

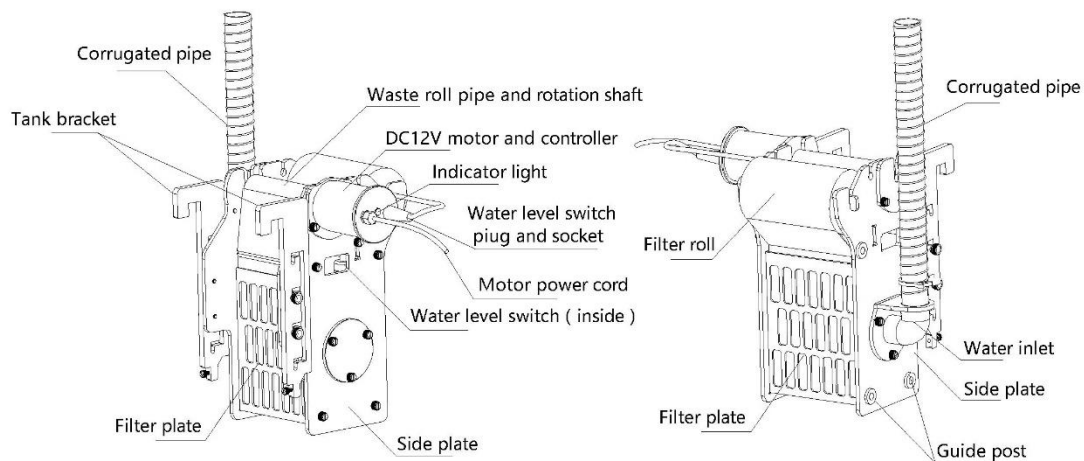
## Product Manual

Product name : Automatic Roll Filter ARF-M

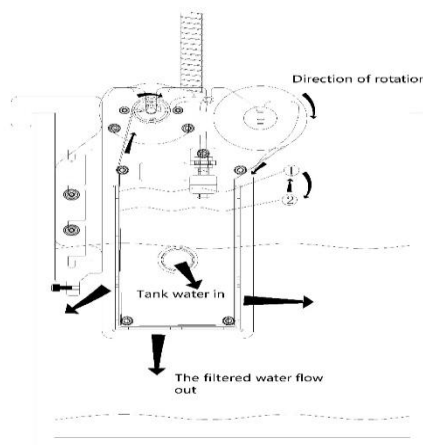
Products contain:

1. Filter body
2. 12V DC motor and controller;
3. Water level switch;
4. AC/DC adaptor: AC 220V/ 50Hz, DC12V, 1A;
5. Filter roll (nonwovens): 150mm width, 25M length;
6. Corrugated pipe 1pcs and pipe clamp 2pcs.

Schematic diagram of parts:



Working process:



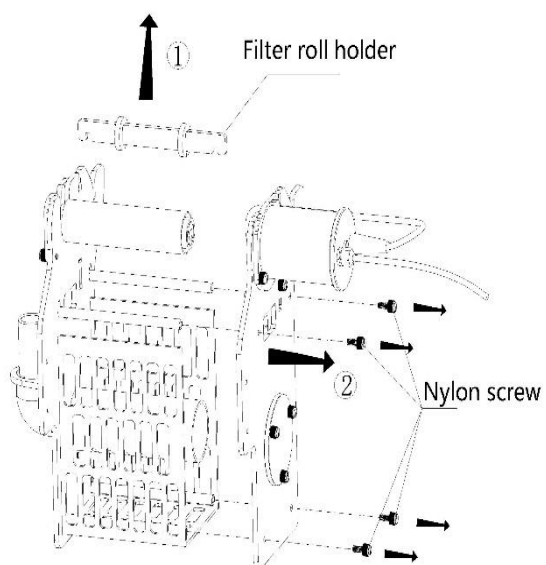
Operation principle diagram

Working process:

1. The filter water level rises, water level switch turn on and the motor drives the filter roll, clean nonwovens into the filter.
2. The clean nonwovens reduces the water level in the filter, motor turn off, after that the nonwovens is blocked and the water level rises slowly during the filtration process. Point 1 and point 2 is a cycle, until the nonwovens

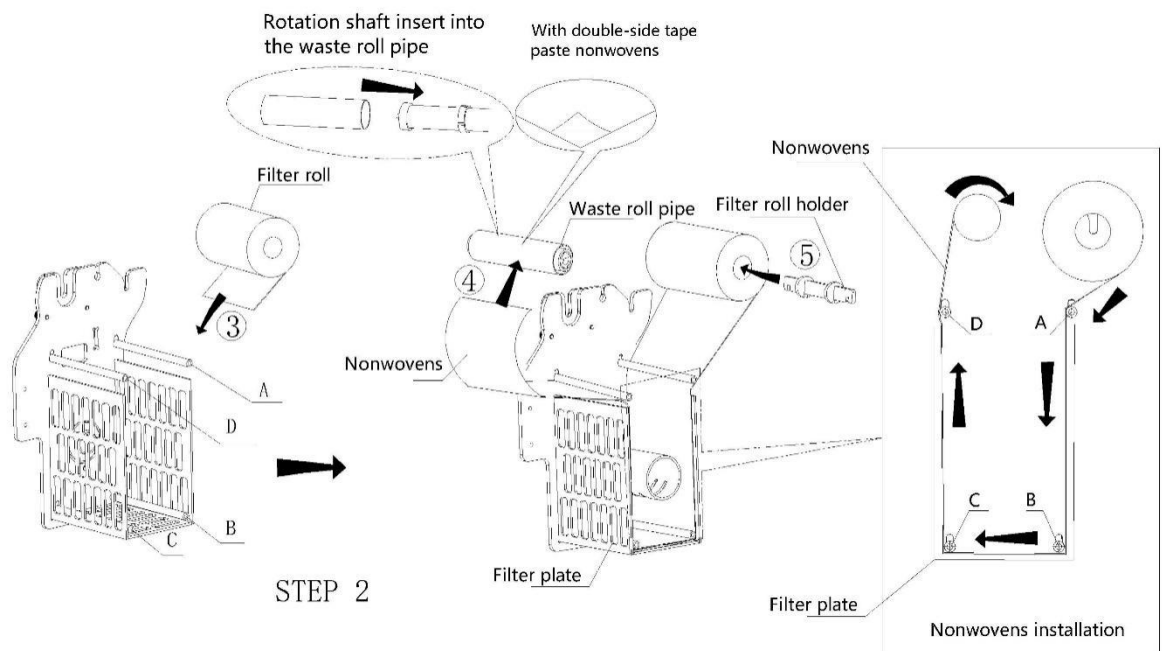
#### Installation method of nonwovens:

1. Lift the filter roll holder and remove the nylon screw on the side of the motor

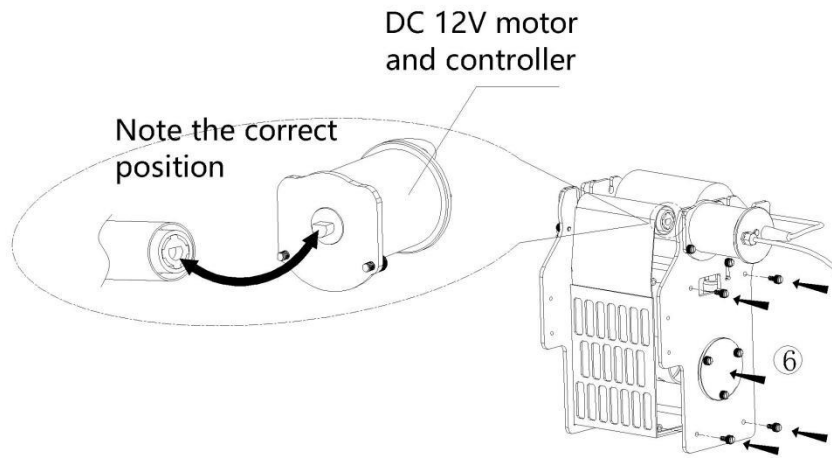


### STEP 1

2. The nonwovens through the guide post A, B, C, D, paste in the waste roll pipe, and 2 revolutions.

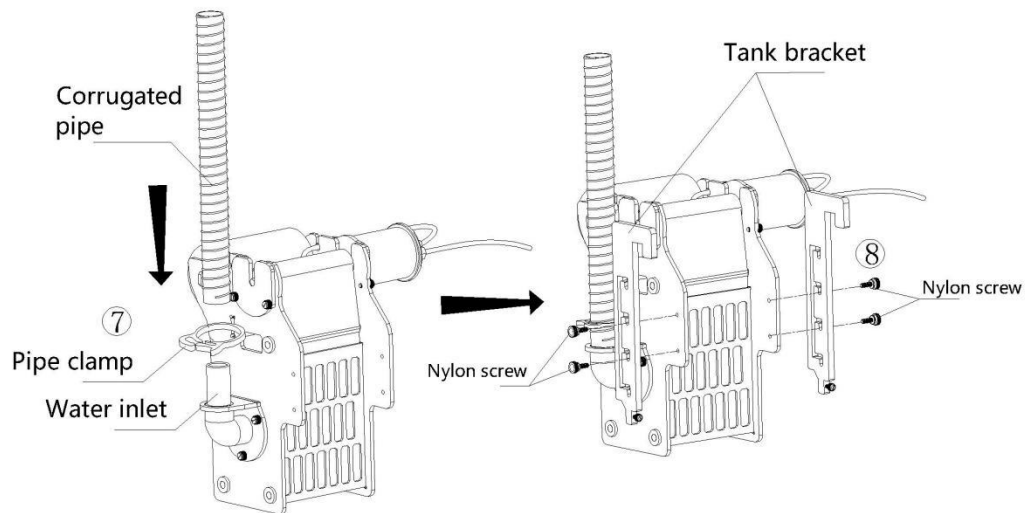


3. Put the side plate back to the filter (notice that the motor shaft needs to match with the rotation shaft), insert the filter roll holder onto the filter, and connect the water level switch joint.



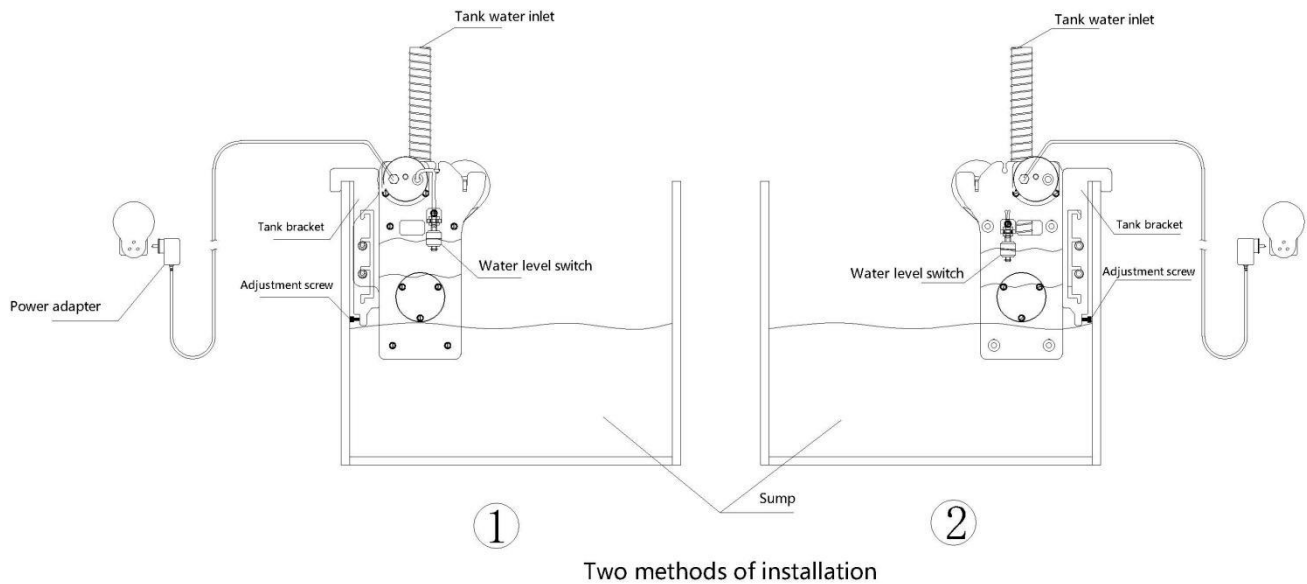
STEP 3

4. Install the tank bracket and fix the pipe clamp on the inlet pipe. (Note: the clamp shall be clamped tightly with plier tool)

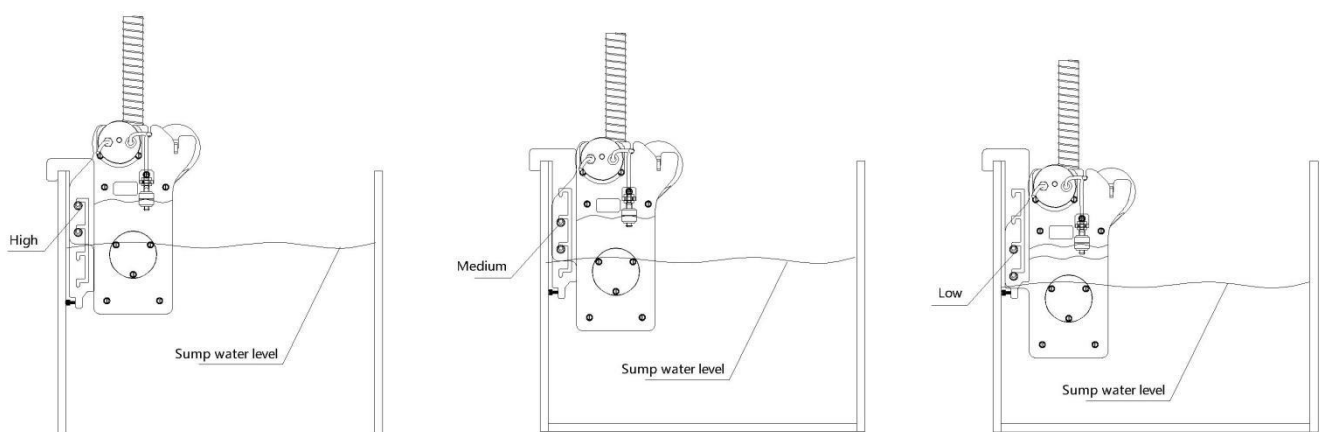


STEP 4

5. According to the different position of the water pipe of the sump, the installation direction of the motor and the water inlet pipe can be replaced, and the following two installation methods can be adopted. After the installation is completed, the motor should be outward and the inlet pipe will be inward.



6. The filter is hang inside the sump, and the other end of the corrugated pipe is connected to the water pipe of the fish tank. According to the water level of the sump, the mounting height of the bracket can be selected



Turn on the filter and the water pump, it can make the aquarium water enter the filter and start the operation.

**Protection function:**

1. The motor over-current protection function: when the controller detects the abnormal operation of the motor, it will automatically stop the motor running, the indicator light flashing alarm.
2. Overtime protection function: when the aquarium main pump stops, the sump rising water immersion water level switch, the controller will stop the motor in the motor continuously rotates after 10 seconds (flashing light alarm), avoid the clean nonwovens is continue to waste. Every 6 minutes, the controller will detect the state of the water level switch, if the sump water level back to normal, the filter recovery operation.

**CAUTION :**

1. **Do not hold the filter roll turn right or left.**
2. Motor and controller shall not touch the water.
3. Make sure the water level switch is installed correctly.

