

ANALYTICAL



**ROTANTA 460/460 R**  
Benchtop, Underbench and Floorstanding Centrifuges  
classic/cooled

Efficient, results-oriented working processes are top priority in both research and routine laboratories. Advanced laboratory technology makes a significant contribution to shortening processing times.

For decades, ROTANTA centrifuges from Hettich have been distinguished by the highest quality. Excellent performance and an extensive range of accessories guarantee fast, trouble-free operation in daily laboratory use.

With a maximum capacity of 3 litres per run, they are proving themselves in clinics and laboratory centres, as well as in Life Science R & D departments.

For sample processing in clinical chemistry, a wide selection of adapters are available to accommodate the most varied types of tubes. Biotechnology, molecular biology and the pharmaceutical industry value the ROTANTA 460 especially for its autoclavable and aerosoltight accessories.

These versatile benchtop centrifuges feature a filter plate rotor with an RCF of 6,446 for purifying DNA/RNA.

Model variants of the refrigerated ROTANTA 460 R

- with connection for nitrogen flushing (Cat. No. **5660-20**),
- as heating/cooling version up to 90 °C (Cat. No. **5660-50**), or as
- heating/cooling version with connection for nitrogen flushing (Cat. No. **5660-70**), on request.



## PERFORMANCE

- High speed with angle rotors:
  - 24,400 RCF with a max. capacity of 30 x 1.5/2.0 ml
  - 18,038 RCF with a max. capacity of 6 x 94 ml
  - 14,025 RCF with a max. capacity of 6 x 250 ml
- High capacity with swing-out rotors:
  - 4 x 750 ml at max. 4,779 RCF
  - 24 microtitre plates / 4 filter plates at max. 4,211 RCF or
  - 12 microtitre plates / 2 filter plates at max. 6,446 RCF
  - 196 blood collection tubes at max. 2,906 RCF

## USER-FRIENDLINESS

- Powered lid locking
- Ergonomic control and information panel
- Easy rotor changing
- 98 program storage spaces
- Protection against unauthorized operation / modification of stored programs
- Switch of centrifuge run time from "at start" (commencement at start) to "at speed" (start when nominal speed is attained)
- Special braking ramps for centrifuging blood bags in the refrigerated models
- Program interlocking to combine several centrifugation runs (**optional**)

## COOLING (ROTANTA 460 R, 460 RC and 460 RF)

- Infinitely variable adjustment from -20 °C to +40 °C (or -4 °F to +104 °F)
- Stand-by cooling

## SAFETY

- Imbalance switch-off
- Automatic rotor recognition
- Emergency lid lock release
- Lid dropping protection
- Lid locking and holding during rotor run
- Motor overheating protection
- Chamber overheating protection with (ROTANTA 460 R, 460 RC und 460 RF) centrifuges



ROTANTA 460 R  
benchtop centrifuge,  
cooled,

Cat. No. 5660



ROTANTA 460  
benchtop centrifuge

Cat. No. 5650



## OPERATION AND CONTROL


With the convenient C control panel, even the most challenging centrifugation programs can easily be keyed in, stored and accessed as required.




ROTANTA 460 R, 460 RC and 460 RF control panel (C control panel)

## DIGITAL DISPLAY AND CONTROL PANEL

### KEYBOARD

START	Start centrifugation run / short centrifuging runs / save entries and changes
	Start pre-cooling program <b>PREC</b>
STOP OPEN	Manually end centrifugation run / Open lid

### PARAMETER INPUT

PROG	Input / recall program number 98 programs can be stored
T/°C	Input temperature in increments of 1 from - 20 °C to + 40 °C or - 4 °F to + 104 °F (ROTANTA 460 R, 460 RC and 460 RF)
	Input of acceleration levels 1 – 9 Input of braking levels 1 – 9 Input brake force cut-off
RCF	Input relative centrifugal force (RCF) in increments of 1 Enter centrifuging radius (RAD) in mm
RPM	Input speed in increments of 10
TIME	Input length of centrifugation (max. 99 h : 59 min : 59 sec) or continuous operation



ROTANTA 460 RC  
underbench centrifuge,  
cooled

Cat. No. 5670


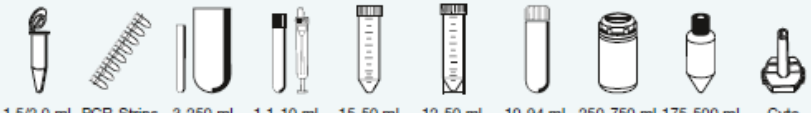
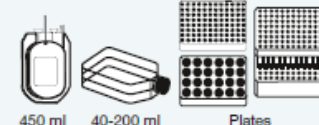



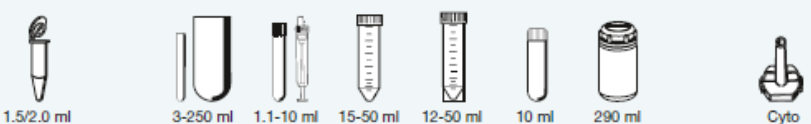

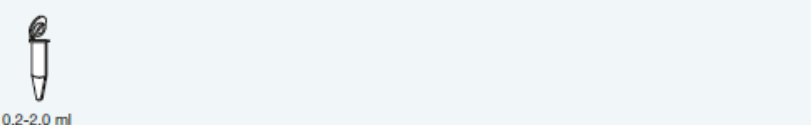



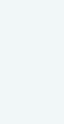

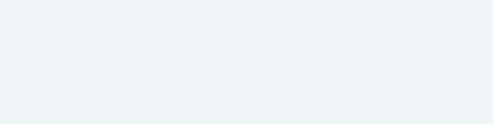




ROTANTA 460 RF  
floorstanding centrifuge,  
cooled

Cat. No. 5675

# ROTORS AND ACCESSORIES

Quick overview of rotors and suitable accessories. The figures highlighted under the arrows refer to the pages where technical and ordering details are listed.

<p>some accessories with bio-containment<sup>5)</sup></p>  <p><b>Swing-out rotor, 4-place</b>  <math>\pm 90^\circ</math>  <math>n = 4,600 \text{ min}^{-1}</math>                      max. RCF 5,063                      Cat. No. 5699</p>	 <p>1.5/2.0 ml PCR-Strips 3-250 ml 1.1-10 ml 15-50 ml 12-50 ml 10-94 ml 250-750 ml 175-500 ml Cyto</p>  <p>450 ml 40-200 ml Plates</p> <p>→ Page 5-14</p>
<p>accessories with bio-containment<sup>5)</sup></p>  <p><b>Swing-out rotor, 4-place</b>  <math>\pm 90^\circ</math>  <math>n = 3,800 \text{ min}^{-1}</math>                      max. RCF 3,196                      Cat. No. 5654</p>	 <p>PCR-Strips 3-15 ml 1.1-10 ml 15-50 ml 10 ml 250-750 ml 175-500 ml Plates</p> <p>→ Page 15-16</p>
<p>some accessories with bio-containment<sup>5)</sup></p>  <p><b>Swing-out rotor, 4-place</b>  <math>\pm 90^\circ</math>  <math>n = 4,000 \text{ min}^{-1}</math>                      max. RCF 3,095                      Bestell-Nr. 5694</p>	 <p>1.5/2.0 ml 5-250 ml 1.1-10 ml 15-50 ml 12-50 ml 10 ml 290 ml Cyto</p> <p>→ Page 17-19</p>
<p>some accessories with bio-containment<sup>5)</sup></p>  <p><b>Swing-out rotor, 6-place</b>  <math>\pm 90^\circ</math>  <math>n = 4,000 \text{ min}^{-1}</math>                      max. RCF 3,631                      Bestell-Nr. 4446</p>	 <p>1.5/2.0 ml 3-250 ml 1.1-10 ml 15-50 ml 12-50 ml 10 ml 290 ml Cyto</p> <p>→ Page 20-22</p>
<p>accessories with bio-containment<sup>5)</sup></p>  <p><b>Swing-out rotor, 2-place</b>  <math>\pm 90^\circ</math>  <math>n = 5,900/6,200 \text{ min}^{-1}</math>                      max. RCF 5,838/6,446                      Cat. No. 5622</p>	 <p>PCR-Strips Plates</p> <p>→ Page 23</p>
<p>lid with bio-containment<sup>5)</sup></p>  <p><b>Angle rotor, 30-place</b>  <math>\pm 45^\circ</math>  <math>n = 15,000 \text{ min}^{-1}</math>                      max. RCF 24,400                      Cat. No. 4489-A</p>	 <p>0.2-2.0 ml</p> <p>→ Page 24</p>
<p>lid with bio-containment<sup>5)</sup></p>  <p><b>Angle rotor, 6-place</b>  <math>\pm 25^\circ</math>  <math>n = 8,500/9,500 \text{ min}^{-1}</math>                      max. RCF 11,228/14,025                      Cat. No. 5645</p>	 <p>15-94 ml 10-94 ml 250 ml</p> <p>→ Page 24</p>
<p>lid with bio-containment<sup>5)</sup></p>  <p><b>Angle rotor, 6-place</b>  <math>\pm 45^\circ</math>  <math>n = 11,500 \text{ min}^{-1}</math>                      max. RCF 18,038                      Cat. No. 5615</p>	 <p>1.5/2.0 ml 15-94 ml 7.5-10 ml 15/50 ml 10-94 ml</p> <p>→ Page 25</p>
<p><b>Angle rotor, 14-place</b>  <math>\pm 36^\circ</math>  <math>n = 10,000 \text{ min}^{-1}</math>                      max. RCF 17,441                      Cat. No. 5655</p>	<p>15/25 ml 7.5-10 ml 15/50 ml 30 ml</p> <p>→ Page 26</p>
<p><b>Angle rotor, 6-place, for Schlenk tubes</b>  <math>\pm 45^\circ</math>  <math>n = 2,000 \text{ min}^{-1}</math>                      max. RCF 805                      Cat. No. 5616</p>	<p>25/50 ml</p> <p>→ Page 26</p>
<p><b>Swing-out rotor, 4-place, for ASTM tubes</b>  <math>\pm 90^\circ</math>  <math>n = 2,000 \text{ min}^{-1}</math>                      max. RCF 984                      Cat. No. 4474</p>	<p>50/100 ml 100 ml</p> <p>→ Page 27</p>
<p><b>Swing-out rotor, 6-place, for chrome bath tubes</b>  <math>\pm 90^\circ</math>  <math>n = 2,000 \text{ min}^{-1}</math>                      max. RCF 917                      Cat. No. 4619</p>	<p>30 ml</p> <p>→ Page 27</p>

Additional tubes e.g. stool tubes or spin columns on request.