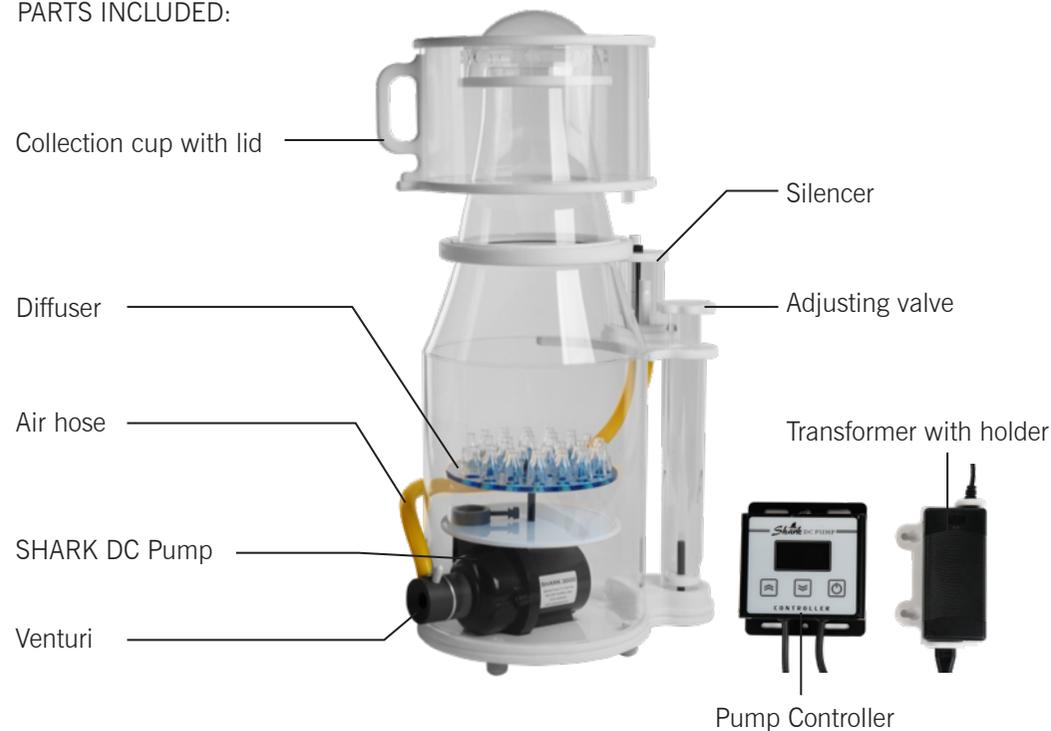


## Before installation and operation

Please open the package carefully and check for damaged or lost parts.

PARTS INCLUDED:



## Recommendations

1. For best performance, please clean the collection cup frequently. Use a sponge and warm water to clean it. (DO NOT USE ANY SOAP OR CHEMICALS TO CLEAN THE COLLECTION CUP).
2. While we take great care to keep any contaminants away from our products during assembly, please take a moment to clean with warm water ONLY. Never clean Acrylic with alcohol-based products. Use caution when handling acrylic scratches easily.
3. It may require 2 – 4 weeks for the skimmer to reach maximum performance due to tiny amounts of oil or remnants left from manufacturing. Skimmer performance may be erratic during this time and be sure to allow ample time for the skimmer to break-in before making adjustments.

## Assembly

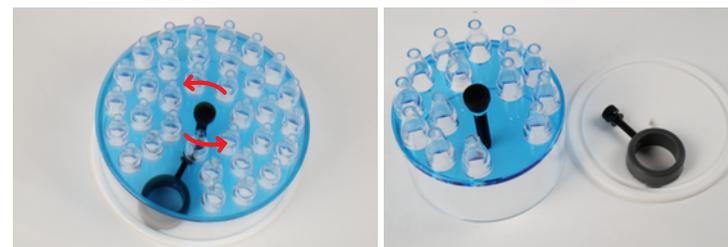
1. Loosen the screws in the bottom of the skimmer to separate the base and the skimmer body.



2. Take the screw under the pump and put the pump on the base then screw back to combine the pump to the base.



3. Loosen the center screw on the diffuser to separate the diffuser plate.



4. Loosen the screw beside the cap and put the plate on the pump then screw back. Make sure to put the plate in the center of the base or the main body cannot be installed.



- Put back the diffuser plate and tighten the center screw, do not overtighten.



the diffuser plate should only be installed in this position

- Screw the skimmer body back. Make sure the wire is in the right place.



- Install the venturi and connect the venturi and the silencer by the air hose.



- Install the collection cup and lid. (DO NOT OVER TIGHTEN SKIMMER CUP AS DAMAGE MAY RESULT)



- Connect the pump to the controller and the transformer.



Controller to transformer



Controller to pump

## ■ Select a suitable place to set your protein skimmer

- For best results place the skimmer in 18-20 cm of water. Please make sure that the skimmer is in no more than 20 cm of water. Otherwise, the adjusting valve will not function properly.
- The pump must be completely submerged underwater when in use

## ■ To Start

- Plug in the pump.
- The main chamber will fill with bubbles. Carefully adjust the adjusting valve (clockwise to close, the water level in the chamber will go up; counter-clockwise to open, the water level will go down). Adjust the water level within the skimmer to where the cup meets the neck.
- Once the bubbles reached the bottom of collection cup, you can start to adjust the water level **according to your preference**. If you prefer wet wastewater, you need the high water level; Conversely, if you want dry wastewater, just let your water level goes down.



water level high low  
water color

## ■ Pump Controller



1. The controller is full speed adjustable.
2. LCD show worked hours, power consumption, current, running speed, error happened, etc.
3. Functions:
  - (1) Power on : Press 
  - (2) Power off : Double press  or single press during feed mode
  - (3) Start : Press  (after pressing )
  - (4) Flow rate up : Press 
  - (5) Flow rate down : Press 
  - (6) To the maximum flow rate : Continuing press  to reach the maximum flow rate within 3s
  - (7) Softly stop : Continuing press  to reach the lowest flow rate, and stop.
  - (8) **Feed Mode** : Press  during the pump is operating, automatically switch back to normal mode after 0.5H
4. For first starting, 10s is needed to reach the highest flow rate.
5. **No-water Protection:** If pump is running without water, controller will stops pump within 10s
6. **Memory:** If input power is cut off accidentally, the pump is able to recover the previous running status automatically when the power comes back.
7. Error codes:
  - Er 1: No-water fault. Try to adjust the location of pump, check the pipe connected to inlet of pump.
  - Er 2: Low voltage fault. Please check the power cord.
  - Er 3: Over voltage fault. Please contact technical service or retailer
  - Er 4: Blocked fault. Please clean the pump and the inlet. Please refer the **Maintenance** section.
  - Er 5: Over current fault. Please adjust the location of pump and follow the water level recommendation to set the pump.Press  to restart the pump after the error is solved.  
If restart failed, please re-connect the power cord and press 
8. Do not connect pump controller to others power cord except original power cord.
9. Do not use pump in water over 40°C.

## ■ Maintenance



### Collection cup & Body

Clean the collection cup and main body frequently with a sponge and warm water.

### Silencer

Check the air hose and silencer frequently, especially the place marked on the photo got clogged sometimes. Once it's clogged, please clean up immediatly.



### Venturi

Check the venturi (especially the place marked on the photo)

It's common that the carbonate (limescale) builds up to form a very hard white substance. Rinse it weekly, soak in vinegar water (1 part water and 1 part vinegar or citrin acid) every month for at least 24 hours. Once you finish, please rinse with warm water.



### Pump

Regular maintenance of the pump will ensure a long life and maximum performance: recommended every 3 months.

You can disassemble the pump by following steps:



Unscrew the 4 screws outside the pump, to take off the cover.



Pull out the rotor.



Soak in a mixture of 1 part water and 1 part vinegar (citrin acid also available) for at least 24 hours. Once you finish, please rinse with warm water.

## ■ Warranty

JNS warrants all JNS products to be free from manufacturing defects for one year from the original purchase date when purchased through an authorized JNS retailer. This warranty does not cover any damages caused by misuse, neglect, alterations, or improper handling / transport / maintenance / installation. Physical damages are not covered by the warranty. JNS does not cover personal injury, personal loss, or other damages associated with the use of our products. In order to request warranty service, please email us at [info@jnsaquaria.com](mailto:info@jnsaquaria.com). A purchase receipt is required for any warranty service. Products requiring warranty service must be returned to JNS. You are responsible for the cost of shipping a warranty claim to JNS and any damages that may occur during transit. Once a returned product has been inspected, it will be repaired or exchanged at our discretion and returned to you. International and/or expedited shipping are not covered under your JNS warranty.