

AFCO Installation & Operation Instructions

Model #AF 976831 • Timed Trench Foam Sanitizer

REQUIREMENTS

Chemical Concentrate

Water:

Supply Line	3/4" I.D.
Temperature	up to 160°F
Pressure	40-125 PSI
Flow	Variable, 3.8 to 7.8 GPM

Hose/Pipe 1 1/2" Not Included

Compressed Air up to 8 CFM

OPTIONS

Optional Foam Bars and Hoses

Hose, Blue, 1 1/2" x 1" (By Foot) # 801300FT

Custom Length Foam Bars Available Upon Inquiry

Alternate Check Valve - Viton Standard

Check Valve, Chemical, PP, 1/4" (EPDM) # 491401

WEIGHT & DIMENSIONS

Shipping Weight: 6 lbs.

Shipping Dimensions: 15" x 15" x 5"



<http://www.afcocare.com>

**READ ALL
INSTRUCTIONS BEFORE
USING EQUIPMENT!**

Overview

The Timed Trench Foam Sanitizer is an automated system for creating rich, thick foam sanitizer at regular, timed intervals, and feeding it to a foam bar located in the trench drain that needs to be sanitized. This venturi foamer uses city water pressure (40 - 125 PSI) to draw and blend chemical concentrate into the water stream and creates a wide range of dilution ratios. Rich, clinging foam is created by injecting compressed air into the solution to greatly expand volume and coverage ability. The water, chemical and air flow can be adjusted "on-the-fly" via needle valves. The system timer is user-programmable to meet the needs of any facility. This system can be used for trench drains from 10' to 48' in length - longer trench lengths will require multiple systems.



Safety & Operational Precautions

- **When connecting to a potable water supply follow all local codes for backflow prevention.**
- For proper performance do NOT modify, substitute nozzle, hose diameter or length.
- Manufacturer assumes no liability for the use or misuse of this unit.
- Wear protective clothing, gloves and eye wear when working with chemicals.
- Always direct the discharge away from people and electrical devices.
- Follow the chemical manufacturer's safe handling instructions.
- NEVER mix chemicals without first consulting chemical manufacturer.

TO INSTALL (REFER TO DIAGRAM, NEXT PAGE.)

1. Mount the unit to a suitable surface above the chemical supply to prevent siphoning.
2. Connect the discharge hose.
3. When connecting to a potable water supply follow all local codes for backflow prevention.
4. Connect water supply. To prevent blocking the small water jets in the foamer body, flush any new plumbing of debris before connecting. If water piping is older and has known contaminants, install a filter.
5. Connect air supply. If air line is older and has known contaminants install a filter.
6. When installing the foam bar in the trench, be certain that the bar is not resting on the bottom of the trench. The trench foam bar should be suspended above the bottom of the trench.

How to Set Your Dilution Ratio:

- The needle valve allows you to achieve a wide range of dilution ratios while you are adjusting the water flow rate to fully feed the nozzles.
- Turn counterclockwise to increase flow or clockwise to decrease flow.
- For a starting place turn the knob completely clockwise (closed) then turn 1 turn counterclockwise (open).
- Once you have the flow rate adjusted and all the nozzles are performing equally, you can try installing a metering tip, if you prefer to have the chemical flow fixed. Since the water flow rate is unknown, this is a trial and error procedure. Refer to the tip chart as a reference.

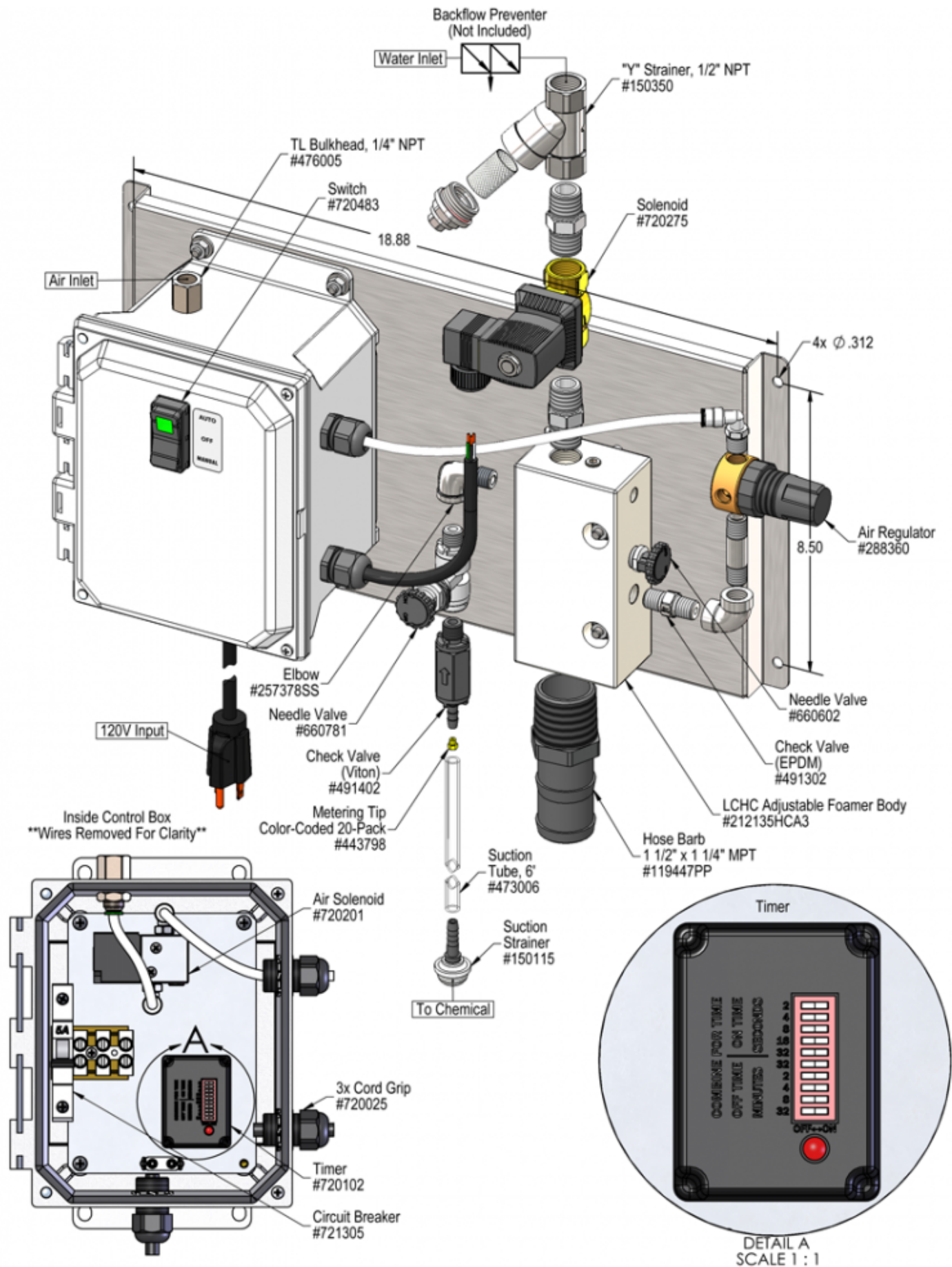
TO FOAM

1. Final chemical dilution, water flow and air adjustments will now have to be made.
2. Start out with the chemical needle valve open one turn (or with a larger metering tip than you think you will need) and make adjustments until the foamer is foaming correctly.
3. Turn on the water and air ball valve.
 - Wait a few seconds and observe foam consistency and quantity.
 - To adjust foam consistency, turn the foam consistency needle valve knob slightly counterclockwise for dryer and clockwise for wetter foam. Do not use too much air!
 - If all nozzles are not projecting foam, slightly turn the blue "water flow adjustment knob" counterclockwise to add more water. Wait after each adjustment to see the results. Results are not instant.
 - Continue adding/decreasing water via the blue "water flow adjustment knob" on the foamer body till all nozzles are projecting foam. Increase/decrease till results are acceptable. Be PATIENT.
 - Medium wet foam will give the best cleaning results! Very dry foam will NOT clean as well!
 - You will have to try different chemical, air and water settings until foam consistency and cleaning results are acceptable. Once this is set you are ready to start application. Now you can try to decrease the amount of chemical used (or the metering tip size, if installed) based on cleaning results.

Metering Tip Selection Chart

Metering Tip Color	Oz. per Min.
Brown	.56
Clear	.88
Bright Purple	1.38
White	2.15
Pink	2.93
Corn Yellow	3.84
Dark Green	4.88
Orange	5.77
Gray	6.01
Light Green	7.01
Med. Green	8.06
Clear Pink	9.43
Yellow Green	11.50
Burgundy	11.93
Pale Pink	13.87
Light Blue	15.14
Dark Purple	17.88
Navy Blue	25.36
Clear Aqua	28.60
Black	50.00

The Oz. per Minute shown are approximate. Due to chemical viscosity, actual Oz. per Minute may vary.



Troubleshooting Guide

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Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Foam surges and/or hose "bucks".	1, 2, 3, 4, 6, 7, 8, 9, 10	12, 13, 14, 15, 16, 18, 19
B) Foamer will not draw chemical.	1, 3, 4, 7, 8, 9, 10	12, 13, 14, 15, 16, 18, 19
C) Foam too wet.	2, 3, 4, 6, 7, 8, 9, 10	13, 14, 15, 16, 18, 19
D) Foam does not clean properly (too dry).	1, 4, 6, 11	
E) Using too much chemical.	5	
F) Water/chemical backing up into air line.		17
G) Water backing up into chemical container.		12

Possible Cause / Solution

Startup	Maintenance
<ol style="list-style-type: none"> 1. Air volume too high <ul style="list-style-type: none"> ◦ Adjust the needle valve slowly counterclockwise. 2. Use of an oiler in the airline will cause poor foam quality <ul style="list-style-type: none"> ◦ Use only clean, dry air. 3. Inlet ball valve not completely open <ul style="list-style-type: none"> ◦ Completely open the ball valve. 4. Not enough chemical - <ul style="list-style-type: none"> ◦ Turn chemical needle valve knob counterclockwise. 5. Chemical needle valve open too much <ul style="list-style-type: none"> ◦ Turn knob clockwise. 6. Improper chemical <ul style="list-style-type: none"> ◦ Ensure product is recommended for the application. 7. Chemical tube not immersed or chemical depleted <ul style="list-style-type: none"> ◦ Immerse tube or replenish. 8. Discharge hose too long or wrong size or kinked <ul style="list-style-type: none"> ◦ Straighten the hose or replace with correct hose. 9. Nozzle size too small <ul style="list-style-type: none"> ◦ Replace with correct size nozzle. 10. Water pressure or water volume too low/inlet piping too small causing poor chemical pick up <ul style="list-style-type: none"> ◦ Increase water pressure or water volume. 11. Soil has hardened on surface <ul style="list-style-type: none"> ◦ Always rinse foam before it dries ◦ Reapplication may be necessary. 	<ol style="list-style-type: none"> 12. Chemical check valve stuck or failed <ul style="list-style-type: none"> ◦ Clean or replace. 13. Chemical strainer partially blocked <ul style="list-style-type: none"> ◦ Clean or replace chemical strainer. 14. Chemical tube stretched out or pin hole/cut in tube <ul style="list-style-type: none"> ◦ Cut off end of tube or replace tube. 15. Vacuum leak in chemical pick-up connections <ul style="list-style-type: none"> ◦ Tighten the connection. 16. Needle valve(s) clogged <ul style="list-style-type: none"> ◦ Clean or replace. 17. Air check valve failed <ul style="list-style-type: none"> ◦ Replace. 18. Water strainer element clogged or missing/foamer inlet orifice clogged <ul style="list-style-type: none"> ◦ Clean or replace strainer element; check/clean inlet orifice for obstructions. DO NOT DRILL OUT. 19. Chemical build-up may have formed in the foamer body causing poor or no chemical pick-up <ul style="list-style-type: none"> ◦ Follow Preventive Maintenance instructions below, using hot water and/or descaling acid. When there is no draw at all, carefully remove fittings and soak entire foamer body in descaling acid.

PREVENTIVE MAINTENANCE: When the unit will be out of service for extended periods, place chemical tube(s) in water and flush the chemical out of the unit to help prevent chemical from drying out and causing build-up. Periodically check and clean chemical strainer and replace if missing.

