
USER MANUAL

**MODEL NUMBER:
FI-50N
FI-50NK
FI-50NV
AND RELATED UNITS**

**50 Gallon Air Operated Portable Foam
Unit**

English (Original Instructions)

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

WARNING



Read this manual completely and understand the machine before operating or servicing it.

- Read all instructions before installing or operating unit.
- Always wear appropriate personal protective equipment (PPE) when operating or servicing unit.
- Always follow all chemical safety precautions and handling instructions provided by the chemical manufacturer and Safety Data Sheet (SDS).
- If this unit is modified or serviced with parts not listed in this manual, the unit may not operate correctly.
- Never point the discharge wand at yourself, another person, or any object you do not want covered in chemical.
- Always depressurize unit after use (as described in the After Use Instructions). Always store unit depressurized, with the discharge ball valve in the closed position.
- Do not exceed an incoming air pressure of 100 psi (7 bar).
- Do not exceed a fluid temperature of 100°F (37°C).
- Always flush the unit with fresh water for 5 minutes when switching from an alkaline to an acid or an acid to an alkaline.
- Never use unit with hydrocarbons or flammable products.
- Only use clean and dry air. Air must be filtered and free of moisture or pump life will be diminished. If needed, install an air dryer before unit.
- Do not use an air lubricator before the unit.
- Never use unit if it is damaged or leaking.
- Disconnect unit from electrical power source before servicing.

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.



Always remember to recycle.

*Specifications and parts are subject to change without notice.

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| OPTIONS | |
|---|---------------------------------------|
| | Pump Seal Material |
| FI-50N | Santoprene (<i>standard</i>) |
| | Viton (V) |
| | Kalrez (K) |
| Add bold option codes to item number as shown. For standard options, no option code is needed. Examples: <ul style="list-style-type: none"> • FI-50N (standard unit with Santoprene pump seals) • FI-50NV (unit with Viton pump seals) | |

| REQUIREMENTS | |
|-----------------------------|--|
| Compressed air requirements | 40-80 psi (3-5 bar) with 5-10 cfm (141-283 l/min) |
| Liquid temperature range | 40-100°F (4.4-37°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 pre-mixed solution |
| Number of products unit can draw from | One product |
| Suction line length/diameter | 3/8 in. (9.5 mm) inside diameter |
| Capacity | 50 gallons (189.27 liters) |
| Discharge hose diameter/length | 50 ft. (15.24 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 |
| Output distance | 25-30 ft. (7-9 m) |
| Output volume | 20-45 gal/min (75-170 l/min) of foam |
| Flow rate* | 2 gal/min (7.6 l/min) |
| Pump seals | Santoprene, Viton, or Kalrez |
| Wheel type | Two 10 inch non-marking wheels, two 5 inch casters with lock |

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

READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

Operation Instructions:

1. Follow all instructions from chemical manufacturer. Fill the tank with water and the advised percentage of chemical concentrate.
2. With ball valve (HV60) in the closed position, plug an air line into the air fitting (AP25).
3. Slowly open the ball valve (HV60) completely.
4. Adjust the needle valve (NV14Y) to desired wetness or dryness of foam following the steps below:
 - a. Close needle valve completely in clockwise direction.
 - b. Open needle valve in counter-clockwise direction 3 complete turns.
 - c. Continue to open valve in ¼ turn increments allowing 30 seconds between adjustments until proper consistency of foam is achieved.

After Use Instructions:

1. Flush the unit with fresh water for 5 minutes.
2. Disconnect the air line from the air fitting (AP25) and relieve any remaining pressure in the system by opening the discharge ball valve (HV60).
3. Close the ball valve (HV60) after all pressure has been relieved from the system.

Maintenance Instructions:

To keep your portable tank foamer operating properly, periodically perform the following maintenance procedures:

- Check the air pump (P56/P56K/P56V) for wear and leaks.
- Inspect hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Replace filter (AFR25) in regulator (R25) as needed.
- Check the suction tube and screen for debris and clean as needed.
- Drain compressor tank on a regular basis to ensure proper operation of pump.

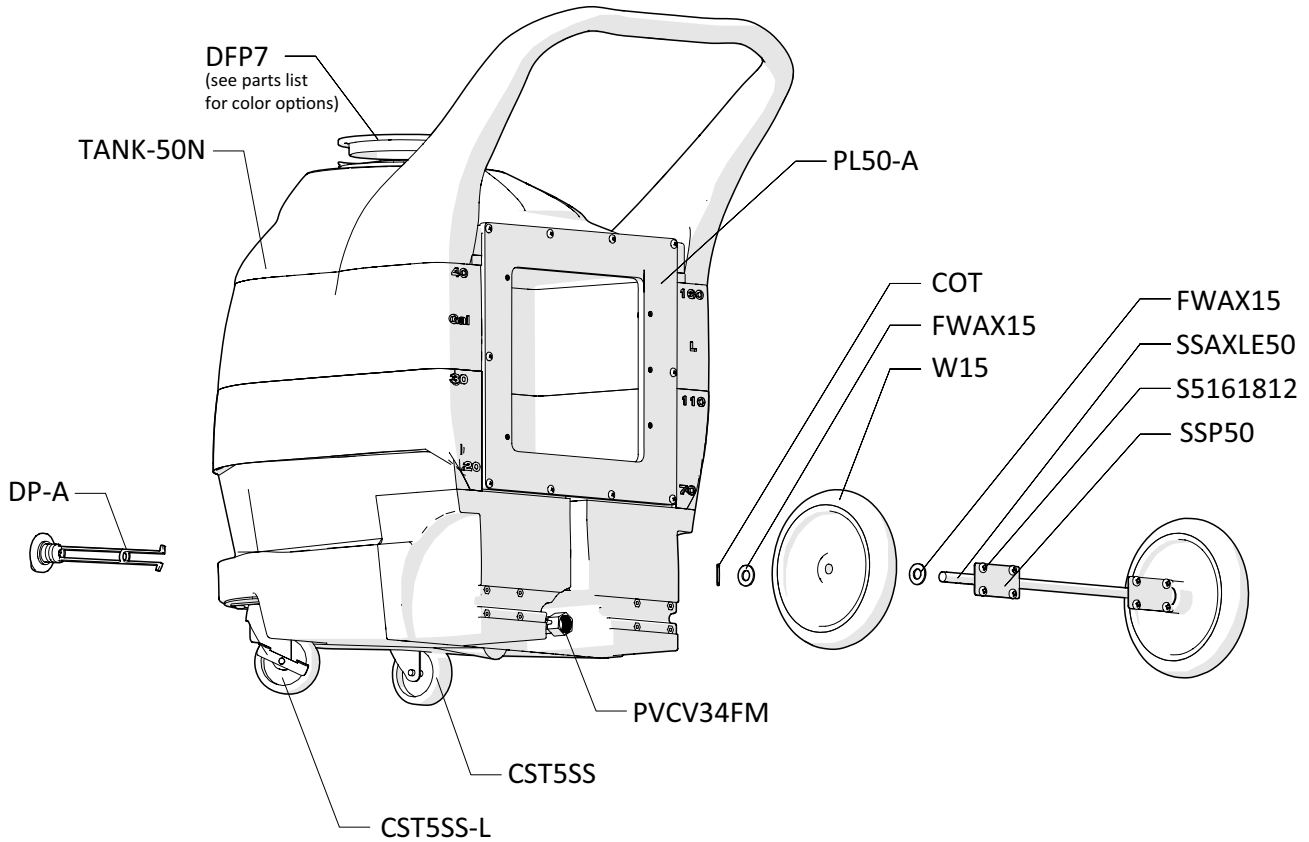
Troubleshooting Instructions:

- Check to ensure the discharge hose is uncoiled properly, and that there are no kinks that could obstruct fluid flow.
- Check air regulator bowl (ABR25) for debris such as water, oil, or rust particles. Clean by unthreading the air regulator bowl from the air regulator (R25).
- If needle valve (NV14Y) valve is open too far, the pump (P56/P56K/P56V) will cycle improperly due to lack of air pressure. If this occurs, reset needle valve as described in Operation Instruction #4.
- Make sure proper foaming chemical and concentration is being used.

- If air passes through the pump (P56/P56K/P56V) without cycling, the pump needs to be replaced.
- If foam solution backs up into air regulator bowl (ABR25), the check valve (CV38) needs to be replaced.
- If foam comes out wet, no matter where the needle valve (NV14Y) is positioned, the check valve (CV38) may need to be replaced.
- Check for proper air pressure on air gauge (AG100). Air regulator (R25) is factory set at 50 psi (3.4 bar). Operating range is 40 to 80 psi (3 to 5 bar) with 5 to 10 CFM (141 to 283 l/min)
- If the unit foams at a reduced pressure:
 - o Check the air compressor supplying the unit. If the pressure is less than 40 psi, turn the foam unit off until the compressor can catch up.
 - o If the air supply is 50 psi (3.4 bar) or above, check the AG100, which should read near 50 psi (3.4 bar). If the AG100 is more or less than 50 psi (3.4 bar), adjust the pressure by turning the knob on the top of the air regulator (R25).
 - o If both of the above are okay, the stainless steel mixing mesh (SS-MESH) could be plugged. Remove and clean it by following the instructions below:
 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 (HV60) in the open position.
 2. Remove the stainless adaptor (HBSS1234) from the tee fitting (SST12HB38).
 3. Remove the screen and the mixing mesh from inside the tee fitting (SST12HB38).
 4. Clean any particles from the mixing mesh and the screen.
 5. Replace the mixing mesh and then the screen into the back of the tee and screw the stainless adaptor back into the tee. It is recommended to use a pipe thread sealant when reinstalling the stainless adaptor back into the tee fitting (SST12HB38). If the mixing mesh has a lot of foreign particles in it, make sure the strainer (STR38-IL) is still in place.
- Check for plugged strainer (STR38-IL). Replace strainer if necessary. Strainer must be used.

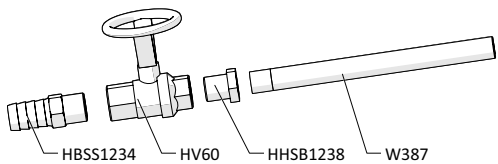
READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

**TANK ASSEMBLY
ITEM NUMBER: TANK-50N-A**

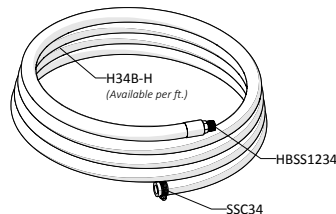


**HOSE AND WAND ASSEMBLY
ITEM NUMBER: SSWA38-HA50**

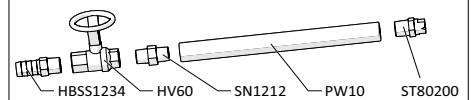
**ZERO TIP FOAM WAND ASSEMBLY
ITEM NUMBER: SSWA38**



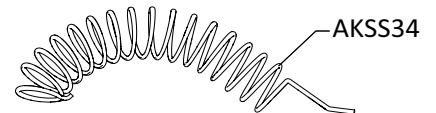
**50 ft (15.2 m) HOSE ASSEMBLY
ITEM NUMBER: H34-50**



**FAN TIP FOAM WAND ASSEMBLY
ITEM NUMBER: PWA34-ST**



**ANTI-KINK SPRING ASSEMBLY
ITEM NUMBER: AKSS34**



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PLATE ASSEMBLY

ITEM NUMBER (Santoprene pump): PA-PF34

ITEM NUMBER (Kalrez pump): PA-PF34K

ITEM NUMBER (Viton pump): PA-PF34V

Plate - Inside View

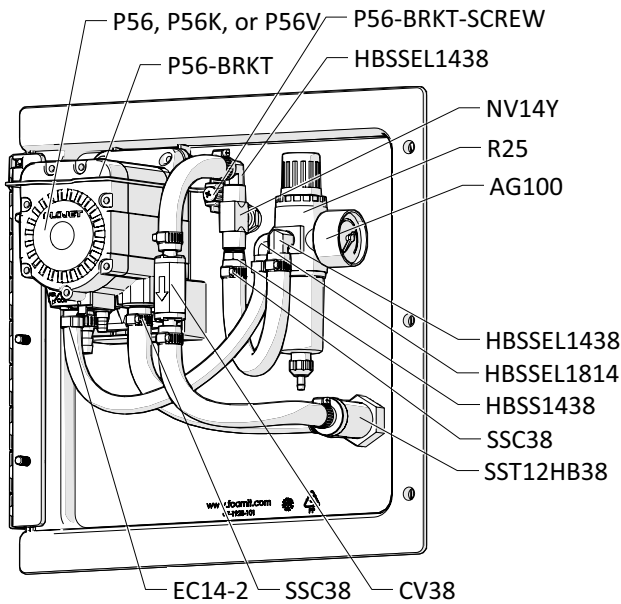
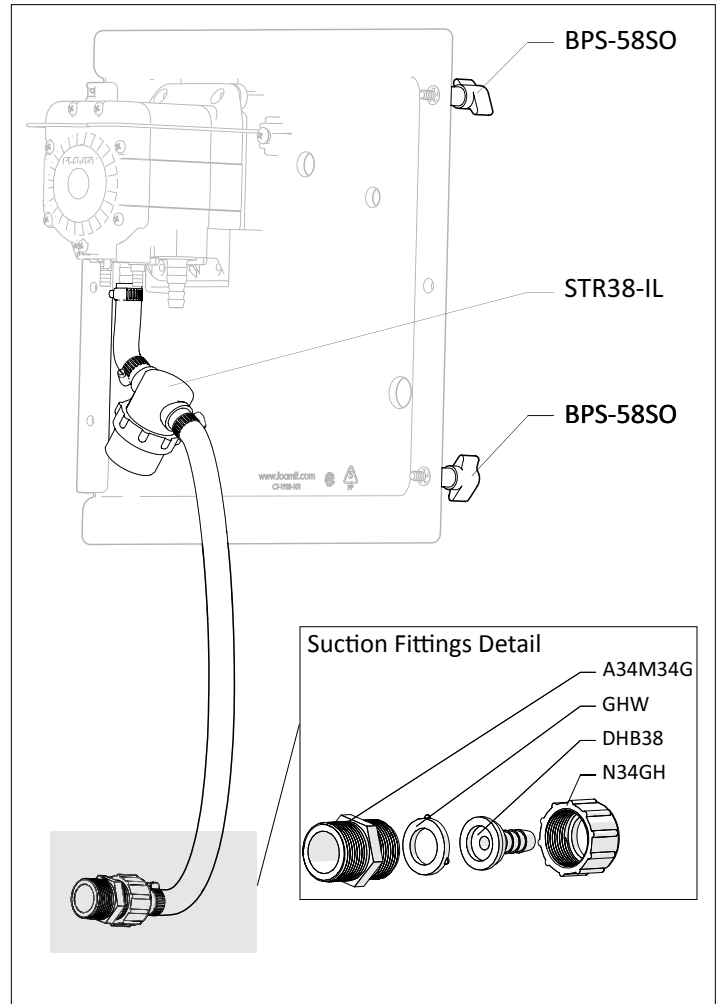
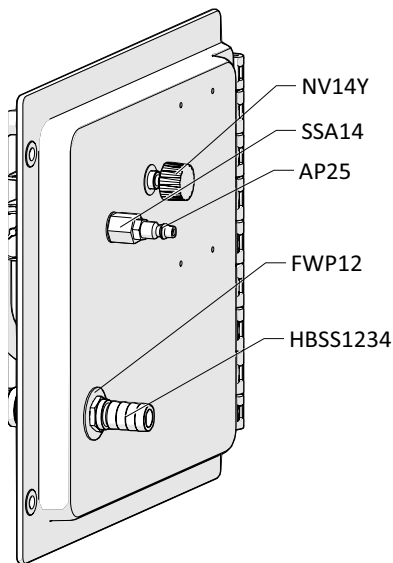
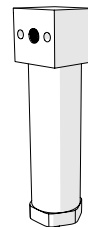


Plate - Back View

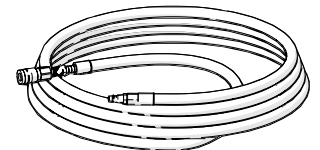


OPTIONAL COMPONENTS

WATER SEPARATOR
ITEM NUMBER: WS-20CFM



30 ft (9 m) AIR HOSE ASSEMBLY
ITEM NUMBER: AH30



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| ITEM NUMBER | DESCRIPTION |
|-----------------|---|
| A34M34G | 3/4 GHT X 3/4 MPT ADAPTOR |
| AG100 | 1.5 INCH DRY MODEL 20 DUAL SCALE GAUGE |
| AKSS34 | SS ANTI-KINK SPRING FOR 3/4 INCH HOSE |
| AP25 | PLUG 1/4 NPTM AIR FITTING - BRASS |
| B103234 | 10-32 X 3/4 PHIL TRUSS MACH SCR 18-8 |
| B8X58 | 8-15 X 5/8 inch PHIL FLAT TY-B 316 S.S. |
| BPS-58SO | Back Panel Screw - 5/8 inch with Stand Off |
| BPS-SSR | 1/4 INCH PUSHNUT BOLT RETAINER STAINLESS STEEL |
| COT | 1/8 X 1 COTTER PIN 18-8 S/S |
| CST5SS | 5in S.S. SWIVEL CASTER WITH 4 IN WHEEL |
| CST5SS-L | 5in S.S. SWIVEL CASTER WITH 4 IN WHEEL AND LOCK |
| CV38 | PVC CHECK VALVE 3/8 BARBS - SS SPRING |
| DFP7 | 7 INCH HINGED CAP ASSEMBLY - INCLUDES BLACK CAP, LID FLANGE AND HINGE PIN |
| <i>DFP7-C</i> | 7 INCH FILL CAP POLYPRO BLACK |
| <i>DFP7-F</i> | 7 INCH TANK LID FLANGE POLYPRO |
| <i>DFP7-PIN</i> | HINGE PIN FOR DFP7-C & DFP7-C |
| DFP7-C-BL | 7 INCH FILL CAP POLYPRO BLUE PANTONE |
| DFP7-C-GN | 7 INCH FILL CAP POLYPRO GREEN PANTONE |
| DFP7-C-RD | 7 INCH FILL CAP POLYPRO RED PANTONE |
| DFP7-C-YL | 7 INCH FILL CAP POLYPRO YELLOW PANTONE |
| DHB38 | 3/4 FLAT SEAT 3/8 HOSE BARB |
| DP-A | DRAIN PLUG ASSEMBLY INCLUDES DRAIN PLUG & GASKET |
| <i>DP</i> | FRONT DRAIN PLUG FOR PORTABLE UNIT POLYPRO |
| <i>DP-G</i> | FKM LATHE CUT 60 DUROMETER FKM |
| EC14-2 | OETIKER CLAMP 13.8 |
| EC75 | OETIKER CLAMP-12/04/07 |
| F34SS-L | SS CRIMP FERRULE 1.90inches X 1.5 inches LONG |
| FWAX15 | FLAT AXLE WASHER |
| FWP12 | 7/8 ID X 1.5 OD X 0.05 THK SSFW |
| FWP14 | C-816 1/2in SS WASHER |
| GHW | GARDEN HOSE WASHER - D-#102 |
| H14B-H | 1/4 INCH BLUE HOSE - Available per ft. |
| H34B-H | 3/4 INCH BLUE HOSE - Available per ft. |
| H38B-H | 3/8 INCH BLUE HOSE - Available per ft. |
| HBSS1234 | STAINLESS HOSE BARB 1/2 X 3/4 |
| HBSS1438 | STAINLESS HOSE BARB 1/4 MPT X 3/8 BARB |
| HBSEL1438 | STAINLESS HOSE BARB ELBOW 1/4 INCH NPT X 3/8 HOSE BARB |
| HBSEL1814 | 304 STAINLESS ELBOW 1/8 INCH NPT X 1/4 INCH HOSE BARB |

| | |
|------------------|---|
| HHSB1238 | HEX HEAD S.S. REDUCER BUSHING 1/2in X 3/8 |
| HV60 | 1/2in STAINLESS BALL VALVE - w/ WELDED NUT |
| N34GH | 3/4 GARD HSE SWIVEL NUT |
| NV14Y | FLOW CONTROL VALVE - 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 |
| <i>20756103B</i> | Polypro G57 Air Port x HB Straight, w/ Viton o-ring |
| <i>HB14P</i> | 1/4in BRASS HB AIR FITTING /G57/P56 |
| <i>HB5638</i> | HOSE BARB FOR P56 PUMP |
| <i>HB5638K</i> | HOSE BARB FOR P56K PUMP |
| <i>HB5638V</i> | HOSE BARB FOR P56V PUMP |
| P56-BRKT | PUMP BRACKET- STAINLESS STEEL |
| P56-BRKT-SCREW | HI LO SCREW FOR RETAINING P56-BRKT |
| PL50-A | FI-50 ADAPTOR PLATE |
| PLPF | PORTABLE FOAMER BACK PLATE W/ HINGE AND HOLES |
| PLPF-PIN | 302 STAINLESS PORTABLE PLATE HINGE PIN |
| PVCV34FM | PVC VALVE 3/4in FPT X 3/4in MPT |
| R25 | AIR REGULATOR - 1/4ft TWO PORT 1/8ft TWO PORT - INCLUDES FILTER AND BOWL |
| S142034 | 1/4-20 X 3/4 PHIL TRUSS M/S 18-8 |
| S5161812 | 5/16-18 x 1/2 Phil Pan 18-8 |
| SSA14 | SS304 MALE/FEMALE ADAPTOR 1/4 NPT X 1/4 NPT |
| SSAXLE50 | SSAXLE - 50 GAL 5/8 x 23.05 |
| SSC38 | WORM GEAR CLAMP, S/S (.25-.63) |
| SSP50 | STAINLESS STEEL AXLE PLATE (50 GAL) |
| SSP50-CSTR | STAINLESS STEEL PLATE FOR CASTER SUPPORT |
| SSST | SCREEN DISC .687 DIA. 10 X 10 MESH @ .020 DIA. 300 SERIES S.S. |
| SST12HB38 | STAINLESS TEE COMBO 1/2in FPT X 3/8 in BARB WITH SSST AND S.S. MESH |
| <i>SSMESH</i> | STAINLESS STEEL MESH- 1 ball |
| STR38-IL | IN LINE STRAINER 3/8 BARB 20 MESH 304 STAINLESS EDPM GSKT |
| TANK-50N | 50 GALLON PORTABLE UNIT NATURAL IN COLOR |
| TW916 | 1/2 INT TOOTH L/W 410SS |
| W15 | NONMARKING WHEEL FOR PORTABLE UNITS |
| W387 | S.S. 304 SPRAY WAND 3/8in MPT X 7in LONG - THREAD ON ONE END |