

# FULLY AUTOMATED LIQUID NITROGEN FREEZER MILL

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### Sample Types for Grinding:

- ◆ Plant Tissues: Roots, stems, leaves, flowers, fruits, seeds, etc.
- ◆ Animal Tissues: Brain, heart, lung, stomach, liver, thymus, kidney, intestine, lymph node, muscle, bone, etc.
- ◆ Fungi and Bacteria: Yeasts, E. coli, etc.
- ◆ Food and Drugs: All kinds of food, tablets, etc.
- ◆ Volatile Samples: Coal, oil shale, wax products, etc.
- ◆ Plastics and Polymers: PE, PS, textiles, resins, etc.

### Common Accessories (Adapters/Grinding Beads/Grinding Vessels/Filling Gun, etc.)

#### Specifications

24*2ml Standard/24*2ml Cooling
48*2ml Standard/48*2ml Cooling
12*5ml Standard/12*5ml Cooling
8*10ml Standard/8*15ml Standard
4*2ml/8*2ml Grinding Vessel
4*5ml/10ml/15ml Grinding Vessel
4*15ml PEEK Vessel
2*50ml Standard
2*25ml/50ml Grinding Vessel/PEEK

\*Note: Comes with 24/48/64\*2ml adapters, 3mm & 5mm stainless steel or zirconium oxide grinding beads.



Zirconia



Stainless steel



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### Product Introduction

Fully Automated Liquid Nitrogen Freezer Mill / Freezer mill / Freezer Grinder

Compared with other sample preparation methods currently available, the DHFSTPRP-24IN Fully Automated Liquid Nitrogen Freezer Mill has the advantages of wide applicability, high efficiency, and flexibility. The system avoids the many drawbacks of traditional methods such as grinding, homogenization, and ultrasonic treatment, which are laborious, time-consuming, and inefficient. It can efficiently, quickly, and stably lyse and purify nucleic acids and proteins from various types of samples.

Fully Automated Liquid Nitrogen Freezer Mill uses a special vertical up-down integrated vibration mode, which achieves rapid grinding of samples through the high-frequency reciprocal vibration, impact, and shear of grinding beads (zirconia, steel, glass, ceramic). This ensures the samples are fully and uniformly ground, and have better sample repeatability with no cross-contamination between samples.

Model	DHFSTPRP-24IN	DHFSTPRP-48N
Homogenization Speed★	0 to 70 Hz/second, Operating Time: 0 seconds to 999 minutes, User-configurable	
Processing Capacity	Maximum processing of samples within 15 seconds, capable of simultaneously handling 24/48 2ml samples	
Anti-Vibration Principle▲	Innovative DHFSTPRP-1 anti-vibration principle, as well as three-dimensional motion in vertical and horizontal directions, Innovative movement pattern of grinding beads to ensure maximal sample processing and instant pulverization effect.	
Compatible Processing Volume▲	48*(0.2-0.5ML)/48*2ML/24*5ML/12*(7-15)ML/2*25ML/2*50ML and customized	
Data Storage★	Up to ten sets of data can be stored based on different experimental samples, including patterns for animal hearts, spleens, lungs, kidneys, bones, skin, and hair, among others.	
Cycling Mode★	Based on set experimental parameters, cyclic operation between pre-configured parameters to reduce interference from human factors.	
Final Particle Size	~5µm	
Grinding Platform/Securing	≥2, with automatic center positioning	
Grinding Ball Diameter/Material	0.1-30mm, Alloy Steel, Chromium Steel, Zirconia, Tungsten Carbide, Quartz Sand;	
Acceleration/Deceleration	Reaching maximum speed within 2 seconds	
Noise Level	<55db	
Grinding Modes	Wet Grinding, Dry Grinding, Low-Temperature Grinding all available	
Dimensions/Weight	400*340*530mm / 30kg	
Upgradeable Features▲	Capability to upgrade to ultra-low-temperature liquid nitrogen freezing or air cooling refrigeration	