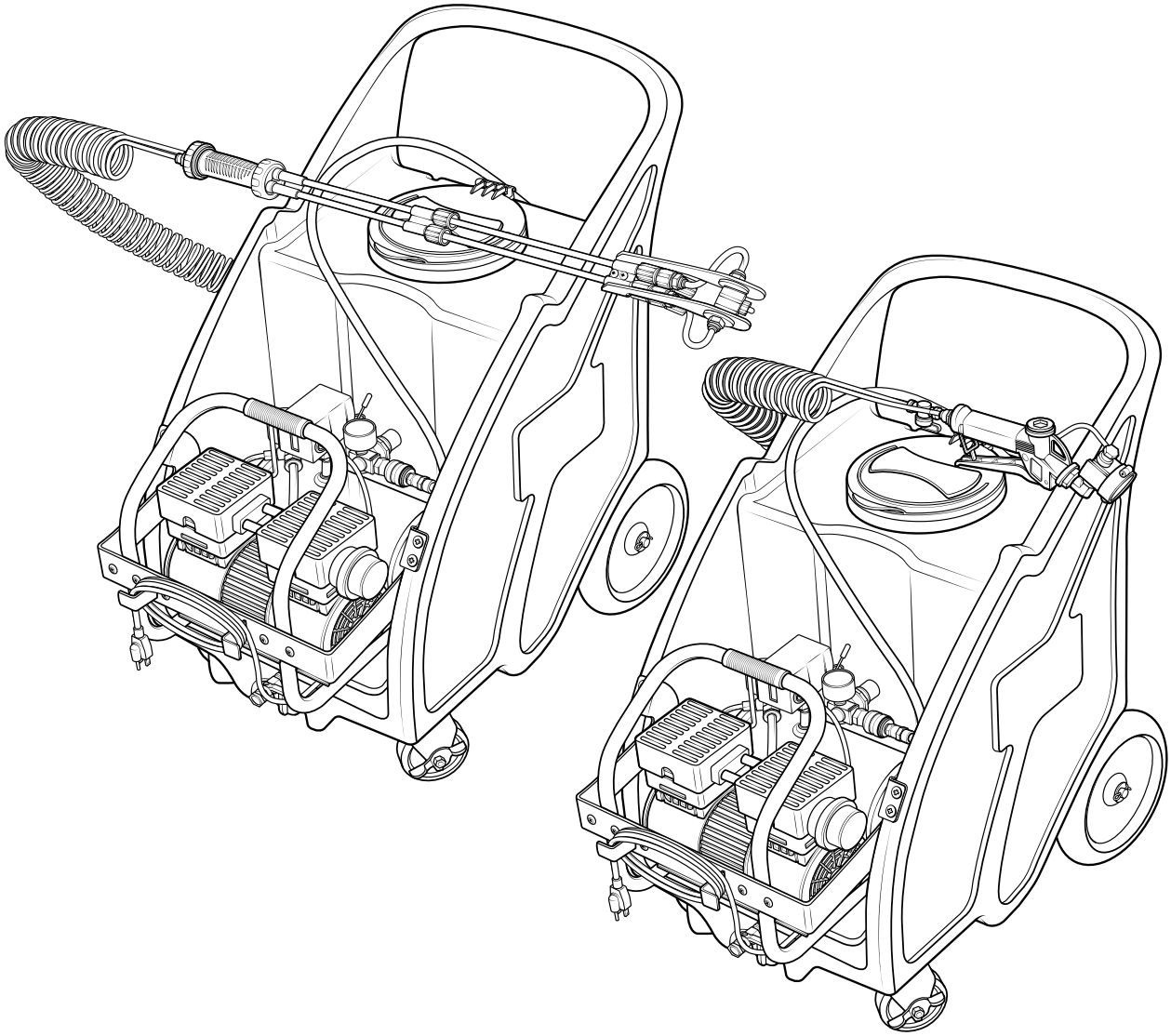
15 Gallon Electric Fog/Mist Unit

User Manual

MU-AC-15N
MU-AC-15N-PSGN130



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 appropriate personal protective equipment (PPE) may result in serious injury such as burns, rashes, eye, throat or lung damage and death. Always wear PPE as indicated in the Safety Data Sheet (SDS) 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 SDS associated with the chemical solution 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. 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 the 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 unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.

Touching damaged electrical cords (i.e.: bare wires, bare receptacles) may result in electrical shock, serious injury or death. Always inspect the electrical cords and extension cords for damage before connecting the unit to the power supply. DO NOT touch a damaged electrical cord, or extension cord, that is connected to the power supply.

Operating the air compressor in wet weather or in wet conditions may result in electrical shock, serious injury or death. Always place the unit (air compressor) in an area away from the misting direction. DO NOT touch the air compressor, electrical or extension cords if your hands or feet are wet.

NOTICE

Servicing or modifying 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 pump life. The air must be filtered, clean, dry and free of moisture. If needed, install an air dryer before the unit.

Using an excessively long or thin-wired extension cord will cause severe damage to the motor. Always use a 3-wire extension cord that has a 3-blade grounding plug and is no more than 25 ft. long and at least 14 gauge.

Operating the air compressor motor with excessive, or insufficient, electrical supply (i.e.: low voltage and/or an overloaded circuit) can cause the air compressor motor's overload protection system circuit breaker to trip. Refer to the serial label for voltage and amperage requirements. Ensure the electrical supply supports the air compressor motor's requirements. For best results use a dedicated circuit.

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

Liquid temperature range	40-100˚F (4.4-37.8˚C)
Electrical requirements	120 VAC at 60 Hz, 8.5 amps (GFCI protected outlet)
Operating voltage	120 VAC
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

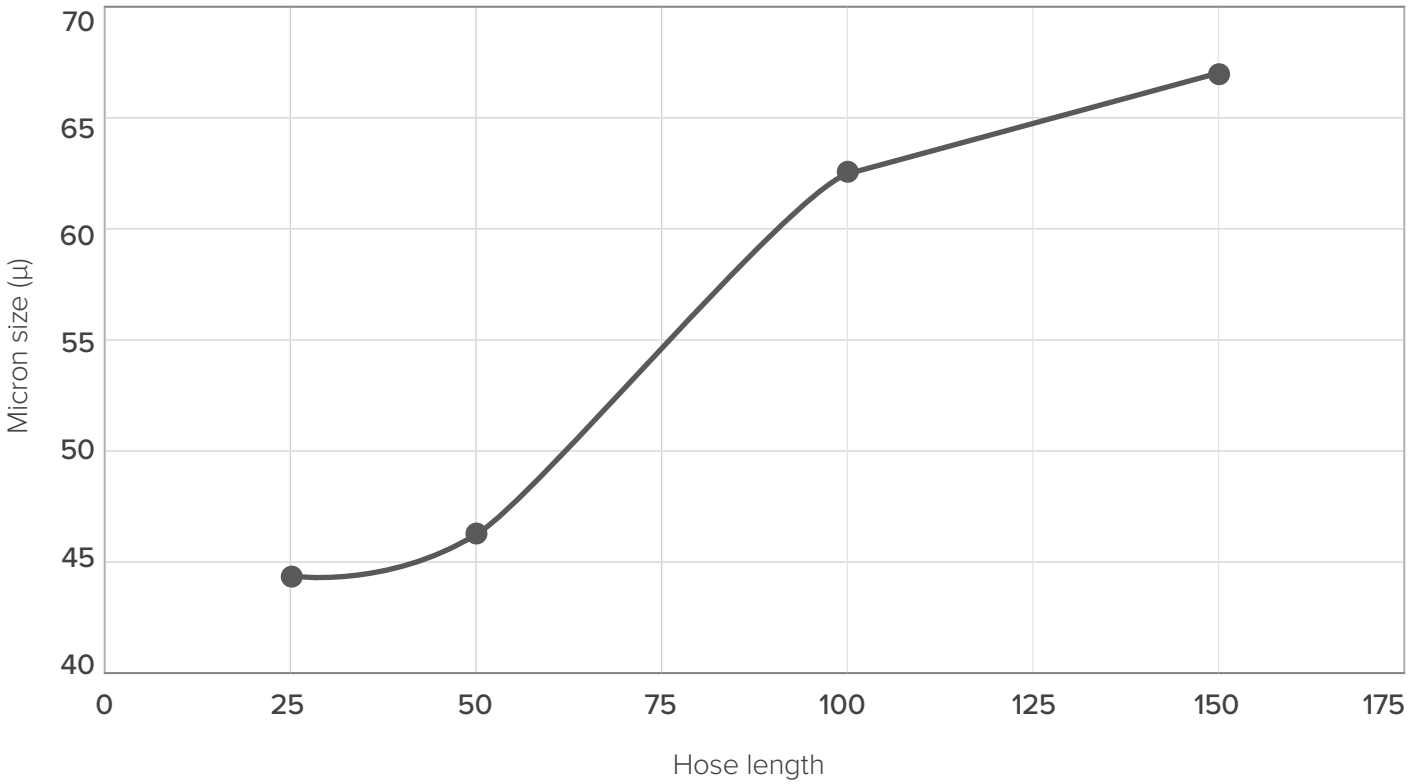
Power type	Electricity
Chemical pickup type	Draws from pre-mixed solution
Number of products unit can draw from	One product
Suction line length/diameter	⅜ in. (9.5 mm) inside diameter
Capacity	15 gallons (56.8 liters)
Discharge line length/diameter	25 ft. (7.6 m) coiled twin-line tubing with 1/4 in. (6.4 mm) outside diameter
Discharge wand/tip type	Handheld double-barrel misting wand with one nozzle or Polypropylene trigger handle with misting nozzle
Output distance	3-4.5 ft. (0.9-1.4 m)
Output volume	8.9 oz/min (0.3 l/min) at 50 psi (3.4 bar) - static
Flow rate*	8.9 oz/min (0.3 l/min) at 50 psi (3.4 bar) - static
Pump seals	Santoprene, Viton, or Kalrez
Run time from full tank**	Approx. 3.5 hours
Nozzle type	Pneumatic fog nozzle
Number of nozzles	One
Droplet size	See Micron Size data on Page 5
Wheel type	Two 10 in. (25.4 cm) non-marking wheels and 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.

** Area covered and run time may vary based on humidity, air flow, and product used.

MU-AC-15N Micron Size

- Micron Size Testing Parameters for PNZ-N130
- Micron size measured using a Malvern Particle Analyzer 19.5 inches from nozzle averaged over 15s at a rate of 25Hz using a 300mm lens
- Backplate regulator set to 50 psi
- Compressor tank pressure set to 40 psi
- Micron size is Volume Median Diameter*
- *Due to pump cycle fluctuations, VMD should be considered +/- 15%

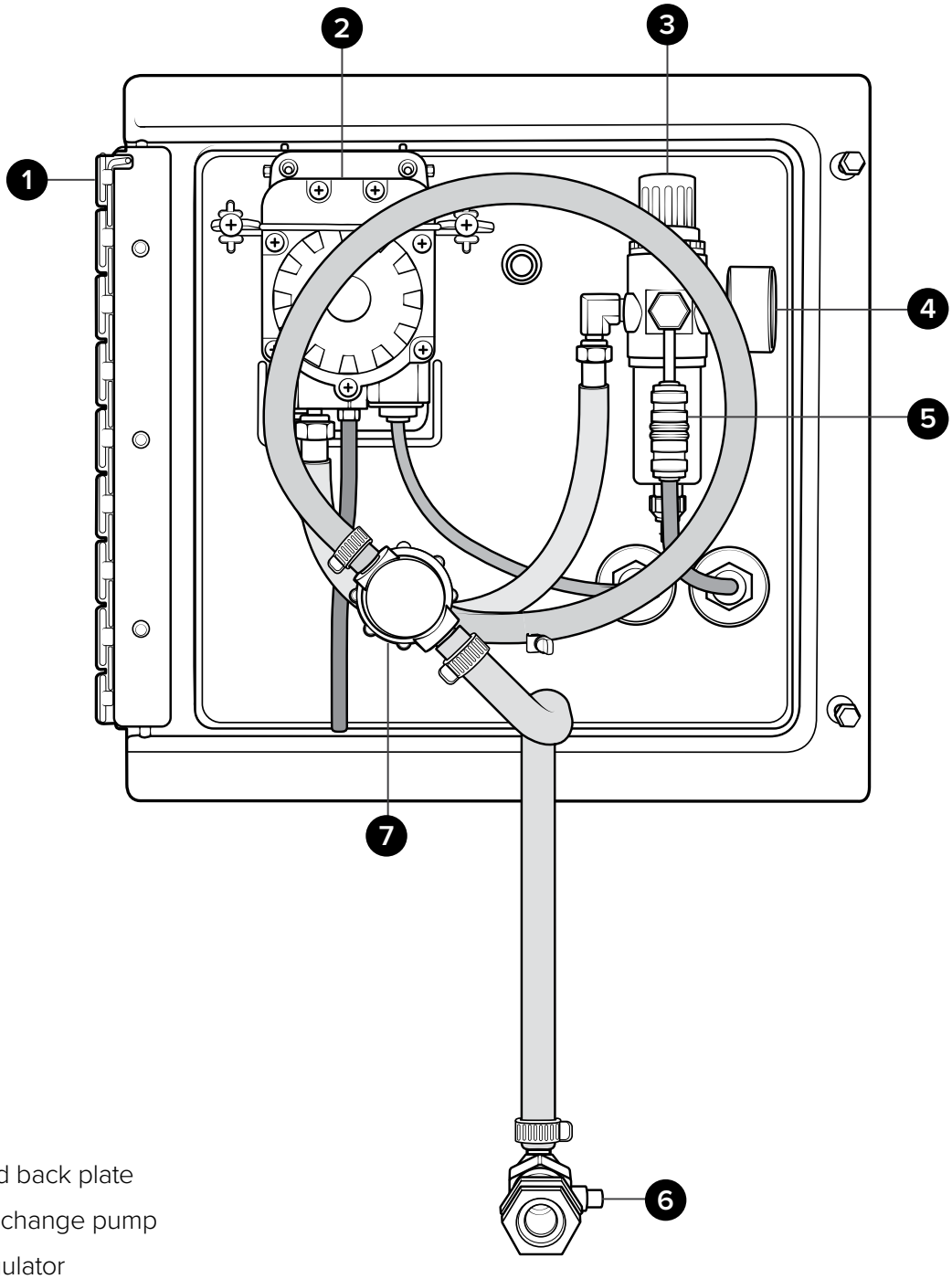


MU-AC-15N Micron Size Chart (40 psi at compressor)				
Hose part number	CTB14-25	TB14TLBLRD-PU-50	TB14TLBLRD-PU-100	TB14TLBLRD-PU-150
Hose length (feet)	25	50	100	150
Droplet size (µ)	44.6	46.4	58.1	67.3

Product Components

Get to know the components that you will need to use, adjust or assemble.

Back plate assembly • Inside view

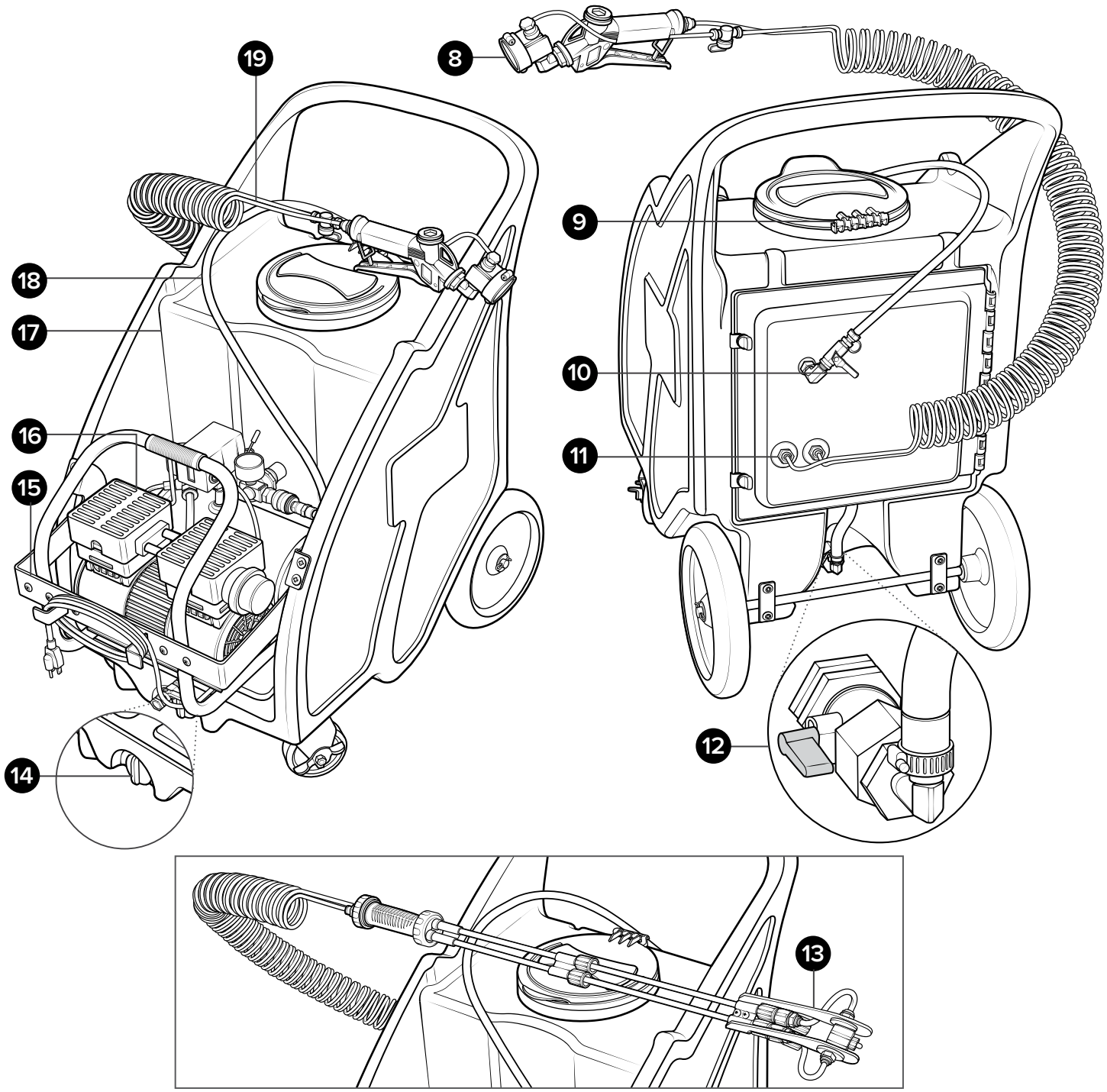


1. Hinged back plate
2. Quick-change pump
3. Air regulator
4. Air pressure gauge
5. ¼ tube x ¼ tube quick-fit check valve
6. Suction line valve
7. In-line strainer

Tank Assembly

Front view

Back view



8. PSGA-PNZ wand

9. Hinged lid

10. Air inlet valve

11. Bulkhead ¼ in. tube

12. Suction line valve

13. TTGA-20-PNZ wand

14. Drain plug

15. Air compressor bracket

16. 120V air compressor - 1HP

17. Tank

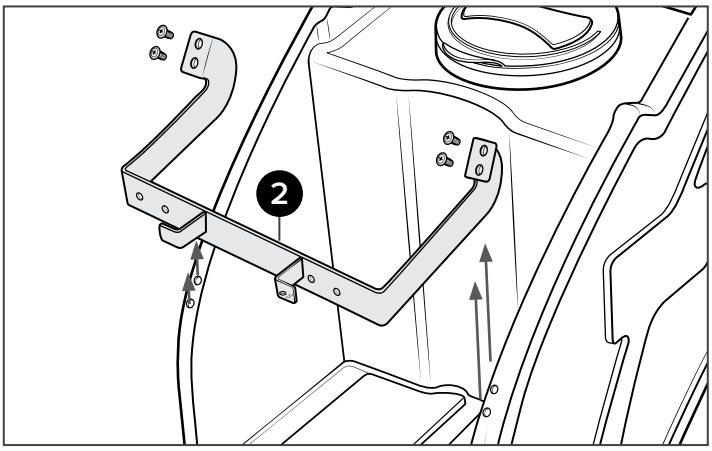
18. Air supply line

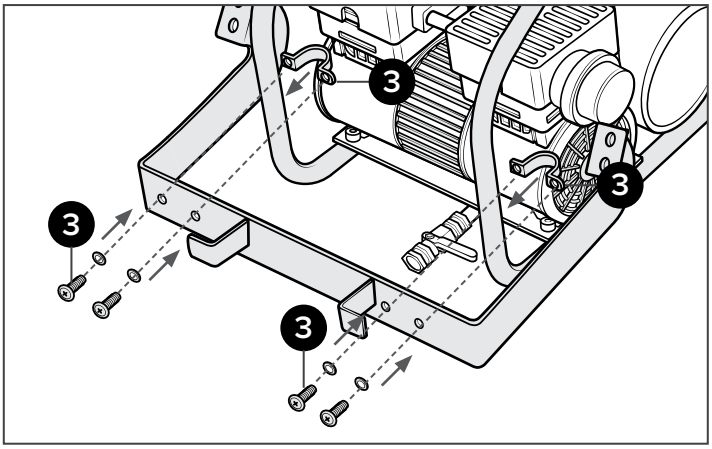
19. 25 ft. coiled tubing

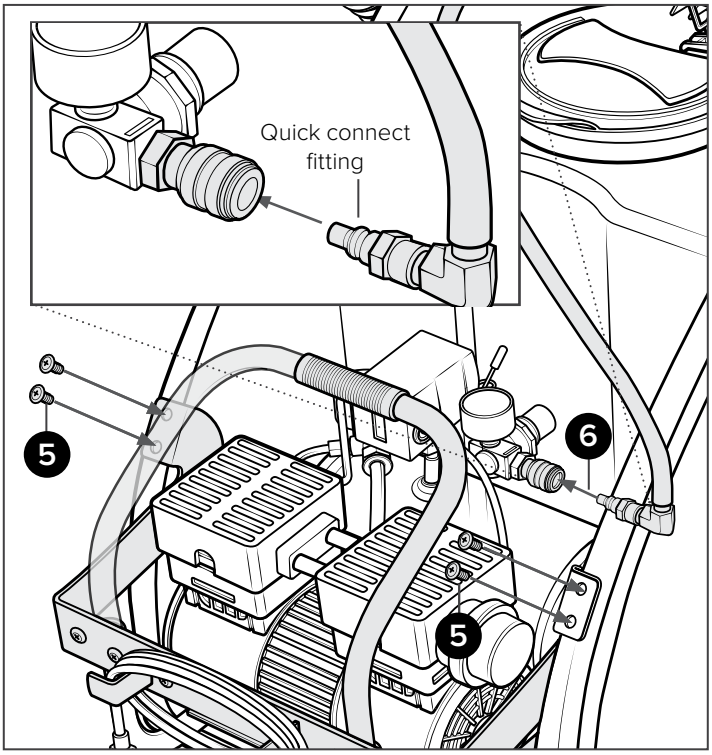
Using your unit

Installation instructions

1. Remove all components from packaging.
2. Remove the compressor bracket from the tank. **Note:** Save the screws to re-attach the compressor later.
3. Place the compressor into the cavity.
4. Attach the compressor bracket to the compressor using the included plastic clamps, ¼-20 screws, and lock nuts.
5. Align the holes on the compressor bracket with the holes on the front tank sides and fasten the screws into the tank.
6. Attach the ¼ in. blue air hose from the back of the unit to the air compressor using the quick connect fittings.







Using your unit

Operating Instructions

1. Follow all instructions from the chemical manufacturer and fill the tank with a ready-to-use solution or mix to the chemical manufacturer instructions.

   Important! Do not spill the solution on the air compressor.

2. Plug the unit in to a 120 VAC GFCI protected power outlet.
3. Turn the power switch ON to start the air compressor.
4. Set the pressure setting to 85 psi.
5. Verify that the air shut-off valve at the trigger gun is in the closed position and open the air inlet valve on the back plate.
6. **On model MU-AC-15N-PSGN130:**

   Point the discharge wand in a safe direction and open the air shut-off valve at the trigger gun. Then squeeze the trigger handle to begin misting. **Note:** Both discharge valves should be completely open while misting.

   On model MU-AC-15N-PSGN130:

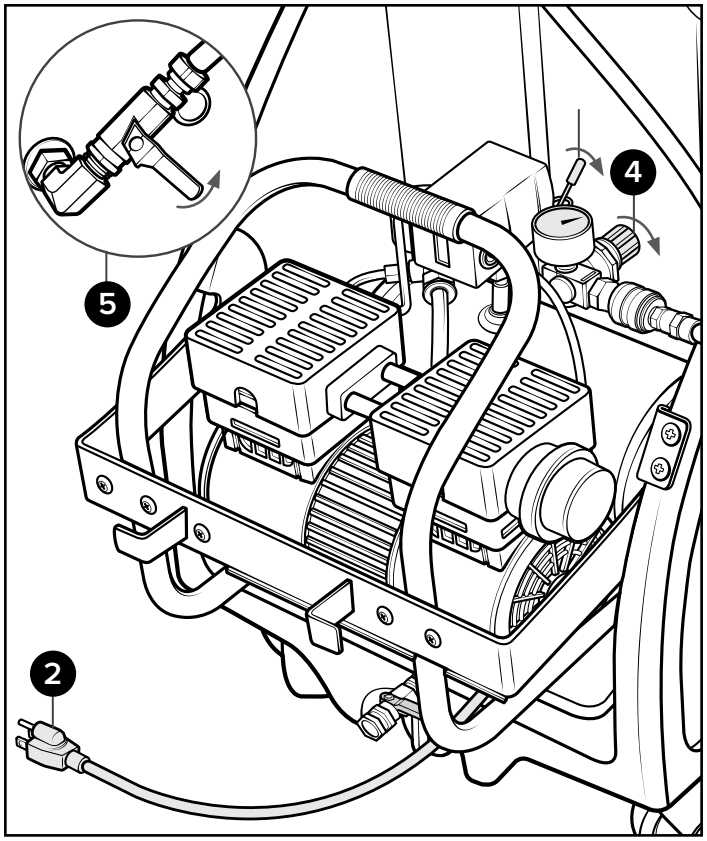
   Point the discharge wand in a safe direction and press the red and blue discharge trigger buttons at the same time to begin misting. **Note:** Both discharge buttons should be completely open while misting.

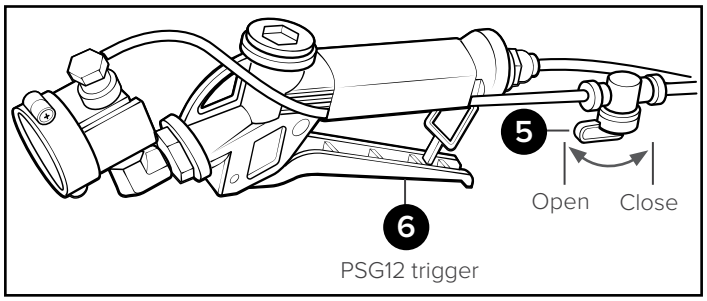
7. **On model MU-AC-15N-PSGN130:**

   To stop misting, release the trigger handle and the close the air shut-off valve.

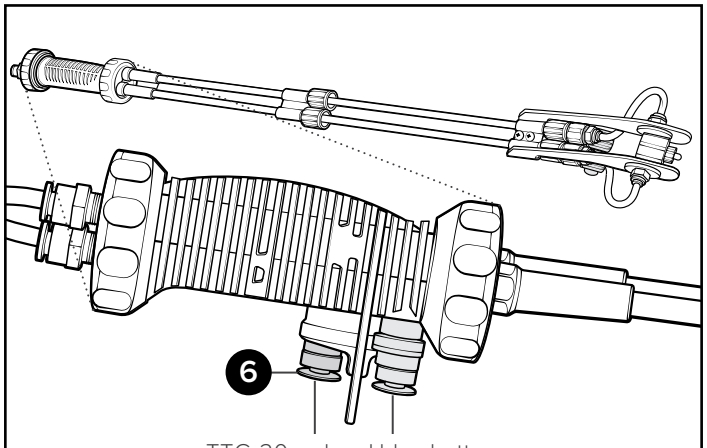
   On model MU-AC-15N:

   To stop misting, release the red and blue discharge trigger buttons.





PSG12 trigger



TTG-20 red and blue buttons

Using your unit

After Use Instructions

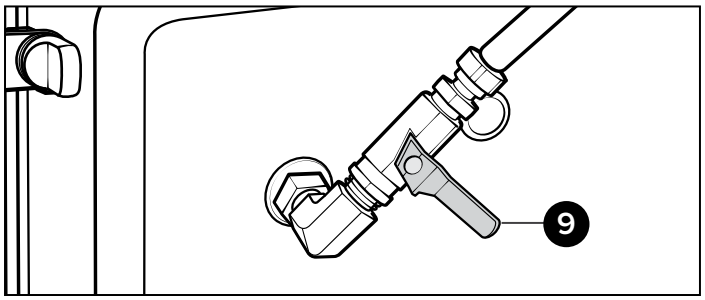
8. Thoroughly flush the unit with fresh water.
9. Shut off the air supply to the unit by closing the air inlet valve on the back plate.
10. Turn the power switch OFF to shut off the air compressor.
11. Unplug the air compressor.
12. **On model MU-AC-15N-PSGN130:**

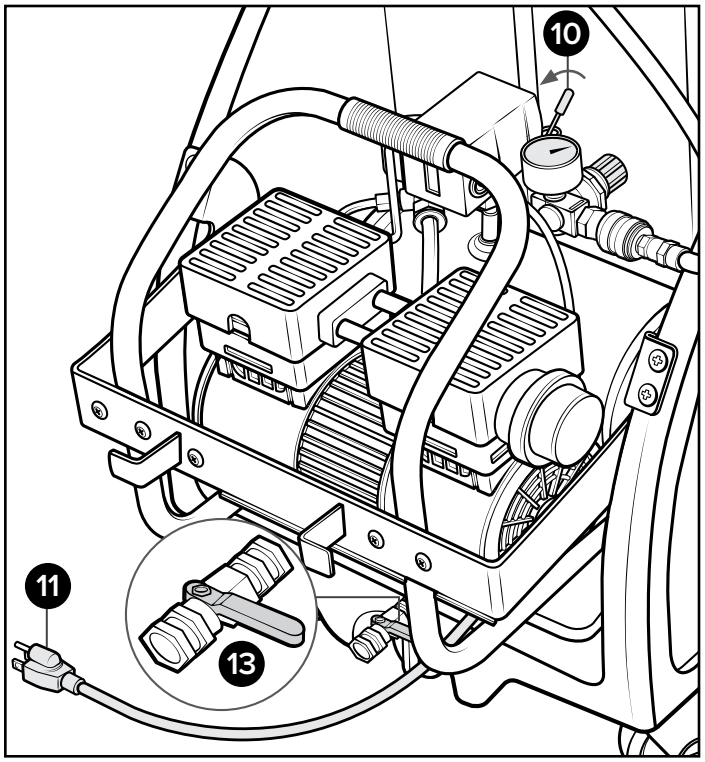
    Open the air shut-off valve at the trigger gun and squeeze the trigger handle to relieve any pressure remaining in the unit.

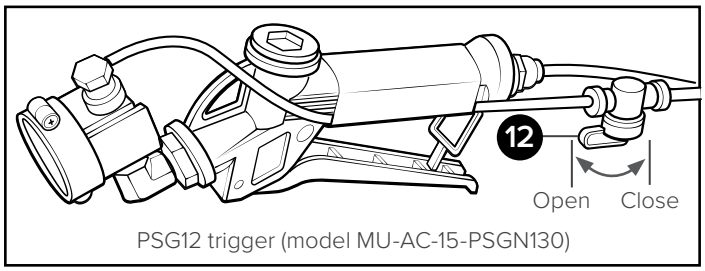
    Once pressure is relieved, release the trigger handle and close the air shut-off valve at the trigger gun.

    On model MU-AC-15N:

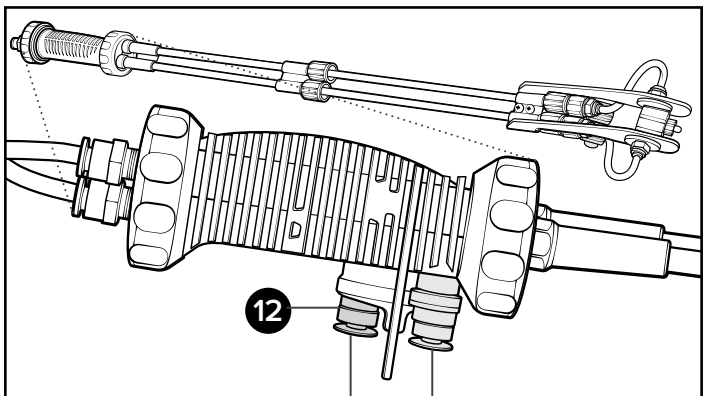
    Press the red and blue trigger buttons to relieve any pressure remaining in the unit. Once pressure is relieved, release both trigger buttons.
13. Depressurize and drain the air compressor tank by opening the ball valve on the compressor tank.







PSG12 trigger (model MU-AC-15-PSGN130)



TTG-20 red and blue buttons (MU-AC-15N)

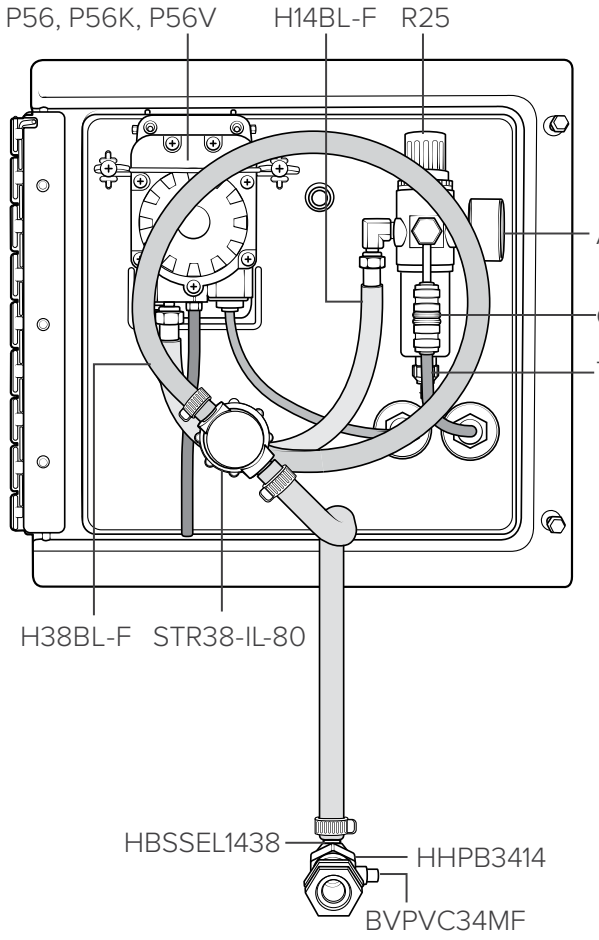
Troubleshooting

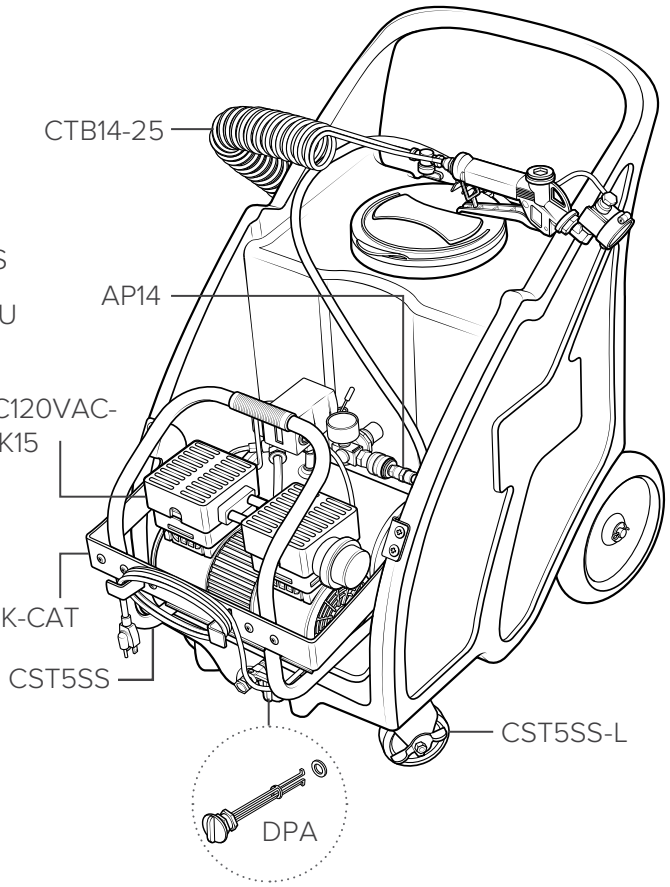
Issue	Solution
Air passes through the pump without cycling	• The pump needs to be replaced.
The solution backs up into the air regulator	• The check valve needs to be replaced.
The unit operates at a reduced pressure	• Check the discharge tubing to ensure that there are no kinks that could obstruct fluid flow. • Check for proper air pressure on the air gauge and adjust the air regulator if needed. The air regulator is factory set at 50 psi. Operating pressure is 50 psi. • Check the air compressor to confirm sufficient air pressure is being supplied. • 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. • Check the chemical suction line and strainer for debris or damage. Clean or replace as needed. To prevent damage to the unit, strainer must always be used.

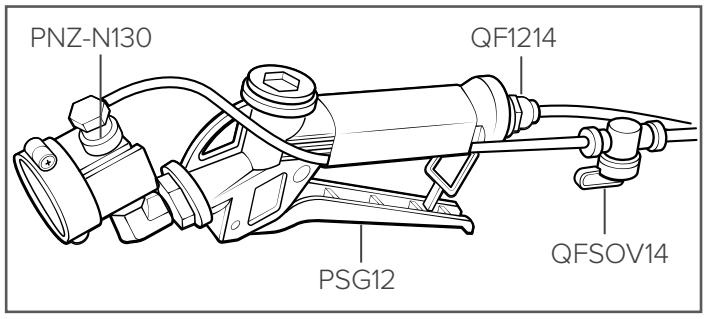
Air Compressor

Issue	Possible Cause	Solution
Compressor stopped and does not start.	Overloaded because of motor overheating.	• Verify main voltage corresponds to specifications. An extension cord that is too thin or too long can cause a voltage drop and cause the motor to overheat. Allow the motor to cool down. Use heavy duty extension cords. Ensure that the compressor is plugged into a socket as close as possible to the consumer unit or fuse box.
	Motor windings burned out.	• Contact Customer Support.
Motor does not start and makes a humming noise.	Low voltage supply to motor.	• Verify main voltage corresponds to specifications. An extension cord that is too thin or too long can cause a voltage drop and cause the motor to overheat. Allow the motor to cool down. Use heavy duty extension cords. Ensure that the compressor is plugged into a socket as close as possible to the consumer unit or fuse box.
Compressor is noisy with metallic clangs.	Compressor head gasket broken or valve plate faulty.	• Stop the compressor and contact the dealer.
	Compressor worn or broken piston ring.	
	Compressor worn or broken cylinder ring.	

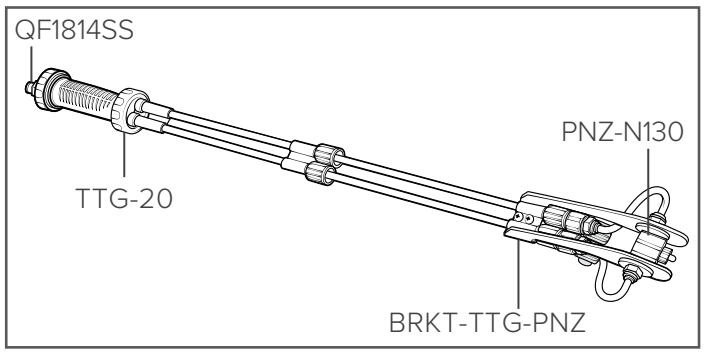
Parts



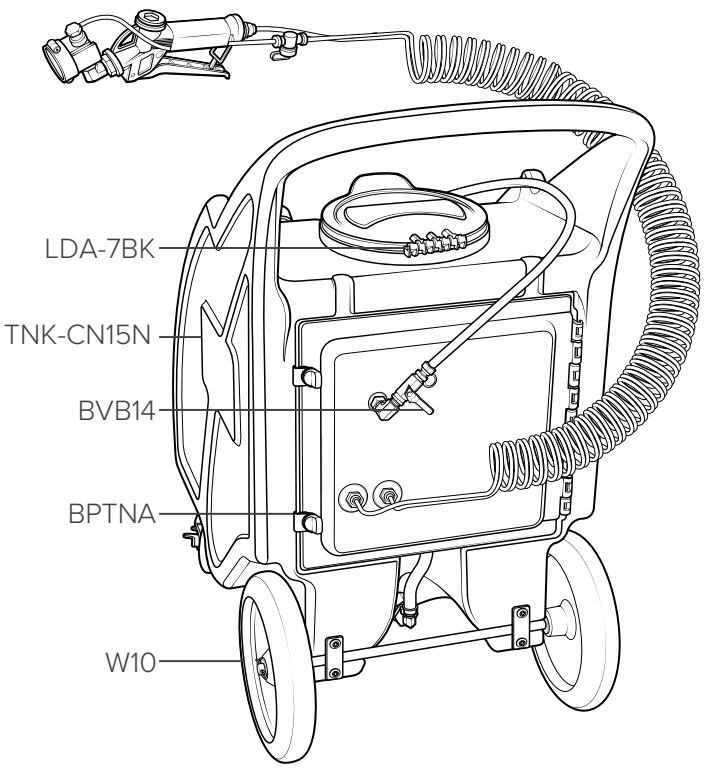




PSGA-PNZ



TTGA-20-PNZ



Item number	Description
ACA-AC120VAC-1HP-TNK15	120v air compressor - 1HP with fittings for AC-15N units
AG100	Air gauge - ⅛ in. NPT - 0-100 PSI markings - dry model
AP14	Air fitting - ¼ in. MPT quick disconnect hose coupling plug - nickel-plated brass
BRKT-TNK-CAT	Bracket - stainless steel - for securing cat compressor to TNK-CN15
BRKT-TTG-PNZ	Bracket for mounting PNZ nozzle to twin trigger gun - stainless steel
BVB14	Ball valve - brass - nickel plated - air inlet valve - ¼ in. FPT x ¼ in. FPT
BVPVC34MF	Ball valve - PVC - ¾ NPT to ¾ FNPT - EPDM seal
CST5SS	Swivel caster - stainless - 5 in. clearance - 4 in. wheel
CST5SS-L	Swivel caster - stainless - 5 in. clearance - 4 in. wheel - with lock
CTB14-25	¼ in. od coiled twin line bonded blue and red tube - polyurethane - 25 ft. reach
CV14QF-S	¼ Tube x ¼ tube CHK quick fit-small
DPA	Drain plug assembly for portable units - includes gasket
H14BL-F	¼ in. id blue hose - hybrid TPE - available per ft.
H38BL-F	⅜ in. id blue hose - hybrid TPE - available per ft.
HBSSEL1438	Hose barb - stainless steel - elbow - ¼ in. MPT x ⅜ in. barb
HHPB3414	Hex head poly bushing - ¾ in. MPT x ¼ in. FPT
LDA-7BK	Lid assembly - includes 7 in. black lid, lid flange, hinge pin, and mounting screws
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
PSG12	Poly spray gun with 2x ½ in. straight thread - gray handle with red clip - 316SS internal spring - includes 2x o-ring
PNZ-N130	Pneumatic mixing nozzle - polypropylene body - blue Kynar tip - 3.7 Gal/hr
PSGA-PNZ	Poly spray gun assembly - with 1x PZN-N130 pneumatic nozzle - includes nozzle guard
QF14P	Quick fit - ¼ MPT x ¼ od tube - polypropylene
QF1814SS	Quick fit - ⅛ MPT x ¼ od tube - stainless
QFBH14	Bulkhead ¼ in. tube polypropylene
R25	Regulator - air - 2x ¼ in. FPT and 2x ⅛ in. FPT ports with bowl and filter - no gauge
STR38-IL-80	In line strainer - 2x ⅜ hose barb - EPDM gskt - #80 mesh stainless steel screen - gray bowl
TTG-20	Twin trigger gun - polypropylene body - stainless lance - 20 in. long - 2x ⅛ straight thread inlet - 2x ⅜ straight thread outlet
TTGA-20-PNZ	Twin trigger gun assembly - 20 in. long - 1x PNZ-N130 pneumatic nozzle
TB14BL-PU	¼ in. od blue tube - polyurethane - available per ft.
TB14RD-PU	¼ in. od red tube - polyurethane - available per ft.
TNK-CN15N	Tank - 15 gal - concentrate - natural
W10	Wheel - non-marking - 10 in.