



## HIGH THROUGHPUT TISSUE MILL GT50

- Frequency: 900-1800rpm
- Clamp Movement: 34mm

The High Throughput Tissue Mill GT50 is a specialized mill meticulously crafted for swift and high-capacity pre-treatment of biological samples. By employing various adapters, it allows the expedited processing of up to 96 samples at once, utilizing standard centrifuge or cryogenic vials.

It offers the versatility to crush various biological samples, including soil, plant and animal tissues/organs, bacteria, yeasts, fungi, spores, paleontological specimens, and more, using appropriate reagents. This process facilitates the straightforward extraction and purification of pristine DNA, RNA, and proteins.

## APPLICATIONS

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**Application Area:** Molecular marker-assisted breeding, genomics, systems biology, and nucleic acid extraction from plant tissues in molecular evolution, transgenic research, and other biochemical investigations.

**Common sample types:** plant roots, stems, leaves, flowers, fruits, seeds, and animal tissues; Particularly suited for the extraction of nucleic acids, proteins, and other constituents from plant tissues. It is also suitable for yeast, animal cells, bacterial cells, and more.

Tissue Mill

## Working Principle

Samples are loaded into the centrifuge tube. The grinding balls impact and interact with the samples through vertical shaking, creating an up-and-down motion. Simultaneously, a reagent is introduced that breaks down the cell wall and cell

membrane while safeguarding the integrity of the nucleic acids and proteins.

This process efficiently extracts the desired DNA, RNA, and protein. The disruption outcomes are consistent, ensuring no cross-contamination between samples. It takes only 1-2 minutes to thoroughly disrupt and homogenize a single sample.

Tissue Mill

## FEATURES

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- Vertical up-and-down grinding configuration.
- Appropriate for dry, wet, and cryogenic grinding.
- Features a stainless steel grinding chamber for easy cleaning.
- Equipped with a low-speed crushing function to maximize sample yield, especially for genome preparation.
- Includes a 5-inch LED touchscreen for easy program control and parameter adjustments.
- Offers program control and parameter storage capabilities, allowing for intermittent, stop, and total running time settings.
- The cryogenic model, GT50R, automatically regulates temperature through compressor cooling, effectively preserving the biological properties of samples within a temperature control range of -20 to 20°C.
- Incorporates a new-type brushless motor for convenient maintenance.
- Compatible with 2ml/5ml centrifuge and cryogenic vials, ensuring complete sample isolation to prevent cross-contamination.

## TECHNICAL SPECIFICATIONS

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|              |                                         |
|--------------|-----------------------------------------|
| Time setting | 00:01-99:59(min/s)                      |
| Frequency    | 15-30Hz, oscillation 900-1800 times/min |

|                        |          |
|------------------------|----------|
| Clamp Movement         | 34mm     |
| Running Mode           | Vertical |
| Certification Standard | CE       |



**Torontech Inc.**

251 Consumers Road, Suite 1200  
Toronto, Ontario, M2J 4R3, Canada 🇨🇦

Phone: +1 416 368 2721 | Fax: +1 416 981 7652  
Email: [info@torontech.com](mailto:info@torontech.com)

**Torontech, LLC**

601 Brickell Key Drive, Suite 700  
Miami, FL 33131, USA 🇺🇸

Toll-Free: 1-866-383-7919  
Email: [sales@torontech.com](mailto:sales@torontech.com)

**Torontech ME FZE**

Meydan Grandstand, 6th Floor,  
Meydan Road, Nad Al Sheba,  
Dubai-261440, UAE 🇦🇪

Phone: +971 488 19252  
Email: [me@torontech.com](mailto:me@torontech.com)

