Lafferty Equipment Manufacturing, LLC
Installation & Operation Instructions

Model # 969620HC · Model 20 SSHC Hose End Airless Foamer

REQUIREMENTS

Water Temperature	up to 180°F
Pressure Washer	2.2 - 5.5 GPM
Supply Hose	3/8" ID minimum

OPTIONS

Stainless Steel Hose Racks

Large Stainless Steel Hose Rack	# 224150
Small Stainless Steel Hose Rack	# 224145

Pressure Washer Hose & Trigger Gun

HP 3/8" x 50' Hose & Trigger Gun Kit	# 807069

Safe Flow Lid™ for 1 Gallon Jugs

Lid, Suction Tube, and Strainer	# 709101

WEIGHT & DIMENSIONS

Single Package

Shipping Weight	3 lbs.
Shipping Dimensions	15" x 8" x 5"



Lafferty EQUIPMENT MANUFACTURING LLC

CFS TECHNOLOGIES

www.laffertyequipment.com
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WARNING! READ ALL INSTRUCTIONS BEFORE USING EQUIPMENT!

OVERVIEW

Designed for 2.2–5.5 GPM pressure washers. The Model 20 HC Stainless Steel Hose End Airless Foamer is a "high concentrate" airless foam applicator for quickly diluting and applying foaming chemicals at strong dilution ratios. Weaker dilution ratios are controlled with metering tips. This venturi unit draws and blends a high volume of chemical concentrate into the water stream to create a strong solution. The solution then flows through the airless foam wand which draws in atmospheric air to create and project wet, clinging foam on to surfaces up close or at distances up to 20 feet with interchangeable fan and zero degree nozzles.

SAFETY & OPERATIONAL PRECAUTIONS

- 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.

TO INSTALL (REFER TO DIAGRAM ON NEXT PAGE)

1. Remove the rinse nozzle and quick connect the airless foamer to your trigger gun. (1/4" quick connect).

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SCAN QR CODE FOR
OVERVIEW & SETUP VIDEO
https://vimeo.com/515352837

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Set the chemical dilution ratio by installing the inline tip holder and a metering tip into chemical pick up tube. See chemical label for dilution ratio recommendation or consult your chemical supplier.

- For the strongest possible chemical dilution ratio, do not install a metering tip.
- The dilution ratios in the metering tip chart are based on chemical with a viscosity of 1CPS.
- For water pressure other than the example, use the Metering Tip Selection Formula.
- Due to varying chemical viscosity and applications, you may need to increase/decrease the tip size to get the best result.
- Install a colored metering tip in the inline tip holder. **DO NOT OVER-TIGHTEN**
- Splice tip holder into the chemical pick up tube as shown in the drawing. Use the hose clamp as shown in the diagram (certain units only).
- Once metering tip is installed immerse the chemical strainer into your chemical concentrate.
- If necessary, cut suction tube(s) to length before attaching suction strainer.

TO OPERATE

1. Two nozzles are included with the foam wand: The fan nozzle provides a wide pattern for faster coverage. The 0° nozzle provides increased foam throw distance. Install the preferred nozzle.
2. Remove the rinse nozzle and quick connect the foam wand to your trigger gun as shown in the diagram. If your trigger gun doesn't have a 1/4" quick disconnect socket, you will have to install one.
3. Hold the trigger gun firmly and direct the discharge in a safe direction. Pull the trigger and begin application.
4. Make final metering tip adjustments based on application results. Try the next larger sized metering tip until the results are acceptable.
5. Maximum foam throw distance will be achieved using NO metering tip. To achieve maximum foam throw with a leaner dilution ratio, pre-dilute the chemical before drawing it through the injector.

METERING TIP SELECTION

METERING TIP COLOR	OZ/MIN	DILUTION RATIO @ 4.0 GPM
Light Blue	15.14	34:1
Dark Purple	17.88	29:1
Navy Blue	25.36	20:1
Clear Aqua	28.60	18:1
Black	50.00	10:1
No Tip		3.5:1

The dilution ratios above are approximate values. Due to chemical viscosity, actual dilution ratios may vary.

FORMULA

GPM × 128 ÷ Desired Dilution Ratio = oz/min

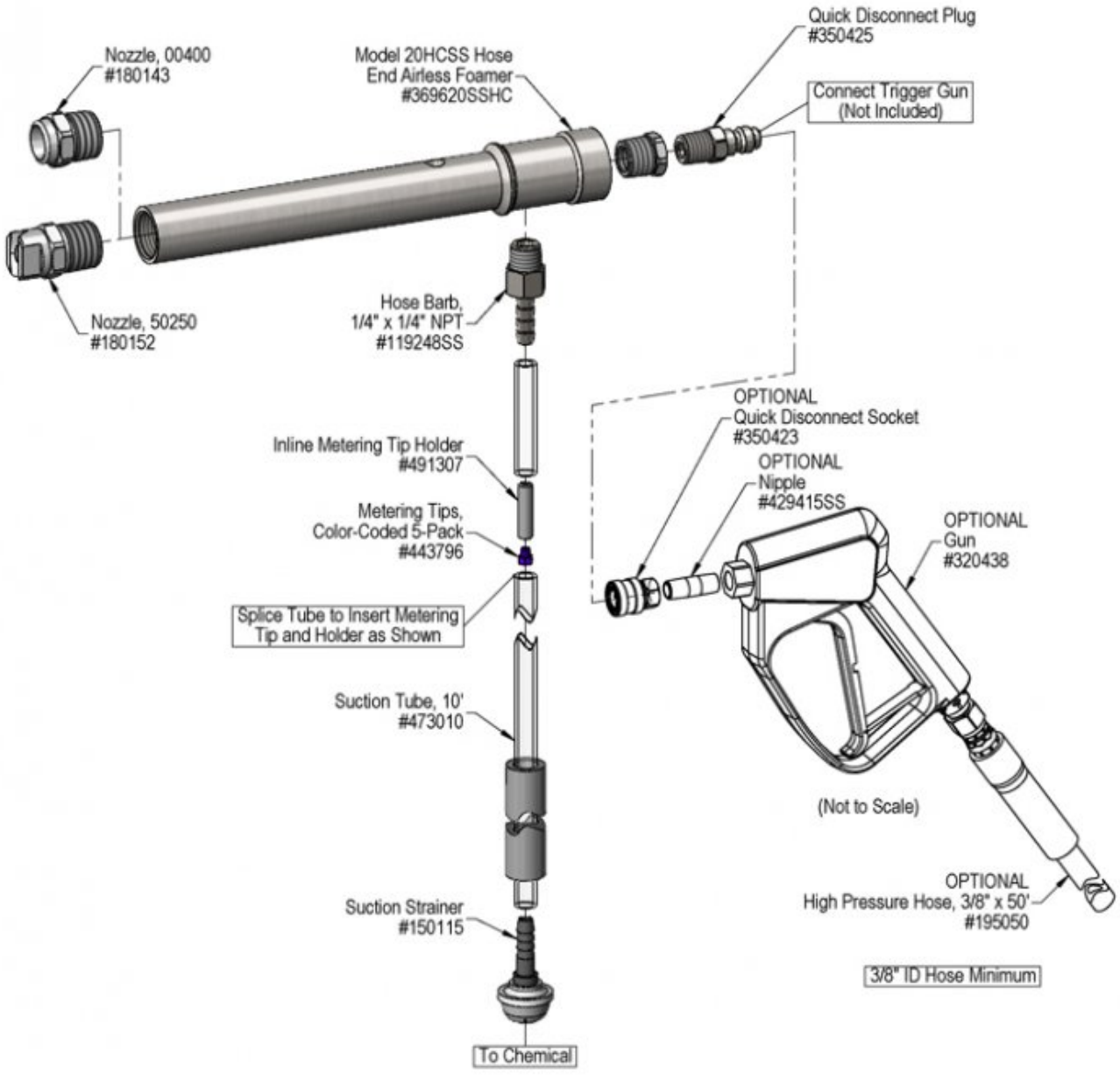
- *See Unit Flow Rates chart for GPM*
- *Use 20 for 20:1 dilution ratio, 30 for 30:1, etc.*
- *Match calculated ounces per minute (oz/min) to nearest oz/min in Metering Tip Selection chart.*

UNIT FLOW RATES

Water Flow Rate

GPM	Resulting PSI
2.5	605
3.0	872
3.5	1187
4.0	**1550**
4.5	1962
5.0	2422

For Metering Tip Calculations
Unit Flow Rate = GPM @ Resulting PSI
Actual Water Pressure = Resulting PSI


Quick Disconnect Plug
#350425
Nozzle, 00400
#180143
Model 20HCSS Hose
End Airless Foamer
#369620SSHC
Connect Trigger Gun
(Not Included)
Nozzle, 50250
#180152
Hose Barb,
1/4" x 1/4" NPT
#119248SS
OPTIONAL
Quick Disconnect Socket
#350423
OPTIONAL
Nipple
#429415SS
Inline Metering Tip Holder
#491307
Metering Tips,
Color-Coded 5-Pack
#443796
OPTIONAL
Gun
#320438
Splice Tube to Insert Metering
Tip and Holder as Shown
Suction Tube, 10'
#473010
(Not to Scale)
OPTIONAL
High Pressure Hose, 3/8" x 50'
#195050
Suction Strainer
#150115
3/8" ID Hose Minimum
To Chemical

Troubleshooting Guide

Problem	Possible Cause / Solution	
	Startup	Maintenance
A) Unit will not draw chemical.	1, 2, 3	7, 8, 9, 10
B) Does not foam properly	1, 2, 4, 5, 6	7, 8, 9
C) Using too much chemical	6	

Possible Cause / Solution

Startup

1. **GPM too low**
   - See requirements.
2. **Water inlet clogged**
   - Clean the water inlet. DO NOT DRILL OUT
3. **Chemical tube not immersed in chemical or depleted**
   - Immerse tube or replenish.
4. **Ensure chemical is recommended for foaming and/or the application**
   - See chemical manufacturer.
5. **Dilution too weak / Chemical is very thick.**
   - Install larger metering tip or remove metering tip.
6. **Dilution too strong / No metering tip installed or wrong metering tip installed**
   - Install a metering tip or install a smaller metering tip.

Maintenance

7. **Tip holder, clogged or loose.**
   - Clean or tighten.
8. **Chemical strainer or metering tip blocked**
   - Clean or replace chemical strainer and/or metering tip.
9. **Chemical tube stretched out where tube slides over tip holder or pin hole/cut in chemical tube (sucking air in) which reduces chemical intake**
   - Cut off end of tube or replace tube.
10. **Hard water scale or chemical build-up may have formed in the foamer body/wand causing poor or no chemical pick-up**
    - Follow Preventive Maintenance instructions below, using hot water and/or descaling acid. When there is no draw at all, carefully remove inlet fitting and chemical check valve. Soak foamer body in de-scaling 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.