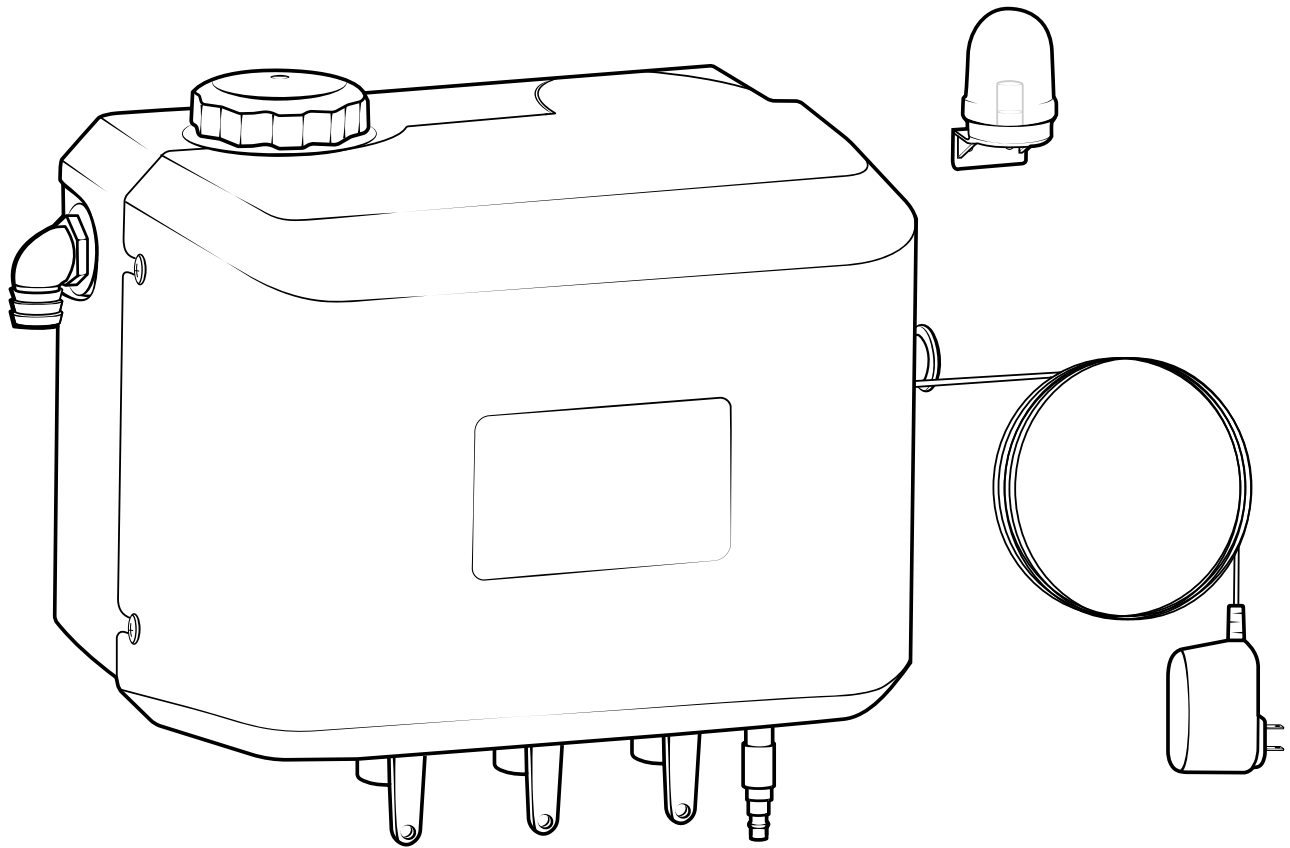


Flooded Suction Tank

Service Manual

FST

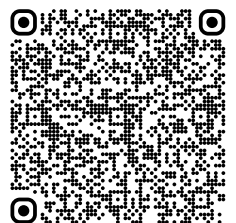


READ ALL INSTRUCTIONS BEFORE USING OR SERVICING THIS UNIT. KEEP THIS MANUAL IN A LOCATION THAT IS READILY AVAILABLE TO USERS AND SERVICE TECHNICIANS.

English (Original Instructions)



Scan this code for
service manual



Safety

WARNING

PEOPLE OR OBJECTS CAN BE HURT OR DAMAGED IF THIS UNIT IS NOT USED CORRECTLY!



Failure to read all the instructions before operating the unit may result in personal injury or death from the improper use or the chemical solution. Anyone handling, operating or using the unit must read and understand the instructions in the manual. The buyer assumes all responsibility for safety and proper use in accordance with the instructions.



Using or servicing the unit without appropriate personal protective equipment (PPE) may result in serious injury such as burns, rashes, eye, throat or lung damage and death. Always wear PPE as indicated in the Safety Data Sheet (SDS) when using or servicing the unit. Protect eyes, skin, and lungs against drifting spray.



Chemical solutions may pose a health risk and death if they contact the skin or eyes, are inhaled or swallowed. Always read and follow all chemical safety precautions and handling instructions provided by the chemical manufacturer and the SDS associated with the chemical solution before using the unit.



Pressure within the equipment may cause an unexpected release of the chemical solution and cause serious injury such as burns, rashes, eye damage, throat or lung damage and death. Always depressurize and clean the unit after each use. Release any remaining air pressure by opening the discharge ball valve. Never leave the unit unattended while pressurized.

Using the unit with fluid temperatures above 100°F (37.8°C) may result in scalding, burns, serious injury or death. **DO NOT** use a solution with a temperature above 100°F (37.8°C).

Operating the unit when damaged or leaking may result in exposure to chemical solutions, serious injury or death. Never use the unit if it is damaged or leaking.

Never open ball valves with chemical in the tank, unless the ball valves are connected to an appropriate location for chemical discharge. Never point the discharge valves at yourself, another person, or any object you do not want covered in chemical. Never operate unit without the lid on.

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.



Using incoming air pressure exceeding 80 psi (5.5 bar) may result in pressure buildup, explosion, serious injury or death. **DO NOT** exceed 80 psi (5.5 bar) incoming air pressure when operating the unit.

Use of hydrocarbons and flammable products may result in explosions, fire and serious injury or death. Never use hydrocarbons or flammable products with the unit.



Mixing an alkaline with an acid may result in a chemical reaction. Overheating of the mixture may cause it to splatter caustic compounds or release hazardous fumes, gas and vapors. Always flush unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.

NOTICE

Servicing or modifying this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit. Use of an air lubricator before the unit may result in diminished performance and damage to the unit. Do not use an air lubricator before the unit. Moisture in the air lines will damage the pump and diminish the pump life. The air must be filtered, clean, dry and free of moisture. If needed, install an air dryer 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.



Model No.: FST

Manufactured by: FOAMit

3833 Soundtech Ct. SE Grand Rapids, MI 49512 US

This device complies with Part 15 of the FCC Rules for Class B devices. Operation is subject to the following two conditions: **(1)** This device may not cause harmful interference, and **(2)** this device must accept any interference received, including interference that may cause undesired operation.

Service Guide

WARNING

Performing any maintenance with the unit connected to the air supply and/or electrical power may result in serious injury or death. Before conducting any maintenance, always ensure that the unit has been drained and disconnected from both compressed air and electrical power. Servicing or modifying this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit.

Maintaining Your Unit

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

- Inspect the pump 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 as needed. Clean by unthreading the air regulator bowl from the air regulator.
 - Check the suction line and strainer for debris. 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.

Servicing Your Unit

Most repairs on the unit can be performed with the following tools:

- Crescent wrench (2x)
- 5/8 in. (16 mm) open-ended wrench
- Flat head screwdriver
- Thread seal tape
- #2 Phillips head screwdriver
- #3 Phillips head screwdriver
- Hose cutters
- Knife

Troubleshooting Your Unit

If your unit is not operating properly, try using these troubleshooting tips:

Issue	Solution
Air regulator bowl or air filter has debris such as water, oil, or rust particles	<ul style="list-style-type: none"> • Clean by unthreading the air regulator bowl from the air regulator.
Pump is cycling improperly	<ul style="list-style-type: none"> • Check for low air pressure or a clog in the fluid lines.
Air passes through the pump without cycling	<ul style="list-style-type: none"> • The pump needs to be replaced.
Tank will not fill and/or pump not cycling	<ul style="list-style-type: none"> • Check to ensure PVC ball valve is in the open position.
The unit operates at a reduced pressure	<ul style="list-style-type: none"> • Check suction line and strainer for debris or damage. Clean or replace as needed. To prevent damage to the unit, the strainer must always be used. • Check the air compressor supplying the unit. If the pressure is less than 70 psi (4.8 bar), turn off the unit until the compressor can catch up. • If the air supply is 70 psi (4.8 bar) or above, check the air gauge, which should read near 70 psi (4.8 bar). If the air gauge reads more or less than 70 psi (4.8 bar), adjust the pressure by turning the knob on the top of the air regulator.
Indicator lamp is on and on-board LED is red	<ul style="list-style-type: none"> • Unit is under filled. Inspect the unit with the following instructions: <ol style="list-style-type: none"> 1. Check for an empty chemical source tank. 2. Press the PRIME button to prime the tank.
Indicator lamp is flashing and on-board LED is red	<ul style="list-style-type: none"> • Unit error. Inspect the unit with the following instructions: <ol style="list-style-type: none"> 1. Unplug the unit and inspect components. Plug back into power source. 2. If error persists, replace level sensor.

Tank Assembly

TNKA-4N-FST:

4 gallon natural tank assembly - black lid - includes fill and overflow ports, 3x outlet valve, and wall mounting bracket

Item number	Description
1	HBEL1010 Hose barb elbow - 1 in. MPT x 1 in. barb - polypropylene
2	BVPVC14MF PVC ball valve - ¼ NPT to ¼ FNPT - EPDM seal
3	HHPB1214 Hex head poly bushing ½ MPT x ¼ FPT
4	HBEL1438 Hose barb elbow ¼ MPT x ¾ hose barb
5	BVPP12MF Polypropylene ball valve - ½ NPT to ½ FNPT - EPDM seal
6	JC35B-P Black 3.5 Inch cap - polypropylene
7	B142012 ¼-20 x ½ in. bolt - stainless - truss head Phillips
8	BRKT-TPL Wall mounting toe plate bracket
9	TNK-4N-FST Tank - 4 gal natural - FST

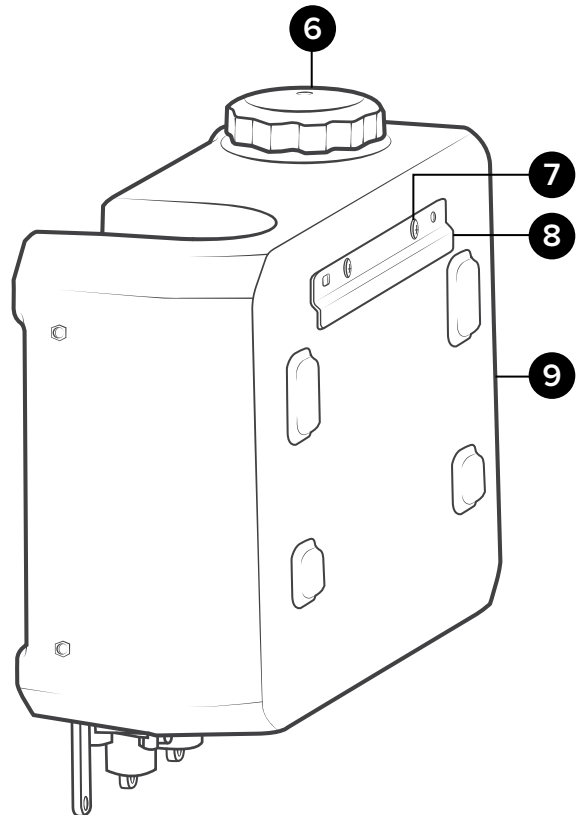
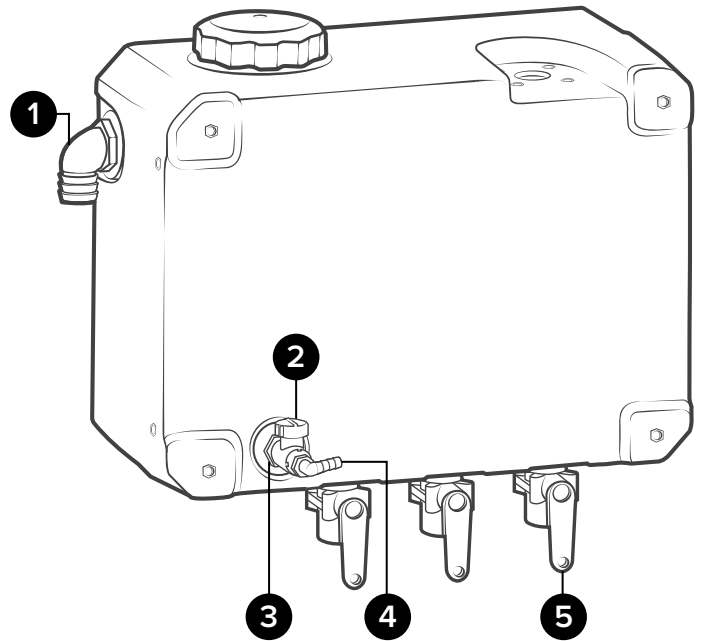


Plate Assembly

PA-FST-SIL:

Plate assembly for FST units - Santoprene pump

Additional plate assembly pump options:

PA-FSTK-SIL: Kalrez pump

PA-FSTV-SIL: Viton pump

Item number	Description
1	PBS-ESTP Push button emergency stop switch - panel mount
2	WRHN-ESTP Wire harness for PBS-ESTP
3	PBSA-24V-NLTCH Push button switch assembly 24v LED switch and wire harness - non latching
4	A P56 Pump with Santoprene seals - includes hose barbs, air fitting, and exhaust barb
	B P56K Pump with Kalrez seals - includes hose barbs, air fitting, and exhaust barb
	C P56V Pump with Viton seals - includes hose barbs, air fitting, and exhaust barb
5	CTRLR-FST Controller for FST
6	R25 Air regulator - two ¼ in. FPT ports - two ⅜ in. FPT ports - includes filter and bowl
7	AG100 Air gauge - ⅜ in. NPT - 100 PSI dry model
8	ACV14-24VDC-MLX Air control valve - 24 VDC - with Molex connector
9	PL-TNK4-FST Plate for TNK-4N-FST
10	VLVA-AOVISIL-FST Air operated valve assembly includes hose, and quick fit
11	TB14BL-PU ¼ in. od blue tube - polyurethane - available per ft.
12	QFT14 Union tee ¼ in. tube - polypropylene
13	HBB38AP14 Hose barb adapter ⅜ MPT to AP14
14	PS120VAC-24VDC-1.5A Plug-in voltage transformer 120 VAC input - 24 VDC output - 1.5 A output

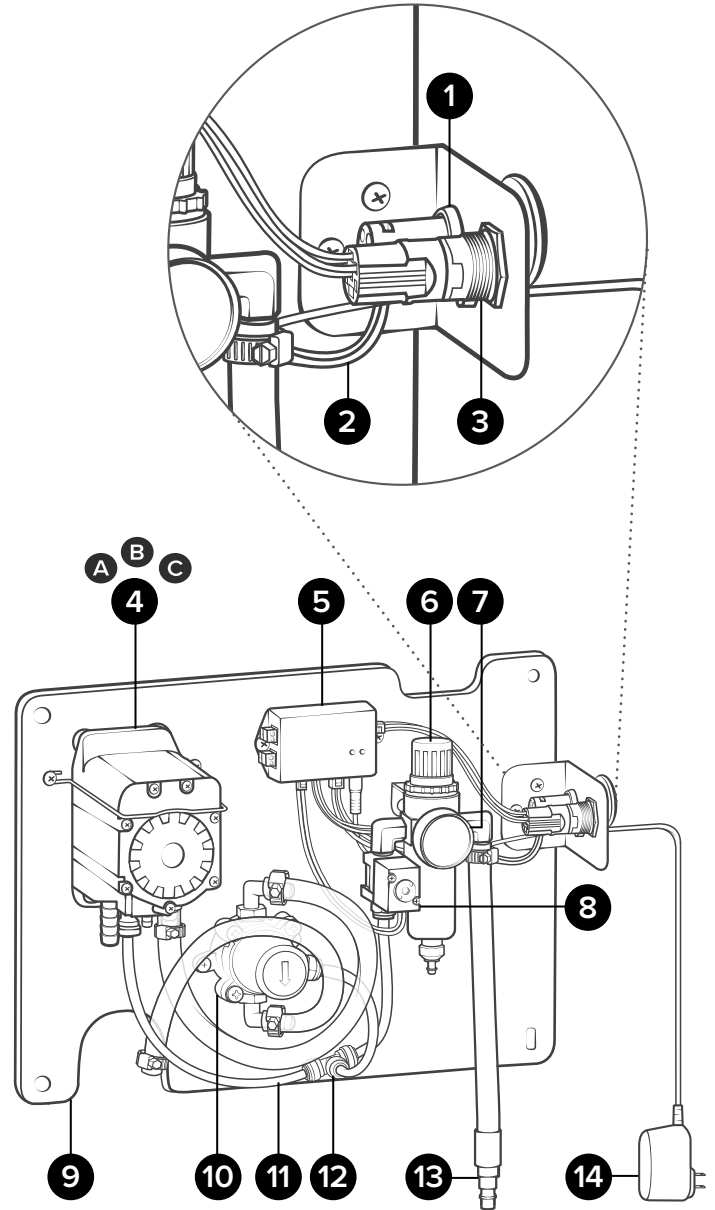
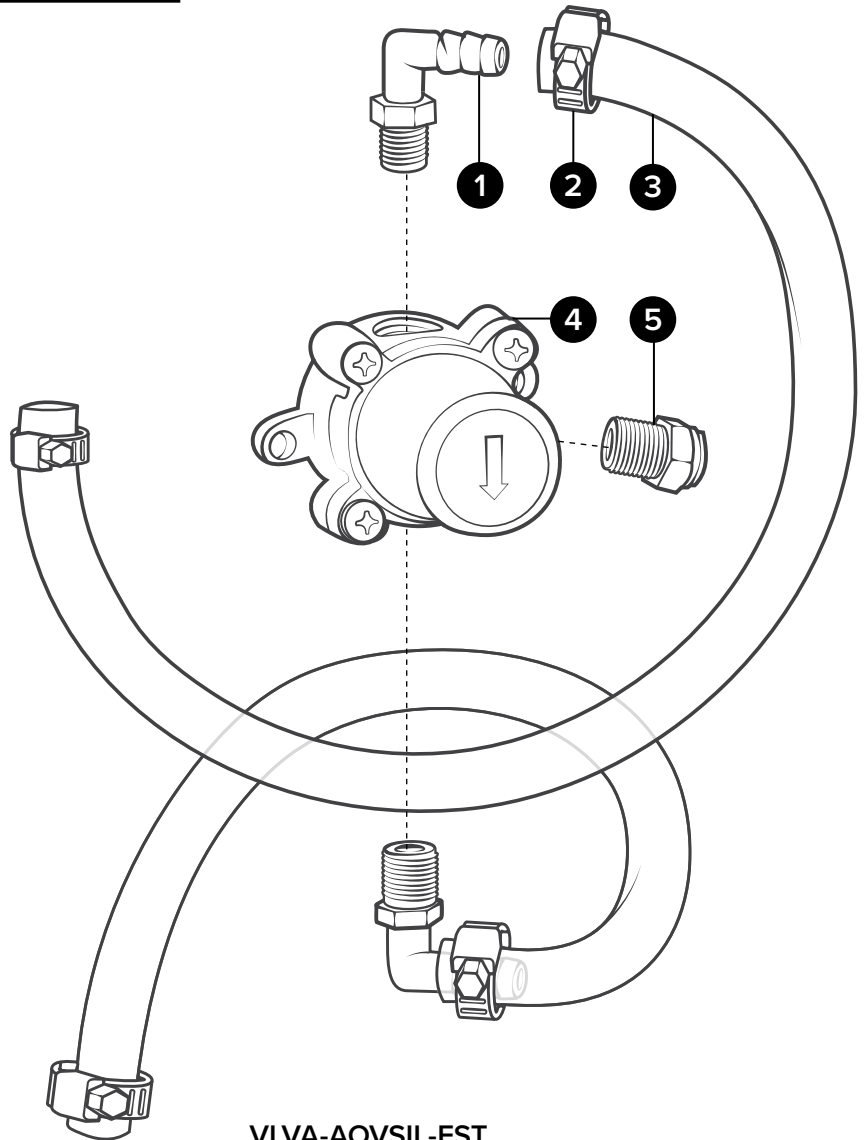
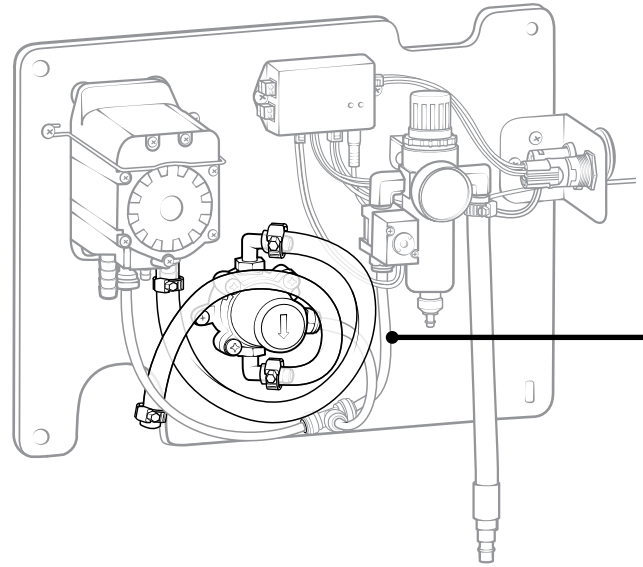


Plate Sub-assemblies

VLVA-AOVSIL-FST:

Valve assembly - includes AOVPP38-SIL, hose, and quick fitting - for FST

Item number	Description	
1	HBEL3838	Hose barb elbow $\frac{3}{8}$ x $\frac{3}{8}$
2	SSC38	Screw band clamp for $\frac{3}{8}$ in. hose - stainless
3	H38CL-CB	$\frac{3}{8}$ in. id clear clearbraid hose PVC - available per ft. - max 100 ft. section
4	AOVPP38-SIL	Air operated valve - polypropylene body - $\frac{3}{8}$ in. FPT - silicone o-rings
5	QF14P	Quick fit - $\frac{1}{4}$ MPT x $\frac{1}{4}$ od tube polypropylene



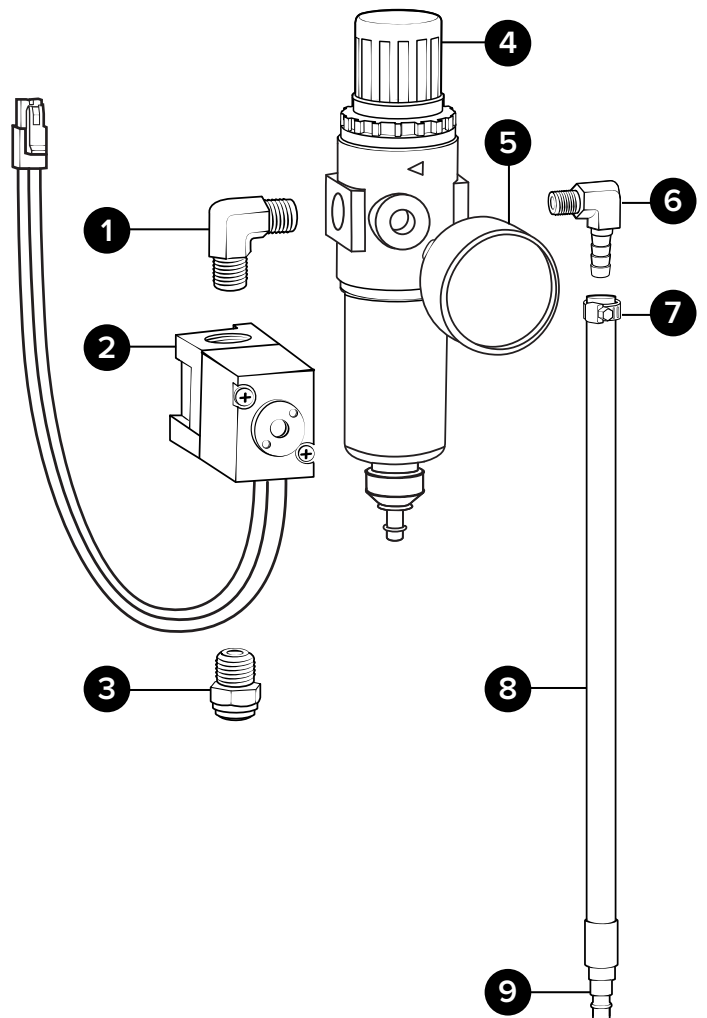
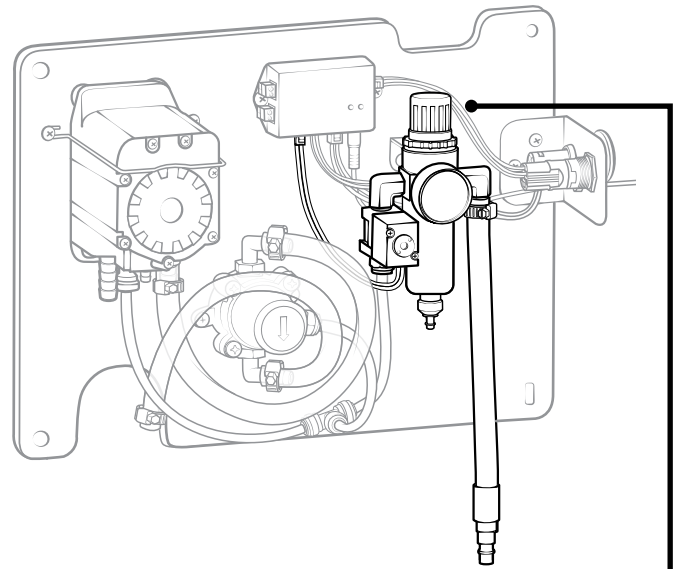
VLVA-AOVSIL-FST

Plate Sub-assemblies

RGA-R25-FST:

Regulator assembly for FST units - includes air gauge, plug, air control valve, quick fit, fittings, hose, and air fitting

Item number	Description
1 SEL14M	Stainless elbow ¼ in. MPT x ¼ in. MPT
2 ACV14-24VDC-MLX	Air control valve - 24 VDC - with Molex connector
3 QF14P	Quick fit - ¼ MPT x ¼ od tube polypropylene
4 R25	Air regulator - two ¼ in. FPT ports - two ⅜ in. FPT ports - includes filter and bowl
5 AG100	Air gauge - ⅜ in. NPT - 100 PSI dry model
6 HBSSEL1438	Stainless hose barb ¼ MPT x ⅜ barb elbow
7 SSC38	Screw band clamp for ⅜ in. hose - stainless
8 H38BL-F	⅜ in. blue hose - hybrid TPE available per ft.
9 HBB38AP14	Hose barb adapter ⅜ MPT to AP14



RGA-R25-FST

Additional Components

Item number	Description
1 B142012	¼-20 x ½ in. bolt - stainless - truss head Phillips
2 IL24V-HSG-RD	Indicator light housing - red 24v LED - no bulb
3 IL24V-BLB	Indicator light bulb - 24v
4 FLS-TNK4-HRS	Float level sensor for TNK-4N-FST - with Hirose connector
5 S1012-HL	#10 x ½ in. screw - stainless - round head Phillips - hi-lo thread
6 FW1420-LG	Flat washer for ¼-20 bolt - large stainless - 0.28 in. id x 0.75 in. od x 0.05 in. thk
7 B14201	¼-20 x 1 in. bolt - stainless - truss head Phillips
8 TNK-4N-LID-FST	Tank - 4 gal natural - FST lid

