

STORMIX SUBMERSIBLE ASPIRATION AERATOR MAINTENANCE SCHEDULE Water Treatment Applications

The *Acqua & Co.* STORMIX Submersible Aspiration Aerator is a high efficiency machine designed to allow continuous operation in outdoor ponds and lakes. Due to its short motor shaft design and effective sealing arrangement, the STORMIX has a low maintenance requirement.

However, it is important to provide effective preventative maintenance to ensure a long life from the aerator. It is recommended that an inspection of the primary seal is performed yearly, with inspection of the secondary seal and bearings performed every two years. It is recommended that the maintenance schedule provided be followed to ensure effective management of your asset.

Annual (Yearly) Maintenance

Yearly maintenance is required to inspect the condition of the primary and secondary seals and clean the unit. Please refer to unit diagram and spare parts list for reference as required.

- a) Remove and inspect propeller (Part No. 25, 26, 30 or 31, dependant on model) by removing nut (Part No. 63) and washers (Part No.55 & 70).
- b) Remove suction crankcase (Part No.66)
- c) Drain paraffin oil from mechanical seal housing by removing plugs (Part No. 80) from oil flange (Part No. 17).
- e) Remove oil flange (Part No. 17) and inspect mechanical seal (Part No. 46) and rotor shaft (Part No. 5). The mechanical seal should be inspected to ensure that there are no scratches or marks on the carbon or stationary face. Replace parts as necessary.
- f) Remove the front flange (Part No. 18) from its seating within the motor tube (Part No. 14). Replace seal ring (Part No. 48) and o-ring (Part No. 50) prior to reassembly.
- g) Reassemble all parts ensuring oil (150 mL) is added in the zone between the front flange (Part No. 18) and the oil flange (Part No. 17).
O-ring (Part No. 53) is to be replaced on reassembly.
Oil to be used is Medicinal Paraffin Oil Light, Food Grade.
- h) Clean floats, stainless steel tubing, and motor to remove all algae, barnacles, and other build-up prior to return to service.

Biennial (Two-Yearly) Maintenance

Every two years it is important to inspect the primary and secondary seals, and the motor bearings for wear, replacing if necessary. Please refer to unit diagram and spare parts list for reference as required.

- a) Perform the Annual (Yearly) Maintenance steps a) to e) as instructed.
- b) Remove the power supply cable from the motor by removing cable nut (Part No. 79) and gland (Part No. 78). Underneath the cable gland, the electrical wires are connected by clip connectors. The clip connectors need to be disconnected to allow removal of the stator.
- c) Part the motor housings (Part No. 14 & 19) to expose the stator and rotor. Remove the rotor to expose the bearings (Part No. 40 & 41).
- d) Inspect the bearings (Part No. 40 & 41) for wear and damage, replace if necessary.
- e) Reassemble unit, ensuring o-ring (Part No. 50) is replaced on reassembly. Ensure good connection of electrical fittings outside motor.
- f) Perform the Annual (Yearly) Maintenance steps f) to g) as instructed.
- g) Inspect sacrificial anode (Part No. 20) for wasting. Replace if necessary.
- h) Clean floats, stainless steel tubing, and motor to remove all algae, barnacles, and other build-up prior to return to service.

