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# **USER MANUAL**

**MODEL NUMBER:**

**FI-10N**

**FI-10NK**

**FI-10NV**

**FI-10N-ST**

**FI-10NK-ST**

**FI-10NV-ST**

**AND RELATED UNITS**

**10 Gallon Air Operated Portable Foam  
Equipment**

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**English (Original Instructions)**

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## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT



# WARNING



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

- Always wear protective clothing, gloves, and eyewear while operating or servicing unit.
- Avoid contact of cleaning agent with skin and eyes. If contact occurs, see SDS sheet for further first aid measures.
- Read chemical's Safety Data Sheet (SDS) before using this unit.
- Never point the discharge wand at anyone.
- Incoming air pressure cannot exceed 100 psi (7 bar).
- After each use, relieve all remaining pressure in the system by unplugging the air line from the unit and opening the discharge ball valve to prevent accidental discharge.
- After relieving the pressure from the unit, store the unit with the ball valve in the closed position.
- Be sure to flush the unit with fresh water for 5 minutes when switching from an alkaline to an acid or an acid to an alkaline.
- Do not exceed a fluid temperature of 100°F (37°C).
- 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 air lubricator 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.



Always remember to recycle.

\*Specifications and parts are subject to change without notice.

### Specifications:

Hose ..... 20 feet reinforced hose, 1/2 inch inside diameter  
(6 meters reinforced hose, 12.7 mm inside diameter)  
Foam Output..... 15 to 30 gallons/minute  
(57 to 144 liters/minute)  
Foam Distances ..... 15 to 20 feet (4.6 to 6 meters)  
Liquid Temperature ..... 40°F to 100°F (4.4°C to 37°C)  
Noise Level..... Average 79 dB(A)  
Discharge Wand Vibration Level ..... Maximum 2.5 m/s<sup>2</sup>

### Dimensions:

Length ..... 19 in (483 mm) approximately  
Width ..... 16 in (406 mm) approximately  
Height ..... 41 in (1041 mm) approximately  
Weight, including discharge hose and wand:  
(Empty) ..... 39 lbs (18 kg) approximately  
(Full) ..... 138 lbs (63 kg) approximately

### Requirements:

Compressed Air Pressure Requirements: Air regulator (R25) factory set at 50 psi (3.4 bar). Operating range is 40 to 80 psi (3 to 5 bar) with 3.5 to 8 CFM (99.1 to 227 l/min)

Chemical requirements: follow all instructions from chemical manufacturer.

### Air Operated Double Diaphragm Pump Models Offered:

P56: Polypropylene body with Santoprene diaphragm  
P56V: Polypropylene body with Viton diaphragm  
P56K: Polypropylene body with Kalrez diaphragm

### Acceptable Products:

Alkaline cleaners, Caustic cleaners, and Acids

\* D-Limonene may only be used with Kalrez pump

\* Chlorine may only be used with Viton or Kalrez pump

**DO NOT USE: All hydrocarbons**

## 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.
- 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 (141.64 to 283.30 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 (4.14 bar) or above, check the AG100, which should read near 50 psi (4.14 bar). If the AG100 is more or less than 50 psi (4.14 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.

### 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:

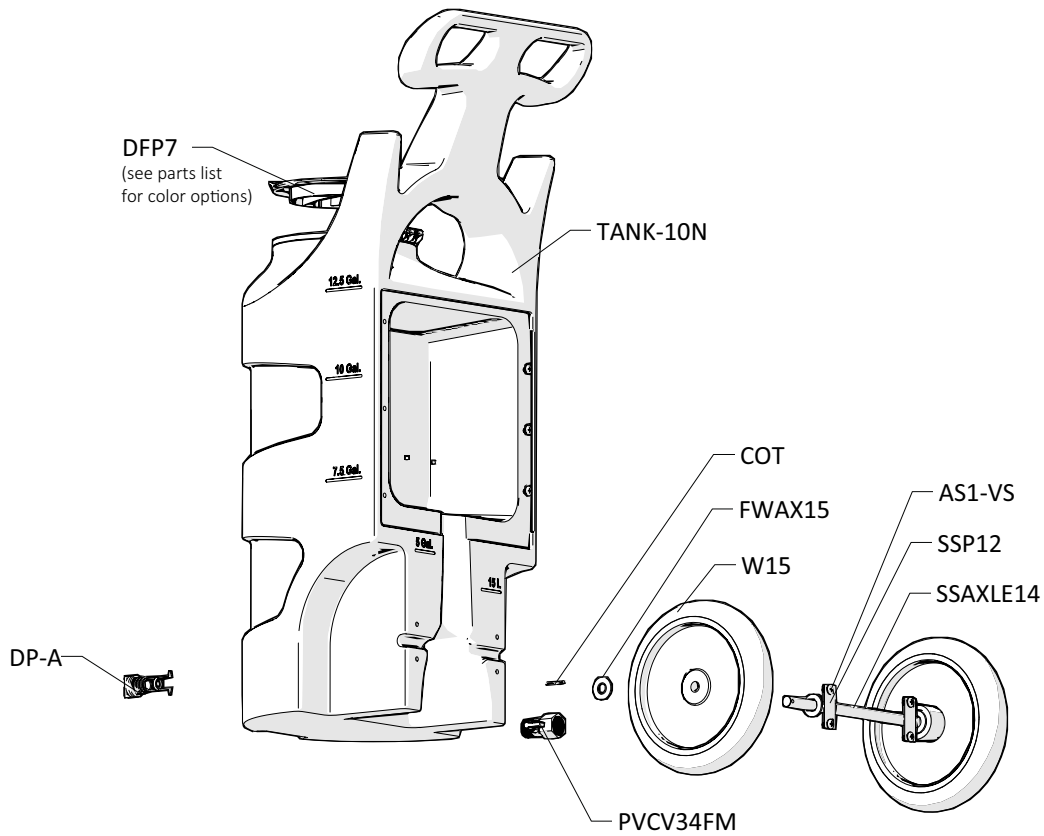
- Check the air pump (P56/P56K/P56V) for wear and leaks.
- Inspect hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Replace filter (AFR25) in regulator (R25) as needed.
- Check the suction tube and screen for debris and clean as needed.
- Drain 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.
- Check for plugged strainer (STR38-IL). Replace strainer if necessary. Strainer must be used.

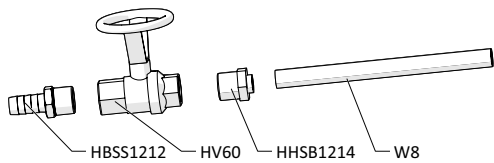
**READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT**

**TANK ASSEMBLY  
ITEM NUMBER: TANK-10N-A**

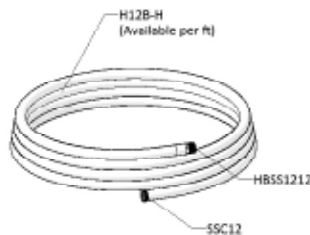


**HOSE AND WAND ASSEMBLY  
ITEM NUMBER: SSWA12-HA20**

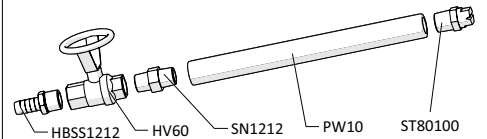
**ZERO TIP FOAM WAND ASSEMBLY  
ITEM NUMBER: SSWA12**



**20 ft (6 m) HOSE ASSEMBLY  
ITEM NUMBER: H12-20**



**FAN TIP FOAM WAND ASSEMBLY  
ITEM NUMBER: PWA12-ST**



**ANTI-KINK SPRING ASSEMBLY  
ITEM NUMBER: AKSS12**



## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

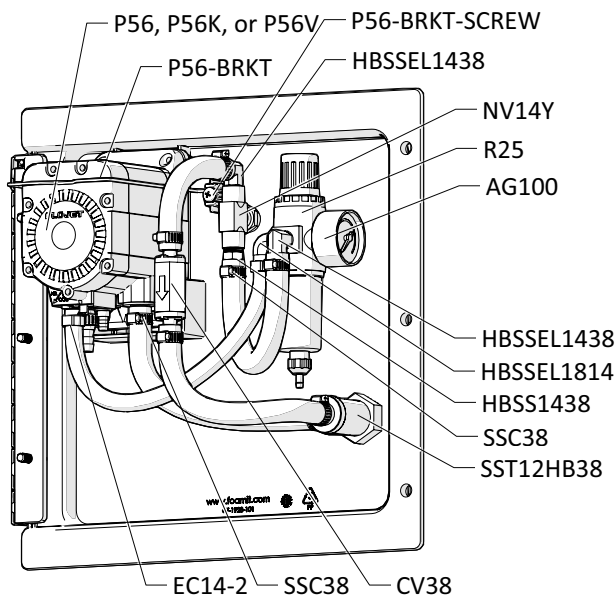
### PLATE ASSEMBLY

ITEM NUMBER (Santoprene pump): PA-PF12

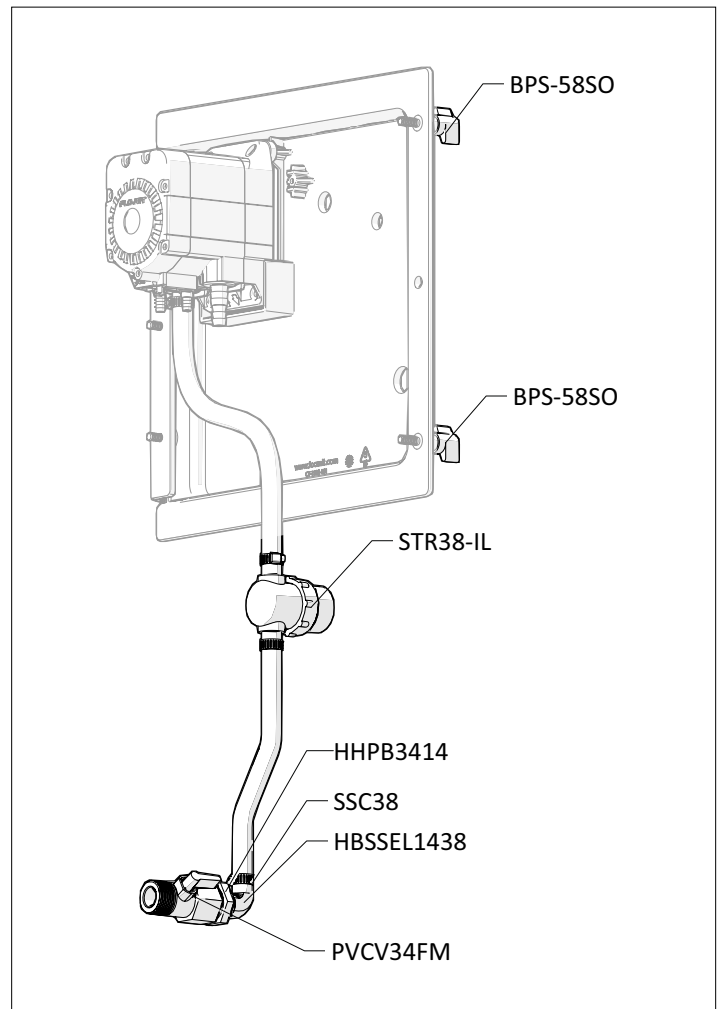
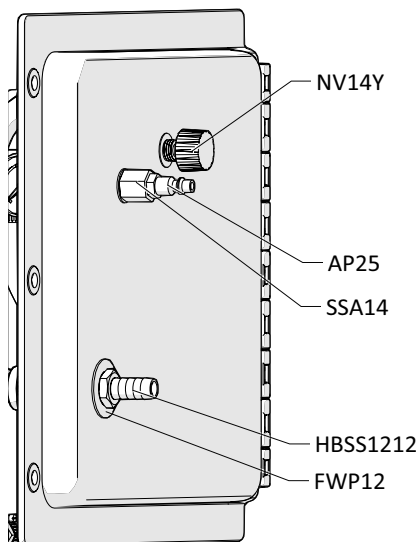
ITEM NUMBER (Kalrez pump): PA-PF12K

ITEM NUMBER (Viton pump): PA-PF12V

#### Plate - Inside View

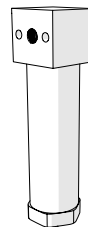


#### Plate - Back View



### OPTIONAL COMPONENTS

WATER SEPARATOR  
ITEM NUMBER: WS-20CFM



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



## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

| ITEM NUMBER     | DESCRIPTION  |
|-----------------|--|
| AG100           | 1.5 INCH DRY MODEL 20 DUAL SCALE GAUGE                               |
| AKSS12          | SS ANTI-KINK SPRING FOR 1.2 INCH HOSE WITH PIN                       |
| <i>AKSS12-P</i> | SS ANTI-KINK SPRING FOR 1.2 INCH HOSE                                |
| <i>AKSS-HPC</i> | ANTI-KINK STAINLESS STEEL HITCH PIN CLIP                             |
| AP25            | PLUG 1/4 NPTM AIR FITTING - BRASS                                    |
| AS1-VS          | 1/4-20 X 1/2 PHIL TRUSS MACH SCREW 19-8 W/516 ORANGE VIBRASEAL PATCH |
| B8X58           | 8-15 X 5/8 inch PHIL FLAT TY-A 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  |
| CV38            | PVC CHECK VALVE 3/8 BARBS - SS SPRING                                |
| DFP7            | 7 INCH HINDGED CAP INCLUDES LID FLANGE AND HINGE PIN                 |
| <i>DFP7-C</i>   | 7 INCH DRAIN 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                               |
| DP-A            | DRAIN PLUG ASSEMBLY FOR NATURAL PORTABLE UNITS                       |
| <i>DP</i>       | FRONT DRAIN PLUG FOR PORTABLE UNIT POLYPRO                           |
| <i>DP-G</i>     | FKM SQUARE CUT DRAIN PLUG GASKET                                     |
| DP-INSERT       | 304 STAINLESS DRAIN PLUG INSERT                                      |
| EC12            | OETIKER CLAMP 21.0-706R  |
| EC14-2          | OETIKER CLAMP 13.8   |
| F12SS           | STAINLESS .875 ID FERRULE FOR 1/2 INCH HOSE                          |
| F38SS           | STAINLESS 3/8 INCH FERRULE   |
| FAC14           | FEMALE COUPLER - 1/4in NPTF  |
| FWAX15          | FLAT AXLE WASHER   |
| FWP12           | 7/8 ID X 1.5 OD X 0.05 THK SSFW                                      |
| FWP14           | C-816 1/2in SS WASHER  |
| H12B-H          | 1/2 INCH BLUE HOSE - Available per ft.                               |
| H14B-H          | 1/4 INCH BLUE HOSE- Available per ft.                                |
| H38B-H          | 3/8 INCH BLUE HOSE - Available per ft.                               |
| HBBF1438        | BRASS 1/4in FPT X 3/8in HOSE BARB                                    |
| HBSS1212        | STAINLESS HOSE BARB 1/2 X 1/2  |
| HBSS1438        | STAINLESS HOSE BARB 1/4 MPT X 3/8 BARB                               |
| HBSSEL1438      | STAINLESS HOSE BARB ELBOW 1/4 INCH NPT X 3/8 HOSE BARB               |
| HBSSEL1814      | 304 STAINLESS ELBOW 1/8 INCH NPT X 1/4 INCH HOSE BARB                |
| HHPB3414        | HEX HEAD POLY REDUCER BUSHING 3/4 X 1/4                              |

|                   |  |
|-------------------|--|
| HHSB1214          | HEX HEAD S.S. REDUCER BUSHING 1/2 X 1/4  |
| HV60              | 1/2in STAINLESS BALL VALVE - w/ WELDED NUT   |
| NV14Y             | FLOW CONTROL VALVE - INCLUDES BLACK KNOB   |
| <i>NV14Y-HNDL</i> | KNOB FOR 2839-1/4 NEEDLE VALVE   |
| P56               | 5700 PUMP WITH SANTOPRENE SEALS - INCLUDES HOSE BARBS                                    |
| P56K              | 5700 PUMP WITH KALREZ SEALS - INCLUDES HOSE BARBS  |
| P56V              | 5700 PUMP WITH VITON SEALS - INCLUDES HOSE BARBS   |
| <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   |
| 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  |
| PW10              | 3/4in BLACK POLY PRO X 10in - FPTBE - SCH.80   |
| R25               | AIR REGULATOR INCLUDES AIR FILTER AND BOWL   |
| <i>AFR25</i>      | AIR FILTER for R25   |
| <i>ABR25</i>      | METAL AIR BOWL for R25   |
| S142058-VS        | 1/4-20 X 5/8 PHIL TRUSS MACHINE SCREW 18-8 W/#516 VIBRASEAL ORANGE PATCH                 |
| SN1212            | 1/2in HEX STAINLESS STEEL NIPPLE   |
| SSA14             | SS304 MALE/FEMALE ADAPTOR 1/4 NPT X 1/4 NPT  |
| SSAXLE14          | 14 1/2" long with the 5/8" diameter bar & 2 through holes with countersinks beveled ends |
| SSC12             | WORM GEAR CLAMP, S/S (.31-.91)   |
| SSC38             | WORM GEAR CLAMP, S/S (.25-.63)   |
| SS-MESH           | STAINLESS STEEL MESH WITH SSST FOR REPLACEMENT   |
| SSP12             | STAINLESS STEEL AXLE PLATE - 2.5 inch X 1 inch - 2 HOLE                                  |
| 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                      |
| ST80100           | VEEJET NOZZLE, BRASS 80100   |
| STR38-IL          | IN LINE STRAINER 3/8 BARB 20 MESH 304 STAINLESS EDPM GSKT                                |
| TANK-10N          | 10 GALLON NATURAL TANK   |
| TW916             | 1/2 INT TOOTH L/W 410SS  |
| W15               | NONMARKING WHEEL FOR PORTABLE UNITS  |
| W8                | 1/4in S.S. WAND 7IN SS TOE   |