

# MAKE & KEEP 18 SUPER JET FILTER ES-150 Ver.2

Super Jet Filter was developed as aquarium filtration equipment ideal for the Nature Aquarium. Among those filter series, the ES-150, the smallest model, has now evolved into a quieter, more powerful Ver. 2 without compromising on function or performance.



**Specification**  
 Quiet design pump  
 Operating frequency: 50/60 Hz  
 Pump flow rate: 3.5 L / min  
 Maximum head: 1.5m  
 Operating noise: less than 35 dB  
 (at the distant of 1 m)  
 Filtration capacity: 1.5 L  
 Spring Washer SS included

## Quiet, and more powerful Super Jet Filter ES-150 Ver. 2

Development of the Super Jet Filter currently used in the Nature Aquarium started from ES-600 which is designed for a 60-90 cm aquarium tank. Its development concept was based on following 3 points.

1. A filtration that can make the best use of filtration capacity
2. A filter medium with a large surface area
3. A filter pump with a high lift power that does not easily reduce a flow rate

To that end, a cylindrical stainless steel canister (filtration tank) was first devised without any extra structure, and it was decided to use polyurethane foam (Bio Cube) and anthracite as filtration media. Polyurethane foam has a three-dimensional network structure with a large surface area, and anthracite also has fine particles with a large surface area, and both have the effect of

physically cleaning the water in the early stage of aquarium setup, when the water tends to contain dirt and small particles. The pump head is the power to push up the water, and the higher it is, the less the flow rate of the water decreases with the size of the resistance (load) of the filter medium. Anthracite has a high filtration capacity, but on the other hand, it has to be combined with a high-lift pump because its load is large. The development concept of Super Jet Filter ES-600 has been taken over by the following ES-300 and ES-150. This time, Super Jet Filter ES-150 for small size aquarium tanks was renewed to Ver. 2, and the quietness and lift power of the pump became higher. In addition, the pump is easy to dis-assemble and maintain (Spring Washer SS is included). So please enjoy the Nature Aquarium in a small aquarium with the newly-released Super Jet Filter ES-150 Ver.2.

## Installation of Super Jet Filter ES-150 Ver. 2

The Super Jet Filter series includes the necessary parts such as filter media, Lily Pipe, Clear Hose, etc. so that it can be installed in the aquarium tank immediately after the purchase. Please install according to the procedure shown below.



Place a strainer on the bottom of the emptied canister (filter tank) and place the Bio Cube on top of it.



Rinse the Anthracite in the net with water and take away the fine powders before placing it in the canister.



Place another strainer on the net and make sure there is no dust on the O-ring.



Place the top plate with the pump on the canister and close the buckle tightly to secure it.



Cut the supplied Clear Hose to an appropriate length, and connect the inflow and outflow Lily Pipes.

## Lily Pipe Spin, suitable for small aquarium tank

In small aquarium tanks, if the water flow is too strong, aquatic plants may fail to grow well or come off from the substrate. Lily Pipe Spin reduces the water flow appropriately by rotating the water in a loop, and achieves the optimum water flow for a small water tank.



Circulate the water in the filter for pump priming. Then connect the pump and the power adapter, and start the pump.