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# USER MANUAL

**MODEL NUMBER:  
FISP-WC  
AND RELATED UNITS**

**Wall Mounted Concentrate Foam and  
Sanitize Unit**

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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).
- 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 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.
- 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.

### 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.

### OPTIONS

	FOAM SYSTEM: Pump Seal Material	SPRAY SYSTEM: Pump Seal Material
FISP-WC	Santoprene (S)*	Santoprene (S)*
	Viton (V)	Viton (V)
	Kalrez (K)	Kalrez (K)

Add bold option codes to item number as shown. \*For Santoprene pump seals on both systems (standard unit), no option code is needed.

Examples:

- FISP-WC (standard unit with Santoprene pump seals on both systems)
- FISP-WCVV (unit with Viton pump seals on both systems)
- FISP-WCVS (unit with Viton pump seals on the foam system and Santoprene pump seals on the spray system)
- FISP-WCSK (unit with Santoprene pump seals on the foam system and Kalrez pump seals on the spray system)

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

REQUIREMENTS		
	FOAM SYSTEM:	SPRAY SYSTEM:
Compressed air requirements	40-80 psi (2.8-5.5 bar) with 5-10 cfm (141.6-283.2 l/min)	40-80 psi (2.8-5.5 bar) with 2 cfm (56.6 l/min)
Water requirements	10-100 psi (0.7-6.9 bar)	10-100 psi (0.7-6.9 bar)
	Backflow prevention is required – consult local plumbing ordinances for more information.	
Liquid temperature range	40-100°F (4.4-37.8°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		
	FOAM SYSTEM:	SPRAY SYSTEM:
Power type	Compressed air	Compressed air
Chemical pickup type	Draws from concentrated product	Draws from concentrated product
Dilution ratio range (water:chemical)*	14:1 to 320:1	34:1 to 640:1 with ST2520SS fan tip; 24:1 to 640:1 with ST2550SS fan tip
Number of products unit can draw from (and whether it draws simultaneously or one at a time)	One product	One product
Suction line length/diameter	8 ft. (2.4 m) clear hose with 1/4 in. (6.4 mm) inside diameter	8 ft. (2.4 m) clear hose with 1/4 in. (6.4 mm) inside diameter
Discharge hose diameter/length	50 ft. (15.2 m) hose with 3/4 in. (19.1 mm) inside diameter	50 ft. (15.2 m) hose with 1/2 in. (12.7 mm) inside diameter
Discharge wand/tip type	7 in. (17.8 cm) stainless steel wand with zero tip and ball valve	Polypropylene trigger handle with 25° fan tip
Output distance	25-30 ft. (7.6-9.1 m)	10-12 ft. (3.0-3.7 m)
Output volume	20-45 gal/min (75.7-170.0 l/min) of foam	2 gal/min (7.6 l/min) of liquid with ST2520SS fan tip; 4-5 gal/min (15.1-18.9 gal/min) of liquid with ST2550SS fan tip
Flow rate*	2 gal/min (7.6 l/min)	2 gal/min (7.6 l/min) with ST2520SS fan tip; 4-5 gal/min (15.1-18.9 l/min) with ST2550SS fan tip
Pump seals	Santoprene, Viton, or Kalrez	Santoprene, Viton, or Kalrez

\*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

### Installation Instructions:

1. Remove all components from packaging.
2. Select desired area to mount the control box.  
**Note:** We recommend mounting the control box at a height of 6 feet (1.8 m) or less. The chemical suction lines must reach the bottom of the chemical containers. The bottom of the chemical containers should not be positioned higher than the bottom of the control box.
3. Attach the control box mounting feet to the back of the control box, using the four screws provided in the parts package.
4. Mount the control box to the wall using the screws and plastic anchors provided in the parts package.  
**Note:** To drill holes for the plastic anchors, use a  $\frac{5}{16}$  inch drill bit.
5. Mount the hose hangers in a convenient location using the screws and anchors provided in the parts package.
6. Attach the foam discharge hose assembly to the foam discharge hose barb and secure it with the hose clamp provided in the parts package.
7. Attach the sanitizer discharge hose assembly to the sanitizer discharge hose barb and secure it with the hose clamp provided in the parts package.
8. Connect the air inlet hose barb provided in the parts package to the air inlet valve located on the side of the control box. Then attach a  $\frac{3}{8}$  inch I.D. air line from your air compressor to the air inlet hose barb, and secure it with the hose clamp provided in the parts package.
9. Connect a water line to the unit. The control box has a  $\frac{1}{2}$  inch FPT water inlet fitting. A garden hose adapter fitting assembly is included in the parts package.  
**Note:** A back-flow preventer must be installed in the water line – check local plumbing codes to ensure proper installation.
10. Open the cover of the control box. Insert the proper metering tips and connect the chemical intake lines to the injector inlet barbs.  
**Note:** Use the included metering tip color charts to determine the appropriate metering tips based on the products and dilution rates you will be using.
11. Place the other end of the chemical intake lines into the chemical containers.  
**Note:** The chemical suction lines must reach the bottom of the chemical containers. A strainer must be used on each chemical intake line.

### METERING TIP COLOR CHART FOR FOAM FUNCTION

Metering tip color	Ounces of chemical per gallon of water*	Dilution ratio (water:chemical)*
Turquoise	0.40	320:1
Pink	0.80	160:1
Light blue	0.95	135:1
Brown	1.30	98:1
Red	1.40	92:1
White	1.85	69:1
Green	1.90	67:1
Blue	2.65	48:1
Yellow	2.95	43:1
Black	4.80	27:1
Purple	6.40	20:1
Gray	6.80	19:1
No tip	9.20	14:1

\*Injection rates will vary based on chemical viscosity, air pressure, and many other factors. We recommend testing unit output to verify injection rate prior to use.

### METERING TIP COLOR CHART FOR SANITIZE FUNCTION

Metering tip color	WITH ST2520SS FAN TIP		WITH ST2550SS FAN TIP	
	Ounces of chemical per gallon of water*	Dilution ratio (water:chemical)*	Ounces of chemical per gallon of water*	Dilution ratio (water:chemical)*
Copper	0.20	640:1	0.20	640:1
Pumpkin	0.30	427:1	0.30	427:1
Burgundy	0.40	320:1	0.40	320:1
Lime	0.41	312:1	0.41	312:1
Tan	0.42	305:1	0.42	305:1
Orange	0.54	237:1	0.67	191:1
Turquoise	0.61	209:1	0.72	177:1
Pink	1.01	127:1	1.18	108:1
Light blue	1.28	106:1	1.42	90:1
Brown	1.35	95:1	1.52	84:1
Red	1.82	70:1	2.7	47:1
White	1.89	67:1	2.8	46:1
Green	2.09	61:1	3.0	43:1
Blue	2.70	47:1	3.31	38:1
Yellow	3.71	34:1	5.2	24:1
No tip	7.37	17:1	13.5	10:1

\*Injection rates will vary based on chemical viscosity, air pressure, and many other factors. We recommend testing unit output to verify injection rate prior to use.

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

### Operation Instructions:

1. Follow all instructions from chemical manufacturer.
2. With the discharge valves in the closed position, open the air inlet valves.
3. Follow the instructions for the desired function:

#### To Foam:

1. Point the foam discharge wand in a safe direction and open the discharge valve to begin foaming. The discharge valve should be completely open while foaming.
2. While the unit is running and discharging product, adjust the needle valve, located inside the control box, to regulate the wetness or dryness of the foam:
  - 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 desired consistency of foam is achieved.
3. To stop foaming, close the discharge valve.

#### To Sanitize:

1. Point the spray discharge wand in a safe direction and open the discharge valve to begin spraying. The discharge valve should be completely open while spraying.
2. To stop spraying, close the discharge valve.

### After Use Instructions:

1. Place the chemical suction lines into a container of water.
2. With the unit running, open the discharge valves, and allow the unit to be flushed with fresh water thoroughly until all chemical has been discharged from the unit.
3. Shut off the air supply to the unit by closing the air inlet valves.
4. Shut off the water supply to the unit.
5. Open the discharge valves to relieve any pressure remaining in the unit.
6. Close the discharge valves after all pressure has been relieved from the unit. Store the unit with the discharge valves in the closed position.

### Maintenance Instructions:

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

**Note:** Before performing any maintenance, disconnect the unit from the compressed air and water supply and depressurize it as described in the After Use Instructions.

- Inspect the pumps for wear and leaks.
- Inspect all hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Replace the filter located within each of the air regulators as needed. Clean by unthreading the air regulator bowl from the air regulator.
- Check the chemical metering tips, suction lines, and strainers for debris and clean as needed.
- Drain your air compressor tank on a regular basis to help extend pump life. An air source with a high moisture content will accelerate pump wear. **Note:** If your air source has a high moisture content, you may wish to install a water separator before the unit.
- Check for proper water pressure on the water pressure gauge. To check the pressure:
  - o With the unit running, open the discharge valve and allow the unit to run for about 1 minute.
  - o Close the discharge valve.
  - o Check the water pressure gauge. The pressure should read 30 psi (2.1 bar).
  - o If necessary, adjust the water regulator using the flathead screw on the regulator body. The water pressure should be set at 30 psi (2.1 bar). Setting the pressure higher or lower may damage the unit or cause it to malfunction.

## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

### Troubleshooting Instructions:

#### For foam and/or spray function:

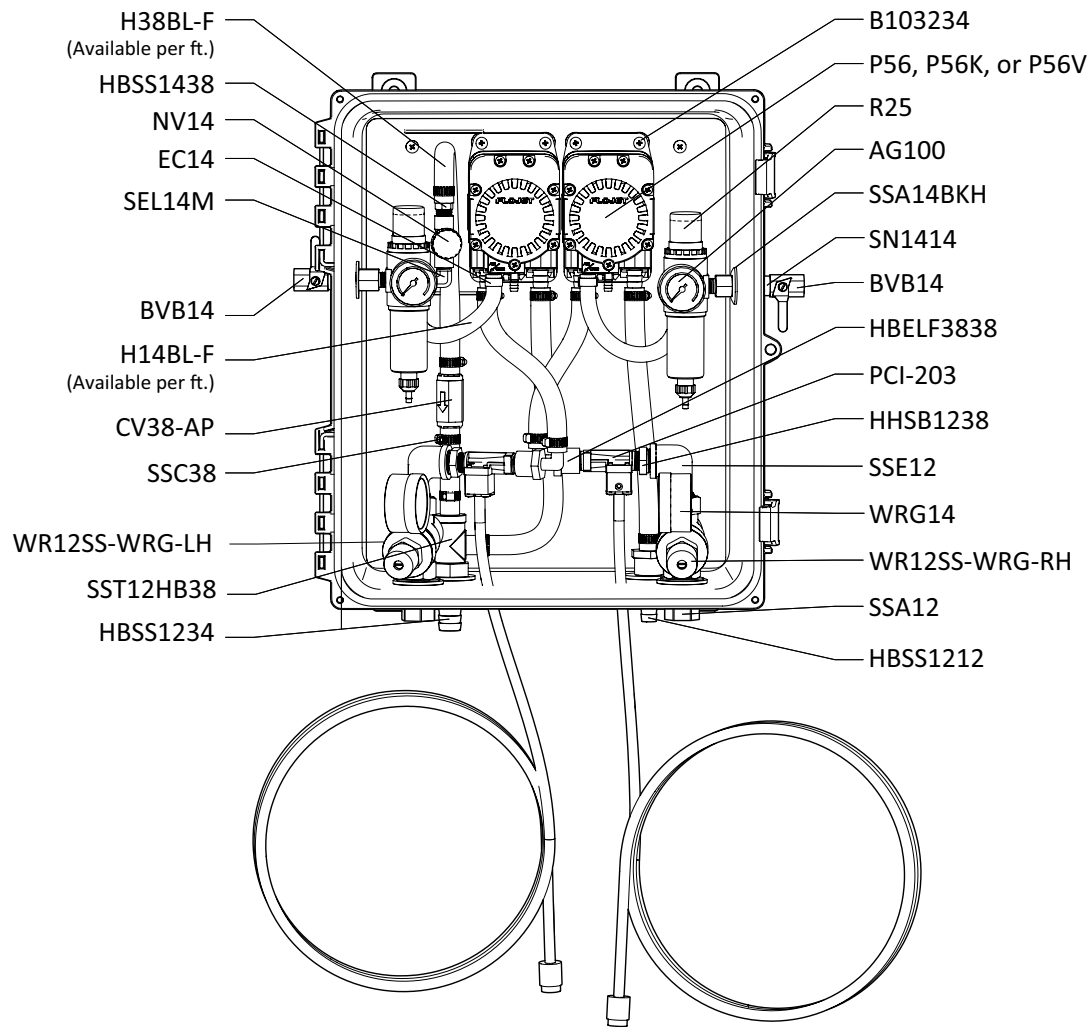
- Check to ensure that the discharge hoses are uncoiled properly, and that there are no kinks that could obstruct fluid flow.
- Check the air regulator bowls and air filters for debris such as water, oil, or rust particles. Clean by unthreading the air regulator bowl from the air regulator.
- If air passes through a pump without cycling, the pump needs to be replaced.
- Check for proper air pressure on the air gauges. The air regulators are factory set at 50 psi (3.4 bar). Operating range for the foam system is 40-80 psi (2.8-5.5 bar) with 5-10 cfm (141.6-283.2 l/min). Operating range for spray system is 40-80 psi (2.8-5.5 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 (2.8 bar), 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.
- Check the chemical metering tips, suction lines, and strainers for debris or damage. Clean or replace as needed. To prevent damage to the unit, strainers must always be used.

#### For foam function only:

- If the needle valve is open too far, the pump may cycle improperly due to lack of air pressure. If this occurs, close and readjust the needle valve as described in the Operation Instructions.
- Make sure proper foaming chemical and concentration are being used.
- If foam comes out wet, no matter where the needle valve is positioned, the check valve may need to be replaced.
- If solution backs up into the air regulator bowl, the check valve needs to be replaced.

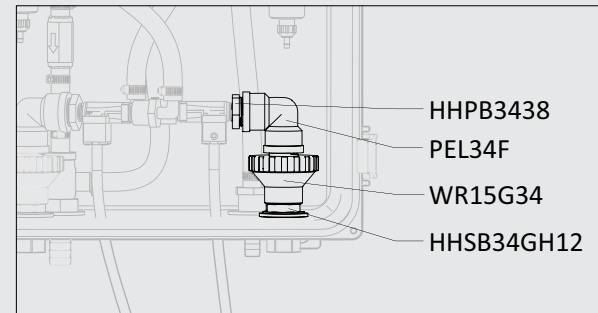
READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

CONTROL BOX ASSEMBLY



LEGACY WATER REGULATOR ASSEMBLY

LEGACY PARTS DIAGRAM



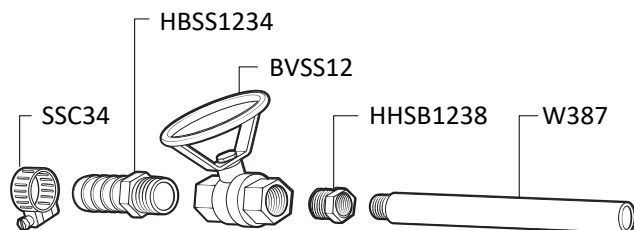
LEGACY PARTS LIST

ITEM NUMBER	DESCRIPTION
HHPB3438	HEX HEAD POLY REDUCER BUSHING 3/4in X 3/8in
HHSB34GH12	STAINLESS HEX HEAD BUSHING 3/4in MGH BY 1/2 FPT
PEL34F	3/4in FEMALE POLY PIPE ELBOW 90
WR15G34	WATER PRESSURE REGULATOR - 3/4in FGH BY 3/4in MPT Body ABS, internal parts, SS, PP and Santo

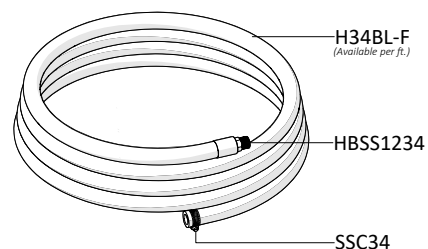
## READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

### FOAM HOSE AND WAND ASSEMBLY ITEM NUMBER: SSWA347-HA34BL-50

#### ZERO TIP FOAM WAND ASSEMBLY ITEM NUMBER: SSWA347

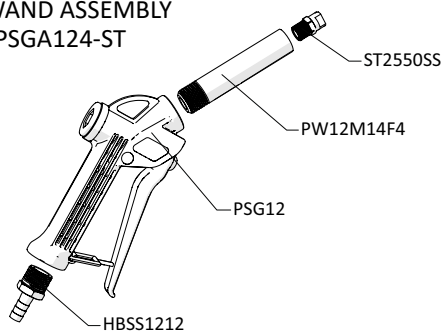


#### 50 ft (15 m) FOAM HOSE ASSEMBLY ITEM NUMBER: HA34BL-50

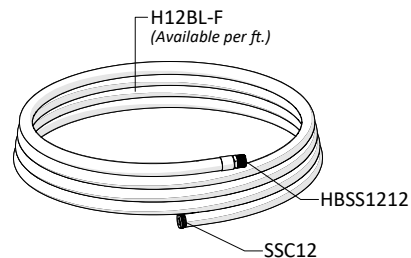


### SPRAY HOSE AND WAND ASSEMBLY ITEM NUMBER: PSGA124-ST-HA12BL-50

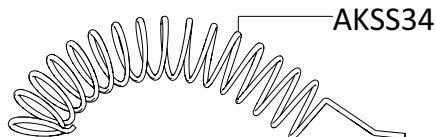
#### FAN TIP SPRAY WAND ASSEMBLY ITEM NUMBER: PSGA124-ST



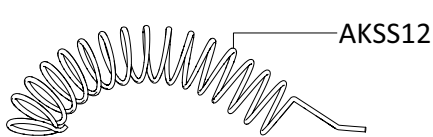
#### 50 ft (15 m) SPRAY HOSE ASSEMBLY ITEM NUMBER: HA12BL-50



### ANTI-KINK FOR FOAM HOSE ITEM NUMBER: AKSS34

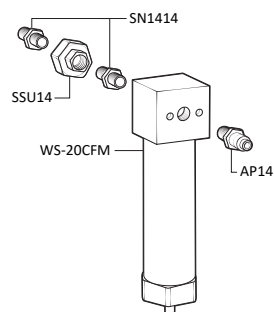


### ANTI-KINK FOR SPRAY HOSE ITEM NUMBER: AKSS12



### OPTIONAL COMPONENT

#### WATER SEPARATOR ASSEMBLY Item Number: WSA-20CFM





# READ ALL INSTRUCTIONS BEFORE OPERATING EQUIPMENT

ITEM NUMBER	DESCRIPTION
AG100	AIR GAUGE - 1/8IN NPT - 0-100 PSI MARKINGS - DRY MODEL
AKSS12	SS ANTI-KINK SPRING FOR 1/2 INCH HOSE
AKSS34	SS ANTI-KINK SPRING FOR 3/4 INCH HOSE
B103234	BOLT - 10-32 X 3/4IN - STAINLESS STEEL - TRUSS HEAD PHILLIPS
BVB14	BALL VALVE - BRASS - NICKEL PLATED - AIR INLET VALVE - 1/4IN FPT X 1/4IN FPT
BVSS12	STAINLESS BALL VALVE-1/2IN NPT
CV38-AP	CHECK VALVE-3/8IN BARBS-PVC BODY-HASTELLOY SPRING-TEFLON BALL-WHITE
EC14	EAR CLAMP - OETIKER - STAINLESS STEEL - FOR 1/4IN HOSE
F12SS	FERRULE FOR 1/2IN HOSE - STAINLESS
F34SS	FERRULE FOR 3/4IN HOSE - STAINLESS
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
H12BL-F	1/2IN ID BLUE HOSE-HYBRID TPE-AVAILABLE PER FT
H14BL-F	1/4IN ID 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 ID BLUE HOSE-HYBRID TPE-AVAILABLE PER FT
H38BL-F	3/8IN ID BLUE HOSE-HYBRID TPE-AVAILABLE PER FT
HBELF3838	HOSE BARB ELBOW 3/8 IN BY FPT 3/8 IN
HBFSS1238	HOSE BARB - STAINLESS STEEL - 1/2IN FPT X 3/8IN BARB
HBSS1212	HOSE BARB - STAINLESS STEEL - 1/2IN MPT X 1/2IN BARB
HBSS1234	HOSE BARB - STAINLESS STEEL - STRAIGHT - 1/2IN MPT X 3/4IN BARB
HBSS1438	HOSE BARB - STAINLESS STEEL - 1/4IN MPT X 3/8IN BARB
HBSSSEL1814	HOSE BARB - STAINLESS STEEL - ELBOW - 1/8IN MPT X 1/4IN BARB
HHSB1238	HEX HEAD STAINLESS BUSHING 1/2 MPT X 3/8 FPT
HHSB34GH12	HEX HEAD STAINLESS BUSHING 3/4 MGH X 1/2 FPT
MTK832-UL	METERING TIP KIT - 8-32 THREAD - DEMA ULTRALEAN - INCLUDES ALL FOUR COLORS
NV14	NEEDLE VALVE-1/4IN NPT-INCLUDES BLACK KNOB
NV14-HNDL	BLACK KNOB FOR NEEDLE VALVE
P14-VS	COUNTERSUNK PLUG-HEXAGON 1/4 W/VIBRAL SEAL PATCH
PCI-203	PLASTIC CHEMICAL INJECTOR KIT - 1 PRODUCT - 2X 3/8IN MPT - 1/4IN HOSE BARB - POLYPROPYLENE BODY - DEMA C SERIES P203CT - INCLUDES MTK832 METERING TIP KIT, TUBE, WEIGHT, STRAINER
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
HBB14P	1/4IN HOSE BARB-BRASS-FOR G57/P56 AIR FITTING WITH O-RING
HB5638	HOSE BARB FOR P56 PUMP
HB5638K	HOSE BARB FOR P56K PUMP
HB5638V	HOSE BARB FOR P56V PUMP
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
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
PEL34F	3/4 FPT POLY PIPE ELBOW
PL-16138-3P	PLATE FOR PB16138 (MOUNTING HOLES FOR 3 PUMPS) - PL-4X8
PSG12	POLY SPRAY GUN WITH 2X 1/2IN STRAIGHT THREAD - GRAY HANDLE WITH RED CLIP - 316SS INTERNAL SPRING - INCLUDES 2X O-RING
PSGORV	O-RING FOR PSG12-VITON
PW12M14F4	1/2IN NPT AND 1/4IN FNPT WAND - BLACK UHMW - 4IN 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
S1034-FH-HL	SCREW - #10 X 3/4IN - STAINLESS STEEL - FLAT HEAD PHILLIPS - HILO THREAD
SEL14M	STAINLESS ELBOW 1/4IN MPT X 1/4IN MPT
SN1414	STAINLESS HEX NIPPLE 1/4 MPT X 1/4 MPT
SSA12	STAINLESS ADAPTOR 1/2 MPT X 1/2 FPT
SSA14BKH	BULKHEAD ADAPTER - STAINLESS STEEL - 1/4 IN. NPT X 1/4 IN. NPSM
SSC12	SCREW BAND CLAMP - STAINLESS STEEL - 1/2IN HOSE
SSC34	SCREW BAND CLAMP - STAINLESS STEEL - 3/4 IN HOSE
SSC38	SCREW BAND CLAMP - STAINLESS STEEL - 3/8 IN HOSE
SSE12	STAINLESS STREET ELBOW - 304 STAINLESS STEEL - 1/2IN FPT X 1/2IN MPT
SSSFN12	SERRATED STAINLESS STEEL FLANGE NUT - 1/2 IN.
SST12HB38	STAINLESS STEEL TEE - 1/2IN FPT X 3/8IN BARB - NO MIXING MEDIA
ST2520SS	SPRAY TIP-25 DEGREE FAN-2.0 GPM-STAINLESS-1/4 MPT
ST2550SS	SPRAY TIP-25 DEGREE FAN-5.0 GPM-STAINLESS-1/4 MPT
STR34	1IN SEAL/STRAINER FOR 3/4 GH FITTINGS
W387	3/8IN NPT PIPE WAND - POLISHED STAINLESS - 7IN LONG - THREADED ONE END ONLY
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
WR12SS-WRG-LH	WATER PRESSURE REGULATOR - STAINLESS STEEL - FKM SEALS - 1/2IN FPT - ASSEMBLED WITH GAUGE FACING RIGHT - FOR USE ON LEFT SIDE OF BOX
WR12SS-WRG-RH	WATER PRESSURE REGULATOR - STAINLESS STEEL - FKM SEALS - 1/2IN FPT - ASSEMBLED WITH GAUGE FACING LEFT - FOR USE ON RIGHT SIDE OF BOX
WRG14	WATER PRESSURE REGULATOR GAUGE FOR WR12SS
WSA-20CFM	WATER SEPARATOR ASSEMBLY-20CFM-1/4IN FPT PORTS- INCLUDES AIR PLUG, UNION FITTINGS