Micro Classification / Sifting

Super Micro Sieve Classification System & Screen

System Integration / Design / Sales / Engineering Support / Powder Processing Service

- Nano Creating (Grinding / Dispersion / Emulsifying / Classification) Systems
- Powder & Particles Processing Equipment / Systems

FT Associates

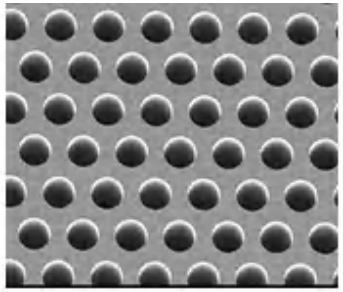
FT Associates, Inc. (FTA)

1-23-6 Higashi-Fujisawa, Iruma, Saitama 358-0012 Japan
Phone : +81-(0)4-2997-8070
Fax : +81-(0)4-2997-8079
E-mail : sales@ftajapan.com
URL : http://www.ftajapan.com

■ Super Micro Sieve Classification System

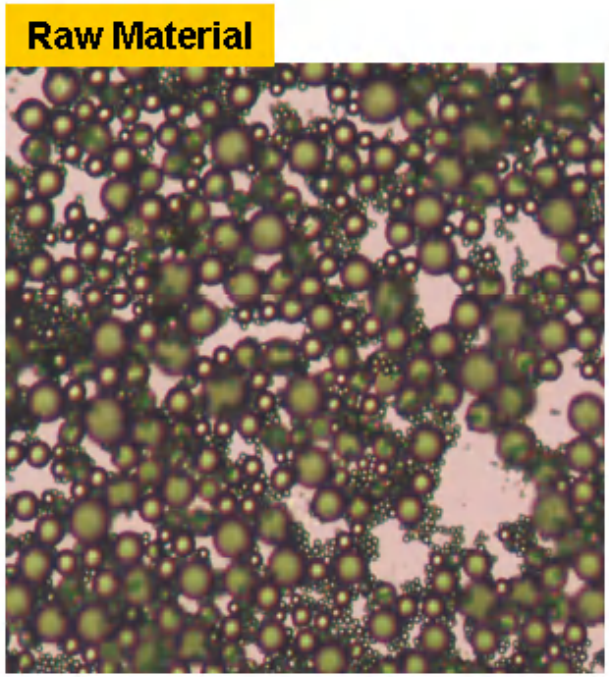
Model : FMC-075-1W

Super Micro Sieve Screen, with “high aspect ratio” & , “ultra high durablity“, makes 5 micron Screen Classification / Sifting possible.

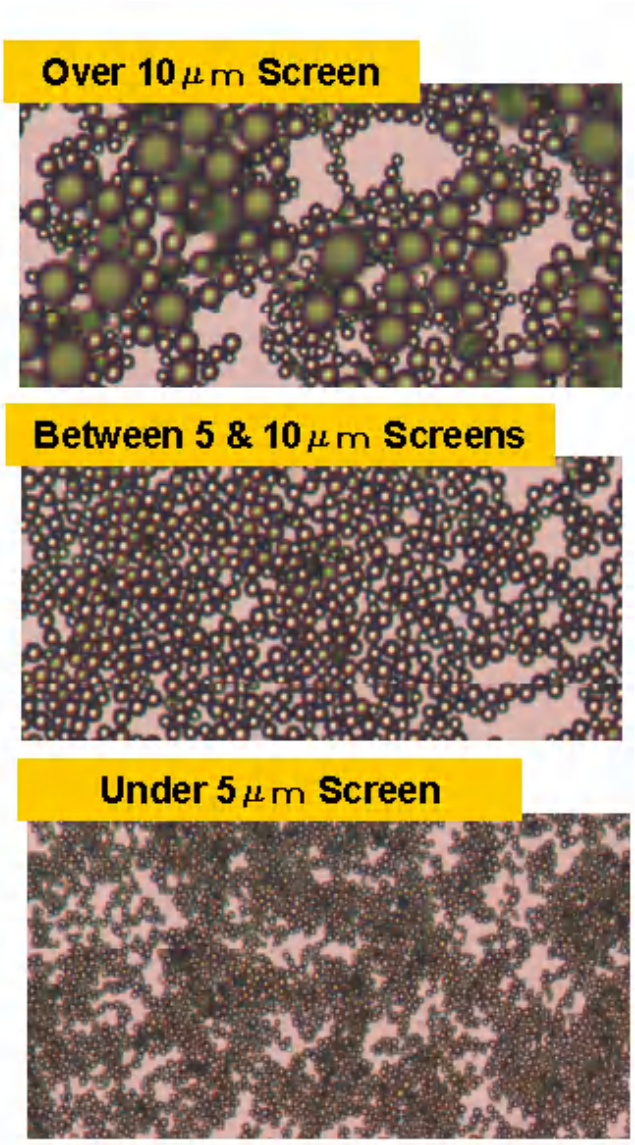


Sifting Finest particles Size : 5μm
Classification accuracy : hole size ± 0.5μm diameter
Classification speed : 30 ~ 50L/h
Size : Approx. 400 x 500 x 800 (H) mm 50 kg
*** Subject to Particle shape, size, distribution, Slurry, viscosity & other factors**
(Specification might be changed without notice for the Product improvement)

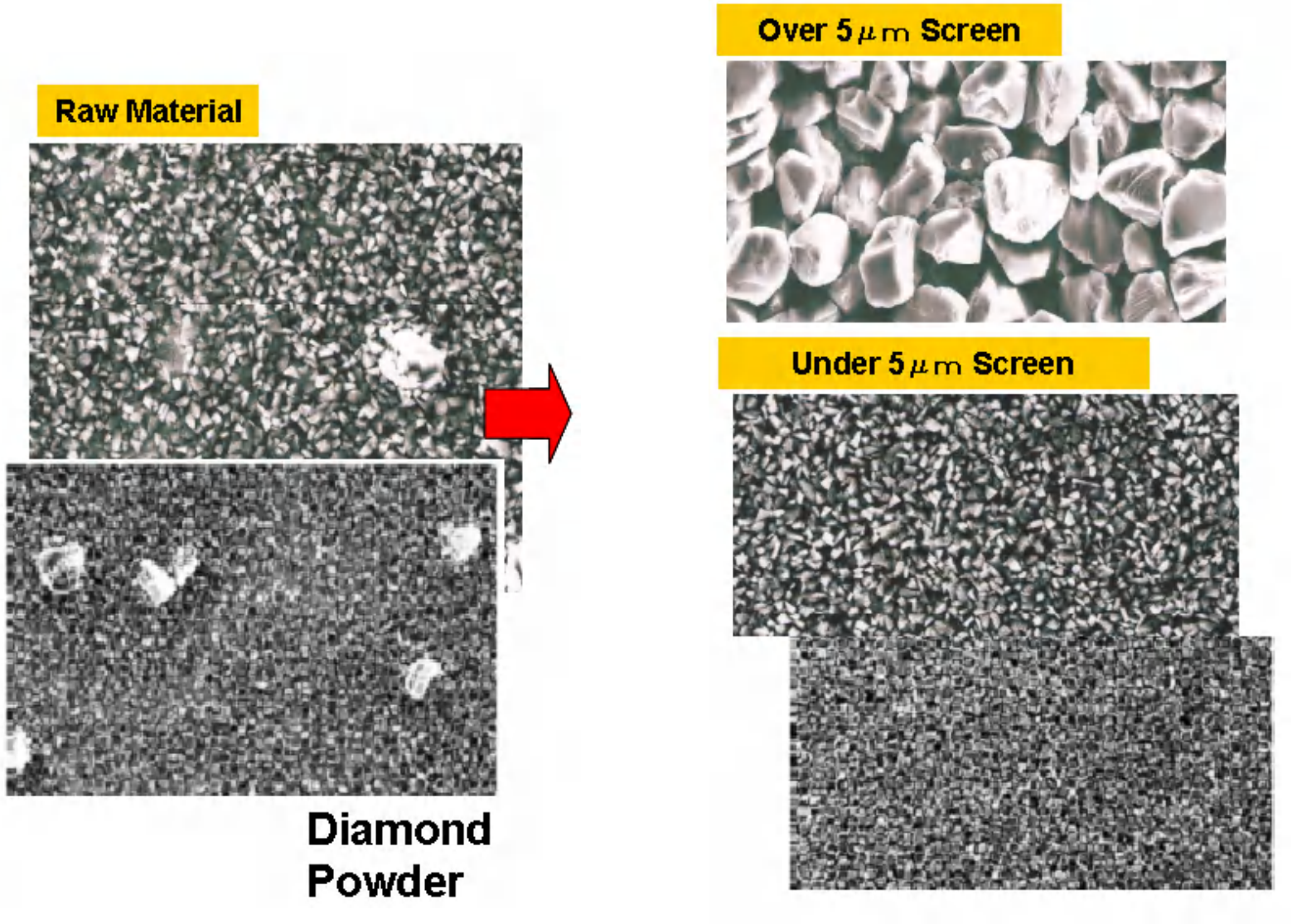
■ Super Micro Sieve Classification



Resin



■ Super Micro Sieve Classification



■ High Durability

* SUPER MICRO SIEVE (SCREEN) HAS ACHIEVED SUCH A HIGH ASPECT RATIO OVER 10, WITH HOLE DIAMETER Φ5MM, THICKNESS 50MM, HARDNESS HV600.

* IT IS STRONG ENOUGH AND, THE CLEANING BY ULTRASONIC 28 / 45 KHZ 500 W OPERATION CAN BE DONE.

* SUPER MICRO SIEVE (SCREEB) HAS ACHIEVED HIGH ASPECT RATIO SCREEN, AND CAN BE USED FOR THE VARIOUS PARTS OF IMPORTANT APPLICATION OR EQUIPMENT, WHICH ARE NEEDED THE HIGHEST QUALITY CONTROL.

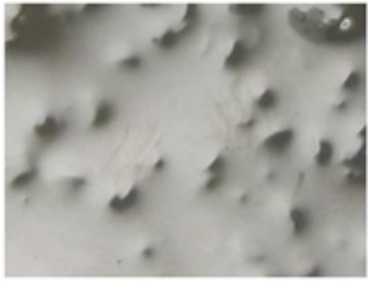
* THE RISKS OF DAMAGES IN OPERATION AND CLEANING ARE SIGNIFICANTLY RECDUCED, BECAUSE OF THE THICKER SCREEN, WHICH IS PRODUCED BY LARGE CROSS-SECTIONAL ASPECT RATIO STRUCTURES, AND STRONG STRUCTURE.

PROBLEMS OF THE CONVENTIONAL SIEVES

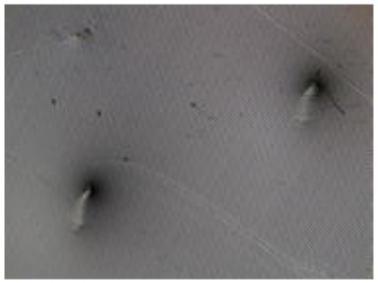
CLOGGINGS DAMAGES TEARS

SUPER MICRO SIEVE DAMAGE TEST

DROPPING A BALLPOINT PEN



ONLY DENT BUT NO TEARS



MINUS DRIVER DROPPING TEST – ONLY DENTS

■ High Aperture Ratio

THE HIGH ASPECT RATIO TECHNOLOGY HAS REALIZED

A HIGH PITCH STRUCTURE, AND THE SIEVES WITH 10μm HOLE DIAMETER IN THE APERTURE RATIO OF 22.7% IS ACHIEVED.

THE ACCURACY, AND HIGH APERTURE RATIO ARE ALSO IMPORTANT FACTORS FOR ACTUAL SCREEING CAPABILITY FOR FINE POWDERS IN 5 TO 10μm SIZE.

SUPER MICRO SEIVES CAN SCREEN FINE POWDERS WITH AT HIGH CAPABILITY, EVEN WITH SMALLER SIZE.

SUPER MICRO SIEVES, WITH ACCURATE, HIGH DURABILITY, AND HIGH APERTURE RATIO, REALIZE THE HIGH PODUCTION EFFICIENCY, WHICH IS REQUIRED FOR THE MANUFACTURING PROCESS.

■ Accurate Size, Pitch

THE TOLERANCE OF PITCH BETWEEN HOLES, AND DIAMETER OF HOLES IS KEPT SO TIGHT, ANDREMAINS WITHIN 0.5 MICROM METER.

THE RISK OF HOLE DIAMETER ENLARGEMENT, BY WEARINGS, OR DAMAGES DURING PERATION, IS SO LITTLE.

BY THE INGENIOUS SPECIAL METHOD, HIGH ACCURACY IN HOLE SIZE, PITCH, AND STRONG SCREEN SHEET IS ACHIEVED.

■ Applications

SCREENS, WITH HIGH ASPECT RATIO & ULTRA-HIGH DURABILITY, HAS MADE IT POSSIBLE TO SCREEN
UP TO 5 MICRON METER FINE POWDERS.

* MICRO SEPARATING FILTER FOR PLASTICS, DIAMONDS, METALS, AND OTHERS
FOR LITHIUM-ION BATTERIES, ELECTRONICS, AEROSPACE IN VARIOUS FIELDS
SUCH AS ADVANCED MEDICAL TECHNOLOGY, FINE CERAMICS, NEW METALS, POLYMERS, ELECTROCNIC MATERIALS, COMPOSITE MATERIALS,

* FIELD OF PRECISION EQUIPMENT, MEDICAL EQUIPMENT, BIOTECH, SENSORS

* PARTS FOR ELECTRIC, ELECTRONICS, AUTOMOTIVES

* SPRAY NOZZLES FOR DRUG

* OPTICS FOR TERAHERTZ-WAVE (WIRE GRID)

* CHIP FOR BLOOD ANALYSIS

■ Screens for Super Micro Sieve

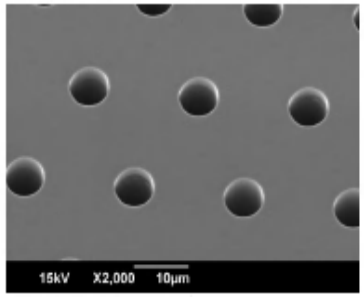
Hole Diameter	Screen Size	Pitch between Holes	Thickness
5±1 μm	φ83mm	15 μm	Approx. 40 μm
10±1 μm	φ83mm	20 μm	Approx. 45 μm
15±1 μm	φ83mm	25 μm	Approx. 45 μm
5±1 μm	φ107mm	15 μm	Approx. 40 μm
10±1 μm	φ107mm	20 μm	Approx. 45 μm
15±1 μm	φ107mm	25 μm	Approx. 45 μm
10±1 μm	100 x 100 mm	20 μm	Approx. 45 μm
15±1 μm	100 x 100 mm	25 μm	Approx. 45 μm

Material : Nickel Electrodeposit / Hardness : Hv 500 / Heat Resistance : Approx. 200℃

Larger size can be offered :

* Screen size : 10 ～ 160mm φ * Thickness : 30 ～ 50 μm

Hole Diameter	Tolerance	Pitch between Holes
5 ～ 30 μm	± 1.0 μm	Hole Diameter + 10 μm
30 ～ 50 μm	± 2.0 μm	
Over 50 μm	± 3.0 μm	Hole Diameter + 15 μm
Approx. 300 μm	± 5.0 μm	Hole Diameter + 20 μm



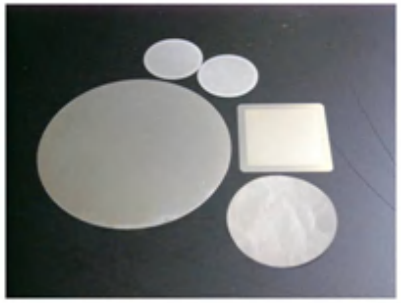
Hole Diameter : 5 μm

Aperture ratio :

Hole Diameter (μm)	5	7	10	15	20	25	30
Aperture Ratio (%)	10.1	15.4	22.7	32.6	40.3	46.2	51.0

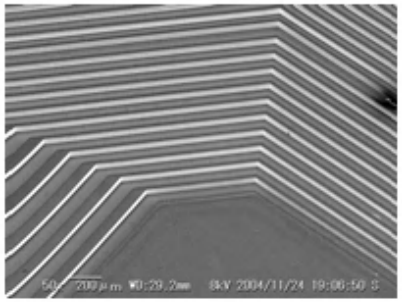
■ Ultra-precision Micro-Machining

ULTRA MICRO SIFTER, FILTER



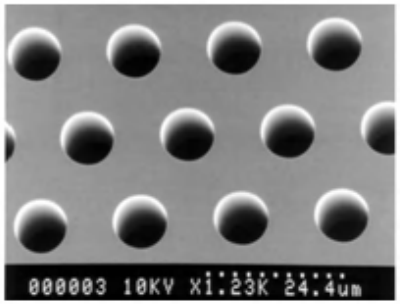
SIEVES, FILTERS WITH STRONG, HIGH ACCURACY, HIGH APERTURE RATE SCREEN

MICRO FLOW CIRCUIT



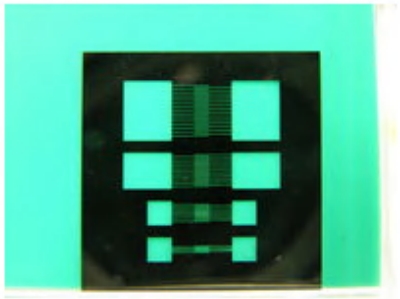
MEDICAL APPLICATIONS FOR BIOTECHNOLOGY SECTOR, MICRO CHANNEL, MICRO-ARRAY CHAMBER

MICRO HOLE MACHINING



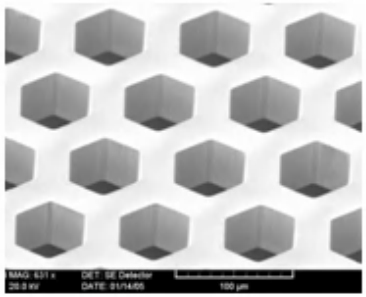
MICRO PRECISION HOLE MACHINING

MICRO PARTS (GEAR WHEEL)



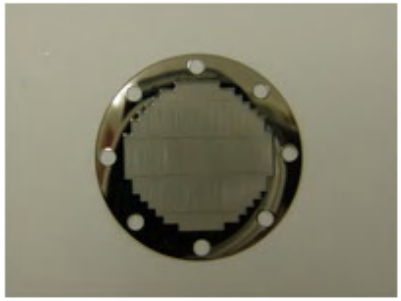
SMALL PARTS, MICRO-CIRCUIT RANSCRIPTIONAL MASK, MICRO PRECISION MASK

HONEYCOMB MESH



VARIOUS SHAPE PRECISION MACHINING

SPECIAL SENSOR



OPTICAL PARTS (WIRE GRID)

Inquiry Sheet

Please fill your requirement / Information & return to us.

Customer	Company		Dept. Position				
	Address		Phone				
	Name		E-Mail				
Required System & Request	Category	A) Grinding B) Dispersing / Emulsifying C) Classification / Sifting D) Feeding / Transportation E) Separation / Concentration F) Drying G) Others					
	System	A) Cavitation Mill Dispersing System B) Beads Mill Ultra Fine Grinding System C) Jet Mill Ultra Fine Grinding System D) Grinding Mill Powder Pulverization System E) Super Micro Sieve F) Hydro-Cyclone Classification System G) Vibration Sifter H) Micro Powder Air Classifier I) Constant Micro Feeder J) Others					
	Request	A) Sales Material B) Proposal C) Test D) Process Service E) Rental F) Others					
Materials & Target	Name		Properties Y or N	Bulk Density		Moisture	
	Condition	A) Powder B) Particle C) Solid D) Others		Hygroscopic		% if Yes	
	Particle Shape	A) Spherical B) Unspecified C) With Protrusion D) Single Particle E) Aggregates F) Unknown		Abrasiveness		Aggregation	
				Viscosity		Adhesion	
			Solvent	A) Water B) Ethanol C) IPA D) MEK E) Acetone F) Toluene G) Xylene H) Ethyl Acetate I) Others			
	Size	Original Powder / Required					
	D_{50}		Slurry	Density wt%		Viscosity cps	
	Top						
	Others		Detergent				
Test & Work	Required Volume	Test sample	Production				
	Test / Work Schedule			Attendance			
Remarks							

Excel version is available at **http://www.ftajapan.com/inquiry.xls** , if required.

■ Major Systems & Services offered by FTA

Grinding / Crushing / Dispersing / Emulsifying

Dispersing / Emulsifying / Mixing **Wet Operation**
Cavitation Mill Nano Dispersing System

Nano Grinding / Crushing / Dispersing / Mixing **Wet Operation**
Beads Mill Nano Grinding System

Grinding / Crushing **Dry Operation**
Jet Mill Ultra Fine Grinding System

Dispersing / Emulsifying / Mixing **Wet Operation**
Ultrasonic Processor Nano Forming System

Grinding, Crushing **Dry Operation**
Grinding Mill Powder Pulverization System

Classifying / Sifting

Classification / Sifting **Dry & Wet Operation**
Super Micro Sieve & Screen

Classification/Separation/Concentration **Wet Operation**
Hydrocyclone Classification System

Sifting / Screening / Classifying **Dry & Wet Operation**
Powder & Particles Vibration Sifter

Classifying **Dry Operation**
Micro Powder Air Classifier

Other Powder Processing Systems & Services

Concentration
Screw Decanter Concentration System

Constant Feeding
Powder & Partciles Constant Micro Feeder