

# Consignment Processing System, developing based on our affluent experience, advanced technology and state-of-the-art facility

Nisshin Engineering undertakes on the consignment basis, the pulverization, classification and characteristics measurement of the material powder according to the requirements of customers, based on our achievements of processing and measurement of powder over the period. You can make the use of it for your production, research and development of powder products.



## Contents of Consignment

### ■ Pulverization

Pulverization method	Overview	Remarks
Fluid energy method	Powder particles are engulfed in the jet and pulverized by the collision of particles with each other.	Current jet.
Roller method	Shearing force is applied to the powder engulfed between the roller and the table to pulverize it.	Super hybrid mill.
High speed rotor method	By passing the powder through the high-speed spiral flow generated by the rotor with a unique structure, fine pulverization of the powder is executed.	Super rotor. Blade mill.
	Impact, shearing and friction are applied to the powder residing between the pin attached to the fast revolving disc and the pin attached to the opposite side to pulverize it.	Pin mill. Disc mill.

### ■ Classification

Classification method	Overview
Air classification	The turbo classifier developed by us executes the classification of the size from sub micron to hundreds micron, which correspond to the size from experimental scale to mass processing scale.
sieving	Classification up to around a hundred microns.

### ■ Characteristics measurement

Item to measure	Overview
Particle size	Laser diffraction method (Microtrack dry/wet type), sedimentation method (white light transmission method, X-ray transmission method), electric detection method (Coulter counter), sieving method, microscope method and specific surface area method
Powder characteristics	Powder tester, true density, shearing force.
Component analysis	Moisture measurement, ash, protein, EDX, fluorescent X-ray, powder X-ray diffraction.
Photo shooting	Scan electronic microscope, optical microscope