

Achievements and trusted in a wide range of fields

Energy and petroleum industry

Crude oil, Asphalt, Pitch, Surfactants, Emulsion fuel, Biofuel, Nuclear power, Various storage tanks, etc.

Coal industry

COM, CWM, Surfactants, 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, Various storage tanks, etc.

Synthetic resin industry

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

Dye industry

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

Paint industry

Ink, Paint, Solvent, etc.

Pharmaceutical industry

Dye, Perfume, Emulsion, Various medical products, Cosmetics, Synthetic medicines, etc.

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.

Textile industry

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

Ceramic 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, Colorant, etc.

Brewing industry

Sake, Whiskey, Beer, Shochu, Diatomite, etc.

Fermentation 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, etc.

Waste water and effluent treatment plant

Polymer coagulant, Diatomite, Aluminum sulfate, Ferric sulfate, Caustic soda, Sulfuric acid, Sludge tank, Biological reactor, Sodium hypochlorite, Rapid mixing, Moderate mixing, etc.



<https://www.satake.co.jp>

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Scope of review:
Development, design, manufacture,
repair, and sales management of
mixing devices

We are constantly committed to improve the quality of our products, thereby the design and specifications of our products may differ from those shown in the catalog. Please understand this in advance.

We are dedicated to manufacture products that satisfy our customers and are safe to use.



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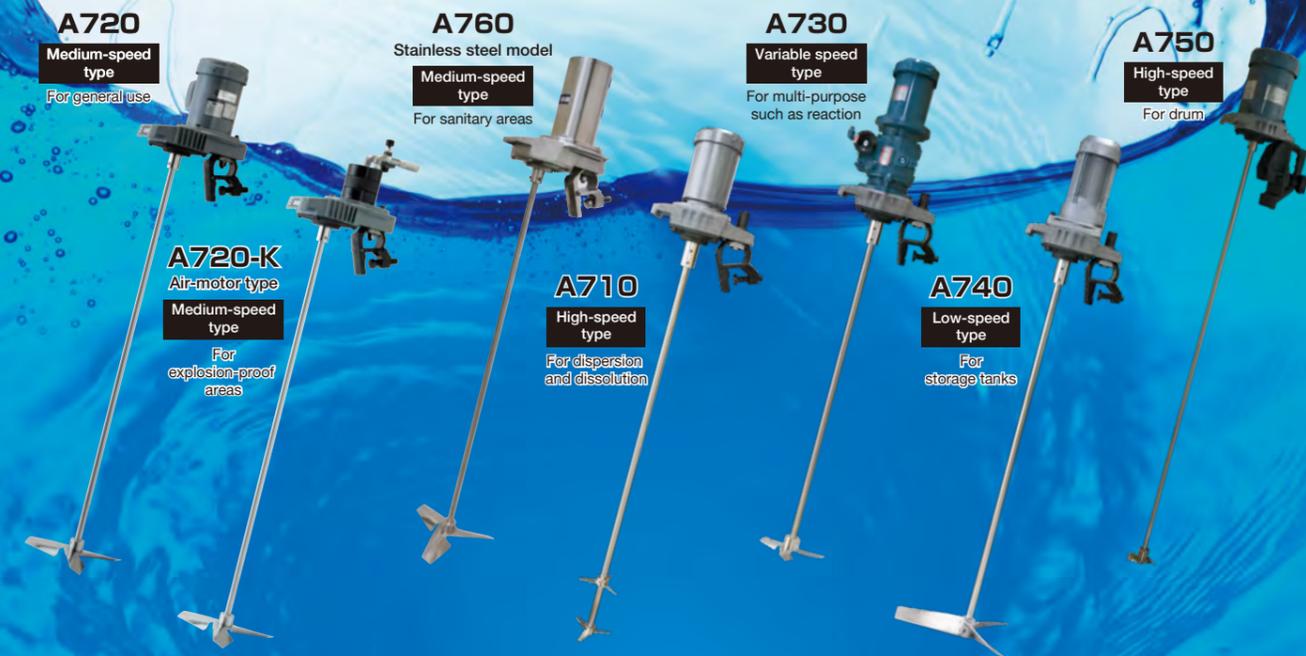
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Outstanding reliability and functionality based on Satake's long history and experiences.

Lineup of 700 series

SATAKE PORTABLE MIXER

Easily removable clamp-mounted type mixers



SATAKE MULTI A MIXER

The smallest flange-mounted mixer designed for cost reduction.



All SATAKE Mixers are Made in Japan.

All our products are assembled, manufactured, and inspected by our experienced staff in Japan since we established.

We are proud to recommend our products to our customers without compromising on quality.

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SATAKE PORTABLE MIXER

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SATAKE MULTI A MIXER

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Small and lightweight body

With its compact design and clamp-mounted structure, Portable Mixer is handy and can be installed anywhere as you like. Additionally, the clamp also can be moved freely, up to 60 degree for easy installation or removal.

Many variations

In addition to high-speed, low-speed, and medium-speed types, we also offer air motor type that is safe in explosion-proof areas, as well also the stainless-steel type which suitable for fine chemical, food, and pharmaceutical applications. We also have a lineup of **PSE-compliant types that are compatible with the Electrical Appliance and Material Safety Law (PSE)**, which became mandatory in Japan (2006).

Therefore, we also offer products that can meet the needs of customers in a wide range of industries (refer Page 18 for details on PSE).

High performance impellers

To provide optimal performance for specific purpose, we also developed high performance impellers of "P36", "S15", "L18" and "K02" by analyzed fluid flow pattern and measured fluid flow velocity distribution, as well also pressure inside tank (near the blades). Each type is equipped with these impellers as standard. These impellers were developed by Satake Japan, which owns the only mixing technology laboratory in Japan. These "High Performance Impellers" feature high mixing performance with low power, thereby contribute to energy-saving.

Free choice of materials

The shaft and impeller can be easily removed from the drive shaft as they are attached with set screws. The standard materials are SUS304 and SUS316. However, the material also can be customized to anti-corrosion metal, rubber lining, resin coating, etc.

Engineering plastic gear

For the Medium-speed type, a special gear made from engineering plastic is used to reduce noise. This gear needless oil maintenance as no lubrication is required.

Revision of design

We revised the structure and materials. While maintaining the compact design of the previous model, we revised each single component to create a simple yet robust mixer. The result is our customers can use with even greater peace of mind. Moreover, we also offer the "all-purpose mixer" of "EG Mixer" for small mixing volume.

Full range options

The wide range of options were designed to improve the quality of our products, as well as work efficiency and safety of our customers. To meet diversity needs of our customers, we offer original options such as oil-less air motor specifications for sanitary applications, covers to ensure safety, and one-touch couplings to improve work efficiency.

For more information, check out our web site.
(Some of the menu are written in Japanese.)



Mixer Selection

How to select the Satake Portable Mixer® on your own?

Please refer to the viscosity and particle settling velocity of the main substance shown in the tables below. Then, select the mixer model and power accordingly to the selection graph of each model.

Please refer also both graphs and select a model with higher power capacity, if mixing in a viscous liquid with settled particles.

1 Confirm the mixing purpose and select the target model.

General case

A720

Medium-speed type



Powder

Breaking

A710

High-speed type



High viscous

No-foam

A740

Low-speed type



Change in volume and property

A730

Variable-speed type



2 Confirm the property of mixing liquid

Table of Liquid Viscosity

Viscosity	Liquid	Temperature (°C)	Viscosity (cp)
about 50 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
	Kerosene	10	3
	Alcohol	20	few mPa · s
	Glycerin 50%	20	6
	Dynamo oil	20	100
	Sodium Hydroxide 50%	20	110
	Milk	24	2
	Soy sauce	24	8
	Calpis	24	20
	Concentrated Lactic Acid Bacteria Drink	24	31
about 1000 cp	Salad oil	24	65
	Tomato juice	24	77
	Olive oil	24	100
	Tomato juice	24	400
	Pork Cutlet Sauce	24	640
	Gum Syrup	24	850
	Honey	24 ~	~ 1,300
	Condensed milk	24 ~	~ 2,000
	Castor Oil	20	1,000
	Glycerin 100%	20	1,500
Please ask us	Crude Oil	25 ~	~ 2,500
	Ketchup	24	1,800
	Strawberry jam	23	6,000
	Mayonnaise	23	8,000
	Shoe polish	20	12,000
	Starch glue	22	29,000
	Tooth paste	21	30,000
Pomade	21	45,000	

* Please consult us if the liquid is extremely high-viscous.

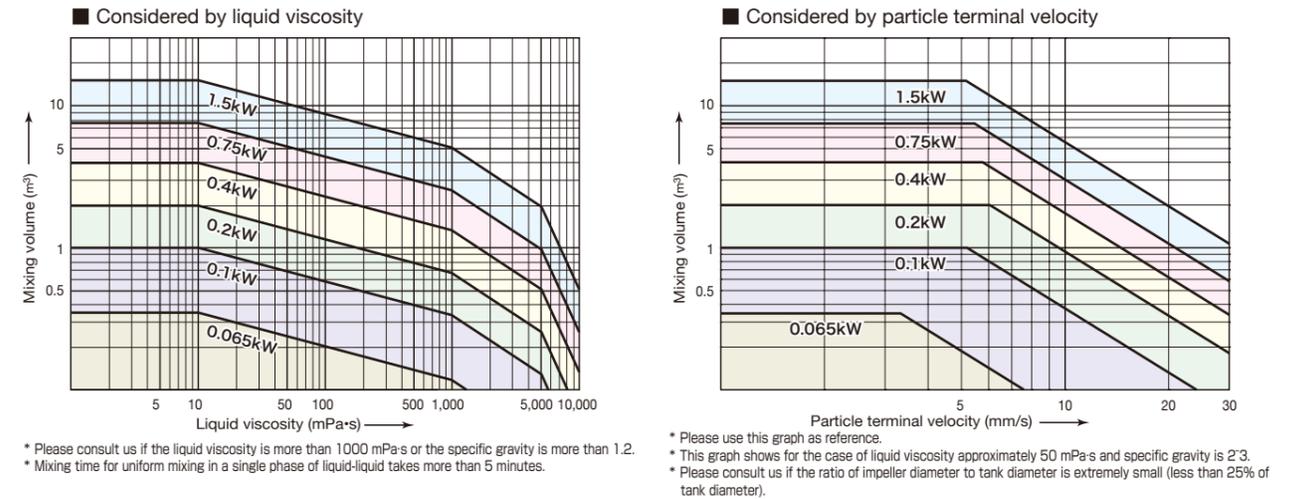
Table of Particle Terminal Velocity

Terminal velocity	Group	Particle	Particle size
about 1 mm/sec	Metals (Specific gravity : from 7 to 10)	Iron	10µm or less
		Copper	10µm or less
		Nickel	10µm or less
	Non-ferrous metals (Specific gravity : from 4 to 5)	Titanium	20µm or less
		Aluminum oxide	25µm or less
	Ceramics (Specific gravity : from 2 to 3)	Ferrite	20µm or less
		SiO2	35µm or less
		Zeolite	40µm or less
	Minerals (Specific gravity : from 2 to 3)	Graphite	40µm or less
		Cement	35µm or less
		Clay	40µm or less
	Carbonate hydroxide (Specific gravity : from 2 to 3)	Silica	40µm or less
		Caustic soda	35µm or less
		Slaked lime	40µm or less
	Foods (Specific gravity : around 1.5)	Calcium carbonate	30µm or less
Salt		50µm or less	
Sugar		60µm or less	
Resins (Specific gravity : up to 1.5)	Cornstarch	60µm or less	
	Vinyl chloride	60µm or less	
	Acrylic resin	80µm or less	
about 20 mm/sec	Metals (Specific gravity : from 7 to 9)	Nylon	100µm or less
		Metals	(Specific gravity : from 7 to 9) Above-mentioned ~70µm
		Non-ferrous metals	(Specific gravity : from 4 to 5) Above-mentioned ~100µm
	Ceramics (Specific gravity : from 2 to 3)	Ceramics	(Specific gravity : from 2 to 3) Above-mentioned ~130µm
		Minerals	(Specific gravity : from 2 to 3) Above-mentioned ~130µm
		Carbonate hydroxide	(Specific gravity : from 2 to 3) Above-mentioned ~130µm
	Foods (Specific gravity : around 1.5)	Foods	(Specific gravity : around 1.5) Above-mentioned ~200µm
		Resins	(Specific gravity : - 1.5) Above-mentioned ~250µm
		Metals	(Specific gravity : from 7 to 9) 70µm or more
	Please ask us	Non-ferrous metals (Specific gravity : from 4 to 5)	Non-ferrous metals
Ceramics (Specific gravity : from 2 to 3)			130µm or more
Minerals (Specific gravity : from 2 to 3)		130µm or more	
Carbonate hydroxide (Specific gravity : from 2 to 3)		130µm or more	
Foods (Specific gravity : around 1.5)		200µm or more	
Resins (Specific gravity : - 1.5)		250µm or more	

* Mother water: equivalent to water

* Please consult us if the slurry concentration is more than 10%.

3 Determine the motor power from the selected graphs of mixing volume.



4 Determine the motor types and options. (Please refer Page 18)

One touch coupling

The mixing shaft can be removed from drive shaft with a single touch, making it easy to clean parts for food and pharmaceutical industries etc. This also make it easy if changing tank.



Safety cover

Safety cover is also available to prevent accidents during operation.

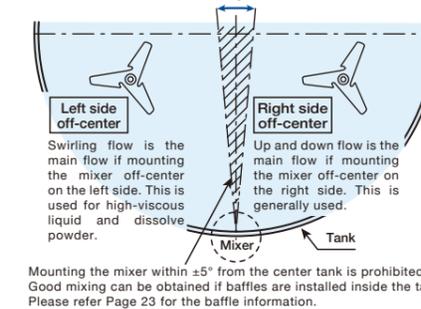


Regarding seals

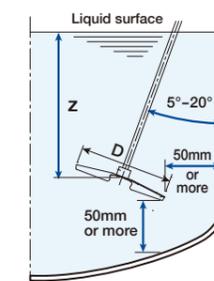
Please equipped with "Oil seal" to prevent foreign object contamination inside tank, if the mixer is used for food and pharmaceutical industries. Also, please equipped with "Dust seal" to prevent foreign object contamination inside the mixer if using under bad conditions as such steam, dust, etc.

5 Confirm the best mounting position

Off-center mounting ±5°



Mounting angles



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>

If you are unsure

Please feel free to consult us. We will propose the most suitable mixer to meet your needs. We also have rental equipment available, so please let us know if you would like to borrow one.

Regarding the operation that the liquid level passes over impeller position and empty operation
All models of Satake Portable Mixers and Multi-A Mixers are strictly prohibited from operating under the liquid level passes over impeller position and empty running.

What is the operation that the liquid level passes over impeller position?

In case of increasing or decreasing the liquid while running the mixer, the bottom impeller is from the stable condition without creating steady suction vortex (at the MIN.L.L. on the drawing) to the fully exposed in air condition (or conversely) within 10 minutes. Failure to do so may cause bending of the shaft. (Please check shaft runout, looseness of bolts, etc.)

What is empty operation?

A condition in which the bottom impeller is completely exposed in air due to operation through the liquid level. In the case of empty operation, there is no vibration control effect from the liquid, which can lead to shaft bending. Please stop the operation within 10 minutes.

A720, A725

Medium-speed type

Impeller speed 50Hz : 300min⁻¹ 60Hz : 360min⁻¹

The A720 and A725 are compact and lightweight with integrated design of clamp and body. It has good mixing efficiency, high durability, and can be used in a wide range of fields.

This new type of mixer is ideal for general soluble liquid-liquid mixing, dilution, heat transfer, relatively soluble solid-liquid mixing, dispersion, prevent solids suspension, and uniform mixing.

Model Coding

A72 **0** - **0.2** **A** **I**

Options I : Inverter
S : PSE-compliant type

Type of motor

- A : Single-phase 100V totally-enclosed-fan-cooled motor for indoor use
- B : Three-phase 200V totally-enclosed-fan-cooled motor for indoor use
- C : Three-phase 200V totally-enclosed-fan-cooled motor for outdoor use
- D : Three-phase 200V increased-safety explosion-proof motor for outdoor use
- E : Three-phase 200V flame-proof motor for outdoor use
- F : (Voltage other than 100V and 200V) totally-enclosed-fan-cooled motor for indoor use
- G : (Voltage other than 100V and 200V) totally-enclosed-fan-cooled motor for outdoor use
- H : (Voltage other than 100V and 200V) increased-safety explosion-proof motor for outdoor use
- J : (Voltage other than 100V and 200V) flame-proof motor for outdoor use
- K : Air motor
- L : Three-phase 200V increased-safety explosion-proof motor for indoor use
- M : Three-phase 200V flame-proof motor for indoor use
- N : (Voltage other than 100V and 200V) increased-safety explosion-proof motor for indoor use
- P : (Voltage other than 100V and 200V) flame-proof motor for indoor use

Power of motor From 0.065kW to 1.5 kW

Number of poles 0 : 4P
5 : 6P

SATAKE PORTABLE MIXER Medium-speed type



BTF300 Impeller
*option

The impeller blades are specially designed to open and close by centrifugal force. Since it is compact when not in use, allows it to pass through small openings.

P36 Impeller For Medium-speed type

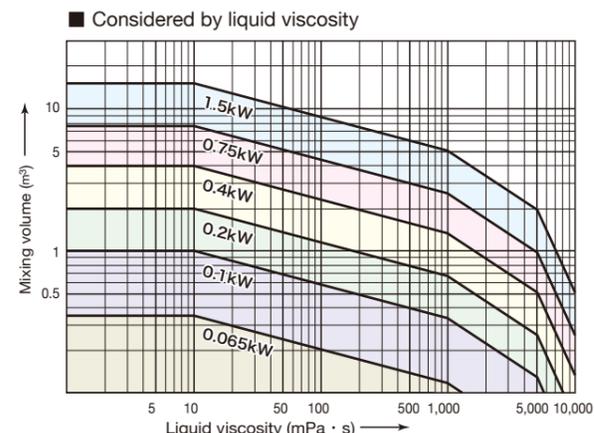
A high-performance hydrofoil-type impeller with camber and rake angle on the impeller blades. It creates the swirling flow, concentrates the flow in the axial direction and creates a high-speed axial flow.



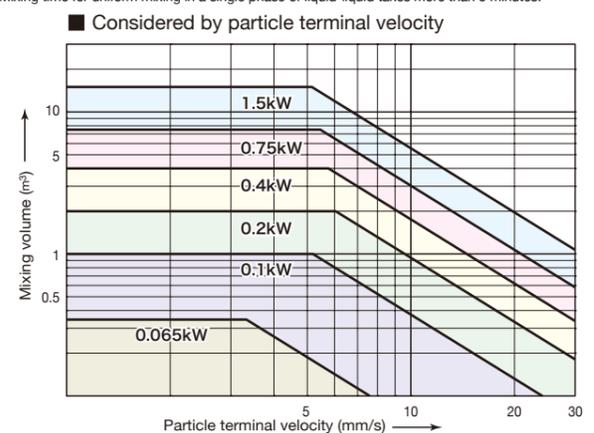
The **PSE-compliant type** comes with an overload protection device, switch and power cord. See [Page 18](#) for details.

A general-purpose type with rich nostalgia that inherits the basic performance.

Selected graphs of mixing capacity (Medium-speed type)



* Please consult us if the liquid viscosity is more than 1000 mPa·s or the specific gravity is more than 1.2.
* Mixing time for uniform mixing in a single phase of liquid-liquid takes more than 5 minutes.



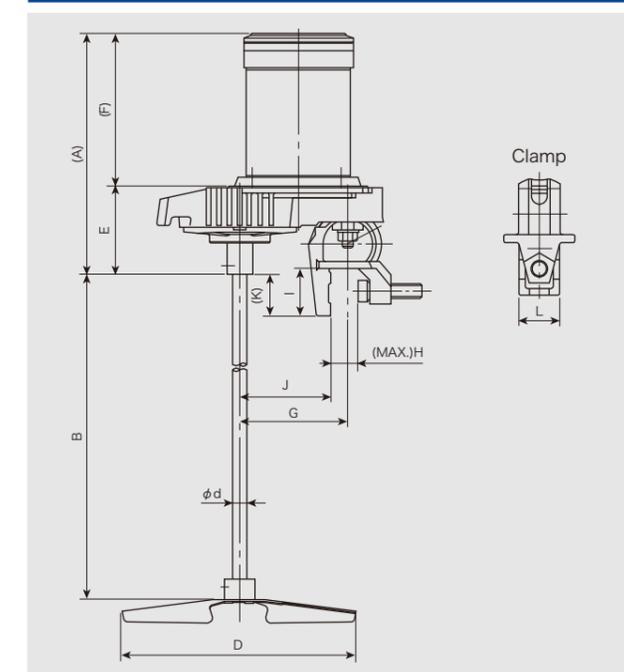
* Please use this graph as reference.
* This graph shows for the case of liquid viscosity approximately 50 mPa·s and specific gravity is 2~3.
* Please consult us if the ratio of impeller diameter to tank diameter is extremely small (less than 25% of tank diameter).

Applicable stands and tanks

Mixer		Applicable stand	Applicable tank
Model	Power(kW)		
A720	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
		ZU-1	ZT-200
		ZS-3	ZT-150, ZT-200
	0.2	ZS-4	300 - 800ℓ
		ZU-1	ZT-200
	0.4	ZS-4	300 - 2000ℓ
		ZS-5	300 - 2000ℓ
	0.75	ZS-5	300 - 3000ℓ

* ZU-1 (Universal mount) is an option.
* Tanks with "ℓ" notation are special items.
* Please consult us for the applicable stands and tank for 1.5kW.

Dimensional drawing



Standard specification

Model	Frame number	Motor			Impeller				Shaft length (mm)
		Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min ⁻¹)	Diameter (mm)	Stage	
A720-0.065A	1	0.065	4	Single-phase 100	50	300	150	1	600
60					360				
A720-0.1A	1	0.1	4	Single-phase 100	50	300	220	1	800
60					360				
A720-0.1B	1	0.1	4	Three-phase 200	50	300	220	1	800
60					360				
A720-0.2A	2	0.2	4	Single-phase 100	50	300	270	1	1000
60					360				
A720-0.2B	2	0.2	4	Three-phase 200	50	300	270	1	1000
60					360				
A720-0.4B	3	0.4	4	Three-phase 200	50	300	310	1	1250
					60	360			
A725-0.4B	4	0.4	6	Three-phase 200	50	200	350	1	1500
60					240				
A720-0.75B	4	0.75	4	Three-phase 200	50	300	350	1	1500
60					360				
A725-0.75B	5	0.75	6	Three-phase 200	50	200	400	1	2000
60					240				
A720-1.5B	5	1.5	4	Three-phase 200	50	300	400	1	2000
60					360				

* The standard materials for the shaft and the impeller are SUS304 or SUS316.
* The A720 and A725 are the replacement for the A520.

Options

Electric component	Compatible with PSE, Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, Teflon, etc.
Sanitary	Wetted part : Buffing, Electrochemical polishing, Welding, etc. Body: Stainless steel cover for motor / variable speed drive and gearbox, stainless painting and special painting
Other options	One touch coupling, Safety cover, etc.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)													Estimated weight (kg)
			(A)	B	B-MAX (Option)	φd	D	E	(F)	G	H (MAX)	I	J	(K)	L	
A720	1	0.065 A	(268)	560	960	13	150	86	(182)	100	28	48	85	(48)	40	10
		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
	2	0.2 A	(306)	950	1200	16	270	101	(205)	125	32	55	105	(48)	45	15
		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

* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.
* The dimension B in the table shows the standard length of the shaft. For shorter or longer shafts than the standard length, please request separately.
* The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

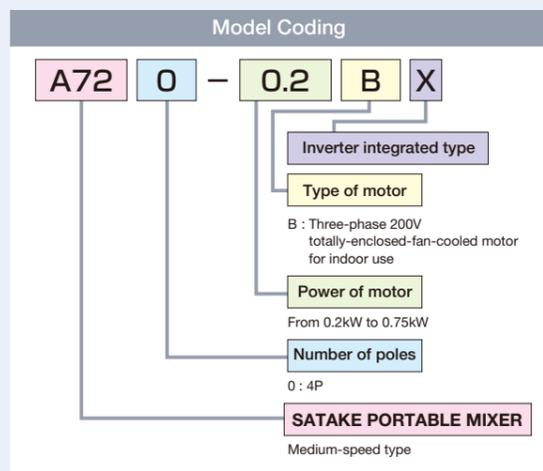
A720-□BX

Medium-speed type (inverter with integrated specification)

Impeller speed 50/60Hz : 72~360min⁻¹

The A720-BX is a portable mixer that integrates the main body with an inverter. The impeller speed can be easily changed by using the dial, and it can flexibly respond to changes in liquid volume and viscosity.

This mixer is compact because does not require an inverter to be installed. Since the design is based on the versatile medium-speed A720, thereby making it ideal for a wide range of applications. It can also be operated on a load basis, contributing to energy savings.



P36 Impeller For Medium-speed type

A high-performance hydrofoil-type impeller with camber and rake angle on the impeller blades. It creates the swirling flow, concentrates the flow in the axial direction and creates a high-speed axial flow.



External view of the inverter



Easy speed control with dial



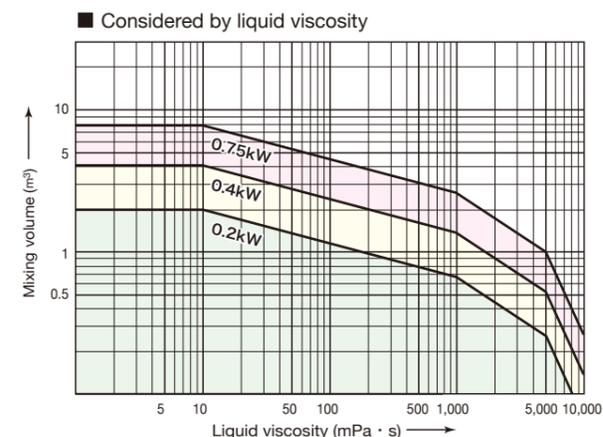
Standard specification

Model	Frame number	Motor			Impeller			Shaft length (mm)	
		Power (kW)	Numbe of poles (P)	Phase and voltage (V)	Frequency (Hz)	Impeller speed (min ⁻¹)	Diameter (mm)		Stage
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

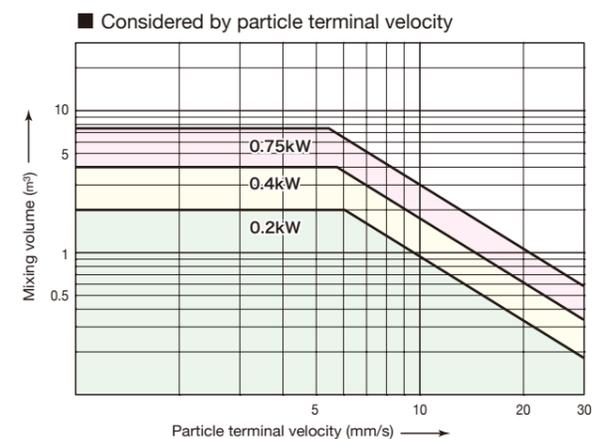
The standard materials for the shaft and impeller are SUS304 or SUS316.
The A720-BX is the replacement for the A520-0.2BX, 0.4BX and 0.75BX.

Quick change of impeller speed.

Selected graphs of mixing capacity (Medium-speed type)



* Please consult us if the liquid viscosity is more than 1000 mPa·s or the specific gravity is more than 1.2.
* Mixing time for uniform mixing in a single phase of liquid-liquid takes more than 5 minutes.



* Please use this graph as reference.
* This graph shows for the case of liquid viscosity approximately 50 mPa·s and specific gravity is 2~3.
* Please consult us if the ratio of impeller diameter to tank diameter is extremely small (less than 25% of tank diameter).

Options

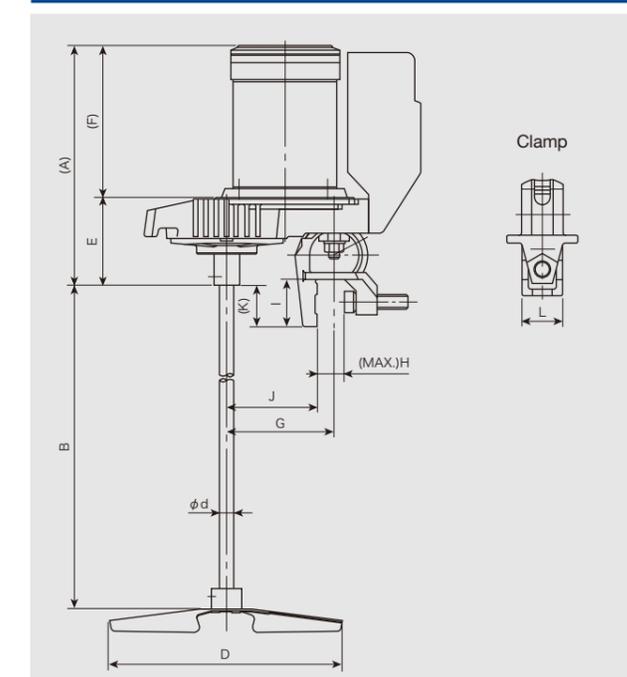
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, Teflon, etc.
Sanitary	Wetted part: Buffing, Electrochemical polishing, Welding, etc.
Other options	One touch coupling, Safety cover, etc.

Applicable stands and tanks

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

* ZU-1 (universal mount) is an option.
* Tanks with "ℓ" notation are special items.

Dimensional drawing



Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)													Estimated weight (kg)
			(A)	B	B-MAX (Option)	φd	D	E	(F)	G	H (MAX)	I	J	(K)	L	
A720-0.2BX	2	0.2	(309)	950	1200	16	270	101	(208)	125	32	55	105	(48)	45	17
A720-0.4BX	3	0.4	(381)	1190	1440	20	310	152	(229)	140	39	65	120	(28)	52	23
A720-0.75BX	4	0.75	(425)	1425	1675	25	350	189	(236)	160	48	80	140	(35)	70	34

* The estimated weight shows the total amount including the motor, mixing shaft, and impeller.
* The dimension B in the table shows the standard length of the shaft. For shorter or longer shafts than the standard length, please request separately.
* The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

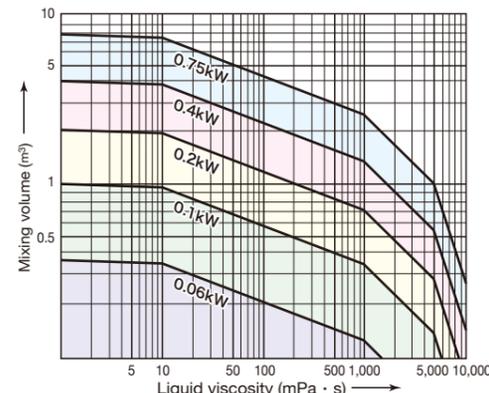
A720-K

Air-motor (Medium-speed type)

Impeller speed 200~360min⁻¹

The A720-K is driven by air-motor which has an explosion-proof design for safety. It can be used for mixing liquids containing organic solvents that can ignite or explode. A wide range of impeller speeds from low to high speed can be obtained. The air motor specification does not overload the machine due to its characteristics, thus preventing damage to the machine. We also offer lubrication-free type and air motor with stainless steel specifications.

Selected graph of mixing capacity (Medium-speed type)



* Please consult us if the liquid viscosity is more than 1000 mPa·s or the specific gravity is more than 1.2.
* Mixing time for uniform mixing in a single phase of liquid-liquid takes more than 5 minutes.

Standard specification

Model	Frame number	Model of air-motor	Motor			Impeller			Shaft length (mm)
			Air consumption (Nl/min)	Pressure (MPaG)	Revolution (min ⁻¹)	Diameter (mm)	Stage		
A720-0.06K	1	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	

* The standard materials for the shaft and the impeller are SUS304 or SUS316.
* The air consumption in the table above is based on a motor output speed of 1800 min⁻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 and silencer are shipped with the main unit. The air control unit is delivered separately. Please install it by yourself.
* In addition to the A720, A710 (high-speed type) and A740 (low-speed type) are also available as series.

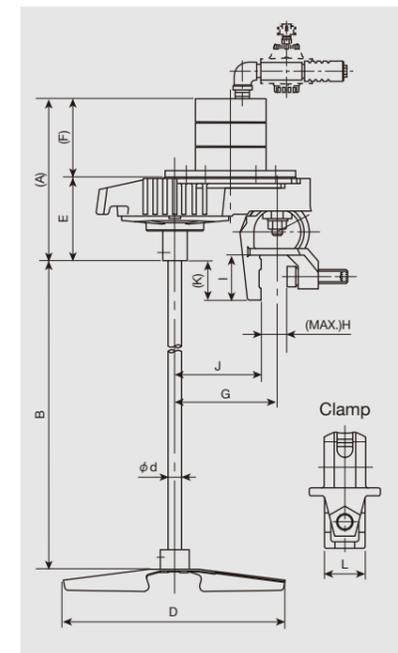
Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)												Estimated weight (kg)	
			(A)	B	B-MAX (Option)	φd	D	E	(F)	G	H (MAX)	I	J	(K)		L
A720-K	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
	2	0.2K	(189)	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 dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.
* The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.
* The A720-K is the replacement for the A520-K.

Explosion-proof type with safety considerations

Dimensional drawing



P36 Impeller



Oil-less type is also available.

A760

Stainless-steel model (Medium-speed type)

Impeller speed 50Hz : 300min⁻¹ 60Hz : 360min⁻¹

The main body of this mixer is made of stainless steel. The A760 is suitable for the fine chemicals, pharmaceuticals, and food products, as it prevents rust and coating film from mixing with the agitated material.

Stainless-steel motor lineup

This new model is all stainless-steel design equipped with a stainless-steel motor (totally-enclosed type, 200V). We also offer air motors with stainless-steel specifications.

Wide range of variations

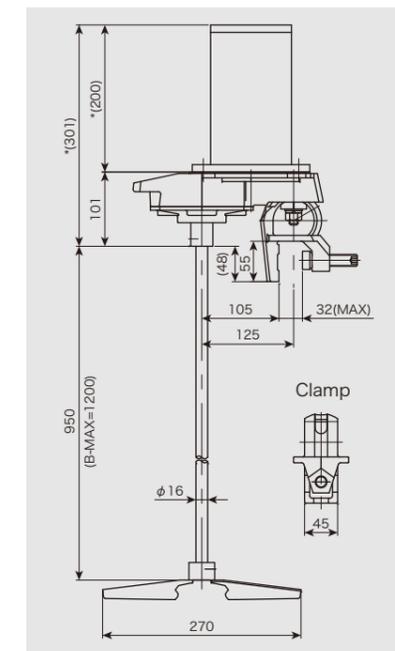
Air motors (also available without lubrication), explosion-proof, different voltage motor (voltage other than 100V and 200V), stainless-steel covers for general-purpose motors, etc.

Sanitary specifications

Optional buffing and EP treatment of the shaft and impeller are also available.

All stainless-steel body for cleanliness

Dimensional drawing



P36 Impeller



Standard specification

Model	Motor			Mixing capacity		Estimated weight (kg)
	Power (kW)	Frequency (Hz)	Revolution (min ⁻¹)	Dilution (t)	Medium viscosity liquid (t)	
A760-0.2B	0.2	50	300	2000	700	20 (Including the impeller and shaft)
		60	360			
A760-0.2K	0.2	-	200~360	2000	700	20 (Including the impeller and shaft)

* The standard materials for the shaft and the impeller are SUS304 or SUS316.
* The motor dimensions vary depending on the brand of the motor.
* The A760 stainless-steel model is the replacement for the AS520.

Multi A Mixer is also available.

We also produce stainless-steel covers for motors and all-stainless steel for flange-mounted mixers.

Specifications

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

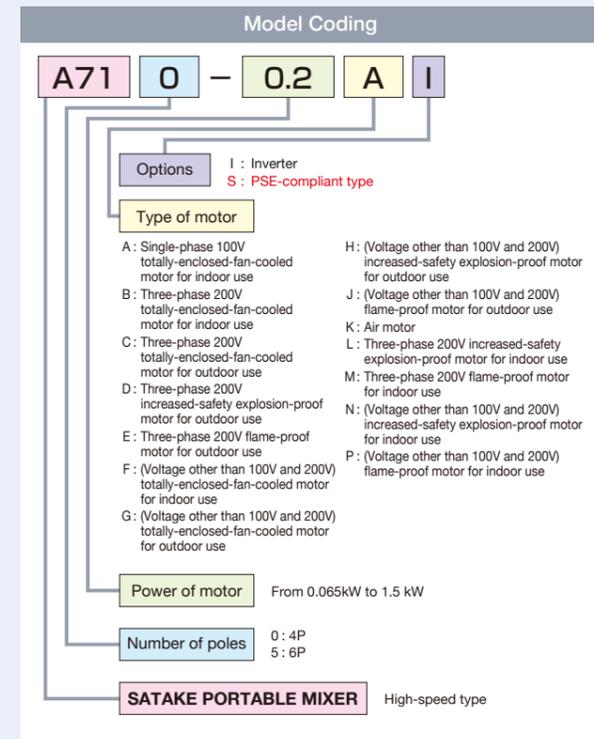


A710, A715

High-speed type

Impeller speed 50Hz : 1450min⁻¹ 60Hz : 1750min⁻¹

The A710 and A715 are suitable for mixing that requires strong shear, such as in the case of forcing liquid to be entrapped in and powder to be entrapped and dissolved. Of course, it is slim and light, making it handy.



* Please consult us for the specifications of the air motor.

Standard specification

Model	Frame number	Motor			Impeller				Shaft length (mm)
		Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min ⁻¹)	Diameter (mm)	Stage	
A710-0.065A	1	0.065	4	Single-phase 100	50	1450	90	2	600
A710-0.1A				Single-phase 100	50	1450	100		
A710-0.1B	2	0.1	4	Three-phase 200	50	1450	100	2	800
A710-0.2A				Single-phase 100	50	1450	120		
A710-0.2B	3	0.2	4	Three-phase 200	50	1450	120	2	1000
A710-0.4B				Single-phase 100	50	1450	110		
A715-0.4B	4	0.4	6	Three-phase 200	50	950	155	2	1500
A710-0.75B				Three-phase 200	50	1450	155		
A715-0.75B	4	0.75	6	Three-phase 200	50	950	175	2	1750
A710-1.5B				Three-phase 200	50	1450	175		
A710-1.5B	4	1.5	4	Three-phase 200	50	1450	160	2	1750
A710-1.5B				Three-phase 200	60	1750	160		

* The standard materials for the shaft are SUS304 or SUS316.
 * The standard material for S15 Impeller is SUS316.
 * The A710 and A715 models are the replacement for the A510 and A610.



HSR Impeller *option

This impeller is specially designed for powder dissolution. It efficiently mixes powders that are difficult to absorb, lumpy, or difficult to dissolve.

S15 Impeller For high-speed type

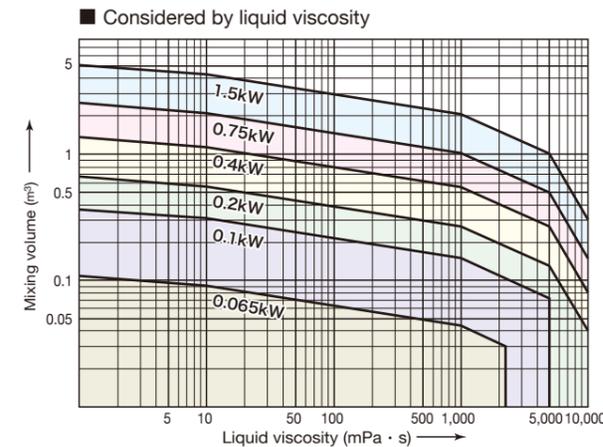
This impeller rotates at high speed to generate strong shear stress. Due to the turbulent vortex created by the saw teeth at the tip of the blade, it destroys bulks of powder and fluid and increases the contact area, making it effective for dispersion and dissolution.



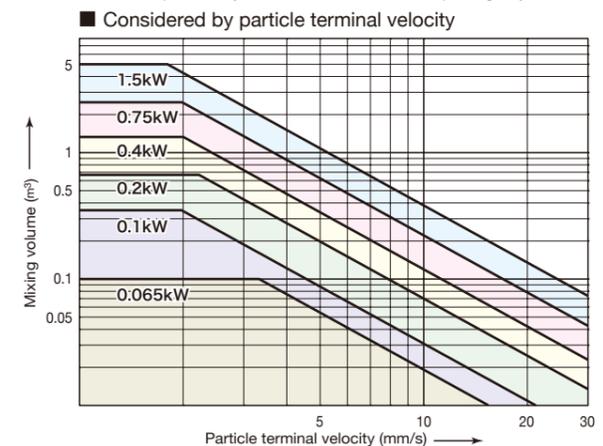
The PSE-compliant type comes with an overload protection device, switch and power cord. See Page 18 for details.

High speed rotation for powerful mixing.

Selected graphs of mixing capacity (High-speed type)



* Please consult us if the liquid viscosity is more than 1000 mPa·s or the specific gravity is more than 1.2.



* Please use this graph as reference.
 * This graph shows for the case of liquid viscosity approximately 50 mPa·s and specific gravity is 2~3.
 * Please consult us if the ratio of impeller diameter to tank diameter is extremely small (less than 25% of tank diameter).

Options

Electric component	Compatible with PSE, Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, Teflon, etc.
Sanitary	Wetted part : Buffing, Electrochemical polishing, Welding, etc. Body : Stainless steel cover for motor / variable speed drive and gearbox, stainless painting and special painting
Other options	Safety cover, etc.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)													Estimated weight (kg)	
			(A)	B	B-MAX (Option)	φd	D (50Hz)	D (60Hz)	E	(F)	G	H (MAX)	I	J	(K)		L
A710	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
	2	0.2 A	(307)	950	1200	16	120	110	102	(205)	105	32	55	85	(56)	45	14
		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

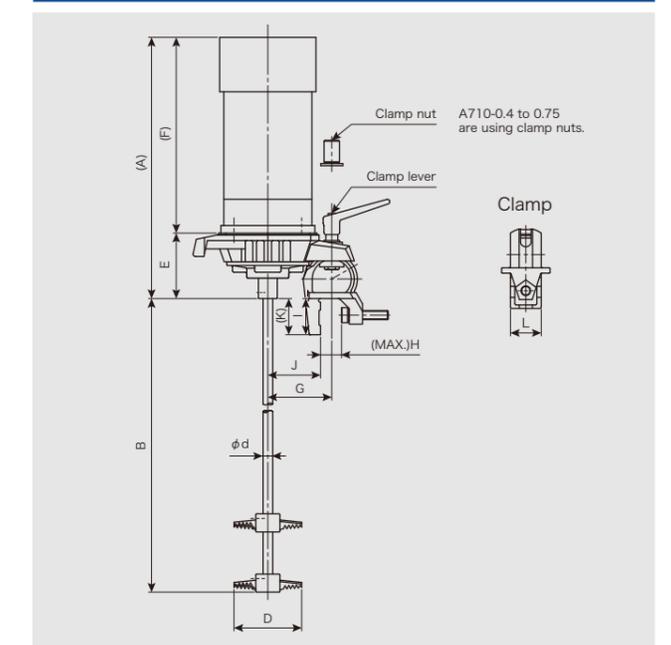
* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.
 * The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.
 * The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

Applicable stands and tanks

Mixer Model	Power(kW)	Applicable stand	Applicable tank
A710	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, ZT-200
		ZU-1	ZT-200
	0.2	ZS-3	ZT-150, ZT-200 300 - 800ℓ
		ZU-1	ZT-200
		ZS-4	300 - 800ℓ
	0.4	ZS-4	300 - 2000ℓ
		ZS-5	300 - 2000ℓ
	0.75	ZS-5	300 - 3000ℓ

* ZU-1 (Universal mount) is an option.
 * Tanks with "ℓ" notation are special items.
 * Please consult us about the applicable stand and tank for 1.5kW mixer.

Dimensional drawing

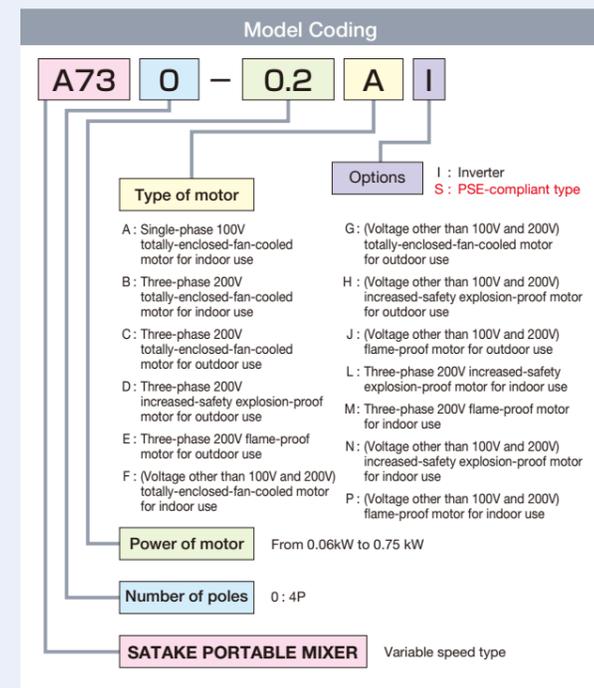


A730

Variable speed type

Impeller speed 50/60Hz : 0~420min⁻¹

The A730 can correspond to changes in liquid viscosity and volume, also prevents excessive or insufficient mixing. In addition, operations such as liquid discharge, which may cause changes in liquid level, can be performed safely by setting at low impeller speed.



P36 Impeller



The **PSE-compliant type** comes with an overload protection device, switch and power cord. See [Page 18](#) for details.

Flexible enough to adapt with any changes.

Applicable stands and tanks

Mixer		Applicable stand	Applicable tank
Model	Power (kW)		
A730	0.06	ZS-3	ZT-65, ZT-80, ZT-100, ZT-150
		ZU-1	ZT-150
	0.09	ZS-3	ZT-65, ZT-80, ZT-100, ZT-150
		ZU-1	ZT-150
0.2	ZS-4	ZT-200 300 - 2000ℓ	
0.4	ZS-4	300 - 2000ℓ	
	ZS-5		

*ZU-1 (Universal mount) is an option.
*Tanks with "ℓ" notation are special items.
* Please consult us for the applicable stands and tanks for 0.75kW.

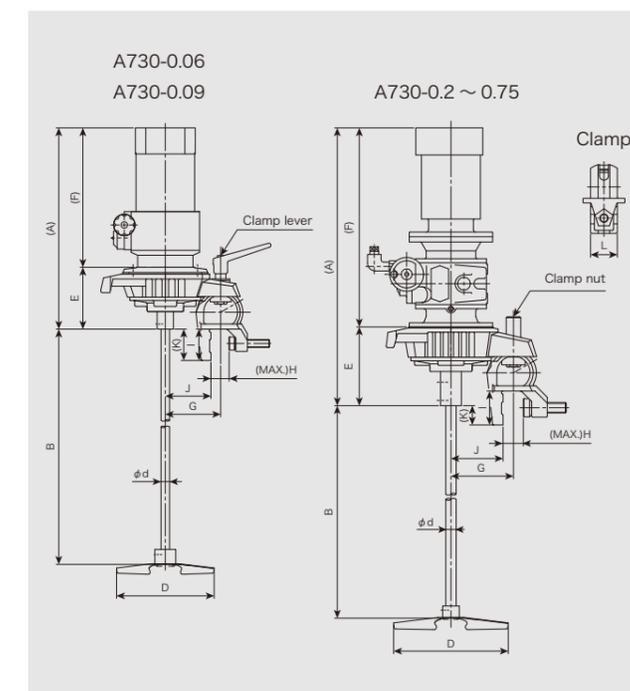
Motion controller (Option)



In addition to the standard handle operation, there is also an automatic control panel that can be controlled remotely to adjust the rotation speed.

Auto rater LA basic control panel, etc.

Dimensional drawing



Standard specification

Model	Frame number	Motor			Impeller				Shaft length (mm)
		Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min ⁻¹)	Diameter (mm)	Stage	
A730-0.06A	1	0.06	4	Single-phase 100	50/60	0 - 420	150	1	600
A730-0.06B		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	3	0.2	4	Single-phase 100	50/60	0 - 420	220	1	1250
A730-0.2B		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

* The standard materials for the shaft and the impeller are SUS304 or SUS316.
* The condenser motors are single-phase 100V of 0.06kW and 0.09kW.
* The A730 model is the replacement for the A520V and A630.

Options

Electric component	Compatible with PSE, Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, Teflon, etc.
Sanitary	Wetted part : Buffing, Electrochemical polishing, Welding, etc.
	Body : Stainless steel cover for motor / variable speed drive and gearbox, stainless painting and special painting
Other options	One touch coupling, Safety cover, etc.

* The applicable impeller speed of one-touch coupling is 420 min⁻¹ at maximum.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)													Estimated weight (kg)
			(A)	B	B-MAX (Option)	φd	D	E	(F)	G	H (MAX)	I	J	(K)	L	
A730	1	0.06 A	(411)	560	960	13	150	95	(316)	85	28	48	70	(48)	40	15
		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	(48)	40	15
		0.09 B	(402)	560	960	13	180	95	(307)	85	28	48	70	(48)	40	14
	3	0.2 A	(552)	1190	1440	20	220	151	(401)	120	39	65	100	(37)	52	32
		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

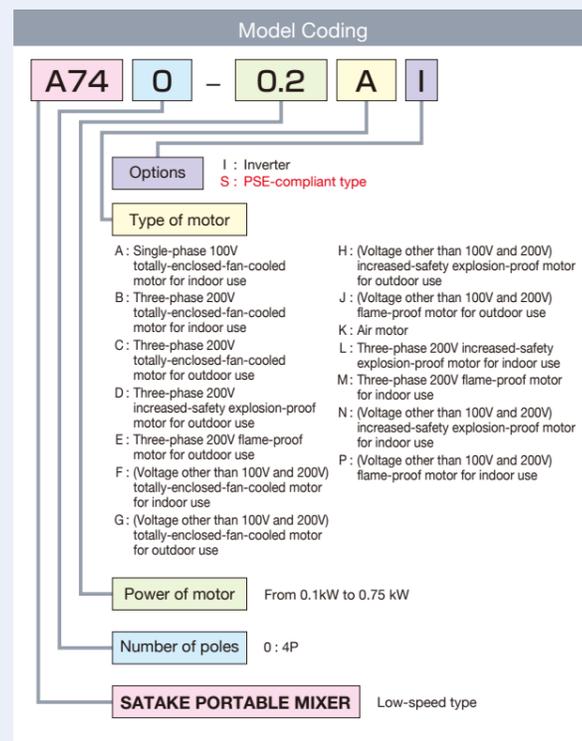
* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.
* The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.
* The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

A740

Low-speed type

Impeller speed 50Hz : 150min⁻¹ 60Hz : 180min⁻¹

The A740 mixes relatively sticky liquid and liquid, slowly and strongly. It is also suitable for large volume applications such as storage tanks and for mixing that requires no foaming.



* Please consult us if you require a non-standard impeller speed or an explosion-proof specification.
 * Please consult us for the specifications of the air motor.

Standard specification

Model	Frame number	Motor			Impeller				Shaft length (mm)
		Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min ⁻¹)	Diameter (mm)	Stage	
A740-0.1A	2A	0.1	4	Single-phase 100	50	150	300	1	1000
Three-phase 200				50	150				
A740-0.2A		0.2	Single-phase 100	50	150	350	1		
A740-0.2B			Three-phase 200	50	150				
A740-0.4B	4B	0.4	4	Three-phase 200	50	150	400	1	1250
A740-0.75B	4C			Three-phase 200	50	150			
					60	180			

* The standard materials for the shaft and the impeller are SUS304 or SUS316.
 * The A740 model is the replacement for the A540 and A640.



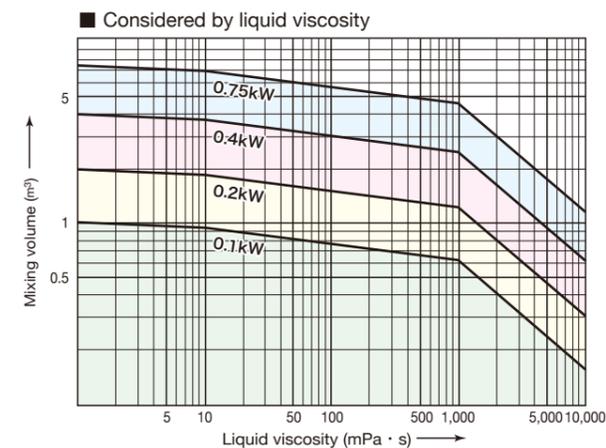
L18 Impeller For Low-speed type

The discharge flow is controlled by the "twists" added to the impeller blade. It also provides strong axial flow. This is useful for low liquid level operation or when a large d (impeller diameter) / D (tank diameter) value is required.

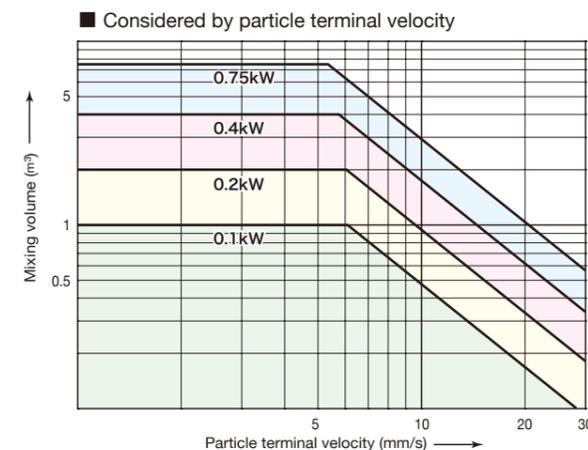


The PSE-compliant type comes with an overload protection device, switch and power cord. See Page 18 for details.

Selected graphs of mixing capacity (Low-speed type)



* Please consult us if the liquid viscosity is more than 5000 mPa·s or the specific gravity is more than 1.2.



* Please use this graph as reference.
 * This graph shows for the case of liquid viscosity approximately 50 mPa·s and specific gravity is 2-3.
 * Please consult us if the ratio of impeller diameter to tank diameter is extremely small (less than 25% of tank diameter).

Options

Electric component	Compatible with PSE, Inverter, Control panel, etc.
Impeller	Three bladed propeller, Paddle, Turbine, etc.
Material	Low carbon material, Hastelloy, Titanium, etc.
Lining	Rubber lining, PVC, FRP, Teflon, etc.
Sanitary	Wetted part : Buffing, Electrochemical polishing, Welding, etc. Body : Stainless steel cover for motor / variable speed drive and gearbox, stainless painting and special painting
Other options	One touch coupling, Safety cover, etc.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)													Estimated weight (kg)
			(A)	B	B-MAX (Option)	φd	D	E	(F)	G	H (MAX)	I	J	(K)	L	
A740	2A	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
		0.2 A	(379)	950	1200	16	350	115	(264)	105	32	55	85	(56)	45	18
		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

* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.
 * The estimated weight shows the total amount including the motor, the mixing shaft, and the impeller.
 * The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

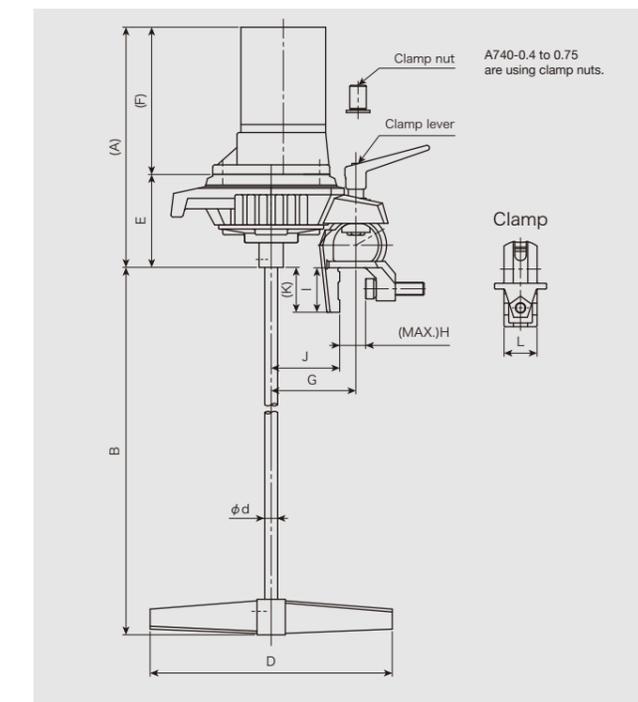
Mix strongly and steadily.

Applicable stands and tanks

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

* ZU-1 (Universal mount) is an option.
 * Tanks with "ℓ" notation are special items.
 * Please consult us about the applicable stand and tank for 0.75kW mixer.

Dimensional drawing



SATAKE PORTABLE MIXER

A750

High-speed type

Impeller speed 50Hz : 1450min⁻¹ 60Hz : 1750min⁻¹

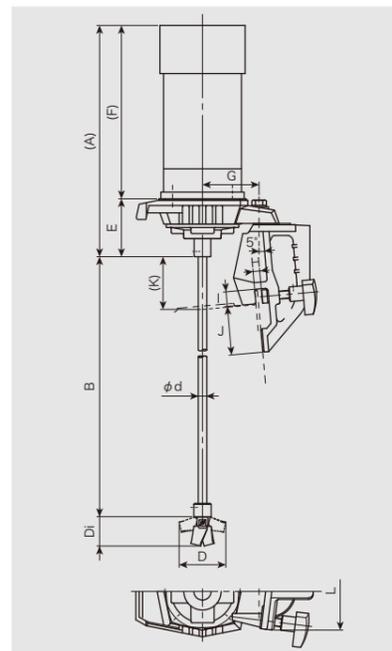
This model can be directly attached to the chime of a steel drum "JIS Z1601-Old Class 1 (equivalent to 200L)". High performance of K02 impeller is used. This impeller is specially designed to spread the impeller blades by centrifugal force as the shaft rotates.

* Please do not operate this machine without fixing it to the drum or using handle to support it by hand.
* Air motor specifications are also available.

Directly mounted on drum.

The **PSE-compliant type** comes with an overload protection device, switch and power cord. See **Page 18** for details.

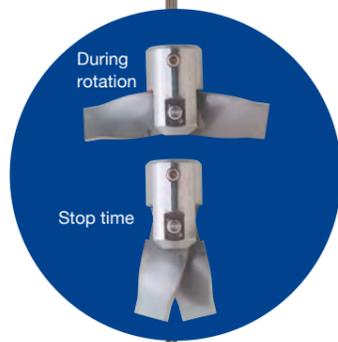
Dimensional drawing



* If the mounting chime part is different from that shown in the illustration, it may not be possible to install the mixer. In such case, use the A610 standard mixer and combine it with the K02 Impeller Stand Z Series.



K02 Impeller



Standard specification

Model	Frame number	Motor			Impeller				Shaft length (mm)
		Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min ⁻¹)	Diameter (mm)	Stage	
A750-0.1AS	1	0.1	4	Single-phase 100	50	1450	80	1	800
A750-0.1BS				Three-phase 200	50	1450	80		
A750-0.2AS	2	0.2	4	Single-phase 100	50	1450	90	1	850
A750-0.2BS				Three-phase 200	50	1450	90		
A750-0.4BS		0.4	4	Three-phase 200	50	1450	105	1	850
				Three-phase 200	60	1750	90		

* The standard material for the shaft and the impeller is SUS304.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)														Estimated weight (kg)		
			(A)	B	B-MAX (Option)	phi d	50Hz		60Hz		E	(F)	G	H (MAX)	I	J		(K)	L
							D	Di	D	Di									
A750	1	0.1A	(269)	760	960	13	80	49	70	44	87	(182)	85	10	22	73	(79)	115	10
		0.1B	(260)	760	960	13	80	49	70	44	87	(173)	85	10	22	73	(79)	115	10
	2	0.2A	(307)	800	1200	16	90	58	80	53	102	(205)	105	10	22	73	(76)	115	14
		0.2B	(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

* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.

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

* The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

* The A750 is the replacement for the AD510 and A650.

Options

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

The PSE-compatible mixer is equipped with a thermal protector for the electric motor to protect it from burnout due to overloading. In addition, the mixer comes standard with a power switch and a power cord with a plug, which can be connected to a grounded power outlet (power supply) to start (run or stop) the mixer immediately.

Includes ON - OFF switch and overload protection device 3m power cord

* The design of the ON-OFF switch differs depending on the model.

Can be used immediately

〔Mixers compatible with the Electrical Appliance and Material Safety Law (PSE)〕
Starting April 1, 2006, non-explosion-proof electric mixers of 0.4 kW or less are required to be equipped as PSE-compliant products based on the Electrical Appliance and Material Safety Law (PSE).

In the case that the product is to be incorporated as a part of the production equipment in a factory, we will deliver the product as a stand-alone machine as before, after confirming that the customer will incorporate safety devices, switches, etc. into the operation panel.

Power cord with single-phase plug



Flat plug with 2P earth terminals (125V 12A) Cord length 3m

Power cord with 3-phase plug

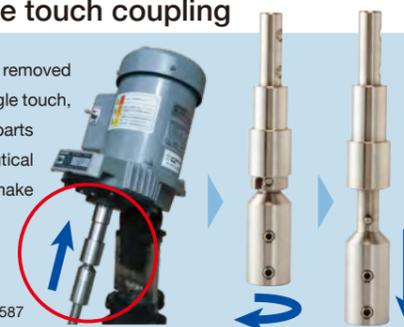


15A rubber cap with 3P earth terminals (250V 15A) Cord length 3m

One touch coupling

The mixing shaft can be removed from drive shaft with a single touch, making it easy to clean parts for food and pharmaceutical industries etc. This also, make it easy if changing tank.

JPN. PAT. No. 5637587



Inverter

A 3-phase 200V portable mixer can be connected to the power supply using an inverter, and the main unit can be electrically controlled at variable speeds. This allows you to save energy by using the power you need only. An inverter for a single-phase 100V power supply is also available.



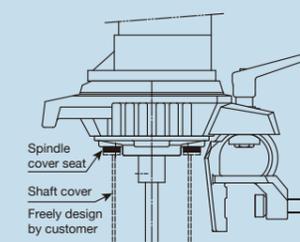
Safety cover

Safety cover is also available to prevent accidents during operation.



Attachment seat for shaft cover

Attachment seat for shaft cover is also available.



Cover seat (mm)	Cover seat (mm)			
	A	B	I.D. C	Thickness
A720-0.065 A710-0.065 A730-0.06	84	96	62	10
A720-0.2 A710-0.2 A740-0.1	110	120	72	6
A720-0.4 A710-0.4 A730-0.2	128	140	90	6
A720-0.75 A710-0.75 A730-0.75 A740-0.4	146	160	105	6
A720-1.5	190	200	116	6

* Material: SUS304

* Other models are also available. Please consult us for details.

More options

In addition to the above, we can also perform "alumite treatment of the main body" and "change to SUS304 clamps (for some 0.1kW and 0.2kW models)" to improve the corrosion resistance of the mixer. We will suggest the most suitable mixer to meet your needs. Please feel free to consult us.

MOUNT UNITS Z Series

The mount units of Z Series are a convenient mount for small tanks, glass, borax, resin, and various types of lining tanks, where the shape, strength, and structure of the tank make it difficult to mount directly on the tank.

*This entire series of mounting units come in an assembly kit format. Basically, they are packed and delivered to you. It can be easily assembled by any individual with a single hexagonal wrench.

*The mixer, tank, and mounting units are sold as a set, although they are also available separately.

Option

ZU-1

Universal mount

This mount can be used when the mixer cannot be directly attached to the tank (stainless-steel deep tank, resin tank, etc.). With a single bolt adjustment, it can be installed even if the tank diameter changed. This can be described as a free size stand.



Example of use



ZS-1

Hand-operated stand

- Designed for small mixing volume. Easy assembly and smooth lifting and lowering.



ZS-2 ZS-3

Spring balancer stand

- Spring balancer is used for easy, smooth lifting and lowering with 10%~20% of the mixer's own weight.
- Maintenance such as lubrication is not required.



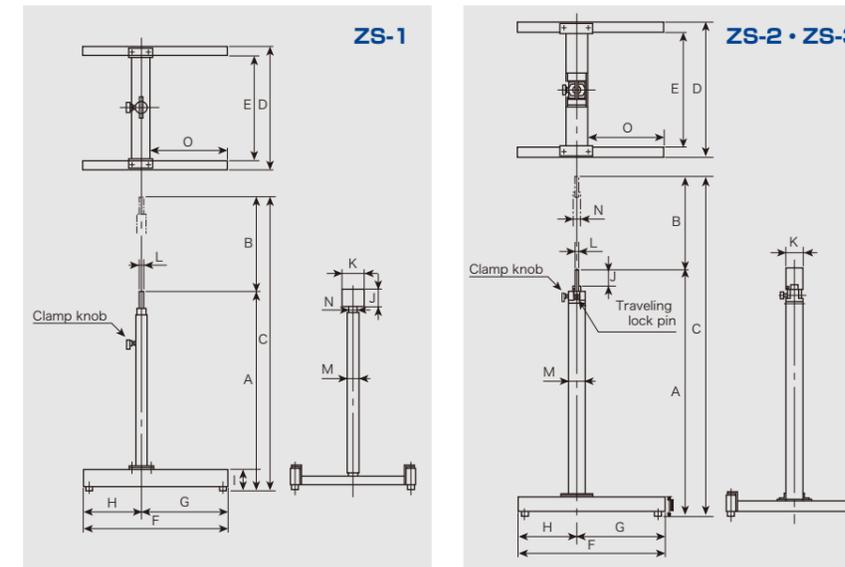
ZS-4 ZS-5

Hydraulically-operated stand

- A foot-operated oil pump is used for easy hydraulic lifting and lowering.
- Easy to move as it is equipped with casters.

Excellent partner for your portable mixer

Dimensional drawing (Hand-operated type)



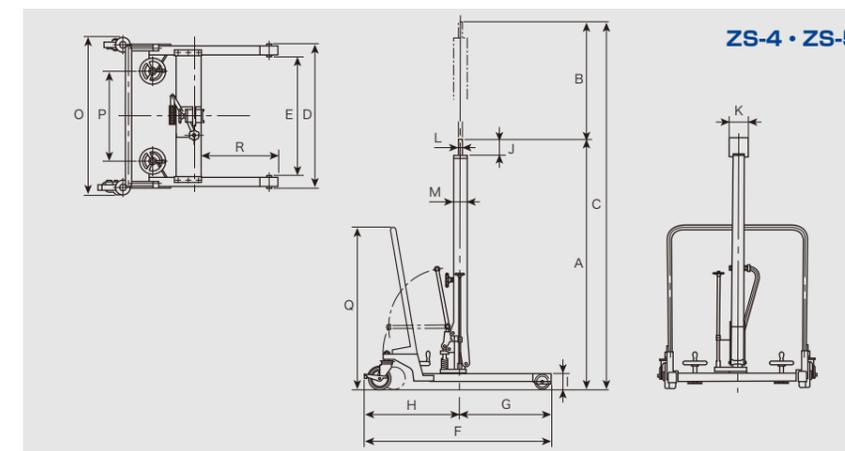
Dimension chart (Hand-operated type)

Model	Dimension (mm)															Weight (kg)
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
ZS-1	700	330	1030	430	370	500	300	200	74	60	70	9	φ42	φ34	270	8.5
ZS-2	930	380	1310	515	425	560	340	220	97	80	80	12	□80	φ34	290	20
ZS-3	1200	450	1650	650	560	700	420	280	97	80	80	12	□80	φ34	370	26

* B indicates the lifting stroke.

* Standard painting color is approximately the value of N1.0 (semi-frosted black) of Munsell color system.

Dimensional drawing (Hydraulically-operated type)



Dimension chart (Hydraulically-operated type)

Model	Dimension (mm)															Weight (kg)	Lift weight (kgf)		
	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P			Q	R
ZS-4	1400	650	2050	776	660	1090	510	580	90	110	125	19	□70	895	500	900	470	60	33
ZS-5	1650	700	2350	961	845	1365	695	670	90	130	170	25	□80	1080	685	900	655	74	40

* B indicates the lifting stroke.

* Standard painting color is approximately the value of N1.0 (semi-frosted black) of Munsell color system.

* Front casters: φ80×38 two urethane wheels.

* Rear casters: φ125×38 two swivel rubber wheels (One side with brake)

Option

Stand made of SUS304 is also available.

Applicable mixer

Applicable stand	Applicable mixer		Applicable tank
	Model	Power (kW)	
ZS-1	A720	0.065	ZT-20 · ZT-25 ZT-35 · ZT-45
	A710	0.065	ZT-65 · ZT-80 ZT-100 · ZT-150
ZS-2	A720	0.1	ZT-65 · ZT-80 ZT-100 · ZT-150
	A710	0.1	ZT-200
ZS-3	A730	0.06	ZT-65 · ZT-80
	A730	0.09	ZT-100 · ZT-150
	A720	0.2	300~800ℓ
	A710	0.2	
	A730	0.06AS	
	A730	0.09AS	
A740	0.1		
A740	0.2		
ZS-4	A710	0.2	300~800ℓ
	A720	0.2	300~2000ℓ
	A720	0.4	
	A710	0.4	
	A730	0.2	ZT-200 · 300~2000ℓ
	A730	0.4	300~2000ℓ
A740	0.2		
A740	0.4		
ZS-5	A710	0.4	300~2000ℓ
	A720	0.4	300~3000ℓ
	A720	0.75	
	A710	0.75	
	A730	0.4	
	A740	0.4	
A740	0.75		
ZU-1 (Universal mount)	A720	0.065	ZT-65 · ZT-80 ZT-100 · ZT-150
	A720	0.1	ZT-65 · ZT-80 ZT-100 · ZT-150 ZT-200
	A720	0.2	ZT-200
	A710	0.065	ZT-65 · ZT-80 ZT-100 · ZT-150
	A710	0.1	ZT-65 · ZT-80 ZT-100 · ZT-150 ZT-200
	A710	0.2	ZT-200
	A730	0.06	ZT-150
	A740	0.1	ZT-150 · ZT-200

*The tank type shown in (ℓ) is an optional tank (free-stand type).

*ZU-1 (Universal mount) is optional.

*This table applies to non-explosion proof motors only. Please consult us if you use an explosion-proof motor.

SATAKE PORTABLE MIXER

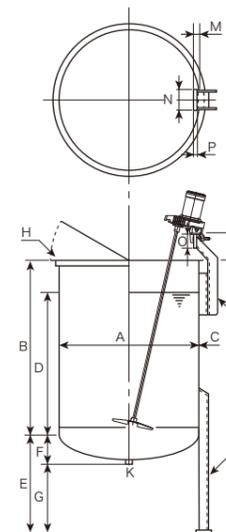
MIXER TANKS ZT Series

9 types of tanks ranging from 20 liters to 200 liters, all buffed and polished, are available with special lids as standard.



Good performance is achieved by optimal installation with the tank.

Specification of optional tanks

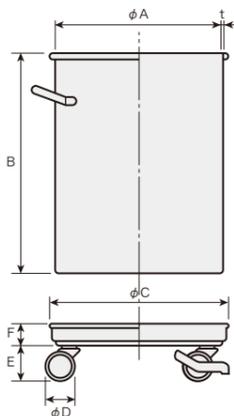


Model	Available capacity (ℓ)	Maximum capacity (ℓ)	Tank dimension (mm)										Weight (kg)	
			A	B	C	D	E	F	G	H(SUS)	J(SS)	K	Tank	Lid*
ZTF-100	100	130	500	600	3	450	450	134	316	L25×25×3	3-L50×50×6	1/2 B Socket	43	3
ZTF-150	150	182	550	700	3	562	450	144	306	L30×30×3	3-L50×50×6	1/2 B Socket	51	4
ZTF-200	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	1 1/2 B JIS 10KF	575	45
ZTF-4000S	4000	4520	1800	1500	4	1345	800	450	350	L65×65×6	4-[150×75×9	1 1/2 B JIS 10KF	550	50
ZTF-4500	4500	5285	1800	1850	5	1542	800	450	350	L65×65×6	4-[200×90×8	1 1/2 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

* The lids have a thickness of 1.5t for A dimension up to 1000, and 2.0t for A dimension above that.
* Jacket type is also available.

Applicable mixers and stands

Tank model	Applicable stand	Applicable mixer		
		Model	Power (kW)	
ZT-20 ZT-25 ZT-35 ZT-45	ZS-1	A720	0.065	
		A710	0.065	
		A720	0.1	
		A710	0.1	
ZT-65 ZT-80 ZT-100	ZS-1	A720	0.065	
		A710	0.065	
	ZS-2	A720	0.1	
		A710	0.1	
ZS-3	A730	0.06 · 0.09		
	ZU-1 (Universal Mount)	A720	0.065 · 0.1	
	ZS-1	A720	0.065	
		A710	0.065	
	ZS-2	A720	0.1	
		A710	0.1	
ZT-150	ZS-3	A720	0.2	
		A710	0.2	
		A730	0.06 · 0.09	
		A740	0.1 · 0.2	
	ZU-1 (Universal Mount)	A720	0.065 · 0.1	
		A710	0.065 · 0.1	
		A730	0.06 · 0.09	
		A740	0.1	
ZT-200	ZS-2	A720	0.1	
		A710	0.1	
	ZS-3	A720	0.2	
		A710	0.2	
	ZS-4	A720	0.1 · 0.2	
		A730	0.2	
		ZU-1 (Universal Mount)	A720	0.1 · 0.2
		A710	0.1 · 0.2	
	ZS-3	A720	0.2	
		A710	0.2	
		A740	0.1 · 0.2	
		A720	0.2 · 0.4	
	ZS-4	A710	0.2 · 0.4	
		A730	0.2 · 0.4	
		A740	0.2 · 0.4	
		A720	0.4 · 0.75	
300ℓ 800ℓ	ZS-5	A710	0.4 · 0.75	
		A730	0.4	
		A740	0.4	
		A720	0.2 · 0.4	
1000ℓ 2000ℓ	ZS-4	A710	0.4	
		A730	0.2 · 0.4	
		A740	0.2 · 0.4	
		A720	0.4 · 0.75	
	ZS-5	A710	0.4 · 0.75	
		A730	0.4	
		A740	0.4	
		A720	0.4 · 0.75	
2500ℓ 3000ℓ	ZS-5	A720	0.4 · 0.75	
		A710	0.75	
		A730	0.4	



Standard specification

Model	Dimension A×B (mm)	Thickness t (mm)	Maximum capacity (ℓ)
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 tank	Inside diameter C (mm)	Wheel diameter D (mm)	Height E (mm)	Depth 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				
ZC-150	ZT-150	575	100	119	50
ZC-200	ZT-200				

* In the case of a tank with drain, tank casters are handle separately.

* Wheels: Flexible, with stopper.

* In addition to the standard tank, we can also fabricate a free-stand tank (100L to 5000L). (With mixer stand)

* If liquid is to be discharged from the bottom of the tank, installation of nipple, valve, etc. is required. Size example: 1/4B, 3/8B, 1/2B, 1B, 1 1/2B valves are ball valves (SUS316) and can be installed with different or the same diameter according to your request.

* The tank type shown in (ℓ) is an optional tank (free-stand type).

* ZU-1 (Universal mount) is optional.

* Note that the shaft length is slightly different when using the ZU-1. Please consult us for details.

Dimension of mixer mount

Please refer also to the following table if you prepare the mounting part of the mixer by yourself.

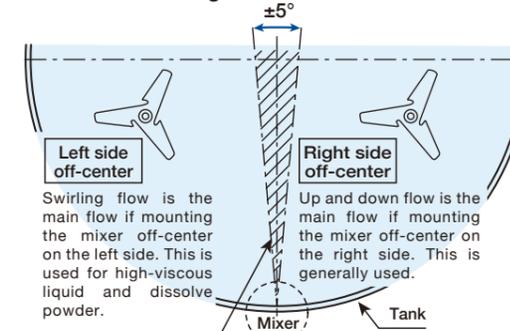
Model	Dimension of mixer mount (mm)						Weight (kg)
	L	M	N	O	P	Q	
A720-0.065	100	0	85	60	12	[75×40×5	5 (7)
A720-0.1	100	35	85	60	12	[75×40×5	5 (7)
A720-0.2	130	40	110	70	12	[100×50×5	7 (9)
A720-0.4	150	45	160	90	16	[150×75×9	19 (23)
A720-0.75, A725-0.4	230	45	220	120	22	[200×80×7.5	25 (31)
A720-1.5, 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	Dimension of mixer mount (mm)						Weight (kg)
	L	M	N	O	P	Q	
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)

* The weight in () is the weight of the mixer mounting stand attached to the jacket tank.

Mounting position

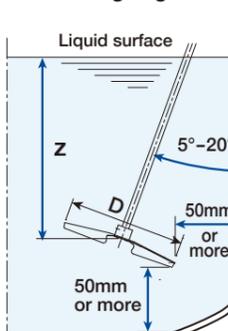
Off-center mounting



Swirling flow is the main flow if mounting the mixer off-center on the left side. This is used for high-viscous liquid and dissolve powder.
Up and down flow is the main flow if mounting the mixer off-center on the right side. This is generally used.

Mounting the mixer within ±5° from the center tank is prohibited. Good mixing can be obtained if baffles are installed inside the tank. Please refer Page 23 for the baffle information.

Mounting angles



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 A610.

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>

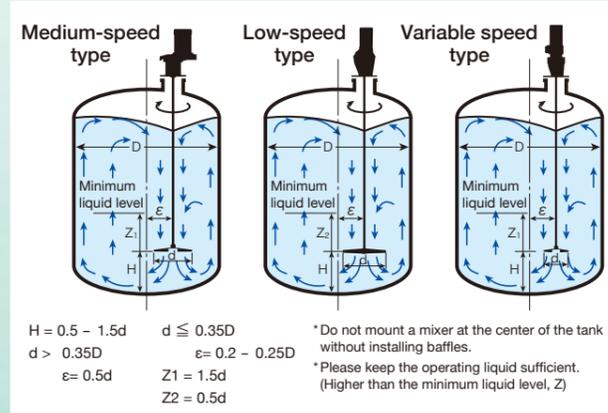
The smallest flange-mounted mixer designed for cost reduction.

Mounting position and fluid flow pattern inside stirred tank

To determine the mounting position of the mixer, decide the fluid flow pattern that meets the mixing objective by considering the purpose, specific gravity, viscosity, and other properties of the liquid, as well as the mixing ratio, mixing time, etc.

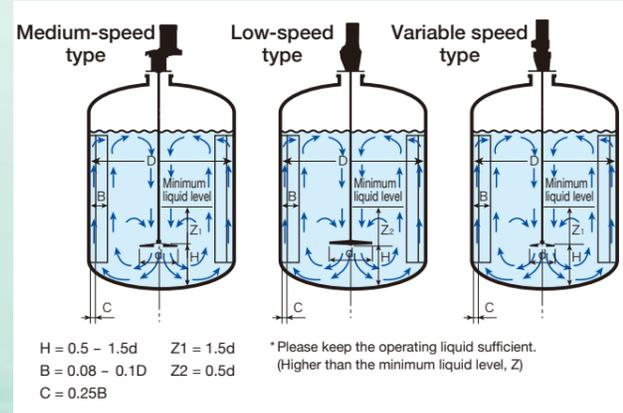
Off-center mounting

If the mixer is mounted off-center without baffles inside the tank, it eliminates the concentric flow against the tank, resulting in good turbulent flow.



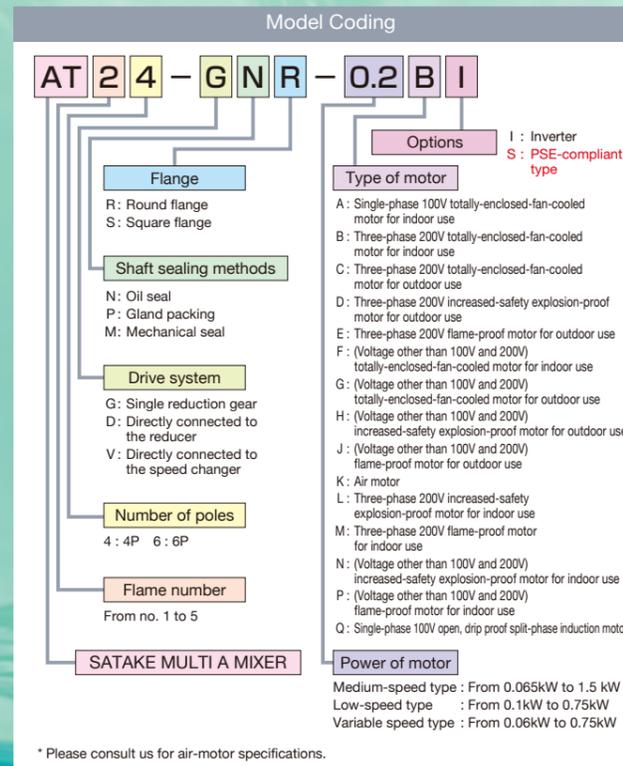
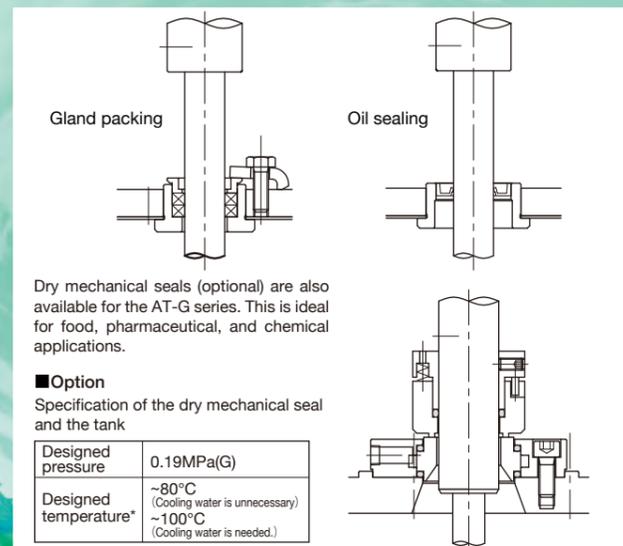
Center mounting with baffles

The swirling flow is controlled by the baffles, and up-and-down flow becomes dominant. Since the flow becomes turbulent, the mixing effect is enhanced. Normally, two to four baffles are installed equally near the inner wall of the tank and perpendicular to the rotating flow is most suitable.



Sealing

For the shaft seal, two types of seals are available as standard: oil seal and gland packing seal.



AT-G Series

Medium-speed type

Impeller speed 50Hz : 300min⁻¹ 60Hz : 360min⁻¹

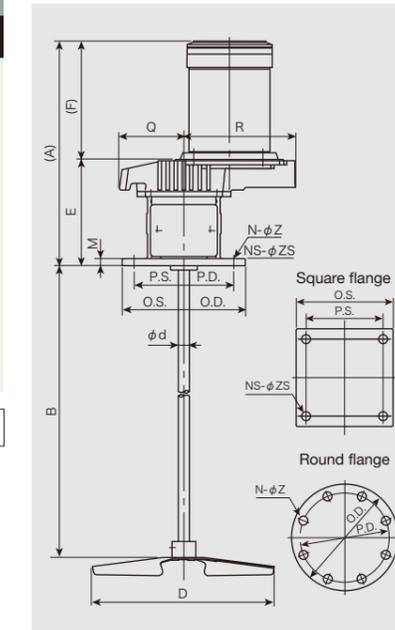
The AT-G type mixer can be used in a wide range of applications due to its small size, light weight, high mixing efficiency, and high durability.

This new type of mixer is ideal for general soluble liquid-liquid mixing, dilution, heat transfer, relatively soluble solid-liquid mixing, dispersion, prevent solids suspension, and uniform mixing.

Please refer to A720 (Page 6) on mixing capacity.

Excellent for wide range of applications.

Dimensional drawing



P36 Impeller



The PSE-compliant type comes with an overload protection device, switch and power cord. See Page 18 for details.

Standard specification

Model	Frame number No.	Motor			Impeller				Shaft length (mm)
		Power (kW)	Number of Poles (P)	Phase and Voltage (V)	Frequency (Hz)	Impeller Speed (min ⁻¹)	Diameter (mm)	Stage	
AT14-G□□-0.065A	1	0.065	4	Single-phase 100	50	300	150	1	689
60					360				
AT14-G□□-0.1A					50	300			
AT14-G□□-0.1B	1	0.1	4	Three-phase 200	50	300	220	1	889
60					360				
AT24-G□□-0.2A					50	300			
AT24-G□□-0.2B	2	0.2	4	Single-phase 100	50	300	270	1	1109
60					360				
AT34-G□□-0.4B					50	300			
AT46-G□□-0.4B	4	0.4	6	Three-phase 200	50	200	350	1	1626
60					240				
AT44-G□□-0.75B					50	300			
AT56-G□□-0.75B	5	0.75	6	Three-phase 200	50	200	400	1	1856
60					240				
AT54-G□□-1.5B					50	300			
					60	360			

* The standard materials for shaft and impeller are SUS304 and SUS316.
 * Please contact us for the shipping of 6P motor specification.
 * The AT-G is the replacement for the former A□-G and AN□-G.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)															Estimated weight (kg)	
			(A)	B	B-MAX (Option)	φd	D	E	(F)	M	NS-φZS	O.S.	P.S.	N-φZ	O.D.	P.D.	Q		R
AT-G	1	0.065 A	(317)	600	1050	13	150	135	(182)	12	4-15	165	130	8-15	185	150	84	134	14
		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
	2	0.2 A	(365)	1000	1250	16	270	160	(205)	12	4-15	165	130	8-15	185	150	96	165	19
		0.2 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

* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.
 * The estimated weight shows the total amount including the motor, mixing shaft and the impeller.
 * The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

A variable speed type with air motor using compressed air is also available. Stainless-steel and non-lubricated specifications of air motors are also available.

SATAKE MULTI A MIXER

AT-D series

Ideal for moderate mixing of large volume.

Low-speed type

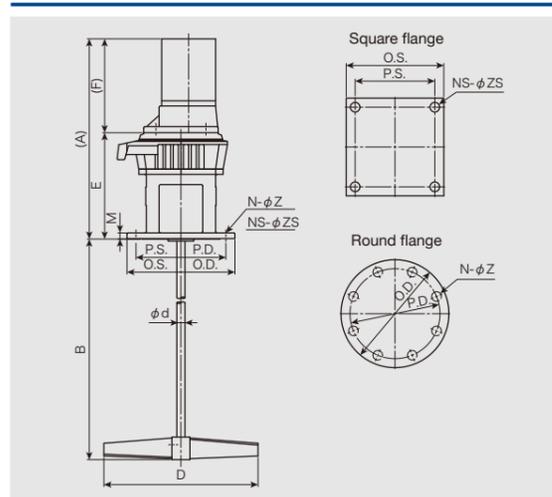
Impeller speed 50Hz : 150min⁻¹ 60Hz : 180min⁻¹

The AT-D type mixer mixes relatively sticky liquid and liquid, slowly and strongly. It is also suitable for large volume applications such as storage tanks and for mixing that requires no foaming.

* Please consult us if you require a non-standard rotation speed or an explosion-proof specification.
* Please consult us for air-motor specification.

Please refer to A740 (Page 16) on mixing capacity.

Dimensional drawing



Standard specification

Model	Frame number No.	Motor			Impeller				Shaft length (mm)	
		Power (kW)	Number of Poles (P)	Phase and Voltage (V)	Frequency (Hz)	Impeller Speed (min ⁻¹)	Diameter (mm)	Stage		
AT34-D□□-0.1A	3	0.1	4	Single-phase 100	50	150	300	1	924	
AT34-D□□-0.1B					60	180				
AT34-D□□-0.2A		0.2	4	Single-phase 100	50	150	350	1	1124	
AT34-D□□-0.2B					60	180				
AT44-D□□-0.4B		4A	0.4	4	Three-phase 200	50	150	400	1	1312
AT44-D□□-0.75B		4B				60	180			

* The standard materials for the shaft and the impeller are SUS304 or SUS316. * The AT□-D is the replacement for the A□-D and AN□-D.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)														Estimated weight (kg)
			(A)	B	B-MAX (Option)	φd	D	E	(F)	M	NS-φZS	O.S.	P.S.	N-φZ	O.D.	P.D.	
AT-D	3	0.1 A	(451)	800	1100	16	300	207	(244)	9	4-19	190	155	8-19	210	175	21
		0.1 B	(390)	800	1100	16	300	207	(183)	9	4-19	190	155	8-19	210	175	18
	3	0.2 A	(471)	1000	1100	16	350	207	(264)	9	4-19	190	155	8-19	210	175	24
		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

* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor. * The estimated weight shows the total amount including the motor, mixing shaft and impeller.
* The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.

AT-V series

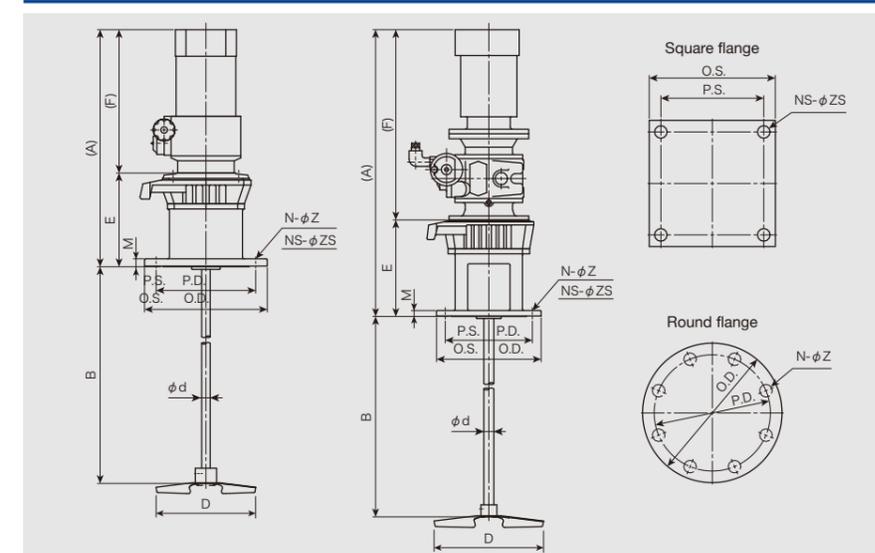
Respond immediately to any changes with gradual and rapid mixing.

Variable speed type

Impeller speed 50/60Hz : 0~420min⁻¹

This AT-V type mixer can respond to changes in liquid viscosity and liquid volume, thereby preventing excessive or insufficient mixing.

Dimensional drawing



Standard specification

Model	Frame number No.	Power (kW)	Number of Poles (P)	Motor Phase and Voltage (V)	Frequency (Hz)	Impeller			Shaft length (mm)
						Impeller Speed (min ⁻¹)	Diameter (mm)	Stage	
AT14-V□□-0.06A	1	0.06	4	Single-phase 100	50/60	0~420	150	1	586
AT14-V□□-0.06B									
AT14-V□□-0.09A		0.09	4	Single-phase 100	50/60	0~420	180	1	786
AT14-V□□-0.09B									
AT34-V□□-0.2A	3	0.2	4	Single-phase 100	50/60	0~420	220	1	1003
AT34-V□□-0.2B									
AT34-V□□-0.4B		0.4	4	Three-phase 200	50/60	0~420	270	1	1203
AT44-V□□-0.75B									

* The standard materials for the shaft and the impeller are SUS304 or SUS316. * The AT□-V is the replacement for the A□-V and AN□-V.

Standard dimensions

Model	Frame number	Motor (kW)	Dimension (mm)														Estimated weight (kg)
			(A)	B	B-MAX (Option)	φd	D	E	(F)	M	NS-φZS	O.S.	P.S.	N-φZ	O.D.	P.D.	
AT-V	1	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
		0.09B	(448)	700	1000	13	180	141	(307)	9	4-15	165	130	8-15	185	150	17
	3	0.2A	(595)	900	1300	20	220	194	(401)	9	4-19	190	155	8-19	210	175	37
		0.2B	(576)	900	1300	20	220	194	(382)	9	4-19	190	155	8-19	210	175	34
4	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	

* The dimensions A and F, also the estimated weight in the table vary slightly depending on the brand of the motor.
* The estimated weight shows the total amount including the motor, mixing shaft and impeller.
* The standard paint color is approximately the value of N5.5 of Munsell color system. The paint color of the motor is the manufacturer's standard color.



L18 Impeller



P36 Impeller

