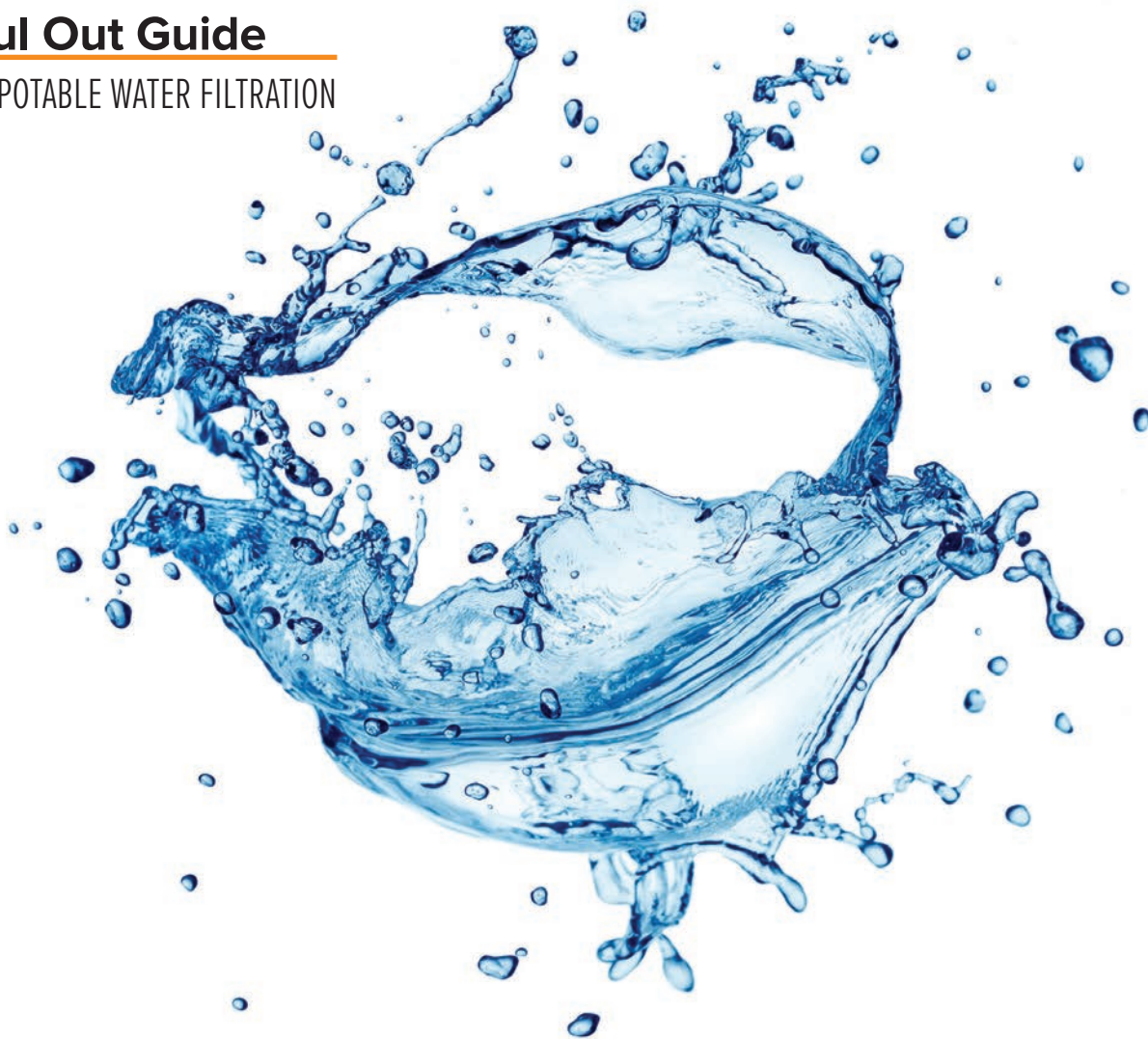


A white and blue motorboat is being hoisted by a yellow crane at a boatyard. The boat is suspended in the air, and the crane's cables are visible. The background shows a body of water and a clear blue sky.

A SOUTHERN BOATING MAGAZINE SUPPLEMENT

# HAUL OUT GUIDE

Potable water filtration .....	60
Discharge water management .....	64
Interior storage solutions .....	66
Weight reduction for better performance .....	68
Fire suppression systems .....	72
Windlass and anchor advice .....	74



# DRINK UP: POTABLE WATER FILTRATION

By Zuzana Prochazka

**T**ank water—ugh. Anyone who's ever made a cup of tea from water that has sat in a tank for months or that has been overtreated with chlorine will know the value of good-tasting water. Taste aside, some water is full of contaminants and is downright unsafe to drink, so installation and servicing of a potable water filtration system should be near the top of your haul-out project list this spring.

Beyond the Brita and the dedicated under-sink filters, you may need the assistance of a boatyard to install and/or service water filtration systems.

### Why filter?

Filters improve the taste, odor and clarity of tank and local water sources. Some systems can do even more by removing 99.99 percent of common waterborne bacteria and parasitic cysts. The simplest is the inline system, and it's great if you want filtered water for more than just drinking (washing produce, for example) due to a faster flow rate than a separate or dedicated system.

### Inline filter brands

Yacht-Mate, Shurflow and General Ecology's Seagull systems are excellent for inline filtration. The Seagull IV protects



against chemical and aesthetic contaminants, including herbicides, pesticides, chlorine and foul tastes, and odors, and it can work with your existing faucet so there are no new holes to cut.

3M's AP902/AP903 single cartridge water filtration system helps provide consistent high-quality water for whole boat filtration at flow rates of up to 20 gallons per minute (gpm). That means you can brush your teeth or wash your hair in filtered water.

### What else will help water purity aboard?

A dockside pre-filtration system will help with city water that's already potable but, perhaps, not of the best quality. General Ecology's system, for example, removes particulates like sand, dirt, scale, and chlorine and will help prevent corrosion of aluminum water tanks and extend the life of inline purifier cartridges already installed. It doesn't remove viruses or bacteria, but it may help minimize water spots, which makes the boat easier to keep clean.

Reverse osmosis or watermaker water is perhaps the purest you can imbibe. Of course, that depends on the quality of the source water and the shape of your overall system, which is why it's important to have the yard service your system at least annually.

Full-size, high-quality watermakers, such as those from Blue Water Desalination, Dometic, FCI, HRO, Sea Recovery, Village Marine, or Watermakers, Inc. may require an upgrade in the vessel's power capacity (battery banks or genset). Their worth will become evident, however, once you're off shore

*Under sink water filtration system*



## THE BEST STOP ON THE WATER



*The Jarrett Bay service yard is where tradition, innovation, and expertise come together to perfect yachts of all types to award-winning standards.*



The 175 acre Jarrett Bay Marine Park in Beaufort, North Carolina is one of the largest and most comprehensive boating service centers in the U.S.



- Full service for vessels up to 135'
- 220 & two 75 ton Travel Lifts
- Seasonal services & storage
- 137,000 sq. ft. of repair facilities
- Climate controlled paint facility
- In-water slips & on-site fuel



  
**JARRETT BAY**  
BOATWORKS

[JARRETTBAY.COM/SERVICE](http://JARRETTBAY.COM/SERVICE)

# Haul Out Guide



## POTABLE WATER FILTRATION

(continued)



*Dometic  
Sea Xchange  
SE Series  
watermaker*

or in the Caribbean where the alternative is poor-quality water piped through a local hose or jerry cans lugged in the dinghy.

### Inline filtration and reverse osmosis considerations:

► **Expense:** Filtration isn't cheap. A small Seagull system can initially cost \$500 with cartridges running \$100 (good for 1,000 gallons or so). Also, boatyard labor may be

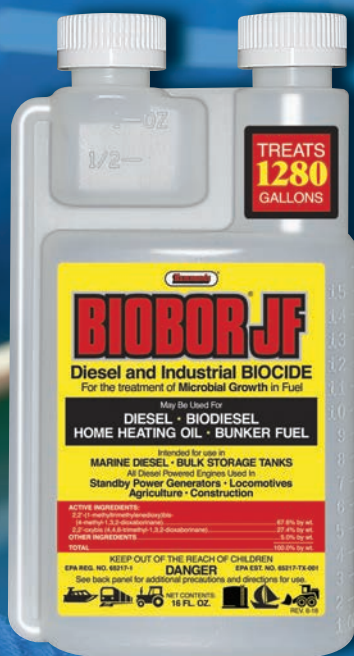
required for installation and servicing of inline filters as well as watermakers.

► **Availability:** Not all filters and cartridges are available everywhere, so if you're cruising, you may not be able to service your system in other countries. Bring spares.

► **Installation and maintenance:** Some inline filters need to be fairly close to the faucet or mounted vertically, which may be a problem in space-constricted areas. Make sure you can access the filter to service it, and choose a clear casing so you can inspect it visually without opening it.

Watermakers can take up significant space, so work with the yard on which brands are modular and can be installed in multiple locations aboard. Have a boatyard technician walk you through the care and maintenance of the watermaker, and never make water near a muddy or industrial waterfront—you'll destroy those filters in an afternoon.

Any water you make or clean will remain only as good as the tanks and plumbing through which it moves, so be sure to have the boatyard inspect every part of the path and polish those water tanks just like the fuel ones. Growth inside tanks, especially plastic ones, will provide a taste that's best avoided in that cup of tea you just made. 🌊



# BIOBOR-JF<sup>®</sup>

the *Standard* in...

## DIESEL PROTECTION

for over 50 years...SINCE 1965

The  
**OEM  
APPROVED**  
Fuel Treatment

- ✓ The most widely-used **diesel biocide** and **lubricity treatment** in the marine industry
- ✓ **OEM Approved**—specifically recommended by major diesel engine manufacturers themselves  
**WHY TRUST AN ADDITIVE THAT ISN'T?**
- ✓ Trusted to **prevent** microbial growth in commercial and military aviation jet fuel for over 50 years
- ✓ The most **cost-effective** solution for the two most common issues in ULSD

Available Online or at...  
**West Marine** **amazon.com** **BOW**  
BOAT OWNERS WAREHOUSE  
Defender, Lewis Marine, Budget Marine

and other fine suppliers.

**www.biobor.com**

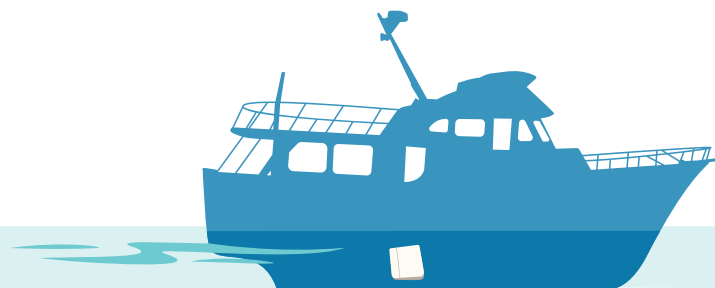
HFA-892



*"The real sea trial was our 1500 mile trip from Stuart, FL to East Boothbay, MA. It knocked beam seas down tremendously (99-100%). It took 90% of the pitching motion out of head seas and 90% of the yawing motion out of the following seas." – Defever 53*

*Faster than any of the hydraulic stabilizers. No oil leaks." – Hatteras 48 LRC*

*"The system is unmatched both in design and performance." – Custom 107*



# Smooth the waves

with the only air-operated stabilizers in the world.



Are you looking for superior stabilization, patented technology, one that fits in limited space, comes with ease of installation AND no hull modifications/reinforcements?

If YES, then Gyro-Gale is for YOU. Our stabilizers are proven to be the fastest and most efficient operating system in the industry, stopping the roll before it begins — even in those following, quartering and beam seas.

- At rest or underway, roll is reduced by up to 95%
- Easy maintenance (filter change every 2 yrs/400 hrs)
- Intelligent automated stabilization
- Non-flammable, no messy hydraulics
- Vessels ranging from 30 ft. - 160 ft.
- MONEY BACK GUARANTEE – THAT'S HOW CONFIDENT WE ARE!



**GyroGale.com**  
Stuart, FL USA  
(772) 283-1711



# GONE OVERBOARD: DISCHARGE WATER MANAGEMENT

By Susan Walker

**M**ost boaters are keenly aware of restrictions on what can and cannot be thrown overboard and where. But many don't think much about what the boat discharges into the water whether gray, black or from the bilge. Perhaps your annual visit to the boatyard could include the filtration or treatment of one or more of these to keep our oceans and waterways safe and clean.

First, let's look at gray water, which comes from the galley and shower sump. Unlike commercial vessels, recreational boats aren't monitored or regulated for gray water discharge, which puts soap, shampoo, conditioner, lotion, dish detergent, shaving cream, grease, toothpaste, and phosphates into the environment. Although boaters don't need to deal with

it, there are solutions to address the issue. For example, a Wavebrite filter cleans gray water prior to discharge without the need for a gray-water holding tank. A filter, intelligent flow manifold and pump are installed between a boat's supply drains and the overboard skin fitting. If your boatyard works with large or commercial vessels, they'll be able to guide you on the choice of solutions.

Oil, gasoline and lubricants can collect in the bilge of any size boat. These materials then mix with water and discharge overboard through the bilge pump, and that makes for a toxic environment. The best solution is to keep your engine well tuned, check fuel lines and hoses regularly for leaks and drips and use an oil-absorbent pad below machinery. To go





one step further, you can install an oil/water separator into the bilge discharge line. If you have a large boat, ask your yard for guidance on systems from makers such as Ingersoll Rand or Skimoil.

Finally, there's the issue of black water or sewage disposal. According to the U.S. Environmental Protection Agency (EPA), the law on the discharge of black water goes like this: "All boats operating in U.S. waters with permanently installed toilets are required by federal law to have on board a Marine Sanitation Device (MSD) that either stores human waste until it can be transferred ashore, or reduces the coliform count to such low levels that discharged sewage poses no public health hazard." Recreational vessels 65 feet and smaller may use a Type I, II or III MSD. Type I and II are "flow-through" systems that utilize a holding tank for a chemical or biological-based treatment prior to discharge, and Type III utilizes a holding tank or similar device that only allows for pump-out.

Of course, living with holding tanks can be a stinky affair that marine companies have tackled in different ways. One approach is to pump air into the tank to promote the growth of aerobic bacteria that consumes the odor-producing anaerobic bacteria. Groco's SweetTank uses a three-watt pump that injects air into the bottom of the holding tank to lower

odor. It doesn't treat the sewage for discharge, but it does make it easier to live with until you get three miles off shore or to a shore-based pump-out.

Raritan addressed the problem with their Electro Scan, a U.S.C.G.-approved Type I MSD that uses electrodes to convert saltwater into a bactericide. Without the use of chemicals, the treated water meets EPA standards for overboard discharge. This 12-volt system has a convenient touchpad interface, may be plumbed to one or two heads and can be used with electric or manual toilets.

No matter what kind, discharge water is not fun to work with, and the solutions may not be readily available at the chandlery. That's where your boatyard comes in. Not only will it be better versed in various alternatives, it will take on the dirty work of plumbing and installing so you don't have to worry about what your boat is slyly shedding into our waters. 🐟



Raritan's  
Electro  
Scan  
system

# ON BOARD, ON GUARD!

MA Series  
Extinguisher

Protect passengers and crew with our advanced fire suppression and gas & fire detection systems.

CMD5  
Carbon Monoxide Detection Alarm

G-1CB  
Gas Detection



12/24 VDC Hard-Wired or Battery-Powered

**FIREBOY® - XINTEX®**  
A Darley Company  
[fireboy-xintex.com](http://fireboy-xintex.com)

# STOW AWAY: CREATIVE STORAGE SOLUTIONS

By L.N. Evans

Storage space is at a premium on a boat, and your annual haul out is an ideal time to add new storage solutions or customize existing areas. If your boat's interior seating is well past its lifespan, consider utilizing hinged seat cushions that lift up for customized storage areas beneath. Just be careful not to fill up your newfound storage with items you don't really need. (See the next article in this section, "Lose the Weight," on page 68.)



The first step is to evaluate your storage needs based on how you typically use your boat. Avid anglers, for example, may want customized storage for their rods, reels, lures, assorted tackle, and anything else they prefer to store aboard rather than carting it to and from the car each fishing trip.

### Go shallow


If all you need is a few inches of height for items like fishing rods, consider a pull-out drawer at the base of your settee or under the dining area (see photo at left), which offers large width and depth. Another shallow-height option is in a stateroom with stacked bunks. Ask your yard to raise the upper bunk several inches and add hydraulic lift supports and hinges to easily access a 3 to 4-inch-high storage space underneath.

### Small but useful

With a little ingenuity, even the smallest areas can be used to store items that would otherwise be cluttering the common areas. Using store-bought supplies (3M Command plastic hooks, small suction cups, Velcro, see-through plastic organizers, etc.) consider how best to use these underutilized spaces:

- ▶ Under center console seat (strap mesh pouches to hold sunscreen)
- ▶ Plastic organizer on the inside of cupboard doors for chargers and cords
- ▶ On the walls and from the ceiling

### In plain sight

Sometimes, additional storage space is right under your nose, or under the table. If your dining table or salon side tables are free-standing, swap out the solid base or legs for a custom hollow base that has drawers or shelves to store glassware, liquor or wine; you're limited only by your imagination. If your boat has steps that haven't been designed to utilize as storage space, doing so may only require a simple modification. Ask your yard to determine if this is an option. 

### PACK LIGHT!

When you invite non-boating guests for a day or weekend, consider the size of your boat and available room to store their bags and gear. Make sure you inform them of all the items they should not bring.



PHOTO: VIKING YACHT COMPANY





INTRODUCING



**RIVERBEND**  
AT LMC

South Florida's newest  
and cleanest boatyard,  
at Lauderdale Marine  
Center offers:

- 75 ton lift
- 90 spaces for vessels up to 80'
- Designated Hurricane Safe Marina
- Zero hidden fees or mark-ups
- Access to 60+ on-site and 150+  
off-site certified contractors – you  
pick the best team for your project

Visit **LauderdaleMarineCenter.com**  
or call **954-713-0333** to reserve  
a slip today.

**2029 SW 20th St.**  
**Fort Lauderdale, FL 33315**



# LOSE THE WEIGHT: LIGHTER BOAT = FATTER WALLET

By Frank Lanier

Once your boat is back in the water, don't undo the good your yard has done by carrying around unnecessary weight in your storage compartments. Do some spring cleaning, empty out the closets and compartments, and get rid of those extra pounds. Here's the skinny on tips to help both your wallet and boat performance.

### What's the big deal over a few extra pounds?

Your body can't function at peak efficiency when lugging around a keg instead of six-pack abs, and your boat is no different. While the effects of excess weight are bad enough for full displacement hulls, the negative effects are even worse for faster boats with lighter, planing hulls. Boats are designed to perform their best with a specific payload in mind. An overweight boat rides low on her lines. This increases the wetted surface of the hull which, in turn, increases friction between the hull and water and reduces speed and fuel efficiency.

### Lighten your load.

If it's time to put your boat on a diet, start reducing weight by going through all cabinets, lockers and storage compartments to see what items you really need on board. The goal here is to ditch the excess weight while maintaining acceptable levels of equipment to maintain safety and comfort. Be realistic, and consider your near future boating plans when reviewing items to keep or purge.

There's no better place to start your boat diet than in the galley. Sure you've got enough pots, pans and gadgets to cook

a seven course meal, but how often have you actually done so? The same thing goes for all those extra cooking supplies, canned goods and that bulk purchase 10-pound bag of sugar that was on sale. Will you actually use them anytime soon?

Books and boats just go together, but rather than maintaining a complete library on board, how about only bringing the ones you'll need for one trip and keep the rest ashore? Better yet, download them to your iPad or Kindle to save even more weight.

Items that may seem inconsequential weight-wise can add up before you know it. Do you really need two dozen towels, three changes of bed linens, five blankets, and all those throw pillows? Go through your hanging lockers and see what clothes have actually been worn in the past year, and ask yourself if you really need five sun hats.

Next up, take a hard look at your engine and boat spares as well as maintenance items. You'll want to make sure you have the prudent and proper amount of spares and tools on board, but unless you're going on an extended cruise, remove those "just in case" duplicates or stock, such as extra oil, spare hardware and rarely used tools; they can add up to significant weight savings. The same is true for routine maintenance items and cleaning supplies (paints, varnishes, shop vacs, and the like), which would be better stored in a dock box or at home until necessary.

### Tanks for the idea.

Another great place to realize some huge weight savings is your vessel's tankage.

You always want to have enough fuel on board, but if you're





# CUTWATER

DISCOVER YOUR INNER EXPLORER



## C-302 SPORT COUPE

- ♦ Twin Yamaha F300 Outboards ♦ Open Cockpit and Salon ♦ Private Stateroom and Head
- ♦ Enclosed Shower ♦ 30+ Knot Cruise Speed ♦ Double-Stepped Hull ♦ Bow Thruster
- ♦ Live Well ♦ Fish Box ♦ Full Galley ♦ Removable Grill ♦ Rocket Launchers

**CutwaterBoats.com**



**YAMAHA**

**VOLVO  
PENTA**

MADE IN USA



# Haul Out Guide



## LIGHTEN THE LOAD

(continued)

doing shorter trips, why take on a full tank of fuel and lug around the extra weight? Buy only as much fuel as needed plus a bit of reserve, and avoid the temptation to burn extra fuel because you have a full tank. It may mean more trips to the fuel dock, but you'll save money in the long run.

Employ a similar mindset when it comes to your water tanks. A gallon of water weighs more than eight pounds, so why drag around a full tank when you're only going on a day trip?

As any good plumber will tell you, "it ain't just water that rolls downhill," so what about that full holding tank? Pumping it after every trip will reduce both weight and unwanted smells.

Coolers and live wells present another opportunity. Why use 100 lbs. of ice if 50 lbs. will do, or why bring a case of sodas if you only drink four or five per trip? Keeping your live well empty unless you actually have bait seems like a

no-brainer, but you'd be amazed by what some boat owners unthinkingly do out of sheer habit.

### Balance what's left.

Once you've removed all of that excess weight, distribute the remaining weight and gear to best balance the boat. This not only improves the ride, but also saves fuel by allowing non-displacement boats to get up on a plane quicker. Don't be afraid to ask passengers to shift around to accomplish this, and, if installed, learn how to properly use trim tabs for maximum planing efficiency.

### Keep the mindset.

Like any diet, once the weight is off, it's easy to backslide and start packing it on again, especially when looking at all that empty storage space. Keep that rebound weight gain in

check by paying attention to all the stuff that tries to find its way back on board. It's also a good idea to clean out your storage lockers at the beginning of each season to get rid of stuff you really don't need. Keep the weight off, and both your boat and your wallet will thank you. 🐟



## DITCH THE PARACHUTE

While not a weight reduction issue, boats with planing hulls can also improve their fuel economy by lowering their Bimini top while running. That big, shady top may be horizontal while at the dock, but it will be angled and act like a huge parachute while underway. Dropping it when running fast on longer trips and then raising it once you reach your destination will significantly improve your boat's fuel efficiency.

# VALVTECT<sup>®</sup>

## Marine Diesel

**Better Performance, Enhanced Engine Protection.**

If you are not running a true marine formulated diesel fuel, then it's time you switch to ValvTect<sup>®</sup> Marine Diesel and immediately begin experiencing these important benefits. ValvTect<sup>®</sup> Marine Diesel Fuel is specially formulated to...

- **PROTECT:** Keeps fuel system free from bacteria and sludge.
- **OPTIMIZE:** Improves engine performance and fuel economy.\*
- **EXTEND:** Stabilizes fuel for two years or more.
- **ENHANCE:** Extra lubricity improver, water dispersant & cetane improver reduce maintenance costs and extend engine life.

When cruising beyond the ValvTect<sup>®</sup> Marine Diesel coverage area, make sure to take along performance proven ValvTect<sup>®</sup> Diesel Additives!

Visit [www.ValvTect.com](http://www.ValvTect.com) or Call (800) 728-8258

**PROTECT ■ OPTIMIZE ■ EXTEND ■ ENHANCE**

©2018 ValvTect Petroleum Products, Buffalo Grove, IL. \*Based on clean up of fuel system deposits.





**PROPFX** is an exciting and timely foul release coating that will bring about a momentous change for the marine industry and its challenges for protecting vessels exposure below the water line.

**PROPFX** is the culmination of years of research and the combination of a proprietary hybrid polysiloxane resin and patent-pending **Nano Fluid Surface Technology (NFST)**. **PROPFX** will revolutionize marine foul protection modalities and bring about a paradigm shift due to its broad scope of application and cost efficiencies.

#### Superior Features:

- Crystal clear, 100% solids, two component coating
- Zero VOCs, no solvents, no fumes and no odors
- Can be applied by all common painting processes and tools
- Required coating thickness 4 mil to max. 8 mil (100/200 microns)
- **1/3 the labor, 1/3 the cost, twice as effective as the leading brand**
- No primers or etching compounds required for bonding - 100% clearkote
- Encapsulated foul release agent cannot be rubbed or abraded off
- 2.38 times the coverage of all leading brands

**Available in kit form for DIY**

**Wholesale to the marine industry**

**EDISON WORKS, INC.**

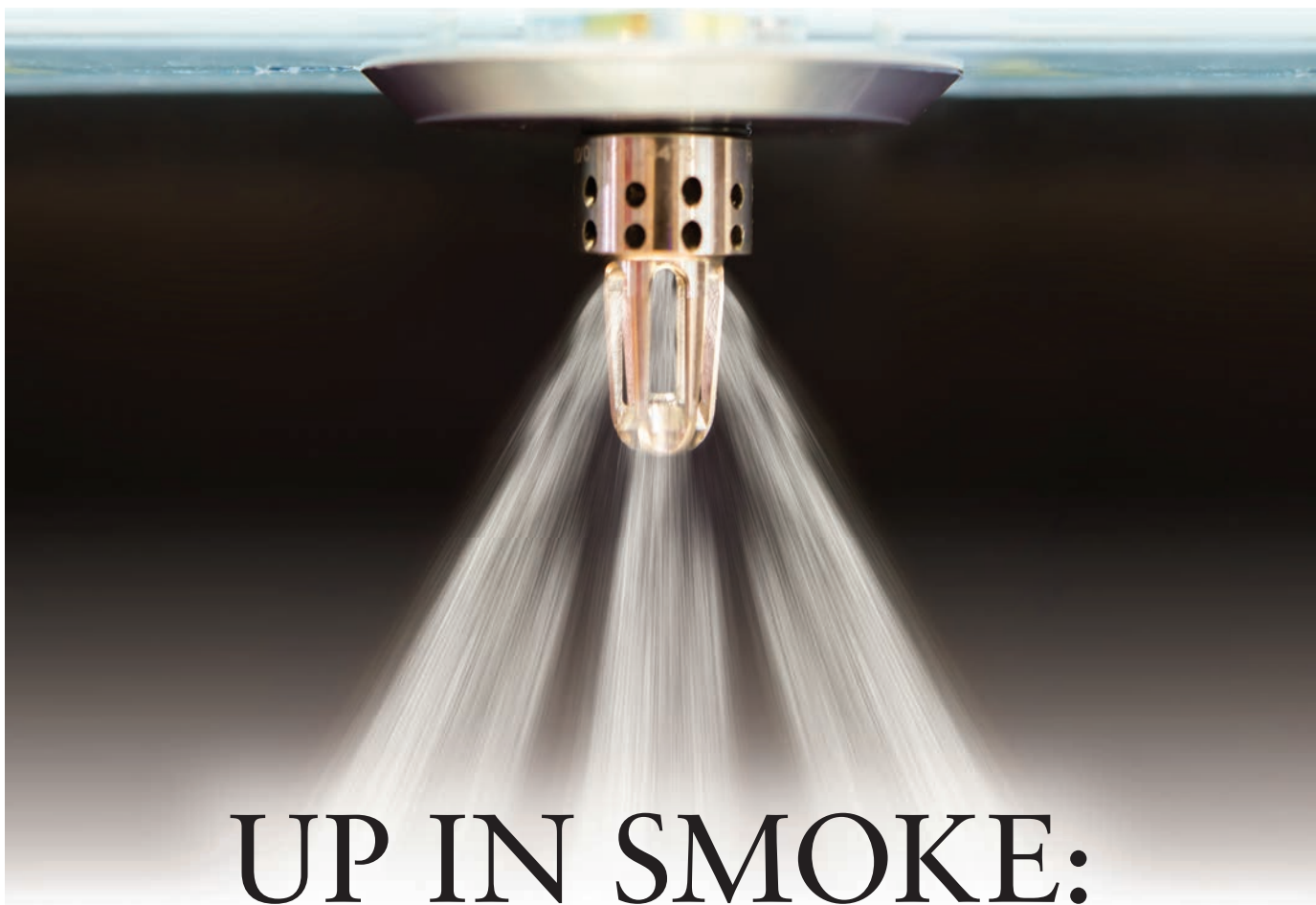
Since 1993 • Distributor

954-494-9707 • [www.clearkotesystems.com](http://www.clearkotesystems.com)

**CLEARKOTE**  
**CLEARKOTE**  
The Future in Permanent Metal Protection

**CLEARGLASS**  
**CLEARGLASS**  
The Future of Marine Glass Restoration

**GLASSKOTE**  
**GLASSKOTE**  
The Future In Durable Ceramic Coatings



# UP IN SMOKE: FIXED FIRE SUPPRESSION SYSTEMS

By Zuzana Prochazka

Other than “Man overboard!” hearing “Fire!” may be the most frightening sound aboard a vessel, especially one that is away from the dock. That’s why fire suppression systems should be on your spring commissioning list when you head back to the boatyard this year, probably even ahead of things like bottom paint and electronics upgrades.

Some estimates cite that approximately 90 percent of onboard fires start in the engine room and that more than half are caused by electrical wiring issues. A fixed fire suppression system that triggers automatically is your best bet to fight a blaze early when there’s still a good chance of keeping it contained.

Fireboy-Xintex, Sea-Fire and Kidde are well-known makers of automatic suppression equipment for recreational boating and although some are DIY, more complex iterations are best left to boatyards that are savvy in the installation and servicing of these products.

Here are five things to discuss with your project manager about pre- or custom-engineered fire suppression systems.

#### **1. Determine the space and measure the area you are trying to protect.**

Calculate your total engine room space in terms of cubic feet so that your system is sized appropriately. For example, Fireboy systems are available to protect engine rooms and machinery spaces from 25 cubic feet to 17,300 cubic feet. “Pre-engineered systems are available for up to 4,000 cubic feet and should be installed exactly per the manual instructions,” says Keith Larson, vice president of sales and marketing for Fireboy-Xintex. Many extinguisher systems are designed to automatically discharge in 10 seconds whenever the space ambient temperature reaches 175 degrees Fahrenheit, but it’s important to install a manual override, as well.

#### **2. Decide on the type of agent to be used.**

The three classes of fire are: A (wood, paper, textiles, etc.), B (flammable liquids and gases, such as gasoline, propane and oil), and C (energized electrical equipment, such as motors and appliances). For the engine room, it’s best to choose an



extinguishing agent that is effective for surface fires of all three types. Traditional fire extinguishing agents, such as water and dry vs, can cause damage to equipment, and a CO2 discharge while a person is in the engine room could be fatal. Halon was formerly the extinguishing agent of choice, but due to its ozone-depleting properties, it has fallen out of favor. A highly effective, green and safe agent is 3M's Novec 1230. Its low toxicity makes it safe for crew who may be exposed to the agent. It vaporizes rapidly and is non-conductive and non-corrosive, so delicate electronics aren't harmed, and with no water or powdery/oily residue left behind, cleanup is easy.

### 3. Determine the best location for installation.

Most agent storage tanks can be mounted horizontally or vertically, which is good because space comes at a premium in most engine rooms and also inside the protected space and/or remotely through fixed piping and nozzles. Wiring is necessary for both automatic and manual (cable) activation and is usually the most time-consuming part of the job, so a large portion of your yard bill will be in labor. Don't install the units near intake vents where drawn-in air can fuel the fire or cool the system's temperature-sensitive trigger, potentially causing a delay in discharge. Make

sure the system is readily accessible and includes ongoing maintenance, including periodic inspections and testing.

### 4. Determine necessary peripherals and legal issues.

If the system discharges under way, shut down the engine, generator and bilge blower to stop the motors from sucking in additional oxygen. Larson points out that the U.S.C.G. requires an engine shutdown module and a system status display at the helm. Also, the manufacturer-supplied bracket must be installed to meet U.S.C.G. standards, and don't forget about the required carbon monoxide and smoke detectors.

### 5. Cost

"For a 50-foot boat, expect a cost of \$2,500-3,000," says Larson. That will depend on the access to the engine room and the complexity of the system, but when you put the cost up against the loss of your boat, or worse, it becomes a small price to pay for peace of mind.

If you've ever seen the result of an onboard fire, it's a terrifying sight, and it's the strongest argument for a visit to the boatyard this spring. Put a thorough inspection of an existing system or the installation of a new one at the top of your list. Don't let your summer go up in smoke. 🐦



WORLD-CLASS NAUTICAL EQUIPMENT

**QUICKUSA**

[www.quickusa.com](http://www.quickusa.com)

810 Oregon Avenue, Ste. F - Linthicum, MD 21090 - Ph. 410-636-5991 - Fax 410-636-5995

## RMK MERRILL-STEVENS

Excellence in yacht repair and refit since 1885



Visit us to meet the new team and see our new and improved equipment. Experience the difference - honesty, integrity and quality.

- ▶ Welding & fabrication
- ▶ Painting & refinishing
- ▶ Running gear & bottom work
- ▶ Stabilizers & hydraulics
- ▶ Air conditioning & refrigeration
- ▶ Electrical & electronics
- ▶ Carpentry & joinery



**Mention this ad in Southern Boating and receive 20% off a haul/launch before Sept. 30, 2018.**

Are you a skilled marine tradesman?  
Come join our team!

881 NW 13th Ave., Miami, FL 33125  
305.324.5211  
rmkmerrill-stevens.com

## Haul Out Guide



ANCHOR AND WINDLASS REFIT

# REFIT: GROUND TACKLE

By Steve Davis



As you prepare for the change in seasons, don't forget to inspect a very important safety item—the ground tackle. “There are three safety things on board—a life jacket, fire extinguisher and anchor,” says John Lynch, COO of Anchorlift in Cape Coral, FL. Lynch advises that when inspecting the anchor (particularly at the weld points) and chain, “Look to see if any of the galvanization has been corrupted and if any rust has started to form in those areas where the galvanization has disappeared or rubbed off.”

For ground tackle that uses a combination of chain and rope, rust can form where the rope is connected to the chain because it rubs off the galvanization. Lynch suggests cutting the link attached to the splice end and to reconnect the rode using a D-connecting link. This would be the only time he recommends using a connecting link and suggests using a thread lock product, such as Loctite, on the screw pin.

Rust is the worst enemy and may initially be cosmetic. A thorough cleaning along with an anti-corrosion coating (Use a galvanizing compound spray for galvanized anchors and chain.) will provide protection but only temporarily. “Once corrosion starts, you can't stop it,” says Lynch. The application of a coating doesn't restore the anchor and chain, nor does the process return it to its original strength. If the gear shows signs of pitting or flaking of the metal, or if the links appear thinner in width, then it's time to replace it.



### The Rode

When inspecting the anchor line, look for signs of abrasion, cuts, broken or frayed yarns, variations in strand size or shape, burns, dry rot, and even rust (on nylon). Look closely at splices. "A splice should be eight to ten inches back into itself," says Lynch. He points out that the actual splice between rope and chain should be no larger than the link of the chain it's attaching to because if it's larger, it can easily jam in the windlass.

If necessary, Lynch recommends replacing the rode with either 8-strand nylon or double braid 8- to 24-plait polyester. "Three-strand nylon is inexpensive but does not work well in a windlass because it's slick, more so when wet," explains Lynch. "Eight-strand nylon has better grip because of the weave, [and] double braid is smooth to the touch, holds up longer in a marine environment and gives terrific grip when going through a gypsy."

### The Windlass

"Windlasses are very forgiving, but they are abused, and a little care pays dividends," says Jonathan Neeves, published technical writer specializing in anchoring. If you notice the rode or chain slipping through the gypsy, "Check the clutch cones to make sure they are greased properly," adds Lynch. "Check the pressure fingers that provide the pressure put on the chain and rope so it grips going through the gypsy. Those are spring loaded, and sometimes the spring can wear out."

Check the motor and gearbox exterior to make sure no corrosion is forming, check the gearbox oil and check the electrical connections. If there's corrosion, terminals are loose or wire jackets are compromised. "Fix it, don't patch it," Lynch recommends. "Replace it."

In many windlasses, "A major issue is they are commonly made from a cross section of metals, and the bolts are usually stainless with the castings aluminum," says Neeves. He suggests checking and ensuring that in the original installation, and after subsequent servicing, the stainless bolts are isolated from the alloy with some form of protection, such as Duralac.

### The Locker

A clean anchor and chain won't last long if the anchor locker isn't kept clean. "Make sure the drain hole is not blocked," says Neeves. "If the locker drain is above the locker base, make sure your chain does not sit in a puddle of water, or worse, mud. ... Some muds are anaerobic and will be acidic which will corrode the galvanizing off the chain. Wash the locker out with fresh water as often as possible as it's commonly full of salt, and if sitting in the sun, the perfect condition for accelerated corrosion."

The anchoring system on board is an important safety feature on any boat, and should be treated and cared for as such. Remember, it keeps you attached to the seabed floor while fishing, diving or weathering out a storm. 🐟



*"Our customers have high expectations for their yachts, and Alexseal delivers on them. We've been spraying Alexseal since we went into business and it's made us believers."*

**J.B. Turner**

President and GM, Front Street Shipyard

**ALEXSEAL®**  
Yacht Coatings



*Providing Solutions*

**ALEXSEAL.COM**

EU: +49 (40) 75 10 30 > USA: +1 (843) 654 7755

**MANKIEWICZ**