
USER MANUAL

MODEL NUMBER:
JS1
AND RELATED UNITS

**Air Operated Acid and Neutralizer
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 (6.9 bar).
- Do not exceed a fluid temperature of 100°F (37.8°C).
- Always flush the unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.
- Only use clean and dry air. Air must be filtered and free of moisture or pump life will be diminished. If needed, install a water separator before the unit.
- Do not use an 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:

Hose50 feet reinforced hose, 3/4 inch I.D.
(15.2 meters reinforced hose, 3/4 inch I.D.)

Foam output.....20 to 45 gallons/minute
(75.7 to 170.3 liters/minute)

Foam output distance... 25 to 30 feet (7.6 to 9.1 meters)

Requirements:

Compressed air 40 to 80 PSI (2.8 to 5.5 bar) with 5 to 10 CFM (141.6 to 283.2 l/min)

Chemical requirements: follow all instructions from chemical manufacturer.

Air Operated Double Diaphragm Pump Options:

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 and peracetic acid 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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Safety Instructions:

1. Always wear appropriate personal protective equipment (PPE) when operating or servicing unit.
2. Avoid contact of cleaning agent with skin and eyes.
3. If contact occurs, see SDS sheet for further first aid measures.
4. After use, relieve all remaining pressure in the system by unplugging the air line from the unit and opening the ball valve until all pressure is released.
5. Never point the discharge wand at anyone.
6. Be sure to flush the unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.

Installation Instructions:

1. Read all instructions before installing the foam unit.
2. Remove all parts from box.
3. Select desired area to mount the control box. We recommend that the control box is mounted 6 feet or less from the floor.
4. Mount the control box using the screws provided.
Note: When drilling holes for the plastic anchors provided with the screws, use a $\frac{3}{16}$ inch drill bit.
5. Mount the hose hanger in a convenient location using the screws and anchors provided.
6. Attach the discharge hose to the hose barb securing it with a hose clamp.
7. Attach a $\frac{3}{8}$ inch I.D. air line from your air compressor to the hose barb on the outside of the control box.

Operation Instructions:

1. Following all instructions from chemical manufacturer, fill the drums with pre-mixed solution.
2. With the ball valve in the closed position, open air inlet valve.
3. Slowly open ball valve.
4. Adjust the needle valve 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 needle valve in $\frac{1}{4}$ turn increments allowing 30 seconds between adjustments until proper consistency of foam is achieved.

After Use Instructions:

1. It is recommended to thoroughly run fresh water through the unit after each use. With the ball valve open, run the unit until the gallon of water has gone through the unit and discharged out the discharge hose.
2. Close air inlet valve and relieve any remaining pressure in the system by having the ball valve in open position.
3. Close the ball valve when all the pressure is relieved from the system.

Maintenance:

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

- Check the air pump for wear and leaks.
- Replace filter in regulator 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.

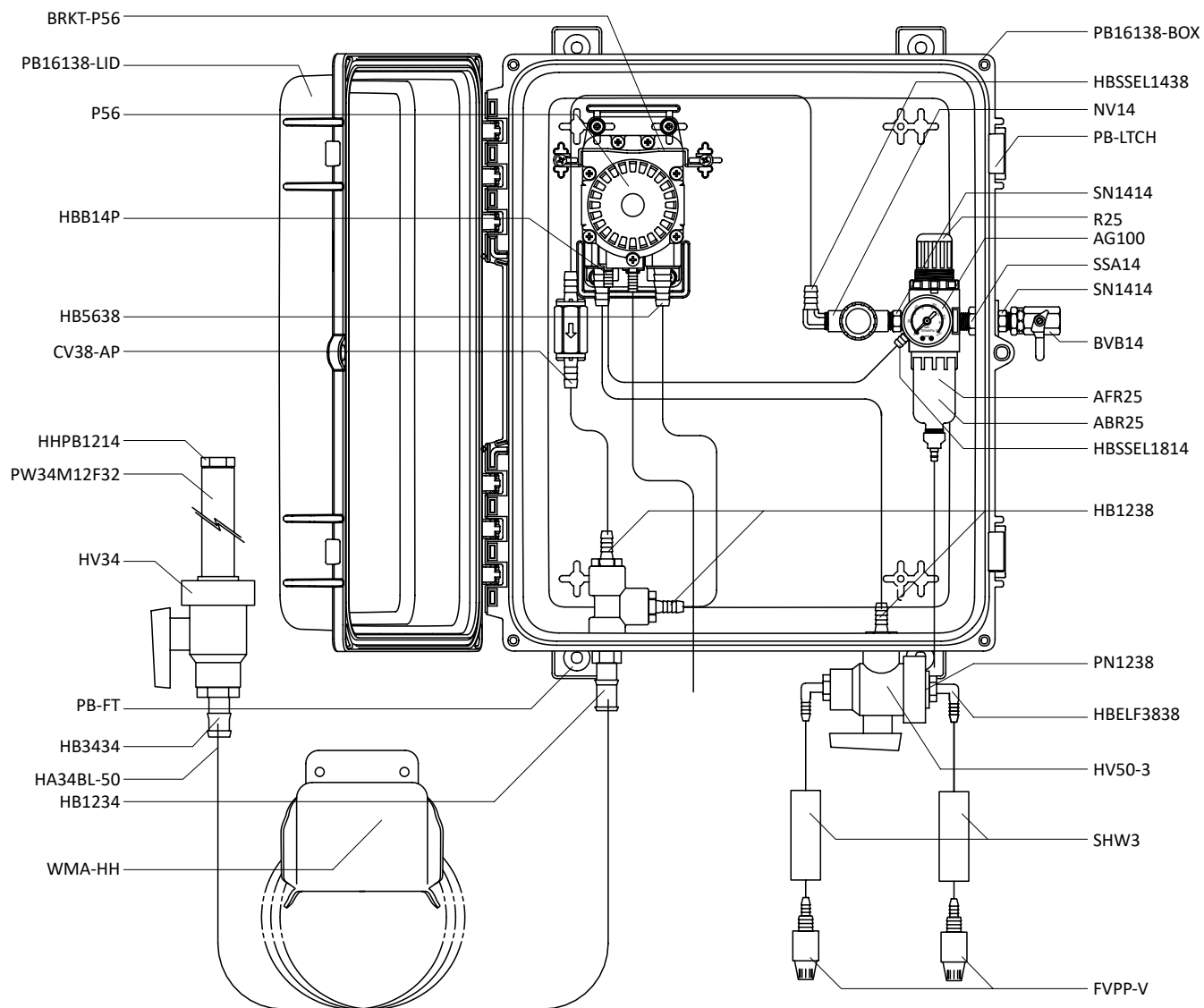
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Troubleshooting Instructions:

- Check for proper air pressure on air gauge. The recommended air pressure is 50-60 psi (3.4-4.1 bar). The maximum air pressure is 90 psi (6.2 bar).
 - Check metal air bowl for debris such as water, oil, or rust particles. Clean by unthreading the air bowl from the air regulator.
 - Check for plugged strainer. Replace strainer if necessary. Strainer must be used.
 - If the needle valve is open too far the pump 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 without cycling, replace the pump.
 - If foam solution backs up into the air bowl, the check valve needs to be replaced.
 - If foam comes out wet, no matter where the needle valve is positioned, the check valve may need to be replaced.
- If the unit foams at a reduced pressure:
 - Check the air compressor supplying the unit. If the pressure is less than 40 psi (2.8 bar), turn the foam unit off until the compressor can catch up.
 - Check the air gauge, to ensure the air supply is 60 psi (4.1 bar) or above. If the air gauge is more or less than 60 psi (4.1 bar), adjust the pressure by turning the knob on the top of the air regulator. The maximum air pressure is 90 psi (6.2 bar).
 - If both, a and b, are okay, the stainless steel mixing mesh could be plugged. Remove and clean it by following the instructions below:
 - o 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.
 - o Remove the hose barb from the tee.
 - o Remove the screen and the mixing mesh from inside the tee.
 - o Clean any particles from the mixing mesh and the screen.
 - o Replace the mixing mesh and then the screen into the back of the tee and screw the hose barb back into the tee. It is recommended to use a pipe thread sealant when reinstalling the hose barb into the tee. If the mixing mesh has a lot of foreign particles in it, make sure the strainer is still in place.

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Inside View - Control Box



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ITEM NUMBER	DESCRIPTION
AG100	AIR GAUGE - 1/8IN NPT - 0-100 PSI MARKINGS - DRY MODEL
AKSS34	SS ANTI-KINK SPRING FOR 3/4 INCH HOSE
B103212-PH	BOLT - 10-32 X 1/2IN - STAINLESS STEEL - PAN HEAD PHILLIPS
BRKT-P56	PUMP BRACKET- STAINLESS STEEL
BVB14	BALL VALVE - BRASS - NICKEL PLATED - AIR INLET VALVE - 1/4IN FPT X 1/4IN FPT
CV38-AP	CHECK VALVE-3/8IN BARBS-PVC BODY-HASTELLOY SPRING-TEFLON BALL-WHITE
EC14	EAR CLAMP - OETIKER - STAINLESS STEEL - FOR 1/4IN HOSE
FVPP-V	FOOT VALVE - POLYPROPYLENE BODY - NOT CUT TO SIZE - VITON CHECK VALVE - BLACK
FW14NPT	FLAT WASHER FOR ¼ IN. NPT - STAINLESS - 0.57 IN. ID X 1.28 IN. OD X 0.08 IN. THK
FW12NPT	FLAT WASHER FOR 1/2IN NPT - STAINLESS - 0.88IN ID X 1.5IN OD X 0.05IN THK
FW12NPT-THK	FLAT WASHER FOR 1/2IN NPT - THICK - STAINLESS - 0.88IN ID X 1.5IN OD X 0.12IN THK
HA34BL-50	HOSE ASSEMBLY - 50FT OF 3/4IN BLUE HOSE - INCLUDES FERRULED HOSE BARB, SCREW BAND CLAMP
H14BL-F	1/4IN BLUE HOSE-HYBRID TPE-AVAILABLE PER FT
H316CL-PV	3/16IN ID 5/16IN OD CLEAR HOSE - PVC - AVAILABLE PER FT
H34BL-F	3/4IN BLUE HOSE-HYBRID TPE-AVAILABLE PER FT
H38BL-F	3/8IN BLUE HOSE-HYBRID TPE-AVAILABLE PER FT
HBELF3838	HOSE BARB ELBOW 3/8" BY FPT 3/8"
HB1234	1/2in MPT X 3/4in HOSE BARB
HB1238	1/2in MPT X 3/8in HOSE BARB
HB3434	POLY HOSE BARB 3/4in X 3/4in
HBELF3838	HOSE BARB ELBOW 3/8" BY FPT 3/8"
HBSS1438	STAINLESS HOSE BARB 1/4 MPT X 3/8 BARB
HBSS1438	STAINLESS HOSE BARB 1/4 MPT X 3/8 BARB ELBOW
HBSS1814	STAINLESS HOSE BARB 1/8 MPT X 1/4 BARB ELBOW
HHPB1214	HEX HEAD POLY BUSHING 1/2 MPT X 1/4 FPT
HV34	3/4in POLY BALL VALVE - EPDM SEALS
HV50-3	3-WAY BALL VALVE - 1/2 INCH - PP BODY - TEFLON SEATS - VITON O-RING
HV50-3-BRKT	SS BRACKET FOR HV50-3

N1032	NUT - 10-32 - STAINLESS STEEL
NV14	NEEDLE VALVE-1/4IN NPT-INCLUDES BLACK KNOB
P56	PUMP WITH SANTOPRENE SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND EXHAUST BARB
PBA-16138	POLY BOX ASSEMBLY - 16IN X 13IN X 8IN - GRAY POLYPROPYLENE - INCLUDES BRAND LABEL AND MOUNTING HARDWARE
PB16138-LID	POLY BOX LID - GRAY POLYPROPYLENE - FOR PBA-16138 - INCLUDES PB-GSKT ROPE SEAL AND BRAND LABEL
PB16138-BOX	POLY BOX - GRAY POLYPROPYLENE - FOR PBA-16138
PB-FT	POLY BOX FOOT - GRAY POLYPROPYLENE - FOR PBA-12117 AND PBA-16138
PB-LTCH	POLY BOX LATCH - GRAY POLYPROPYLENE - TWO PIECES ASSEMBLED - FOR PBA-12117 AND PBA-16138
PB-PIN	STAINLESS STEEL HINGE PIN FOR PB16138 AND PB12117
PN1238	1/2in MPT X 3/8 in MPT POLY NIPPLE
PW34M12F32	3/4IN NPT AND 1/2IN FNPT WAND - BLACK POLYPROPYLENE - 32IN LONG
R25	REGULATOR - AIR - 2X 1/4IN FPT AND 2X 1/8IN FPT PORTS WITH BOWL AND FILTER - NO GAUGE
AFR25	AIR FILTER for R25
ABR25	METAL AIR BOWL for R25
S1012-HL	SCREW - #10 X 1/2IN - STAINLESS STEEL - ROUND HEAD PHILLIPS - HILO THREAD
S1034-FH-HL	SCREW - #10 X 3/4IN - STAINLESS STEEL - FLAT HEAD PHILLIPS - HILO THREAD
SHW3	SUCTION HOSE WEIGHT - 15/16IN ID X 1 1/2IN OD X 3 1/4IN LONG - PVC COATED STAINLESS
SN1414	STAINLESS HEX NIPPLE 1/4 MPT X 1/4 MPT
SSA14	STAINLESS ADAPTOR 1/4 MPT X 1/4 FPT
SSC34	SCREW BAND CLAMP - STAINLESS STEEL - FOR 3/4IN HOSE
SSC38	SCREW BAND CLAMP - STAINLESS STEEL - FOR 3/8IN HOSE
T5	1/2 POLY TEE
WMA-HH	WALL MOUNT BRACKET ASSEMBLY - HOSE HANGER - INCLUDES MOUNTING HARDWARE
WMS14	WALL MOUNT SCREW - #14 X 1 1/4IN - STAINLESS STEEL - HEX HEAD SLOTTED
WMS14A	WALL MOUNT SCREW ANCHOR -#14 X 1 1/4IN - PLASTIC - 5/16IN DRILL SIZE