



## Maintenance of the Clear Rex BUBBLER plant

### 1. Service efforts

- Check the operating book if there are any special procedures for the plant, (desired values – effluent values)
- Clean the submerged mechanical plant parts with clean water
- Check the function of the electric parts: aerator(s), filling/sludge pump, clear water pump(s), float switch(es), control panel
- Check the inputs and outputs with “start pump test” or “switch manually”
- Check the operating values and the runtimes of the pumps
- Check the sludge level in the primary settling/sludge storage tank with suitable equipment

(To maintain good working conditions the sludge has to be removed on a regular schedule. The sludge disposal has to be done if level is at 70% of total volume of the primary tank (if 1 tank primary chamber) and for more than one primary tank plants when the sludge level is at the spillover from the 1<sup>st</sup> into the 2<sup>nd</sup> primary tank.)

- Check the whole system, also the ventilation and exhaust ventilation
- Clean the pumps if necessary
- Measure the oxygen concentration, the temperature and the pH-value. Take a water sample with a measuring cylinder, determine the sludge volume index (SVI), check for odors?
- At every 2<sup>nd</sup> maintenance a sample of the water quality has to be taken. Check analysing values like COD, BOD<sub>5</sub>, sludge volume index (SVI) and concentration of dry-substance content at a laboratory. Local regulations may require additional testing.

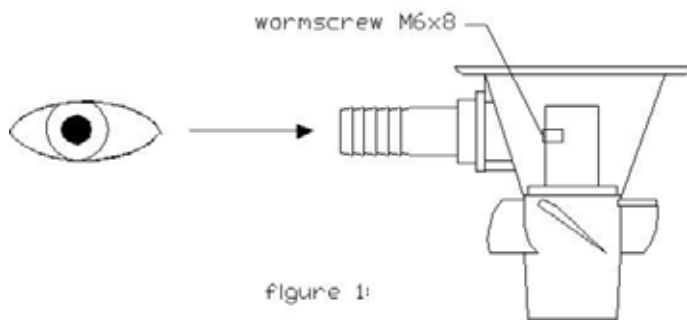
**All maintenance activities must be written in the maintenance book and be available for review by local authorities, NSF, or a manufacturer’s representative.**

**Failing systems must be repaired immediately!!!**

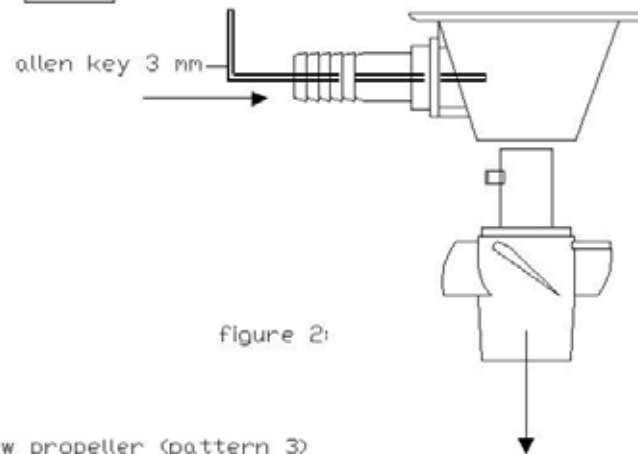
## 2. How to change a damaged propeller:

How to change the propeller:

1. unplug the power supply
2. pick up aeration valve
3. remove hose clip, then remove hose from aeration valve
4. rotate propeller until wormscrew in hose opening can be seen (pattern 1)



5. loose wormscrew with an (3mm) allen key
6. remove propeller to the bottom (pattern 2)



7. insert new propeller (pattern 3)
8. fasten wormscrew
9. insert aeration valve into floating unit
10. connect hose

