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# **USER MANUAL**

**MODEL NUMBER:  
SP-20N  
SP-20NK  
SP-20NV  
AND RELATED UNITS**

**20 Gallon Air Operated Portable Spray  
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.**

- 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).
- Never point the discharge trigger gun 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), and store unit depressurized.
- Do not exceed an incoming air pressure of 100 psi (7 bar).
- 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 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:**

Hose ..... 30 feet reinforced hose, 3/8 inch inside diameter  
(9 meters reinforced hose, 9.5 mm inside diameter)  
Tank Capacity.....20 gallons (75.7 liters)  
Spray Output..... 2 gallons/minute (7.5 liters/minute)  
Spray Output Distance..... 10 to 12 feet (3 to 4 meters)  
Liquid Temperature ..... 40°F to 100°F (4.4°C to 37°C)

### **Dimensions:**

Length ..... 22 in (559 mm) approximately  
Width ..... 17 in (432 mm) approximately  
Height ..... 48 in (1219 mm) approximately  
Weight, including discharge hose and wand:  
(Empty) ..... 48 lbs (22 kg) approximately

### **Requirements:**

**Compressed Air Source Requirements:** Air regulator is factory set at 50 psi (3.4 bar). Operating range is 40 to 80 PSI (3 to 5 bar) with 2 CFM (56.6 l/min).

**Chemical Requirements:** Follow all instructions from chemical manufacturer and Safety Data Sheet (SDS).

### **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**

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

### Operation Instructions

Wearing all PPE and observing all safety precautions dictated by the MSDS for your chemical:

1. Fill the tank with the solution to be sprayed.
2. Connect an appropriate compressed air line into the air inlet fitting.
3. Squeeze the discharge trigger gun to begin spraying.

### After Use Instructions:

1. Thoroughly flush the unit with fresh water.
2. Disconnect the air line from the air fitting and relieve any pressure remaining in the system by squeezing the discharge trigger gun.
3. Release the discharge trigger gun after all pressure has been relieved from the system.

### Maintenance Instructions:

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

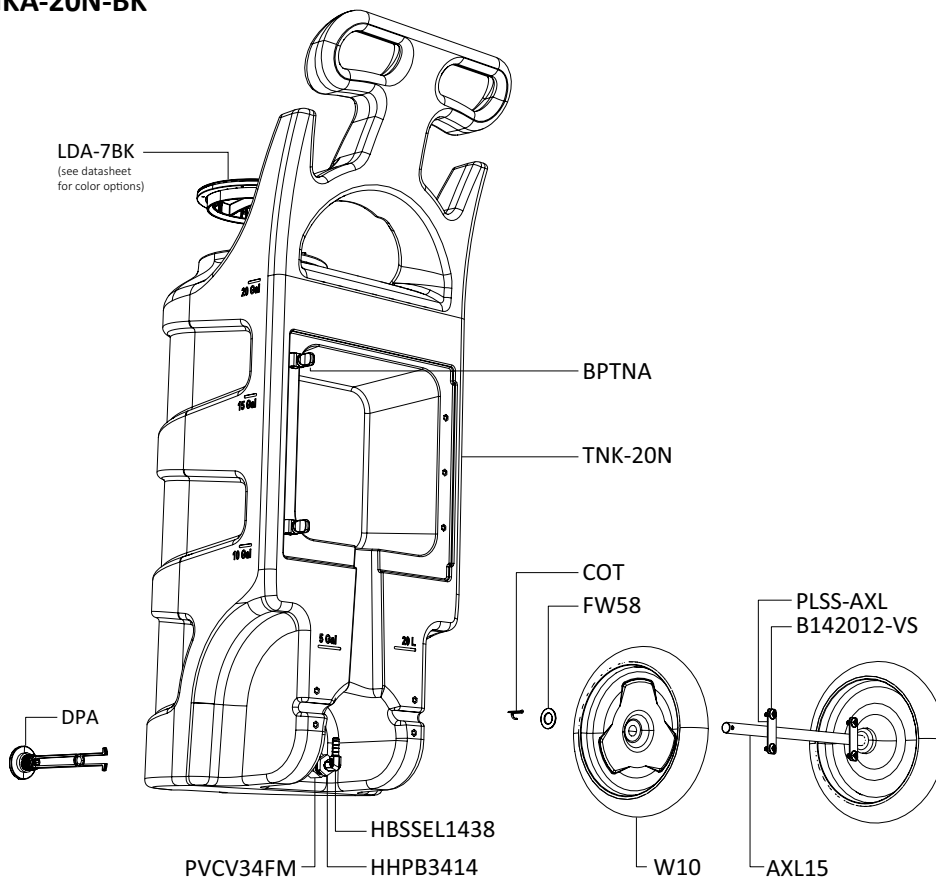
- Check the air pump for wear and leaks.
- Inspect hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Replace filter in regulator as needed.
- Check the suction tube and screen for debris and clean as needed.
- Drain compressor tank on a regular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

### Troubleshooting Instructions:

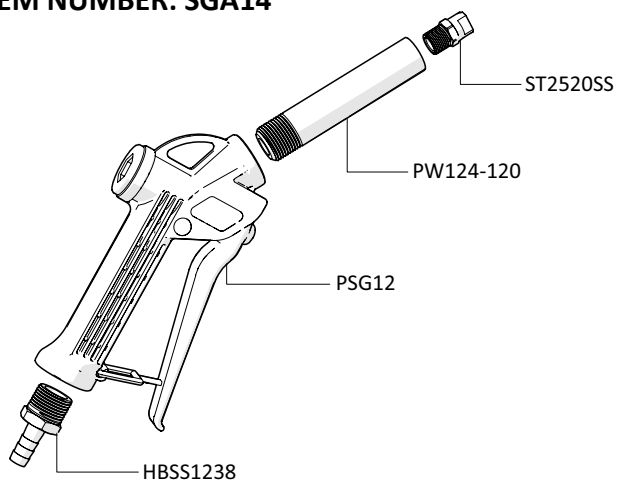
- Check to ensure that the discharge hose is uncoiled properly, and that there are no kinks that could obstruct fluid flow.
- Check the air regulator bowl and air filter for debris such as water, oil, or rust particles. Clean by unthreading the air regulator bowl from the air regulator.
- Check the strainer for debris or other blockages, and clean as needed. Replace strainer if damaged. Strainer must be used.
- If air passes through the pump without cycling, the pump needs to be replaced.
- Check for proper air pressure on the air gauge. The air regulator is factory set at 50 psi (3.4 bar). Operating range is 40 to 80 PSI (3 to 5 bar) with 2 CFM (56.6 l/min).
- If the unit operates at a reduced pressure:
  - Check the air compressor supplying the unit. If the pressure is less than 40 psi, turn the unit off until the compressor can catch up.
  - 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.

# READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

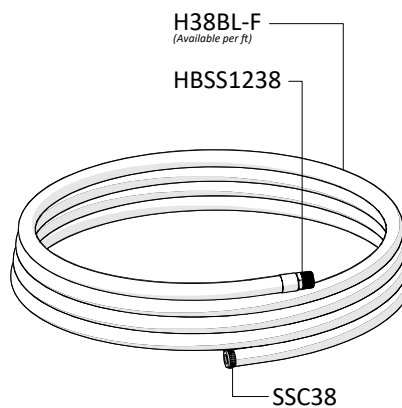
## TANK ASSEMBLY ITEM NUMBER: TNKA-20N-BK



## SPRAY GUN ASSEMBLY ITEM NUMBER: SGA14



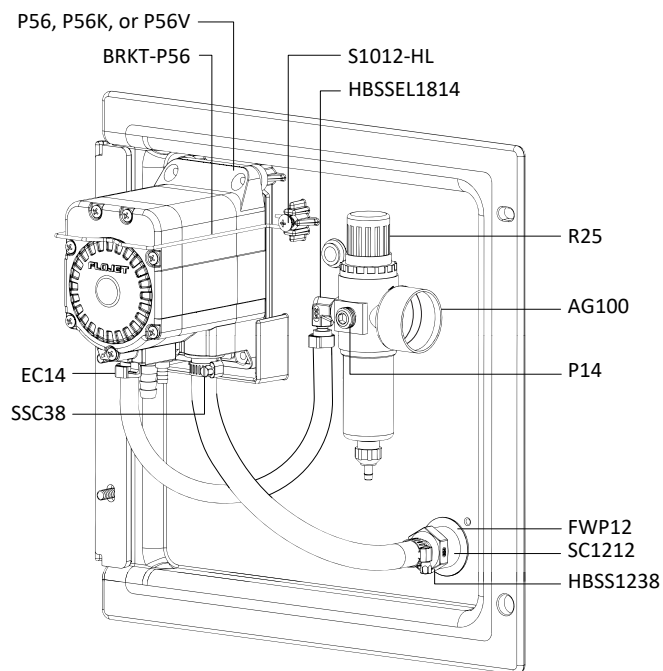
## DISCHARGE HOSE ASSEMBLY ITEM NUMBER: HA38BL-30



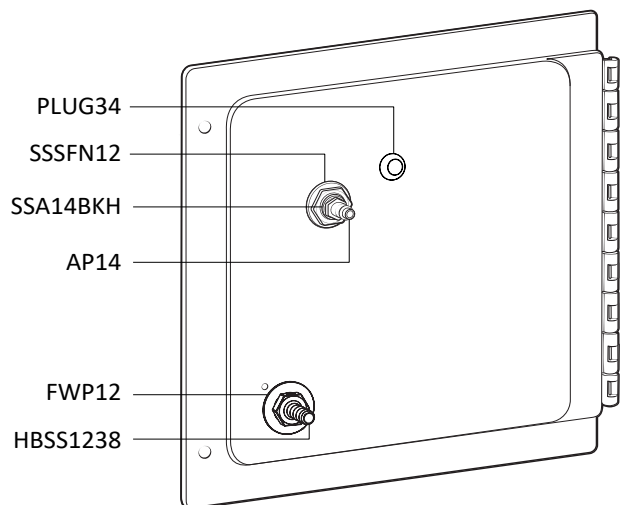
## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

### PLATE ASSEMBLY

#### Plate - Inside View



#### Plate - Back View

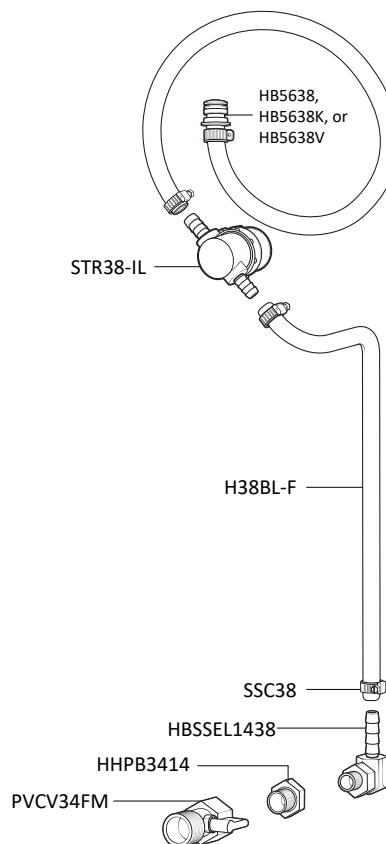


### SUCTION ASSEMBLY

ITEM NUMBER (Santoprene pump): SCTNA-PF

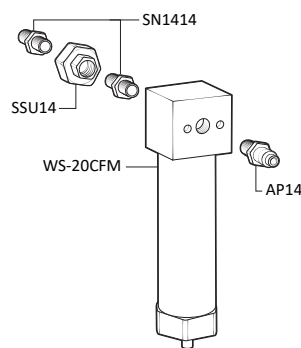
ITEM NUMBER (Kalrez pump): SCTNA-PFK

ITEM NUMBER (Viton pump): SCTNA-PFV

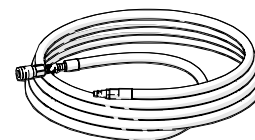


### OPTIONAL COMPONENTS

WATER SEPARATOR ASSEMBLY  
ITEM NUMBER: WSA-20CFM



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



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ITEM NUMBER	DESCRIPTION
AG100	AIR GAUGE - 1/8 IN. NPT - 100 PSI DRY MODEL
AH30	30 FT AIR HOSE W/ QUICK CONNECT FITTINGS
AP14	AIR FITTING 1/4 MPT X PLUG-NICKEL-PLATED BRASS
AXL15	AXLE-STAINLESS-0.625 DIA. X 15.45 IN.
B142012-VS	1/4-20 X 1/2 IN. BOLT - STAINLESS - TRUSS HEAD PHILLIPS - VIBRA-SEAL
B103234	10-32 X 3/4 PHIL TRUSS MACH SCR 18-8
BPTNA	BACK PLATE THUMB NUT ASSEMBLY - INCLUDES BOLT, THUMB NUT, AND TETHER
<i>BST14201125-VS</i>	1/4-20 SET BOLT - 1.125 IN. LONG - VIBRA-SEAL
<i>TN1420</i>	1/4-20 THUMB NUT - BRASS INSERT - ASSEMBLED WITH TETHER
COT	COTTER PIN-STAINLESS-1/8 IN. X 1 IN.
LDA-7BK	LID ASSEMBLY - INCLUDES 7 IN. BLACK LID, LID FLANGE, HINGE PIN, AND MOUNTING SCREWS
<i>LD-7BK-LID</i>	7 IN. CAP - POLYETHYLENE - BLACK
<i>LD-7BK-FLNG</i>	7 IN. LID FLANGE - POLYETHYLENE - BLACK
<i>LD-PIN</i>	HINGE PIN FOR 7 IN. LID AND FLANGE
DPA	DRAIN PLUG ASSEMBLY - INCLUDES GASKET
EC12	OETIKER EAR CLAMP FOR 1/2 IN. HOSE
EC14	OETIKER EAR CLAMP FOR 3/4 IN. HOSE
F38SS	STAINLESS 3/8 INCH FERRULE
FW58	FLAT WASHER FOR 3/8 IN. PIPE - STAINLESS - 0.687 ID X 1.5 OD X 0.07 THK
FWP12	3/8 ID X 1.5 OD X 0.05 THK SSFW
H14BL-F	1/4 INCH BLUE HOSE-HYBRID TPE-AVAILABLE PER FT.
H38BL-F	3/8 INCH BLUE HOSE-HYBRID TPE-AVAILABLE PER FT.
HBSS1238	STAINLESS HOSE BARB 1/2 MPT X 3/8 BARB
HBSEL1438	STAINLESS HOSE BARB 1/4 MPT X 3/8 BARB ELBOW
HBSEL1814	STAINLESS HOSE BARB 3/8 MPT X 1/4 BARB ELBOW
HHPB3414	HEX HEAD POLY BUSHING 3/4 MPT X 1/4 FPT
P14	COUNTERSUNK PLUG-HEXAGON 1/4
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>	1/4 IN. BRASS HB AIR FITTING /G57/P56
<i>HB5638</i>	HOSE BARB FOR P56 PUMP - EPDM O-RING
<i>HB5638K</i>	HOSE BARB FOR P56K PUMP - KALREZ O-RING
<i>HB5638V</i>	HOSE BARB FOR P56V PUMP - VITON O-RING
PLPF	PORTABLE FOAMER BACK PLATE W/ HINGE AND HOLES

PLPF-PIN	302 STAINLESS PORTABLE PLATE HINGE PIN
PLUG34	TUBING PLUG 3/4 ( FITS 1/16 HOLE)
PVCV34FM	PVC VALVE 3/4 IN. FPT X 3/4 IN. MPT
PSG12	ASSEMBLY WITH O-RINGS INCLUDED/1/2IN POLY SPRAY GUN W/ GRAY HNDL. & 316SS
PSGORV	PSG12 VITON O RING
PW124-120	1/2 IN. BLACK POLY PRO X 4 IN. - SCH.120 - 1/2 IN. MPTOE & 1/4 IN. FPTOE
R25	AIR REGULATOR - TWO 1/4 IN. FPT PORTS - TWO 1/2 IN. FPT PORTS - INCLUDES FILTER AND BOWL
<i>AFR25</i>	AIR FILTER FOR R25
<i>ABR25</i>	METAL AIR BOWL FOR R25
SN1212	1/2IN HEX STAINLESS STEEL NIPPLE
SN1414	STAINLESS HEX NIPPLE 1/4 MPT X 1/4 MPT
SSA14BKH	BULKHEAD ADAPTER - STAINLESS - 1/4 NPT X 1/4 NPSM
SSC38	STAINLESS SCREW BAND CLAMP FOR 3/8 IN. HOSE
SSU14	STAINLESS STEEL UNION- 1/4 INCH FP
ST2520SS	SPRAY TIP-25 DEGREE FAN-2.0 GPM-STAINLESS-1/4 MPT
STR38-IL	IN LINE STRAINER 3/8 BARB 20 MESH 304 STAINLESS EDPM GSKT
TNK-20N	20 GALLON NATURAL TANK
W10	WHEEL - NON-MARKING - 10 IN.
WS-20CFM	WATER SEPARATOR - 20 CFM - 1/4 IN. FPT PORTS