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# THINKY MIXER

Planetary centrifugal mixer



ARV-10kTWIN

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THINKY

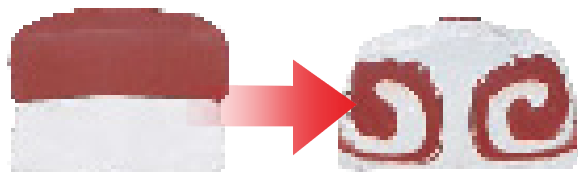
# PLANETARY MIXER

## ROTATION / RÉVOLUTION

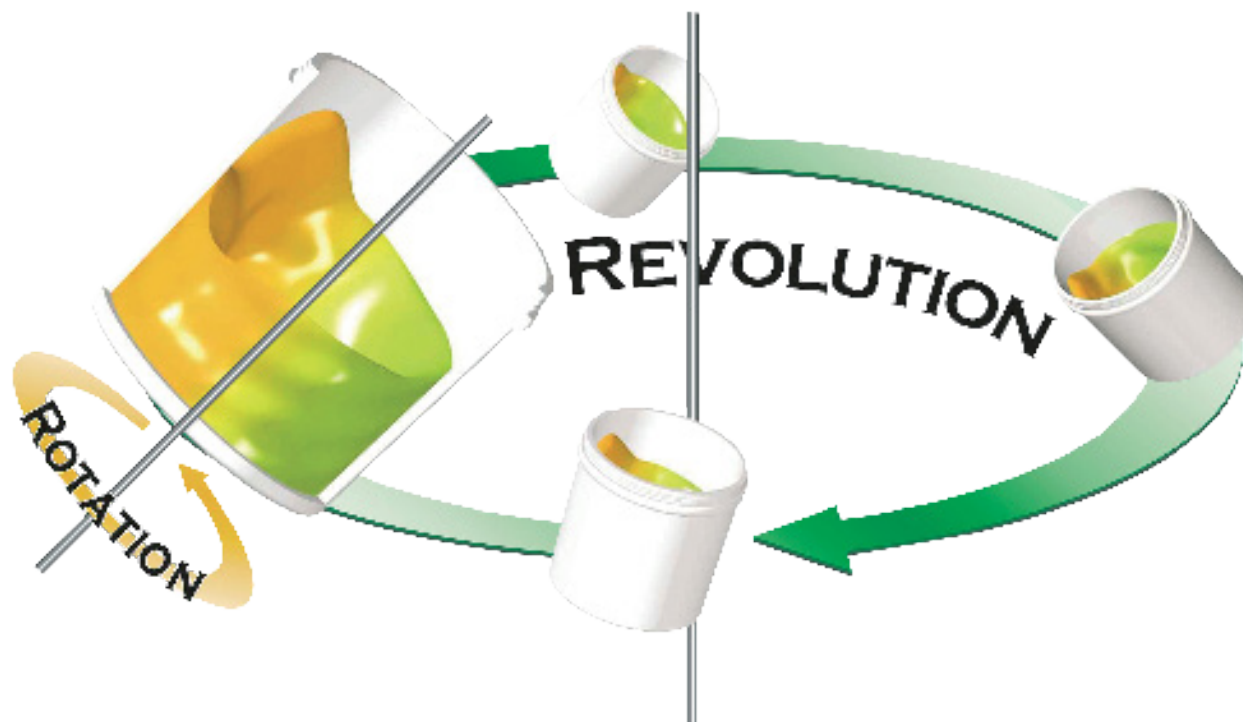
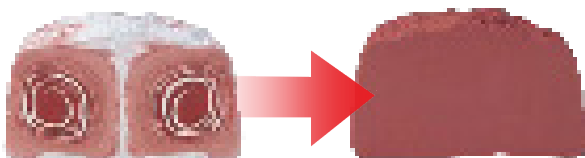
### Sample

Mixing process of high-viscosity materials using oil - based day. The mixing of two layers of high - viscosity oil - day has started. In just seven minutes uniform mixing

### Early phase



### Completion of operation



## PRESENTATION

The Planetary Centrifugal System is an innovative mixing technology that achieves «simultaneous mixing and deaeration». Its dynamic motion is much the same as the movement of the Earth as it revolves both on its own axis and around the Sun.

The container with the material is placed into the holder at a perfect 45-degree angle. A clockwise revolution and counter-clockwise rotation is applied to the container. The centrifugal force of

the revolution works as a «power that accelerates deaeration. The interaction between rotation and revolution generates a spiral flow and rising and falling convection currents. Air bubbles within the material are efficiently pressed out the surface, thus enabling mixing and dispersion without bubbles folding back into the mix.

The Thinky Mixer that debuted in the world as the planetary centrifugal mixer was very easily able to achieve the kneading and deaeration viscosity materials that had been impossible up until then

and pioneered a number of material evolutions all at once.

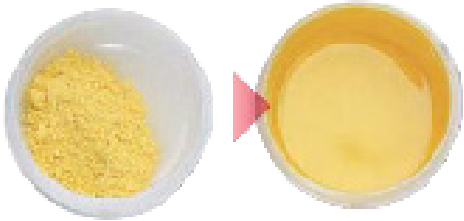
Today, Thinky Mixer has grown into an entire series with full support for the basic materials research stage to mass production, and continues to make contributions to the state-of-the art materials field in the elimination of submicronlevel air bubbles. Its 45 degree angle maximizes the collision frequency of materials and media, and completes the pulverization process in a very short time.

- Deaeration
- Defoaming
- Crushing/Grinding
- Dispersion
- Emulsification
- Stirring/Kneading

# APPLICATIONS

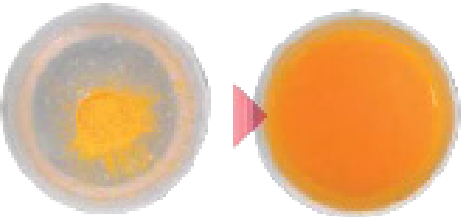
BEFORE/ AFTER

Onguent ( Zinc oxide and acrinol powder )



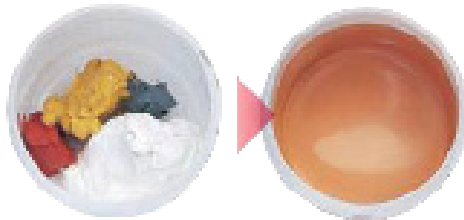
Yellow acrinol powders are uniformly dispersed to create a solid yellow color cream with a smooth feel when applied

Silicone /Silicate



The fluorescent material is uniformly dispersed with no sedimentation throughout the low-viscosity silicone resin

Cosmetic Foundation



Four types of materials are uniformly mixed to a smooth cream consistency.

Epoxy Resin and alumina powder



2 - part resin and white alumina powder are uniformly mixed to a solid green color

MANUAL MIXING / THINKY MIXER

Sealant for white LED

Fluorescent powders with a higher specific gravity are uniformly dispersed without sedimentation



Polyimide

No bubbles. Uniformity mixed



Solder Paste

Smooth Surface. No bubbles



Silicon resin and calcium carbonate

No lumps. Powders turn into a uniformly mixed paste



## ARE 250 : HIGH QUALITY MIXER

### SPECIFICATIONS

Max. processing volume	300 ml
Dimensions	H380 x L300 x P315
Max. weight [ net ]	250 g
Max. weight [ brut ]	310 g
Deaeration type	Atmospheric pressure
Mixing function	410G
RPM	Adjustable



### PRESENTATION

The THINKY ARE-250 Mixer is an industrial non-contact «planetary» mixer for all compounds. It mixes, disperses and degasses your materials in seconds to minutes, in a sealed or lid-less container such as a jar, beaker, syringe or cartridge. The non-contact mixing principle makes it possible to formulate compounds from very small amounts such as 0.5ml to large production scales.

This is a lightweight benchtop model, which can hold up to 310g of material. The Multi-Step Mixing feature allows you to program 5 different sets of mixing and degassing conditions

(time and speed per mode) in a single batch cycle. Precise control of the process makes it possible not only to improve formulation quality, but also to eliminate human errors or operator skills throughout the process. It is also effective in controlling shear, so as not to damage your materials. Cooled materials or heated materials can be processed with special adapters. The ARE-250 can accept syringes up to 55ml or up to 75ml (2.5 oz) cartridges with optional adapters. Larger THINKY mixers with vacuum capability are also available.

- Vacuum-less processing, degassing and deaeration
- Remove voids and re-disperse filled materials packed in syringes
- Saves significant time and lowers costs
- Produces consistent quality, with digitally controlled processing

# SR 500 : SOLDER PASTE MIXER



## SPECIFICATIONS

Max. processing volume	150 ml
Dimensions	H380 x L300 x P340
Max. weight [ net ]	520 g
Max. weight [ brut ]	560 g
Pression type	NA
Mixing function	150 G
RPM	Adjustable



## PRESENTATION

Special purpose machine that can optimize temperature and viscosity preparations and dispersion and deaeration of solder paste at the same time.

The mixer SR500 can prepare uniform viscosity in a short time for solder paste just taken from cold storage without bringing it back to room temperature. Metal particles with high specific gravity such as solder particles settle to the bottom of containers in cold storage and cause differences in material viscosity. The SR-500 regulates the viscosity of solder paste in a short time, with uniform viscosity from top to bottom. Also, because it can remove air bubbles thought to cause spattering of solder balls, it contributes to reducing the defect rate.

- Can immediately prepare cold stored solder paste without bringing it back to room temperature
- Viscosity preparation and temperature preparation for solder paste is easy.
- Removes large air bubbles in the paste, which are considered the cause of solder paste defects.
- Restirs and redisperses solder paste that has been used
- Adaptateur pour le mélange du contenu d'une seringue
- Supports solder paste in syringes by using the optional adapter

## ARV 310 : HIGH QUALITY VACUUM MIXER

### SPECIFICATIONS

Max. processing volume	300 ml
Dimensions	H450 x L555x P645
Max. weight [ net ]	250 g
Max. weight [ brut ]	310 g
Deaeration type	Vacuum
Mixing function	420 G
RPM	Adjustable



### PRESENTATION

Standard vacuum mixer enabling uniform mixing and elimination of submicron-level air bubbles.

Combining vacuum pressure reduction function with rotation and revolution mixing enables efficient elimination of submicron-level air bubbles. With rotation and revolution movement under vacuum pressure reduction, deaeration of high-viscosity materials; which was considered difficult, can now be performed with excellent quality. The processing time can be further reduced compared to the atmospheric mixer. In terms of operation; the centrifugal force of revolution during the mixing process suppresses the material within the container, eliminating the need to keep an eye on the material so that it does not overflow, as is needed with static vacuum chambers.

- Simultaneous mixing, dispersion, and submicron-level air bubble elimination
- Deaeration of high-viscosity materials difficult to be processed by a centrifugal separator
- Reduced processing time and improved deaeration performance compared to the atmospheric type mixer
- Centrifugal force of revolution prevents overflow of material during operation

# ARV 930 : TWIN VACUUM MIXER



## SPECIFICATIONS

Max. processing volume	750 ml x 2 ou 550ml x 2
Dimensions	H960 x L760 x P820
Max. weight ( net )	830 g x 2
Max. weight ( brut )	930 g x 2
Deaeration type	Vacuum
Mixing function	660 G
RPM	Adjustable



\*Can be used for 6oz cartridges

## PRESENTATION

Manufacturing application mixer that can vacuum process a maximum 1L of materials with twin mixer system.

This product employs a twin mixer system, and supports manufacturing application with the capacity to process a maximum 1L of materials. It is equipped with a vacuum function in order to achieve deaeration at the submicron level, thus it is possible to process uniform mixing and dispersion as well as deaeration at the same time. It has two

deaeration modes as standard features: one is vacuum deaeration mode which combines 400G centrifugal force and vacuum, and the other is Non Vacuum deaeration mode which utilizes powerful centrifugal force of maximum 670G. This enables high precision deaeration even with materials that contain a volatile component that is not suitable for vacuum deaeration. Furthermore, time to reach vacuum is significantly reduced by adopting our unique in-cup-holder vacuum pressure reduction system that minimizes the vacuum volume.

- First tank capacity of the range (1 Litre)
- High power mixing function (660 G)
- No material spillage during operation
- Adjustable rpm allows optimal setting for any material
- Cup holder vacuum system reduces pressure reduction time
- High standard of deaeration for volatile materials

## ARE 500 : HIGHER LOAD MIXER

### SPECIFICATIONS

Max. processing volume	550 ml
Dimensions	H700 x L500 x P630
Max. weight [ net ]	1 000 g
Max. weight [ brut ]	1 100 g
Deaeration type	Atmospheric pressure
Mixing function	670 G
RPM	Adjustable



\* Allows you to integrate 6oz cartridge

### PRESENTATION

This compact floor-standing type comes at a very competitive price and is capable of processing up to 500 ml. The rpm is adjustable, enabling optimal settings for a wide range of materials. The high durability drive system was developed with manufacturing production in mind.

The RPM level (revolution per minute) is adjustable, which allows the treatment of a wide range of materials. A window on the device cover allows you to see the mixture at work and the vibration sensor and lid lock feature ensures the highest level of security

- Rotation/Revolution no-blade mixing system
- Maximum capacity for material processing : 500ml or 1.1 kg
- Simultaneous processing of mixing, dispersion and deaeration (defoaming)
- Coste effective performance
- Membrane switches are easy to see and operate
- Timer : 5 programmable steps of continuous control for each recipe profile



# ARE 400 TWIN : FLEXIBLE LAB TWIN MIXER



## SPECIFICATIONS

Max. processing volume	300 ml x 2
Dimensions	H560 x L460 x P480
Max. weight [ net ]	250 g x 2
Max. weight [ brut ]	310 g x 2
Deaeration type	Atmospheric pressure
Mixing function	660 G
RPM	Adjustable



\*Connected PC version and measure of the real time temperature

## PRESENTATION

The built in mechanism can vary the ratio of rotation, while the twin system is newly developed. Mixes and deaerates a maximum 500ml / 800g of material (gross).

This machine can set and reproduce optimal recipes for materials whose temperature is hard to control because it can detect material temperatures in containers in real time during operation with the combined use of the newly developed sensor unit incorporating non-contact sensors (optional).

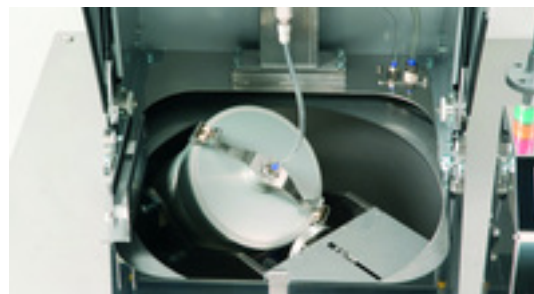
A PC connector (USB Type B) is installed on the back of the unit as standard equipment, achieving parameter setting, rotations

- Rotation and revolution independent variable mechanism mounted
- Twin system, maximum capacity 250ml / 400g x 2
- Mixing capacity can mix high viscosity material such as viscous grease with viscosity 4000 Pa s
- Effective in setting recipes for materials that do not like temperature-rise
- Can use a sensor unit that can detect temperature of materials being mixed in real time (optional)
- Through external PC connections, can display recipe settings, rotations during operation, and material temperature in real time (USB type B standard equipment)

# ARV 5000 : PLANETARY CENTRIFUGAL VACUUM MIXER

## SPECIFICATIONS

Max. processing volume	4 L
Dimensions	H1600 x L1000 x P865
Max. weight ( net )	4700 g
Max. weight ( brut )	5000 g
Deaeration type	Vacuum
Mixing function	185 G
RPM	Adjustable



\* Allows you to integrate 6oz cartridges

## PRESENTATION

Mixing, dispersion, and deaeration (defoaming) with a large 3L / 5kg capacity, the ARV-5000 supports mass production and improves productivity and efficiency. A large volume of mixing and deaeration (defoaming) can easily be carried out at one time.

Mixing, dispersion, and deaeration (defoaming) are simultaneously conducted in a short time. In combination with vacuum technology, the ARV-5000 completely removes submicron air bubbles even with highly viscous materials.

- Large capacity : 3L or 5 kg
- Recipe setting for optimal material processing ensures no spillage during operation
- Adjustable rpm allows optimal setting for any material
- User - friendly touch screen
- Rotation and revolution provides air - cooling function
- Digital setting ensures no sample overflow
- Accepts a wide range of containers
- Many accessories.
- Intuitive touch screen

# ARC 40 H : VACUUM SYRINGE CHARGER



## SPECIFICATIONS

Max. processing volume	3 ml, 5 ml, 10 ml et 30 ml
Capacity	4 syringes at the same time
Dimensions	H550 x L200 x P140
Weight	Approx. 10 kg
Operation	Manual
Deaeration type	Vacuum
Mixing function	NA



## PRESENTATION

ARC 40H has been developed in order to provide planetary mixer users, the possibility of transferring directly the mixed product from the pot of the mixer to the syringe that permits the operation. It therefore allows a considerable time saving since it greatly shortened the conditioning step of the fluid.

This manual filler is adaptable to small syringes 3,5,10 and 30 ml sizes, and guarantees rapid filling and without bubble. His robust and simple structure, was designed with the perspective to easily clean every room in case of soiling.

- Able to charge materials into 3ml, 5ml and 10ml syringes, which are too small to charge manually
- Up to 4 syringes can be charged at one time effectively
- Capable for materials from low to high viscosity
- The process from mixing and defoaming to charging is integrated by Thinky products
- Easy to clean



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Persuaded that our expertise must be complete, we also supply you tools in order to prepare your fluid (mixture and degassing) and polymerize your glues (UV sunstroke). Our range of consumables (needles, syringes, static mixers etc are also considered as the best in the market.

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