



ROTO SILENTA 630 RS
Floorstanding Centrifuge
cooled

The ROTO SILENTA 630 RS offers outstanding performance in fast, efficient centrifuging of blood bags and large sample volumes. It accommodates a maximum capacity of 6 x 2,000 ml or 12 x 750 ml blood bag systems.

Excellent stability even at high speeds makes the ROTO SILENTA 630 RS a rugged and reliable centrifuging partner. When in use, the cooled large-volume centrifuge rests on high-quality vibration dampers.

To ensure mobility, it is supplied with castors onto which the ROTO SILENTA 630 RS can be lowered, as required.

Optimal running performance guarantees best separation results. The low noise level makes agreeable working conditions. The extensive range of carriers and adapters for blood collection tubes, standard tubes, bottles and various blood bag systems can be centrifuged in one rotor – changing rotors is not necessary.

The Hettich data report system HettInfo as well as customised solutions enable GMP performance and meet the high standards of user safety and product quality in blood banks and transfusion centres.

PERFORMANCE

- High RCF without windshield
 - up to 6,520 x g at 4,500 min⁻¹.
- High capacity
 - max. 6 x 2,000 ml or 12 x 750 ml blood bag systems
- Efficient cooling
 - controllable from – 20 °C to + 40 °C (with model 5005-50 from – 20 °C to + 60 °C).
 - Precooling is effected by programming one of the 89 programmable memories.

TECHNOLOGY

- Frequency-controlled drive, virtually maintenance-free
- Powered lid locking
- Ergonomic rail-grip for easy lid closing
- Large viewing port in the lid for optical speed control with a stroboscope

SAFETY

- Imbalance switch-off
- Rotor recognition
- Key-operated switch for locking and protecting programs
- Lid locking and holding
- Lid dropping protection
- Motor and chamber overheating protection
- Torsion-free steel chassis
- Smooth, easy to clean surfaces

ROTO SILENTA 630 RS with bar code unit (option), dimensions (H x W x D):
973 x 813 x 1,015 mm (without bar code unit),
973 x 888 x 1,015 mm (with bar code unit).
On request, the scanner can also be mounted on the left panel.

Cat.-No. 5005



CONTROL PANEL

ROTO SILENTA 630 RS with S control panel to satisfy the highest standards

Numerous functions
with just a few user operations

Whether entering single parameters or chaining complete running programs, the clearly arranged display with its selector keys and adjusting knob provides for extreme user-friendliness. The controls and displays of the ROTO SILENTA 630 RS are arranged according to ergonomic aspects. The large display is clearly arranged and well readable. During centrifugation the actual values of all parameters are indicated.

For special routine or scientific applications the ROTO SILENTA 630 RS can be fitted with the following optional equipment:

Centrifuging data report system HettInfo
details on next page

Visual indication

when the rotor is stationary

for additional information on the completion of a centrifuging cycle.

Program interlocking

to combine several centrifugation runs.

Second independent tacho system

for calibrating the speed measuring instrument as required by quality management systems.



ROTO SILENTA 630 RS control panel: Entry of the parameters is exact, fast and easy with selector keys on the foil keypad and the adjusting knob.

KEYPAD

- START** Starts centrifugation run, short-time centrifugation.
Pre-cooling can be assigned to one program location.
- STOP** Stops centrifugation manually.
- PROG** Selects the program.
89 programmable memories are available.
- STO** Stores entries, changes and programmes.
- RCL** Calls up the selected program.
- I/RCF** The integral over the RCF indicates the accumulated RCF acting on the centrifuged material up to that particular time.

PARAMETER INPUT

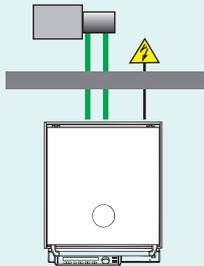
- Entry of the temperature from -20 °C to $+40\text{ °C}$ in increments of 1 °C .
Entry of the centrifuging radius in mm.
-  Entry of the run-up time in ramps 1–9 or in min : sec.
Entry of the run-down time in ramps R 1–9 and B 1–9 or in min : sec.
Also unbraked run-down (setting 0), or a brake force cut-off speed can be selected.
- RCF** Entry of the RCF in increments of 1.
- n** Entry of the speed in increments of 10.
- t** Entry of the centrifugation time (max. 999 min : 59 sec) or continuous operation.

OPTIONS

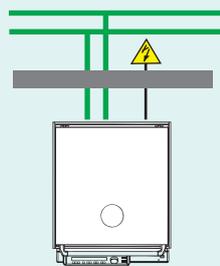
Cool solutions under any conditions

The ROTO SILENTA 630 RS adapts to the most diverse local conditions and requirements. Depending on fittings, it can be connected to

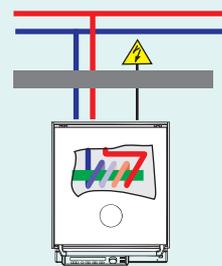
an external cooling unit



an external cooling medium circuit



an external coolant circuit, cooling unit integrated



green = cooling medium (R 404A), blue/red = coolant

Of course, a stand-alone model is also available: an air-cooled standard version supplied with an integrated cooling unit.

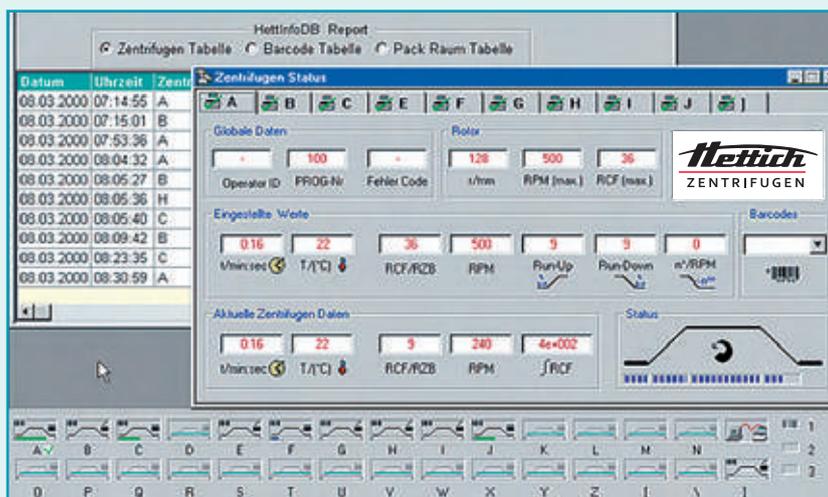
The housing of all versions can be insulated for use under clean-room conditions.

Additionally, the pedestal can be covered and sealed to the floor. External connections can also be mounted through the bottom of the centrifuge.

In addition to the above mentioned centrifuge models, we also manufacture special versions and accessories tailored to customer requirements.

Transparent and reliable processes thanks to HettInfo

With the data documentation system HettInfo, up to 29 centrifuges can be controlled by a single PC. A light conducting cable connects the centrifuge to a BUS system. A PC with a RS 232 interface records the selected data of the centrifuge.



HettInfo registers all centrifugation data. In addition to the date, the end of the centrifugation run, the program number and the temperature, further parameters can be selected or deselected by the user. Detailed information is available in our HettInfo brochure. Please ask for it.



Packing room with external bar code unit



Barcode-Kit ROTO SILENTA 630 RS



Centrifugation programs and the operator code can also be scanned-in by barcode.

Data log

MODEL VARIANTS AND ROTORS

Model variants ROTO SILENTA 630 RS

Variant	Power supply ¹⁾	Frequency	Cat. No.
With connection for nitrogen (N ₂) flushing	400 V 3~ +N	50–60 Hz	5005-20
Heating/cooling version up to + 60 °C	400 V 3~ +N	50–60 Hz	5005-50
Brine cooling	400 V 3~ +N	50–60 Hz	5005-60
GMP, internal cooling unit with water-cooled condenser	400 V 3~ +N	50–60 Hz	5005-80
GMP, external cooling unit	400 V 3~ +N	50–60 Hz	5005-90

Rotors

With the ROTO SILENTA 630 RS there is a choice between a 4-place and a 6-place swing-out rotor. Both rotors can hold blood bags, standard tubes, blood collection tubes and bottles with a capacity of up to 2,000 ml.

The ROTO SILENTA 630 RS generates a maximum RCF of 6,520 with the 6-place rotor 4176 and a maximum RCF of 5,705 with the 4-place rotor 4174 – in each case **without windshield**. This not only simplifies handling, it also enables optimal temperature distribution and precise temperature measurement.

Lower temperatures can be achieved with 4-place rotor 4174 than with rotor 4176 thanks to its lower air friction values.

The values for 6-place rotor 4176 have a light turquoise background, and those for 4-place rotor 4174 have a light orange background in the following tables of accessories.

Swing-out rotor, 6-place, \sphericalangle 90°



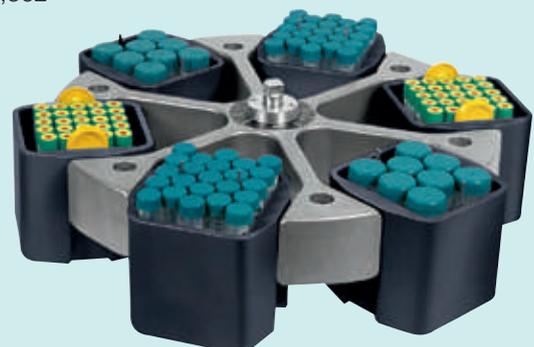
illustrated with carriers 4591-A and inserts 4592-H for max. 750 ml blood bag systems

$n = 4,500 \text{ min}^{-1}$,
max. RCF 6,498



illustrated with carriers 4595-A and bottles 0550 for 2,000 ml

$n = 4,500 \text{ min}^{-1}$,
max. RCF 6,362²⁾



illustrated with carriers 4522-A and two each inserts 4245-A, 4232 and 4223

$n = 4,500 \text{ min}^{-1}$,
max. RCF 5,999

Cat. No. (without carriers) 4176

¹⁾ Other voltages on request.

²⁾ Please note that the RCF values indicated refer only to rotor performance. The max. permissible RCF of tubes used should be verified with the individual manufacturers. The max. RCF for bottle 0550 is 3,848.

ROTO SILENTA 630 RS

TECHNOLOGY

ROTO SILENTA 630 RS

Floorstanding centrifuge, without rotor	cooled
Power supply ^{*)}	400 V 3 ~ + N
Frequency	50 – 60 Hz
Consumption	9,700 VA
Emission, Immunity	EN/IEC 61326-1, class B
 Max. capacity	6 x 2,000 ml
Max. RPM (speed)	4,500 min ⁻¹
Max. RCF	6,520
Running time	1 sec – 999 min : 59 sec, ∞ continuous run
Dimensions (HxWxD)	973 x 813 x 1,015 mm
Weight	approx. 355 kg
Refrigeration	
Temperature control, infinitely variable	from -20 to +40 °C
Cat. No.	5005

^{*)} Other voltages on request.



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.

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