Crusher" line is designed to deliver trouble-free service, with continuous operation and normal routine maintenance. With an estimated life expectancy of 15 years, the **redFox**® "Cajun Crusher" will also deliver true economic value.

### Simple to Operate

You won't have to send your personnel to school to learn to operate the **redFox**® "Cajun Crusher". The controls are easily accessible in a closeable panel, and gives the operator total control from one station.

### Safety Is Extremely Important

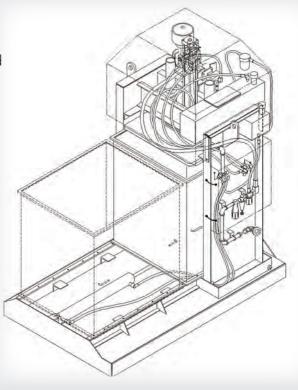
Operator safety was given a high priority in the development of the *redFox*<sup>®</sup> "Cajun Crusher" product line. Structurally, all models of the *redFox*<sup>®</sup> "Cajun Crusher" are fabricated to withstand heavy loads and constant use without failure. Wiring harnesses and all electrical, pneumatic and hydraulic components are routed to afford maximum safety to personnel as well as provide efficient performance. Controls are housed in explosionproof protectors where needed. The vast majority of our units are air operated using techniques that deliver foolproof operation.

### **Specifications**

The redFox® "Cajun Crusher" is available in (3) models: 12 ft3, 30 ft3, and 40 ft3. All models are offered with the options of electric over hydraulic or pneumatic over hydraulic and have the capability of crushing 55 gallon steel drums.

12 ft3 Model	30 ft3 Model	40 ft3 Model
Length: 4' 0"	Length: 7' 0"	Length: 7' 10 1/2"
Width: 3' 10"	Width: 4' 6"	Width: 5' 2"
Height: 7' 1"	Height: 8' 3"	Height: 8' 9"
Weight: 2000 lbs.	Weight: 3800 lbs.	Weight: 4000 lbs.





Controls	Options	Welding Procedures	Accessories
Manual	Air Over Hydraulic or Electric Over Hydraulic	Built to AWS D.1.1 Standards Utilizing Continuous Seal Welds	Trash Bin moves in/out hydraulically (30 and 40 ft. models)

## redFox® Low Volume Flush Toilets

### **Self Contained Compact Toilets - Only 1 Gallon Per Flush**

**Self Contained Toilets...Ideal for Tight Spaces** 

**redFox**® Environmental is proud to offer a compact line of marine toilets. The **redFox**® marine toilet is a self-contained toilet that's ideal for fitting into tight spots where conventional toilets can't fit.

### **Product Description**

This modern shaped self-contained toilet is very water efficient, using just one gallon of water per flush. It was designed with several purposes in mind such as limited space, green conscious users that want to save water, and for people with physical limitations requiring easy access to a toilet.



Dimension: H 15 ¾" x W 14 ½" x D 18 ¼"

H 40 cm x W 37 cm x D 46 cm

Electrical Supply: 110-115V; 60Hz; Max Amperage: 7.2 amps; 0.3 HP

Discharge: Pumps vertically to 9 ft. (3 m) Horizontally to 100 ft. (33 m)



# redFox® Cleaning Products

### Janitorial - Supplemental - Personal

The following is a list of approved products that have been manufactured within the biological and chemical parameters required to not upset the delicate balance of your *redFox®* Environmental Wastewater Treatment System. These products are biologically and chemically balanced so as not to harm the environment.

#### **Consumables Products**

- RedFox Chlorine Tablets
- RedFox Bacteria Tablets
- RedFox Bacteria Concentrate
- RedFox M12 Nutrient Feed
- RedFox Chlorine Test Kit
- RedFox Test Kit



#### **Janitorial Cleaning Products**

- RedFox All Purpose Bathroom Cleaner
- RedFox Dishwashing Powder
- RedFox Laundry Detergent
- RedFox Multi-Purpose Heavy Duty Cleaner/Degreaser
- RedFox Heavy Duty Degreaser Concentrated

## redFox® Environmental Services

### **Engineering & Project Management**

redFox® Environmental has over forty years of experience working with customers worldwide in the marine, oil and gas, and industrial sectors to meet manufacturing needs.

We are committed to delivering superior project management, engineering design and project services.

redFox® Environmental is focused on delivering results and our strength can be found in our people. We are experts with extensive backgrounds in finding solutions to all problems through team work. We work with you to meet agreed goals and deliverables.

redFox® Environmental uses cutting edge software to engineer our systems.

- Auto Cad 2013
- Auto Desk Inventor 2010
- Microsoft Office Project 2013



## Field Engineering & Services

Inspections Commissioning Repair



### We provide the following services:

- EPA Offshore Platform Inspections
- System installation Assistance
- Commissioning and acceptance testing
- Operational and maintenance support
- On-the-job training
- Contract engineering and technical support
- Sustaining engineering services
- Repairs of all manufactured units
- Field modifications and updates
- Customer asset management

redFox® Environmental has the best field engineering and service personnel available





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