

Hettich

ZENTRIFUGEN

ROTANTA 460 / ROTINA 380 / MIKRO 220 Robotic Centrifuges

Intelligent: Innovative solutions
for individual applications

LAUNCH
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ROBOTIC CENTRIFUGES



YOUR RELIABLE PARTNER: WE ARE THE LEADING MANUFACTURER OF AUTOMATED CENTRIFUGES

Hettich robotically operated centrifuges have been performing reliably in the laboratory for more than 20 years. They are used wherever sample processing can be automated, and make a significant contribution to the rationalisation and safety of routine tasks. They enable time-consuming, repetitive process steps to be carried out automatically. This not only minimises the risk of infection, but also allows laboratory personnel to concentrate on other tasks.

Hettich centrifuges and their accessories can be tailored for numerous applications. No matter how special your requirements, the carriers and adapters of our robotic centrifuges can be matched exactly to the geometry of the robot and the grip arm.

The floorstanding ROTANTA 460 Robotic centrifuges are recommended where large numbers of samples are involved. The MIKRO 220 Robotic and the ROTINA 380 Robotic models are ideally suited if you are looking for a benchtop solution.

AT A GLANCE

EASE OF USE

Automatic, safe and precise: A robot arm loads and unloads the centrifuge. A hatch in the lid, through which the robot arm reaches into the centrifuging chamber, opens automatically before and after each centrifugation.

All centrifuge functions can be controlled by means of a PC. In addition, the advanced C-controller enables

- automatic checking of the operation of all important components
- interrogation of status information
- programming of carrier position, positioning accuracy: < 0.6 mm

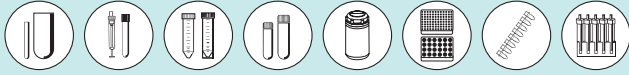
SAFETY

- Lid locking
- Run cycle counter
- Motor overheating protection
- Chamber overheating protection (in units with cooling)
- Imbalance switch-off
- Overtemperature protection of braking resistor
- Rotor recognition
- Monitoring of information transmission
- **Option:** Photoelectric sensors in the hatch (with ROTINA 380, 380 R, 380 RC Robotic and ROTANTA 460 Robotic)

DESIGN

The robust and solid design ensures fault-free operation 24 hours a day.

ROTANTA 460 Robotic



PERFORMANCE

Max. RCF	6,446 x g
Max. capacity	80 blood collection tubes 12 microtitre plates

PROVEN AND POWERFUL

Our ROTANTA 460 Robotic model is a cooled, floorstanding centrifuge. Robotic centrifuges from the ROTANTA range have been an integral part of numerous laboratory automation systems for several decades.

Today automated sample preparation is indispensable in medical diagnostics. Robotically operated ROTANTA models have long been successfully deployed in biotechnology research laboratories and in the pharmaceutical industry, for example for high throughput screening. In pharmaceutical research, active ingredients are more and more frequently tested on cells in order to minimise experiments with animals. This too makes the use of automated centrifuges increasingly necessary.



ROTANTA 460 Robotic
Robotic centrifuge

Cat. No. 5680-RS232

Standard Accessories

A comprehensive range of standard accessories is available for ROTANTA 460 Robotic centrifuges. Three swing-out rotors and 11 sorts of carriers are available for centrifuging different tubes and plates.

ROTOR	Suitable carriers			
4444	4426-R	4463-R	4464-R	4465-R
	4467-R	4486-R	4488-R	
5699-R	5632-R	5658-R		
5622	5631-R	5633-R		

In addition to our standard range of accessories we manufacture special carriers and adapters tailored to your robot.

Please let us know your requirements!



Swing-out rotor 4444
illustrated with carriers 4463-R



Swing-out rotor 4444
illustrated with carriers 4486-R



Swing-out rotor 5699-R
illustrated with carriers 5632-R



Swing-out rotor 5622
illustrated with carriers 5631-R

ROTINA 380 / 380 R / 380 RC Robotic



NEW



PERFORMANCE

Max. RCF	4,696 x g
Max. capacity	48 blood collection tubes 6 microtitre plates

FLEXIBLE AND VERSATILE

Our ROTINA 380 Robotic models are available as air-cooled or cooled benchtop centrifuges and as cooled underbench units. They centrifuge microtitre plates and blood collection tubes fast and reliably.

With the robotically operated ROTINA 380 Robotic and 380 R Robotic, automation has now also found its way onto the laboratory bench. The ROTINA 380 RC Robotic is ideally suited for setting up an automated workstation for routine clinical diagnostics. It can carry out special tasks, such as the centrifugation of STAT samples. The routine workflow therefore does not have to be interrupted when emergency samples are delivered. This relieves the load, particularly at peak times when large numbers of samples have to be processed within the shortest possible time. In the research sector, the ROTINA 380 Robotic models also make a valuable contribution.

Standard Accessories

The standard accessories for the ROTINA 380 Robotic models include two swing-out rotors with suitable carriers.

ROTOR	Suitable carriers
3724-R	3725-R
3722-R	3730-R

In addition to our standard range of accessories we manufacture special carriers and adapters tailored to your robot.

Please let us know your requirements!



Swing-out rotor 3724-R
with carriers 3725-R



Swing-out rotor 3722-R
with carriers 3730-R



ROTINA 380 Robotic
Robotic centrifuge

Cat. No. 3700



ROTINA 380 RC Robotic
Robotic centrifuge

Cat. No. 3704

MIKRO 220 Robotic



NEW



PERFORMANCE

Max. RCF 18,516 x g
Max. capacity 24 x 1.5/2.0 ml

FAST AND COMPACT

The MIKRO 220 Robotic is an air-cooled, robotically operated microlitre centrifuge with PC activation. It centrifuges tubes up to 2.0 ml (e.g. microlitre 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.

Wherever processes can be automated, MIKRO 220 Robotic centrifuges will optimize the workflow. Samples are centrifuged automatically while the laboratory personnel are able to concentrate on other tasks. As loading and unloading is carried out by means of a robot arm, the samples are made available for further processing right after centrifugation.



MIKRO 220 Robotic
Robotic centrifuge

Cat. No. 2350

Standard Accessories

The MIKRO 220 Robotic offers a choice between two swing-out rotors.

ROTOR	Suitable carriers
2394	included
2362	included

In addition to our standard range of accessories we manufacture special carriers and adapters tailored to your robot.

Please let us know your requirements!

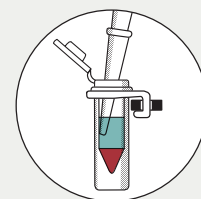


Swing-out rotor 2394
24-place, for microlitre tubes



Swing-out rotor 2362
12-place, for HPLC tubes

ADVANTAGES OF THE SWING-OUT ROTOR



While common microlitre centrifuges are typically operated with fixed-angle rotors, our robotic microlitre centrifuges run with high-speed 90° swing-out rotors.

In swing-out rotors the tubes are in a vertical position before and after each run. This permits accurate access for the robot arm. In addition, the horizontal position of the tubes during centrifugation guarantees optimal separation results. The pellet collects in the tip or at the bottom of the tubes. This facilitates analysis and further processing.

TECHNICAL DATA



MODEL	ROTANTA 460 Robotic ³⁾	MIKRO 220 Robotic
Centrifuge, without rotor	with cooling	without cooling
	Rear hatch / front hatch	Front hatch
Voltage	Can be operated at different voltages. Units are fitted with a transformer.	
Frequency	50–60 Hz	50–60 Hz
Consumption	1,800 VA	460 VA
Max. rpm (speed)	6,200 min ⁻¹	13,000 min ⁻¹
Max. RCF	6,446	18,516
Permissible density of the sample material	1.2 kg/dm ³	1.2 kg/dm ³
Cooling		
Temperature control, continuous	from -20 to +40°C	–
Dimensions (H x W x D)	684 x 554 x 697 mm	267 x 410 x 365 mm
Weight	approx. 159 kg	approx. 29 kg
Cat. No.	5680-RS232 / 5680-10-RS232	2350

MODEL	ROTINA 380 Robotic	ROTINA 380 R Robotic	ROTINA 380 RC Robotic
Centrifuge, without rotor	without cooling	with cooling	with cooling
	Rear hatch / front hatch	Rear hatch / front hatch	Rear hatch / front hatch
Voltage	Can be operated at different voltages. Units are fitted with a transformer.		
Frequency	50–60 Hz	50–60 Hz	50–60 Hz
Consumption	650 VA	1,300 VA	1,300 VA
Max. rpm (speed)	5,100 min ⁻¹	5,100 min ⁻¹	5,100 min ⁻¹
Max. RCF	4,696	4,696	4,696
Permissible density of the sample material	1.2 kg/dm ³	1.2 kg/dm ³	1.2 kg/dm ³
Cooling			
Temperature control, continuous	–	from -20 to +40°C	from -20 to +40°C
Dimensions (H x W x D)	477 x 470 x 579 mm	477 x 680 x 579 mm	622 x 470 x 579 mm
Weight	approx. 81 kg	approx. 113 kg	approx. 120 kg
Cat. No.	3700 / 3700-10	3702 / 3702-10	3704 / 3704-10

³⁾ Also available on castors



Hettich centrifuges comply with all relevant EU standards in effect and conform to the European level of quality and safety for medical devices. Evidence is provided by national and international test marks such as IEC 61010 or the CE conformity. The ISO 9001, ISO 13485 and ISO 14001 certificates accredited to the company bear witness to the extreme care and responsibility Hettich puts into the manufacturing of centrifuges and their accessories.



Our certification as an “Authorized Economic Operator” enables accelerated customs clearance.



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LAB TECHNOLOGY