



Product catalog



Material Science
Research Equipment

Sample Preparation

Cutting, grinding, mixing, pressing, heating,
polishing, coating, testing, etc.

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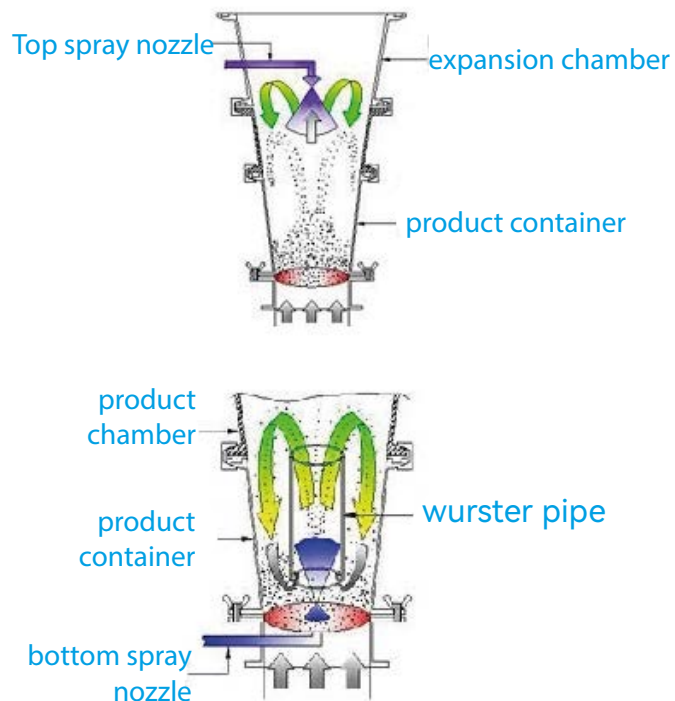
This catalog is not exhaustive, products are constantly being updated.
For customizations, more products and information, please contact us.

1.1. Particle Granulation



High Shear Granulate Mixer with Air-Assisted Spray Nozzle - EQ-RMG-10L

Working Capacity : 2 – 10 L (2 – 5 kg)
Chopper Blade Speed : 50 – 2800 RPM
Granulation–Main Blade Speed : 15 – 150 RPM
Main Impeller Granulator Speed : 0 – 150 RPM
Chopper Impeller Speed : ≤ 2800 RPM



Lab-Scale 3 in 1 Fluid Bed Processor - QFN-BY-300

3 in 1 : Powder Granulation, Coating & Drying
Bottom spraying or top spraying for powder coating
Contact parts of SS 316 and non-contact parts of SS 304
Container Chamber Size : 5 L
Working Capacity : 25 – 300 g
Drying Temperature : 40 – 150 °C with accuracy ± 2 °C
One Spray Gun Included : Nozzle hole 0.7 mm
Inlet Air Pressure : 0.7 MPa ; Airflow : 0 – 150 m³/h

1.2. Crusher and Grinder



Swing Type Electric Dry Crusher / Mixer - MSK-FS-152

Container : 152 mm ID x 108 mm Height, made of SS 304
Effective Capacity : 800 ml
Crushing Quantity : ≤ 200 g
Three-Layer Crushing Blades : 25 000 RPM, made of SS 304
Built-in timer and speed controller



Compact Ceramic Jaw Crusher - MSK-SFM-ALO

High purity alumina jaw plates
Crushing Speed : 400 RPM
Input Material : ~ 200 g at one time
Hardness : $< \text{Mohs } 8$
Input Sample Size : 5 – 20 mm
Output Size : 0.1 – 3 mm (adjustable via a digital micrometer)
Continuous feeding and output with a slide plate



Automatic Desktop Grinder with Agate Mortar (Ar Gas Compatible) - MSK-SFM-8

Mortar Size : 120 mm ID x 34 mm ID
Mortar Grinding Speed : 0 – 10 RPM
Pestle Grinding Speed : 0 – 80 RPM
Grinding pressure adjustable by spring



Heavy-Duty Stainless-Steel Mortar and Pestle Masher - OPSSM

Made of SS 304 with a plastic cover
Mortar Size : 99.0 mm x 91.4 mm x 83.8 mm
Pestle Size : 139.7 mm x 33.0 mm
One set of small 7.62 mm sieves included



Hi-Quality Natural Agate Mortar and Pestle -OP-MTA-7

Mortar Size : 151 mm ID x 57 mm Height x 38 mm Depth
Pestle Length : 150 mm
Volume : 250 ml
Translucent chalcedony with hardness 6 – 7

1.3. Vibration Ball Mill



High Energy 3D Ball Mill - MSK-SFM-3

One 80 ml Nylon Jar with a set of Zirconia milling balls
One 80 ml Stainless Steel Jar with a set of SS balls
Oscillation Frequency : ≤ 1200 RPM
Estimated Acceleration Gravity : ~ 70 G (1 G = 9.81 m/s²)
Built-in Mechanical Timer : 0 – 30 min
Feeding Volume : 1/3 of the capacity of the tank.



Vortex Vibration Ball Mill - MSK-SFM-50

50 pcs 16 mm Φ x 115 mm Length nylon tube
Nylon Tube Maximum Capacity : ~ 15 ml
Loading Capacity : ≤ 4.5 kg
Speed Range : 500 – 2500 RPM
Cycle Time : 1 min – 99 h 59 min, or 1 s – 99 min 59 s
Amplitude : 4 mm
Zirconia Milling Balls : $\Phi 5$ mm, $\Phi 1.0$ mm; $\Phi 1.5$ mm; $\Phi 3.0$ mm

1.4. Cryogenic & High Temperature Ball Mill



Liquid Nitrogen Cryogenic Rotor Mill - MSK-SFM-3LN

Max. Size of Input Particles : 20 mm
Min. Size of Output Particles : 1 μ m
Rotor Rod Speed : 0 – 1200 RPM
Container : SS 304 Steel with 5 Liters Capacity
Vacuum jacket for thermal insulation
Milling Ball : YSZ, $\Phi 0.3$ – 20 mm selectable.
Load of total Milling media : ≤ 3.5 kg
Liquid N₂ Flow : cryogenic solenoid valve, 1/4 FNPT, 1.06 MPa max.
Lowest Temperature : - 160 °C



High-Temperature Rotary Ball Milling with Gas Flow Function - MSK-SFM-11-H500

Milling Jar : SS 304, 80 mm ID x 100 mm Length (~500 ml)
Milling jar with gas inlet and outlet valves and swive support is connected to the rotation axis
Working Temperature : $\leq 500\text{ }^{\circ}\text{C}$
Milling Jar inserted into a Heating jacket with a digital temperature controller
Temperature Control Accuracy : $\pm 0.1\text{ }^{\circ}\text{C}$
Single-axis Rotation Speed : 20 – 90 RPM
Digital Timer Setting : 1– 900 min
Pressure Rating : 0.3 MPa for positive pressure and 10^{-2} torr for vacuum
500 g, 3 mm YSZ milling ball is included
Glovebox compatible under Ar or N₂ gas

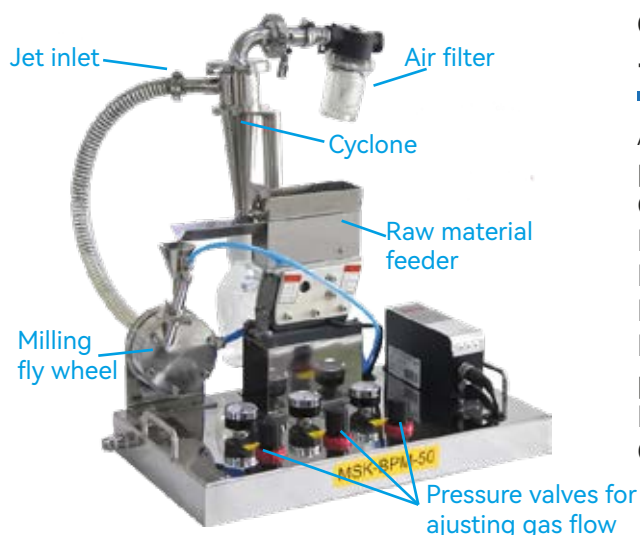
1.5. Planetary Centrifugal Ball Mill



12 Liter Planetary Ball Mill - MSK-SFM-13

Main Plate Revolution : 30 – 300 RPM
Mixing Tank Self-rotation : 70 – 580 RPM
Total Centrifugal Acceleration : 39 G
Milling Tank : Four 3 L Nylon jars
32 ZrO₂ (YSZ) milling balls of various sizes
Input Particle Size : $< 10\text{ mm}$ for brittle material and $< 3\text{ mm}$ for other materials
Output Particle Size : wet milling $< 1\text{ }\mu\text{m}$, and dry milling $< 20\text{ }\mu\text{m}$
Larger ball mill/different material jars available upon request

1.6. Jet Mill



Compact Jet Mill with High-Efficiency Cyclone - MSK-BPM-50

Air Pressure : 0.6 – 1.0 MPa (Please keep the Feeding pressure $>$ Crushing pressure)
Gas Consumption Rate : 0.25 – 0.5 m³/min
Particle Input Size : 100 – 200 mesh (150 – 750 μm)
Particle Output Size : 2 – 15 μm
Milling Speed : 50 – 500 g/hour
High-efficiency cyclone with an air filter to collect fine powder
Estimated Cyclone Collection Efficiency : 85% – 90%
Collection Bottle Volume : 500 ml



Jet Mill in Glovebox with Purification System - MSK-JB-500-LD

Mill Liner : High purity fully sintered alumina

Automatic powder feeder

Input Particle Size : 100 – 200 mesh

Output Particle Size : 2 – 15 μm

Milling Speed : 50 – 500 g/hour

Operation Gas Requirement : N_2 or Ar

Operation Pressure : 0.6 – 1.0 MPa Pressure

Gas Consumption Rate : 0.25 – 0.5 m^3/min

SS304 cyclone (MSK-BPM-50) included to collect particle

The output port of the air filter is connected to the outside of the glovebox via an electronic valve with the pressure sensor, which is opened when the jet mill starts and closed when the milling stop

Glove box and purification system to provide H_2O and O_2 less than 1 ppm

1.7. Roller Mill



Heavy Duty Lab Roller Mill - MSK-SFM-14-II

One 2 L stainless steel jar is included

Continuous/Pulse milling

Milling Speed : 0 – 525 RPM

Time Control : 0 – 99 hours

Single/alternate orientation grinding

Material Feed Size : < 5 mm

Material Final Fineness : 10 – 70 μm



Ultrasonic Vibration Sieving System - MSK-SYU-3

Sieve Dimensions : 200 mm ID × 50 mm Height

Sieve System Dimensions : 360 mm x 300 mm x 740 mm

Ultrasonic Power dimension : 350 mm × 300 mm × 200 mm

Three Sieves Included : 100, 200, and 450 mesh (equivalent to 149, 74, 32 μm)

Loading : ≤ 1 kg

Sonicator Frequency : ≤ 38 kHz

Work Mode : Continuous or pulsed

3. Powder Dispensing

3.1. Balance



Professional Grade Digital Balance with Wind Screen - EQ-Bal-CX220-LD

Weighing Capacity : 220 g
Readability : 0.1 mg (0.0001 g)
Tare Range : Full
Linearity : 0.2 mg
Response Time : 3 s
Operating Temperature Range : 10 °C to 40 °C
Sensitivity Drift : ± 2 ppm (2×10^{-6} /°C)
Pan Size : Φ 90 mm
Statistical calculation function : number of data, sum, maximum, range (maximum-minimum), average, standard deviation and coefficient variation
Could communicate with PC or Printer
Built-In Application Modes

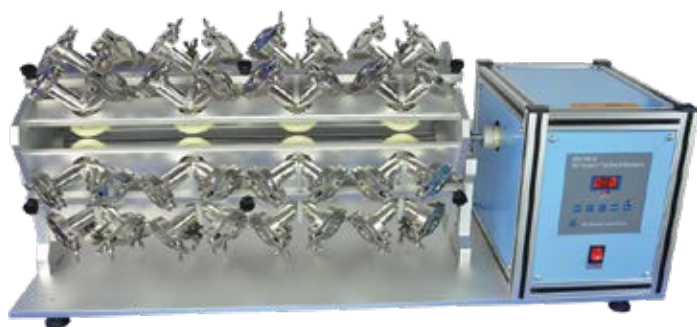
3.2. Dispenser



5-Channel Solid Powder Dispenser - MSK-HTML-SD

Dispensing Capability : 20 – 13000 mg
Dispensing Accuracy : 2 mg
5 channels dispensing containers, each with a capacity of 425 ml
6 sample containers, each with a capacity of 30 mL
Fully automatic powder dispensing
Movement : XYZ triaxial module platform station
X-axis: single guide slider module, working distance 420 mm, accuracy : ± 0.01 mm
Y-axis : double guide slider module, working distance 270 mm, accuracy : ± 0.01 mm
Z-axis : rail slider module, working distance 140 mm, accuracy : ± 0.01 mm
Air Pressure : 0.5 – 0.8 MPa

4.1. Dry Powder Mixer



High Throughput V-Type Mixing Machine - MSK-SFM-32

32 pcs V-shaped containers : 50 ml each, stainless steel SS304
Loading Capacity : ≤ 20 g/container
Rotary Speed : 20 – 70 RPM
Timer Setting Range : 1 – 900 min
Compatible with glove box under Ar gas
Optional Grinding Balls : stainless steel, alumina, YSZ and agate

4.2. Wet Mixer



Hi-Speed Vacuum Mixing & Dispersing Reactor - MSK-SFM-U

Container : stainless steels SS316, with water cooling jackets and the vacuum ports
Container Size To Be Selected : 1 L / 2 L / 5 L / 10 L
Mixing Capacity : 1L container : 300 – 600 ml ; 2 L container : 300 – 1500 ml ; 5 L container : 1000 – 3500 ml ; 10 L container : 2000 – 6000 ml
Dual Stirring Blades : Main Blade : Anchor stirring blade Φ 100 mm, Speed : 0 – 200 RPM ; Dispersing Blade : High-speed blade Φ 25 mm, Speed : 5000 – 25000 RPM
Anchor Stirring Blade, 0 – 200 RPM
High-speed Dispersing Blade, 5000 – 25000 RPM
Compact Footprint : 600 mm Length x 400 mm Width
Slurry Viscosity : ≤ 15000 mPa · s

4.3. Planetary Centrifugal Mixer



Compact Vacuum Planetary Centrifugal Mixer - MSK-PCE-V2150

Mixing : planetary centrifugal vacuum mixing
Vacuum Capability : - 0.085 MPa Max.
Working Time : 1 – 999 seconds
Rotation Speed Ratio : container rotation speed = 0.6 x sample platen revolution speed
Sample Platen (revolution motion) : 10 – 2000 RPM ;
Accuracy : 1 RPM
Sample Container : Two 150 ml standard containers
Compatible with Glove box

5.1. Hydraulic Press



Electric Hydraulic Press with Digital Display - YLJ-200E

Working Pressure : 10 – 200 T
 Pressure Accuracy : $\pm 1\%$
 Maximum Opening : 250 mm Length x 300 mm Φ x 300 mm Height
 Platform Diameter : 300 mm
 Bottom Hydraulic Cylinder Travel Distance : 0 – 20 mm
 Built-in oil pump
 Protection : metal door
 Pressing dies with different diameters upon request
 Built-in mini printer to calculate the pressure per sample area

Hot Dry Pellet Pressing Die with Temperature Controller - EQ-HC-D

Working Temperature : 50 – 280 °C
 Hardness : > 60 HRC
 Average Roughness (Ra) : 0.08 μm
 Ar glove box compatible



Model	EQ-HC-025D	EQ-HC-05D	EQ-HC-075D	EQ-HC-15D	EQ-HC630D
Die ID Size	6.4 mm	12.7 mm	19.1 mm	38.1 mm	76.2 mm
Max. Loading	6 T	10 T	12 T	16 T	16 T

5.2 Cold Isostatic Press (CIP)



Cold Isostatic Press - YLJ-CIP-20B

Pressure Vessel Size : 30 mm Φ x 110 mm Height
 Maximum Sample Height : 60 mm
 Hydraulic Oil Volume : 330 ml
 Maximum Pressure : ≤ 330 MPa for < 5 min holding at 23.3 T ;
 Continuous : ≤ 300 MPa holding at 21 T
 Operation Temperature : 10 – 40 °C
 Bottom Cylinder Traveling Distance : 0 – 20 mm
 Spare CIP die available upon request

Cold Isostatic press (CIP) Die Set - EQ-CIP60-DIE

Hydraulic Cylinder Pressure : 0 – 85 T
 Hydraulic Press Required : 100 T
 CIP Vessel Size : 60 mm ID x 160 mm Depth (Effective Depth : ~ 80 mm)
 Hydraulic Oil Volume : 330 ml
 Vessel Pressure : 0 – 300 Mpa





Desktop precision Diamond Wire Saw with A Touch Screen Control - STX-202A

Sample Thickness : ≤ 50 mm
 Wire Diameter : 0.28 mm
 Wire Length : 15 m
 Y-axis : 50 mm, automatically controlled by the digital panel
 Z-axis : 50 mm, automatically controlled by the digital panel
 Sample Stage Rotation : 2D sample stage with built-in 360° horizontal rotation
 Sample Stage Tilting : $\pm 10^\circ$ via manual operation
 Feed Speed : 0.01 – 40 mm/min
 Back Speed : 1 – 100 mm/min
 Spooler Spin Speed : 1 – 260 RPM
 Cutting Depth : 0.1 – 50 mm
 Positional Accuracy : ± 0.01 mm
 Transparent plastic plates included (prevent coolant splashing)



Precision Dicing Saw with Digital Controller - SYJ-800

Maximum Dicing Area : 203 mm Width x 203 mm Length
 Dicing depth depends on cutting blade Φ

Included blade Φ	101.6 mm Blade	152.4 mm Blade
Dicing depth	≤ 2 mm	≤ 20 mm

Dicing blades : One pcs 102 mm Φ x 0.35 mm Thickness, 12.7 mm Arbor ; One pcs 152 mm Φ x 0.5 mm Thickness, 12.7 mm Arbor
 Moving/Cutting Speed X/Y-axis : 1 – 50 mm/min
 Moving/Cutting Speed Z-axis : 1 – 20 mm/min
 Position Accuracy : ± 0.01 mm
 Sample Stage Rotation Speed Range : $\leq 120^\circ$ /min
 Sample Stage Rotation Tolerance : $\pm 0.5^\circ$



Multi-Purpose Precision Polishing Machine - EQ-Unipol-810

Variable Speed : 0 – 600 RPM
Plate Run-off : < 5 μm
200 mm Φ super flat lapping plate
Condition ring with one 75 mm Φ flat sample holder for lapping
polishing flat component
3 holes on sample holder with 25.4 mm Φ allow to polishing 3 samples
Yoke without swing to allow polishing automatically



Precision Polishing Machine - Unipol-1502

Speed : 0 – 125 RPM with digital display
Adjustable Timer For Auto-stop : 0 – 99 hours
380 mm cast iron flat plate with groove for lapping
380 mm aluminum flat plate holding polishing pads
Workstation for 100 mm, 150 mm and 200 mm sample
Three yokes are equipped



Polishing Fixture with a Digital Micrometer - EQ-PF-2-1P

Precise & automatic wafer/substrate polishing and back-thinning
Polishi fixture compatible with Unipol-810, Unipol 802, Unipol
1202, Unipol 1502 and Unipol 1200S
Maximum Sample Thickness : 10 mm
Maximum Sample Φ : 50 mm
Sample Holder Travel Distance : \leq 10 mm (Vertical movement)
Digital meter for sample deepness measurement, accuracy \pm 1 μm
Sample plate pressure without load : 500 g



16 samples Automatic Polisher - Unipol-1500-S16

High throughput metallographic sample preparation, 16 samples
(< 25 mm Φ) at one batch
Sample Loading Plate (Top) Size : 150 mm Φ , 2 pcs (8 sample
holder per pcs)
Sample Loading Plate (Top) : 10 – 50 RPM
Polishing Plate (Bottom) Size : 380 mm Φ
Polishing Plate (Bottom) : 20 – 240 RPM (10 RPM increment)
Pressing Force : 0.5 – 15 kgf (0.5 kgf increment)
4 channel automatic suspension slurry feeder available upon
request

8.1. Tape Casting



Tape Casting Coater with Heated Vacuum Bed - MSK-AFA-H200A

Vacuum Chuck Hotplate Temperature : $\leq 250\text{ }^{\circ}\text{C}$
 Temperature Control Accuracy : $\pm 1\text{ }^{\circ}\text{C}$
 Coating Area : 400 mm Length x 250 mm Width
 Film Applicator : 180 mm Width with micrometer for thickness adjustment
 Travel Speed : 1 – 90 mm/s
 Ar gas glovebox compatible
 Active carbon filter and venting fan installed on the top cover
 Optional : Hybrid film Applicator upon request



Mini Tape Casting Coater with Bottom Vacuum Chuck - MSK-AFA-HC100

Vacuum Chuck Hotplate Temperature : $100\text{ }^{\circ}\text{C}$
 Temperature Control Accuracy : $\pm 1\text{ }^{\circ}\text{C}$
 Coating Area : 200 mm Length x 100 mm Width
 Film Applicator : 80 mm Width
 Travel Speed : 0 – 50 mm/s
 Ar gas glovebox compatible
 Optional : Hybrid film Applicator upon request

8.2. Spin Coating



Compact Spin Coater with Vacuum Chucks - VTC-100A

Chamber Diameter : 145 mm Φ
 Spining Speed : 500 – 8000 RPM
 Spinning Duration : 1 – 60 s
 2 programmable segments for speed and duration
 20 ml syringe for coating material
 Liquid disk material : PP



High Speed Spin Coater With Optional Heating, UV light - VTC100PA-PTFEUS

PTFE Chamber Temperature : $\leq 200\text{ }^{\circ}\text{C}$
 Chamber Diameter : 150 mm
 Spining Speed : 500 – 10000 RPM
 Spinning Duration : 1 – 60 s
 Acceleration : 100 – 2000 RPM/s
 6 programmable segments for speed, duration and acceleration
 Liquide injection by : 1) Plastic Syringe ; 2) Heatable Glass Syringe ; 3) Ultrasonic Spray Nozzle
 Liquid disk material : PTFE
 Spin Coater : Ar gas glovebox compatible

8.3. Roll-To-Roll



Multifunctional Film Coater: Sheet & Roll-to-Roll, Blade or Slot-Die - MSK-H200SR

Heating Temperature : $\leq 120\text{ }^{\circ}\text{C}$

Heating Method : Top IR heating ; Bottom resistance heating

Temperature Control Accuracy : $\pm 1\text{ }^{\circ}\text{C}$

Vacuum Chuck : 600 mm Length x 300 mm Width

Maximum Coating Width : 180 mm for R2R ; 250 mm for sheet coating

Doctor Blade film applicator included

Optional : Slot-Die head upon request



Vertical Double Side R2R Coater - MSK-AFA-DS300-LD

Heating Temperature : $\leq 120\text{ }^{\circ}\text{C}$

Heating Method : IR heating

Temperature Control Accuracy : $\pm 1\text{ }^{\circ}\text{C}$

Coating Width : $\leq 250\text{ mm}$

Coating Speed : $\leq 800\text{ mm/min}$

Coating Thickness : 3 – 50 μm

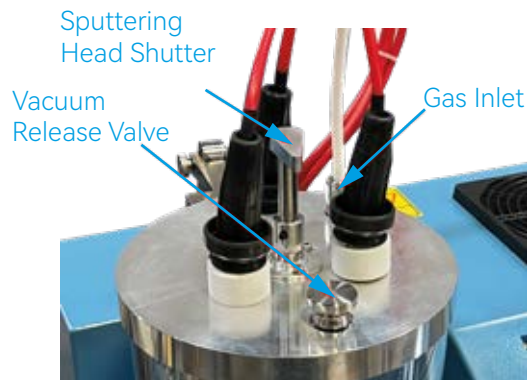
Automatic Coating Alignment : $\pm 0.2\text{ mm}$

Coating Thickness Accuracy : $\pm 5\text{ }\mu\text{m}$

Reeling/Unreeling Diameter : 300 mm OD & 75 mm ID

Optional : Auto Slurry feeder upon request

8.4. Plasma Sputtering



Compact Three Rotary Target Plasma Sputtering Coater - VTC-16-3HD-LD

Quartz Chamber Size : 165 mm OD x 150 mm ID x 150 mm Height

Heating Temperature : $\leq 500\text{ }^{\circ}\text{C}$

Temperature Control Accuracy : $\pm 1\text{ }^{\circ}\text{C}$

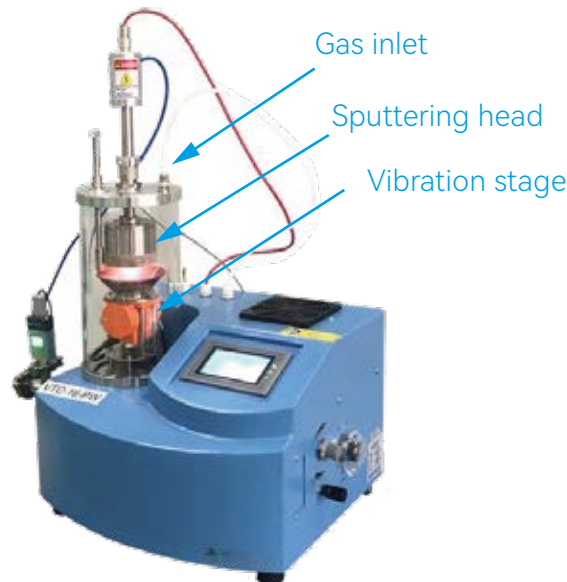
Rotatable Stage Diameter : 50 mm

Sputtering Distance Range : 25 – 40 mm

Sputtering Targets Included: Au , Ag , Cu

Target Size : 47 mm Φ x 2.5 mm max.

Vacuum Level : $1 \cdot 10^{-2}$ torr by mechanical pump ; $1 \cdot 10^{-5}$ torr by turbomolecular pump



Compact Powder PVD Coater with DC Magnetron Sputtering & Vibration Stage - VTC-16-PW

Quartz Chamber Size : 165 mm OD x 150 mm ID x 250 mm Height

Magnetron Sputtering Head Φ : 50 mm

Sputtering Target Included : Cu

Deposition Distance (between Sputtering head and substrate) : 60 – 100 mm

Vibration Stage : powder bounce & self-rotate during coating

Amplification Of Vibration Stage : 400 – 2000 RPM

Particle Size : 1 – 1000 μm

Vacuum Level : $1 \cdot 10^{-2}$ torr by mechanical pump ; $1 \cdot 10^{-5}$ torr by turbomolecular pump (according to different targets materials)

8.5. Screen Printing



Bench-Top Semi-Automatic Screen-Printing Film Coater with Vacuum Chuck - EQ-SPC-3050

Maximum Printing Area : 280 mm Length x 350 mm Width

Substrate Thickness : 0 – 80 mm

Vacuum chuck for sample holding

Printing knife driven by compressed gas : constant pressure to ensure repeatable printing quality

A MTI's logo screen mask included for testing

Printing Position Accuracy : ± 0.08 mm

8.6. Other Types



Bench-Top NanoFiber Electrospinning System with 3 Collectors & Heater & Humidity Monitor - MSK-NFES-3

Power : max. 1 500 W

Dual-channel syringe pump : 1) independent speed control ; 2) compatible with standard 2.5 – 50 ml glass syringes ; 3) Pumping rate according to syringe size ; 4) Moving solution 1 mm

Grounded collector included : Mandrel collector, Plate collector, Y-stage collector

Lamp Heater : Halogen lamp heater up to 40 °C

Humidity Monitor Range : 2 – 95 %



Bench-Top Ultrasonic Spray Pyrolysis Coating Unit - MSK-USP-02

Substrate Plate Dimensions : 150 mm Length x 150 mm Width

Working Temperature : ≤ 500 °C

3 Spray Heads : Ultrasonic Spray head (pinhole $\Phi = 2$ mm); Compressive Air Spray head (pinhole $\Phi = 0.3$ mm) ; Quartz Glass Air Spray head (pinhole $\Phi = 0.3$ mm)

2 Containers Capacities : 50 ml & 250 ml

Fluid Viscosity Range : 1 – 50 mPa·s

Spray pattern and velocity adjustable by inert gas or compressed air pressure



Automatic 3D Printing Coater with Four Nozzles that uses Slurry Extrusion Lamination (SEL) technology - TOPEM20

Working Temperature : $\leq 100\text{ }^{\circ}\text{C}$

Coating Area : 100 mm Length x 100 mm Width

Nozzle Diameter : $\geq 0.06\text{ mm}$

Structure Forming Accuracy: 0.01 mm

Printing Accuracy : $\pm 0.01\text{ mm}$

Slurry Viscosity : $0.0003 - 1.4 \cdot 10^6\text{ mPa} \cdot \text{s}$

Substrate Holder : vacuum chuck

Moving Speed : $\leq 100\text{ mm/s}$

Slurry Type : any kinds of anode, cathode and electrolyte slurries with appropriate solide-contente and viscosity

Printing Software : Simplify 3D

Compatible Software : Gursa/Microsoft3DBuilder/Slic3r/Skeinforge



Large Floor-Stand Ultrasonic Spray Pyrolysis Coating Unit with Heating Plate - MSK-USP-05

Substrate Plate Dimensions : 250 mm Length x 250 mm Width

Working Temperature : $\leq 500\text{ }^{\circ}\text{C}$

3 Spray Heads : Ultrasonic Spray head (pinhole $\Phi = 2\text{ mm}$); Compressive Air Spray head (pinhole $\Phi = 0.3\text{ mm}$); Quartz Glass Air Spray head (pinhole $\Phi = 0.3\text{ mm}$)

2 Containers Capacities : 50 ml & 250 ml

Fluide Viscosity Range : $1 - 50\text{ mPa} \cdot \text{s}$

Spray pattern and velocity adjustable by inert gas or compressed air pressure

Appendix: Abbreviations

- **ID** : Interior Diameter
- **OD** : Outside Diameter
- **Φ** : Diameter
- **pcs** : piece
- **min** : minute
- **CIP** : Cold Isostatic Press
- **2D** : Two-Dimension
- **Kgf** : Kilogramme-force, 1 kgf = 9.8 N (Newton)



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