



ROTO SILENTA 630 RS
Floorstanding Centrifuge
cooled

ROTO SILENTA 630 RS

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 + 90 °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 HettlInfo
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 programs.
- RCL** Calls up the selected program.
- JRCF** The integral over the RCF indicates the accumulated RCF acting on the centrifuged material up to that particular time.

PARAMETER INPUT

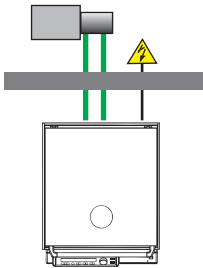
-  Entry of the temperature from -20 °C to $+40\text{ °C}$ in increments of 1 °C .
Entry of the centrifuging radius in mm.
-  Entry of the run-up time in ramps 1–9 or in min : sec.
Entry of the run-down time in ramps R 1–9 and B 1–9 or in min : sec.
Also unbraked run-down (setting 0), or a brake force 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

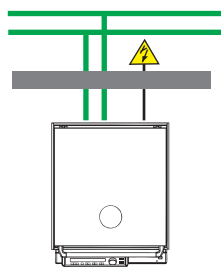
Cool solutions under any conditions

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

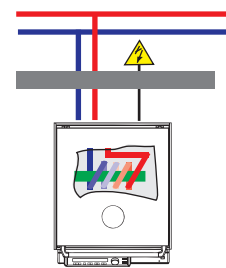
an external cooling unit



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.

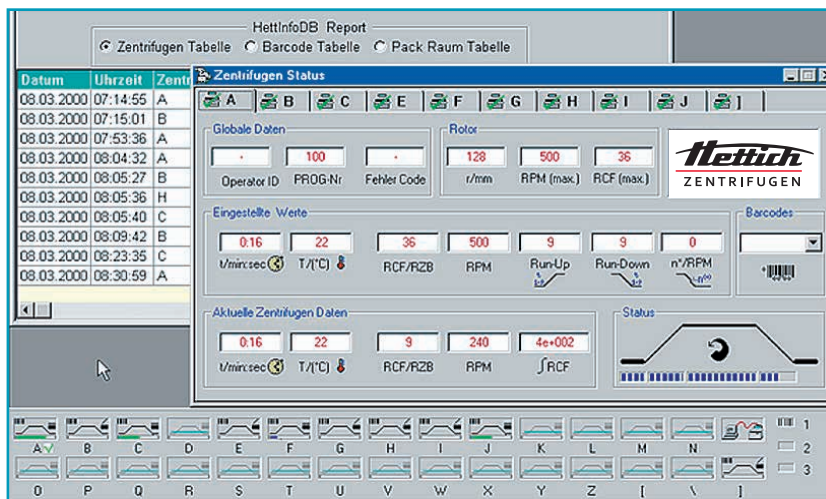
The housing of all versions can be insulated for use under clean-room conditions.

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

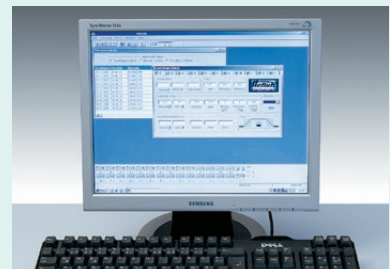
With the data documentation system HettInfo, up to 29 centrifuges can be controlled by a single PC. A light conducting cable connects the centrifuge to a BUS system. A PC with a RS 232 interface records the selected data of the centrifuge.



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.

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.



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 + 90 °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.

In addition, the ROTO SILENTA 630 RS accommodates angle rotor 4570, which can reach a maximum speed (RPM) of 6,000 min⁻¹.

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



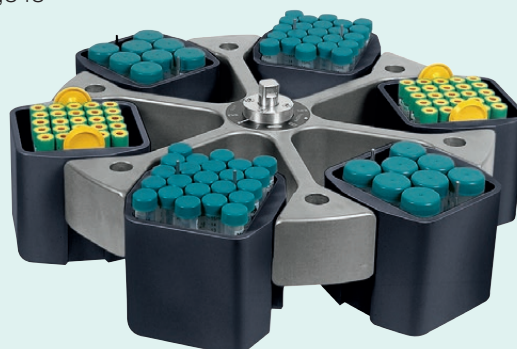
illustrated with carriers 4591-A and inserts 4592-B for max. 750 ml blood bag systems

n = 4,500 min⁻¹,
max. RCF 6,520



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

n = 3,500 min⁻¹,
max. RCF 3,848



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

n = 4,500 min⁻¹,
max. RCF 5,999

Cat. No. (without carriers) 4176

¹⁾ Other voltages on request.

ROTORS AND ACCESSORIES

Swing-out rotor, 6-place

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












↻ 90°

n = 4,500 min⁻¹
max. RCF 6,520

illustrated with carriers 4591-A and inserts 4592-B

Cat. No. (without carriers) **4176**

capacity in ml	500	500	500	500	500	750
holding system for blood bags	Baxter / Fenwal	Fresenius	Terumo³⁾	-	-	-
blood bags	quadruple	quadruple	quadruple	quadruple	quadruple	single
Cat. No.	4526⁴⁾	4527⁴⁾	4528⁴⁾	-	-	-
 carrier Cat. No. 4524-A						
Cat. No.	4525-A			4529⁵⁾-AO,-AM,-AU	4592-B	
boring Ø x L in mm	-					
blood bag systems per rotor				12 8		
max. RCF				6,498 5,683		
max. RCF ⁵⁾				1,000 1,000		
radius in mm				287 251		
run-up in sec				125 125		
run-down in sec, braked				197 197		
temperature in °C ¹⁾				+16 +10		

capacity in ml	450
blood bags, quadruple	
Cat. No.	-
 carrier Cat. No. 4546-A	 
Cat. No.	4559-A
boring Ø x L in mm	-
blood bag systems per rotor	12 8
max. RCF	6,271 5,479
radius in mm	277 242
run-up in sec	125 125
run-down in sec, braked	197 197
temperature in °C ¹⁾	+13 0



carrier 4524-A with insert 4525-A



insert 4529-A in 4529-AM version (hooks for suspending the blood bags are fixed in middle position)



carrier 4546-A with insert 4559-A

1) Lowest attainable temperature in pre-cooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.
3) As well as Macopharma and Kawasaki.
4) Please order by pairs.

ROTORS AND ACCESSORIES

Swing-out rotor, 4-place









± 90°

n = 4,500 min⁻¹
max. RCF 5,705

illustrated with carriers 4591-A
and inserts 4592-B

Cat. No. (without carriers) **4174**

capacity in ml	450	500	750
blood bags	triple	quadruple	single
Cat. No.	-	-	-
 Carrier Cat. No. 4591-A			
Cat. No.	4598	4592-B	
boring Ø x L in mm	-		
blood bag systems per rotor	12 8		
max. RCF	6,498 5,705		
radius in mm	287 252		
run-up in sec	125 125		
run-down in sec, braked	197 197		
temperature in °C ¹⁾	+16 +10		

capacity in ml	100	2.000
	thrombocyte plate	180x150x100
Cat. No.	4597	0550
 Carrier Cat. No. 4595-B ⁶⁾		
Cat. No.	4596-A	-
boring Ø x L in mm	-	
blood bag systems per rotor	24 16	6 4
max. RCF	312 272	3,848 3,369
radius in mm	279 243	281 246
run-up in sec	125 125	29 95
run-down in sec, braked	197 197	41 131
temperature in °C ¹⁾	+16 -8	+16 -8



carrier 4591-A
with insert 4592-B






carrier 4595-B, insert 4596-A
and 4 thrombocyte plates 4597




⁵⁾ When using inserts 4529-AO, 4529-AM, 4529-AU at lower speeds (e.g. for processing thrombocytes), the blood bags may be hung up to avoid accumulation of erythrocytes. Hooks at three different heights (4529-AO upper position, 4529-AM middle position, 4529-AU low position) allow to meet specific customer requirements. Suspended blood bags, however, may not be exposed to a RCF exceeding 1,000.

⁶⁾ Adapter for accommodating sample tubes and blood collection tubes in carrier 4595-B on request.

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

Swing-out rotors 4176 / 4174

capacity in ml	500	750	1.000
blood bags	quadruple	single	single
Cat. No.	-		-
 Carrier Cat No. 4523-A			
Cat. No.	4516-A		-
boring Ø x L in mm	-		-
blood bag systems per rotor	6 4		6 4
max. RCF	6,452 5,637		6,520 5,705
radius in mm	285 249		288 252
run-up in sec		125 125	
run-down in sec, braked		197 197	
temperature in °C ¹⁾		+9 +3	

capacity in ml	500	450
blood bags	quadruple	triple
Cat. No.	-	
 Carrier Cat No. 4547-B		
Cat. No.	4548	
boring Ø x L in mm	-	
blood bag systems per rotor	6 4	
max. RCF	6,316 5,501	
radius in mm	279 243	
run-up in sec	125 125	
run-down in sec, braked	197 197	
temperature in °C ¹⁾	+9 -9	



carrier 4523-A
with insert 4516-A



carrier 4547-B
with insert 4548
and lid 5621

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

ACCESSORIES FOR CENTRIFUGING BLOOD BAG SYSTEMS



Quick and easy packing of blood bag systems with loading aid

Cat. No. 4509



HettLiner

Blood bags can be secured in adapters using HettLiners. After centrifuging, they can be removed by their loops without disturbing the sediment.

Cat. No. 4564



Balancing inserts

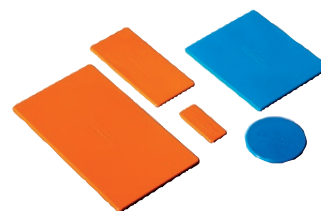
In case there are not enough blood bag systems to occupy every carrier of the rotor, empty carriers can be filled with balancing inserts. Taring weights supplied with the inserts may be used for fine balancing.

Cat. No.

4584-A (for insert 4559-A)

4587-A (for insert 4592-B)

4589-A (for insert 4516-A)



Set of compensatory weights

If blood bag carriers are not filled to the same weight, then compensatory weights can be used to make up the difference.

Cat. No. 4566

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



carrier 4579-A, illustrated with bucket 4255 with lid

Swing-out rotors 4176 / 4174

capacity in ml	5	7	9	10	15	25	50	100	2.6–3.4	2.7–3
Ø x L in mm	12x75	12x100	14x100	17x70	17x100	24x100	34x100	44x100	13x65	11x66
Cat. No.	0553²⁾	0578²⁾	0500²⁾	2079	0518²⁾	0519²⁾	0521²⁾	0526²⁾	blood collection tubes	
bucket Cat. No. 4255										
Carrier Cat. No. 4579-A										
Cat. No.	4433	4434	4434	4434	4438	4439	4442	4435	4433	4433
boring Ø x L in mm	13x58		17.5x53		26x72		36x79		45x78	
tubes per rotor	180 120	114 76		42 28		24 16		12 8		126 84
max. RCF ²⁾	5,750 4,935	5,886 5,094		5,615 4,845		5,705 4,890		5,683 4,867		5,750 4,935
radius in mm	254 218	260 225		248 214		252 216		251 215		254 218
run-up in sec	125 125									
run-down in sec, braked	197 197									
temperature in °C ¹⁾	+4 -11									

capacity in ml	4–5.5	4.5–5	4.9	9–10	10	1.6–5	4–7	4–7	8.5–10	15	50
Ø x L in mm	15x75	11x92	13x90	16x92	15x102	13x75	13x100	16x75	16x100	17x120	29x115
Cat. No.	blood collection / urine tubes									0509	0513
bucket Cat. No. 4255											
Carrier Cat. No. 4579-A											
Cat. No.	4434	4433	4435	4434	4434	4435	4434	4437	4441	4437	4441
boring Ø x L in mm	17.5x53	13x58	13.5x58	17.5x53		13.5x58		17.5x53		17x88	30x87
tubes per rotor	114 76	180 120	126 84	114 76		126 84		114 76		72 48	30 20
max. RCF ²⁾	5,886 5,094	5,750 4,935		5,886 5,094		5,750 4,935		5,886 5,094		6,022 5,207	5,999 5,207
radius in mm	260 225	254 218		260 225		254 218		260 225		266 230	265 230
run-up in sec	125 125										
run-down in sec, braked	197 197										
temperature in °C ¹⁾	+4 -11										

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.

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 glass tubes annotated with footnote ²⁾ is 4,000.


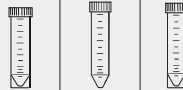















⁷⁾ When using these tubes, bucket 4255 cannot be closed with its lid.










ROTORS AND ACCESSORIES



rotor 4176, illustrated with carriers 4522-A

Swing-out rotors 4176 / 4174

capacity in ml	25	30	10	250	290	650	750	1.000	1.000	175	175	
Ø x L in mm	25x90	25x110	16x80	61x122	62x137	97x139	97x152	96x176	98x138	61x118	61x144	
Cat. No.	-	-	-	5127⁸⁾	- ⁸⁾	0554⁸⁾	0512⁸⁾	4239⁸⁾	4255	Falcon[®]	Nalgene[®]	
 Carrier Cat. No. 4579-A												
												
Cat. No.	4438		4434	4443						4440	4430	
boring Ø x L in mm	26x72		17.5x53	62x92		98x138						
tubes per rotor	42 28		114 76	6 4				6 4				
max. RCF ²⁾	5,818 5,026		5,886 5,094	6,113 5,320	6,113 5,411			6,294 5,501				
radius in mm	257 222		260 225	270 235	270 239			278 243				
run-up in sec					125 125							
run-down in sec, braked					197 197							
temperature in °C ¹⁾					+4 -11							

capacity in ml	200	225	250	500
Ø x L in mm	60x130	61x137	60x162	96x147
Cat. No.	Nunc[®]	Falcon[®]	Corning	
 Carrier Cat. No. 4579-A				
				
Cat. No.	4430	4440	4430	4449
boring Ø x L in mm	-			
tubes per rotor	6 4			
max. RCF ²⁾	6,294 5,501			
radius in mm	278 243			
run-up in sec	125 125			
run-down in sec, braked	197 197			
temperature in °C ¹⁾	+4 -11			


























⁸⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.


























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



carrier 4522-A with adapters for Falcon® tubes, blood collection tubes and bottles




















Swing-out rotors 4176 / 4174





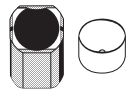
capacity in ml	4	5	6	7	12	15	25	50	100	2,6–3,4	2,7–3	4–5,5
Ø x L in mm	10x88	12x75	12x82	12x100	16x101	17x100	24x100	34x100	40x115	13x65	11x66	15x75
Cat. No.	-	0553 ²⁾	0501 ²⁾	0578 ²⁾	-	0518 ²⁾	0519 ²⁾	0521 ²⁾	0523 ²⁾	blood collection tubes		
 carrier Cat. No. 4522-A												
												
Cat. No.	4224	4213-93	4213	4223	4214	4215	4216	4218	4222-93	4213-93	4214-93	
boring Ø x L in mm	11x74	12.5x36	12.5x74	16x74	17.5x74	26x74	35x74	41.5x74	13.2x36	12.5x36	17.5x36	
tubes per rotor	378 252		288 192	150 100	180 120	66 44	36 24	24 16	180 120	288 192	180 120	
max. RCF ²⁾	5,818 5,003											
radius in mm	257 221											
run-up in sec	125 125											
run-down in sec, braked	197 197											
temperature in °C ¹⁾	+14 -1											

capacity in ml	4,5–5	7,5–8,5	9–10	10	1,6–5	4–7	4–7	8	8,5–10	15	50	
Ø x L in mm	11x92	15x92	16x92	15x102	13x75	16x75	13x100	16x125	16x100	17x120	29x115	
Cat. No.	blood collection / urine tubes									0509	0513	
 carrier Cat. No. 4522-A												
												
Cat. No.	4213	4214	4220	4214	4222-93	4214-93	4222	4223	4214	4232	4245-A	
boring Ø x L in mm	12.5x74		17.5x74		13.2x36	17.5x36	13.2x74	16x74	17.5x74	17x70	30x70	
tubes per rotor	288 192	180 120	96 64		180 120		150 100	180 120	138 92	48 32		
max. RCF ²⁾	5,818 5,003									5,999 5,184		
radius in mm	257 221									265 229		
run-up in sec	125 125											
run-down in sec, braked	197 197											
temperature in °C ¹⁾	+14 -1											

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.
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 glass tubes annotated with footnote ²⁾ is 4,000.

Swing-out rotors 4176 / 4174

capacity in ml	12	25	30		50	250	290	600	650	750	750	
Ø x L in mm	17x100	25x90	25x110		29x115	61x122	62x137	93x134	97x139	97x152	96x135	
Cat. No.	-	-	-	-	-	5127⁸⁾	- ⁸⁾	0551⁸⁾	0554⁸⁾	0512⁸⁾	4234-A	
 carrier Cat. No. 4522-A												
												
Cat. No.	4220	4241	4215		4249	4238	4233	4258				
boring Ø x L in mm	17.5x74	26x73	26x74		30x96	62x90	94x105	97.5x105				
tubes per rotor	96 64	48 32	66 44		36 24	6 4						
max. RCF ²⁾	5,818 5,003				5,909 5,094	5,818 5,003		5,999 5,184				
radius in mm	257 221				261 225	257 221		265 229				
run-up in sec						125 125						
run-down in sec, braked						197 197						
temperature in °C ¹⁾						+14 -1						

capacity in ml	250	500
Ø x L in mm	60x162	96x147
Cat. No.	Corning	Corning
 carrier Cat. No. 4522-A		
		
Cat. No.	6322	4258 + 4449
boring Ø x L in mm	61x125	97.5x105
tubes per rotor	6 4	
max. RCF ²⁾	5,818 5,003	5,999 5,184
radius in mm	257 221	265 229
run-up in sec	125 125	
run-down in sec, braked	197 197	
temperature in °C ¹⁾	+14 -1	

Centrifugation of toxic or infectious samples:

Bucket 5052 with lid 5057 is available for use with hazardous samples. Lid 5057 provides aerosol-proof containment⁹⁾ and thus protects both the user and the environment against contamination.



lid 5057

Buckets 5052 and 4522-A have the same internal dimensions. This allows centrifugation of the adapters and sample tubes from the 4522-A bucket in bucket 5052 under the same conditions without the development of aerosols. Only if adapter 6322 is used will it not be possible to close bucket 5052 with lid 5057.

⁸⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.

⁹⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

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



rotor 4176, illustrated with carriers 4547-B and lids 5621

Swing-out rotors 4176 / 4174

capacity in ml	5	7	9	10	15	25	50	100	2,6–3,4	2,7–3	4–5,5	4,5–5	4,9
Ø x L in mm	12x75	12x100	14x100	17x70	17x100	24x100	34x100	44x100	13x65	11x66	15x75	11x92	13x90
Cat. No.	0553 ²⁾	0578 ²⁾	0500 ²⁾	2079	0518 ²⁾	0519 ²⁾	0521 ²⁾	0526 ²⁾	blood collection / urine tubes				
lid Cat. No. 5621													
carrier Cat. No. 4547-B													
Cat. No.	4433	4434	4438	4439	4442	4435	4433	4434	4433	4434	4433	4435	
boring Ø x L in mm	13x58	17,5x53	26x72	36x79	45x78	13,5x58	13x58	17,5x53	13x58	17,5x53	13x58	13,5x58	
tubes per rotor	180 120	114 76	42 28	24 16	12 8	126 84	180 120	114 76	180 120	114 76	180 120	126 84	
max. RCF ²⁾	5.841 5.026	5.977 5.184	5.728 4.913	5.773 4.981	5.750 4.958	5.841 5.026	5.977 5.184	5.841 5.026	5.977 5.184	5.841 5.026	5.977 5.184	5.841 5.026	
radius in mm	258 222	264 229	253 217	255 220	254 219	258 222	264 229	258 222	264 229	258 222	264 229	258 222	
run-up in sec	125 125												
run-down in sec, braked	197 197												
temperature in °C ¹⁾	+9 -9												

capacity in ml	7,5–8,5	9–10	10	1,6–5	4–7	4–7	8	8,5–10	15	50	25	30	10
Ø x L in mm	15x92	16x92	15x102	13x75	13x100	16x75	16x125	16x100	17x120	29x115	25x90	25x110	16x80
Cat. No.	blood collection / urine tubes								0509	0513	-	-	-
lid Cat. No. 5621													
carrier Cat. No. 4547-B													
Cat. No.	4434	4435	4434	4437	4441	4438	4434						
boring Ø x L in mm	17,5x53	13,5x58	17,5x53	17x88	30x87	26x72	17,5x53						
tubes per rotor	114 76	126 84	114 76	72 48	30 20	42 28	114 76						
max. RCF ²⁾	5.977 5.184	5.841 5.026	5.977 5.184	6.090 5.298	5.909 5.117	5.977 5.184							
radius in mm	264 229	258 222	264 229	269 234	261 226	264 229							
run-up in sec	125 125												
run-down in sec, braked	197 197												
temperature in °C ¹⁾	+9 -9												

¹⁾ Lowest attainable temperature in precooled refrigerated centrifuges at max. speed. Lower temperatures can be reached by reducing the speed.
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 glass tubes annotated with footnote ²⁾ is 4,000.

ROTORS AND ACCESSORIES



rotor 4176, illustrated with carriers 4547-B and lids 5621

Angle rotor, 6-place



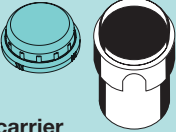


















± 25°

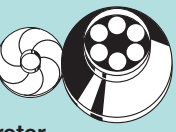

















n = 6,000 min⁻¹
max. RCF 5,594

with bio-containment⁹⁾

Cat. No. 4570

Swing-out rotors 4176 / 4174

capacity in ml	250	290	650	750	1.000	175	175	200	225	250	500
Ø x L in mm	61 x 122	62 x 137	97 x 139	97 x 152	96 x 176	61 x 118	61 x 144	60 x 130	61 x 137	60 x 162	96 x 147
Cat. No.	5127 ⁸⁾	- ⁸⁾	0554 ⁸⁾	0512 ⁸⁾	4239 ⁸⁾	Falcon®	Nalgene®	Nunc®	Falcon®	Corning	
lid Cat. No. 5621  carrier Cat. No. 4547-B											
											
Cat. No.	4443	-				4440	4430	4440	4440	4430	4449
boring Ø x L in mm	62 x 92			98 x 141							
tubes per rotor	6 4										
max. RCF ²⁾	6.203 5.411							6.384 5.592			
radius in mm	274 239							282 247			
run-up in sec	125 125										
run-down in sec, braked	197 197										
temperature in °C ¹⁾	+9 -9										

capacity in ml	15	25	94	10	30	50	85	94	250	
Ø x L in mm	17 x 100	24 x 100	38 x 102	16 x 80	26 x 95	29 x 107	38 x 106	38 x 102	61 x 122	
Cat. No.	0518 ²⁾	0519 ²⁾	0549	-	0545	0546	0547	0538 ¹⁰⁾	5127 ⁸⁾	
lid with bio-containment ⁹⁾ incl.  rotor Cat. No. 4570										
										
Cat. No.	5646	5642	5644	5641	5642	5643	5644		-	
boring Ø x L in mm	17,6 x 83	26 x 80	38,6 x 88	16,6 x 70	26 x 80	29 x 90	38,6 x 88		61,5 x 109	
tubes per rotor	42	18	6	48	18	6	6		6	
max. RCF ²⁾	5.315	5.152	4.910	5.353	5.152	4.830	4.910		5.594	
radius in mm	132	128	122	133	128	120	122		139	
run-up in sec	64									
run-down in sec, braked	69									
temperature in °C ¹⁾	-16									

⁸⁾ At temperatures of over + 40 °C and / or when not filled to capacity, bottles may warp during centrifugation.



⁹⁾ Tested by the TÜV in conformity with DIN EN 61010, section 2-020.

¹⁰⁾ The screw cap for tube No. 0538 is available with Cat. No. 0539. Dimensions with cap 38 x 110 mm.

ROTO SILENTA 630 RS

TECHNOLOGY

ROTO SILENTA 630 RS

Floorstanding centrifuge, without rotor	cooled	
Power supply ^{*)}	400 V 3 ~ + N	208 – 220 V +6 / -10% 3 ~ (+ N), with internal transformer
Frequency	50 – 60 Hz	50 – 60 Hz
Consumption	9,700 VA	9,000 VA
Emission, Immunity	EN/IEC 61326-1, class B	
 Max. capacity	6 x 2,000 ml	
 Max. RPM (speed)	6,000 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	5005-08

^{*)} 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.

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

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