

ABSTRACT

5 WATER TREATMENT APPARATUS FOR KILLING ORGANISMS AND
METHOD FOR TREATING SEAWATER

The invention relates to a water treatment apparatus comprising a water grinder and a pump device, wherein
10 the water grinder comprises a rotor and a stator, wherein the diameter of said rotor and stator increases in the direction of flow toward the outlet, and the rotor and the stator form an annular slit. The invention also relates to a method for treating and
15 processing seawater, preferably ballast water on ships. As a result of the tothing of the rotor and the stator, of the geometry of the annular slit, and of the pump device, effective water processing can be achieved with low energy consumption and low equipment
20 cost. The killing of the organisms occurs here by mechanical grinding or by scratching and separating in the area of the rotor and of the stator and due to the cavitation at the outlet from the annular slit.

25 Fig. 1