## **Applicable Industries**

#### Energy and petroleum industry

Crude oil, Asphalt, Pitch, Surface acting agent, Emulsion fuel, Biofuel, Atom, Storage tanks, etc.

#### Coal industry

COM, CWM, Surface acting agent, etc.

#### Metal industry

Quenching tank, Heat resistant furnace material, Cooling water, Wire manufacturing, Aluminum hydroxide, Molten lead, Plating, etc.

#### Oil and fat industry

Soap, Animal and vegetable oil, Butter, Lard, Tallow, Margarine, Lubricant, Cooking oil. Storage tanks, etc.

#### Synthetic resin industry

Vinyl chloride, Polyester, Adhesive, Cellulose, Plastic, Polypropylene, ABS resin,

#### Dye industry

Colored powder, Titanium oxide, Viscose, Pigment, etc.

#### Paint industry

Ink, Paint, Solvent, etc.

#### Pharmaceutical industry

Pigment, Perfume, Emulsion, Medical products, Cosmetics, Synthetic medicines,

#### Livestock agriculture industry

Fertilizer (Phosphoric acid, Potash, Ammonium sulfate, Lime) Feed, Ammonia, Insect repellent, Pesticide, etc.

#### Electronic industry

Ceramics, Magnetic iron powder, Iron oxide, Silicone, etc.

#### Rubber industry

Natural rubber, Synthetic rubber, Latex, Solvent, etc.

Acrylic fiber, Acetate, Nylon, Polyester, Vinylon, Solvent, Adhesive paste, etc.

#### Paper making industry

Pulp, Casein, Kaolin, Talc, Clay, Size, Aluminum sulfate, PVA, CMC, Black liquor, Green liquor, Paint, Rosin, Magnesium hydroxide, etc.

#### Ceramic engineering

China clay, Insulator, Glaze, etc.

#### Civil engineering and construction industry

Cement, Mortar, Paint, etc.

#### Food industry

Cream, Chocolate, Milk, Sauce, Mayonnaise, Dressing, Fruit juice, Ketchup, Coffee, Seasoner, Salt, Sugar, Flour, Food additives, Sweetener, Perfume,

#### Brewing industry

Sake, Whiskey, Beer, Shochu, Diatom earth, etc.

#### Ferment industry

Soy sauce, Vinegar, Miso, Unrefined sake, Bio reactor, etc.

#### Other plant equipment

Chemical dissolution, Coal, Heat transfer oil, Cutting oil, etc.

#### Prevention of air pollution

Caustic soda, Calcium carbonate, Flue gas desulfurization, etc.

#### Water purifying plant

City water, Industrial water, Active carbon, Chlorine, Caustic soda, Chemicals,

#### Waste water and effluent treatment plant

High-polymer coagulant, Diatom earth, Aluminum sulfate, Ferrous sulfate, Ferric sulfate, Caustic soda, Sulfuric acid, Sludge tank, Biological reactor, Sodium hypochlorite, Rapid mixing, Slow mixing, etc.

# http://www.satake.co.jp info@satake.co.jp







ISO 14001 Centification Granted to Tokyo office. Osaka office and

The product delivered to you may differ from the shape or specifications of the product described in this catalogue.

Making every effort to develop and manufacture products that satisfy customer needs and the demand for safety.

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'13.4.1T(G)48C4D Printed in Japan



# **SATAKE PORTABLE MIXER SATAKE MULTI A MIXER**



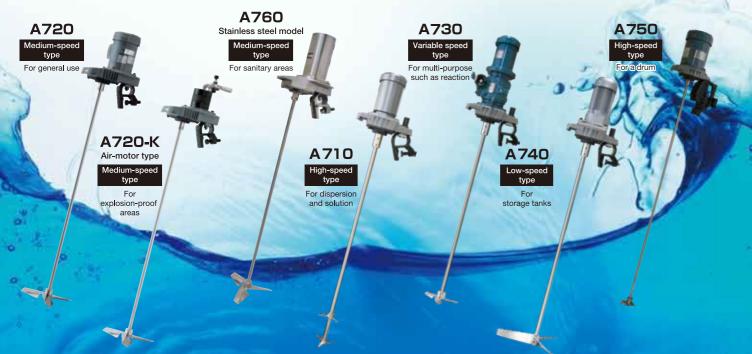
# Outstanding reliability and functionality achieved by Satake's long history and experiences.

Another new page of the mixing world has been turned again.

New multi-purpose mixers "Portable Mixer" and "Multi A Mixer" come out after improving their reliability and functionality. The new mixers have a number of advantages; wide variations of models and options, simple but tough design, and trouble-free operation. They will surely meet your needs.

## **SATAKE PORTABLE MIXER**

Easy removable clamp type mixers



# **SATAKE MULTI A MIXER**

Smallest flange top mount type mixers



#### Operation that liquid level passes over impeller's position and empty operation are strictly prohibited

Operation that the liquid level passes over the impeller's position:

It means the operation within ten minutes from the stable condition which does not generate suction vortices constantly (Minimum liquid level in the drawing) to the condition that the lowest impeller exposes completely in air (or the decreases during a mixing operation.

If the operation mentioned above continues for ten minutes or more, the operation is called "Aeration" (Unstable condition that generates suction constantly and the impeller hits the liquid surface severely.) The aeration causes

#### Empty operation:

It means that the lowest impeller rotates in air by operation that the liquid level passes over the impeller's position etc. In empty operation, liquid has no damping and that causes shaft bending. Stop the operation within ten minutes.

#### Small and lightweight body

With its compact design and clamping parts, Portable Mixer is easy to handle and can be installed anywhere you like. The clamp has a 60-degree range of up-and-down movement.

#### Many variations

Not only High, Low and Medium speed type, but "Air-motor type" for safety use in an explosion-proof area and "Stainless steel model" for use in the fields of fine chemicals, food processing and pharmaceuticals are also available.

In Japan, Electrical Appliance and Materials Safety Law (PSE) was established in 2006. We have "PSE compatible type" to comply with the law, Please refer to page14 about PSE.

#### High performance impellers

To meet varied needs of our customers, we developed our original high performance impellers "P36", "S15", "L18", "K02" through flow analysis, flow velocity distribution measurement and so on.

For more information, check out our web site. Some menus are written only in Japanese.)

#### Free choice of materials

The shaft and the impeller are attached to the drive shaft with set screws so that they can be easily removed of it. Their standard materials are SUS304 or SUS316, but anticorrosion metal, rubber lining application and resin coating are available, too.

#### Engineering plastic gear

For Medium-speed type, a special gear which is made of engineering plastic is used. This gear reduces disturbing noises and doesn't require lubrication.

#### Revision of design

We reviewed the structure and materials of the previous models. While maintaining the compactness of them, we realized these simple and sturdy mixers.

#### Options

We have many original options to meet your needs. There are "Oilless air motor type" for sanitary use, "One touch coupling", etc.

http://www.satake.co.jp

#### How to choose your best mixer

First, check out the tables below for the viscosity or the particle sedimentation velocity. Then, select your best model with reference to the graphs of each product

When you mix particles in viscous liquid, please choose a model of bigger power with reference to both graphs.

Level	Liquid	(°C)	(cp)
	Acetone	20	0.32
	Toluene	20	0.59
	Benzene	20	0.65
	Water	20	1
	Caustic soda 20%	20	4.5
	Sulfuric acid 100%	20	27
	Oil	10	3
about 50 cp	Alcohol	20	5 or less
	Glycerin 50%	20	6
	Dynamo oil	20	100
	Sodium hydroxide	20	110
	Milk	24	2
	Soy sauce	24	8
	Calpis	24	20
	Thick lactic acid bacteria beverage	24	31
	Salad oil	24	65
	Tomato juice	24	77
	Olive oil	24	100
	Tomato juice	24	400
	Tonkatsu sauce	24	640
	Gomme syrup	24	850
about 1000	Honey	24 -	- 1,300
cp	Condensed milk	24 -	<b>-</b> 2,000
	Ricinus	20	1,000
	Glycerin 100%	20	1,500
	Petroleum	25 -	- 2,500
	Ketchup	24	1,800
	Strawberry jam	23	6,000
DI	Mayonnaise	23	8,000
Please ask us	Shoe polish	20	12,000
uon uo	Starch glue	22	29,000
	Tooth paste	21	30,000
	Pomade	21	45,000

Level	Group	Particle	Particle size		
	Metals	Iron	10µm or less		
	/ Specific gravity : \	Copper	10µm or less		
	from 7 to 10	Nickel	10µm or less		
	Non-ferrous	Titanium	20µm or less		
	metals  Specific gravity:	Aluminum oxide	25µm or less		
	from 4 to 5	Ferrite	20µm or less		
	Ceramics	SiO2	35µm or less		
	Specific gravity:	Zeolite	40µm or less		
	from 2 to 3	Graphite	40µm or less		
about	Minerals	Cement	35µm or less		
1	Specific gravity:	Clay	40µm or less		
mm/sec	from 2 to 3	Diatom earth	40µm or less		
	Carbonated	Caustic soda	35µm or less		
	hydroxide  Specific gravity:\	Hydrated lime	40µm or less		
	from 2 to 3	Calcium carbonate	30µm or less		
	Foods	Salt	50µm or less		
	Specific gravity:\	Sugar	60µm or less		
	around 1.5	Cornstarch	60µm or less		
	Resins	Vinyl chloride	60µm or less		
	Specific gravity:	Acrylic resin	80µm or less		
	\ up to 1.5 /	Nylon	100µm or less		
	Metals	(Specific gravity : from 7 to 9)	From the above sizes to 70µm		
	Non-ferrous metals	(Specific gravity : from 4 to 5)	From the above sizes to 100µm		
about	Ceramics	(Specific gravity : from 2 to 3)	From the above sizes to 130µm		
20	Minerals	(Specific gravity : from 2 to 3)	From the above sizes to 130µm		
mm/sec	Carbonated hydroxide	(Specific gravity : from 2 to 3)	From the above sizes to 130µm		
	Foods	(Specific gravity : around 1,5)	From the above sizes to 200µm		
	Resins	(Specific gravity : - 1.5)	From the above sizes to 250µm		
	Metals	(Specific gravity : from 7 to 9)	70µm or more		
	Non-ferrous metals	(Specific gravity : from 4 to 5)	100µm or more		
Please	Ceramics	(Specific gravity : from 2 to 3)	130µm or more		
	Minerals	(Specific gravity : from 2 to 3)	<u> </u>		
	iviinerais	(opening granny r nem a to e)			
Please ask us	Carbonated hydroxide	(Specific gravity : from 2 to 3)	·		
			·		

## All of Satake Mixers are Made In Japan.

Our products are assembled, manufactured, inspected by our experienced staff in the domestic factory.

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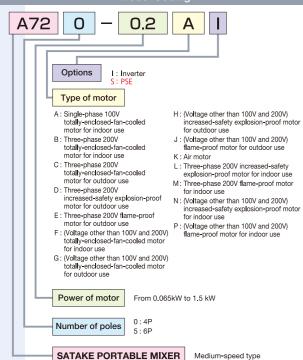
# A720,A725

#### Medium-speed type

Number of revolution 50Hz: 300min<sup>-1</sup> 60Hz: 360min<sup>-1</sup>

A720 is ideal for soluble liquids mixing, dilution, heat transfer, solid-liquid mixing, dispersion, antisedimentation and homogeneous mixing. Compact, light, but tough. The clamp is integrated with the mixer body.









BTF300 option

Impeller blades are special designed to open and close by centrifugal force. Since it is compactly stored when stopped, it can pass through small openings.

#### P36 Impeller For Medium-speed type

This superior hydrofoil impeller with a camber and a rake angle at each blade can generate high-speed axial flows.

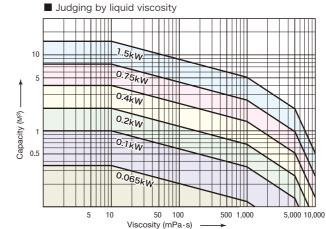
JPN PAT.No.827551

#### Standard specification

			Moto	r		Impelle	r		Shaft	
Model	Frame number	Power	Number of poles	Phase and voltage	Frequency	Revolution	Diameter	Stage	length	
		(kW)	(P)	(V) (	(Hz)	(min <sup>-1</sup> )	(mm)		(mm)	
A720-0.065A		0.065	4	Single-phase	50	300	150	1	600	
A720-0.003A		0.003	4	100	60	360	130	'	000	
A720-0.1A	1 1	0.1	4	Single-phase	50	300	220	1	800	
A720-0.1A	_ '	0.1	4	100	60	360	220	'	000	
A720-0.1B		0.1	4	Three-phase	50	300	220	1	800	
A720-0,1D		0.1	7	200	60	360	220	'	000	
A720-0.2A		0.2	4	Single-phase	50	300	270	1	1000	
A120 0.2A	2	0.2	7	100	60	360	210	'	1000	
A720-0.2B		0.2	0.2	4	Three-phase	50	300	270	1	1000
71720 0.20				200	60	360	270	' '	1000	
A720-0.4B	3	0.4	4	Three-phase	50	300	310	1	1250	
71720 0.45		0.1	-	200	60	360	010		1200	
A725-0.4B		0.4	6	Three-phase	50	200	350	1	1500	
71720 0140	4	0.7		200	60	240		<u>'</u>	1000	
A720-0.75B	, ,	0.75	4	Three-phase	50	300	350	1	1500	
A120-0.13B		0.70	7	200	60	360	000	'	1000	
A725-0.75B		0.75		Three-phase	50	200	400	1	2000	
A120-0.13B	5	0.70	6	200	60	240		_ '	2000	
A720-1.5B		1.5 4		Three-phase	50	300	400	1	2000	
A120-1.0D				200	60	360	1 700	'	2000	

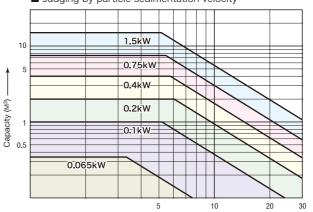
<sup>\*</sup> The standard materials for the shaft and the impeller are SUS304 or SUS316.

#### Charts to select the mixing capacity (For Medium-speed type)



- \* Please refer to us when the viscosity is 1000 mPa s or more, or when the specific gravity is 1.2 or more.
- \* It takes 5 minutes or more to mix a liquid with another liquid.

#### ■ Judging by particle sedimentation velocity



Particle sedimentation velocity (mm/s) \* This chart shows the case where the specific gravity is from 2 to 3 and the viscosity is 50 mPa  $\cdot$  s.

#### **Options**

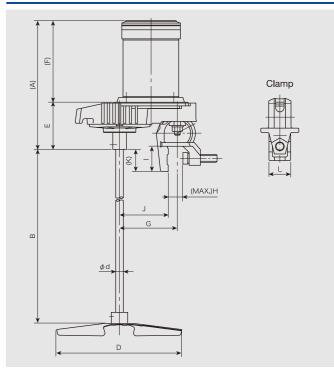
Electric component	Inverter, Control panel, etc.					
Impeller	Three bladed propeller, Paddle, Turbine, etc.					
Material	Low carbon material, Hastelloy, Titanium, etc.					
Lining	Rubber lining, PVC, FRP, etc.					
	Wetted part : Buffing, Electrochemical polishing, Welding, etc.					
Sanitary	Body: Stainless steel cover for motor, speed changer and reducer, Stainless coating, Special plating, etc.					
Other options	One touch coupling, Safety cover, etc.					

#### Applicable stands and tanks

N	1ixer	Applicable	Applicable toply
Model	Power(kW)	stand	Applicable tank
		ZS-1	ZT-20, ZT-25, ZT-35, ZT-45
	0.065	25-1	ZT-65, ZT-80, ZT-100, ZT-150
		ZU-1	ZT-65, ZT-80, ZT-100, ZT-150
	0.1	ZS-2	ZT-65, ZT-80, ZT-100, ZT-150
	0.1	ZU-1	ZT-200
A720		ZS-3	ZT-150, ZT-200
A720	0.2	25-3	300 – 800 ℓ
	0.2	ZS-4	300 − 800 ℓ
		ZU-1	ZT-200
	0.4	ZS-4	300 – 2000 ℓ
	0.4	ZS-5	300 − 2000 ℓ
	0.75	ZS-5	300 - 3000 ℓ

\* ZU-1 (Universal mount) is an option.

#### Dimensional drawing



#### Standard dimensions

	_			Dimension (mm)												Estimated
Model	Frame number		(A)	В	B-MAX (Option)	<b>φ</b> d	D	E	(F)	G	H (MAX)	I	J	(K)	L	weight (kg)
1		0.065 A	(268)	560	960	13	150	86	(182)	100	28	48	85	(48)	40	10
	1	0.1 A	(268)	760	960	13	220	86	(182)	100	28	48	85	(48)	40	11
		0.1 B	(259)	760	960	13	220	86	(173)	100	28	48	85	(48)	40	11
A720	2	0.2 A	(306)	950	1200	16	270	101	(205)	125	32	55	105	(48)	45	15
A720	2	0.2 B	(276)	950	1200	16	270	101	(175)	125	32	55	105	(48)	45	15
	3	0.4 B	(382)	1190	1440	20	310	152	(230)	140	39	65	120	(28)	52	19
	4	0.75 B	(449)	1425	1675	25	350	189	(260)	160	48	80	140	(35)	70	34
	5	1.5 B	(517)	1905	2105	30	400	215	(302)	190	58	90	165	(29)	120	55

4

\* Dimension A, F and weight in the table above vary depending on the brand of motor.

<sup>\*</sup> Please refer to us when the impeller diameter is 25% of the tank diameter or smaller

<sup>\*</sup> Please ask us about the applicable stand and tank for 1.5kW mixer.

<sup>\*</sup>The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.

\*B in the table shows the standard length of the shaft. When a shorter or longer shaft than the standard is needed, please ask us.

<sup>\*</sup> The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

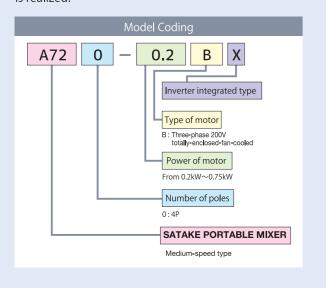
# **A720-**□**BX**

Medium-speed type (Inverter integrated type)

Number of revolution

50/60Hz:72~360min<sup>-1</sup>

A720-□BX is a mixer in which the inverter and the main body areintegrated. Rotation speed can be easily done by dial operation, and it can respond flexibly to changes in liquid volume and viscosity. By using only the necessary power, energy-saving is realized.



#### P36 Impeller For Medium-speed type

Inverter

This superior hydrofoil impeller with a camber and a rake angle at each blade can generate high-speed axial flows.

JPN PAT.No.827551

#### Inverter



# Easy speed change with dial



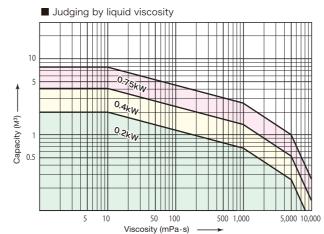


#### Standard specification

	_		Motor	r		Impelle	r		Shaft	
Model	Frame number	Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min <sup>-1</sup> )	Diameter (mm)	Stage	length (mm)	
A720-0.2BX	2	0.2	4	Three-phase 200	50 60	-360	270	1	1000	
A720-0.4BX	3	0.4	4	Three-phase 200	50 60	-360	310	1	1250	
A720-0.75BX	4	0.75	4	Three-phase 200	50 60	-360	350	1	1500	

<sup>\*</sup> The standard materials for the syaft and the impeller are SUS304 or SUS316.

#### Charts to select the mixing capacity (For Medium-speed type)



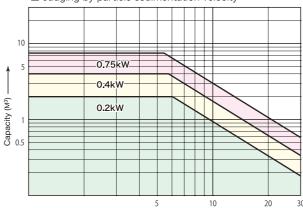
- \* Please refer to us when the viscosity is 1000 mPa s or more, or when the specific gravity is 1.2 or more.
  \* It takes 5 minutes or more to mix a liquid with another liquid.

#### Applicable stands and tank

Mixer		Applicable	Annlinghle toul
Model	Power(kW)	stand	Applicable tank
	0.2	ZS-3	ZT-150 • ZT-200 300∼800 ℓ
	0.2	ZS-4	300∼800ℓ
A720-□BX		ZU-1	ZT-200
	0.4	ZS-4	300~2000ℓ
	0.4	ZS-5	300~2000ℓ
	0.75	ZS-5	300~3000ℓ

\* ZU-1 (Universal mount) is an option. \* Tanks with "  $\ell$  " notation are special items.

#### ■ Judging by particle sedimentation velocity



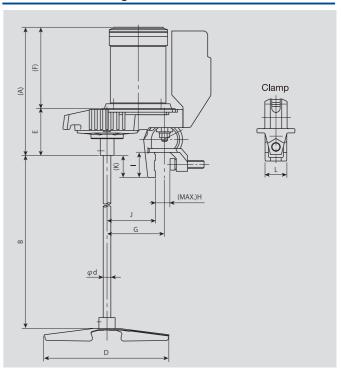
Particle sedimentation velocity (mm/s) - $^{\star}$  This chart shows the case where the specific gravity is from 2 to 3 and the viscosity is 50 mPa  $^{\star}$  s.

\* Please refer to us when the impeller diameter is 25% of the tank diameter or smaller.

#### Options

Electric component	Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, etc.
	Wetted part : Buffing, Electrochemical polishing, Welding, etc.
Sanitary	Body: Stainless steel cover for motor, speed changer and reducer, Stainless coating, Special plating, etc.
Other options	One touch coupling, Safety cover, etc.

#### Dimensional drawing



#### Standard dimensions

Model Frame I			Dimension (mm)									Estimated				
		(A)	В	B-MAX (Option)	φd	D	Е	(F)	G	H (MAX)	I	J	(K)	L	weight (kg)	
A720-0.2BX	2	0.2	(309)	950	950	16	270	101	(208)	125	32	55	105	(48)	45	17
A720-0.4BX	3	0.4	(381)	760	1190	20	310	152	(229)	140	39	65	120	(28)	52	23
A720-0.75BX	4	0.75	(425)	760	14 25	25	350	189	(236)	160	48	80	140	(35)	70	34

\* Dimension A, F and weight in the table above vary depending on the brand of motor.

\* The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.

\* B in the table shows the standard length of the shaft. When a shorter or longer shaft than the standard is needed, please ask us.

\* The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

<sup>\*</sup> The model is the successor to A520-0.2BX • 0.4BX • 0.75BX model

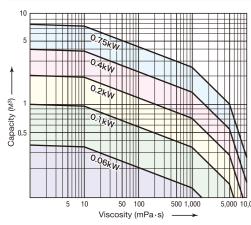
# A720-K

#### Air-motor type Medium-speed type

Number of revolution 200 - 360min<sup>-1</sup>

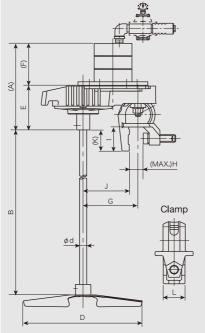
A720-K is driven by air-motor and it is safe to use in an explosive area. The rotation speed can be adjusted widely. It is protected against overloading. The oilless type and stainless steel type are also available.

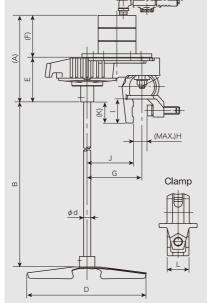
#### Charts to select the mixing capacity (For medium-speed type)



- $^{\star}$  Please refer to us when the viscosity is 1000 mPa  $^{\star}$  s or more, or when the specific gravity is 1.2 or more.
- \* It takes 5 minutes or more to mix a liquid with another liquid

#### Dimensional drawing





#### Standard specification

	Frame	Model of	Motor			Shaft		
Model	number	air-motor	Air consumption (N ℓ /min)	Pressure (MPaG)	Revolution (min <sup>-1</sup> )	Diameter (mm)	Stage	length (mm)
A720-0.06K	4	VA30L	220	0.4	200 – 360	150	1	600
A720-0.1K	'	VA30L	250	0.5	200 – 360	220	1	800
A720-0.2K	2	VA30L	400	0.5	200 – 360	270	1	1000
A720-0.4K	3	VA50L	680	0.5	200 – 360	310	1	1250
A720-0.75K	4	VA100L	1300	0.5	200 – 360	350	1	1500

- $^{\ast}$  The standard materials for the shaft and the impeller are SUS304 or SUS316.
- \* The air consumption amounts in the table above are the values at the point when the output number of revolutions of the motor is 1800min-1.
- \* Standard accessories for lubrication type: Air control unit (filter, regulator, lubricator) ball valve (0.06K-0.2K... #400 1/4, 0.4K... #400 3/8, 0.75K... #400 1/2) speed controller, silencer (the control unit mount is not attached.)
- As an option, tachometers can be installed (only for 0.4 and 0.75kW.)

#### Standard dimensions

	_			Dimension (mm)												Estimated
Model	Frame number	Motor (kW)	(A)	В	B-MAX (Option)	φd	D	Е	(F)	G	H (MAX)	ı	J	(K)	L	weight (kg)
	1	0.06K	(182)	560	960	13	150	86	(96)	100	28	48	85	(48)	40	8
		0.1K	(182)	760	960	13	220	86	(96)	100	28	48	85	(48)	40	9
A720-K	2	0.2K	(197)	950	1200	16	270	101	(96)	125	32	55	105	(48)	45	12
	3	0.4K	(260)	1190	1440	20	310	152	(108)	140	39	65	120	(28)	52	17
	4	0.75K	(322)	1425	1675	25	350	189	(133)	160	48	80	140	(35)	70	30

\* The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller

A760 Stainless steel model Medium-speed type

> The main body of this mixer is made of stainless steel. It prevents rust and painting being mixed into the object. It is suitable for the fields of fine chemicals, pharmaceuticals,

Number of revolution 50Hz: 300min -1 60Hz: 360min

#### Stainless steel motor

and food processing.

This mixer is full-stainless steel made, of course equipped with a motor (totally-enclosed type, 200V) made of stainless steel. An air motor made of stainless steel is also available.

#### Wide variation

We have a lot of choices and options for our mixers; air motor (lubrication type and non-lubrication type), explosion-proof motor, motor other than 100V and 200V, and stainless steel cover for general motor,

#### Sanitary

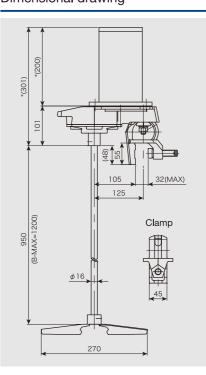
«Additionally a ball valve also attache

P36 Impeller

JPN PAT.No.827551

We can meet your sanitary requests with options; buffing and EP treatment can be applied to the shaft and impellers.

#### Dimensional drawing



### Standard specification

		Motor			Mixing capacity	
Model	Power (kW)	Frequency (Hz)	Revolution (min <sup>-1</sup> )	Dilution (ℓ)	Medium viscosity liquid (ℓ)	Estimated weight (kg)
A760-0.2 B	0.2	50	300	2000	700	20 / Including the impeller
A700-0.2 B	0.2	60	360	2000	700	and the shaft
A760-0.2 K	0.2	-	200 – 360	2000	700	20 (Including the impeller) and the shaft

- \* The standard materials for the shaft and the impeller are SUS304 or SUS316.
- \* Dimensions of motor vary depending on the brand

#### Multi A Mixer is also available.

We have flange-mount type stainless steel model mixer, too.

#### Specifications

Model	AS24-GPR-0.2□
Power	0.2kW
Revolution	50Hz : 300min <sup>-1</sup> 60Hz : 360min <sup>-1</sup>
Estimated weight	16kg (Including the impeller and the shaft.)





P36 Impeller

JPN PAT.No.827551

<sup>\*</sup> Dimension A, F and weight in the table above vary depending on the brand of motor.

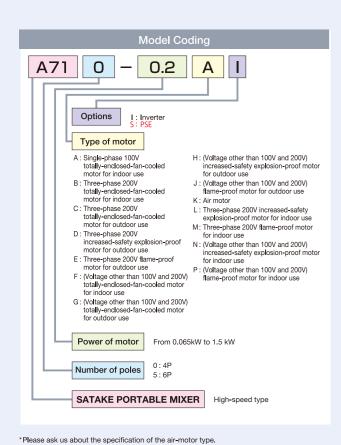
<sup>\*</sup>The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

# A710,A715

High-speed type

Number of revolution 50Hz: 1450min<sup>-1</sup> 60Hz: 1750min<sup>-2</sup>

This A710 model is appropriate for powder dissolution and application in which strong shear force is required.



# S15 Impeller For high-speed type

JPN PAT.No.3919262

HSR100

Option

This impeller efficiently

mixes powders such as

difficult to suck or easy

to break into dams or

hard to melt.

It is an impeller for dissolving powders.

This model rotates at high speed to generate strong shearing forces. The serration at the rear of the blade generates turbulent flows to break lumps of powder and fluid and increases area of contact between powder and liquid. That makes dispersion and dissolution extremely

JPN PAT.No.748894

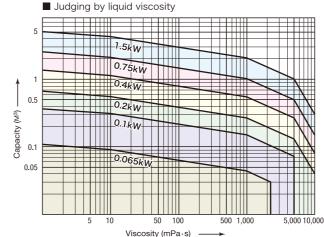
## Standard specification

			Moto	r		Impelle	er		Shaft
Model	Frame number	Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min <sup>-1</sup> )	Diameter (mm)	Stage	length (mm)
A710-0.065A		0.065	4	Single-phase 100	50 60	1450 1750	90 80	2	600
A710-0.1A	1	0.1	4	Single-phase	50 60	1450 1750	100 90	2	800
A710-0.1B		0.1	4	Three-phase	50 60	1450 1750	100	2	800
A710-0.2A		0.2	4	Single-phase	50 60	1450 1750	120 110	- 2	1000
A710-0.2B	2	0.2	4	Three-phase	50	1450 1750	120	2	1000
A710-0.4B	3	0.4	4	Three-phase	50	1750 1450 1750	135 120	2	1250
A715-0.4B		0.4	6	Three-phase	50	950 1150	155 140	2	1500
A710-0.75B		0.75	4	Three-phase	50 50	1450 1750	155 140	2	1500
A715-0.75B	4	0.75	6	Three-phase	50	950 1150	175 160	2	1750
A710-1.5B	.710-1.5B		4	Three-phase	50 60	1450 1750	175 160	2	1750

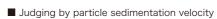
\*The standard materials for the shaft are SUS304 or SUS316.

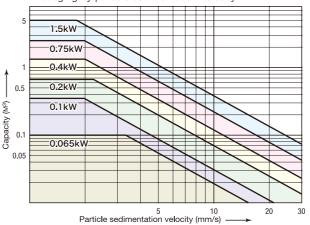
\*The standard material for S15 Impeller is SUS316.

#### Charts to select the mixing capacity (For High-speed type)



\* Please refer to us when the viscosity is 1000 mPa • s or more, or when the specific gravity is 1.2 or more.





\* This chart shows the case where the specific gravity is from 2 to 3 and the viscosity

\* Please refer to us when the impeller diameter is 25% of the tank diameter or smaller.

#### Options

Electric component	Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, etc.
	Wetted part : Buffing, Electrochemical polishing, Welding, etc.
Sanitary	Body: Stainless steel cover for motor, speed changer and reducer, Stainless coating, Special Plating, etc.
Other options	Safety cover, etc.

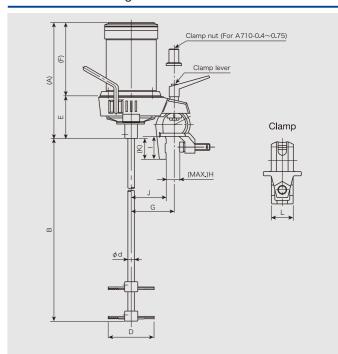
#### Applicable stands and tanks

N	/lixer	Applicable	Applicable tank
Model	Power(kW)  2S-1  2U-1  2S-2  ZU-1  ZS-3  0.2  ZU-1  ZS-3  0.4  ZS-4	stand	Аррисаріе тапк
	0.065	ZS-1	ZT-20, ZT-25, ZT-35, ZT-45, ZT-65, ZT-80, ZT-100, ZT-150
		ZU-1	ZT-65, ZT-80, ZT-100, ZT-150
	0.1	ZS-2	ZT-65, ZT-80, ZT-100, ZT-150,
	0.1	ZU-1	ZT-200
A710	0.0	ZS-3	ZT-150, ZT-200 300 − 800 ℓ
	0.2	ZU-1	ZT-200
		ZS-4	300 − 800 ℓ
	0.4	ZS-4	300 − 2000 ℓ
	0.4	ZS-5	300 − 2000 ℓ
	0.75	ZS-5	300 − 3000 ℓ

\* ZU-1 (Universal mount) is an option.

\* Please ask us about the applicable stand and tank for 1.5kW mixer.

#### Dimensional drawing



#### Standard dimensions

				Dimension (mm)												Estimated	
Model	Frame number	Motor (kW)	(A)	В	B-MAX (Option)	φd	D (50Hz)	D (60Hz)	E	(F)	G	H (MAX)	ı	J	(K)	L	weight (kg)
	1	0.065 A	(269)	560	960	13	90	80	87	(182)	85	28	48	70	(48)	40	10
		0.1 A	(269)	760	960	13	100	90	87	(182)	85	28	48	70	(48)	40	10
		0.1 B	(260)	760	960	13	100	90	87	(173)	85	28	48	70	(48)	40	10
A 710	0	0.2 A	(307)	950	1200	16	120	110	102	(205)	105	32	55	85	(56)	45	14
A710	2	0.2 B	(277)	950	1200	16	120	110	102	(175)	105	32	55	85	(56)	45	14
	3	0.4 B	(381)	1190	1440	20	135	120	151	(230)	120	39	65	100	(37)	52	18
		0.75 B	(445)	1425	1675	25	155	140	185	(260)	140	48	80	120	(38)	70	32
	4	1.5 B	(487)	1675	1925	25	175	160	185	(302)	140	48	80	120	(38)	70	41

\* Dimension A, F and weight in the table above vary depending on the brand of motor.

\* The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller. \* The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

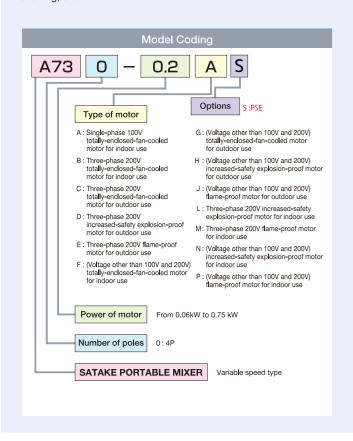
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# A730

#### Variable speed type

Number of revolution 50/60Hz: 0 - 420min<sup>-1</sup>

A730 can respond to the changes of liquid level and viscosity preventing excessive and insufficient mixing. Adjusting to slow rotating speed, the mixer can be operated safely during liquid draining, etc.



# P36 Impeller JPN PAT.No.827551

#### Standard specification

	_		Motor			Impelle	er		Shaft	
Model	Frame number	Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution	Diameter (mm)	Stage	length (mm)	
A730-0.06A		0.06	4	Single-phase	50/60	0 – 420	150	1	600	
A730-0.06B	1	0.06	4	Three-phase 200	50/60	0 – 420	150	1	600	
A730-0.09A	'	0.09	4	Single-phase 100	50/60	0 – 420	180	1	600	
A730-0.09B		0.09	4	Three-phase 200	50/60	0 - 420	180	1	600	
A730-0.2A		0.2	4	Single-phase 100	50/60	0 – 420	220	1	1250	
A730-0.2B	3	0.2	4	Three-phase 200	50/60	0 – 420	220	1	1250	
A730-0.4B		0.4	4	Three-phase 200	50/60	0 – 420	270	1	1250	
A730-0.75B	4C	0.75	4	Three-phase 200	50/60	0 – 420	310	1	1500	

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#### Applicable stands and tanks

N	/lixer	Applicable	Applicable tank			
Model	Power (kW)	stand	Арріісавіе tarik			
	0.06	ZS-3	ZT-65, ZT-80, ZT-100, ZT-150			
	0.00	ZU-1	ZT-150			
	0.09	ZS-3	ZT-65, ZT-80, ZT-100, ZT-150			
A 700	0.09	ZU-1	ZT-150			
A730	0.2	ZS-4	ZT-200 300 – 2000 ℓ			
	0.4	ZS-4	000, 0000 4			
	0.4	ZS-5	- 300 - 2000 ℓ			

<sup>\*</sup> ZU-1 (Universal mount) is an option.

#### Motion controller (Option)

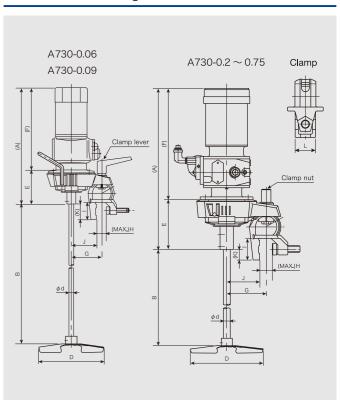
In addition to the normal speed adjusting by turning handle, remote operation by Automatic control panel is available.

Auto rater LA basic control panel, etc.

#### Options

Electric component	Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, etc.
	Wetted part : Buffing, Electrochemical polishing, Welding, etc.
Sanitary	Body: Stainless steel cover for motor, speed changer and reducer, Stainless coating, Special plating, etc.
Other options	One touch coupling, Safety cover, etc.

#### Dimensional drawing



#### Standard dimensions

	France	Motor		Dimension (mm)												Estimated
Model	Frame number	Motor (kW)	(A)	В	B-MAX (Option)	φd	D	E	(F)	G	H (MAX)	ı	J	(K)	L	weight (kg)
		0.06 A	(411)	560	960	13	150	95	(316)	85	28	48	70	(48)	40	15
	1	0.06 B	(309)	560	960	13	150	95	(214)	85	28	48	70	(48)	40	15
		0.09 A	(411)	560	960	13	180	95	(316)	85	28	48	70	(44)	40	15
4700			0.09 B	(402)	560	960	13	180	95	(307)	85	28	48	70	(48)	40
A730		0.2 A	(552)	1190	1440	20	220	151	(401)	120	39	65	100	(37)	52	32
	3	0.2 B	(533)	1190	1440	20	220	151	(382)	120	39	65	100	(37)	52	32
_		0.4 B	(553)	1190	1440	20	270	151	(402)	120	39	65	100	(37)	52	34
	4C	0.75 B	(647)	1425	1675	25	310	185	(462)	140	58	90	115	(48)	120	54

<sup>\*</sup>Dimension A, F and weight in the table above vary depending on the brand of motor. \* The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.

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<sup>\*</sup>The standard materials for the shaft and the impeller are SUS304 or SUS316. \*Condenser motor is used as the single-phase 100V motor for 0.06kW and 0.09kW.

<sup>\*</sup>This model is the successor to A520V model.

<sup>\*</sup> Please ask us about the applicable stand and tank for 0.75kW mixer.

<sup>\*</sup> Tanks with "  $\ell$  " notation are special items.

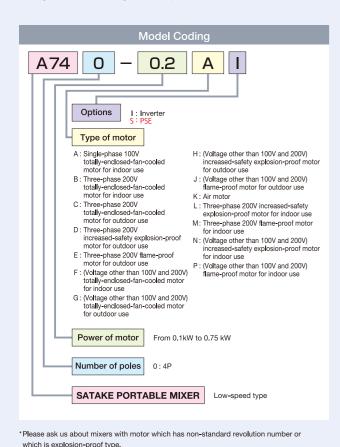
<sup>\*</sup>The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

# A740

## Low-speed type

Number of revolution 50Hz: 150min<sup>-1</sup> 60Hz: 180min<sup>-2</sup>

A740 can mix viscous liquids strongly and slowly, so it is suitable for mixing in which foaming must be prevented.



#### L18 Impeller For Low-speed type

The blades are twisted to control the direction of the discharging flow. The twisted blades also propel the liquid forcefully in the axial direction. This impeller is effective in operations with a low liquid level or when a large d/D value is required.



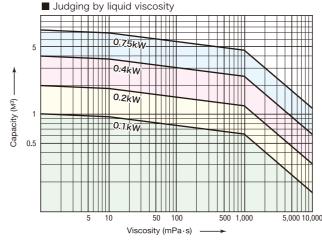
#### Standard specification

			Motor			Impelle			
	Frame		MOTO			Impelle	1		Shaft
Model	number	Power	Number of poles	Phase and voltage	Frequency	Revolution	Diameter	Stage	length
		(kW)	(P)	(V)	(Hz)	(min <sup>-1</sup> )	(mm)		(mm)
A740-0.1A		0.1	4	Single-phase	50	150	300	1	1000
A740-0.1A		0.1	-	100	60	180	300	_ '	1000
A740-0.1B		0.1	4	Three-phase	50	150	300	1	1000
A740-0.1B	2A	0.1	4	200	60	180	300	'	1000
A740-0.2A		0.2	4	Single-phase	50	150	350	1	1000
A740-0.2A		0.2	7	100	60	180	330	'	1000
A740-0.2B		0.2	4	Three-phase	50	150	350	1	1000
A740-0.2D		0.2	-	200	60	180	330	_ '	1000
A740-0.4B	4B	0.4	4	Three-phase	50	150	400	1	1250
A740-0.4B	40	0.4	4	200	60	180	400	'	1230
A740-0.75B	4C	0.75	4	Three-phase	50	150	450	1	1750
A740-0.73B	40	0.75	4	200	60	180	450 1		1750

<sup>\*</sup>The standard materials for the shaft and the impeller are SUS304 or SUS316.

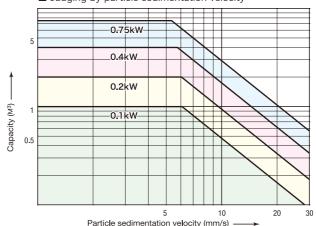
\*Please ask us about the specification of the air-motor type.

#### Charts to select the mixing capacity (For Low-speed type)



\* Please refer to us when the viscosity is 5000 mPa • s or more, or when the specific

#### ■ Judging by particle sedimentation velocity



- $^{\star}$  This chart shows the case where the specific gravity is from 2 to 3 and the viscosity is 50 mPa  $^{\star}$  s.
- \* Please refer to us when the impeller diameter is 25% of the tank diameter or smaller.

#### Options

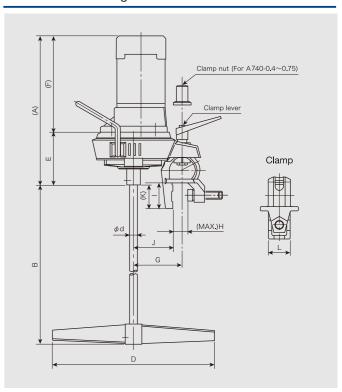
Electric component	Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, etc.
	Wetted part : Buffing, Electrochemical polishing, Welding, etc.
Sanitary	Body: Stainless steel cover for motor, speed changer and reducer, Stainless coating, Special plating, etc.
Other options	One touch coupling, Safety cover, etc.

#### Applicable stands and tanks

N	1ixer	Applicable	Applicable tank
Model	Power(kW)	stand	
	0.1	ZS-3	ZT-150, ZT-200 300 − 800 ℓ
		ZU-1	ZT-150, ZT-200
A740	0.2	ZS-3	ZT-150, ZT-200 300 − 800 ℓ
		ZS-4	300 − 2000 ℓ
	0.4	ZS-4	300 - 3000ℓ
	0.4	ZS-5	300 - 3000 2

\* ZU-1 (Universal mount) is an option.

#### Dimensional drawing



#### Standard dimensions

	_							Dimer	nsion (mm)							Estimated
Model	Frame number	Motor (kW)	(A)	В	B-MAX (Option)	φd	D	E	(F)	G	H (MAX)	ı	J	(K)	L	weight (kg)
		0.1 A	(359)	950	1200	16	300	115	(244)	105	32	55	85	(56)	45	16
		0.1 B	(298)	950	1200	16	300	115	(183)	105	32	55	85	(56)	45	13
4740	2A	0.2 A	(379)	950	1200	16	350	115	(264)	105	32	55	85	(56)	45	18
A740		0.2 B	(323)	950	1200	16	350	115	(208)	105	32	55	85	(56)	45	15
	4B	0.4 B	(440)	1190	1440	20	400	200	(240)	140	48	80	120	(38)	70	24
	4C	0.75 B	(489)	1675	1925	25	450	202	(287)	140	58	90	115	(48)	120	36

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<sup>\*</sup>This model is the successor to A540 model

<sup>\*</sup> Tanks with "\$\mathcal{e}" notation are special items.

\* Please ask us about the applicable stand and tank for 0.75kW mixer.

<sup>\*</sup> Dimension A, F and weight in the table above vary depending on the brand of motor. \*The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.

<sup>\*</sup> The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

## **SATAKE PORTABLE MIXER**

# A750

#### High-speed type

Number of revolution 50Hz: 1450min<sup>-1</sup> 60Hz: 1750min<sup>-1</sup>

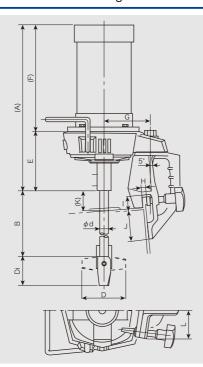
A750 can be mounted on the chime of a steel drum Class1 (200L) as per JIS Z1601. The impeller spreads its blades as it spins.

\* Do not operate the mixer without fixing on a drum.

\* The air-motor type is also available.



#### Dimensional drawing



#### Standard specification

	Frame		Motor			Impelle	r		Shaft
Model	number	Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution	Diameter (mm)	Stage	length
		. ,		Single-phase	50	1450	80		, ,
A750-0.1AS		0.1	4	100	60	1750	70	1	800
A750-0.1BS	1	0.1	4	Three-phase	50	1450	80	4	800
A750-0.165		0.1	4	200	60	1750	70	'	800
A750-0.2AS		0.2	4	Single-phase	50	1450	90	1	850
A730-0.2A3		0.2	4	100	60	1750	80	'	030
A750-0.2BS	2	0.2	4	Three-phase	50	1450	90	-1	850
A730-0,263		0.2	4	200	60	1750	80	'	030
A750-0.4BS		0.4	4	Three-phase	50	1450	105	-1	850
A750-0.465		0.4	4	200	60	1750	90	'	630

 $<sup>{}^{\</sup>star}\text{The}$  standard material for the shaft and the impeller is SUS304.

#### Standard dimensions

										Dimensi	on (mm	)							Estimated
Model	Frame number	Motor (kW)	(A)	В	B-MAX	фd	50	Hz	60	Hz	E	(F)	G	Н		J	(K)	L	weight
		(,	( )		(Option)	, ,	D	Di	D	Di	_	(. )		(MAX)			(, ,	_	(kg)
		0.1A	(269)	760	960	13	80	49	70	44	87	(182)	85	10	22	73	(79)	115	10
	ı	0.1B	(260)	760	960	13	80	49	70	44	87	(173)	85	10	22	73	(79)	115	10
A750		0.2A	(307)	800	1200	16	90	58	80	53	102	(205)	105	10	22	73	(76)	115	14
	2	0 <b>.</b> 2B	(277)	800	1200	16	90	58	80	53	102	(175)	105	10	22	73	(76)	115	14
		0.4B	(357)	800	1200	16	105	66	90	58	127	(230)	105	10	22	73	(51)	115	15

<sup>\*</sup>Dimension A, F and weight in the table above vary depending on the brand of motor.

\*The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.

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A PSE compatible mixer has a motor with a thermal protector, so it is protected by burnout due to overload of the motor. In addition, the mixer comes with a power switch and a plug-in cord as standard accessories, so you can easily start using the mixer by connecting the cord to a grounded outlet.

#### Single-phase plug-in cord Three-phase





#### Three-phase plug-in cord





15A rubber cap with 3P earth terminals (250V 15A) Cord length 3m

From April 1, 2006, manufacturers are obliged to sell PSE compatible type mixers when their customers require non-explosion-proof type mixer whose motor power is less than 0.4kW.

If you install the mixer in a plant as a part of one device, we sell it separately as before after confirming that you install safety devices and switches to the control panel.

PSE compatible type mixers are available only in Japan

# The Power switch and the Overload protective device

varies depending on models.

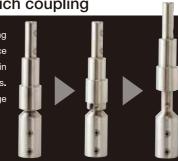


## **Options**

#### One touch coupling

You can easily remove the mixing shaft from the drive shaft. This device is useful when you clean the parts in food, medical, or chemicals factories. This device helps you to change another tank easily.

JPN PAT.5637587



#### Safety cover

This cover avoids accidents due to the rotating shaft.

Fully open condition Intermediate condition Fully closed condition

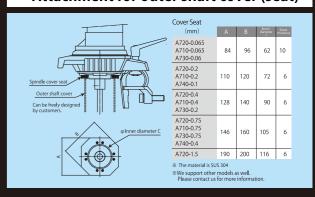
Besides this, "alumite treatment of the main body" which improves corrosion resistance of stirrer and "change to SUS 304 clamp (part of  $0.1 \, \mathrm{kW} \cdot 0.2 \, \mathrm{kW}$  model)" etc. are also possible.

#### Inverter and Control panel

It is possible to connect a three-phase 200V Portable Mixer with a power source through an inverter to control the speed electrically without steps. An inverter for single-phase 100V power is also available.



#### Attachment for outer shaft cover (seat)



K02 Impeller

<sup>\*</sup>The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

This model is the successor to AD510 model.

All models are compatible with PSE (up to 0.4kW)

## **SATAKE PORTABLE MIXER**

# **MOUNT UNITS Z** Series

These are special stands for our Portable Mixers. You can install the mixer even if it is difficult to set it directly on the tank due to the shape, strength and structure.

- \* Every stand of this series is "ready-to-assemble" type. You can assemble it easily with a hex wrench.
- \* You can get these stands separately but we sell in sets with a mixer, a tank and a stand.

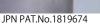
#### Option

#### **ZU-1**

#### Universal mount

This is a one-size-fits-all mount for our Portable Mixers. You can mount this ZU-1 on various size of tank by adjusting the bolts.







#### **ZS-1**

#### Hand-driven stand

This stand can be assembled easily and smoothly moved up and down. Appropriate for small volume mixing.



#### **ZS-2 ZS-3** Spring balancer stand

Using the spring balancer, this stand allows it lift a mixer with a force of 10 to 20% of the mixer weight.

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It doesn't require lubricating.

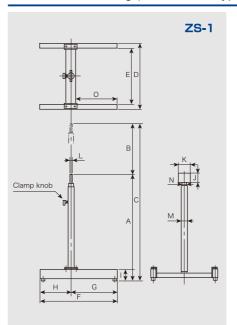


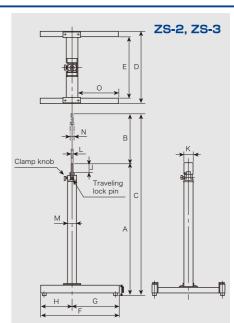
## **ZS-4 ZS-5**

Hydraulically-operated stand

Foot-operated hydraulic pump makes it easy to lift a mixer. It comes with casters.

#### Dimensional drawing (Hand-driven type)

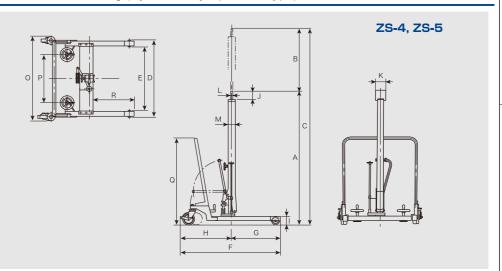




#### Dimension (Hand-driven type)

Model	Dimension (mm)														Weight	Lift Weight	
IVIOUEI	Α	В	С	D	Е	F	G	Н	1	J	K	L	М	N	0	(kg)	(kg)
ZS-1	700	330	1030	430	370	500	300	200	74	60	70	9	φ42	φ34	270	8.5	8.3
ZS-2	930	380	1310	515	425	560	340	220	97	80	80	12	□80	φ34	290	20	12.5
ZS-3	1200	450	1650	650	560	700	420	280	97	80	80	12	□80	φ34	370	26	13.5

#### Dimensional drawing (Hydraulically-operated type)



#### Dimension (Hydraulically-operated type)

Model							Dir	mens	ion (	mm)								Weight	Lift Weight
iviodei	Α	В	С	D	Е	F	G	Н	1	J	K	L	М	0	Р	Q	R	(kg)	(kg)
ZS-4	1400	650	2050	776	660	1090	460	580	90	110	125	19	□70	895	500	900	475	60	33
ZS-5	1650	700	2350	961	845	1365	645	670	90	130	170	25	□80	1080	685	900	655	74	40

<sup>\*</sup> Dimension B shows the up-and-down stroke width.

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#### Option

Stand made of SUS304 is also available.

#### Applicable mixer

A 12	Applicat	ole mixer	
Applicable stand	Model	Power	Applicable tank
Stariu	Model	(kW)	
	A720	0.065	ZT-20, ZT-25,
ZS-1	7,720	0.000	ZT-35, ZT-45,
20 1	A710	0.065	ZT-65, ZT-80,
	717 10		ZT-100, ZT-150
	A720	0.1	ZT-65, ZT-80,
ZS-2	4740	0.4	ZT-100, ZT-150,
	A710	0.1	ZT-200
	A730	0.06	ZT-65, ZT-80,
	A730	0.09	ZT-100, ZT-150
	A720	0.2	
ZS-3	A710	0.2	
	A730	0.06AS	ZT-150, ZT-200
	A730	0.09AS	300 - 800 ℓ
	A740	0.1	
	A740	0.2	
	A710	0.2	300 - 800 ℓ
	A720	0.2	
	A720	0.4	300 - 2000ℓ
ZS-4	A710	0.4	
23-4	A730	0.2	ZT-200, 300 - 2000 ℓ
	A730	0.4	
	A740	0.2	300 - 2000ℓ
	A740	0.4	
	A710	0.4	300 - 2000ℓ
	A720	0.4	
ZS-5	A720	0.75	
25-5	A710	0.75	200 2000 4
	A730	0.4	300 - 3000 ℓ
	A740	0.4	
	A740	0.75	
	4700	0.005	ZT-65, ZT-80,
	A720	0.065	ZT-100, ZT-150
			ZT-65, ZT-80,
	A720	0.1	ZT-100, ZT-150,
			ZT-200
	A720	0.2	ZT-200
ZU-1	4740	0.005	ZT-65, ZT-80,
/ Universal \	A710	0.065	ZT-100, ZT-150
mount			ZT-65, ZT-80,
	A710	0.1	ZT-100, ZT-150,
			ZT-200
	A710	0.2	ZT-200
	A730	0.06	
	A730	0.09	ZT-150
	A740	0.1	ZT-150, ZT-200
* Tanks shown in		above with t	their sizes ( $\ell$ ) are optional

\* Tanks shown in the table above with their sizes (  $\ell$  ) are optional tanks. (Self-standing type)

\* ZU-1(Universal mount) is an option.

\* Mixers other than the standard ones can' t be mounted on ZS-2

<sup>\*</sup> Dimension B shows the up-and-down stroke width.
\* The standard painting color is N1.0 of Munsell color system.

<sup>\*</sup> The standard painting color is N1.0 of Munsell color system. \* Rear casters:  $\phi$  125\*38 two swivel rubber wheels (One side with brake)

# **SATAKE PORTABLE MIXER**

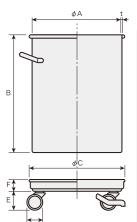
# **MIXER TANKS ZT Series**

9 different sizes of buffed tank from 20 liters to 200 liters. Casters for the tank are also available. The standard material is SUS304.



#### Applicable mixers and stands

Tanka II	A U I	Applica	ble mixer
Tank model	Applicable stand	Model	Power (kW)
ZT-20		A720	0.065
ZT-20 ZT-25 ZT-35 ZT-45	ZS-1	A710	0.065
21-43		A720	0.065
	ZS-1	A710	0.065
ZT-65		A710	0.1
ZT-80	ZS-2	A710	0.1
	ZS-3	A730	0.06 · 0.09
ZT-100	ZU-1	A720	0.065 · 0.1
	(Universal Mount)	A710	0.065 · 0.1
	1	A720	0.065
	ZS-1	A710	0.065
		A720	0.1
	ZS-2	A710	0.1
		A720	0.2
<b></b>	70.5	A710	0.2
ZT-150	ZS-3	A730	0.06 · 0.09
		A740	0.1 · 0.2
		A720	0.065 · 0.1
	ZU-1	A710	0.065 · 0.1
	(Universal) Mount	A730	0.06 · 0.09
	( Mount /	A740	0.1
	70.0	A720	0.1
	ZS-2	A710	0.1
		A720	0.2
	ZS-3	A710	0.2
ZT-200		A740	0,1 · 0,2
	ZS-4	A730	0.2
	ZU-1	A720	0.1 · 0.2
	/Universal\	A710	0.1 · 0.2
	Mount /	A740	0.1
		A720	0.2
	ZS-3	A710	0.2
		A740	0.1 · 0.2
000 1		A720	0.2 · 0.4
300 ℓ	70.4	A710	0.2 · 0.4
I	ZS-4	A730	0.2 · 0.4
800ℓ		A740	0.2 · 0.4
300 ž		A720	0.4 · 0.75
	ZS-5	A710	0.4 · 0.75
	20-0	A730	0.4
		A740	0.4
		A720	0.2 · 0.4
	ZS-4	A710	0.4
1000ℓ	20-4	A730	0.2 · 0.4
ı		A740	0.2 · 0.4
		A720	0.4 · 0.75
2000ℓ	ZS-5	A710	0.4 · 0.75
	20-0	A730	0.4
		A740	0.4
2500ℓ		A720	0.4 · 0.75
I	ZS-5	A710	0.75
3000ℓ		A730	0.4



## Standard specification

Otarida											
Model	Dimension	Thickness	Maximum capacity								
	A×B (mm)	t (mm)	(1)								
ZT-20	300 × 300	0.8	20								
ZT-25	330 × 330	0.8	25								
ZT-35	360 × 360	0.9	35								
ZT-45	390 × 390	0.9	45								
ZT-65	430 × 450	1.0	65								
ZT-80	470 × 470	1.2	80								
ZT-100	470 × 600	1.2	100								
ZT-150	565 × 600	1.2	150								
ZT-200	565 × 900	1.2	200								

#### Standard dimension of tank caster

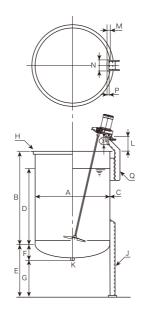
Model	Applicable	Inside diameter	Wheel diameter	Height	Depth
	tank	C (mm)	D (mm)	E (mm)	F (mm)
ZC-20	ZT-20	305	50	65	40
ZC-25	ZT-25	335	50	65	40
ZC-35	ZT-35	365	63	82	40
ZC-45	ZT-45	395	63	82	40
ZC-65	ZT-65	435	75	101	40
ZC-80	ZT-80	475	75	101	40
ZC-100	ZT-100	475	75	101	40
ZC-150	ZT-150	575	100	119	50
ZC-200	ZT-200	575	100	119	50

- \* Casters for a drain tank are not standardized.
  \* Casters are swivel type and have stoppers.
- \*We can manufacture self-standing tanks (100-5000L) with mixer mount other than the standard tanks.

  \*We can attach valves and nipples to drain fluid from the tank bottom. For example, ball valves whose sizes are 1/4B, 3/8B, 1/2B, 1B, 11/2B (made of SUS316) can be attached (same or different diameter)
- $^{\star}$  Tanks shown in the table above with their sizes (  $\ell$  ) are optional tanks (self-standing type)

\* If you use ZU-1, the shaft length should be changed. Please inquire us.

#### Specification of optional tanks



Model	Available capacity	Maximum capacity					Та	ank dim	ension	(mm)			Weigl	ht (kg)
	l	l	Α	В	С	D	Е	F	G	H(SUS)	J(SS)	К	Tank	Lid*
ZTF-100	100	130	500	600	3	450	450	134	316	L25×25×3	3-L50×50×6	1/2 B Socket	43	3
ZTF-150	150	182	550	700	3	562	450	144	306	L30×30×3	3-L50×50×6	1/2 B Socket	51	4
ZTF-200	200	260	650	700	3	520	450	163	287	L30×30×3	3-L50×50×6	1/2 B Socket	60	5.5
ZTF-300	300	361	700	850	3	692	500	173	327	L40×40×3	4-L50×50×6	1/2 B Socket	77	6.5
ZTF-400	400	478	800	850	3	695	500	192	308	L40×40×3	4-L50×50×6	1/2 B Socket	88	8
ZTF-500	500	600	850	950	3	770	500	202	298	L40×40×3	4-L65×65×6	1/2 B Socket	106	9
ZTF-800	800	963	1000	1100	3	900	550	240	310	L40×40×5	4-[100×50×5	1B Socket	155	12
ZTF-1000	1000	1177	1100	1100	3	910	550	260	290	L40×40×5	4-[100×50×5	1B Socket	170	19
ZTF-1500	1500	1721	1250	1245	4	1065	600	290	310	L40×40×5	4-[100×50×5	1B Socket	260	24
ZTF-2000	2000	2275	1300	1550	4	1345	600	298	302	L50×50×6	4-[125×65×6	1B Socket	335	26
ZTF-2000S	2000	2273	1400	1300	4	1125	600	318	282	L50×50×6	4-[125×65×6	1B Socket	325	30
ZTF-2500	2500	3073	1500	1550	4	1230	700	370	330	L50×50×6	4-[125×65×6	1B JIS 10KF	400	34
ZTF-3000	3000	3603	1500	1850	4	1510	700	370	330	L50×50×6	4-[125×65×6	1B JIS 10KF	448	34
ZTF-3000S	3000	3521	1600	1550	4	1290	750	400	350	L50×50×6	4-[125×65×6	1B JIS 10KF	422	38
ZTF-3500	3500	4125	1600	1850	4	1540	700	400	300	L50×50×6	4-[150×75×9	1B JIS 10KF	524	38
ZTF-3500S	3500	4004	1700	1550	4	1330	800	430	370	L50×50×6	4-[150×75×9	1B JIS 10KF	514	43
ZTF-4000	4000	4685	1700	1850	4	1550	800	430	370	L65×65×6	4-[150×75×9	11/2 B JIS 10KF	575	45
ZTF-4000S	4000	4520	1800	1500	4	1345	800	450	350	L65×65×6	4-[150×75×9	1 <sup>1</sup> / <sub>2</sub> B JIS 10KF	550	50
ZTF-4500	4500	5285	1800	1850	5	1542	800	450	350	L65×65×6	4-[200×90×8	11/2 B JIS 10KF	750	50
ZTF-5000	5000	5924	1900	1850	5	1530	900	500	400	L65×65×6	4-[200×90×8	2B JIS 10KF	800	56

 $<sup>^{\</sup>star}$  When the dimension A is 1000 or less, the lid thickness is 1.5t, and if more than that, the thickness is 2.0t.

#### Dimension of mixer mount

Please refer to the table below when you arrange a mixer mount for yourself.

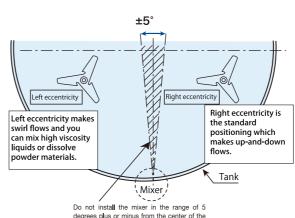
- 1	Model			Dime	ension	of mi	xer mount (mm)	
	iviodei	L	М	N	0	Р	Q	Weight (kg)
	A720-0.065	100	0	85	60	12	[75×40×5	5(7)
	A720-0.1	100	35	85	60	12	[75×40×5	5(7)
	A720-0.2	130	40	110	70	12	[100×50×5	7(9)
	A720-0.4	150	45	160	90	16	[150×75×9	19(23)
	A720-0.75, A725-0.4	230	45	220	120	22	[200×80×7.5	25(31)
	A720-1.5, A725-0.75	230	45	220	120	22	[200×80×7.5	25(31)
	A730-0.06	100	15	85	60	12	[75×40×5	5(7)
	A730-0.09	100	30	85	60	12	[75×40×5	5(7)
	A730-0.2	130	20	160	90	16	[150×75×9	19(23)
	A730-0.4	180	45	220	120	22	[200×80×7.5	25(31)
	A730-0.75	180	50	220	120	22	[200×80×7.5	25(31)

Model			Dime	nsion	of mi	xer mount (mm)	
Model	L	М	N	0	Р	Q	Weight (kg)
A710-0.065	100	0	85	60	12	[75×40×5	5(7)
A710-0.1	100	0	85	60	12	[75×40×5	5(7)
A710-0.2	130	0	110	80	12	[100×50×5	7(9)
A710-0.4	150	0	160	110	16	[150×75×9	19(23)
A710-0.75, A715-0.4	180	0	220	120	22	[200×80×7.5	25(31)
A710-1.5, A715-0.75	180	0	220	120	22	[200×80×7.5	25(31)
A740-0.1	130	75	110	70	12	[100×50×5	8(10)
A740-0.2	130	100	110	70	12	[100×50×5	8(10)
A740-0.4	180	90	160	90	16	[150×75×9	23(27)
A740-0.75	180	120	220	120	22	[200×80×7.5	27(33)

<sup>\*</sup> Figures shown in () are the weights of the mixer mounts for the jacketed type tanks.

#### Mounting position

#### **Eccentric mounting**



Do not install the mixer in the range of 5 degrees plus or minus from the center of the tank. Provided that some baffles are installed in the tank, you can attain good mixing effect. Please refer to page19 for information about baffles.

#### Mounting angles

50mm

or more

# Liquid surface 5°-20° 50mm

#### Z dimension (From the impeller to the liquid surface)

A720, A760	1.5D or more
A710*	2.0D or more
A730	1.5D or more
A740	0.5D or more

\* The dimension is from the upper impeller position in the case of A710.

Please refer to the CAD data and dimension tables on our website for the appropriate shaft length and impeller position. (Member registration is required. These data are only available in Japanese.)

http://www.satake.co.jp

<sup>\*</sup> We have the jacketed type tank, too.

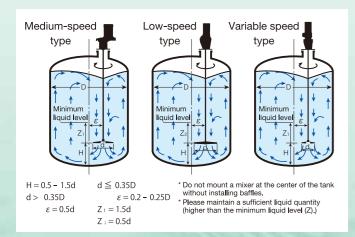
# Smallest flange top mount type mixers

#### Mounting position for flange type mixers and their flow patterns

To decide the position of mixer, you have to find the best flow pattern to achieve your objective in consideration for the specific gravity and viscosity of the liquid, mixing ratio, mixing time, etc.

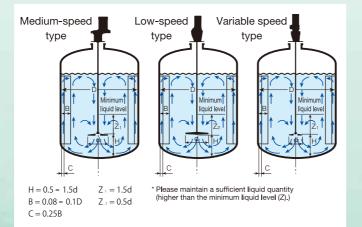
#### **Eccentric mounting**

Eccentric mounting without baffles provides good turbulence flows.



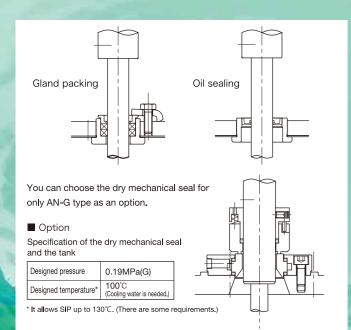
#### Center mounting with baffles

Thanks to the baffles, swirl flows are reduced and vertical convective flows are generated. Preferred number of the baffles is from 2 to 4. Please install them by the internal wall of the tank dividing the circumference equally at right angle to

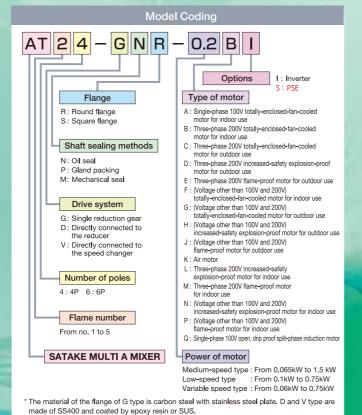


#### Sealing

The standard sealing methods are oil sealing and gland packing.



- \* The structure can differ according to the mixer model.
- \* Gland packing and oil seal are not heat-resistant, pressure resistant, and completely closable one. If you require these functions, please choose the dry mechanical seal or our "Multi S Mixers".



\* Please ask us about the specification of the Air-motor type

# AT -G Series

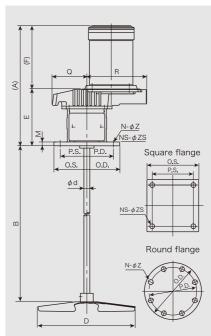
#### Medium-speed type

umber of revolution 50Hz: 300min<sup>-1</sup> 60Hz: 360mi

AT-G type is ideal for soluble liquids mixing, dilution, heat transfer, solid-liquid mixing, dispersion, antisedimentation and homogeneous mixing. Compact, light, but tough.

Please refer to A720 (page 4) about the mixing capacity.

#### Dimensional drawing



P36 Impeller

JPN PAT.No.827551

#### Standard specification

			Moto	or		Impelle	r		Shaft
Model	Frame number	Power	Number of poles	Phase and voltage	Frequency	Revolution	Diameter	Stage	length
		(kW)	(P)	(V)	(Hz)	(min <sup>-1</sup> )	(mm)		(mm)
AT14-G -0.065A		0.065	4	Single-phase	50	300	150	1	689
A114 G 0.000A		0.000	_	100	60	360	150	'	000
AT14-G□□-0.1A	1	0.1	4	Single-phase	50	300	220	1	889
A114-0_0-0.1A	'	0.1	4	100	60	360	220	'	003
AT14-G□□-0.1B		0.1	4	Three-phase	50	300	220	1	889
A114-G0.1B		0.1	4	200	60	360	220	' '	009
AT24-G□□-0,2A		0.2	4	Single-phase	50	300	270	1	1109
A124-G0.2A	2	0.2	4	100	60	360	270	' '	1109
AT24-G□□-0,2B		0.2	4	Three-phase	50	300	270	1	1109
A124-G0.2B		0.2	4	200	60	360	270	' '	1109
AT34-G□□-0.4B	3	0.4	4	Three-phase	50	300	310	1	1399
A134-G0.46	٥	0.4	4	200	60	360	310	' '	1399
AT46-G□□-0,4B		0.4	6	Three-phase	50	200	350	1	1626
A140-G0.46	4	0.4	0	200	60	240	350	' '	1020
AT44-G□□-0.75B	4	0.75	4	Three-phase	50	300	350	1	1626
A144-G0.756		0.75	4	200	60	360	350	' '	1020
AT56-G□□-0.75B		0.75	6	Three-phase	50	200	400	1	1856
A 1 30-G0./3B	_	0.75	0	200	60	240	400	'	1000
ATE4 CDD 1 ED	5	4 5	4	Three-phase	50	300	400	1	1056
AT54-G□□-1.5B		1.5	4	200	60	360	400	'	1856

4	Three-phase 200 Three-phase 200 Three-phase	50 60 50 60	300 360 200 240	- 310 - 350	1
AT46-G -0.4B	Three-phase 200	50 60	200		1
4	200	60		350	1
4			240	330	
	Thron phace				<u>'</u>
	IIIIee-pilase	50	300	350	1
	200	60	360	330	'
AT56-G□□-0.75B 0.75 6	Three-phase	50	200	400	1
5	200	60	240	400	<u>'</u>
AT54-G□□-1.5B 1.5 4	Three-phase	50	300	400	1
A134-000-1.50 11.5 4	200	60	360	400	· ·

#### Standard dimensions

Model	Frame	Motor	(A)	В	B-MAX	φd	D	Е	Dir (F)		on (mm) NS-φZS	o.s.	P.S.	N-øZ	O.D.	P.D.	Q	R	Estimated weight
	number	(kW)	(Option)	P.D.	Q	n	(kg)												
		0.065 A	(317)	600	1050	13	150	135	(182)	12	4-15	165	130	8-15	185	150	84	134	14
	1	0.1 A	(317)	800	1050	13	220	135	(182)	12	4-15	165	130	8-15	185	150	84	134	14
		0.1 B	(308)	800	1050	13	220	135	(173)	12	4-15	165	130	8-15	185	150	84	134	14
AT-G	2	0.2 A	(365)	1000	1250	16	270	160	(205)	12	4-15	165	130	8-15	185	150	96	165	19
AT-G		0 <b>.</b> 2 B	(335)	1000	1250	16	270	160	(175)	12	4-15	165	130	8-15	185	150	96	165	19
	3	0.4 B	(421)	1300	1500	20	310	191	(230)	12	4-19	190	155	8-19	210	175	112	183	25
	4	0.75 B	(500)	1500	1750	25	350	240	(260)	16	4-23	230	190	8-23	250	210	125	215	40
	5	1.5 B	(578)	1700	1850	30	400	276	(302)	16	4-23	250	210	8-23	280	240	147	245	60

<sup>\*</sup> Dimension A, F and weight in the table above vary depending on the brand of motor.

\* The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller

Variable speed type mixers powered by compressed air (Air-motor type) are also available. We offer stainless type air-motor and unlubricated type air-motor.

<sup>\*</sup> The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

# AT \_-D series

#### Low-speed type

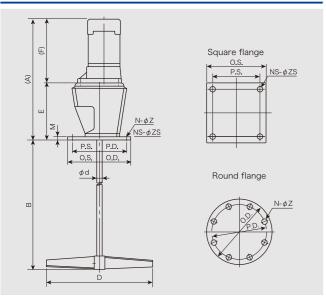
Number of revolution 50Hz: 150min - 60Hz: 180min

AT-D type can mix viscous liquids strongly and slowly, so it is suitable for mixing in which foaming must be prevented.

- \* Please contact us if you require a mixer with a motor of non-standard rotation speed or explosion-proof type motor.
  \* Please ask us about the specification of the air-motor type.

Please refer to A740 (page14) about the mixing capacity.

#### Dimensional drawing



#### Standard specification

	Frama		Mote	or		Impelle	r		Shaft
Model	Frame number	Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min <sup>-1</sup> )	Diameter (mm)	Stage	lenath
AT34-D□□-0.1A		0.1	4	Single-phase	50	150	300	1	924
ATOT DEE O.IA		0.1		100	60	180	300	'	324
AT34-D□□-0.1B		0.1	4	Three-phase	50	150	300	1	924
A104-D0.1D	3	0.1	7	200	60	180	300		324
AT34-D□□-0.2A	3	0.2	4	Single-phase	50	150	350	1	1124
A134-D0.2A		0.2	7	100	60	180	330	'	1124
AT34-D□□-0.2B		0.2	4	Three-phase	50	150	350	1	1124
A134-D0.2D		0.2	-	200	60	180	330	'	1124
AT44-D□□-0.4B	4A	0.4	4	Three-phase	50	150	400	1	1312
A144-D0.46	4A	0.4	4	200	60	180	400	'	1312
AT44-D□□-0.75B	1B	0.75	4	Three-phase	50	150	450	1	1527
\ \ 1 44-D     -0.73B	4B	0.75	"	200	60	180	450	'	1327



#### Standard dimensions

									Dimension	n (mm)	)						Estimated
Model	Frame number	Motor (kW)	(A)	В	B-MAX (Option)	φd	D	Е	(F)	М	NS-øZS	o.s.	P.S.	N-øZ	O.D.	P.D.	weight (kg)
		0.1 A	(451)	800	1100	16	300	207	(244)	9	4-19	190	155	8-19	210	1 5	21
	3	0.1 B	(390)	800	1100	16	300	207	(183)	9	4-19	190	155	8-19	210	175	18
AT-D		0.2 A	(471)	1000	1100	16	350	207	(264)	9	4-19	190	155	8-19	210	175	24
AI-D		0.2 B	(415)	1000	1100	16	350	207	(208)	9	4-19	190	155	8-19	210	175	20
	4A	0.4 B	(491)	1200	1400	20	400	251	(240)	12	4-23	230	190	8-23	250	210	30
	4B	0.75 B	(540)	1400	1600	25	450	253	(287)	12	4-23	230	190	8-23	250	210	39

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L18 Impeller

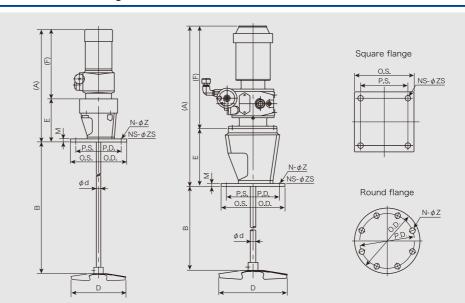
# AT -V series

#### Variable speed type

Number of revolution 50/60Hz: 0 - 420min

AT-V type can respond to the changes of liquid level and viscosity preventing excessive and insufficient mixing. Adjusting to slow rotating speed, the mixer can be operated safety during liquid draining, etc..

#### Dimensional drawing



#### Standard specification

	Frame		Moto	or		Impelle	er		Shaft
Model	number	Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution	Diameter (mm)	Stage	length
AT14-V0.06A		0.06	4	Single-phase 100	50/60	0 - 420	150	1	586
AT14-V□□-0.06B		0.06	4	Three-phase 200	50/60	0 - 420	150	1	586
AT14-V -0.09A	1	0.09	4	Single-phase 100	50/60	0 - 420	180	1	786
AT14-V0.09B		0.09	4	Three-phase 200	50/60	0 - 420	180	1	786
AT34-V□□-0.2A		0.2	4	Single-phase 100	50/60	0 - 420	220	1	1003
AT34-V□□-0.2B	3	0.2	4	Three-phase 200	50/60	0 - 420	220	1	1003
AT34-V□□-0.4B		0.4	4	Three-phase 200	50/60	0 - 420	270	1	1203
AT44-V□□-0.75B	4	0.75	4	Three-phase 200	50/60	0 - 420	310	1	1425

<sup>\*</sup>The standard materials for the shaft and the impeller are SUS304 or SUS316.

#### Standard dimensions

	_								Dimension	on (mn	n)						Estimated
Model	Frame number	Motor (kW)	(A)	В	B-MAX (Option)	φd	D	Е	(F)	М	NS-φZS	o.s.	P.S.	N- <i>φ</i> Z	O.D.	P.D.	weight (kg)
		0.06A	(457)	500	1000	13	150	141	(316)	9	4-15	165	130	8-15	185	150	18
		0.06B	(355)	500	1000	13	150	141	(214)	9	4-15	165	130	8-15	185	150	18
	'	0.09A	(457)	700	1000	13	180	141	(316)	9	4-15	165	130	8-15	185	150	18
AT-V		0.09B	(448)	700	1000	13	180	141	(307)	9	4-15	165	130	8-15	185	150	17
AI-V		0.2A	(595)	900	1300	20	220	194	(401)	9	4-19	190	155	8-19	210	175	37
	3	0 <b>.</b> 2B	(576)	900	1300	20	220	194	(382)	9	4-19	190	155	8-19	210	175	34
		0.4B	(547)	1100	1300	20	270	194	(402)	9	4-19	190	155	8-19	210	175	35
	4	0.75B	(565)	1300	1500	25	310	236	(462)	12	4-23	230	190	8-23	250	210	56

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P36 Impeller JPN PAT.No.827551

<sup>\*</sup> Dimension A, F and weight in the table above vary depending on the brand of motor. \* The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller. \* The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.

<sup>\*</sup> Dimension A, F and weight in the table above vary depending on the brand of motor.

<sup>\*</sup>The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.

\*The standard painting color is N5.5 of Munsell color system. The painting color for motor depends on each manufacturer's standard color.