



# ULTIMATE SAMPLE HOMOGENIZER

- Disrupt and process several samples for more accurate results
- Versatile , lab-friendly and affordable

• MAIN FEATURE:-



Versatile



Lab- Friendly



High-Throughput  
24/min



Small Footprint  
28 x 53 x 40 (cm)

## Technical Features

Performance Index	ALHUSH - 24
Application Fields	Tissue homogenization, grinding, cell disruption, Homogenation, Material dispersion, sample blending, oscillation
Display Usage	<p>High resolution color touch screen display.</p> <p>1.Ten groups of experimental data could be stored, Different modes setup according to various sample types: Animal tissues:heart,lung, stomach, kidney,liver,bone,skin,hair, Plant tissues: root,stem,leaf,seed;</p> <p>2.Cycle mode: According to setup parameters for different experiments,an uninterrupted circulation could be run among different setup parameters, reducing the interfere of artificial factors.</p> <p>3. Grinding time setting: The grinding time and pause time could be programmed, 10 programmms are preset and could be changed and stored randomly.100 cycles could be set at maximum per programme, every cycle time is 1-90S,up to 1s could be adjustable.</p>
Sample volume	<p>24 *(1.5-2.0ml)</p> <p>4 *(7-15ml)</p> <p>2*50ml</p>
Homogenization Frequency	0-70Hz
Electric voltage	220V/50Hz
Time Range Set	0 second to 9999 mins
beads compostion	Stainless steel, Zirconia, hard steel, carbide
Acceleration:	2 seconds to reach maximum speed
Deceleration	2 seconds to reach maximum speed
Noise Level	<55db
Dimensions	280*400*530
Weight	40 KG
Freezing	Yes

## Homogenization Process

- **Laboratory applications:**

Cells and lysing buffer



### 1. Prepare lysis tube

Sample preparation, grinding, homogenization and material dispersion, DNA, RNA, protein purification and extraction, cell fractionation, organelle isolation

- **Market applications:**



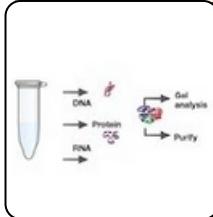
### 2. Process with AT - 24

- Pharmaceuticals:  
Drug discovery process, toxicity and dosage  
- Molecular biology research

- Food science:  
Determination of preservatives, pesticides, residues, growth hormones, antibiotics



- Forensic/Toxicology:  
Identity/ confirmation, poisoning/overdose



### 3. Mechanical method:

Most popular and practical  
Minimal training to operate  
Small and compact  
Cost-effective  
Safe

- **Sample types:**

Plant tissue: root, stem, leaves, flowers, fruits, seeds

- **Animal tissue:**

brain, heart, lungs, stomach, liver, thymus, kidney, intestine, lymph nodes, muscles, bones; skin

- **Fungi and bacteria:**

E. Coli, yeast

- **All types of food**

- **Adapters and cans**

Adapter material: metal, plastic, PTFE and steel  
Volume: 2, 5, 10, 25, 50 mL

- **Beads**

Bead spheres material - Alloy steel, chrome steel, zirconium oxide, tungsten carbide, quartz sand  
Bead spheres diameter 0,1 - 30mm



Tissuelyser-24/48 The plant tissue grinding apparatus is a special, fast, efficient and multi tube consistent system. It can be any sources (including soil, plant and animal tissues / organs, bacteria, yeast, fungi, spores, paleontological specimens) of the original DNA, RNA and protein were extracted and purified.

Tissuelyser-24/48 Compared with other sample preparation methods at present, the plant tissue grinding apparatus has the advantages of versatility, high efficiency and flexibility. The system avoids many disadvantages such as laborious, time-consuming and low efficiency of traditional methods such as grinding, homogenization and ultrasonic treatment. It can efficiently and rapidly cleave and purify nucleic acids and proteins of various types of samples.

## • Abrasive sample:

1. Plant tissue: roots, stems, leaves, flowers, fruits, seeds and so on
2. Animal tissues: brain, heart, lung, stomach, liver, thymus, kidney, intestine, lymph node, muscle, bone
3. Fungi and bacteria: yeast, Escherichia coli, etc.
4. Food and medicine: all kinds of food, tablets and so on
5. Volatile samples: coal, oil shale, wax products, etc.
6. Plastics, polymers: PE, PS, textiles, resins, etc.

## • Main parameter:

1. Name: Tissue Grinder Model: **Tissuelyser-24/48**
2. Main application: it is used for sample pretreatment of biological samples and automatic rapid extraction of genome in large quantities.
3. Main functions and technical indicators:
  - 3.1. the maximum processing capacity in 15 seconds can process 48 samples at the same time, including liquid nitrogen freezing adapter suitable for 12 bit and 24 bit
  - 3.2 it can process 2ml\*24 grinding tubes, 48\* 2ml grinding tubes of various specifications at the same time.
  - 3.3 Touch screen display, convenient and intuitive operation
    - 3.3.1 11 groups of experimental data can be stored. According to different experimental samples, animal heart, spleen, lung, kidney, bone, skin and hair modes are set
    - 3.3.2 Mode cycle: according to the set experimental parameters, it can continuously cycle among several set parameters to further reduce the interference of human factors
  - 3.4 Shockproof principle: the innovative shockproof principle of dhfstprp-1, as well as the innovative three-dimensional movement mode of shaking up, down, left and right, the innovative movement mode of grinding beads, to ensure the maximization of sample processing and instant crushing effect
  - 3.5. Maximum feed size: no requirement, adjust according to adapter
  - 3.6. Final discharge particle size: ~ 5 μ M
  - 3.7. Number of grinding platforms (number of grinding tanks acceptable) > 2
  - 3.8. The fastening device with automatic center positioning is
  - 3.9 Homogenization speed: 0-70 Hz / s, working time: 0 s-9999 s, which can be set by the user;
  - 3.10. Grinding ball diameter: 0.1-30mm
  - 3.11. Grinding ball material: alloy steel, chrome steel, zirconia, tungsten carbide, quartz sand;
  - 3.12. Acceleration: maximum speed in 2 seconds
  - 3.13. Deceleration: reach the minimum speed in 2 seconds
  - 3.14. Noise level: < 55dB
  - 3.15. Grinding method: wet grinding, dry grinding and low temperature grinding
  - 3.16 Have the ability to upgrade to ultra-low temperature liquid nitrogen refrigeration or air refrigerator refrigeration
4. Basic configuration:
  - 4.1 One host
  - 4.2 2ml adapter, one set of 2ml refrigeration adapter (optional), one set of 1.5ml refrigerant liquid adapter (optional)
  - 4.3 5mm imported stainless steel grinding beads, 5mm imported ceramic grinding beads (optional), 3mm imported stainless steel grinding beads

