

HM - 3100

High-throughput Horizontal Tissue Grinder



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Analytical Technologies Limited

An ISO 9001 Certified Company

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HM-3100 is a multifunctional necessary assistant for laboratory sample preparation. It can grind and homogenize many kinds of samples whatever hard, moderate hard or soft, so that the processed sample can meet with the coming experimental use for the laboratory. By using different kinds of tanks, HM-3100 can deal with dry grinding, wet grinding or frozen grinding, including cracking the cell wall or extracting DNA/RNA. It is widely used in the field of biomedicine, agriculture, chemicals, RoHS, toys, environmental test, QC, education, etc.

►► Description :

- » High efficient (frozen) grinding for the plant and animal tissue;
- » Breaking and cracking of bacterial and yeast cell wall;
- » DNA&RNA extraction of high-throughput plant and animal tissues;
- » Sample well homogenized;
- » Grinding samples of food, feed, Chinese herbal medicine, etc.
- » Minerals and mineral samples grinding and homogenizing;
- » Sample preparation for physical and chemical analysis;
- » Preparation of the third generation sequencing amplified samples;
- » Function: Crushing, mixing, homogenizing, cell disrupting and frozen grinding;
- » Application field: Agriculture, Biology, Chemistry, Plastics, Building Materials, Electronics, Environment, Food, Glass, Ceramics, Medicine, Minerals and Metallurgy, etc.
- » Sample hardness: hard, moderate hard, soft, brittle, elastic, including fibers, etc.

►► FEATURES :

Accurate and fast. Advanced invented horizontal beads' reciprocating grinding. One pair of high speed amplitude of vibration arms guarantee the instrument to provide enough force to grind the samples in the tubes through collision with the beads in the tube. It can grind, homogenize, smash or mix the samples within seconds, and then the processed sample can reach to 5µm.

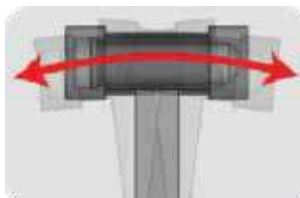


Safe and convenient. The most economic grinding method to deal with the frozen samples. By using the specific tank, HM-3100 can deal with the frozen samples or heat-sensitive samples. The special designed rolling cap tank can be immersed in liquid nitrogen and keep the good sealing to the sample so as to resist the water from the air into the sample to become the condensation.



►► Unique technology :

- » The most effective reciprocating horizontal shaking grinding principle guarantees the effective crashing and mixing of samples;
- » Fast and easy loading of samples;
- » Safe locker;
- » Automatically locating tanks.



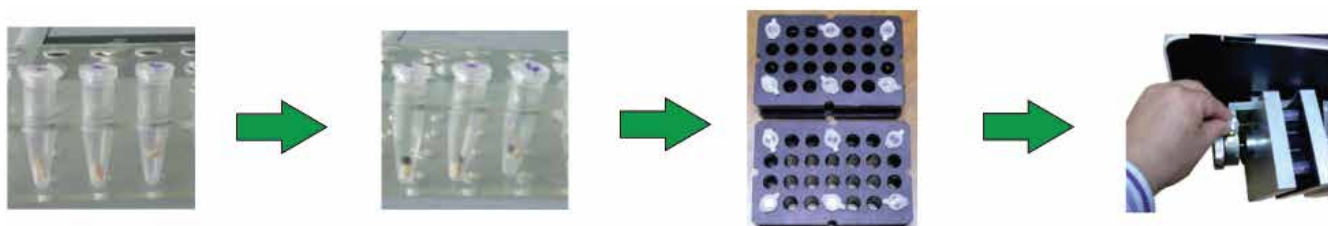
►► Wide range of application :

HM-3100 can process a wide range of samples even though the materials with fibers; and it can process the hard samples such as roots or seeds of plants, tissues, bones or furs of animals, plastics, minerals, soils, bacteria and yeasts. The grinded samples are mostly used for the extraction of DNA/RNA, proteins, or for trace analysis, and other kinds of coming experiments requiring nanometers or fine refined samples.



►► Working procedure: Easy and Fast :

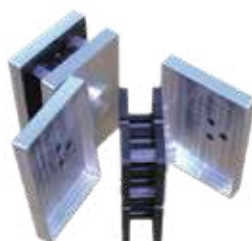
Add sample ---- Add grinding beads ---- Add lysis buffer (as required) ---- Seal the lid and locate into the tank/-adapter ---- Assemble the tank/adapter into the instrument ---- Strength and lock ---- Close the protection cover ---- Setting the programs ---- Press to run (typically 2mins) ---- Sample for use.



►► Flexible accessories for different kinds of samples :



- 2*25ml/50ml Hard stainless steel grinding tube tank



- 2*28*2.0ml tube adapter



- 2*12*5.0ml tube tank



- 2*96well plates adapter



- 2*4*5ml stainless steel tube tank

►► Specification :

Model	HM-3100
Working principle	Impact force, friction force
Moving method	Horizontal reciprocating oscillating ball grinding
Max. shaking speed	2000rpm
Max. sample size	≤8mm
Grinded sample	~5μm
Typical time	2 minutes
Grinding model	Dry grinding, wet grinding, frozen grinding
Frozen grinding	Adapters and grinding tanks can be immersed in liquid nitrogen, the temperature of the sample can be as low as -192°C
Grinding plates	2
Sample capacity	2*96well plates, 2*28*2.0ml EP tube, 2*12*5.0ml tube, 2*4*5ml stainless steel tube, 2*25ml Hard stainless steel grinding tube, 2*50ml Hard stainless steel grinding tube
Display	Digital display
Shaking frequency	100-1800 reciprocation/min, continuous and adjustable
Grinding timing	1s~99m59s
Pause timing	0-99s
Programming function	grinding time, pause time and speed
Driving	brushless motor
Power	100V-120V/220V-240V, 50/60Hz, 200W
Size	320*200*460mm
Net WT	26Kg

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HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

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Counter



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Spectrophotometer



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Reader/Washer



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Urine Analyzer



Total Organic
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2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

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