

Self-contained air conditioning condenser cleaning instructions.

What product do I use?

- For **ALL** seawater applications, **Barnacle Buster™** is the only choice for safe, fast, and consistent results.
- Also available in a concentrated form, one gallon of **Buster Concentrate™** makes five gallons of **Barnacle Buster™**

How Much Barnacle Buster™ do I need?

- First, measure the lengths and diameters of all hoses and piping associated with the raw water cooling system.
- Next, cross reference them with the pipe gallonage chart (see separate sheet).
- Finally, add up all your finding. *Remember to add enough for your flushing equipment.*



As a guide, the adjacent chart reflects the most common requirements.



| BTUs | 100-5000 | 7000 | 5000-12000 | 7000-20000 | 12000-24000-UP |
|-----------------------------|----------|------|------------|------------|----------------|
| Gallons of Barnacle Buster™ | 1 | 2 | 2.5 | 3 | 5 |

Cleaning Options:

There are two methods to choose from when cleaning your seawater system.

- ▶ **OPEN-LOOP RECIRCULATION:** This is the quickest and most preferred method. It requires recirculation of the product and the aid of a flushing system or system pump.
- ▶ **IMMERSION:** This is the simplest method of cleaning but also the longest. It involves filling the entire system and allowing it to work overnight.

TRAC recommends open-loop flushing for systems with large amounts of growth .

When to use Barnacle Buster™?

- As a general rule of thumb, flushing your air conditioning system once a year is a good preventative maintenance measure. *This is especially important on systems that operate in warm seawater.*
- Monitoring your air conditioning system's amperage draw is an excellent way to determine system efficiency. As growth forms inside the condenser coil, heat transfer will be greatly decreased causing efficiency to drop. This will cause the compressor to work much harder thus increasing amperage draw. *Flushing before the problem gets worse could save you a world of headaches!*
- The easiest way to monitor you're A/C's seawater system is to keep a good eye on the seawater discharge stream. Overtime, as growth forms you will notice a change in the flow of seawater. This is a great indication that flushing is needed.

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| Dealer/Distributor Label | |
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Open Loop Recirculation Method:

Make certain to secure the air conditioning system by turning off the supply power breaker and CLOSING ALL SEA VALVES.

- First, find the best locations to inject and recover the Barnacle Buster™. One of the biggest advantages of using any of **TRAC's** products is the ability to not only include the condenser coil, but all the adjoining pipe and hose work as well. With this in mind, try to choose an injection point as close to the seawater sea valve (or seacock) as possible.

Inlet: REMEMBER TO CLOSE THE SEA VALVE

On most installations, a flexible hose connects the sea valve and the strainer (or pump). This is an excellent location to introduce Barnacle Buster™ into your system. In addition, most systems use a variable displacement pump or centrifugal pump. This is great because Barnacle Buster™ can easily pass through these types of pumps without having to remove the impellor. Keep in mind that you want to inject into the lowest point on your A/C system. This will make certain all the air is removed from the system.

TRAC Tip:
*Reversing the flow midway through your flushing will dramatically reduce your flushing time!
 Do this by switching your supply and return lines on the Port-O-Flush Jr.™ .*

Recovery or Outlet: The outlet is usually a bit easier to find. Look for a hose leading away from the A/C system towards an overboard thru-hull fitting. Remove this hose and connect it to your return line.

- Now, with both your injection and recover points ready, hook up your flushing gear. Connect the discharge from the Port-O-Flush Jr.™ (or your own flushing unit) to the inlet point. Then connect the recovery point to the return hose. *You can also use your systems pump and a five gallon bucket, if you so desire.*
- If you have multiple A/C units, fed from one central pump. You can clean all units at the same time—just make certain that all discharges return to your bucket.
- Now you are ready to recirculate and clean you're A/C system. TRAC recommends that you do a test-flush with water to make certain you have no leaks. If everything looks good, replace the water with your predetermined amount of Barnacle Buster™. Recirculate for at least 2 to 3 hours. If there is an excessive amount of buildup recirculate for 3 to 6 hours.
- When flushing is complete, rinse the system with freshwater to remove any loose debris or leftover Barnacle Buster™. Reassemble the system and run the unit to ensure there are no leaks.

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Immersion Cleaning Instructions

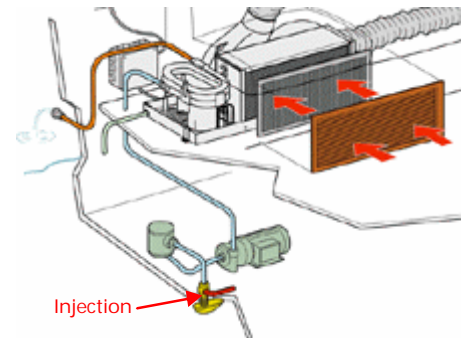
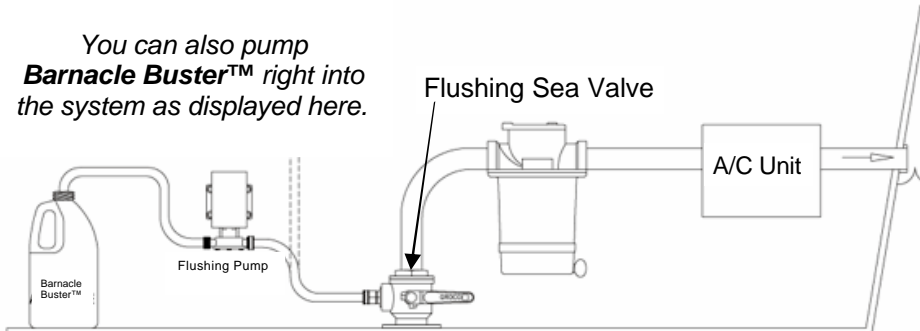
*Make certain to secure the air conditioning system by turning off the supply power breaker and **CLOSING ALL SEA VALVES.***

- Making certain the sea valve is closed, remove the suction hose attached to the valve and place it in a bucket filled with Barnacle Buster™.
- Start the A/C raw water pump until you see Barnacle Buster™ coming out of the overboard discharge.
- Next, secure the pump and allow the product to work in your system for 12-18 hours.
- When complete, reconnect the suction hose, open the sea valve, and run the system for 5-10 minutes making certain you have removed all of the Barnacle Buster™ solution.

TRAC Tip:
 For best results on severely clogged engines, add more Barnacle Buster™ every 4 hours. .



You can also pump Barnacle Buster™ right into the system as displayed here.



TRAC Tip:
 There are many aids available to you to help make flushing your equipment a snap! Contact our technical support team to find out where to get them. **Pictured below are just a few examples.**



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