

ROTO SILENTA 630 RS

Hettich
ZENTRIFUGEN



**Floorstanding
Centrifuges,
refrigerated**

ROTO SILENTA 630 RS



The ROTO SILENTA 630 RS features outstanding performance in fast, efficient centrifuging of blood bags and in processing large sample quantities.

It offers a maximum capacity of 6 x 2000 ml or 12 x 500 ml blood bag systems.

Excellent stability even at high performance levels makes the

ROTO SILENTA 630 RS a rugged and reliable centrifuging partner.

When in use, the cooled large volume centrifuge is positioned 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 separating results and a

pleasant working environment thanks to low noise levels.

The extensive range of accessories for blood collection tubes, standard tubes and various blood bag systems can be centrifuged in one rotor - changing rotors is not required.

HETTINFO, the Hettich data report system and customised solutions enable GMP performance, addressing the high-level requirements for user safety and product quality in blood banks and transfusion centres.

The ROTO SILENTA 630 RS in brief

Technology

Frequency-controlled drive, virtually maintenance-free.

Automatic lid locking.

Ergonomic rail-grip for easy lid closing.

Large viewing port in the lid for optical speed control with a stroboscope.

Performance

High RCF without windshield

up to 6,500 x g at 4,500 min⁻¹.

High capacity

max. 6 x 2000 ml or 12 x 500 ml blood bag systems.

Efficient cooling

Controllable from -20 °C to +40 °C

(with model 5005-50 to +60 °C). Precooling can be effected by using one of the 89 programmes.

Safety

Imbalance switch-off

Rotor recognition

Key-operated switch for locking and protecting programmes

Lid locking and holding

Non-drop safety feature on the lid

Motor and chamber overheating protection

Torsion-free steel chassis

Smooth, easy to clean surfaces



ROTO SILENTA 630 RS

Cat. No. **5005**

The rotor

With just one rotor the ROTO SILENTA 630 RS accommodates blood bags, blood collection tubes, standard tubes and bottles up to 2000 ml.

Swing-out rotor, 6-place,
n = 4,500 min⁻¹, RCF = 6,500
illustrated with buckets No. 4591
and inserts No. 4592-N
for quadruplicate 500 ml
blood bag systems.

Cat. No. 4176 without buckets



90°

Swing-out rotor, 6-place,
n = 4,500 min⁻¹, RCF = 6,316
illustrated with buckets No. 4595
and 2000 ml bottles No. 0550.

Cat. No. 4176 without buckets



90°

Swing-out rotor, 6-place,
n = 4,500 min⁻¹, RCF = 6,000
illustrated with buckets No. 4522 and
2 each inserts No. 4245, 4232, and 4223.

Cat. No. 4176 without buckets



90°

S Control Panel

The controls and displays

of the ROTO SILENTA 630 RS are arranged according to ergonomic aspects.

The large display

is well readable. During centrifugation the actual values of all parameters are indicated.



Entry of the parameters is exact, fast and easy with selector keys on the water-protected foil keypad and an adjusting knob.

Speed n/RPM

input in increments of 10.

Relative centrifugal force RCF

input in increments of 1.

Radius r/mm

input in mm when RPM or RCF need to be determined.

Running time t

input in minutes and seconds, max. 999 min.

Run-up/run-down times

input of acceleration and braking ramps in levels 1-9, or time-controlled in minutes and seconds. 0 = unbraked run-down.

Deceleration with brake force cut-off

input of the cut-off speed in RPM (with the 9 time-controlled braking ramps).

Integral of the RCF

provides continuous information on the accumulated RCF the centrifuged material is exposed to during centrifugation.

Temperature $T/°C$

input in increments of 1 within a range of $-20°C$ to $+40°C$ (with model 5005-50: $-20°C$ to $+60°C$).

Memory

In laboratories carrying out many different and complicated centrifuging tasks the storing of programmes saves valuable time.

The ROTO SILENTA 630 RS stores up to 89 complete programmes. They remain in the memory even after the centrifuge has been switched off and can be recalled by their storing number.

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

Data report system

With the HETTINFO data report system up to 29 centrifuges can be controlled by a single PC.

Optical cables connect the centrifuges to a BUS system.

Protocols of selected bar code units and centrifuging data can be produced via a PC with an RS 232 interface.

Visual indication when the rotor is stationary (No. E 1247)

for additional information on the completion of a centrifuging cycle.

Chaining of programmes (No. E 1099)

For special tasks the control panel allows chaining of different programmes.

Second independent tacho system (No. E 1300)

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

ROTO SILENTA 630 RS

...programming with effortless ease

Whether entering single parameters or chaining complete running programmes, the clearly arranged display with its selector keys and adjusting knob provides for extreme user-friendliness.

Hettich manufactures top quality centrifuges.

All stages from design to end product are continually subjected to strictest controls.

The ISO 9001 certificate accredited to the entire company proves the extreme care and responsibility Hettich puts into the manufacture of centrifuges and their accessories.

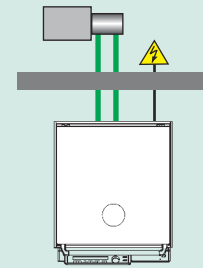
Therefore, Hettich centrifuges are known for safety and reliability all over the world.



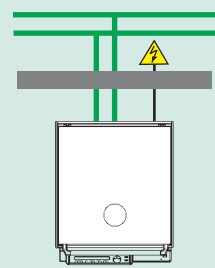
Cool solutions under any conditions

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

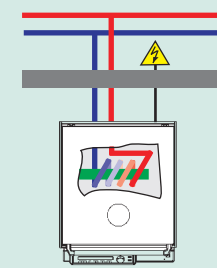
an external cooling unit



an external cooling medium circuit



an external coolant circuit, cooling unit integrated



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

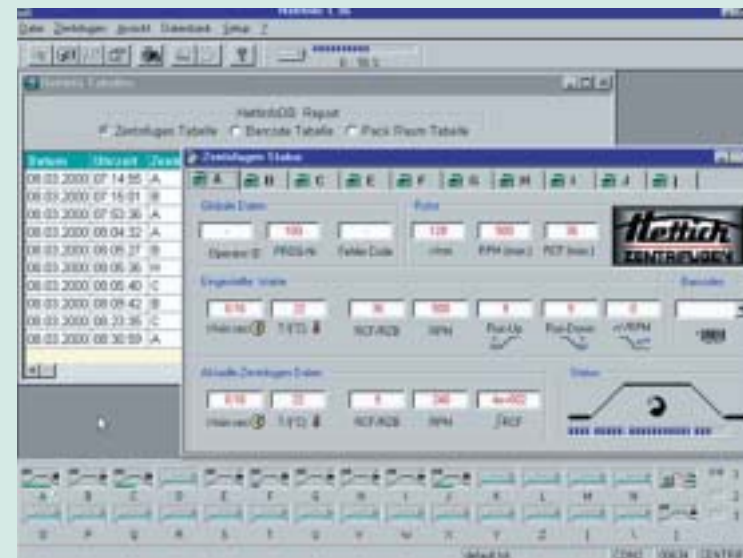
Of course, a stand-alone model is also available: an air-cooled standard version supplied with an integrated cooling unit.

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

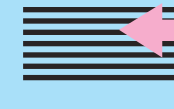
Additionally, the pedestal can be covered and sealed to the floor.

External connections can also be mounted through the bottom of the centrifuge.

HETTINFO - data documentation made easy



data protocol



Centrifuging programmes can also be entered by bar codes.

HETTINFO in brief:

HETTINFO allows control of up to 29 centrifuges with S control panel.

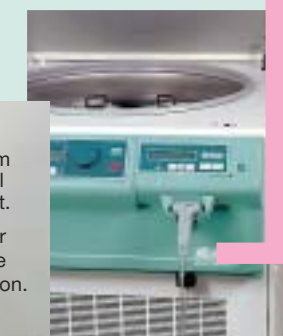
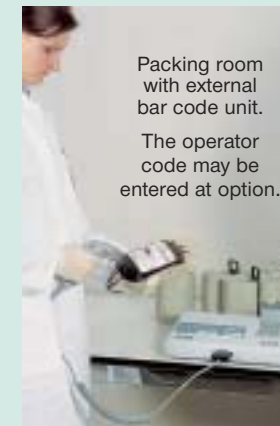
Scanning the bar codes is all it takes. Only requirement: A commercial PC (Pentium, Windows NT 4.0** with SP5, Windows 2000** or Windows XP**, 32 MB RAM).

Scanning is possible at the centrifuge or in a separate packing room.

The centrifuge, the time of centrifugation, the centrifuging parameters and the operator code can be recorded, memorized and printed out.

To a host system the data is available as Access** data bases.

Packing room with external bar code unit. The operator code may be entered at option.



Scanning at the centrifuge.

* Microsoft, Windows, Windows NT, Windows 2000, Windows XP, Access are either registered trademarks or trademarks of the Microsoft Corporation in the USA and / or other countries.

Accessories



2-compartment plastic insert for blood bags
Cat. No. **4559-N**
2-compartment bucket
Cat. No. **4546**



2-compartment plastic insert for blood bags
Cat. No. **4592-N**
2-compartment bucket
Cat. No. **4591**



2-compartment plastic insert for blood bags
Cat. No. **4525**
2-compartment bucket
Cat. No. **4524**

plates for thrombocyte bags
Cat. No. **4597**



plastic insert for 4 thrombocyte bags
Cat. No. **4596**
bucket for 4 thrombocyte bags or a 2000 ml bottle
Cat. No. **4595**

capacity ml	450
blood bag system, quadruplicate	
Cat. No.	--
Cat. No.	4546
Cat. No.	4559-N
qty. per rotor	12
RCF	6,294
radius in mm	278
run-up in s	118
run-down in s	197
temperature °C ²⁾	16

capacity ml	500
blood bag system, quadruplicate	
Cat. No.	--
Cat. No.	4591
Cat. No.	4592-N
qty. per rotor	12
RCF	6,498
radius in mm	287
run-up in s	118
run-down in s	180
temperature °C ²⁾	16.5

capacity ml	500	500	500
blood bag holding system, quadruplicate	Baxter	Biopack	Fenwal ¹⁾
Cat. No.	4526	4527	4528
Cat. No.	4524	4525	
qty. per rotor	12		
RCF	6,498		
radius in mm	287		
run-up in s	118		
run-down in s	180		
temperature °C ²⁾	16.5		

capacity ml	100	2000
dim. H x W x D mm	thrombocyte plate 180x150x100	
Cat. No.	4597	0550
Cat. No.	4595	--
Cat. No.	4596	--
qty. per rotor	24	6
RCF	6,316	
radius in mm	279	
run-up in s	118	
run-down in s	197	
temperature °C ²⁾	16	

The manufacturer of bottle No. 0550 limits its permissible RCF to 3,848 x g.

capacity ml	100
thrombocyte bags	
Cat. No.	--
Cat. No.	4514
Cat. No.	--
qty. per rotor	18
RCF	6,181
radius in mm	273
run-up in s	118
run-down in s	180
temperature °C ²⁾	14

capacity ml	750	1000	1000
dimensions Ø x L mm	97 x 152	98 x 138	96 x 168
Cat. No.	--	4255	4239
Cat. No.	4255	--	4255
qty. per rotor	6		
RCF	6,316		
radius in mm	279		
run-up in s	118		
run-down in s	180		
temperature °C ²⁾	4		

1000 ml bottle (PP) with screw cap
Cat. No. **4239**



bucket with lid
Cat. No. **4255**

light metal groove ring
Cat. No. **4579**



braked run-down at level 9






























1) also Macopharma, Terumo, Kawasumi


























2) Lowest attainable temperature at maximum speed



Bucket No. 4522 with an assortment of frames for accommodating Falcon tubes, blood collection tubes, bottles, and ASTM tubes.

bucket
Cat. No. 4522

capacity ml	2 - 3	2.6 - 2.9	4 - 5.5	4.5 - 5	7.5 - 8.2	9 - 10	1.6 - 5	4 - 7	4 - 7	8	8.5 - 10	15	50	50
dimensions Ø x L mm	11 x 66	13 x 65	15 x 75	11 x 92	15 x 92	16 x 92	13 x 75	13 x 100	16 x 75	16 x 125	16 x 100	17 x 120	29 x 115	29 x 115
Cat. No.	blood collection tubes											0509	0513	-
 Cat. No. 4522														
														
Cat. No.	4213-93	4222-93	4214-93	4213	4214	4220	4222-93	4222	4223-93	4223	4223	4232	4245	4249
tubes per rotor	288	180	180	288	180	96	180	180	150	150	150	138	48	36
RCF	5,818											5,999		
radius in mm	257											265		
run-up in s	118											118		
run-down in s	☐ 180											☐ 180		
temperature °C ²⁾	14											14		

capacity ml	4	6/7	12	15	25	50	100	100	250	250	100	750
dimensions Ø x L mm	10 x 88	12x82/100	16 x 101	17 x 100	24 x 100	34 x 100	44 x 100	40 x 115	65 x 115	62 x 135	58 x 161	93 x 137
Cat. No.	-	-	-	-	-	-	-	-	-	5127	-	4234
 Cat. No. 4522												
												
Cat. No.	4224	4213	4223	4214	4215	4216	4217	4218	4219	4238	4227	4233
tubes per rotor	378	288	150	180	66	36	24	24	6	6	6	6
RCF	5,818											5,999
radius in mm	257											219
run-up in s	118											
run-down in s	☐ 180											
temperature °C ²⁾	14											

☐ braked run-down at level 9

Please take care not to exceed the tubes' max. permissible RCF.

ROTO SILENTA 630 RS



ROTO SILENTA 630 RS
Floorstanding centrifuge,
refrigerated, without rotor
Cat. No. 5005
Floorstanding centrifuge,
heating / cooling version, without rotor
Cat. No. 5005-50

Technical Details

* Power supply:	400 V, 3 ~ N
Frequency:	50 - 60 Hz
Consumption:	10.0 kVA
Radio interference:	EN 55011 ISM class B
Immunity:	EN 50082-1
Capacity:	6 x 2,000 ml, swing-out
Speed/RCF:	n= 4,500 min ⁻¹ / 6,500
Temperature:	steplessly controllable within a range of -20 °C to +40 °C with model 5005-50 of -20 °C to +60 °C
Dimensions (H x W xD):	973 x 813 x 1015 mm
Weight:	approx. 360 kg

Design

Torsion-free profiled steel chassis, centrifuging chamber of stainless steel, panelling finished in scratch and impact resistant coating.

*other voltages on request

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