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JTX

JTX Submersible jet aerator

WASTEX

JTX

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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.

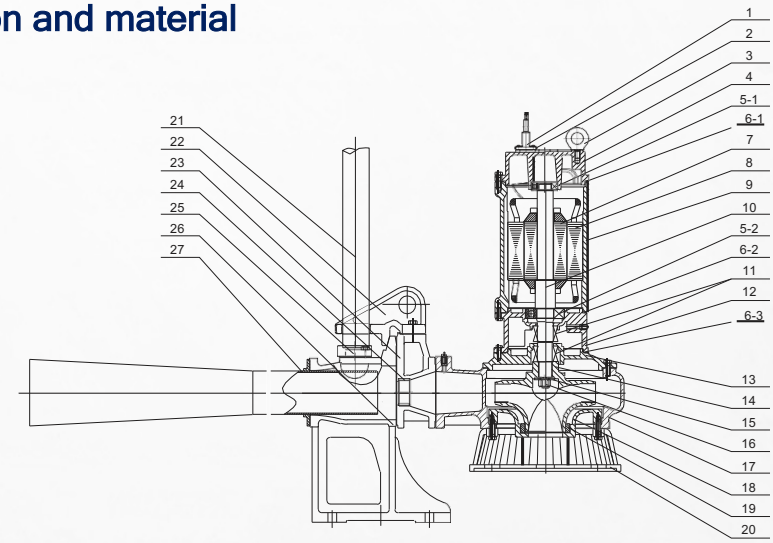
- **Air bubble generating section**

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.

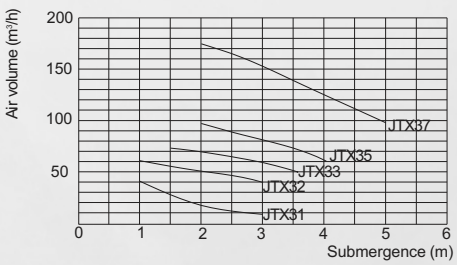
Construction and material

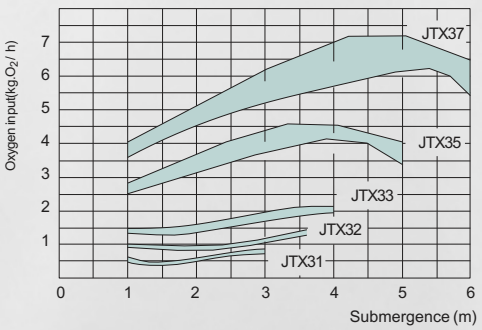


NO.	Name	Material		NO.	Name	Material	
		GB	JIS			GB	JIS
1	Watertight cable			15	Locked spacer	0Cr19Ni9	SUS304
2	Sealing equipment of cable	0Cr19Ni9	SUS304	16	Impeller nut	0Cr19Ni9	SUS304
3	Flying ring			17	Pump casing	HT200	FC200
4	Motor cover	HT200	FC200	18	Bottom cover	HT200	FC200
5	Bearing			19	Sealing ring		
6	O-ring			20	Strainer	HT200	FC200
7	Rotor			21	Air intake pipe		
8	Stator			22	Directing plate	HT200	FC200
9	Motor casing	HT200	FC200	23	Nozzle holder	HT200	FC200
10	Shaft	2Cr13	SUS420J1	24	Nozzle sleeve	0Cr19Ni9	SUS304
11	Mechanical seal			25	Shoe-shaped flange	HT200	FC200
12	Bracket	HT200	FC200	26	Attach device	HT200	FC200
13	Oil tank cap	HT200	FC200	27	Divergent pipe	0Cr19Ni9	SUS304
14	Impeller	HT200	FC200				

Performance curves

High-performance
impeller, without blocking fouls

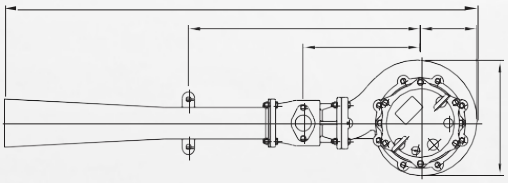


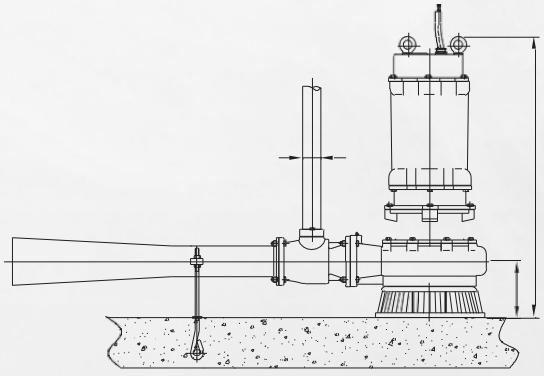


Specifications

Type	Power		Pole	Air capacity-water depth m3/h-m	Oxygen transfer capacity kg.O2 /h	Basin dimensions			Workable water depth (m)
	hp	kW				L(m)	W(m)	H(m)	
JTX-31-50	1	0.75	4	16-2	0.35-0.45	3	2	4	1-3
JTX-32-80	2	1.5	4	40-3	1.0-1.2	4	3.5	4	1-3
JTX-33-80	3	2.2	4	60-3	1.75-1.95	5	5	4.5	1.5-3.5
JTX-35-100	5.5	4	4	80-3	3.5-3.95	6	6	5	2-4
JTX-37-100	7.5	5.5	4	155-3	5.3-5.9	7	7	6	2-5

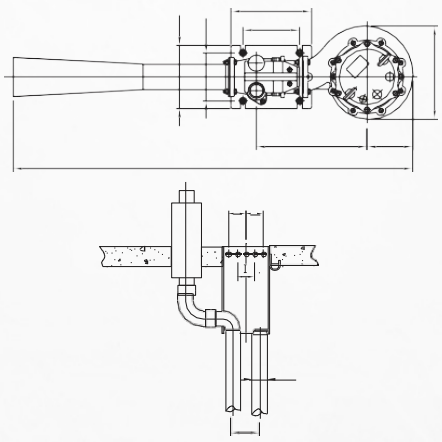
Dimensions (without autosetter)

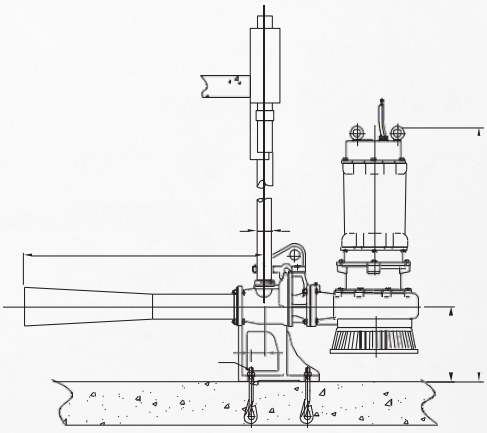




Type	Dimensions(mm)								Weight (kg)
	A	B	C	D	E	F	G	d	
JTX-31-50	1099	597	246	135	270	129	556	DN32	55
JTX-32-80	1343	642	319	153	308	145	669	DN40	81
JTX-33-80	1343	719	319	153	308	145	669	DN40	103
JTX-35-100	1526	770	379	182	376	182	749	DN50	141
JTX-37-100	1526	831	379	182	376	182	749	DN50	182

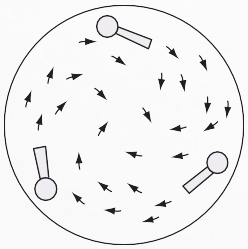
Dimensions (with autosetter)



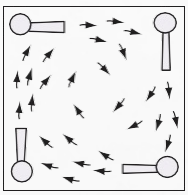


Type	Dimensions(mm)																	Weight (kg)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Q	d	d1	
JTX-31-50	1099	718	266	135	270	250	698	34.5	100	70	180	140	155	220	M12	DN32	DN32	71
JTX-32-80	1384	777	360	153	308	280	871	47	70	90	220	170	190	260	M16	DN40	DN40	121
JTX-33-80	1384	854	360	153	308	280	871	47	70	90	220	170	190	260	M16	DN40	DN40	143
JTX-35-100	1586	888	439	182	376	300	965	53.5	70	110	250	190	225	320	M16	DN50	DN50	201
JTX-37-100	1586	949	439	182	376	300	965	53.5	70	110	250	190	225	320	M16	DN50	DN50	242

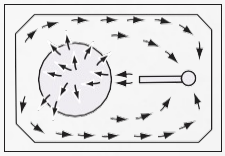
Reference diagram of configuration

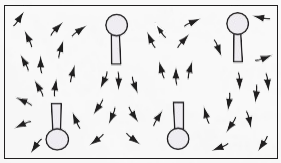


Round tank

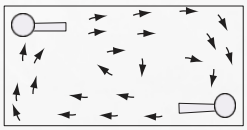


Square tank

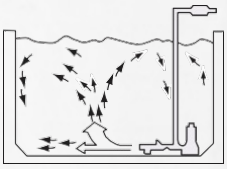




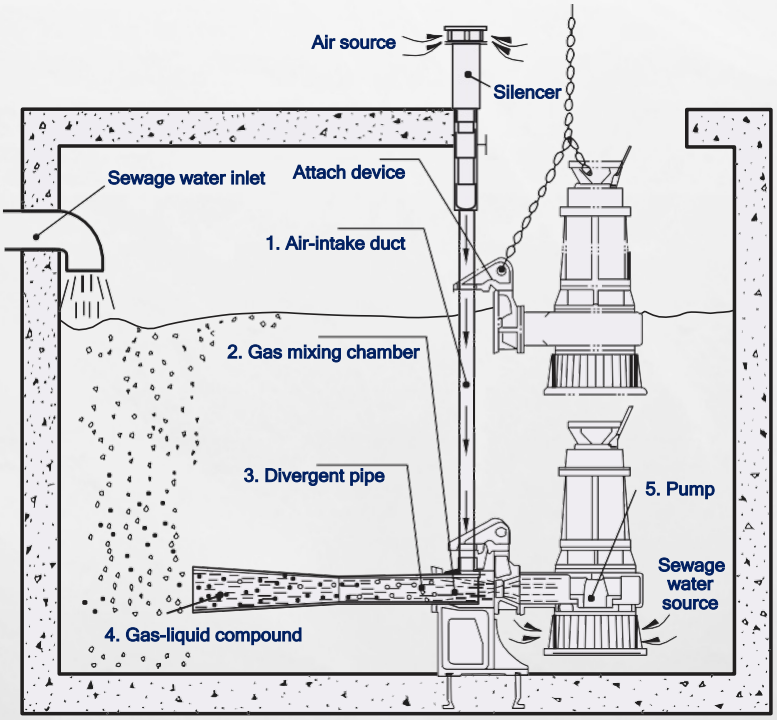
Rectangular tank
(Length:Width=2:1)



Rectangular tank
(Length:Width=5:1)



System flowchart



1. Air-intake duct
Air is taken into gas mixture chamber through airintake 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.

For further details, please fulfill the chart below.

Customer _____ Undertaker _____

Name of project _____ Address of project _____

Telephone _____ Fax _____

Local condition	Elevation (m)			Max relative humidity (%)	
	Local atmospheric pressure (MPa)			Max air temperature (℃)	
Water condition	Wastewater type			Treatment process	
	Aeration time (H/day)			Waste water daily volume (m3/d)	
		Aerating tank Inlet		Aerating tank effluent	
	COD (mg/l)				
	BOD (mg/l)				
	NH3-N (mg/l)				
	pH				
	Temperature (℃)				
	Others				
JTX's parameters	Use location	☐ Regulating reservoir		☐ Aeration tank	☐ Others
	Air capacity (m3/min)			Dissolved oxygen (kgO2/h)	
	Water depth (m)			Others	
Tank's dimensions	Rectangle or square (m)	Length			
		Width			
		Height			
	Circle (m)	Diameter			
		Height			
	Others				
Other requirements					

Notes: 1. Please fill in the parameter lists as complete as possible.
2. The item with "*" must be filled.

บริษัท เกรทโอเรียนเต็ล เทรดดิ้ง จำกัด

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