

Self-contained air conditioning condenser cleaning instructions.

What product do I use?

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

How much Zebra Mussel 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.

Cleaning Options: There are two methods to choose from when cleaning your freshwater 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.



BTUs	100-5000	5000-7000	7000-12000	12000-20000	20000+
Gallons of Zebra Mussel Buster	1	2	2.5	3	5

When to use Zebra Mussel 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 freshwater.
- 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 your A/C's freshwater system is to keep a good eye on the freshwater discharge stream.
- Overtime, as growth forms you will notice a change in the flow of freshwater. This is a great indication that flushing is needed.

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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 Zebra Mussel 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 freshwater valve as possible.

Inlet: REMEMBER TO CLOSE THE FRESHWATER VALVE

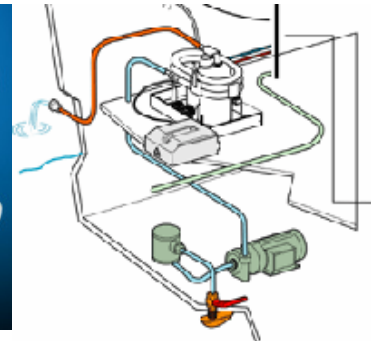
- On most installations, a flexible hose connects the freshwater valve and the strainer (or pump). This is an excellent location to introduce Zebra Mussel Buster into your system. In addition, most systems use a variable displacement pump or centrifugal pump. This is great because Zebra Mussel Buster 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. Next, cross reference them with the pipe gallonage chart (see separate sheet). Finally, add up all your findings. Remember to add enough for your flushing equipment.

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.

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.™



- 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 your 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 Zebra Mussel 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 Zebra Mussel Buster. Reassemble the system and run the unit to ensure there are no leaks.

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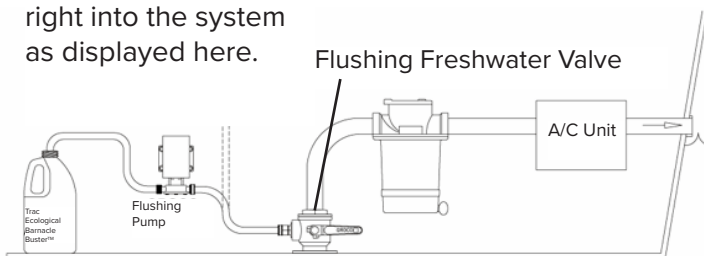
Immersion Cleaning Instructions:

- Make certain to secure the air conditioning system by turning off the supply power breaker and **CLOSING ALL FRESHWATER VALVES**.
- Making certain the freshwater valve is closed, remove the suction hose attached to the valve and place it in a bucket filled with Zebra Mussel Buster.
- Start the A/C raw water pump until you see Zebra Mussel 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 freshwater valve, and run the system for 5-10 minutes making certain you have removed all of the Zebra Mussel Buster solution.

Trac Tip:

For best results on severely clogged engines, add more Zebra Mussel Buster every 4 hours.

You can also pump Zebra Mussel 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.

