

TowerShine™ BIODEGRADABLE FOAMING DETERGENT

Safely Removes Organic Debris in Cooling Towers

Goodway's TowerShine™ is a biodegradable foaming cooling tower cleaner for biological and organic contaminants. The following procedural instructions are for applying TowerShine™ with our TFC-200 application unit.

1. Turn off all water treatment chemicals, pH & conductivity meters. It is equally important to also shut off or disconnect any non-chemical systems, especially alternating high frequency electric types as leaving this technology on may cause unintended damage during the cleaning process.
2. The cooling tower must be shut down during the cleaning procedure. This will allow the TowerShine™ foam to remain in the applied areas allowing it ample time to penetrate into and remove the biological growth and organic debris. Please note: TowerShine™ does not remove water formed mineral/scale deposits.
3. Once the tower is shut down, please be sure a few inches of water remains in the basin.
4. In the back of the TFC-200 is a hook-up for your 5-gallon pail of TowerShine™. Remove the cap on the container, raise the dip tube and place the pail in the TFC-200. Then lower the dip tube into the TowerShine™ and lock it into place using the cam lock collar. Strap in the 5-gallon pail so it is secure.
5. When assembling your application wand, be sure to utilize the 45° angle as this will allow you to spray the fill at the proper angle and put the foaming nozzle on (long, thin head).
6. Connect a water supply to the "water inlet" garden hose fitting on the back of the TFC-200.
7. Plug in your TFC-200 to any 110 volt outlet, the power light on the front panel should be illuminated. If the light does not come on, depress the reset button on the GFCI.
8. Your TFC-200 has 2 pumps, one is for applying the TowerShine™ product and the other is a low pressure/high flow pump for flushing off the debris.
9. You first need to prime the chemical pump. On the top panel of the TFC-200 is a black toggle switch, flip it up to the chemical position.
10. Turn the yellow handle all the way to chemical position
11. Remove any nozzles and extension wands from spray gun, point in a safe direction and squeeze spray gun trigger. This will prime the chemical pump.
12. When the pump is primed, attach the foaming nozzle, (QDN-FN-2530)
13. On the top panel is a yellow handle, this should be moved so it is pointing left to either the 7, 8 or 9 o'clock position. The positioning depends on the TowerShine™ mixture required for your cleaning.
14. Flip toggle switch on front panel to RINSE/MIX.
15. Each 5-gallon pail of TowerShine™ will clean approximately 400 square feet of fill material with a light fouling. Towers with heavy biological or organics will require additional TowerShine™.
16. Liberally foam TowerShine™ onto all the surfaces containing biological or organic matter on the cooling tower.
17. Allow the TowerShine™ a minimum of 20-30 minutes of contact time. This time duration will allow the TowerShine™ to penetrate into the deposits and loosen their bond.
18. Once the TowerShine™ has been applied to one side, you can move around to the other side of the tower and apply on that side. Please remember to allow 20-30 minutes for TowerShine™ to perform its task.
19. Once the TowerShine™ has reached the 20-30 minute dwell time, you can begin to flush off the foam, loose debris and other organic deposits.
20. On the top of the TFC-200 move the yellow handle straight down to the 6 o'clock position "rinse".
21. Remove the foaming tip and attach the black turbo nozzle.
22. With your Turbo nozzle begin to rinse away all deposits and or debris. Please keep the tip of the nozzle 18" from fill sheet surfaces.
23. If the deposits were thick, you may have to re-apply the TowerShine™ until completely clean.
24. Once you have determined the tower is clean and no additional debris remain, you can begin the clean-up process.
25. We recommend adding FOAM-CLEAR™ defoaming solution to your tower basin. FOAM-CLEAR™ is a super concentrated defoamer designed to instantly diminish foam from your tower. By not adding FOAM-CLEAR™ or completely flushing TowerShine™ from your cooling tower, this could result in excessive foaming when the tower goes back into operation.
26. Upon completion of the cleaning, organic debris from the cleaning may now be in the bottom of the basin. We recommend utilizing our Cooling Tower Vacuum (CTV) to effectively remove any remaining debris.
27. You can complement your tower cleaning by applying BioSpray Tower™ to disinfect any remaining bacteria, like Legionella.
28. Once the tower basin has been flushed and cleaned of any residual TowerShine™ and particulate, you can reestablish pH & conductivity meters, turn on non-chemical treatment systems or water treatment chemical feeds.

TFC-200 CLEANING PROCEDURE

1. Raise the dip tube for removal of the chemical container.
2. Screw the cap back onto the chemical container for transport.
3. Unstrap the chemical container and remove it from the TFC-200.
4. Place a bucket of clean water into the rear container storage area.
5. Lower the dip tube into the bucket of clean water.
6. Turn the valve on the front panel all the way to chemical.
7. Point the spray gun in a safe direction and squeeze the trigger.
8. After 3-5 minutes, turn the pump off and then release the spray gun trigger.
9. Raise the dip tube and remove the bucket with remaining water.
10. Your TFC-200 has been properly rinsed and will be ready for the next usage.

Please note:

- Wear safety glasses with non-perforated side shields when applying TowerShine™.
- It is recommended that gloves be worn during use with TowerShine™.
- Follow all plant personal protective equipment guidelines and consult with your health & safety team.
- Follow all local regulations for discharge.

Please contact Goodway Technologies with any questions.