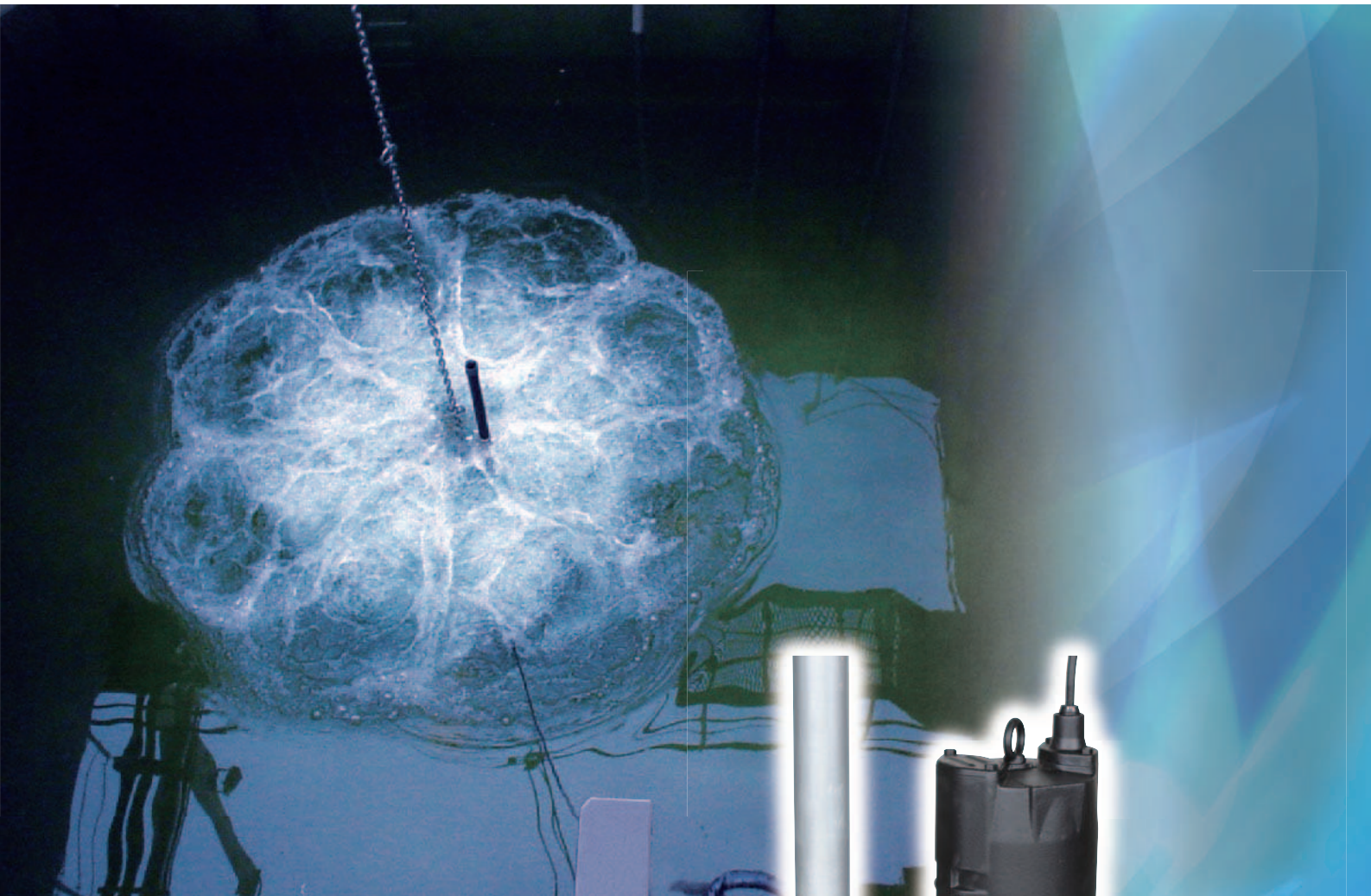


**ShinMaywa**

# **Submersible Aerator**

**Self-aspirating type JSA series**



# **JSA Series**



# 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.

**Water 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**

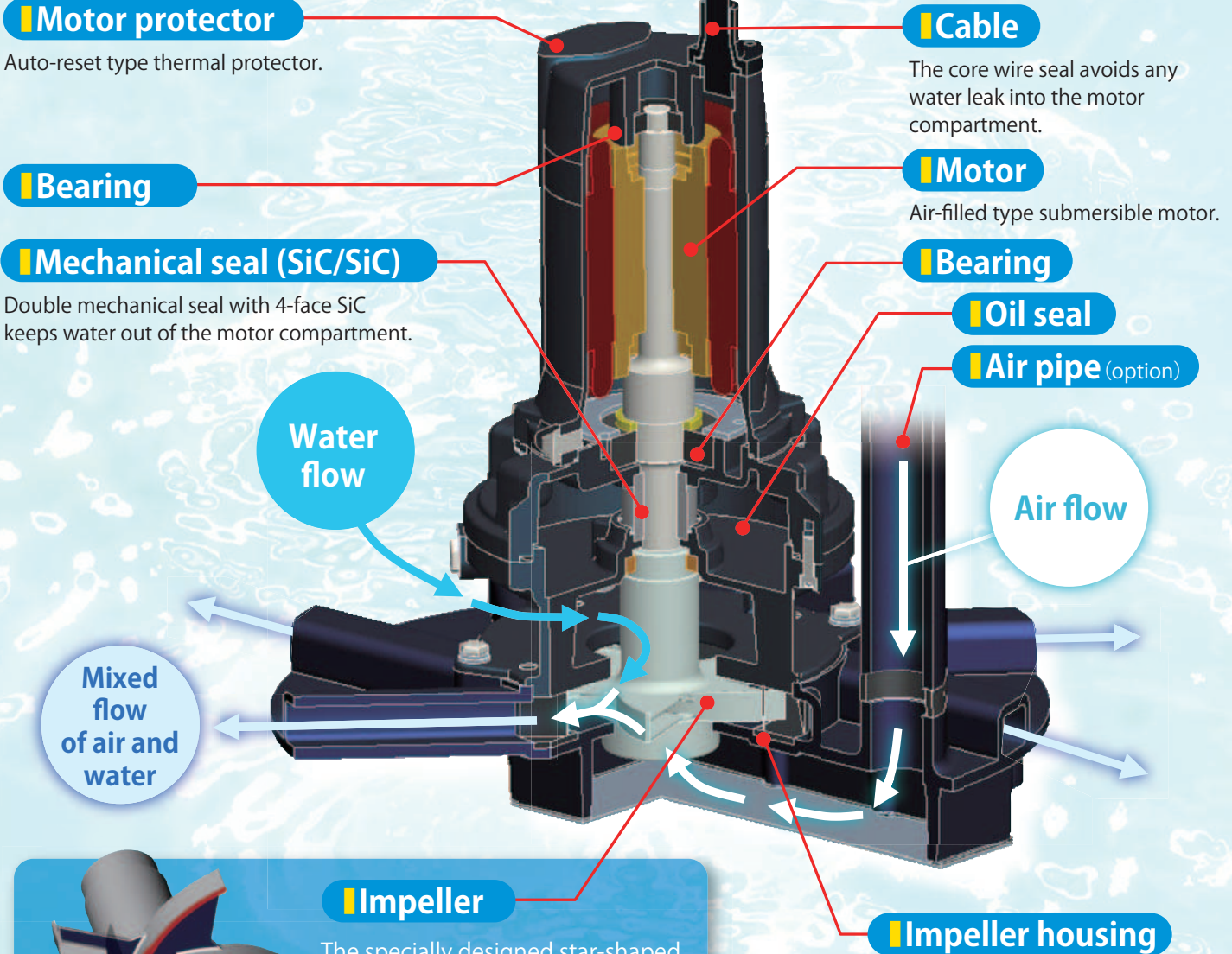
## Applications

### ● 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 <sup>-1</sup> )	Passable particle dia. (mm)	No. of outlets	Max. water depth-Air flow rate (m - m <sup>3</sup> /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



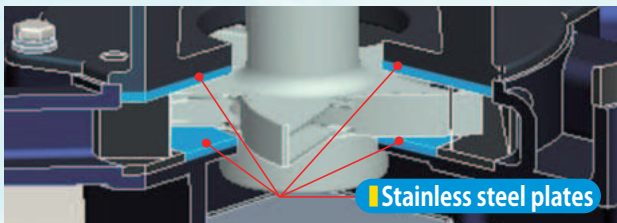
# or, JSA-series

Water and aspirates air from above top of the impeller housing and mixed elements 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.

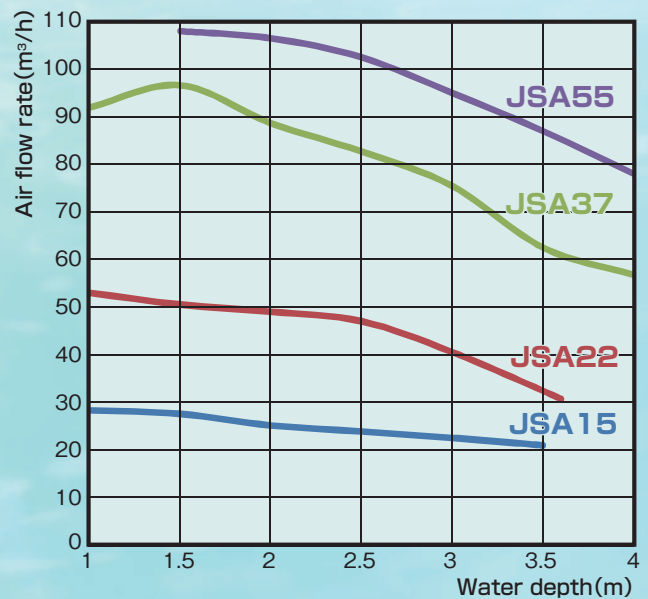
## Component specifications

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

## Main specifications

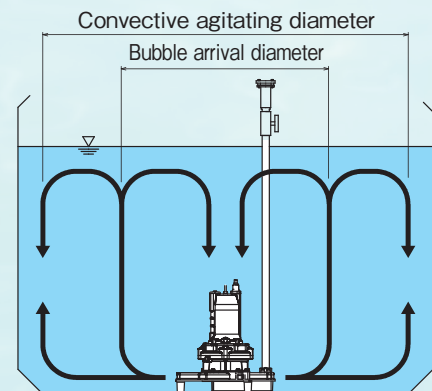
Model		JSA15	JSA22	JSA37	JSA55
Handling Liquid	Kind of Liquid	Wastewater and sewage			
	Temperature	0 - 32°C			
Material	Cable	PVC insulated PVC sheathed cable			
	Motor Shaft	420J2 Stainless steel			
	Impeller	304 Stainless steel casting			
	Discharge housing	Gray iron casting(FC200)			
Electric Motor	Type	Dry type submersible induction motor			
	Insulation / Enclosure	Class E / 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.	
			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.



# Supply Records

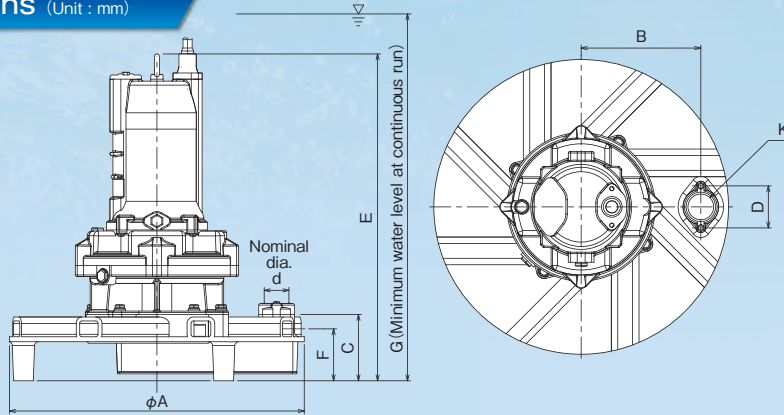
**Condominium wastewater treatment tank (underground)**  
 〈Bangkok, Thailand.〉



**Food processing plant wastewater treatment facility**  
 〈Samut Prakan, Thailand.〉

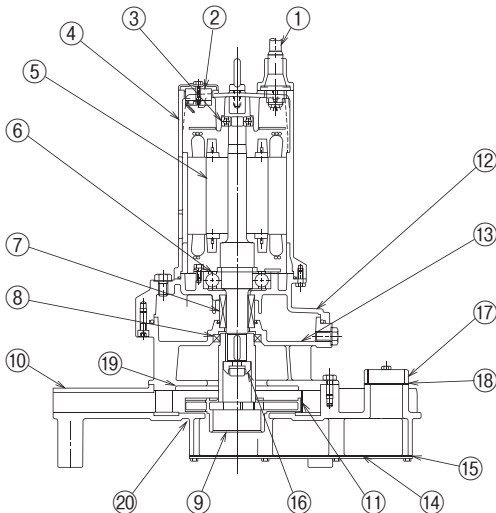


## Dimensions (Unit : mm)



Type	JSA15	JSA22	JSA37	JSA55
d	32A		50A	
K	Rc1¼		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

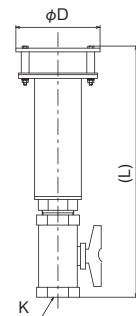


No.	Name	Material
1	Cable	PVC insulated PVC sheathed Cable
2	Thermal protector	—
3	Ball bearing (upper)	—
4	Stator housing	Gray iron casting (FC200)
5	Rotor	Shaft:420J2 Stainless steel
6	Ball bearing (lower)	—
7	Mechanical seal	Silicon carbide (SiC) (4-face)
8	Oil seal	Acrylonitrile butadiene rubber (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	G1¼		G2	

Specifications and dimensions are subject to change without notice.

## ShinMaywa Industries, Ltd.

International Business Group  
 Sales & Marketing Dept., Fluid Div.

3-2-43, Shitte, Tsurumi-ku, Yokohama, 230-0003, Japan  
 Phone : +81-45-584-1322 Fax : +81-45-575-2286  
 E-mail : sales.eisui@shinmaywa.co.jp

## ShinMaywa (America), Ltd.

10737 Gateway West, Suite 240,  
 El Paso, Texas 79935, U.S.A.  
 Phone : +1-915-594-9862  
 Fax : +1-915-594-9866  
 E-mail : info@shinmaywaamerica.com

## ShinMaywa (Asia) Pte. Ltd.

8 Burn Road, #14-10 Trivex,  
 Singapore 369977  
 Phone : +65-6224-0728  
 Fax : +65-6224-9678  
 E-mail : asia.ad@shinmaywa.com.sg

## ShinMaywa (Shanghai) Trading Co., Ltd.

201107 Building 6, Lane 333, Zhujian Road,  
 Minhang District, Shanghai, China  
 Phone : +86-21-5296-2966  
 Fax : +86-21-5296-2970  
 E-mail : shanghai@shinmaywa.co.jp



## ShinMaywa ONO PLANT

ISO 9001(No.956445)/ISO 14001(No.771888)