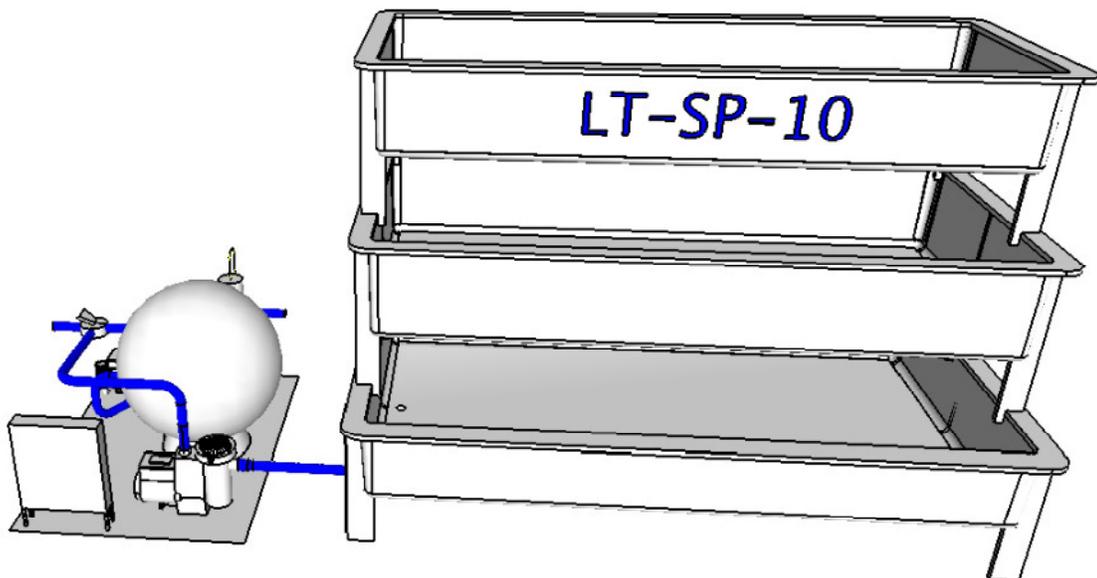


Dura-Tech

Live Lobster Holding Tanks with Water Treatment Skid Pack

Installation Manual



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Safety First

This piece of equipment involves operation of electrical components in a damp environment. All electrical items must be installed and maintained for operation in damp locations according to local building codes.

There are two main sources of danger:

1. Electrical Shock
 - a. Use extreme caution around electrical connections and equipment.
 - b. Call an electrician to install, repair, or maintain any electrical equipment, connections, housings, or fittings.
 - c. Follow all applicable electrical codes
2. Rotating Machinery
 - a. Shut off pump before removing the basket strainer or servicing the pump
 - b. Never operate the pump with the impeller exposed.

Do not pump any fluid other than water or seawater with the pump.

Do not pump any fluid other than air through the aeration blower.

System Specifications

Lobster capacity: 3000lbs

Power Supply

These numbers are approximate ratings for electrician's use and not related to actual energy consumption. However, electrical connections should be sized based on actual motor and component nameplates by a licensed electrician.

1. UV Filter: 2amps @ 120VAC, Single phase, 60Hz
2. Aeration blower: 11amps @ 120VAC, Single phase, 60Hz
3. Circulation pump: 16amps @ 230VAC, Single phase, 50 or 60Hz
4. Chiller option: 26amps @ 230VAC, Three phase, 60Hz [single phase option available]

Arrival and Unpacking

Upon arrival inspect the entire system. Call supplier immediately if any damage is evident or suspected. Check all union fittings to make sure they have not loosened or shifted during shipping. Check that o-rings and gaskets are in their proper place.

Installation

1. Install on a level and stable surface that will not be degraded by water.
2. Connect to water source with PVC pipe of matching diameter or greater.
3. The UV Filter and aeration blower are supplied with 120V plugs. If not using plugs, have an electrician hard wire the circuits according to all applicable codes.
4. Have an electrician wire the 230VAC circuit for the pump and chiller if applicable.
5. Connect filter backwash line to a waste drain using the same or larger diameter piping. Either a 12" length of clear pipe or the outlet of the pipe should be visible to the operator to determine when filter is clean during backwashing.
6. Install the UV sleeve, and lamp following directions in the UV manual provided.
7. Place aeration pipes in back center of each tank
8. Do not allow wiring (other than electrician's connections) or plumbing to be in contact with motors to avoid damage due to heat.

Treatment System Outline

Pump

The recirc pump draws water from the bottom of the lower tank. The pump is designed for efficiency and can be set to maintain a constant user-input flow rate by varying its speed automatically. This allows the user to save energy by pumping only the amount of water needed to maintain desired water

quality. It also automatically compensates for a dirty filter by increasing pump speed to maintain a constant flow.

The recirc pump also has a strainer basket on the suction side of the pump to prevent larger items from entering the pump.

There is a valve on both the suction and discharge side of the pump so that the pump can be serviced without water being lost from the system. A check valve on the discharge side of the pump also prevents water from back feeding out the lower tank drain when the pump is off.

Sand Filter

Water flows from the pump to the sand filter which both cleans the water of particles and acts as an ammonia removal biofilter.

UltraViolet (UV) Filter

From the sand filter, the cleaned water proceeds to the upper tank with a portion of the flow being sent through the UV filter for bacterial control. The UV sterilizes bacteria and/or algae faster than they can proliferate. The UV functions not by killing organisms, but by damaging the DNA of cells so that they can no longer reproduce.

Chiller

If a chiller is included with the system, water will flow from the sand filter to the chiller before proceeding to the upper tank. Water should be dropped into the upper tank in the end opposite the overflow stand pipe. Water will exit the upper tank through the stand pipe and pour into the middle tank. From the middle tank, water overflows the standpipe and falls into the lower tank.

System Maintenance

Pump

Periodically check the strainer basket of the pump for debris. The clear top makes this check possible without shutting down the pump. If debris is spotted, it should be removed immediately. To remove, turn off the pump. Shut the pump suction valve. Remove the cover from the strainer basket chamber. Remove the strainer basket and clean it with water. Replace the strainer basket and the chamber cover. Open the pump suction valve and wait for the chamber to be at least half full of water before turning on the pump.

Sand Filter

The sand filter will need to be backwashed regularly, perhaps daily. To backwash:

1. Turn off the UV and the pump.
2. Turn the multiport valve on the sand filter to “Backwash”,
3. Watch the sightglass or the backwash water.
4. Wait for 3 minutes or until water flows clear.
5. Turn the multiport valve on the sand filter to “Filter”
6. Turn on the UV and the pump

UltraViolet (UV) Filter

The UV lamp loses 70% of its effectiveness each year and should be replaced every year. The quartz sleeve should be cleaned twice per year or as necessary to preserve effectiveness of UV filter.

Aeration Pump

The aeration pump intake filter should be cleaned weekly and debris removed as soon as it is noticed. To clean the filter, turn off the aeration pump and pull the filter off of the intake pipe. When clean put the filter back on the pipe and turn aeration pump on. The aeration pump should not be turned off for more than a few minutes when fish are in the tanks.

Spare Parts and Service

For spare parts and service for the system contact Aqua Production Systems.

By phone: 902-746-3855

By mail: Aqua Production Systems, 111 Elshirl Rd, RR2 New Glasgow, NS, B2H 5C5

Warranty

The warranty against manufacturer defect is one year from shipment date. Liability is limited to the cost of replacing or repairing the part in question.