

POWTEQ®



High Energy Ball Mill GT600 Multi/Dual

◇ High Energy Ball Mill GT600 Multi/Dual

GT600 is a multi-functional benchtop ball mill, specially designed for fast preparation of ultra-fine sample. The maximum frequency is 35Hz. GT600 has stable performance and wide application, suitable for dry, wet and cryogenic grinding of multiple but small volume samples, such as plant and animal tissues. Capable of handling 6-384 (high throughput) biological samples simultaneously, with sample volumes from 0.2 ml to 50 ml.



GT600

○ Application Field

Biology, Pharmaceuticals, Food Safety, Ecological Environment, Agriculture Science, Chemistry and Electronics.



○ Application

Nucleic acid extraction sample pretreatment, preparation of ultrafine materials

○ Sample Type

Hard, soft, elastic and fibrous samples.

○ Typical Samples

Plant roots, stems, leaves, grains, seeds, oilseeds;

Human and animal tissues, viscera, bones, hair;

Ore, alloy, soil, glass, ceramics; rubber, plastic products, solid waste, electronic waste;

Paper, textiles;

Chemicals, medicines, Chinese medicinal materials, food;

Tobacco, timber, wool, etc.

○ Working Principle



Samples are placed into the grinding container (stainless steel jar or centrifuge tube/adaptor), which oscillate radially in the horizontal direction. Under the action of high frequency oscillation, the grinding balls hit the sample and the inner wall of the grinding jar intensively, thus sample size reduction is achieved.

○ Advantages

- Typical grinding time: tens of seconds - 2 hours
- Storable SOPs : 20 sets
- Cycle times:1- 99
- Dry, wet, cryogenic grinding and mixing
- Final fineness:<100 nm
- Max. vibrational frequency: 35 Hz (2100 rpm)
- High throughput : Up to 384 samples simultaneously
- Programmable operation time, intermittent grinding and method storage
- Transparent window on the top lid enables to observe the grinding status during grinding
- Highly reproducible grinding results with digital presetting of parameters
- Various materials and sizes of grinding jars and accessories for option, can meet more wider range of application requirements
- Equipped with safety lock on the top lid. The motor will stop running once the lid is opened during grinding to ensure safe operation.



○ Technical Specifications

GT600	
Feed Size	<10 mm
Final fineness	<5 μ m / 100nm (depends on the property of sample)
Speed	180-2100rpm
Total grinding time	99hrs
No. of grinding stations	6/2
Grinding jar sizes	1,5/5/10/25/35/50/80/125 ml
Material of grinding tools	hardened steel, stainless steel, tungsten carbide, zirconium oxide, agate, PTFE
Cell disruption adapter	Yes
Batch capacity	6 x 20ml/2x45ml
Storable SOPs	20
Editable programs	4
Wet/Cryogenic grinding	Yes
Rated Power	1.8KW