

Chiller condenser coil 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 findings. 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.



Unit tons	0-8	8-15	15-24	30-40	50-75
Gallons of Zebra Mussel Buster	6	12	18	25	30

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!



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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 FRESHWATER 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 points which will include as much of the system as possible.

Inlet: **REMEMBER TO CLOSE THE FRESHWATER VALVE!**

- On most installations, the chiller plant has provisions for connecting to a shore-side cooling tower for use when the vessel is out of the water. This is an excellent location to inject Zebra Mussel Buster.

Recovery or Outlet:

- As with the inlet, the cooling tower outlet connection serves as a great location to recover the Zebra Mussel Buster solution.

Trac Tip:

Reversing the flow, mid-flush, will greatly reduce your flushing time.

- 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. On larger systems you can even use the freshwater strainer as the bucket.
- Now you are ready to recirculate and clean you're A/C system. Trac recommends that you do a test flush with water first 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. Re-assemble the system and run the unit to ensure there are no leaks.

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.

Trac Tip:

If the system is already hooked up to a cooling tower, simply add Zebra Mussel Buster to the towers catch pan and watch it go to work. Using this method you can leave the unit online while cleaning it!! Make certain not to leave Zebra Mussel Buster in the system for more than 24 hours.