

微纳米气泡发生器

Micro-nano bubble generator



产品介绍及应用范围

Product introduction and application range

微纳米气泡机是一种通过加压溶解再释气，在水下产生大量微纳米级气泡的曝气设备，产生的微纳米气泡是一类气泡直径能够达到微米数量级甚至纳米数量级的气泡，具有高内压、高表面能、高界面活性特性，可大大提高水体增氧效率，微纳气泡在气泡溃灭的瞬间使水裂解产生高温、高压、高浓度的具有强氧化性的 $\cdot\text{OH}$ 、其他氧化物种及瞬时超临界水，可以分解氧化水体中所有的污染物，从而有力的改善污染水体水质并促进水体生态系统的修复。

微纳米气泡机适用于去除水中悬浮物，胶状物和油水分离，混凝反应絮体分离及活性泥，混水分离等，广泛应用于工业废水、生活污水、黑臭水体、河道湖泊废水深度处理等治理。

The micro-nano bubble machine is a kind of aeration equipment that generates a large number of micro-nano bubbles under water by dissolving and re-releasing under pressure. The characteristics of high internal pressure, high surface energy and high interfacial activity can greatly improve the efficiency of water oxygenation. The micro-sodium bubbles cause water to crack at the moment when the bubbles collapse to produce high temperature, high pressure and high concentration of strongly oxidizing $\cdot\text{OH}$, other Oxidizing species and transient supercritical water can

decompose all pollutants in the oxidized water body, thereby effectively improving the water quality of the polluted water body and promoting the restoration of the ecosystem in the water body.

Micro-nano bubble machine is suitable for removing suspended solids in water, separation of colloid and oil-water, separation of flocs in coagulation reaction and activated mud, separation of mixed water, etc. It is widely used in industrial wastewater, domestic sewage, black and odorous water bodies, river and lake wastewater depth processing, etc.

产品作用 Product effect

- ◇传氧效率高
- ◇强氧化性
- ◇悬浮物吸附能力强
- ◇活化水体
- ◇激活水体中动植物，土著微生物的生物活性
- ◇High oxygen transfer efficiency
- ◇ Strong oxidation
- ◇ Strong adsorption capacity of suspended solids
- ◇Activate water body
- ◇Activate the biological activity of animals and plants and indigenous microorganisms in water bodies

LJ-MNG 系列纳米气泡机设备选型

LJ-MNG series nano bubble machine equipment selection

TYPE	Power Supply V/Hz	Power kw/HP	rotation speed /min	Oxygenation capacity	Induction flow m ³ /h
LJ-MNG750	220V/380V/50HZ	0.75	2850	2.0-3.0	120
LJ-MNG1200	220V/380V/50HZ	1.2	2850	2.4-3.2	150
LJ-MNG1500	220V/380V/50HZ	1.5	2850	3.2-4.0	200
LJ-MNG2200	220V/50HZ	2.2	2850	4.0-5.0	250
LJ-MNG3000	380V/50HZ	3.0	2850	6.5-7.2	390
LJ-MNG4000	380V/50HZ	4.0	2850	7.5-9.0	440
LJ-MNG5500	380V/50HZ	5.5	2850	9.3-12	650
LJ-MNG7500	380V/50HZ	7.5	2850	12-18	930
LJ-MNG9000	380V/50HZ	9.0	2850	18-24	1230

LJ-MNG 系列纳米气泡机特点:

LJ-MNG series nano bubble machine features:

a、可以分解氧化水域中的所有污染物，净化清除水底淤泥中的所有污染物，提高水中溶解活性氧量，实现水域的彻底化，恢复并提高水域的自净能力，长期保持水域的净化环境。

b、低能耗高效率。纳米气泡的特性决定了其氧转移率比普通气泡大大的提高，即在相同的曝气强度下，LJ-MNG 系列纳米气泡机比普通曝气机产生更多的溶解氧，具有更高的生化需氧量(BOD)和氨氮的最大去除率。

c、主体设备采用优质不锈钢材料完全耐各种腐蚀水体。

d、与其他普通纳米气泡机相比，LJ-MNG 系列纳米气泡机施工安装简便，可选择固定桥或浮式安装，设备漂浮于水面，无特殊基础要求，不受水位变化影响，无需机房及任何管道、泵、阀，不存在堵塞现象。

e、设备静音效果好，不影响周边居民日常生活。

a. It can decompose and oxidize all pollutants in the water area, purify and remove all pollutants in the bottom silt, increase the amount of dissolved active oxygen in the water, realize the thoroughness of the water area, restore and improve the self-purification ability of the water area, and maintain the purified environment of the water area for a long time.

b. Low energy consumption and high efficiency. The characteristics of nano-bubble determine that its oxygen transfer rate is greatly improved than that of ordinary bubbles, that is, under the same aeration intensity, LJ-MNG series nano-bubble machine produces more dissolved oxygen than ordinary aerators, and has higher

biochemical properties. Oxygen demand (BOD) and maximum removal of ammonia nitrogen.

c. The main equipment is made of high-quality stainless steel and is completely resistant to various corrosive water bodies.

d. Compared with other ordinary nano-bubble machines, LJ-MNG series nano-bubble machines are easy to construct and install, and can choose fixed bridge or floating installation. The equipment floats on the water surface, no special basic requirements, and is not affected by water level changes. There is no blockage in any pipes, pumps and valves.

e. The equipment has good mute effect and does not affect the daily life of surrounding residents.

LJ-MNG 系列纳米气泡机安装及注意事项

LJ-MNG series nano bubble machine installation and precautions

① LJ-MNG 系列纳米气泡机的一个重要特点就是安装方便，而且非常简明、易懂不需要专业的安装基础。电源安装务必请专业电工。



② 水体底与电机在水表面上工作区域的水深不得浅于 1.50 米。

③ 将纳米气泡机按照说明资料组装完毕在池底或岸边。在对称位置用膨胀钉设置两个适宜的固定点用拉索固定，拉索的另一端头连接在纳米气泡机的浮筒上将机器安放在水体的合适位置将拉索紧固即可。

④ 电源线应选用可移动橡套防水电缆，其中一芯与电机外壳可靠接地。

⑤ 安装深度应对照技术参数表严格控制。不可任意调节工作深度。

⑥ 开机后几秒内观察电机运转方向正确，如反转及时调整。

⑦ 池内不可有金属线、绳子、塑料袋等长纤维杂物，以免缠绕叶轮和堵塞进水口等部位。

⑧ 纳米气泡机出厂时配有电器控制系统，工作中当控制系统自动切断电源时，需及时查明原因，排除故障 后再启动，切不可自由短接后启动使用。

① An important feature of LJ-MNG series nano-bubble machine is that it is easy to

install, and it is very clear and easy to understand without requiring a professional installation foundation. Be sure to ask a professional electrician to install the power supply.

- ② The water depth of the bottom of the water body and the working area of the motor on the water surface shall not be less than 1.50 meters.
- ③ Assemble the nano-bubble machine at the bottom of the pool or on the bank according to the instructions. Set two suitable fixing points with expansion nails at symmetrical positions and fix them with a cable. The other end of the cable is connected to the buoy of the nanobubble machine, and the machine is placed in a suitable position in the water body to fasten the cable.
- ④ The power cord should be a removable rubber sheathed waterproof cable, one of which is reliably grounded to the motor casing.
- ⑤ The installation depth should be strictly controlled according to the technical parameter table. The working depth cannot be adjusted arbitrarily.
- ⑥ Observe the motor running in the correct direction within a few seconds after turning on the machine, and adjust it in time if it is reversed.
- ⑦ There should be no metal wires, ropes, plastic bags and other long-fiber debris in the pool, so as to avoid winding the impeller and blocking the water inlet and other parts.
- ⑧ The nano-bubble machine is equipped with an electrical control system when it leaves the factory. When the control system automatically cuts off the power supply during work, it is necessary to find out the reason in time, and then start it after troubleshooting. It must not be started after short-circuiting freely.



