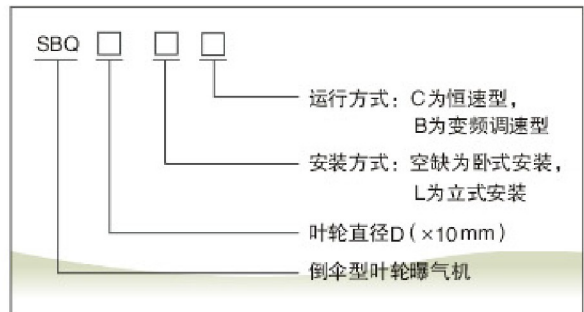## ● 用 途 Applications

倒伞型叶轮曝气机为垂直轴低速曝气机，可广泛用于城市污水和各种工业废水的生化处理。该机径向推流能力强，充氧效率高，混合搅拌能力强，特别适宜于表曝型氧化沟污水处理工艺。

The reversing umbelliform impeller aerator is lower speed and vertical axis aerator. It can be widely used in biochemical sewage treatment for city sewage and industrial sewage. This machine's radial pushing capacity is strong; water oxygenizing efficiency is high, mixing and milling ability is strong, especially suitable for the surface aerating oxidation ditch sewage treatment process.

● 型号示例 Type and Its Indication

SBQ □ □ □

运行方式：C为恒速型，B为变频调速型

安装方式：空缺为卧式安装，L为立式安装

叶轮直径D（×10mm）

倒伞型叶轮曝气机

● 工作原理 Working Principle

在叶轮的强力推进作用下，水呈水幕状自叶轮边缘甩出，形成水跃，裹进大量空气；由于污水上下循环，不断更新液面，使污水大面积与空气接触，将空气中的氧气迅速溶入污水中，完成对污水的充氧，加快污水的净化。同时，强大的动力驱动，搅动大量水体流动，从而实现推流作用。

Under the strong pushing force of the impeller, water kicked off as curtain from the edge of it, hydraulic jumping is made and air is wrapped into water. Because of the up and down cycle of the sewage, the liquid surface is refreshed continually, sewage and air contact in large area, the oxygen in the air discharged into water quickly, the aeration is completed and the purification of the sewage is accelerated. Meanwhile, a powerful drive mixes a large body of water flow, so as to achieve pushed flow.

● 特 点 Features

倒伞型叶轮曝气机由电机、联轴器、减速器、叶轮升降装置、倒伞型叶轮等部分组成。主要有以下特点：

1、叶轮为倒伞状、螺旋式叶片结构，径向推流能力强，完全混合区域广，动力效率高，自洁性能好。

2、叶轮升降装置：卧式安装曝气机是通过调节手轮，带动齿轮和蜗轮二级传动，使倒伞轴套上的齿条上下移动，从而调节叶轮的浸没深度。立式安装曝气机是通过螺杆调节升降平台，来获取叶轮不同的浸没深度。升降装置在行程范围内可随意调节叶轮浸没深度，达到工艺要求的充氧量。

3、减速器：卧式采用螺旋锥齿轮，圆柱斜齿轮二级传动，立式采用圆柱斜齿轮三级传动。齿轮为硬齿面，精度高，具有传动平稳、噪音低，机械效率高，运转可靠等特点。设计使用寿命超过10年。

4、调速型配有调速装置，采用变频调速控制柜对电机进行无级平稳调速。调速范围大，节能效果好，操作简单，自动化程度高。

The reversing umbelliform impeller aerator is composed of the motor, coupler, reducer, and impeller lifting devices, inverted umbrella-type impeller and other components. The following are the main features:

1. Reversing umbrella for the impeller, the spiral structure of blades, radial flow pushed a strong ability to completely mixed areas, high dynamic efficiency, and good self-cleaning properties.

2. The impeller lifting device: Horizontal installed aerators through the adjustment hand wheel, drives gear and worm gear drive two grade transmission, inverted umbrella bushings on the rack up and down, so as to adjust the impeller immersion depth. Vertical installed aerators screw through adjust to the landing platform, to access different impeller immersion depth. Lifting devices within the scope of the trip can be adjustable impeller immersion depth to the process requirements and oxygenation capacity.

3. Reducer: the horizontal type adopts spiral bevel gears and helical gear drive two grade transmission, and the vertical type adopts helical gear drive three grade transmission. Gear for Hardened, high precision, with a smooth drive, low noise, high mechanical efficiency and reliable operation of such characteristics. Design life is more than 10 years.

4. The governor type is equipped with governor devices, adopting frequency control cabinet to make non-grade smooth governor for the motor. The Speed range is large; energy saving effect is good, simple in operation, degree of automation is high.

● 技术性能参数　Technical Parameters

卧式倒伞曝气机						
型号	叶轮直径 D(mm)	叶轮高度 H(mm)	电机功率 (kW)	充氧量 (kgO$_2$/h)	叶轮升降 行程(mm)	整机质量 (kg)
SBQ120C	1200	370	7.5	14.25	±140	1500
SBQ120B						1520
SBQ165C	1650	490	15	28.5		2380
SBQ165B						2400
SBQ225C	2250	650	22	44		2650
SBQ225B						2680
SBQ255C	2550	740	30	60		2740
SBQ255B						2800
SBQ285C	2850	850	37	77.7	+180 −100	3900
SBQ285B						3950
SBQ300C	3000	870	45	94.5		3960
SBQ300B						4020
SBQ325C	3250	960	55	115.5		4340
SBQ325B						4400

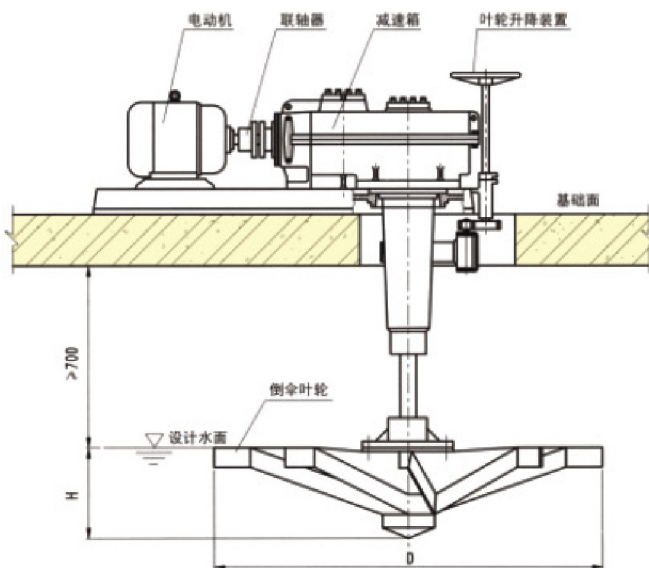| 立式倒伞曝气机						
SBQ060LC	600	220	1.5	2.85	±100	750
SBQ060LB						750
SBQ285LC	2850	850	37	77.7		3400
SBQ285LB						3450
SBQ300LC	3000	870	45	94.5		3460
SBQ300LB						3520
SBQ325LC	3250	960	55	115.5		3840
SBQ325LB						3950

图1 卧式倒伞型叶轮曝气机

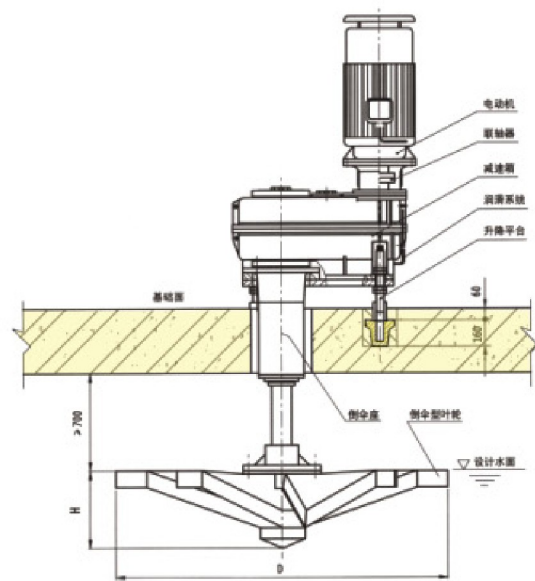

图2 立式倒伞型叶轮曝气机

● 订货说明　Requirements for Order

1、订货时须详细注明型号规格。
2、需调速及电控箱应注明。

1. Note the shape and specifications clearly when placing orders.
2. When the rate adjustment and the electric control box are required, please note.