ARWANA PREMIUM PUMPS



JA
沉水喷流式曝气机

JA Submersible jet aerator

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特点

■高效率溶氧

独特的混气室设计，吸入空气量多，与水混合均匀，产生气泡细而多，溶气率高。

■充分的搅拌

叶轮产生压力经喷嘴孔口产生强劲水流与空气混合喷射，使氧在水中转移效率高，同时达到良好搅拌效果，可保持活性污泥浮游必须流速。

■安静无噪音

本机组设计水中运转方式，低回转数、低噪音：陆上空气进气导管可加装消音设备，此外无须其他消音室设备，降低成本。

■易安装维护

自动着脱装置与不附着脱装置二种可供选择，安装简单维护容易，节省操作费用。

■适用范围广

使用范围用途广，工业污水处理，畜牧业排水处理，一般污水下水道曝气工程，使用活性污泥法处理工厂排水设施之曝气槽，单独使用或组合使用皆可。

构造说明

本沉水喷流曝气机使用曝气设计专用泵，与气泡产生部和自动着脱装置组成一体。

■曝气专用泵

曝气设计专用泵，使用不阻塞污物型高效能叶轮，不阻塞、寿命长。

■气泡产生部

由进气导管、喷嘴座、混气室、扩散管所组成，水流经连接于泵出口之喷嘴座高速射入混气室，空气由进气导管引导至混气室与水流结合，经扩散管排出。

■自动着脱装置

由引导管、引导板、着脱本体所组成，当机组维护时，可依着脱装置直接将泵浦从水中经引导管至槽外。

Features

■High efficiency oxygen dissolving

It has unique design for gas mixture chamber whose intake air quantity is big. Air can be mixed well with water, and it can produce minute and plenty of air bubble with high air dissolving rate.

■Intensive mixing

The pressure produced by impeller through jet hole produces forceful water flow, which realizes jet after mixed with air to make oxygen move efficiently in water and at the same time achieve good mixing effect, which can maintain the flow rate necessary for activated sludge floating.

■Quiet and noise-free

The machine unit is designed to run in water with low winding number and low noise: overland air-intake duct can be additionally equipped with silencing equipment. Cost can be reduced since no other anechoic room is required.

■Easy for installation and maintenance

There are two types for your selection: equipped with or without automatic attach device. Easy for installation and maintenance, saving operation cost.

■Wide range of service

It is widely used in industrial wastewater treatment, effluent treatment of livestock husbandry and general foul sewer aeration engineering, aeration tank of effluent facilities of factory applied with activated sludge method. It can be used either individually or in a combined way.

Constructive specification

This submersible jet aerator adopts specially designed aeration pump, which forms the integral unit with air bubble generating section and automatic attach device.

■Special aeration pump

Special aeration pump uses high-performance impeller, which does not block fouls. Therefore, it has long service life.

■Air bubble generating section

This section is composed of air-inlet duct, nozzle holder, gas mixture chamber and divergent pipe. Water is pumped into gas mixture chamber at high speed from nozzle holder connected to pump outlet. Air is inducted into gas mixture chamber through air-inlet duct and is mixed with water flow, then exhausted through divergent pipe.

■Automatic attach device

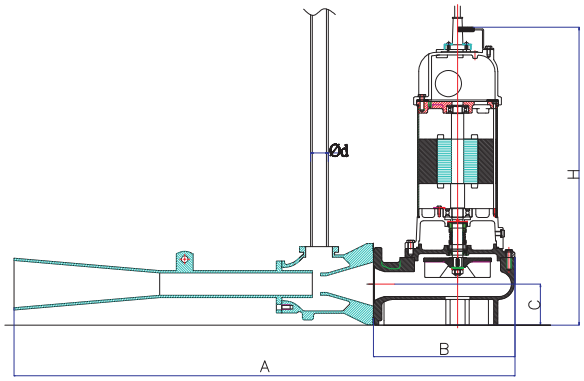
This equipment is composed of induction duct, directing plate, the attach-unit. During maintenance of equipment, the pump can be directly pulled out from water through induction duct along with the attach device.

性能规格表 Specifications

型号 Type	功率Power		空气量-水深 Air Capacity-Water depth m^3/h-m	供氧量 Oxygen transfer capacity kg.O_2/h	曝气槽尺寸Basin dimensions			适合水深 Workable water depth (m)
	HP	KW			L(m)	W(m)	H(m)	
JA-10	1	0,75	11-2	0.35-0.45	3	2	4	1-3
JA-20	2	1,5	22-3	1.0-1.2	4	3,5	4	1-3
JA-30	3	2,2	37-3	1.75-1.95	5	5	4,5	1.5-3.5
JA-50	5	3,7	75-3	3.5-3.95	6	6	5	2-4

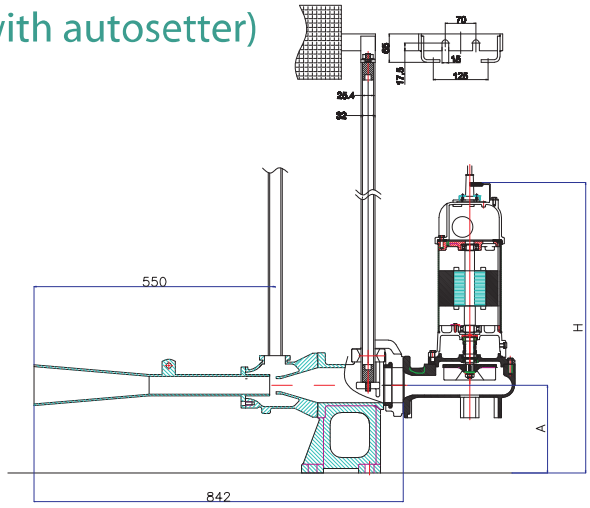
无着脱式外形尺寸 Dimensions (without autosetter)

型号 Type	尺寸Dimensions(mm)				重量 Weight (Kg)
	A	B	C	H	
JA-10	1029	187	74	441	31
JA-20	1097	255	74	517	45
JA-30	1097	255	74	555	46
JA-50	1132	290	74	629	65

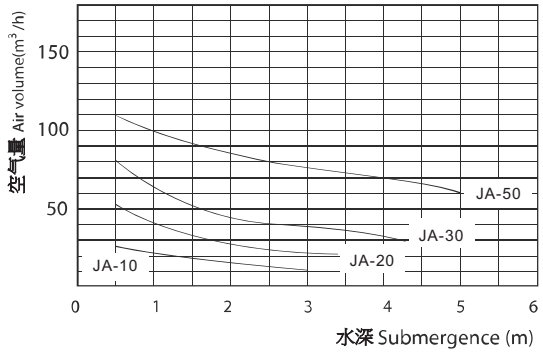


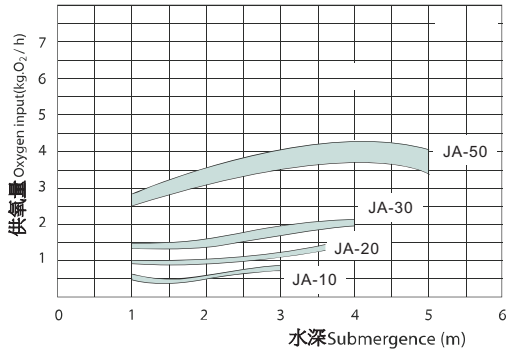
附着脱式外形尺寸 Dimensions (with autosetter)

型号 Type	尺寸Dimensions(mm)		重量 Weight (Kg)
	A	H	
JA-10	1029	441	36
JA-20	1097	517	50
JA-30	1097	555	51
JA-50	1132	629	70

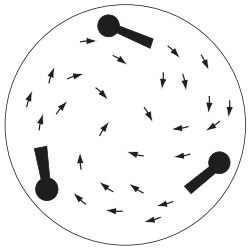


性能曲线 Performance curves

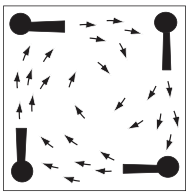




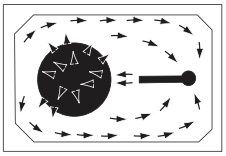
配置参考图 Reference diagram of configuration

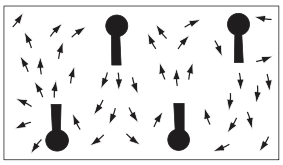


圆形池 Round tank

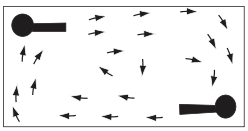


正方形池 Square tank

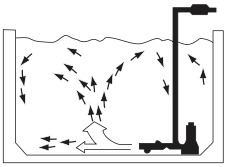




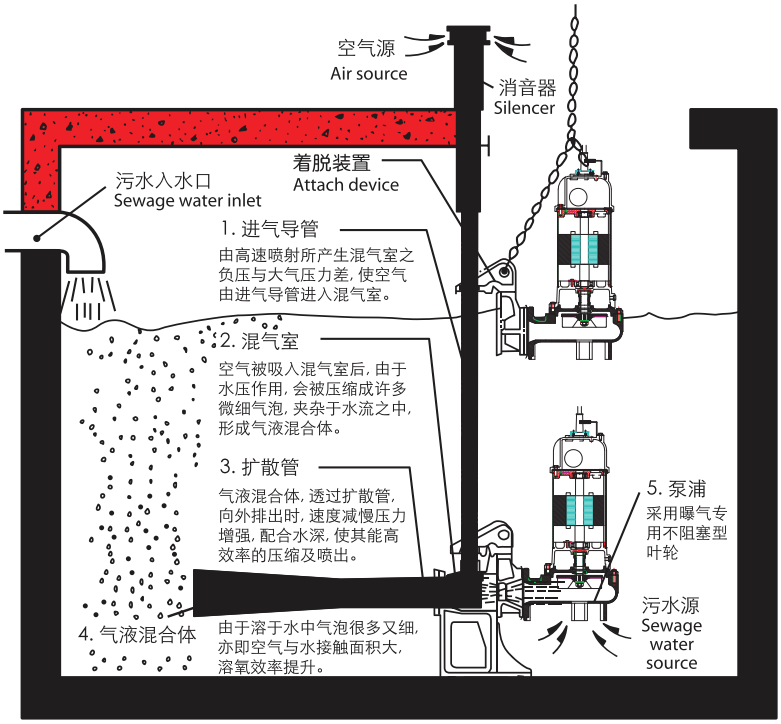
长方形池 （长:宽=2:1）
Rectangular tank
(Length:Width=2:1)



长方形池（长:宽=5:1）
Rectangular tank
(Length:Width=5:1)



系统流程图 System flowchart



1. Air-intake duct
Air is taken into gas mixture chamber through air-intake duct due to the pressure difference between negative pressure in gas mixture chamber caused by high-velocity jet and atmospheric pressure.

2. Gas mixing chamber
After being drawn into gas mixing chamber, air is compressed into plenty of air bubbles, which are mingled in water flow forming gas-liquid compound under the action of hydraulic pressure.

3. Divergent pipe
When gas-liquid compound is discharged outwards through divergent pipe, its flow rate will slow down and pressure will rise along with the depth of water so that it can be compressed and ejected efficiently.

4. Gas-liquid compound
Oxygen dissolving efficiency increases due to that there are large quantity of minute air bubbles in water; which means the contact area between air and water is large.

5. Pump
This pump adopts special unblocking type impeller for aeration.