

# Table-Top Type Particle Composition Processor

Hosokawa Micron

# Mechanofusion System<sup>®</sup> AMS-Mini



◇ Want to test with a small quantity ?  
 ◇ Want to make particle designs on the table-top easily ?  
 ◇ Want to develop new / high-worthy materials in the company ?  
 → Please consider this !



### □ Particle composition processing with a small sample quantity

A small quantity (100cc) is much enough to produce some kinds of samples.

It is suitable for rare or high-priced samples.

### □ Possible to fabricate composite particles with dry processing

Using the strong compressive-shearing effect produces the composite products with dry condition.

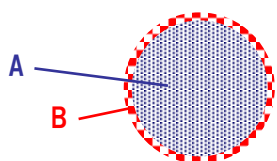
### □ Easy discharge of product

The processing unit can turn down to make the product powder discharged easily.

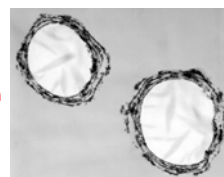
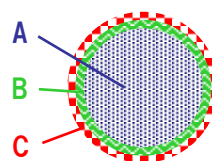
## What can the "Mechanofusion" produce?

### Particle Design

#### Particle Composition



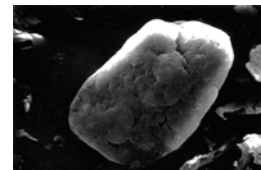
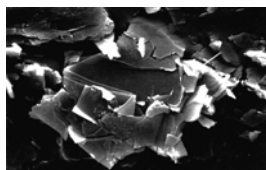
Instance of Mono-layer Composition



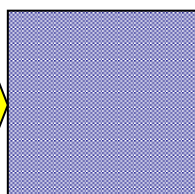
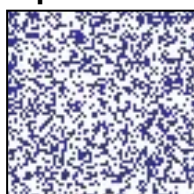
Instance of multi-layer Composition

#### Particle Shape Control

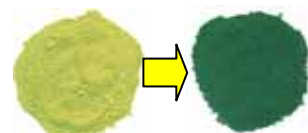
(Instance of Rounding)



#### Precise Dispersion



**Instance of Precise Dispersion**  
 In this case, the dyes (blue, 5wt%) are dispersed into the yellow oxide powder. The dye particles are dispersed onto the surfaces of the oxide particles, and the excellent color which have never been got before appears.



High-speed mixer    Mechanofusion

# Mechanofusion improves material properties in various fields !

**【Electronics, Electrics】** Packed Density and Sintering Activity of Rechargeable Batteries Materials, Reactivity & Performance of Fuel Cell

**【Information Technologies】** Flowability of Toner, Density of Memory Devices

**【Pharmaceuticals】** Drug Delivery System (Release Control, Solubility increasing)

**【Biological】** Prevention of quality change, Improvement of Weather resistance

**【Chemicals】** Catalyst Properties and Sintering Ability

**【Architecture】** Prevention of quality change, Weather resistance, High-temperature/high-strength material, Gradient Functional Material

**【Environment】** Reactivity, Sintering Activity and Weather Resistance of Catalysts

**【Cosmetics】** UV-Shield, Super Precise Composition

**【Pigments】** Highly Color Appearance by Super Precise Dispersion

## Specifications of AMS-Mini

Dimensions [mm], Weight [kg]	Width 400, Height 700, Depth 350, 60kg (Control unit not included)
Electric source	200V(3-Phase,AC) 50/60Hz
Rotor speed [rpm]	1000~6000
Casing	Powder touched faces: Lapped by #200(Except machined faces ) Water cooled jacket
Quality of material	Machine Body : SUS304 Controller : SS

Are you wondering if it is possible to make the scale-up even though the table-top works well ?



We have 4 scale-types 1.2, 20, 80 and 200 liters, and we meet customer's various needs.

## Guidance of toll processing of Mechanofusion

Do you hesitate to install producing facilities? **Solution:**

**We takes toll processing orders!**

Even if secrecy agreements are required on the new material development, please ask us that anyway.



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No time!  
No margin of money !  
No staffs !



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