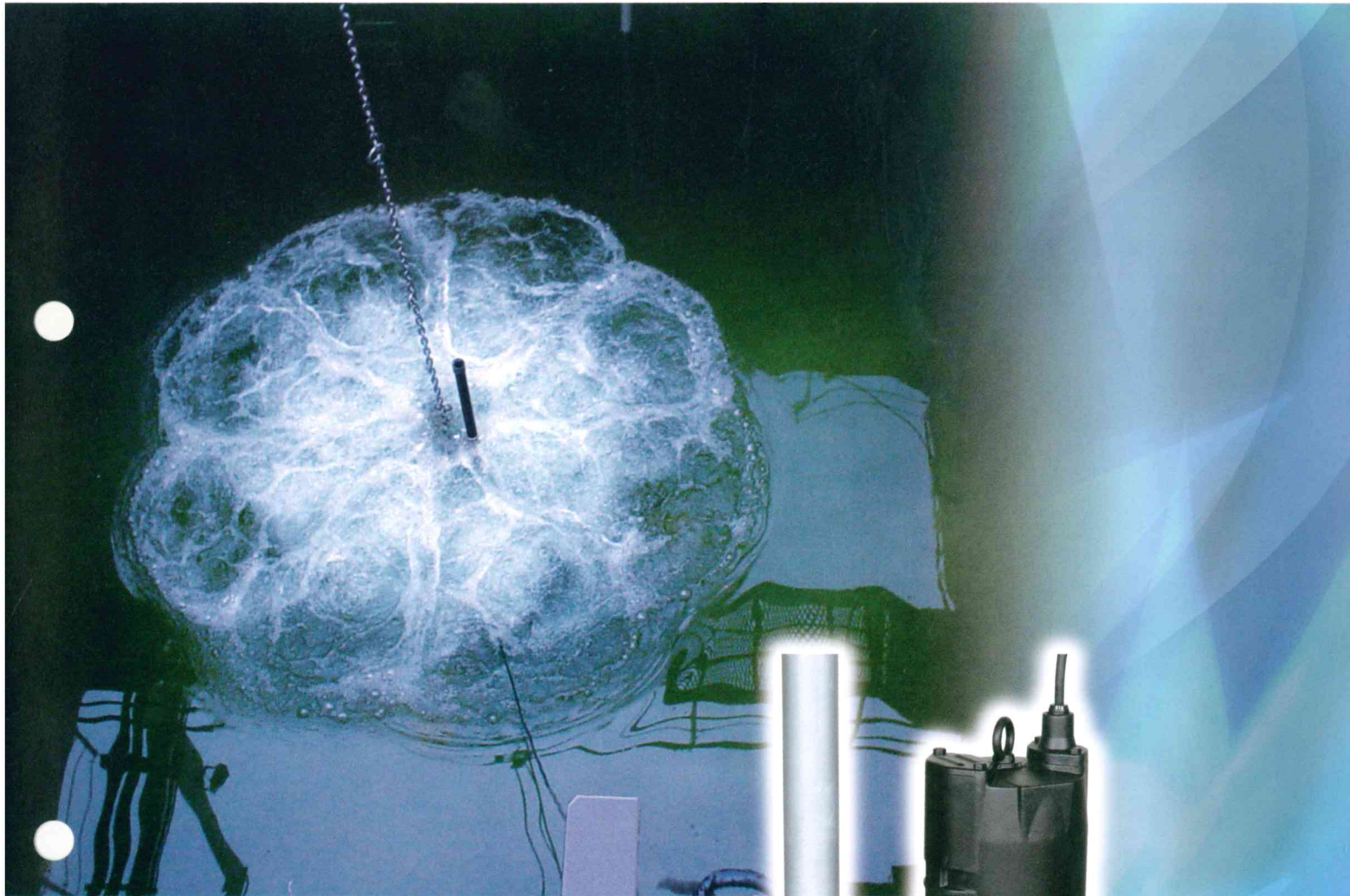




Submersible Aerator

Self-aspirating type JSA series



JSA Series

Self-Aspirating Type Submersible Aerator, JSA-series

The specially designed star-shaped closed impeller generates negative pressure in water and aspirates air from above the water surface through an air-pipe. Water is sucked from the large inflow port on top of the impeller housing and mixed with air. This structure prevents troubles that the inflow port is clogged up with sediments on bottom of a tank.

Motor protector

Auto-reset type thermal protector.

Bearing

Mechanical seal (SiC/SiC)

Double mechanical seal with 4-face SiC keeps water out of the motor compartment.

Cable

The core wire seal avoids any water leak into the motor compartment.

Motor

Air-filled type submersible motor.

Bearing

Oil seal

Air pipe (option)

Water flow

Air flow

Mixed flow of air and water

Impeller

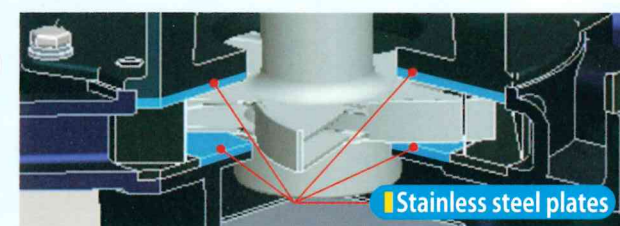
The specially designed star-shaped closed impeller.
This special impeller makes foreign matter pass through smoothly.

Impeller housing

Outstanding features

Long service life

The top and bottom faces inside the housing are lined with stainless steel plates. It improves abrasion resistance and controls a reduction in air flow performance due to aging degradation. (Not applicable for Model JSA15)



Time-proven reliability

The drive motor is of air-filled submersible type, which has been highly rated for submersible pumps for many years. There is no water leak risk.

Lightweight and compact

The compact unit is light in weight too. You can easily sink and lift the unit into and out of the tank.

Ready to set up

To get the unit up and running, just connect the air intake pipe to the body and place the unit in the tank.

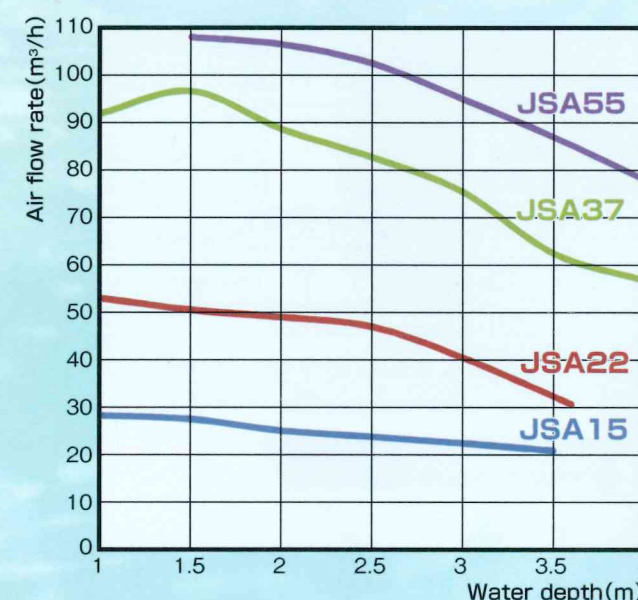
Easy-to-maintain design

Oil can be changed and the motor may be inspected while the unit is in its upright position. In short, the product is configured for easy maintenance.

Main specifications

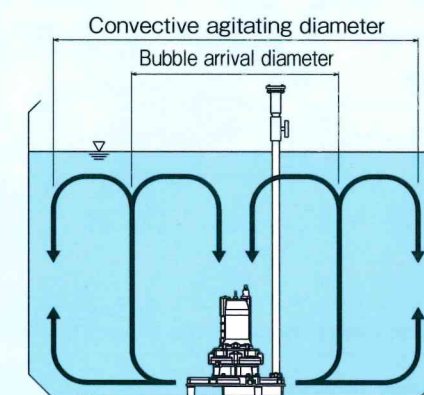
Model	JSA15	JSA22	JSA37	JSA55
Handling Liquid	Kind of Liquid			
	Wastewater and sewage			
Material	Temperature			
	0 - 32°C			
	Cable			
	PVC insulated PVC sheathed cable			
Electric Motor	Motor Shaft			
	420J2 Stainless steel			
	Impeller			
	304 Stainless steel casting			
Type	Discharge housing			
	Gray iron casting(FC200)			
	Insulation / Enclosure			
	Class F / IP68			
	Phase			
No. of poles	3-phase			
	Atariting Method			
	Direct on line			
	Protector			
	Thermal protector (Auto-reset type)			

Performance (air flow rate)



Note : The air flow rates are expressed at the standard condition, i.e. temperature of 20°C, 1atm and may vary by up to approximately 5%.

Flow pattern



Model	Limit water depth (m)	Bubble arrival dia. (m)	Convective agitating dia.	
			Circle (m)	Square (m)
JSA15	3.5	(1.9)	(5)	(4.5)
JSA22	3.6	(2.4)	(6)	(5.5)
JSA37	4.0	(3)	(7)	(6.5)
JSA55	4.0	(3.9)	(12)	(11)

• Bubble arrival dia. : Area in which direct oxidation occurs by bubbles.
• Convective agitating dia. : Area in which indirect oxidation occurs by convective agitation.
*JSA-series are not designed for anaerobic mixing.

Applications

●Sewage and Industrial waste treatment facilities

- Aeration and mixing processes
- SBR processes

Standard specifications

Intake pipe dia. (mm)	Model	Rated output (kW)	No. of poles	Revolving speed (min ⁻¹)	Passable particle dia. (mm)	No. of outlets	Max. water depth- Air flow rate (m - m³/h)	Weight (kg)
32	JSA15	1.5	2	3,000	12	5	3.5 - 21	45
50	JSA22	2.2	4	1,500	15	8	3.6 - 30	110
50	JSA37	3.7	4	1,500	15	8	4.0 - 56	115
50	JSA55	5.5	4	1,500	15	8	4.0 - 78	135

Component specifications

Model	Cable specifications					Mechanical seal	
	Type	Sectional area	No. of cores	Outside dia.	length	Top	Bottom
JSA15	PVC	1.25mm²	4	11.5mm	8m	SiC/SiC	SiC/SiC
JSA22	insulated PVC	1.25mm²	4	11.5mm			
JSA37	sheathed cable	2.0mm²	4	12mm			
JSA55		3.5mm²	4	14mm			

Self-Aspirating Type Submersible Aerator

The specially designed star-shaped closed impeller generates negative pressure in the water surface through an air-pipe. Water is sucked from the large inflow port on top with air. This structure prevents troubles that the inflow port is clogged up with sediment.

Motor protector

Auto-reset type thermal protector.

Bearing

Mechanical seal (SiC/SiC)

Double mechanical seal with 4-face SiC keeps water out of the motor compartment.

Cable

The core wire seal avoids any water leak into the motor compartment.

Motor

Air-filled type submersible motor.

Bearing

Oil seal

Air pipe (option)

Water flow

Air flow

Mixed flow of air and water

Impeller

The specially designed star-shaped closed impeller. This special impeller makes foreign matter pass through smoothly.

Impeller housing



Applications

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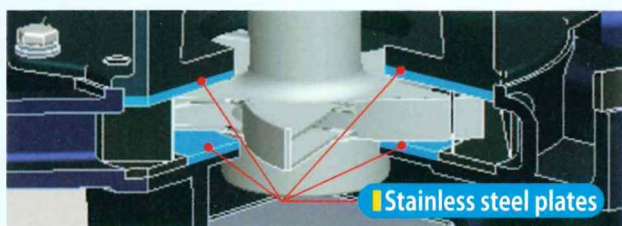
or, JSA-series

Water and aspirates air from above
top of the impeller housing and mixed
vents on bottom of a tank.

Outstanding features

Long service life

The top and bottom faces inside the housing are lined with stainless steel plates. It improves abrasion resistance and controls a reduction in air flow performance due to aging degradation. (Not applicable for Model JSA15)



Time-proven reliability

The drive motor is of air-filled submersible type, which has been highly rated for submersible pumps for many years. There is no water leak risk.

Lightweight and compact

The compact unit is light in weight too. You can easily sink and lift the unit into and out of the tank.

Ready to set up

To get the unit up and running, just connect the air intake pipe to the body and place the unit in the tank.

Easy-to-maintain design

Oil can be changed and the motor may be inspected while the unit is in its upright position. In short, the product is configured for easy maintenance.

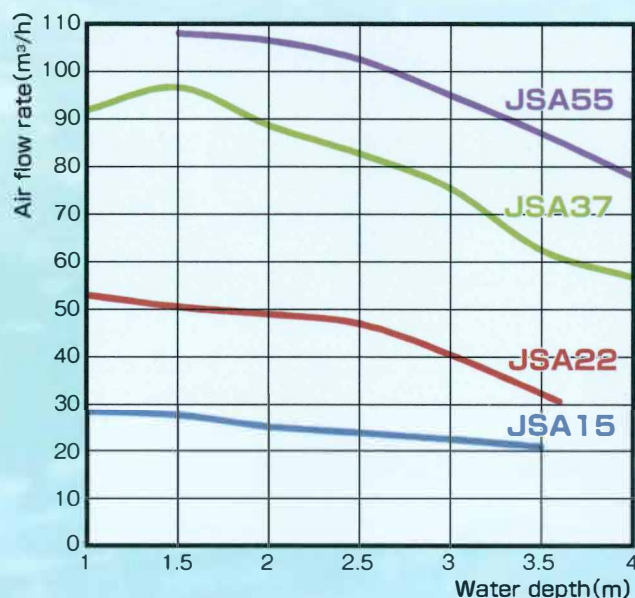
Component specifications

Model	Cable specifications					Mechanical seal	
	Type	Sectional area	No. of cores	Outside dia.	length	Top	Bottom
JSA15	PVC	1.25mm ²	4	11.5mm	8m	SiC/SiC	SiC/SiC
JSA22	insulated PVC	1.25mm ²	4	11.5mm			
JSA37	sheathed cable	2.0mm ²	4	12mm			
JSA55	cable	3.5mm ²	4	14mm			

Main specifications

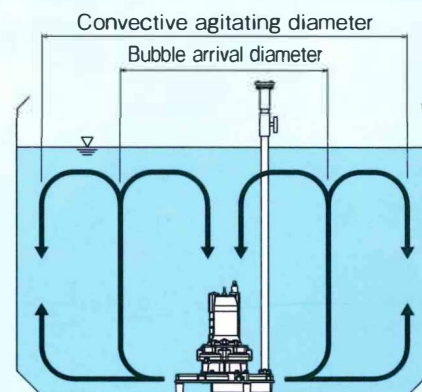
Model		JSA15	JSA22	JSA37	JSA55
Handling Liquid	Kind of Liquid	Wastewater and sewage			
	Temperature	0 - 32°C			
Material	Cable	PVC insulated PVC sheathed cable			
	Motor Shaft	420J2 Stainless steel			
	Impeller	304 Stainless steel casting			
	Discharge housing	Gray iron casting(FC200)			
Electric Motor	Type	Dry type submersible induction motor			
	Insulation / Enclosure	Class F / IP68			
	Phase	3-phase			
	No. of poles	2		4	
	Starting Method	Direct on line			
	Protector	Thermal protector (Auto-reset type)			

Performance (air flow rate)



Note : The air flow rates are expressed at the standard condition, i.e. temperature of 20°C, 1atm and may vary by up to approximately 5%.

Flow pattern



Model	Limit water depth (m)	Bubble arrival dia. (m)	Convective agitating dia.	
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• Bubble arrival dia. : Area in which direct oxidation occurs by bubbles.

• Convective agitating dia. : Area in which indirect oxidation occurs by convective agitation.

*JSA-series are not designed for anaerobic mixing.

Supply Records

Condominium wastewater treatment tank (underground)

(Bangkok, Thailand.)

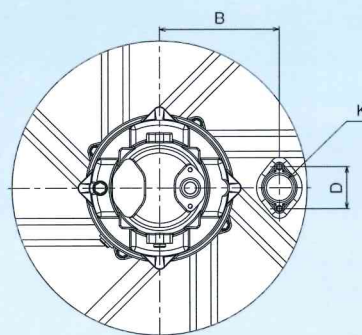
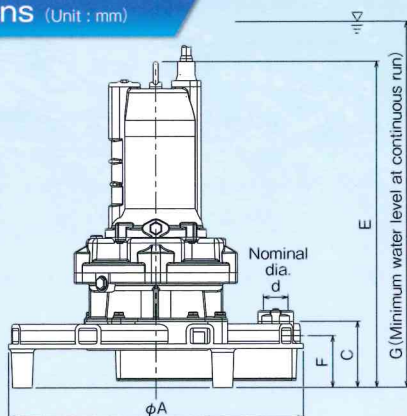


Food processing plant wastewater treatment facility

(Samut Prakan, Thailand.)

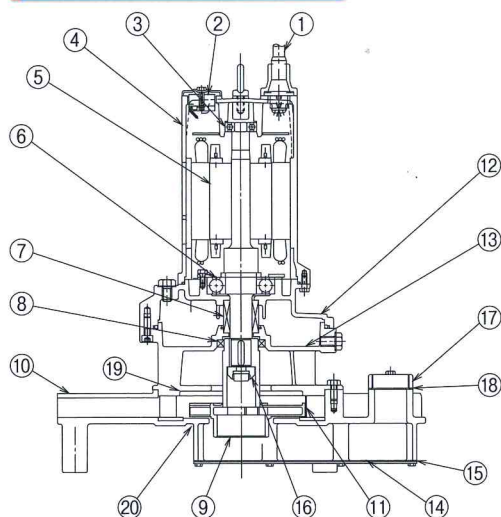


Dimensions (Unit : mm)



Type	JSA15	JSA22	JSA37	JSA55
d	32A		50A	
K	Rc1 1/4		Rc2	
A	366		596	
B	140		242	
C	106		134	
D	70		85	
E	475	582	661	648
F	86		105	
G	600	1,000		1,500

Sectional view

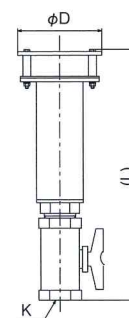


No.	Name	Material
1	Cable	PVC insulated PVC sheathed Cable
2	Thermal protector	—
3	Ball bearing (upper)	—
4	Stator housing	Gray iron casting (FC200)
5	Rotor	Shaft:420J2 Stainless steel
6	Ball bearing (lower)	—
7	Mechanical seal	Silicon carbide (SiC) (4-face)
8	Oil seal	Acrylonitrile butadiene rubber (NBR)
9	Impeller	304 stainless steel casting
10	Discharge housing	Gray iron casting (FC200)
11	Channel ring	Acrylonitrile butadiene rubber (NBR)
12	Oil housing	Gray iron casting (FC200)
13	Mechanical seal bracket	Gray iron casting (FC200)
14	Bottom cover	304 stainless steel
15	Gasket (Bottom cover)	Acrylonitrile butadiene rubber (NBR)
16	Impeller nut	304 stainless steel
17	Companion flange	Gray iron casting (FC200)
18	Gasket	Acrylonitrile butadiene rubber (NBR)
19	Liner plate (upper)	304 stainless steel
20	Liner plate (lower)	304 stainless steel

No. 12, 19 and 20 are not applicable for Model JSA15.

Options

- Lifting chain
- Suction silencer with ball valve (Material: Hard vinyl chloride)



	JSA15	JSA22	JSA37	JSA55
D(mm)	114		160	
L(mm)	308		470	
K	G1 1/4		G2	

Specifications and dimensions are subject to change without notice.

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