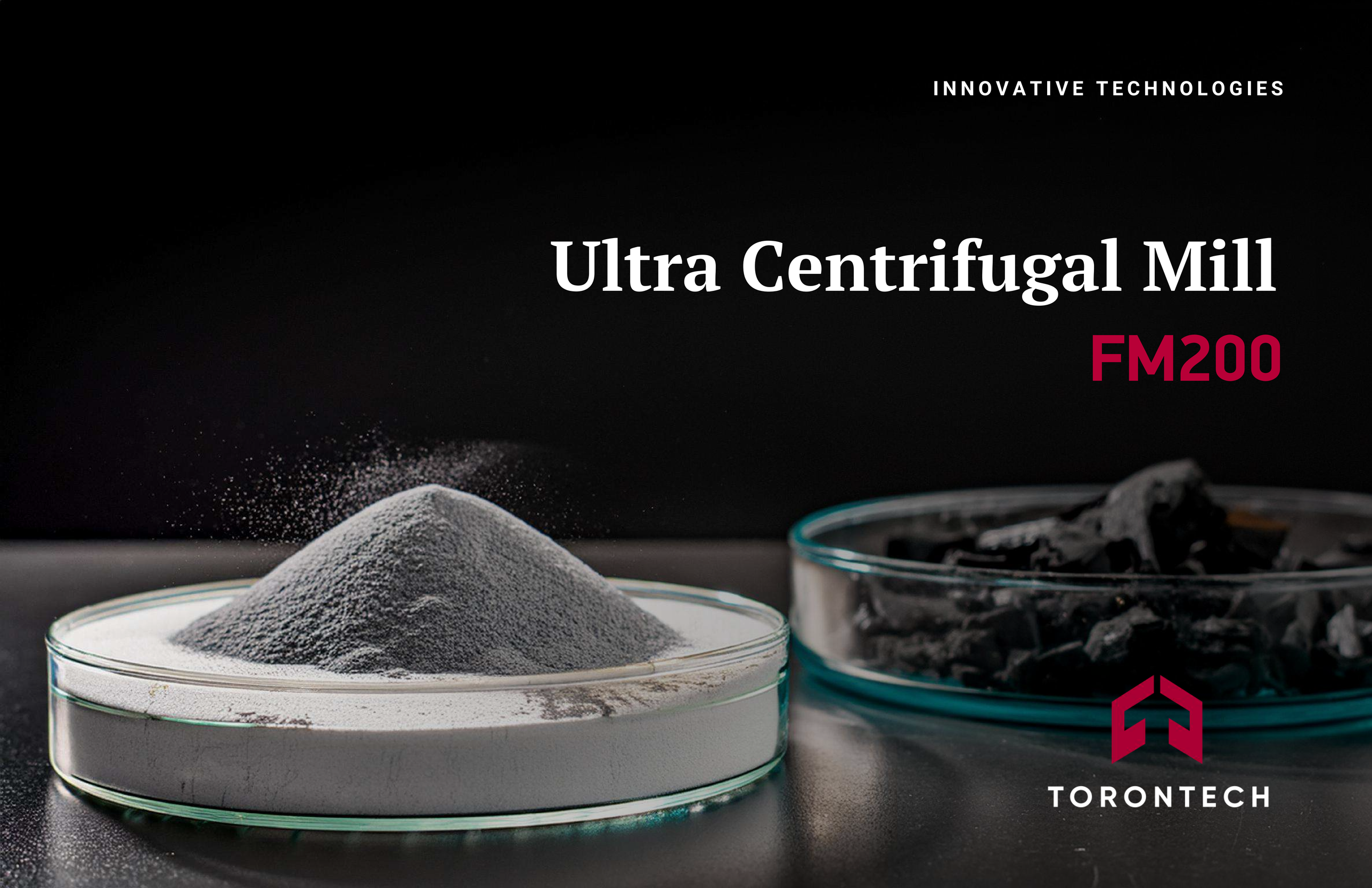
INNOVATIVE TECHNOLOGIES

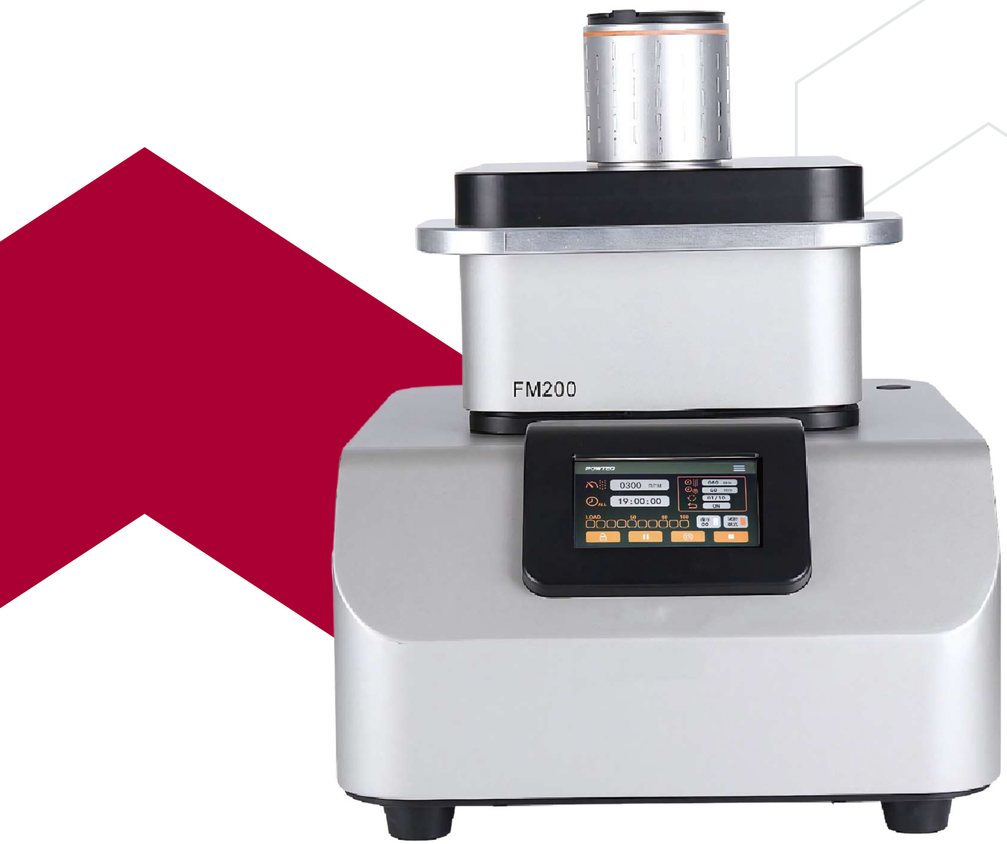
Ultra Centrifugal Mill

FM200



TORONTECH

TORONTECH



ULTRA CENTRIFUGAL MILL
FM200

The **Ultra Centrifugal Mill FM200** is suitable for a broad spectrum of samples.

Leveraging its highly efficient grinding technology and a comprehensive set of accessories, it can rapidly perform both dry and wet grinding.

It utilizes a two-step grinding process involving a rotating knife and a ring screen system, allowing for the quick processing of soft, hard, brittle, and fibrous samples.

Feed Size:	Final Fineness:	Speed:
< 10mm	**< 40µm**	**6000~18000rpm**

APPLICATION

Sample Type

Soft, elastic, fibrous, water-containing, dry samples.

Application Fields

- Agriculture,
- Environmental analysis,
- Electronics,
- RoHS testing,
- Coal analysis,
- Chemistry,
- Plastics,
- Medicine,
- Feed analysis,
- Grain analysis,
- Dry plant analysis, and more.

Versatile Applications, Effective Sample Preparation

Environmental Conservation:
Preparation of plant samples (roots, stems, leaves, etc.), C.H.N determination.

Coal and Coatings:
Sample preparation for ash content and thermal measurements.

Nitrogen and Protein Composition:
Identification of nitrogen and protein composition in feed and food.

Secondary Fuel and Waste:
Determination of harmful substances in secondary fuel, waste, plastics, and electronic components.

PRODUCT ADVANTAGES

Precision Performance: Achieves a final fineness of less than 40μm with an adjustable speed ranging from 6000 to 18000rpm.

User-Friendly Operation: Utilizes a user-friendly touch control panel for convenient and speedy operation, ensuring ease of use.

Efficient and Quiet Operation: Operates with low noise and reliability, facilitated by a two-stage rotor-ring sieve system for rapid grinding.

Versatile Functionality: Offers a wide selection of accessories to accommodate diverse applications, with fineness determined by the ring sieve in use.

Optimized Grinding: Features a high-speed rotor with a diameter of 95mm and a peripheral speed of up to 94.2 m/s, ensuring efficient and consistent grinding performance.

WORKING PRINCIPLE

The Ultra Centrifugal Mill achieves a two-stage crushing process using the rotor and ring sieves. Samples are introduced through a hopper designed to prevent splashing.

The combination of high-speed centrifugal force and the rapid rotor movement generates a significant impact force, serving as pretreatment for the samples. Subsequently, the samples undergo shearing, extrusion, and rubbing between the rotor and ring sieves.

When the sample size becomes smaller than the aperture of the ring sieves, it is collected in a pan. This two-stage crushing approach ensures moderate and efficient grinding results. Thanks to the high crushing efficiency, samples spend a relatively short time in the grinding chamber, preventing alterations in sample properties.

TECHNICAL HIGHLIGHTS

- A specially designed air passage ensures a consistent airflow in the grinding chamber to cool both the rotors and samples.
- A double-layer wear-proof seal ring separates the grinding chamber from the driving motor, preventing dust from entering the motor.
- Dual protection mechanisms include an electronic lock and a mechanical lock for operator safety.
- An anti-splashing hopper effectively prevents feedstock blockages and reduces noise levels.
- Special adapters are available for accommodating large-capacity collections.
- The motor features overload protection, allowing it to continue running after a restart following an overload.

AUTOMATIC FEED DEVICE AND LARGE SAMPLE RECEIVER

- The Ultra Centrifugal Mill FM200 offers an optional automatic feed device for consistent grinding and sample overload prevention.
- Collected samples are conveniently gathered in a pan, ensuring easy and contamination-free collection.

TECHNICAL SPECIFICATION

ITEM	TECHNICAL PARAMETER
Feed size	< 10mm
Final fineness	< 40μm
Speed	6000-18000rpm
Peripheral speed	31.4-94.2m/s
Rotor diameter	98mm
Ring sieve	0.08，0.12,0.20,0.25，0.50,0.75，1.00,2.00mm
Collecting pan volume	900ml (volume of the sample collected no more than 300ml)
Rated power	760W/1300W
Power supply	220V，50/60Hz (110V Also available upon request)
Instrument size	400*506*495mm
Package size	620*620*770mm
Net weight	38kg

Member of WORLD of TEST™

TORONTECH

Phone: +1 416 368 2721 | Fax: +1 416 981 7652

Email: info@torontech.com

70 East Beaver Creek Rd., #9
Richmond Hill, Ontario L4B 3B2, Canada

USA | Canada | UAE | GCC | Africa | Latin America | Asia

TORONTECH.com