USER MANUAL

MODEL NUMBER:
FST
FSTK
FSTV

Flooded Suction Tank

English

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 Material Safety Data Sheet (MSDS).
- If the unit is modified or serviced with parts not listed in this manual, the unit may not operate correctly.
- 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.
- Always flush the unit with fresh water for at least 5 minutes when switching from an alkaline to an acid or an acid to an alkaine.
- Never operate unit without the lid (FST-LID) on.
- Never open ball valves (PBV12M12F) when there is chemical in the tank, unless the ball valves are connected to an appropriate location for chemical discharge. Chemical will flow out of the tank through the open ball valve(s).
- Do not use the unit if an overflow hose is not installed.
- If chemical flows from the overflow port, shut down the unit immediately and correct the problem before proceeding.
- Do not use the unit if it is damaged or leaking.

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:
Tank Capacity: 2.6 gallons (10 liters)
Ball Valve Threads: 1/2 inch NPT female

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 2 CFM (56.6 l/min)

Electrical Requirements: 100 - 240 VAC at 60 Hz, 2 amps (GFCI Protected Circuit)

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

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, Acid cleaners and Sanitizers.

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 MSDS for your product or contact our customer service department.

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Installation Instructions:

1. Remove all components from packaging.
2. Select desired area to mount the unit.
   Note: Unit must be mounted in an area with a sanitary sewer drain.
3. Make sure the mounting bracket (WMBRKT2X8) is oriented correctly, and secure it to the wall using two of the screws and plastic anchors provided.
   Note: To drill holes for the plastic anchors, use a 1/4 inch drill bit. The two holes should be 8 inches (20.32 cm) apart.
4. Mount the unit by connecting the bracket (TBRKT) located on the back of the tank to the bracket (WMBRKT2X8) on the wall.
5. Open the lid (FST-LID) by removing all 4 screws (AS1-VS) and set aside.
6. Connect one or more of the ball valves (PBV12M12F) on the underside of the unit to your existing metering pump(s).
   Note: The ball valves (PBV12M12F) have 1/2 inch NPT female threads.
7. Connect your chemical source to the input barb (HB5638/HB5638K/HB5638V) located on the underside of the pump (P56/P56K/P56V).
   Note: Strainer must be used on intake line.
8. Connect a hose to the overflow port, located on the upper left side of the unit, and run the hose back to your chemical source or to another location that is situable for chemical discharge.
   Note: The overflow port has 1/4 inch NPT female threads.
9. Close the four ball valves (PBV12M12F) located on the underside of the unit.
10. Connect a compressed air supply line to the air inlet fitting (AP25).
    Note: Check for proper air pressure on air gauge (AG100). Air regulator (R25) 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).
11. Check to ensure ball valve (PVCV14FM) is in the open position.
12. Close and secure the lid (FST-LID) of the tank unit with all 4 screws (AS1-VS).

Operation instructions:

1. Follow all instructions from the chemical manufacturer.
2. Verify that all of the ball valves (PBV12M12F) that will not be used are closed and/or plugged.
3. Verify that the pump (P56/P56K/P56V)) is connected to the chemical source.
4. Plug in the 24 VDC power adapter (PS120-24V) to a 100-240 VAC power source to active the unit. When the unit is active, the pump (P56/P56K/P56V) will start to cycle. The pump (P56/P56K/P56V) will stop cycling when product reaches the appropriate fill level, and it will remain inactive until fluid level decreases.
5. Open the ball valve(s) (PBV12M12F) that are connected to your metering pump(s). Any ball valves that are not connected to a metering pump should remain closed.

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After Use Instructions:
We recommend flushing the unit with fresh water for 5 minutes or until all chemical has been discharge from system before shutting down unit.
To shut down unit, unplug the 24 VDC power adapter (PS120-2V).

Maintenance Instructions:
To keep your unit operating properly, periodically perform the following maintenance procedures:
Note: Before performing any maintenance, drain the tank and ensure that the unit has been disconnected from compressed air and electrical power.

- Inspect the pump (P56/P56K/P56V) 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 the air regulator (R25) as needed. Clean by unthreading the air regulator bowl (ABR25) from the air regulator (R25).
- Check the suction line and strainer 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 (WS-20CFM) before the unit.

Troubleshooting Instructions:

- 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 (R25).
- If air passes through the pump (P56/P56K/P56V) without cycling, the pump needs to be replaced.
- If chemical flows from the overflow port, the solenoid valve (SCV110) or air operated valve (AOV38) may need to be replaced.
- Check for proper air pressure on air gauge (AG100). Air regulator (R25) 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).
- Check to ensure ball valve (PVCV14FM) is in the open position.
- 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 (4.14 bar) or above, check the air gauge (AG100), which should read near 50 psi (4.14 bar). If the air gauge reads more or less than 50 psi (4.14 bar), adjust the pressure by turning the knob on the top of the air regulator (R25).

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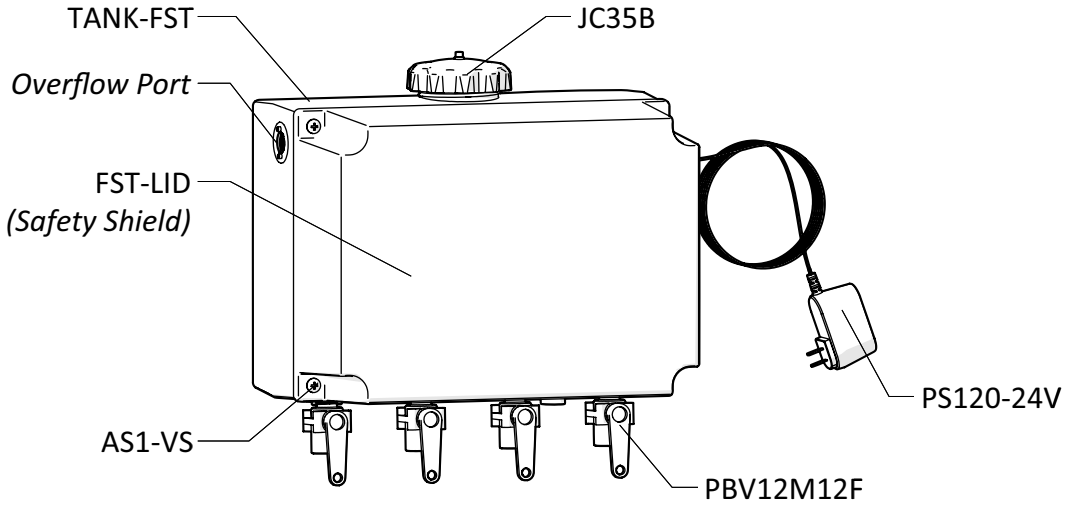
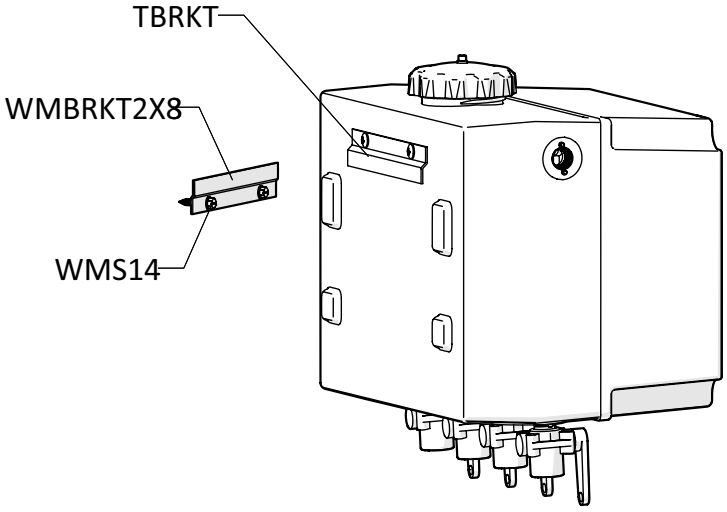
TANK ASSEMBLY





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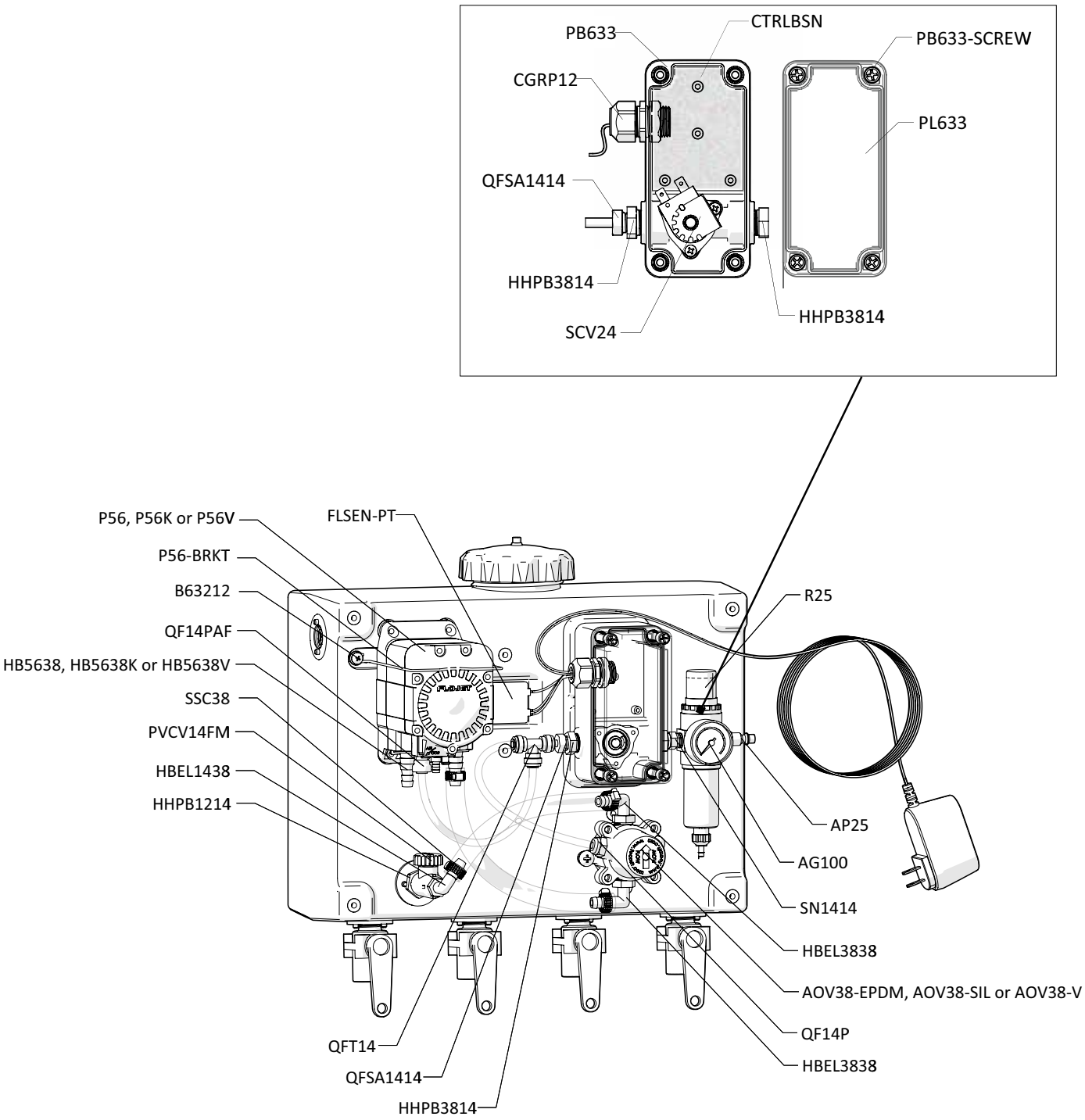
CONTROL BOX ASSEMBLY



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ITEM NUMBER	ITEM DESCRIPTION
AG100	1.5 INCH DRY MODEL 20 DUAL SCALE GAUGE
AOV38-EPDM	AIR OPERATED VALVE WITH 3/8 IN FPT-EPDM O RINGS
AOV38-ORK-EPDM	O RING KIT FOR AOV38-EPDM
AOV38-SIL	AIR OPERATED VALVE WITH 3/8 IN FPT-SILICONE O RINGS
AOV38-ORK-SIL	O RING KIT FOR AOV38-SIL
AOV38-V	AIR OPERATED VALVE WITH 3/8 IN FP-VITON O RINGS
AOV38-ORK-V	O RING KIT FOR AOV38-V
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
B63212	Screw, 6-32 Thread, 1/2in Length
CGRP12	CORD GRIP 1/2 INCH
CTRLBSN	CONTROL BOARD FOR SENSOR ON FST UNITS CTRLBSN
FLSEN-PT	FLUID LEVEL DETECTION SENSOR FOR PLASTIC TANK-3 WIRE MODEL
FST-LID	LID FOR TANK-FST
HB1238	1/2in MPT X 3/8in HOSE BARB
HBEL1438	HOSE BARB ELBOW 1/4 X 3/8
HBEL3838	HOSE BARB ELBOW 3/8 X 3/8
HHPB1214	HEX HEAD POLY REDUCER BUSHING 1/2in X 1/4in
HHPB3814	HEX HEAD POLY REDUCER BUSING 3/8in X 1/4in
JC35B	BLACK 3.5 INCH ONE WAY VENTED CAP POLYPROPYLENE WITH GASKET AND CHECK VALVE
JC35B-P	BLACK 3.5 INCH CAP - POLYPROPYLENE
JC35-CV	EPDM CHECK VALVE FOR NON LOCKING JUG CAP
JC-G35	JUG CAP GASKET 3.5 INCH CAP EPDM
JC35SSCS	VENTED 18-8 SS SOCKET HEAD CAP SCREW, 10-32 THREAD, 3/4 INCH LENGTH .046 VENT DIAMETER
P12	HEX HEAD PLUG WITH 1/2 M.P.T.
P18	POLY PLUG 1/8 MPT HEX HEAD
P56	5700 PUMP WITH SANTOPRENE SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
P56K	5700 PUMP WITH KALREZ SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
P56V	5700 PUMP WITH VITON SEALS - INCLUDES HOSE BARBS, AIR FITTING, AND AIR PORT
20756103B	Polypro G57 Air Port x HB Straight, w/ Viton o-ring
HB14P	1/4in BRASS HB AIR FITTING /G57/P56
HB5638	HOSE BARB FOR P56 PUMP
HB5638K	HOSE BARB FOR P56K PUMP
HB5638V	HOSE BARB FOR P56V PUMP
P56-BRKT	PUMP BRACKET- STAINLESS STEEL
PB633	CONTROL BOX BODY - POLYPROPYLENE - 6x3x3
PB633-GSKT	GASKET FOR POLY CONTROL BOX 6x3x3
PB633-SCREW	SCREW FOR PB633 CONTROL BOX - POLYPROPYLENE
PBV12M12F	POLYPROPLENE BALL VALVE-1/2 MPT TO 1/2 FPT
PL633	CONTROL BOX LID - POLYPROPYLENE - 6x3x3
PS120-24V	PLUG-IN VOLTAGE TRANSFORMER, 120 VAC INPUT, 24VDC OUPUT
PVCV14FM	VA PVC 226-4F4M-B, RD. FLUT
QF14P	MALE CON. 1/4in TUBE X 1/4in MPT POLYPROPYLENE
QF14PAF	1/4in QF PUMP AIR FITTING / G57 12 pack
QFSA1414	STEM ADAPTER 1/4in STEM X 1/4in NPT - POLYPROPYLENE
QFT14	UNION TEE 1/4in TUBE - POLYPROPYLENE
R25	AIR REGULATOR - 1/4fpt TWO PORT 1/8fpt TWO PORT - INCLUDES FILTER AND BOWL
AFR25	AIR FILTER for R25
ABR25	METAL AIR BOWL for R25
SCV24	SOLENOID COIL VALVE 24 VDC
SN1414	STAINLESS 1/4MPT X 1/4MPT NIPPLE
SSC38	WORM GEAR CLAMP, S/S (.25-.63)
TANK-FST	TANK FOR FST
TBRKT	FST TANK BRACKET
WCH3P	CONN HOUSING 3POS .156 W/RAMP
WCTF	CONN TERM FEMALE 22-26AWG TIN
WMBRKT2X8	WALL MOUNTING BRACKET 2X8 - FST
WMS14	14 X 1 1/4 HEX W/H SMS SLOTT, S/S
WMS14A	5/16 X 1 1/2 STRAIGHT PLASTIC ANCHOR