

ShinMaywa

Submersible Ejector

J · JF · JA-MT · JAF-MT



High Performance with Low Power Consumption

ShinMaywa helps to cut initial and running costs.

J JF JA-MT JAF-MT

0.75~5.5kW

For preliminary aeration of purifying tanks

For preliminary aeration of industrial wastewater treatment plants etc.

Submersible Ejector forces sucked air into the tank through an ejector action with a jet of water, thereby stirring the liquid in the tank simultaneously. Since Submersible Ejector offers high performance and low power consumption, it allows you to cut initial and running costs. It can be used effectively for the preliminary aeration of purifying tanks etc. Submersible Ejector is available in two types: the auto-connection type and free-standing type. You can choose either according to your application.



JA372-MT

Major Features

Stirring with a jet of water and tiny air bubbles ensures uniform MLSS concentration in the tank.

Low noise generation.

Since Submersible Ejector can be used in water from 1 to 6 m in depth, limited treatment areas can be effectively covered.

Submersible Ejector has a long life thanks to a vortex type impeller, which allows foreign matter to pass through easily.

Submersible Ejector, especially the automatic connection type, is easy to maintain.

Standard Specifications

Model		Model of Pump Used	Output (kW)	Phase	Rating(50/60Hz)		Number of Poles (P)	Lifting Weight (kg)			Gross Weight (kg)
Auto-Connection	Free-Standing				Air Flow Rate (m³/h)	Water Depth (m)		J-JA	JF-JAF	J-JA	
J7502	JF7502	CVS501	0.75	3-phase	10	2.0	2	24	26	31	
JA152-MT	JAF152-MT	CVC651-MT	1.5		22	3.5	4	52	54	71	
JA222-MT	JAF222-MT	CVC801-MT	2.2		35	3.5	4	68	71	101	
JA372-MT	JAF372-MT	CVC801-MT	3.7		67	4.0	4	78	81	111	
JA552-MT	JAF552-MT	CVC1001-MT	5.5		101	4.0	4	106	109	139	

(Note) The lifting weight of the JF and JAF models does not include the weight of the air suction pipe. The water depth refers to the distance from the center of the diffuser to the surface of the water.

Stirring Capacity

Model	Tank Dimensions			Max. Stirring Capacity (m³)
	Max. Width (m)	Max. Length (m)	Max. Water Depth (m)	
J7502·JF7502	2	3	3.2	19.2
JA152-MT·JAF152-MT	3.5	4	3.9	54.6
JA222-MT·JAF222-MT	4.5	5	4.5	101.3
JA372-MT·JAF372-MT	6	6	5.3	190.8
JA552-MT·JAF552-MT	7	7	6.3	308.7

(Note) The indicated tank dimensions for preliminary aeration are maximum values, assuming a water flow speed of 0.3 m/s or more.

The maximum stirring capacity for preliminary aeration is obtained from the max.width × max.length × max.water depth.

Caution

- If you need information regarding the choice of models and the calculation of the number of pumps, please contact ShinMaywa.
- Basically, the operating hours of Submersible Ejector should be 12 hours or less per day or 4,000 hours or less per year. If this limit is anticipated to be exceeded, please consult ShinMaywa.
- In the case of a sludge (thickened) storage tank, the pump life may be shortened due to high sludge density or the nozzle may be clogged with foreign matter. If you wish to use Submersible Ejector for a sludge storage tank, consult ShinMaywa in advance.
- Because Submersible Ejector stirs the liquid in the tank with an upward flow of air bubbles, it cannot perform anaerobic stirring.

Motor Protector Device

Model	Thermal Protector		Leakage Detector
	Auto-Reset type	Manual Reset type	
J7502·JF7502	○	×	×
JA152-MT·JAF152-MT	○	×	×
JA222-MT·JAF222-MT	○	△	▲
JA372-MT·JAF372-MT	○	△	▲
JA552-MT·JAF552-MT	○	△	▲

○··· It is included as standard equipment.

△··· It is attachable to order (option).

▲··· The electrode type detector is attachable to order (option).

×··· It is not attachable for structural reasons.

Standard Accessories

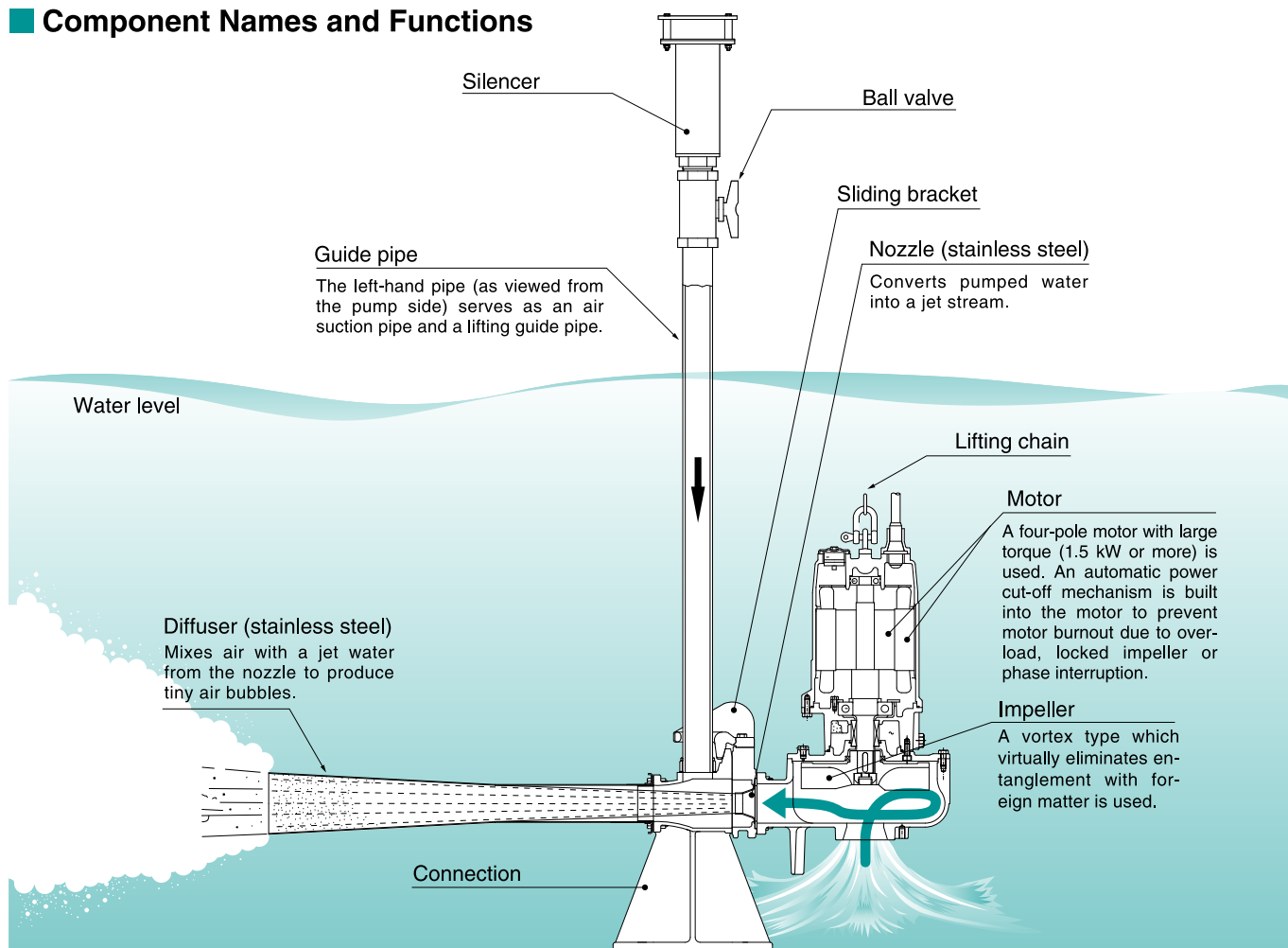
● Auto-Connection type (J/JA-MT)

- Cable (8 m, 6 m for J7502 only)..... 1
- Lifting chain (6 m, 4 m for J7502 only)..... 1
- Connection..... 1
- Guide holder (with bolts and nuts)..... 1
- Silencer..... 1
- Ball valve (not applicable to J7502) 1

● Free-Standing type (JF/JAF-MT)

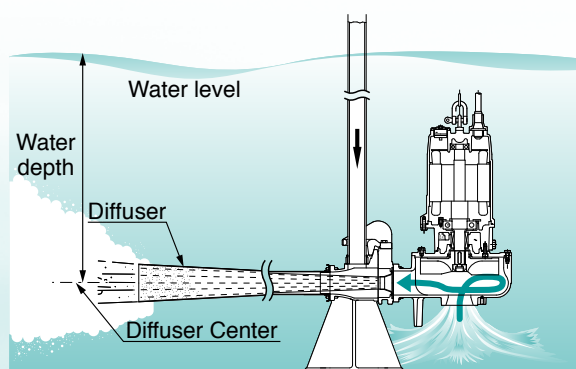
- Cable (8 m, 6 m for JF7502 only)..... 1
- Lifting chain (6 m) (not applicable to JF7502)..... 1
- Silencer..... 1
- Ball valve (not applicable to JF7502) 1

■ Component Names and Functions

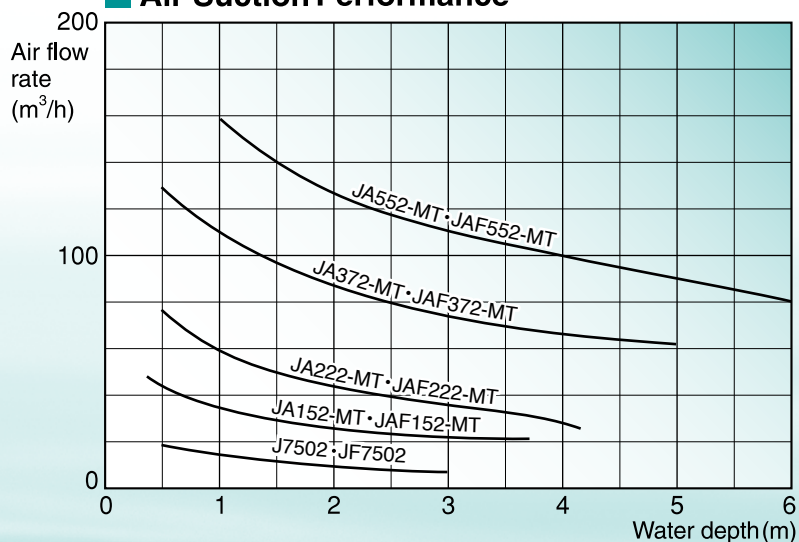


(Note) The diagram given here is for Model JA-MT.

■ Air Suction Water depth



■ Air Suction Performance



(Note) Water depth indicates the distance from the diffuser center to water surface.
Air flow rate is expressed at air intake of suction pipe, i.e. temperature of 20°C, 1atm and may vary by up to approximately 5%.

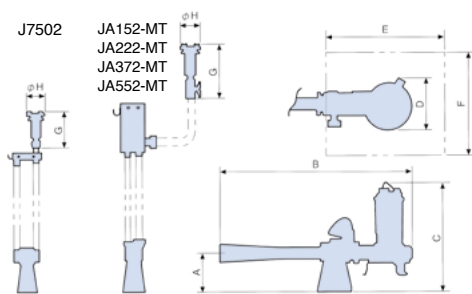
■ Table of Air Flow Rate(m³/h)

Model		Water depth										
Auto-Connection	Free-Standing	1m	1.5m	2m	2.5m	3m	3.5m	4m	4.5m	5m	5.5m	6m
J7502	JF7502	15	12	10	9	8	—	—	—	—	—	—
JA152-MT	JAF152-MT	36	31	27	25	23	22	—	—	—	—	—
JA222-MT	JAF222-MT	60	51	45	40	37	35	29	—	—	—	—
JA372-MT	JAF372-MT	110	98	88	81	75	70	67	64	62	—	—
JA552-MT	JAF552-MT	158	139	127	118	111	105	101	96	91	86	79

(Note) Water depth indicates the distance from the diffuser center to water surface. Air flow rate is expressed at air intake of suction pipe, i.e. temperature of 20°C, 1atm and may vary by up to approximately 5%.

Dimensions

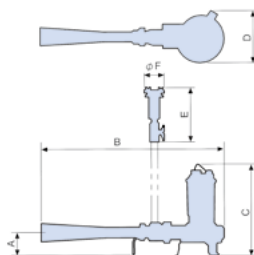
Auto-Connection type



Unit:mm

Model	A	B	C	D	E	F	G	H
J7502	179	701	426	188	550	350	191	89
JA152-MT	225	1,082	652	247			308	114
JA222-MT	300	1,341	754	297	600	500	470	160
JA372-MT			815					
JA552-MT		1,379	833	334	700	600		

Free-Standing type



Unit:mm

Model	A	B	C	D	E	F
JF7502	156	691	403	188	191	89
JAF152-MT	99	1,029	526	247	308	114
JAF222-MT	125	1,341	578	297	470	160
JAF372-MT			639			
JAF552-MT	144	1,379	677	334		

Standard Specifications

Handling liquid	Kind of liquid	Wastewater and sewage or Water including sludge
Material	Cable	PVC insulated PVC sheathed cable
	Motor shaft	420J2 stainless steel
	Pump housing	J,JF Gray iron casting (FC200)
		JA-MT,JAF-MT Gray iron casting (FC250)
	Impeller	J,JF Gray iron casting (FC200)
Electric motor		JA-MT,JAF-MT Gray iron casting (FC250)
	Type	Air-filled submersible induction motor
	Insulation class	Class E(J,JF), Class F(JA-MT,JAF-MT)
	Enclosure	IP68
	Phase	3

Twin Diffuser Type Submersible Aeration Pump

JB·JBF

It keeps stored sewage aerobic to prevent sedimentation of sludge and generation of scum, which causes bad odor.



Guide Rail Type



Free-standing Type

Specifications and dimensions are subject to change without notice.

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