GSD INDUSTRIAL CO.,LTD.

JA

SUBMERSIBLE JET AERATOR

川源股份有限公司

FEATURES:

High Oxygen Transter Rete:

High efficiency mixing chamber design mechanism entrains large inlet air volume to mix with water completely, and produce many fine bubbles to increase oxygen transfer rate.

Quiet with Low noise:

The aerator is submersible type, so it has low noise level. To get lower noise, it may add muffler on the air inlet pipe to decrease noise.

Easy Installation & Maintenance

There are without Auto-setter and with Auto-setter for option, simple insiallation and easy maintenance for saving operational charge.

Wide Range Applications:

The jet aerator has wide range applications, such as industrial sewage tratment, groundwater aeration, activative siudge wastewater treatment process. They can be applied solely or combinations according to the necessary oxygen transfer rate and the size of the aeration tank.

Construction Descriptions:

The submersible jet aerator consists of specially designed pump for aeration. fine bubble generation mechanism, and autosetter device.

Specially Designed Pump:

The Pump adopts non-clog, high efficiency impeller.

Fine Bubble Generation Mechanism:

Including air inlet pipe, nozzle, mixing chamber, and diffuser, air is sucked into the mixing chamber and mixed with water, then discharge through the diffuser.

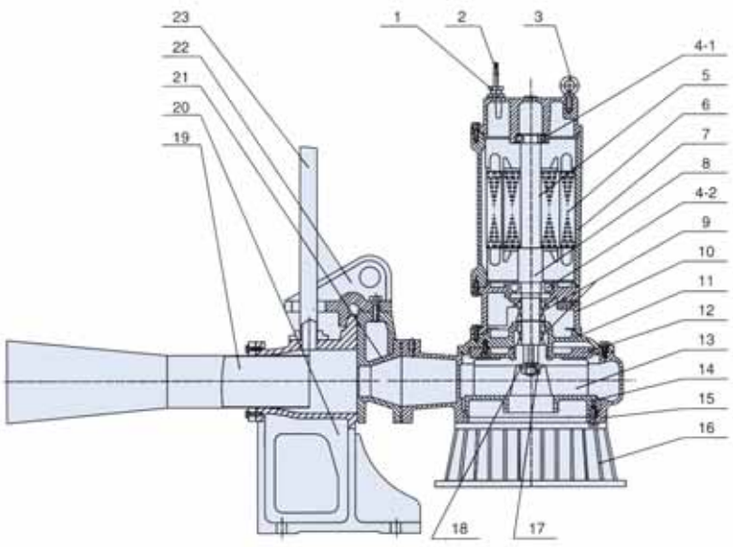
Auto - setter device:

Including slide, guide rail and duckfoot, the aerator could be puiled out of the water directly while maintenance.

dynamically balanced

NON-CLOG IMPELLER

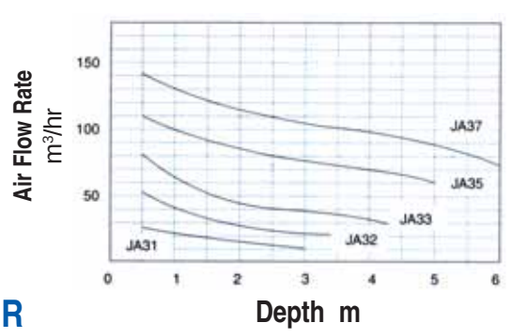
CONSTRUCTION

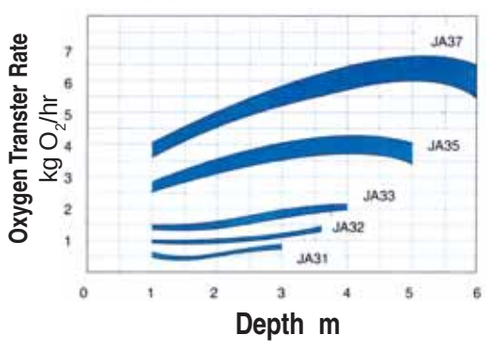


MATERIALS

NO	NAME	MATERIAL	NO	NAME	MATERIAL
1	Cable Hood/Seal		13	Impeller	FC200
2	Cable	2 RNCT	14	Lower part	FC200
3	Hanger	SUN304	15	Base	FC200
4	Bearing		16	Strainer	FC200
5	Rotor		17	Nut	SS34
6	Stator		18	Washer	SS34
7	Motor Casing	FC200	19	Diffuser	SUS304
8	Shaft	SUS420	20	Duck foot	FC200
9	Mechamical Seal		21	Nozzle	FC200
10	Oil Box	FC200	22	Slide guide	FC200
11	Oil Cover	FC200	23	Inlet pipe	SS34
12	Upper part	FC200			

PERFORMANCE CURVE

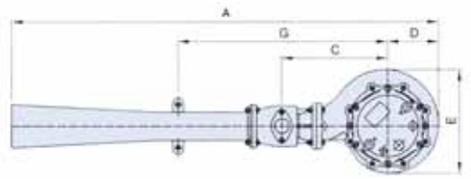


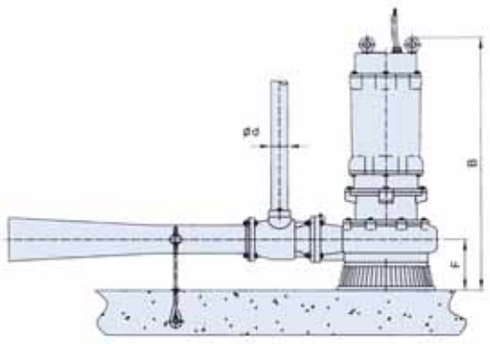


SPECIFICATIONS

TYPE	MOTOR		POLE	Air Flow Rate -Deepth m^3/hr-m	Oxygen Transter Rate Kg - O_2/hr	AERATION TANK			Normal Deepth (m)
	HP	kW				Length (m)	Width (m)	Deepth (m)	
JA-31-50	1	0.75	4	11-2	0.35-0.45	3	2	4	1-3
JA-32-80	2	1.5	4	22-3	1.0-1.2	4	3.5	4	1-3
JA-33-80	3	2.2	4	37-3	1.75-1.95	5	5	4.5	1.5-3.5
JA-35-100	5	3.7	4	75-3	3.5-3.95	6	6	5	2-4
JA-37-100	7.5	5.5	4	103-3	5.3-5.9	7	7	6	2-5

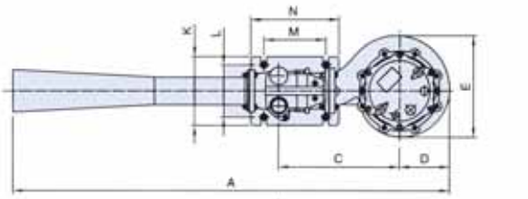
(A) Without Auto - setter



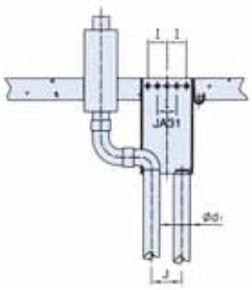


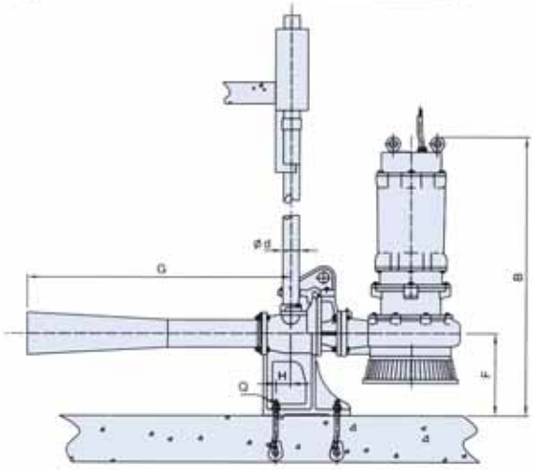
DIMENSIONS

TYPE	A	B	C	D	E	F	G	Ø d
JA-31-50	1099	597	246	135	270	129	556	Ø32
JA-32-80	1343	642	319	153	308	145	669	Ø40
JA-33-80	1343	719	319	153	308	145	669	Ø40
JA-35-100	1526	770	379	182	376	182	749	Ø50
JA-37-100	1526	831	379	182	376	182	749	Ø50



(B) With Auto - setter

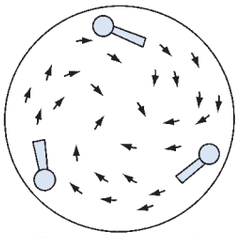




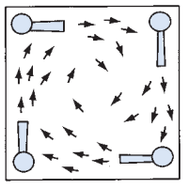
DIMENSIONS

TYPE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Q	Ø d	Ø d_1
JA-31-50	1099	718	266	135	270	250	698	34.5	100	70	180	140	155	220	M12	Ø32	Ø40
JA-32-80	1384	777	360	153	308	280	871	47	70	90	220	170	190	260	M16	Ø40	Ø40
JA-33-80	1384	854	360	153	308	280	871	47	70	90	220	170	190	260	M16	Ø40	Ø40
JA-35-100	1586	888	439	182	376	300	965	53.5	70	110	250	190	225	320	M16	Ø50	Ø50
JA-37-100	1586	949	439	182	376	300	965	53.5	70	110	250	190	225	320	M16	Ø50	Ø50

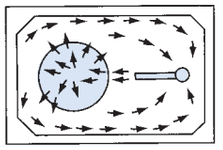
LAYOUT

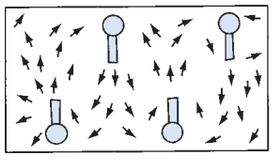


Round pool

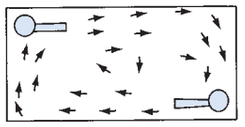


Square pool

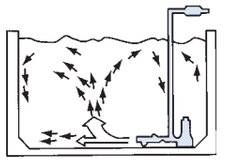




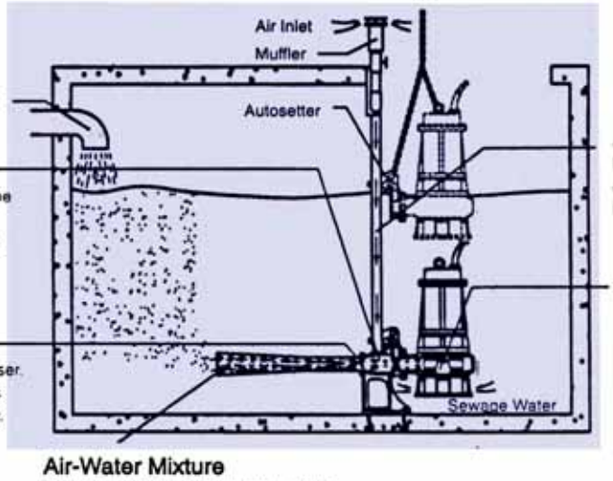
Rectangular pool
Lenght:Width=2:1



Rectangular pool
Lenght:Width=1/5:1



SYSTEM FLOW DIAGRAM



Mixing Chamber
The air and the water are mixing in the mixing chamber, and the air is compressed into fine bubbles to flow along the water-flow.

Air Inlet Pipe
Due to the pressure difference between the atmospheric pressure and the pressure of mixing chamber.

Pump
Adopting specially designed for non-clog impeller

Diffuser
The air-water mixture flow along the diffuser. As it goes far, the flow velocity decreases and the local pressure mcreases rapaidly. It forms on efficient water jet with high energy.

Air-Water Mixture
Because the inlet air is compressed into many fine bubbles, the contact surface between air bubbles and the water increases, the oxygen transter rate increases effectively.