



Product I Features

DHTISSUE-24D animal tissue grinder has the advantages of wide applicability, high efficiency, and flexibility compared to other sample preparation methods currently available. The system avoids the many disadvantages of traditional methods such as grinding, homogenization, and ultrasonic treatment, which are laborious, time-consuming, and inefficient, and can efficiently, quickly, and stably lyse and purify nucleic acids and proteins of various types of samples.

Product I Applications

Sample Types:

- Plant Tissues: roots, stems, leaves, flowers, fruits, seeds, etc.
- Animal Tissues: brain, heart, lung, stomach, liver, thymus, kidney, intestine, lymph nodes, muscle, bones, etc.
- Fungi and Bacteria: yeast, E. coli, etc.
- Food and Medicine: various food, pills, etc.
- Volatile Samples: coal, oil shale, wax products, etc.
- Plastics and Polymers: PE, PS, textiles, resins, etc.



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Product I Advantage

○ High efficiency and effectiveness

Quickly and efficiently grind 24, 48, and 96 samples in one minute. Time-saving, labor-saving, small inter-batch and intra-batch differences. The extracted protein has higher activity and the nucleic acid fragments are longer.

○ No cross-contamination

Sample tubes are in a completely sealed state during the crushing process, and disposable centrifuge tubes and beads can be used. Samples are kept intact in the tube, avoiding cross-contamination between samples and external contamination.

○ Easy operation

1. Built-in program controller for setting grinding time, vibration frequency of the rotor, and other parameters;
2. User-friendly interface.

○ Good stability

1. Uses a vertical oscillation method for more thorough grinding and better stability;
2. During instrument operation, the noise is less than 55dB, and it will not interfere with other experiments or instruments.

○ Convenient for low-temperature operation

When a low-temperature grinding environment is needed, the adapter with the sample can be immersed in liquid nitrogen for 1-2 minutes to cool, and then quickly fixed on the main unit to start grinding, without the need for additional freezing treatment, saving liquid nitrogen.

○ Good reproducibility

Same grinding effect can be obtained with the same program settings for the same tissue sample. Short working time, sample temperature will not increase.

Grinding Contrast:

The excellent grinding effect of LAWSON grinding instrument



▲ Before and after bone grinding with LAWSON grinding apparatus

▲ Mobile phone keyboard, grinding effect under freeze embrittlement condition



▲ Lapping analysis of fiber sample with KBr particles

▲ Before and after grinding of hair samples using LAWSON grinding apparatus

• LAWSON: More samples grinding contrast effect, welcome to contact us.

Operation Process

LAWSON: Easy to complete sample processing, as long as 4 steps:



1. Put the sample and grinding ball into the centrifuge tube or grinding tank.



2. The centrifugal tube or grinding tank is put into the adapter.



3. Install the adapter into the LAWSON grinding machine, set the operating parameters, start the device.



4. At the end of the operation, the sample was centrifuged for 1min, and the nucleic acid or protein was extracted and purified by adding reagents.

• LAWSON are the corresponding supporting products to choose from.



Technical I Parameters

Model	DHTISSUE-24D
Application Fields	Organic grinding, homogenization, cell disruption, tissue lysis, material dispersion, preparation, sample mixing, and oscillation
Processing Capacity	Maximum processing capacity of 24 samples at the same time within 15 seconds, including 12-well and 24-well liquid nitrogen cooling adapters
Compatible Sample Tubes	48*(0.2-0.5ml) /48*2ml /12*(7-15)ml /2*25ml /2*50ml, various specifications of grinding tubes can be customized
Display mode	LCD screen display, touch screen display (upgradeable)
Anti-vibration principle	Innovative anti-vibration principle of Schleifen-1 from Germany and a three-dimensional motion of up and down, left and right shaking - innovative grinding ball motion mode to ensure maximum sample processing and instantaneous crushing effect
Maximum feeding size	No requirement, adjustable according to the adapter
Final particle size	~5µm
grinder platforms	(Acceptable number of grinding jars) >2
Fastening device	With automatic centering

Technical I Parameters

Homogenization speed	0~70 Hz/second, working time: 0 seconds~99 minutes, user can set it by themselves
Grinding ball diameter	0.02~30mm
Grinding ball material	Alloy steel, chrome steel, zirconia, tungsten carbide, quartz sand
Acceleration	Reaches maximum speed within 2 seconds
Deceleration	Reaches minimum speed within 2 seconds
Noise level	<55db
Grinding mode	Wet grinding, dry grinding, and cryogenic grinding are all possible
Temperature control can be additionally equipped with	The ability to upgrade to ultra-low temperature liquid nitrogen cooling or air cooling
Adapter material	Polytetrafluoroethylene (PTFE), alloy steel
Safety instructions	With an automatic centering locking device and safety lock during operation, full protection throughout
Grinding kit material	Hardened steel, polytetrafluoroethylene (PTFE), zirconia
Dimensions	41*34*55cm
Weight	28 Kg