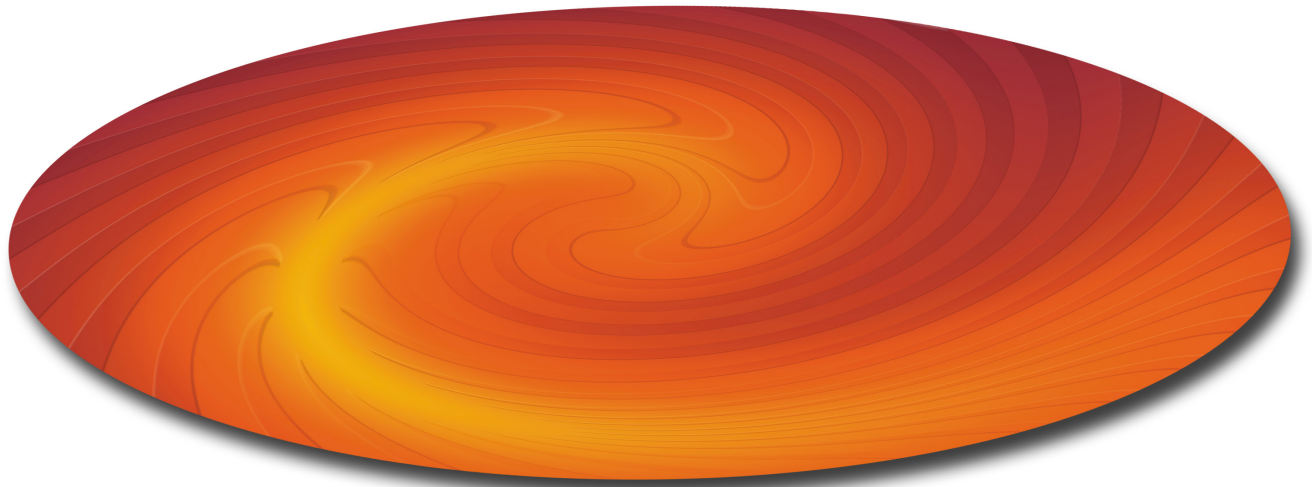


# MAZERUSTAR



*Planetary mixers/deaerators*

*Fast & thorough mixing/deaeration - simultaneously*



KK2000

KK5000

KK10000

*Mazerustar® sets the standard of “Revolution/Rotation-type mixing”*

## Applications

- Conductive/resistance materials such as gold, silver, copper, and carbon paste.
- Sealing/insulation materials such as glass and ceramic paste.
- Seal/glue materials such as epoxy resin.
- Molding materials such as silicone resin.
- Mixtures of various color materials such as ink, paint and pigments.
- Production of dentistry, medical/pharmaceutical, or cosmetic base materials.
- Abrasion of precision parts.

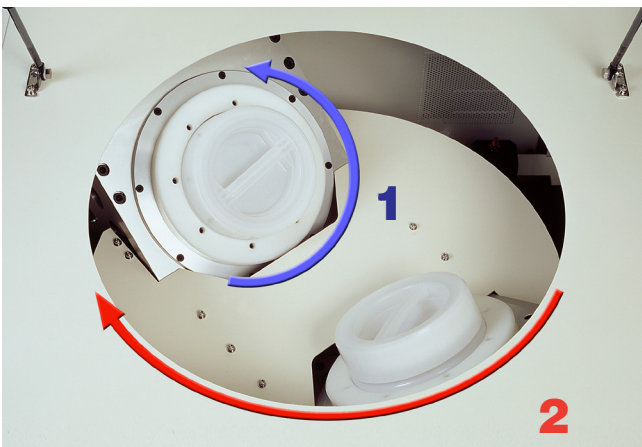
Additional uses in a variety of industries such as electronics, chemistry, medicine and cosmetics are constantly being discovered and developed.

## Performance

*Particularly useful for the following materials and processing purposes*

- High-viscosity liquids, which were impossible to mix, or which required long processing times by conventional mixing machines or deaeration devices.
- Mixing two or more kinds of liquids which are widely different from each other in their characteristics or specific gravities
- Mixing liquids and powders (filler), which need to be evenly mixed even if the two kinds of materials are widely different from each other in their characteristics or specific gravities
- High value added materials that need to be processed without influence of containment (contaminants) and require processing with minimal waste.
- Work processes that may benefit from reduced time and labor by minimizing processing and device or container clean-up.

Mazerustar® Planetary Mixers perform mixing and deaeration simultaneously by continually revolving and rotating the container concurrently. This unique dual rotation action eliminates the need for mixing rods, blades or media, or an evacuation device and can dramatically reduce processing times.



### **Rotation Action 1**

Both revolution (centrifugal) speed and container rotation (planetary) speed are independently variable. This unique mixing capability allows the operator to design precise solutions for mixing various systems.

### **Rotation Action 2**

Both revolution speed and rotation speed can be programmed independently in a stepwise fashion (three steps maximum). This stepwise programming ability allows the operator to treat materials in sequence to achieve optimal mixing results for a wide variety of systems and industries.

*The unique features of the Mazerustar as a mixing/deaeration device are protected by Japanese public patents (No. 2711964 and No. 3213735).*

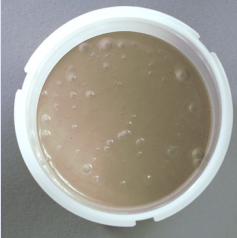
## Example Applications & Processing

Before Processing

After Processing

### Silver Paste

*(For minimizing temperature-rise and dispersing evenly, set the revolution level and the rotation level at medium)*



17.5°C

#### Step A

Revolution: 5  
Rotation: 5  
Time: 120 Sec.

*(Performs temperature-rise control to the utmost)*



24.0°C

### Alumina Paste

*(To prevent the paste from becoming lumpy, and achieve excellent deaeration use a two-step process.)*



Transparent: Epoxy Resin, White: Alumina Powder, Blue: Pigment

#### Step A

Revolution: 3  
Rotation: 7  
Time: 30 Sec.

#### Step B

Revolution: 9  
Rotation: 3  
Time: 60 Sec.



### Lipstick Base Material

*(Mainly for mixing, set both the revolution level and rotation level rather high).*



#### Step A

Revolution: 9  
Rotation: 7  
Time: 90 Sec.



Revolution: The speed is variable with 9 levels, ( level 1-9 ).

Rotation Ratio: The speed is variable with 10 levels ( level 0-9. (Rotation speed = Revolution speed x 1.0 - [except 0.0] )

## Container Options

In addition to the standard containers, other containers such as disposable cups, commercially available containers, syringes, etc. are available for the Mazerustar® mixers by using adapters (optional).

In particular for syringes, multiple sets of adapters are available in the mixer series including KK-2000 model, which are most suitable for deaeration of paste contained in a number of syringes.

*(Japanese Patent assessed under application No. 2001-159698)*



## Models and Specifications



**KK250**

**KK400**

**KK1000**

**KK2000**

**KK5000**

**KK10000\***

Standard Containers**	HDPE 250ml	HDPE 400ml	HDPE 1.1L	Specified by user Max 2 L approx.	PE 4 L Special Purpose Container	PE 4 L Commercially Available Containers
Max Processing Quantity***	250g	400g x 2 cups	1 kg x 2 cups	2 kg x 2 cups	5 kg x 2 cups	10 kg x 2 cups
Revolution	9 levels variable					9 levels (1-9) (Revolution speed, rotation ratio fixed)
Rotation	10 levels variable (0-9) (1 times revolution except 0 speed)					
Step Time	10-990 seconds x 3 steps			10-300 Seconds x 3 steps		
Number of Programs	20 (10 Fixed, 10 User Defined)					
Warning Device	Unbalanced load warning, overload warning, non-secured door or maintenance cover					
Safety Function	Automatic shutoff in case of any errors. Door interlocks prevents the system from operating while upper door is open.					
Temperature & Humidity for use	10-40°C 20-80%RH (No dew condensation)					
Power Supply Voltage	AC 100V± 10%		200V +/- 10% (Single Phase)	200V +/- 10% (Three Phase)		
Electrical Consumption (watts)	650W approx.	750W approx.	2kW approx.	2.5kW approx	7kW approx.	10kW approx.
Dimensions (mm)	350W x 420D x 415H	400W x 513D x 457H	565W x 597D x 700H	646W x 662D x 730H	790W x 892D x 1080H	950W x 1070D x 1224H
Weight (Kg)	37 approx.	60 approx.	120 approx.	220 approx.	470 approx.	560 approx.

Specifications are subject to change without prior notice

\* The specifications described here are for example purposes only. Mixers are custom designed to exact specifications.

\*\* By using the adapters (Optional), multiple types of containers can be freely used.

\*\*\* Weight including the container and adapter

**Exclusively distributed  
in North America by**



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