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PARTICLE PROCESSING SPECIALIST

Customizing your process needs is our speciality

Grandway Grandway Grandway

Grandway K - Series Mills



Grandway K - Series Cone Mills are designed for high performance with the state of the art manufacturing cGMP procedures. Ideal for Security Screening, Particle Size Calibration, Deagglomeration, Dispersion, Particle Size-Reduction and Blending. Various models from Lab to Production scale is available. K - Series Mills are widely used in API Production, Solid Dosage Manufacturing, Nutraceutical, Food, Chemical and Allied Industries.



Key Benefits

- Tight Particle Distribution Curve (PSD);
- Scale Up accuracy from Lab to Production;
- Product and Process Repeatability;
- Low Heat, Low Dust and Low Noise;
- Quick Assembly and Dis-assembly for process changes and cleaning;
- Sealed for Life Sanitary Gearbox providing Constant Torque and Constant Speed Execution;
- Compact Design for in line integration and stand-alone processing;
- FDA Compliant Seals and O-rings are used exclusively;
- Detachable Milling Head Design for ease of process changes and cleaning;
- Compact Housing Design for ease of up-stream and down-stream integration with quick clamp flange system;
- Rapid Change Multi-Head Interchangeable Design to facilitate cone milling, centrifugal sifting, hammermill and pin milling;
- Clean-in-Place (CIP), Steam-in-Place (SIP) and XP design execution available;
- State-of-the-art Design Range of Screens and Impellers available for Process Optimization;
- Quick Parts Interchangeability for minimized downtime and maximized efficiency.

KTG50/K50

K100



"Try Us for Size"



Technical Specifications

SPECS	MODELS	K50/KTG50	K100	K200	K300
Capacity (Kg/hr)		100	200	1000	2000
Screen Diameter (mm)		80	120	208	308
Power (KW)		0.375/0.550	1.5	4	7.5
Scale-up Factor		1	2	10	20

Notes:1. Capacity is based on our test bed data milling of lactose with 3% CMC inclusion.
2. Capacity may vary from product to product and application protocols.

K200



K300



Hybrid Milling System



Grandway Hybrid Milling System facilitates intergration of Conical Mill, Hammer Mill and Rotary Sifter heads in a single machine and a primary choice for R&D and Process Development Centers.



Key Benefits

- Rapid interchangeability between Conical Screen Milling, Hammer Milling and Rotary Sifting heads for process development;
- Detachable Head Design for easy process changes and cleaning;
- Accurate and predictable scale up from R&D to production;
- cGMP design and FDA compliant shaft seals and O-rings applied exclusively;
- Suitable for a wide range of applications including security screening, wet dispersion, dry sizing, particle calibration and conditioning including de-lumping and re-claim applications;
- Exhaust Filtration System comes with built in Dust Collector to eliminate dust exposure;
- Options available to integrate inert milling for volatile materials and liquid nitrogen cooling for temperature sensitive products;
- High yield and output capable of processing batches as low as 50g;
- Advanced PLC control to ease operation and data management;
- Wide range of screens and impellers selection available.



Hammermill - KTH50

Hammermill KTH50 is designed with built in air filtration system to reduce dust exposure and improve the milling process. Capable of milling particle size as low as 30 microns.



Rotary Sifter - KTF50

Rotary Sifter KTF50 is effectively applied for security screening and de-lumping processes. Equipment is highly engineered for vibration free, low dust and low noise performance.



Kmill - KTG50

The Kmill KTG50 has the same advantages and features of the Laboratory Milling Machine K50. The gearbox driven design allows for pilot scale and product development activities. Options are available for CIP/SIP execution.



Grandway K - Series Rotary Sifters



Grandway K Series Rotary Sifters key functions include; Security Screening, Particle Calibration, De-Lumping and Deagglomeration of oily products.



Key Benefits

- Rapid Interchangeability between rotary sifting and cone milling without changing the heads. COMBO Machine is available for both milling and sifting in one machine;
- Advanced cGMP Design flexibility for CIP & SIP execution;
- Compact Quick Dis-connect Inline Housing design for ease of system integration with ancillary material handling systems;
- 360° centrifugal rapid high-volume discharge effectively de-lumps and securely retain impurities;
- Optional dust free vacuum transfer feeding system is also available.
- Compared to traditional vibratory sifters, K sifter output is more than 3 times on average;
- Low Dust, Low Noise, Low Heat process execution;
- cGMP Design and FDA Compliant Shaft Seals and O-rings applied exclusively;
- Wide Range of Screens selection is offered to fit complex processes, and customized screens are available upon request;
- Optional exhaust dust collection system for dust free processing;

Technical Specifications

SPECS	MODELS	KTF50	KF100	KF200	KF300
Screen Diameter (mm)		80	134	200	320
Power (KW)		0.55	1.5	4	7.5
Scale-up Factor		1	2	4	8

Note: Capacity will vary based on products charesteristic and screen hole sizes.





Grandway K - Series Hammermill



Grandway K – Series Hammermills are exceptionally designed to concurrent cGMP standards. Simple to operate design with high safety standards and capable of particle size reduction up to 30µm.



Key Benefits

- Suitable for high volume processing with particle size ranging from 30-150 µm;
- cGMP design and FDA Compliant Shaft Seals and O-rings applied exclusively;
- Dust Collection System for dust free execution;
- Advanced Design flexibility for CIP & SIP execution;
- Easy Rotor rotation direction changes for advanced particle sizing;
- Rapid assembly and disassembly for screens and rotors changes including cleaning;
- Optional Rotary Feeder system available for controlled feeding and optimized particle sizing;
- Wide range of screens selection is offered to fit complex processes, and customized screens are available upon request;
- Advanced Air Purge Seal system to increase seal life and minimize temperature escalation;
- Temperature Monitoring System available for milling heat-sensitive products.

Technical Specifications

SPECS	MODELS	KTH50	KH100	KH200	KH300
Screen Diameter (mm)		80	134	200	320
Power (KW)		0.55	1.5	4	7.5
Scale-up Factor		1	2	4	8

Note: Capacity will vary based on products characteristic and screen hole sizes.





Grandway Super Fine Mill



Grandway Super Fine Mill SK200 is a precision fine milling system designed to support size reduction of API and other exotic materials to high yield, minimum loss with optimum product integrity. SK200 is designed with highest cGMP in mind and capable of producing tight particle distribution (bell curve) on wide range of dry materials up to 10 μ m. SK200's are globally applied in the manufacture of API, Excipients, Cosmetics, Extracts, TCM, and Solid Dosage Active Ingredients.



Key Benefits

- Capable of producing Tight Particle Size Distribution (D90 - 10 to 100 μ m);
- Low Heat, Low Dust, Low Noise;
- Dust Free Product Collection System comes with build in filter and blow-back system;
- High Yield (on average 99%);
- Mobile Unit with small physical footprint.
- PLC controlled for easy adjustment for particle optimization;
- Integrated Water-Cooling System to reduce milling chamber temperature;
- Advanced Air Purge Seal system to increase seal life and minimize temperature escalation;
- Temperature Monitoring System available for milling heat-sensitive products;
- Advanced Design flexibility for CIP & SIP execution;





Grandway Lump Breaker



Grandway Lump Breaker is widely applied in crushing large and hard lumps. Equipment is designed with high torque and crushing capability for robust applications. Generally used to pre-break agglomerated lumps in pharmaceutical, personal care, food, and chemical industries. The C200/CH200 Lump Breaker can also be applied as a pre-breaker of solid lumps prior to K milling to desired final particle size.



Key Benefits

- Compact In-line Design for ease integration for up-stream and down-stream integration ;
- Equipment can be equipped with CIP/SIP arrangement ;
- Equipped with 700mm diameter Rotors for pre-breaking and customized rotor and head design are available upon request ;
- 12" Discharge Flanging for ease of down-stream Integration ;
- Coaxial Rotor and Blade arrangement for efficient secondary crushing ;
- CGMP design and FDA compliant shaft seals and O-rings applied exclusively.





Our Services

Our Core Objective is to provide Fast and Reliable Service for our customers without. Our competence is producing high quality cGMP process equipment with the highest sanitary

Advanced Screen Manufacturing

Grandway manufactures in-house superior screens, impellers and rotors for all our mills and sifters. We are equipped to supply interchangeable screens, impellers and rotors for other makers. We are globally recognized for this advanced capabilities to support our extended customers who require our services and seek replacements parts and consumables for their existing equipment. We are proud to support the industry at large.

Merits of Parts Supply



compromise.
manufacturing standards complying with all market requirements.

Product Testing and Proof of Concept

Free of Charge product testing and analysis are available at our well-equipped R&D center with full scale testing capabilities.

The test center is fully equipped with a complete fleet of milling, sifting, analytical and metrology instruments for various process requirements:

- Delumping and Screening
- Wet Milling, Dry Milling, Deagglomerating, Mixing
- CIP/SIP
- Choose suitable screens and grinding blades to meet target particle size specifications

After-Sales Service

Grandway is dedicated to provide advanced services to our customers without compromise.

The following services are available on short notice.

- FAT, Machine Start Up, SAT and Training
- Process Optimization reviews and practical exercises.
- IQ/OQ and PQ documented execution
- Operator Training and Factory Process Initiation
- Process Development Support
- Schedule Maintenance, Annual and Bi-Annual Service Contracts
- Engineering and Technical Consulting
- Technology Transfer Support





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