
VERTICAL FARM
OPERATIONS AND MAINTENANCE MANUAL

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1 OPERATION

1.1 PURPOSE

The intended use of this system is to grow plants using an aquaponics setup. Growing root vegetables or large heavy plants is not recommended as the troughs are meant for above soil, low footprint plants. This system should be kept indoors or in an enclosed space to minimize heating costs.

2 MAINTENANCE INSTRUCTIONS

2.1 CLEAN TANK

Clean tank to ensure optimal pump performance. Cleaning the glass keeps the fish healthier and ensures the fish are viewable.

2.2 CLEAN PUMP

Disassemble pump and check for foreign debris.

2.3 CLEAN TANK FILTER

Disassemble tank filter and clean out debris. Purge air from filter when done cleaning

3 TROUBLESHOOTING

3.1 LOW GROW TROUGH FLOW RATE

Make sure vertical farm is level. Check pump for debris. Check plumbing for leaks. Check for roots blocking entire trough.

3.2 INCORRECT WATER TEMPERATURE

Make sure water heater switch is on. Make sure water heater is plugged in. Ensure the heater coils are fully submerged. If water heater is still not working replace water heater.

3.3 EXCESSIVE NOISE

Reposition grow trough drain outlet tubes. Clear air from water filter. Check pump for failure or debris.

3.4 LIGHTS WON'T TURN ON

Check light switch make sure it's on. Make sure light is plugged in. If daisy chaining the lights, ensure light works by itself first. If lights still don't turn on replace lights.

3.5 PLANTS ARE DYING

Check water level and water oxygen level. Check water pH level ensure its between 6.9 and 7.2. Check for signs of pests or bacterial infection.