

射流自吸式增氧机

吴世海

广西海洋环境与滨海湿地研究中心

关键词: 水产养殖机械 射流自吸式增氧机 优化

摘要: 介绍了0.75 kW射流自吸式增氧机的结构、原理和各主要部件的参数。对影响吸气量和增氧效率的部件进行筛选试验,结果显示,当锥形喷嘴直径为24 mm,水、空气混合喷射管直径为52 mm和长度为1500 mm,进气管直径为48 mm,球形空气腔直径为172 mm,潜水泵流量为20 m³/h和扬程为8 m时,该机的吸气量最大为56.0 m³/(kW·h),增氧动力效率最高为1.09 kg/(kW·h),增氧能力为0.83 kg/h。The structure and operating theory of a 0.75 kW aspirating aerator, which has been patented in six foreign countries (including USA) as well as in China, was described and the parameters of the machine parts were also presented. The machine parts screening tests indicated that the highest air inspiration and aeration efficiency were achieved when the taper nozzle was 24 mm in diameter, water and air mixing ejection tube was 52 mm in diameter and 1 500 mm in length, air intake tube was 48 mm in diameter, ball-shaped air chamber was 172 mm in diameter, and the flow rate and the lift head of the submersible pump was 20 m³/h and 8 m. The maximum air inspiration of the aerator was 56.0 m³/(kW·h), and the aeration capacity and the aeration efficiency of the machine were 0.83 kg/h and 1.09 kg/(kW·h) respectively. The characteristics of the machine are bigger air inspiration, better aeration capacity and simple structure. The machine is a submersible aerator that can mix farming water and disperse oxygen in the basin. It can be used in fish farming for the purpose of aeration. Many aerators have been used successfully in intensive shrimp farming.

[查看全文](#) [返回首页](#)

[引用本文](#)