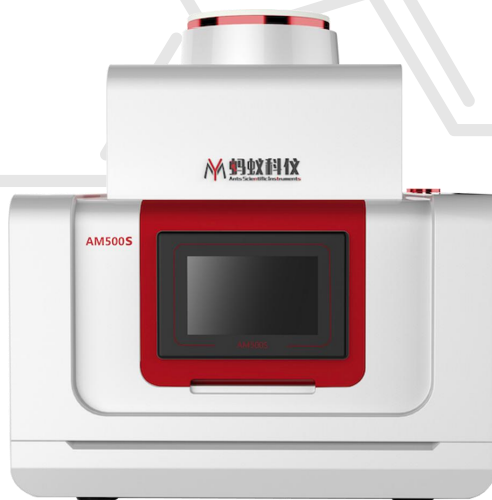




Innovation Empowers Sample Preparation,
Intelligence Achieves Simplicity



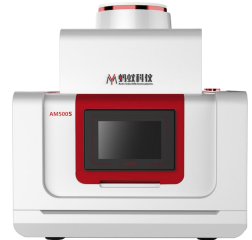
AM500S High Speed Rotary Mill



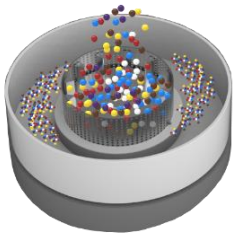
蚂蚁源科学仪器（北京）有限公司
ANTS SCIENTIFIC INSTRUMENTS (BEIJING) CO., LTD.

AM500S High Speed Rotary Mill

High Speed Rotary Mill is known as the laboratory of the "Super Flash", generally dealing with soft, hard, brittle, tough, fibrous samples, high speed so that the sample is crushed in a very short period of time, so the grinding process for "that is in that is out". The whole instrument from the sample to the sample are very concerned about the details, anti-splash back funnel design, to ensure that the sample has no out; plug-type rotary knife and sieve ring design is more convenient to clean; the sample collection is more and can be out of the tray; auto-locking design can ensure that there is no dust spillage; digital display of the control panel is easy to operate and infinitely adjustable speed. In addition, the instrument can be equipped with autosampler and cyclone separator to meet different needs and types of sample preparation.



Working Principle



High Speed Rotary Mill, the sample from the anti-splash funnel into the role of centrifugal force due to the movement of the rotary knife prongs for primary crushing, and then the sample continues to the rotary knife extension movement, by the rotary knife prongs and sieve ring extrusion and friction for the secondary crushing, when the sample is smaller than the sieve ring aperture, it will be entered into the collection plate to complete the sample preparation. The two-stage grinding method makes the sample preparation process gentle and fast. Due to the short retention time of the sample in the grinding chamber, the nature of the sample will not be changed, and for heat-sensitive samples, freeze grinding can be adopted to maintain the characteristics of the sample.

Performance Advantages

- ◎ High rotational speed for fast grinding
- ◎ All parameters are digitally adjustable, ensuring reproducible results.
- ◎ A wide range of rotary knives and sieve rings are available for a wide range of applications.
- ◎ A variety of sieve ring aperture can be selected, the final sample size <40 microns
- ◎ The funnel is designed to prevent splashback, and the grinding chamber is dustproof and sealed to prolong the service life of the instrument.
- ◎ The instrument has a safety protection device to ensure the safety of the operator.
- ◎ Grinding kit can be removed from the tray, convenient for collecting samples without loss.
- ◎ The instrument is equipped with an autosampler and a cyclone separator for large sample volumes.
- ◎ The control panel has a load bar display to help control the sample volume and feed rate.



Application



Building materials



Collagen



Circuit Board



Soil



Coals



Nuts



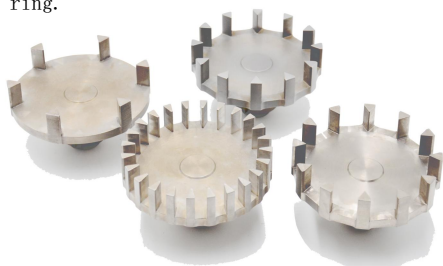
Pill

Technical Information

Technical Parameters	AM500S High Speed Rotary Mill
Feed material	soft, medium-hard, brittle, fibrous
Material feed size	≤10mm
Final fineness	~40um
Grinding time	Two modes available, continuous mode and time-limited mode (time setting: 1s-9min59s)
Speed	6000~20000rpm
Sops	10
Load display	Digital
Rotor diameter/Rotor peripheral speed	98.5mm/31~103m/s
Diameter of sieve ring	105mm
Application grinding range	Dry grinding, low temperature grinding
Collector capacity and material	Stainless steel 1L, nylon collection tray 1L, titanium plated collection tray 1L, PTFE collection tray 1L, titanium collection tray 1L
Types of rotors	6-tooth rotor / 12-tooth rotor / 24-tooth rotor
Material of grinding tools	stainless steel, titanium, titanium plating
Sieve sizes	trapezoid holes 0.08mm、0.12mm、0.2mm、0.25mm、0.5mm、1.0mm、1.5mm、2.0mm、3.0mm、4.0mm、5.0mm、6.0mm round holes
Material of sieve	stainless steel, titanium, titanium plating
W x H x D	405mm X 450mmX 400mm
Net weight	~ 42kg
Electrical parameters	220V • 1100W

Optional Guide

The choice of rotary knife mainly depends on the type of sample and customer's requirements, Ant offers rotary knives with multiple teeth and materials to apply to different samples. The selection of the sieve ring is mainly based on the sample fineness required by the customer, the sieve ring has different sizes, which are divided into trapezoidal sieve hole and round sieve hole. For trapezoidal sieve rings, 80% of the sample fineness can reach half of the aperture of the sieve ring. For circular sieve rings, the sample fineness is the size of the aperture of the sieve ring.



Type of rotary

6-tooth rotary knife: rough, large, fibrous materials
12-tooth rotary knife: general routine crushing, medium rough material
24 teeth rotary knife: fine materials

Material of rotary

Stainless steel, titanium, titanium plated

Type of sieve

Ordinary sieve: crushing general samples, such as grain cereals, etc.

Strengthening sieve: crushing hard samples, such as circuit boards, coal, etc.

Pitch sieve: crushing heat-sensitive samples, such as polymer materials, leather flannel, etc.



Material of sieve ring

Stainless steel, titanium, titanium plated



Collection tray (stainless steel, titanium, nylon, titanium plated)



With inverted outlet collection tray (titanium plated, stainless steel, nylon)

Collector

For grinding of large sample volumes, an autosampler and cyclone separator can be configured Cyclone separator collection unit is available as an option 0.25L, 0.5L, 1L, 3L, 5L.



Autosampler

The autosampler reduces the contamination caused by manual feeding on the one hand, and ensures uniform feeding speed and reduces motor load variation on the other.

Micro Kit

Micro Grinding Kit: For micro sample grinding, including 8-tooth rotary knife and knife guard disk, micro grinding collection disk.





Application Examples



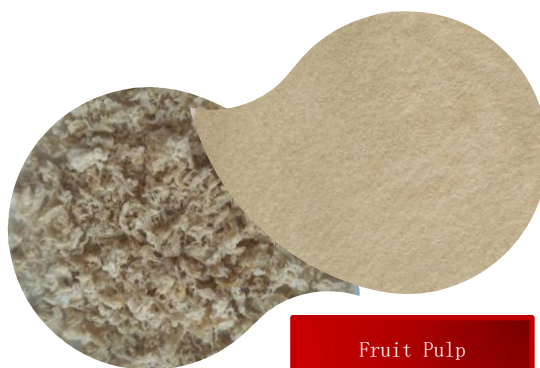
Polymer Plastic



Cotton Seed



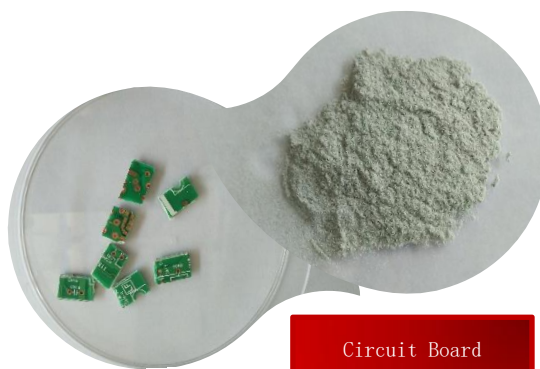
Organic Fertilizer



Fruit Pulp

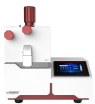


Cassia Seed

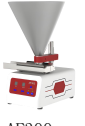


Circuit Board

Milling Series

 AM100S Vibratory Ball Mill	 AM200S Mortar Grinder	 AM300 Cutting Mill	 AM300S Cutting Mill	 AM350 Beater Mill	 AM360 Turbo Mill	 AM400S Planetary Ball Mill
 AM410 Planetary Ball Mill	 AM420 Planetary Ball Mill	 AM500S High Speed Rotary Mill	 AM600S Knife Mill	 AM700 Jaw Crusher	 AM710 Extrusion Crusher	 AM750S Bench Jaw Crusher
 AM800 Disc Mill	 AM800CC Disc Mill	 AM810 Disc Mill	 AM900 Vibratory Disc Mill	 AM950 Vibratory Disc Mill		

Assisting Series

 AF100S 3D Vibratory Sieve Shaker	 AF150 Horizontal Sieve Shaker	 AF200S Sample Automatic Divider	 AF300 Vibratory Feeder
 AF400 Rotating Tube Divider	 AF450 Rotating Sample Divider	 AF500 3D Sample Mixer	 AF510 3D Sample Mixer

Intelligent Series

 AISP1678 / AISP1700 Intelligence Soil Preparation System
 ADVM1001 / ADVM1001CS Vacuum Microwave Drying Series

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