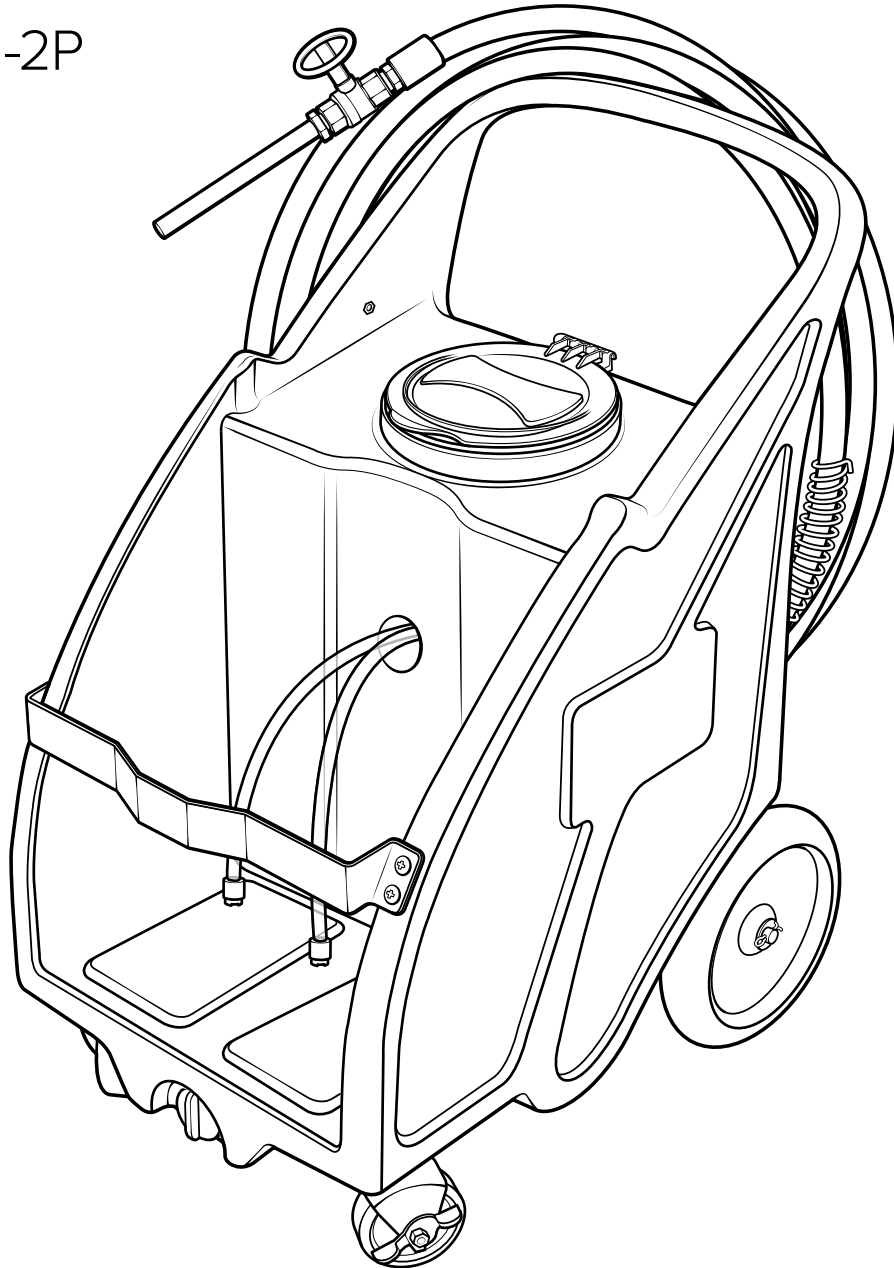


# 15 Gallon Concentrate Foam Unit for 2-Part Products

## User Manual

FI-CN-15N-2P



READ ALL INSTRUCTIONS BEFORE USING OR  
SERVICING THIS UNIT. KEEP THIS MANUAL IN A  
LOCATION THAT IS READILY AVAILABLE TO USERS  
AND SERVICE TECHNICIANS.

English (Original Instructions)



Scan this code  
for user manual



# Safety

## **WARNING**

PEOPLE OR OBJECTS CAN BE HURT OR DAMAGED IF THIS UNIT IS NOT USED CORRECTLY!



Failure to read all the instructions before operating the unit may result in personal injury or death from the improper use or the chemical solution. Anyone handling, operating or using the unit must read, and understand, the instructions in the manual. The buyer assumes all responsibility for safety and proper use in accordance with the instructions.



Using, or servicing, the unit without proper protective clothing, gloves, and eye wear may result in serious injury such as burns, rashes, eye, throat or lung damage and death. Always wear protective clothing, gloves, and eye wear when using, or servicing, the unit. Protect eyes, skin, and lungs against drifting spray.



Chemical solutions may pose a health risk and death if they contact the skin or eyes, are inhaled or swallowed. Always read, and follow, all chemical safety precautions and handling instructions provided by the chemical manufacturer and the Safety Data Sheet (SDS) associated with the chemical solution being used before using the unit.



Pressure within the equipment may cause an unexpected release of the chemical solution and cause serious injury such as burns, rashes, eye damage, throat or lung damage and death. Always depressurize and clean the unit after each use. Release any remaining air pressure by twisting the pressure relief valve to the right ½ turn. Never leave the unit unattended while pressurized.

Using the unit with fluid temperatures above 100°F (37.8°C) may result in scalding, burns, serious injury or death. DO NOT use a solution with a temperature above 100°F (37.8°C).

Operating the unit when damaged or leaking may result in exposure to chemical solutions, serious injury or death. Never use the unit if it is damaged or leaking.

Never point the discharge wand at yourself, another person, or any object you do not want covered in chemical.



Using incoming air pressure exceeding 100 psi (6.9 bar) may result in pressure buildup, explosion, serious injury or death. DO NOT exceed 100 psi (6.9 bar) incoming air pressure when operating unit.

Use of hydrocarbons and flammable products may result in explosions, fire and serious injury or death. Never use hydrocarbons or flammable products with the unit.



Mixing an alkaline with an acid may result in a chemical reaction. Overheating of the mixture may cause it to splatter caustic compounds or release hazardous fumes, gas and vapors. Always flush the unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.

## NOTICE

Servicing, or modification, of this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit.

Use of an air lubricator before the unit may result in diminished performance and damage to the unit. Do not use an air lubricator before the unit.

Moisture in the air lines will damage the pump and diminish the pumps life. The air must be filtered, clean, dry and free of moisture. If needed, install an air dryer before the unit.

## PROTECT THE ENVIRONMENT



Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations

# Product Overview

## Requirements

Compressed air requirements	40-80 psi (2.8-5.5 bar) with 5-10 CFM (141.6-283.2 l/min)
Liquid temperature range	40-100°F (4.4-37.8°C)
Chemical compatibility	Chemical products used with this equipment must be formulated for this type of application and compatible with unit materials and pump seals. For more information on chemical compatibility, consult the manufacturer or SDS for your product or contact our customer service department.

## Specifications

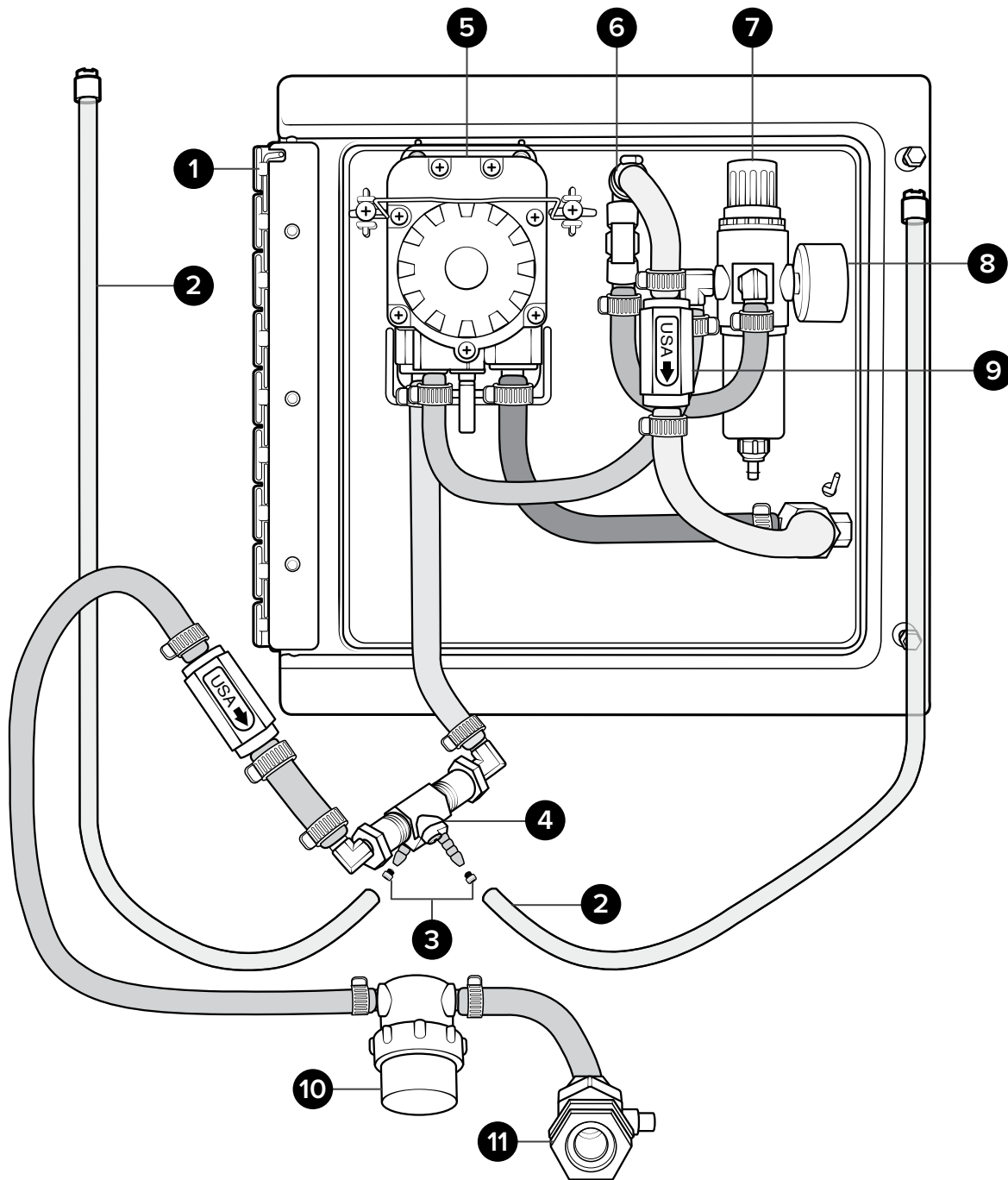
Power type	Compressed air
Chemical pickup type	Draws from concentrated product
Dilution ratio range (water:chemical)*	8:1 to 150:1 for each product <b>Note:</b> Dilution rate can be set independently for each product
Number of products unit can draw from	Two products, simultaneously
Suction line length/diameter	Two suction lines, each 8 ft. (2.4 m) of clear hose with ¼ in. (6.4 mm) inside diameter
Capacity	15 gallons (56.8 liters)
Discharge line length/diameter	30 ft. (9 m) hose, with 3/4 in. (19 mm) inside diameter
Discharge wand/tip type	7 in. (17.8 cm) stainless steel wand with zero tip and ball valve
Outside distance	25-30 ft. (7-9 m)
Outside volume	20-45 gal/min (75-170 l/min)
Flow rate*	2-2.25 gal/min (7.6-8.5 l/min)
Pump seals	Santoprene, Viton, or Kalrez
Wheel type	Two 10 in. (25.4 cm) non-marking wheels Two 5 in. (12.7 cm) casters - one with lock

\* Dilution rates and flow rates given are based on chemical with viscosity of water and factory air pressure settings.

# Product components

Get to know the FI-CN-15-2P components that you will need to use, adjust or assemble.

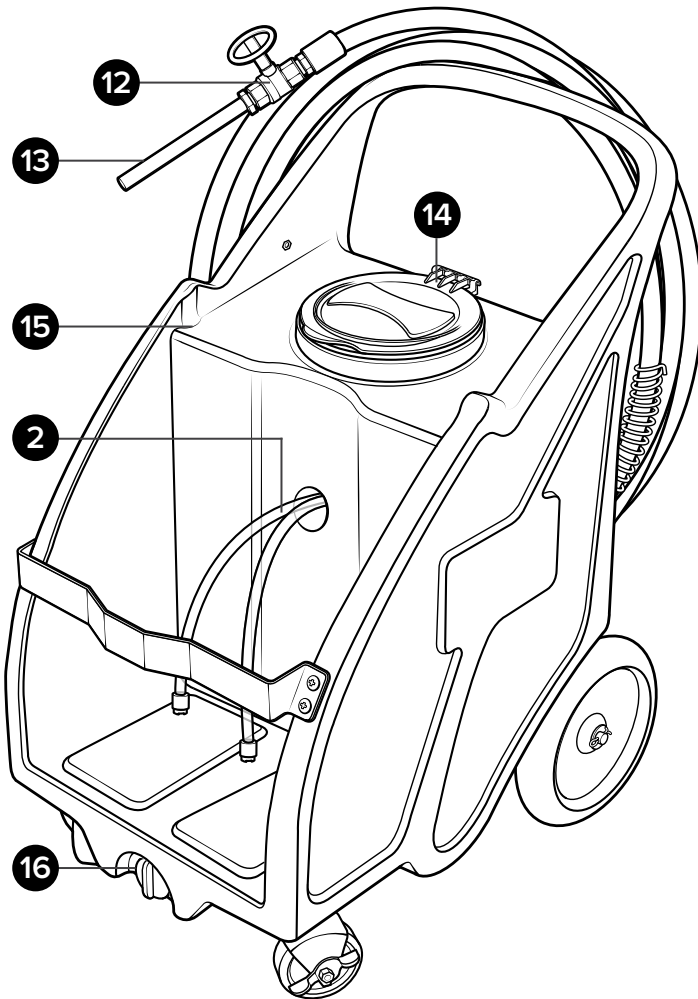
## Back plate assembly • Inside view



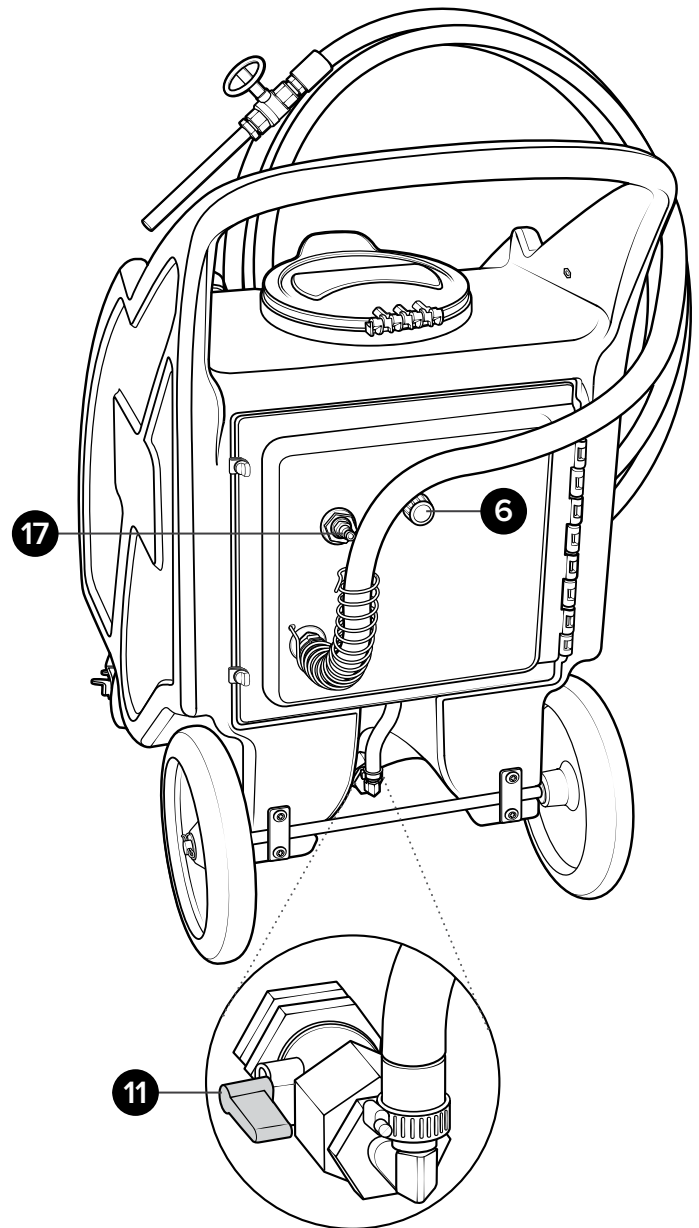
- |                      |                        |
|----------------------|------------------------|
| 1. Hinged back plate | 7. Air regulator       |
| 2. Suction lines     | 8. Air pressure gauge  |
| 3. Metering tips     | 9. Check valve         |
| 4. Dual injector     | 10. In-line strainer   |
| 5. Quick-change pump | 11. Suction line valve |
| 6. Needle valve      |                        |

# Product components

Tank assembly • Front view



Tank assembly • Back view



- 12. Discharge ball valve
- 13. Discharge wand
- 14. Hinged cap
- 15. Tank
- 16. Drain plug
- 17. Air fitting

# Using your unit

## Operating Instructions

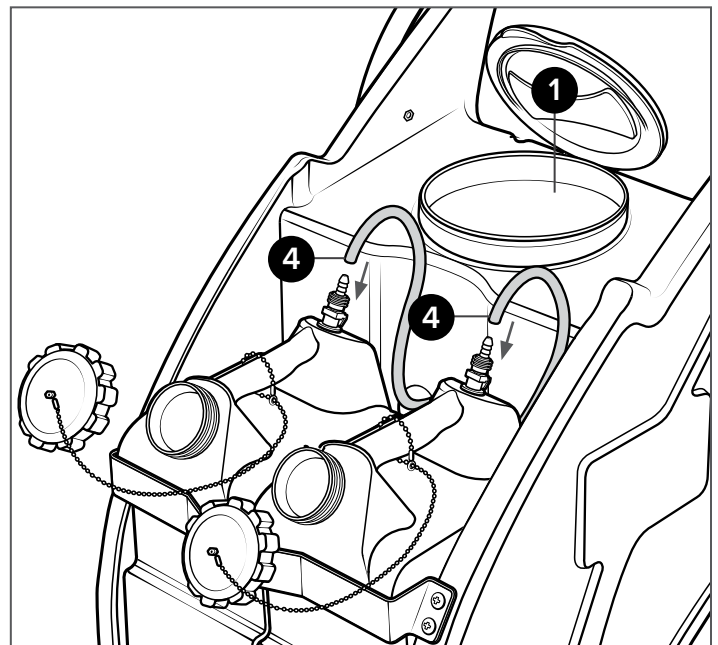
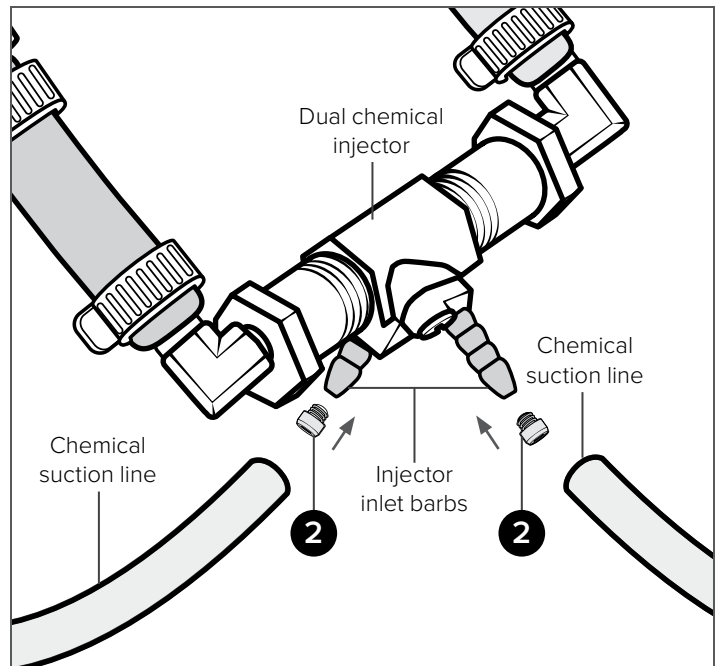
1. Fill the tank with water.
2. Open the unit back plate. Locate the chemical injector and insert the proper metering tips for each chemical. Connect the chemical intake lines to the injector inlet barbs.

**Note:** Use the metering tip color chart (below) to determine the appropriate metering tip based on the product and dilution rate. The model FI-CN-15N-2P has two metering tips and two chemical intake lines.

### Metering tip color chart

Metering tip color	Oz. / Gal.	Ratio*
Tan	.66	194:1
Orange	.92	139:1
Turquoise	.95	134:1
Pink	1.5	87:1
Light Blue	2	64:1
Brown	2.5	52:1
Red	3.2	40:1
White	3.6	36:1
Green	4.1	31:1
Blue	5.1	25:1
Yellow	7.5	17:1
Black	8.5	15:1
Purple	11.6	11:1
Gray	12.8	10:1
None	16	8:1

\* Injection rates will vary based on chemical viscosity, air pressure, and many other factors. We recommend testing unit output to verify injection rate prior to use.



3. Following all instructions from chemical manufacturer, fill the chemical container with chemical concentrate.
4. Drop each suction line strainer into a compatible container.

**Note:** If using a chemical jug (for example, 2.5 gallon jug with suction fittings) connect the suction lines using quick-connect fittings provided with the chemical jug.

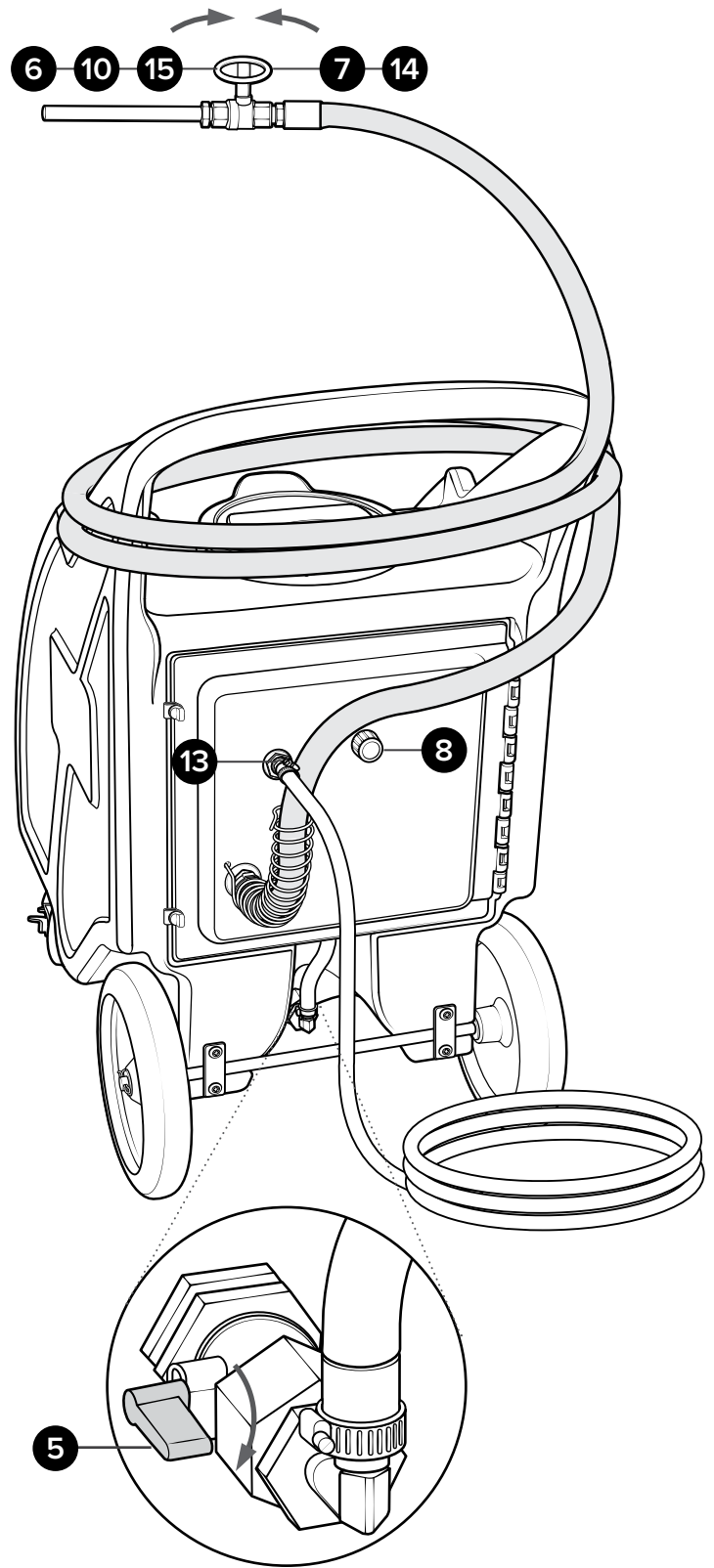
# Using your unit

## Operating Instructions (continued)

5. Verify that the suction line valve at the base of the suction line is open, to allow fluid into the suction line.
6. With the discharge ball valve in the closed position, plug an air line into the air fitting.
7. Slowly open the discharge ball valve to begin foaming. The discharge ball valve should be completely open while foaming.
8. While the unit is running and discharging product, adjust the flow control valve as needed to regulate the wetness or dryness of the foam following the steps below:
  - a. Close the needle valve completely in clockwise direction.
  - b. Open needle valve in counter-clockwise direction 3 complete turns.
  - c. Continue to open needle valve in ¼ turn increments, allowing 30 seconds between adjustments, until desired consistency of foam is achieved.
10. Close the discharge ball valve to stop foaming.

## After Use Instructions

11. Disconnect the chemical intake lines from the chemical containers and connect it to a container of clean water. Make sure that the unit tank still contains water.
12. Activate the unit and allow it to run for 2-4 minutes, or until all chemical has been flushed from the system.
13. Disconnect the air line from the air fitting.
14. Open the discharge ball valve to relieve any pressure remaining in the system.
15. Close the ball valve after all pressure has been relieved from the system. Store the unit with the discharge ball valve in the closed position.





# Service Guide

## **WARNING**

Performing any maintenance with the unit turned ON, plugged into an electrical power source and connected to the air and water supply may serious injury or death. Always ensure that the unit has been turned OFF, unplugged from the electrical power source, and disconnected from the air/water supply before conducting any maintenance.

Servicing, or modification, of this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit.

## Maintaining Your Unit

To keep your unit operating properly, periodically perform the following maintenance procedures:

- Inspect the pump for wear and leaks.
- Inspect all hoses for leaks or excessive wear. Make sure all hose clamps and push-fittings are in good condition and properly secured.
- Replace the filter located within the air regulator as needed. Clean by unthreading the air regulator bowl from the air regulator.
- Check the chemical metering tip, suction line and strainer for debris and clean as needed.
- Drain your air compressor tank on a regular basis to help extend pump life. An air source with a high moisture content will accelerate pump wear.

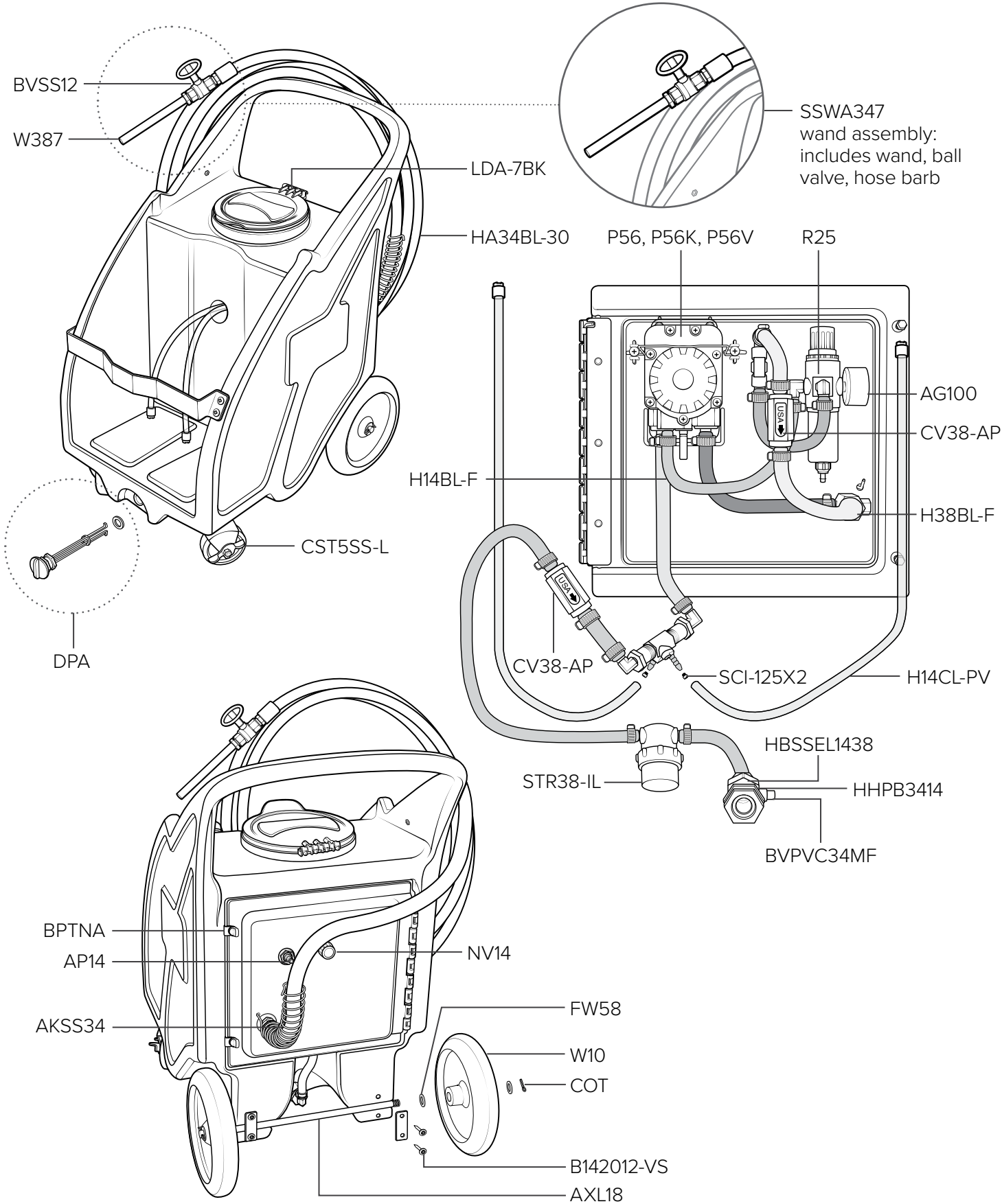
**Note:** If your air source has a high moisture content, you may wish to install a water separator (sold separately) before the unit.

# Troubleshooting Your Unit

If your unit is not operating properly, try using these troubleshooting tips:

Issue	Solution
Air regulator bowl or air filter has debris such as water, oil, or rust particles	<ul style="list-style-type: none"> <li>• Clean by unthreading the air regulator bowl from the air regulator.</li> </ul>
Pump is cycling improperly due to lack of air pressure	<ul style="list-style-type: none"> <li>• The flow control valve is open too far. Close and readjust the flow control valve as described in the Operation section.</li> <li>• Ensure proper foaming chemical and concentration are being used.</li> </ul>
Air passes through the pump without cycling	<ul style="list-style-type: none"> <li>• The pump needs to be replaced.</li> </ul>
The solution backs up into the air regulator bowl	<ul style="list-style-type: none"> <li>• The check valve needs to be replaced.</li> </ul>
Foam comes out wet, no matter where the needle valve is positioned	<ul style="list-style-type: none"> <li>• Check for proper air pressure on the air gauge. The air regulator is factory set at 50 psi (3.4 bar). Operating range is 40 to 80 psi (2.8 to 5.5 bar) with 5 to 10 CFM (141.6 to 283.2 l/min).</li> <li>• The check valve may need to be replaced.</li> </ul>
The unit operates at a reduced pressure	<ul style="list-style-type: none"> <li>• Check the chemical metering tip, suction line and strainer for debris or damage. Clean or replace as needed. To prevent damage to the unit, the strainer must always be used.</li> <li>• Check the air compressor supplying the unit. If the pressure is less than 40 psi (2.8 bar), turn the unit off until the compressor can catch up.</li> <li>• If the air supply is 50 psi (3.4 bar) or above, check the air gauge, which should read near 50 psi (3.4 bar). If the air gauge reads more or less than 50 psi (3.4 bar), adjust the pressure by turning the knob on the top of the air regulator.</li> <li>• Check if the stainless steel mixing mesh is plugged. Remove and clean it by following the instructions below:               <ol style="list-style-type: none"> <li>1. Be sure the foam unit is not plugged into an air supply and be sure to relieve all stored pressure in the unit by having the ball valve in the open position.</li> <li>2. Remove the stainless hose barb from the tee fitting.</li> <li>3. Remove the screen and the mixing mesh from inside the tee fitting.</li> <li>4. Clean any particles from the mixing mesh and the screen.</li> <li>5. Replace the mixing mesh and then the screen into the back of the tee and screw the stainless adapter back into the tee. It is recommended to use a pipe thread sealant when reinstalling the stainless adapter back into the tee fitting. If the mixing mesh has a lot of foreign particles in it, make sure the strainer is still in place.</li> </ol> </li> </ul>

# Parts



Item number	Description
AG100	Air gauge - 1/8 in. NPT - 100 PSI dry model
AKSS34	SS Anti-kink spring for 3/4 in. hose
AP25	Air fitting 1/4 MPT x plug - nickel-plated brass
AXL18	Axle - stainless steel - 0.625 dia. x 18.31 in.
B142012-VS	1/4-20 x 1/2 in. bolt - stainless - truss head Phillips - Vibra-Seal
BPTNA	Back plate thumb nut assembly - includes bolt, thumb nut, and tether
BVPVC34MF	Ball valve - PVC - 3/4 NPT to 3/4 FNPT - EPDM seal
BVSS12	Stainless ball valve - 1/2 in. NPT
COT	Cotter pin - stainless - 1/8 in. dia. x 1 in. long
CST5SS	Swivel caster - stainless - 5 in. clearance - 4 in. wheel
CST5SS-L	Swivel caster - stainless - 5 in. clearance - 4 in. wheel - with lock
CV38-AP	Check valve - 3/8 in. barbs - PVC body - Hastelloy spring - Teflon ball - white
DPA	Drain plug assembly for natural portable units (includes plug and gasket)
FW58	Flat washer for 5/8 in. od pipe or axle - stainless - 0.64 in. id x 1.2 in. od x 0.05 in. thk
H14BL-F	1/4 in. blue hose - hybrid TPE - available per ft.
H14CL-PV	1/4 in. id 3/8 in. od clear hose - PVC - available per ft.
HA34BL-30	Hose assembly - 30 ft. of 3/4 in. blue hose - includes ferruled hose barb, screw band clamp
H38BL-F	3/8 in. blue hose - hybrid TPE - available per ft.
HBSSEL1438	Stainless hose barb 1/4 MPT x 3/8 barb elbow
HHPB3414	Hex head poly bushing 3/4 MPT x 1/4 FPT
LDA-7BK	Lid assembly - includes 7 in. black* lid, lid flange, hinge pin, and mounting screws
NV14	Needle valve - 1/4 in. NPT - includes black knob
P56	Pump with Santoprene seals - includes hose barbs, air fitting, and exhaust barb
P56K	Pump with Kalrez seals - includes hose barbs, air fitting, and exhaust barb
P56V	Pump with Viton seals - includes hose barbs, air fitting, and exhaust barb
R25	Air regulator - two 1/4 in. FPT ports - two 1/8 in. FPT ports - includes filter and bowl
SCI-125X2	Stainless chemical injector - .125 orifice - dual barb - 3/8 MPT
SSWA347	Wand assembly for 3/4 in. hose - 7 in. SS wand - ball valve, bushing, hose barb, screw band clamp
STR38-IL	In-line strainer - 3/8 barb - EPDM gasket - 20 mesh SS - black bowl
W10	Wheel - non-marking - 10 in.
W387	3/8 in. NPT pipe wand - polished stainless - 7 in. long - threaded one end only