



## AUTOMATED CENTRIFUGES

MIKRO 220 ROBOTIC / ROTINA 380 ROBOTIC / ROTANTA 460 ROBOTIC

Since the introduction of the first robotically integrated centrifuges over 25 years ago, Hettich is still setting the benchmark in centrifuge automation technology. We have successfully integrated in most of today's laboratory automation systems and are recognized globally for the quality, precision and safety of our units. We currently offer three different automationfriendly models – each designed for reliable performance in high-use automation settings.

### **Controlled environment for the sample.**

Centrifuging blood or other temperature sensitive samples requires an accurate, controlled temperature environment, so that samples always remain at the temperature they started at before centrifugation. Hettich has temperature-controlled centrifuges to maintain a stable environment at the correct temperature.

**High throughput.** In a high throughput environment, sample capacity is important. The Rotanta 460 has a 460 mm diameter chamber and high capacity buckets on a 4-place rotor to maximize sample volume for each centrifugation cycle.

**Sample size.** From blood tubes 50ml and 15 ml and other sample tubes, to SBS format plates, 2ml microliter tubes and HPLC tubes. Hettich has a solution for integrating most centrifugation requirements on all automation platforms.

**High Speeds.** Performance must be able to meet the requirements of the application. Blood, HPLC, DNA extraction etc. are possible with g-forces up to 18,000 xg

**Precision positioning.** Samples are precisely positioned under a hatch in the lid for extraction. An optical encoder allows positioning to within 0.5 mm.

**Integration.** The centrifuge acts as an integrated slave module to the automation system. All programming and information requests are controlled by the central controller.

**Quiet and Safe.** Even at high speeds, Hettich centrifuges operate quietly and safely. Designed and built to meet international safety and quality requirements, Hettich centrifuges are tested and validated to the highest standards.

# HETTICH AUTOMATED CENTRIFUGES

**Centrifuges for the automated lab.** Hettich introduced the **ROTANTA 460** as the first centrifuge to be integrated into an automation system. It was part of a pre-analytical module for centrifuging blood tubes. Today, Hettich has three centrifuges from high capacity to small volume and high speed for a variety of automation applications.



**Fast and Compact:** The **MIKRO 220** automated centrifuge is an air-cooled, externally controlled microliter centrifuge with PC activation.

It centrifuges tubes up to 2.0 mL (e.g. microliter tubes or HPLC tubes) quickly and safely. This qualifies it for sample preparation in research laboratories of the life sciences as well as for daily routine tasks in medical diagnostics or industrial quality control.

- Compact for small volumes
- High-speed up to 18,516 x g
- 90° swing-out rotors for microliter and HPLC tubes
- Rotor positioning accuracy
- Continuous status communication



**Flexible and Versatile:** The **ROTINA 380** automated centrifuge is available with or without temperature control in a benchtop or under-bench version capable of centrifuging microtiter plates and blood collection tubes. The ROTINA 380 RC is ideal for an automated workstation in routine clinical diagnostics. The centrifuge can even accommodate STAT samples without interrupting your work-flow.

- Max. RCF of 4,696 x g
- 48 blood tubes
- 6 microtiter plates
- Rotor positioning accuracy
- Continuous status communication



**Proven and Powerful:** Our **ROTANTA 460** automated centrifuge models have been successfully deployed in many of today's industry leading automation systems. With more than 20 years of centrifugation in clinical laboratories as well as biotechnology research laboratories and in the pharmaceutical industry for high throughput screening. The ROTANTA is the only high g-force, high capacity model in the market today.

- High speed with a max. RCF of 6,446 x g
- 80 blood collection tubes
- 24 x 50 ml conical tubes
- 16 microtiter plates
- Industry leading automated centrifuge
- Rotor positioning accuracy