



CENTRIFUGE

Centrifuge

Match the rotor and the capacity to your sample, and the speed takes care of itself.

A laboratory centrifuge separates the components of a liquid sample by spinning it at speed, so denser material settles out under a force many times that of gravity. Labs across clinical, life science, pharmaceutical, and industrial work rely on the technique daily. The category spans small microcentrifuges up through large capacity benchtop units. Rotor type and capacity matter more than headline speed.

Two numbers describe performance. Rotational speed in rpm sets how fast the rotor turns, while relative centrifugal force in $\times g$ describes the field the sample experiences, and the two differ with rotor radius. Protocols cite $\times g$, so match that figure rather than rpm. Laboratory centrifuge safety is governed by IEC 61010-2-020, and buyers under accreditation should confirm documentation for the model they specify.

Why Choose Torontech for Your Laboratory Centrifuge

Torontech supplies testing and measurement equipment to laboratories and manufacturers across North America and worldwide, backed by responsive technical support and calibration service. The Laboratory Centrifuge range is built for reliable, standards-driven results, so you can standardize on one supplier as your testing needs grow. Our team helps you match the right configuration to your samples, applicable standards, and throughput, then supports you through installation and beyond.

Request a Quote

Tell us your tube format, the volume you process per cycle, and the g-force your protocols call for, and we will point you to the right centrifuge and rotor set. [Contact the Torontech team](#) for pricing, lead times, and rotor availability.

APPLICATIONS

Applications in Industries

Centrifuges are mission-critical instruments across virtually every science-driven sector. The Torontech centrifuge range supports an extensive list of clinical, research, and industrial applications, including:

- **Clinical Diagnostics & Hospital Laboratories** — Routine blood-sample preparation, plasma and serum separation, urinalysis, cell-pellet collection, and patient diagnostic workflows in hospitals, clinics, and pathology labs.
- **Molecular Biology & Genetics** — DNA and RNA purification, plasmid preparation, PCR sample handling, gene-expression studies, and molecular diagnostic workflows requiring ultra-clean, contamination-free centrifugation.
- **Biochemistry & Protein Research** — Protein precipitation, enzyme purification, fractionation of cellular extracts, and characterization of biomolecules across the full molecular-weight spectrum.
- **Cell Biology & Tissue Culture** — Cell harvesting and washing, sub-cellular fractionation, organelle isolation, microplate centrifugation, and stem-cell research workflows in cell-culture facilities.
- **Virology & Vaccine Development** — Concentration and purification of viral particles, exosomes, and viral vectors from cell-culture supernatants — a critical capability supported by the ultra-high-speed TT-UltraC30.
- **Pharmaceutical & Biopharmaceutical Industry** — Drug-discovery workflows, formulation analysis, quality control of biologic products, and clinical-trial sample preparation requiring high-throughput, reproducible centrifugation.
- **Immunology & Serology** — Antibody isolation, immune-cell separation, lymphocyte preparation, and serological testing in clinical, research, and reference laboratories.
- **Water Treatment & Environmental Testing** — Sample concentration for trace-contaminant analysis, particle-size studies, and wastewater characterization in environmental laboratories.
- **Nanoparticle & Materials Research** — Ultra-high-speed centrifugal separation of nanoscale samples, colloid characterization, and advanced materials research enabled by ultracentrifugation.
- **Universities & Research Institutes** — Teaching laboratories, graduate research, fundamental scientific investigations, and method development across biology, biochemistry, medicine, and materials science.

FEATURES

Why Choose Torontech for Your Centrifugation Needs

With more than two decades of experience supplying advanced laboratory and analytical instruments to clinical facilities, research institutes, biopharmaceutical companies, and universities across more than 60 countries, Torontech has earned a global reputation as a trusted partner for precision centrifugation solutions. Choosing a Torontech centrifuge means investing in more than just hardware — it means partnering with an organization committed to your laboratory's long-term success.

Complete Centrifuge Portfolio

Torontech offers a fully scaled centrifuge lineup — from compact low-speed benchtop units suitable for teaching and routine clinical work, through versatile high-speed and high-capacity models for molecular biology and busy commercial labs, all the way to the floor-standing ultracentrifuge for the most demanding research applications. Whatever your sample volume, speed requirement, or throughput need, there is a Torontech centrifuge engineered to fit.

Intelligent Safety Built In

Every Torontech centrifuge is engineered around comprehensive safety architecture — automatic rotor identification, real-time imbalance detection, electronically locked lids with rotor-recognition-controlled speed limits, recordable rotor service times with replacement reminders, soft brake to protect sensitive samples, and emergency manual lid release for unexpected power interruptions. Centrifuges store enormous kinetic energy when running; Torontech engineers treat safety as a first-class design requirement, not an afterthought.

Versatile Rotor Ecosystem

Every Torontech model is supported by an extensive rotor ecosystem — fixed-angle rotors for routine high-force separations, swinging-bucket rotors for microplates, deep-well plates, and gradient work, and specialized rotors for hazardous-sample applications with optional gas-tight caps. With up to 16 rotor options per model and broad tube-type compatibility (microtubes, PCR strips, microplates, 15/50 mL conical tubes, blood-collection tubes, and 400 mL bottles), Torontech adapts to your existing labware — not the other way around.

Advanced Engineering & Quiet Operation

Torontech engineers prioritize laboratory comfort and operator productivity. Models like the PRO 2415 operate below 60 dB — quieter than a normal conversation — while maintaining high-speed performance. Optimized airflow keeps samples cool during extended runs, automatic lid opening at run completion prevents overheating, and intuitive touchscreen + rotary-knob interfaces make every centrifuge accessible to operators at any experience level.

Expert Application Support

Torontech's team of application scientists and product specialists is available across multiple time zones to support installation, operator training, protocol optimization, calibration, and ongoing service. With offices and authorized partners throughout the USA, Canada, UAE, KSA, GCC, EU, India, APAC, Africa, and Latin America, professional support is always within reach.

Cost-Effective Value

Torontech delivers premium-grade centrifugation performance at a transparent, competitive price point — eliminating the inflated cost structures of legacy brands while maintaining the accuracy, durability, and feature set that demanding professionals require. From entry-level units to research-grade ultracentrifuges, every Torontech centrifuge is engineered to deliver outstanding return on investment.



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