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# **USER MANUAL**

**MODEL NUMBER:**

**FI-30N**

**FI-30NK**

**FI-30NV**

**FI-30N-ST**

**FI-30NK-ST**

**FI-30NV-ST**

**AND RELATED UNITS**

**30 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 Safety Data Sheet (SDS) for further first aid measures.
- Follow safety instructions of chemical manufacturer (SDS).
- 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 ..... 30 feet reinforced hose, 3/4 inch inside diameter  
(9 meters reinforced hose, 19 mm inside diameter)

Foam Output..... 20 to 45 gallons/minute  
(75 to 170 liters/minute)

Foam Distances ..... 25 to 30 feet (7 to 9 meters)

Liquid Temperature ..... 40°F to 100°F (4.4°C to 37°C)

Noise Level..... Maximum 87 dB

Discharge Wand Vibration Level ..... Maximum 2.5 m/s<sup>2</sup>

### Dimensions:

Length ..... 31 in (787 mm) approximately

Width ..... 21 in (533 mm) approximately

Height ..... 37 in (940 mm) approximately

Weight, including discharge hose and wand:

(Empty) ..... 59 lbs (27 kg) approximately

(Full) ..... 307 lbs (139 kg) approximately

### Requirements:

Compressed Air Pressure Requirements: 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).

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, Sanitizers, 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

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### 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.

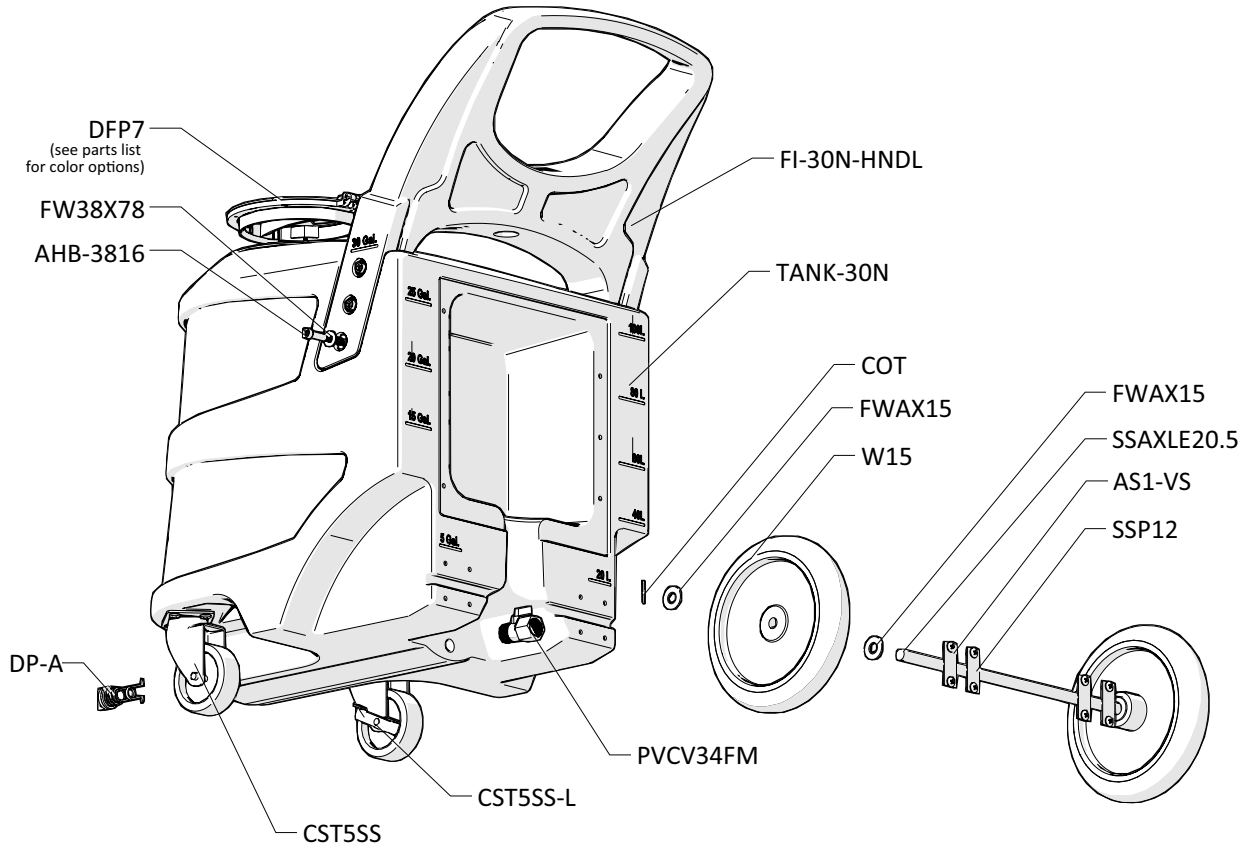
### Troubleshooting Instructions:

- 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 (141.64 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.
- Check for plugged strainer (STR38-IL). Replace strainer if necessary. Strainer must be used.

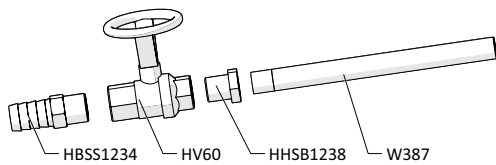
**READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT**

**TANK ASSEMBLY  
ITEM NUMBER: TANK-30N-A**

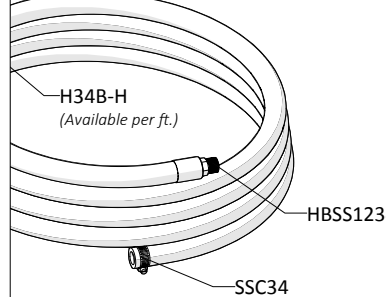


**HOSE AND WAND ASSEMBLY  
ITEM NUMBER: SSWA38-HA30**

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



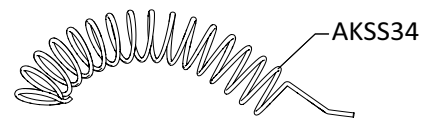
**30 ft (9 m) HOSE ASSEMBLY  
ITEM NUMBER: H34-30**



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



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



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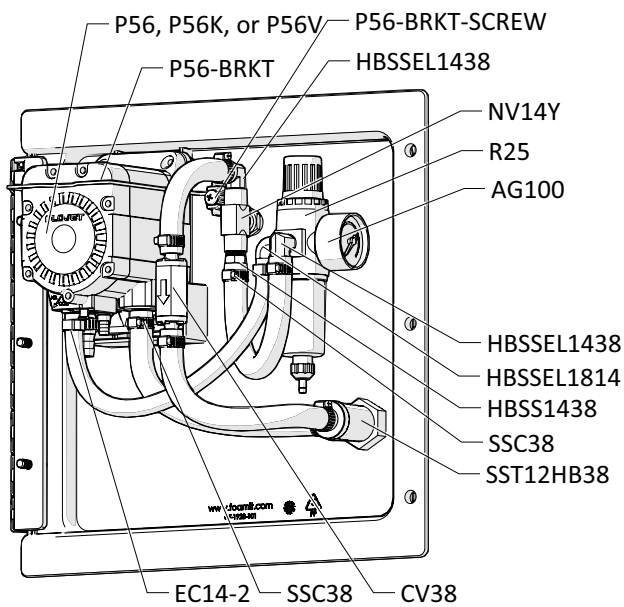
### PLATE ASSEMBLY

ITEM NUMBER (Santoprene pump): **PA-PF34**

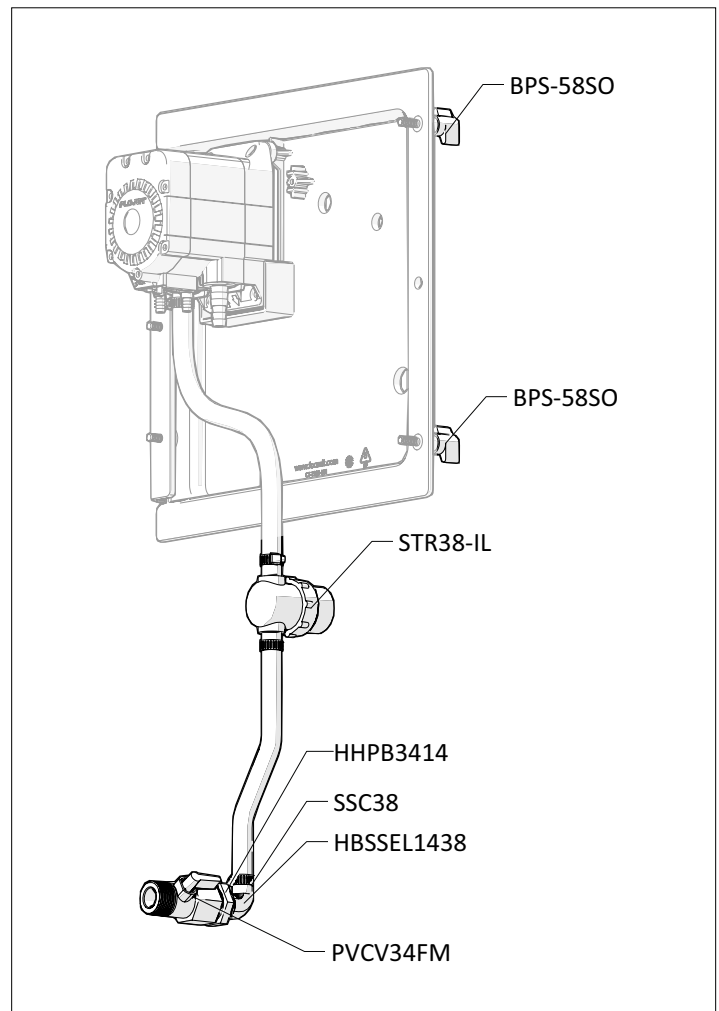
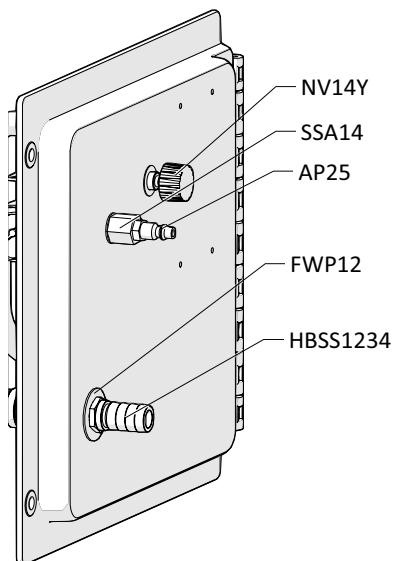
ITEM NUMBER (Kalrez pump): **PA-PF34K**

ITEM NUMBER (Viton pump): **PA-PF34V**

#### Plate - Inside View

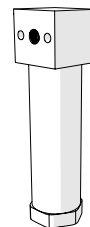


#### Plate - Back View

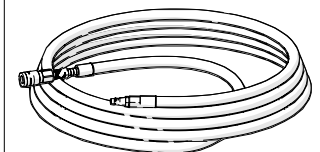


### OPTIONAL COMPONENTS

WATER SEPARATOR  
ITEM NUMBER: WS-20CFM



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



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ITEM NUMBER	DESCRIPTION		
AG100	1.5in DRY MODEL 20 DUAL SCALE GAUGE	HHSB1238	HEX HEAD S.S. REDUCER BUSHING 1/2in X 3/8
AHB-3816	ALLEN HEAD BOLT 3/8 -16	HV60	1/2in STAINLESS BALL VALVE - w/ WELDED NUT
AKSS34	SS ANTI-KINK SPRING FOR 3/4 INCH HOSE	NV14Y	FLOW CONTROL VALVE - INCLUDES BLACK KNOB
AP25	PLUG 1/4 NPTM AIR FITTING - BRASS	<i>NV14Y-HNDL</i>	KNOB FOR 2839-1/4 NEEDLE VALVE
AS1-VS	1/4-20 X 1/2 PHIL TRUSS MACH SCREW 19-8 W/516 ORANGE VIBRASEAL PATCH	P56	5700 SANTO PUMP
AW516	5/16 LONG ARM HEX KEY HARD #519011	P56K	5700 PUMP WITH KALREZ SEALS
B8X58	8 X 5/8 inch STAINLESS STEEL SHEET METAL SCREW	P56V	FLOJET G57 PUMP WITH VITON
BPS-58SO	Back Panel Screw - 5/8 inch with Stand Off	<i>20756103B</i>	Polypro G57 Air Port x HB Straight, w/ Viton o-ring
COT	1/8 X 1 COTTER PIN 18-8 S/S	<i>HB14P</i>	1/4in BRASS HB AIR FITTING /G57/P56
CST5SS	5in S.S. SWIVEL CASTER WITH 4 IN WHEEL	<i>HB5638</i>	HOSE BARB FOR P56 PUMP
CST5SS-L	5in S.S. SWIVEL CASTER WITH 4 IN WHEEL AND LOCK	<i>HB5638K</i>	HOSE BARB FOR P56K PUMP
CV38	PVC CHECK VALVE 3/8 BARBS - SS SPRING	<i>HB5638V</i>	HOSE BARB FOR P56V PUMP
DFP7	7 INCH HINGED CAP INCLUDES LID FLANGE AND HINGE PIN	P56-BRKT	PUMP BRACKET- STAINLESS STEEL
<i>DFP7-C</i>	7 INCH DRAIN CAP POLYPRO BLACK	P56-BRKT-SCREW	HI LO SCREW FOR RETAINING P56-BRKT
<i>DFP7-F</i>	7 INCH TANK LID FLANGE POLYPRO	PLPF	PORTABLE FOAMER BACK PLATE W/ HINGE AND HOLES
<i>DFP7-PIN</i>	HINGE PIN FOR 7 INCH FILL CAP AND FLANGE	PLPF-PIN	302 STAINLESS PORTABLE PLATE HINGE PIN
DFP7-C-BL	7 INCH FILL CAP POLYPRO BLUE PANTONE	PVCV34FM	PVC VALVE 3/4in FPT X 3/4in MPT
DFP7-C-GN	7 INCH FILL CAP POLYPRO GREEN PANTONE	PW10	3/4in BLACK POLY PRO X 10in - FPTBE - SCH.80
DFP7-C-RD	7 INCH FILL CAP POLYPRO RED PANTONE	R25	AIR REGULATOR INCLUDES AIR FILTER AND BOWL
DFP7-C-YL	7 INCH FILL CAP POLYPRO YELLOW PANTONE	<i>AFR25</i>	AIR FILTER for R25
DP-A	DRAIN PLUG ASSEMBLY FOR TANK-10N TANK-20N	<i>ABR25</i>	METAL AIR BOWL for R25
<i>DP</i>	FRONT DRAIN PLUG FOR PORTABLE UNIT POLYPRO	S142058-VS	1/4-20 X 5/8 PHIL TRUSS MACHINE SCREW 18-8 W/#516 VIBRASEAL ORANGE PATCH
<i>DP-G</i>	FKM SQUARE CUT DRAIN PLUG GASKET	S5161812	5/16-18 x 1/2 Phil Pan 18-8
DP-INSERT	304 STAINLESS DRAIN PLUG INSERT	SN1212	1/2in HEX STAINLESS STEEL NIPPLE
EC14-2	OETIKER CLAMP 13.8	SSA14	SS304 MALE/FEMALE ADAPTOR 1/4 NPT X 1/4 NPT
EC75	OETIKER CLAMP-12/04/07	SSAXLE20.5	STAINLESS STEEL AXLE 20.5 INCHES LONG BY 5/8 INCH IN DIAMETER DRILLED AND BEVELED
F34SS-L	SS CRIPM FERRULE 1.90inches X 1.5 inches LONG	SSC34	WORM GEAR CLAMP, S/S (.75-1.25)
F38SS	STAINLESS 3/8 INCH FERRULE	SSC38	WORM GEAR CLAMP, S/S (.25-.63)
FACI14	FEMALE COUPLER - 1/4in NPTF	SS-MESH	STAINLESS STEEL MESH WITH SSST FOR REPLACEMENT
FW38X78	FLAT WASHER 3/8X7/8 X 13/32X.050	<i>SSST</i>	SCREEN DISC .687 DIA. 10 X 10 MESH @ .020 DIA.
FWAX15	FLAT AXLE WASHER	SSP12	STAINLESS STEEL AXLE PLATE - 2.5 inch X 1 inch - 2 HOLE
FWP12	7/8 ID X 1.5 OD X 0.05 THK SSFW	ST80200	VEEJET NOZZLE, BRASS 80200
FWP14	C-816 1/2in SS WASHER	SST12HB38	STAINLESS TEE COMBO 1/2in FPT X 3/8 in BARB WITH SSST AND S.S. MESH
H14B-H	1/4 INCH BLUE HOSE - Available per ft.	STR38-IL	IN LINE STRAINER 3/8 BARB 20 MESH 304 STAINLESS EDPM GSKT
H34B-H	3/4 INCH BLUE HOSE - Available per ft.	TANK-30N	ROTO MOLDED 30 GALLON UNIT W/ HANDLE
H38B-H	3/8 INCH BLUE HOSE - Available per ft.	TANK-30N-HNDL	REPLACEMENT HANDLE FOR TANK-30N
HBBF1438	BRASS 1/4in FPT X 3/8in HOSE BARB	TW916	1/2 INT TOOTH L/W 410SS
HBSS1234	STAINLESS HOSE BARB 1/2 X 3/4	W15	NONMARKING WHEEL FOR PORTABLE UNITS
HBSS1438	STAINLESS HOSE BARB 1/4 MPT X 3/8 BARB	W387	S.S. 304 SPRAY WAND 3/8in MPT X 7in LONG - THREAD ON ONE END
HBSSSEL1438	STAINLESS HOSE BARB ELBOW 1/4 INCH NPT X 3/8 HOSE BARB		
HBSSSEL1814	304 STAINLESS ELBOW 1/8 INCH NPT X 1/4 INCH HOSE BARB		
HHPB3414	HEX HEAD POLY REDUCER BUSHING 3/4 X 1/4		