

● Working Principle

The Micro Ball Mill can grind 2*96 samples quickly and efficiently only with 1-3min. The grinding jars of the GT200 perform horizontal oscillation in high frequency. The inertia of the grinding balls causes them to impact with high energy on the sample material and grind it. The movement of the grinding jars and balls result in the intensive grinding and mixing of the samples.

● Features and advantages

- Suitable for dry, wet and freezing grinding
- Extremely short processing times
- Designed for high sample throughput, up to 192 sample preparations
- It can mix and homogenize samples efficiently
- Wide range of grinding jars and accessories for extensive applications.
- Pre-setting of all working parameters digitally, the result is repeatable
- The transparent window on the upper lid allows the user to check the grinding situation at any time
- The upper lid has a safety lock device, when the upper lid is opened in the grinding process, the motor will stop running to ensure the user personal safety.
- Program setting can control the operation time, interim grinding and program storage etc.



● Easy operation and high safety performance

Due to an integrated motor break the machine can only be started when the lid is closed. The unique "Easy Clamp" system allows the simple and safe clamping of all grinding jars up to 50ml. The grinding chamber, easy clamp system as well as the swinging arm is made from high precision stainless steel to meet strict food and pharmaceutical requirements. The application of new brushless motor makes the maintenance of GT200 very convenient.

● Wide kinds of accessories

The clamping device of GT200 can not only clamp two standard deep hole plates, but also applies to anything that has the same size, including with less or more hole deep hole plate, etc.



Adapters for reaction vials;

Avoid the cross contamination between samples; achieve the high-throughput;

The adapters can be placed into the liquid nitrogen directly

Many kinds of materials grinding jar, the maximum volume up to 50ml;

Suitable for processing the soil, mineral, plant, dental materials and so on.

Special use for detection of pesticide residue samples, 50ml reaction vials; Adapters, can process 8pcs sample simultaneously;

Meet the QUECHERS requirement

GRINDER specially designed cast stainless steel clamping device is comfortable, strong and durable.

A mobile positioning catch is equipped inside the clamping device, which greatly improves the service life of grinding parts and the clamping device. The catch is removable and easy to change, therefore reduces the equipment maintenance cost.

● Grinding, mixing and cell disruption

The Micro ball mill GT200 is designed for modern laboratory applications. It can process 2 pcs and large batch samples simultaneously in 30 seconds, the sample volume from 0.2 ml to 50ml. It meets the requirements of high throughput grinding extremely.

● Control panel

- Advanced touch screen design, easy to control the instrument program and set the grinding parameters.
- Grinding time setting from 1s-99min/59s, digital and adjustable
- Setting of vibrational frequency is 180-1800rpm, digital and adjustable



● Accessories

Cryo kit for cooling the grinding jars or adapter with liquid nitrogen

Insulation heat preservation box, the clamping device for jar, eyes protector. For heat sensitive materials such as plastics and rubber, it is recommended to pre-freeze the samples and grinding jars with liquid nitrogen. Those jars either made from teflon or stainless steel are suitable for cryogenic grinding applications.



Various of reaction vials for freezing grinding

Plastic, PC, PTFE and stainless steel reaction vials, with stainless steel, zirconium oxide and tungsten carbide balls, which can be used to treat small volume samples in cryogenic mill.

Bead dispensers

Be suitable for 96 hole deep well plate, and have 3mm and 5mm sizes for choice.



Adapter for disruption of biological cells reaction vials

As the requirements of high energy input analytical screening, the GT200 efficiently and safely disrupts samples such as spores, microorganisms, plant and animal tissue or soil, etc.

The samples along with extraction solution and small or ceramic balls are placed in reaction vials. After 2 minutes more than 95% of the cells are disrupted efficiently. It is most suitable for some sample preparation like PCR, PAGE and Probe, which cross contamination between samples are strictly forbidden.

5, 10, 24 holes adapter to match with the 1.5 / 2.0ml reaction vial, and 6 holes adapter with 5ml reaction vials, 96 holes adapter with 1.2ml deep hole plates are available for choice.

● Fast clamping jars

- Dry grinding
- Wet grinding
- Ultra-fine grinding
- Mechanical alloy grinding
- Freezing grinding



○ Recommended grinding jar feeding standard

Grinding jar's volume	Max feed size	Recommended quantity of grinding balls						
		2mm	3mm	12mm	15mm	20mm	25mm	30mm
2.00ml	1mm	3-4pcs	2-3pcs					
25.00ml	6mm			2-3pcs	2-3pcs	1pcs	1pcs	
50.00ml	8mm			2-3pcs	2-3pcs	1pcs	1pcs	1pcs
50.00ml	9mm			2-3pcs	2-3pcs	1pcs	1pcs	1pcs
80.00ml	9mm			2-3pcs	2-3pcs	2-3pcs	1pcs	1pcs
100.00ml	10mm			2-3pcs	2-3pcs	2-3pcs	1pcs	1pcs
160.00ml	12mm			2-3pcs	2-3pcs	2-3pcs	1pcs	1pcs

When the volume of grinding jars are relatively large, please choose the larger diameter grinding balls.

The best grinding results can be achieved by the spiral sample mixer wafer

GRINDER

Technical Data

Feed size	< 10mm
Final fineness	< 5µm
Speed	180-1800rpm
Time	00 : 01 - 99 : 59 (min/s)
Sample volume	0.2-20ml
Rated power	200W
Power supply	220V , 50Hz
Instrument size (W*D*H)	380*480*281mm
Package size (W*D*H)	620*620*490mm
Net weight	34Kg

