



Thermo Scientific Sorvall RC-4

**Flexible refrigerated
centrifuges for blood banking
and clinical applications**



Thermo Scientific Sorvall RC-4 – Refrigerated Blood Processing Centrifuges

The Thermo Scientific Sorvall RC-4 offers optimal capacity for small to medium size blood processing centers. The Sorvall® RC-4 can spin up to 8 blood bags, in a wide range of bag configurations – including 500mL quints with in-line filters. In addition, achieve greater throughput from higher g-forces and capacities for all popular blood collection types and clinical tubes.

- Optimal 4 or 8 blood bag capacity for component processing
- Diagnostik™ rotor spins clinical analyzer racks pre-loaded with tubes, minimizing sample handling steps
- Superior 32 standard microplate capacity
- HIGHplate® rotor spins microplates, or filter plates up to 85 mm in height, at 5,890 x g
- Easy-to-clean soft-touch keypad
- Reduced maintenance with brushless induction drive

In keeping with the latest trends in clinical testing, the Sorvall RC-4 maximizes microplate processing with the added benefit of biocontainment.

A wide range of rotors – including windshielded swinging bucket, clinical analyzer rack and windshielded microplate varieties – offer maximum flexibility for blood component processing and clinical testing needs.



Trust NALGENE® and NUNC™ Brand Centrifuge Bottles and Tubes to deliver quality and performance. These products are in conformance with ISO 13485: 2003, cGMP and USP Class VI; find updated speed ratings and lot specific product certificates online. Available in a variety of resins, with capacities from 10mL to 2L, Nalgene and Nunc are guaranteed a perfect fit rotors and Thermo Scientific centrifuges.



Its powerful induction drive and its swinging bucket rotor – which accommodates DoubleSpin™ buckets – combine to provide higher g-forces and capacities for every type of sample tube. The result: shorter processing times for more samples.

Safe operation for you and your sample

The Sorvall RC-4 meets stringent international safety standards. It offers the widest selection of

independently tested biocontainment rotors that comply with rigorous international guidelines for aerosol containment of bacteria and viruses.

SMARTspin Imbalance Detection System

provides optimum run stability for all rotors at all speeds, and allows sample tubes to be balanced by eye alone. The system will automatically decelerate the centrifuge if an excessive imbalance is detected.

Automatic Rotor Recognition offers convenient operation as well as reliable protection against incorrect parameter settings, and ensures reproducible run conditions.

Easy instrument set-up and operation includes:

- 9 program memory for standard runs
- 9 acceleration and deceleration profiles
- rpm to RCF conversion
- 'Pretemp' function for fast pre-cooling
- Quick Run Mode

Component processing made easy

The Sorvall RC-4 offers convenient operation at your fingertips. Unlike other models, the EASYcontrol™ II Soft-Touch Keypad is located at the front of the instrument, eliminating awkward reaching. It incorporates large LED display panels that can be cleaned easily and read even at a distance.



Utilize your existing adapter inventory

The Sorvall RC-4 accepts the most popular liners, adapters and accessories from the Sorvall Legend T/RT:

- All accessories available for the double blood bag bucket (order no. 75007617)
- Centri-Lab® Type C round adapters
- Centri-Lab Type A rectangular adapters with the help of transition adapters that hold two Type A units per DoubleSpin™ bucket

LH-4000W rotor with double blood bag buckets

Safety, Reliability and Ease of Use in Blood Processing



Effortless access

The Soft-Touch Lid Lock ensures safe operation with an easy-open/close mechanism. The lid can be opened and closed effortlessly with just one hand.

Easy Set-Up, Programming and Monitoring

An intuitive operator keypad allows you to recall protocols at the touch of a button.

Whisper-Quiet Operation

A noise level under 58 dBA provides a more comfortable lab working environment.

Energy-Efficient Performance

Energy-saving design increases refrigeration efficiency and minimizes heat output, ensuring a more comfortable working environment.

Highest Versatility

Swinging-bucket rotors for the Sorvall RC-4 support a diverse array of sample processing applications without the need to modify existing protocols.

Our Sorvall RC-4 centrifuge works with the Thermogenesis AXP system from Thermogenesis company to automatically separate cord blood into a freezing bag, for the mononuclear cell product, an erythrocyte bag and an excess plasma bag.



SPECIFICATIONS AND ORDERING INFORMATION

Thermo Scientific Sorvall RC-4 Rotors and Adaptors

Rotor Specifications

Description	Capacity (place x mL)	Max. Tube Dim. D x L (mm)	Max. Speed (rpm)	Max. RCF (xg)	Cat. No.
LH-4000W Windshield Swinging Bucket Rotor	8 x 500	Blood Bags	4400	5480	75006476
LH-4000 Swinging Bucket Rotor**	4 x 1000	One liter	4400	5350	75006475
Double Blood Bag Bucket* (not applicable for 75006475)	8 x 500	Blood Bags	4400	5480	75006436
Round Bucket	4 x 1000	100 x 190	4400	5350	75006477
Biocontainment Lids (1 pair)					75006421
DoubleSpin™ Bucket	4 x 250	62 x 145	4400	4650	75006478
Biocontainment Lids (1 pair)					75006479
Microplate Adapter for DoubleSpin Bucket	4 x 8	Standard Microplates	4400	4650	75006486

Adaptors for LH-4000W and LH-4000 Rotors with Round Buckets

1.5 / 2 ml Disposable Microtubes	192 x 1.5/2 ml	11 x 50			75008132
7 ml Standard Tube	140 x 7 ml	13 x 177			75008133
5/7 ml Blood Collection Tube (Set of 4)	108 x 5/7 ml	13 x 177			11210822
10 ml Blood Collection Tube (Set of 4)	84 x 10 ml	16 x 177			11210821
10/15 ml Blood Collection Tube	68 x 10/15 ml	17 x 177			75008136
15 ml Standard Tube	76 x 15 ml	17 x 177			75008135
15 ml Disposable Conical Tube	48 x 15 ml	19 x 177			75008137
50 ml Round Bottomed Tube	28 x 50 ml	29 x 177			75006493
50 ml Disposable Conical Skirted Tube	20 x 50 ml	29 x 177			75006533
50 ml Disposable Conical Tube (Set of 4)	28 x 50 ml	29 x 177			11210826
225/175 ml Disposable Conical Bottle	4 x 225 ml	62 x 145			75008144 + 03095
250 ml Flat-Bottomed Bottle	4 x 250 ml	62 x 145			75008144
250 ml Disposable Conical Bottle	4 x 250 ml	62 x 177			75008147
500 ml Flat-Bottomed Bottle	4 x 500 ml	70 x 190			75008145
500 ml Disposable Conical Bottle	4 x 500 ml	96 x 190			75006438
1000ml Flat Bottomed Bottle	4 x 1000 ml	98 x 190			no adapter needed

Adaptors for LH-4000W and LH-4000 Rotors with DoubleSpin Buckets

1.5 / 2 ml Disposable Microtubes	448 x 1.5/2 ml*	11 x 50			75006452
7 ml Standard Tube	224 x 7 ml*	13 x 151			75006453
5/7 ml Blood Collection Tube	160 x 5/7 ml*	13 x 150			75006454
10/15 ml Blood Collection Tube	128 x 10/15 ml*	17 x 147			75006455
15 ml High Capacity Disposable Conical Tube	96 x 15 ml	19 x 150			75006468
15 ml Disposable Conical Tube	72 x 15 ml*	19 x 150			75006456
50 ml Round Bottomed Tube	32 x 50 ml*	29 x 140			75006491
50 ml Disposable Conical Tube	32 x 50 ml*	29 x 140			75006461
175/ 225 ml Disposable Conical Tube	8 x 175/225 ml*	62 x 145			75006465 + 03095
250 ml Flat-Bottomed Bottle	8 x 250 ml*	62 x 145			75006465

* In order to achieve maximum specified capacity must order 8 adaptors (2/bucket)

** Only for use in 230V version



Thermo Scientific Sorvall RC-4 Rotors and Adaptors



Rotor Specifications

Description	Capacity (place x mL)	Max. Tube Dim. D x L (mm)	Max. Speed (rpm)	Max. RCF (xg)	Cat. No.
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Equipment for Blood Bag Centrifugation in LH-4000W Rotor with Blood Bag Buckets

Adapter for 500 ml quint, quad, triple with in-line filters and filter holder "XXL" (set of 6)	8 x 500 ml				76007677
Adapter for 450/500 ml quad, triple "XL" (set of 6)	8 x 500 ml				76007657
Adapter for 450 ml triple "L" (set of 6)	8 x 450 ml				76007647
Adapter for 450 ml double "M" (set of 6)	8 x 450 ml				76007667
Balancing weight system: taring range 300 – 1,550 g					75007668
Taring sticks: 4 of 6 g and 15 g					75007645
Taring plates: black rubber, 2 of 35 g and 2 of 65 g					75005759
Volume adjustment plates: blue rubber (set of 12)					75006681

Accessories for Blood Bag Centrifugation in LH-4000/LH-4000W with round buckets

Adapter for 400 – 500 ml quad blood bags "L/M" (set of 2)	4 x 500 ml				75006496
Adapter for small volume (250 ml) special blood applications (set of 2)	4 x 250 ml				75006485
Taring plates: black rubber, 2 of 35 g and 2 of 65 g					75005759
Taring sticks: 4 of 6 g and 15 g					75007645
Volume adjustment plates: blue rubber (set of 12)					75006681

BIOShield® Windshielded Rotor

4 x 250	62 x 125	5850	6960	75006435	
Adaptors for BIOShield Rotor					
1.5/2 ml Disposable Microtubes	224 x 1.5/2 ml	11 x 50		75006452	
7 ml Standard Tube	112 x 7 ml	13 x 117		75006453	
5/7 ml Blood Collection Tube	80 x 5/7 ml	13 x 117		75006454	
10/15 ml Blood Collection Tube	64 x 10/15 ml	17 x 117		75006455	
15 ml Disposable Conical Tube	36 x 15 ml	19 x 119		75006456	
50 ml Round Bottomed Tube	16 x 50 ml	29 x 119		75006491	
50 ml Disposable Conical Tube	16 x 50 ml	29 x 119		75006461	
175/225 ml Disposable Conical Tube	4 x 175/225 ml	62 x 125		75006465 + 03095	
250 ml Flat-Bottomed Bottle	4 x 250 ml	62 x 125		75006465	

HIGHplate® Windshield Rotor

2 x 5 Standard Microplates		5650	5890	75006435
Standard Microplates	10 x Standard Plates up to 20 mm tall			
Deepwell Microplates	2 x Deepwell Plates up to 83 mm tall			

Diagnostik™ Rack Rotor

			3500	2550	75006480
Trays for Diagnostik Rotor					
	Tubes				
Hitachi	100	118 x 20			75006416
Olympus	120	117 x 20			75006417
Systemex	120	200 x 25			75006418
Dade-Behring	40				75006419



Rotor Specifications

Description	Capacity (place x mL)	Max. Tube Dim. D x L (mm)	Max. Speed (rpm)	Max. RCF (xg)	Cat. No.
 Highconic® Fixed-angle Rotor	6 x 50	29 x 119	8500	10,020	75003057
Adaptors for Highconic rotor					
1.5 ml Disposable Microtubes	24 x 1.5 ml	11 x 58			75002905
3.5 ml Round Bottomed Tube	24 x 3.5 ml	11 x 103			75003091
7 ml Round Bottomed Tube	12 x 7 ml	13 x 115			75003092
12 ml Round Bottomed Tube/5 ml Blood Collection Tube	12 x 12/5 ml	16 x 96			75003093
15 ml Disposable Conical Tube	6 x 15 ml	17 x 119			75003095
16 ml Round Bottomed Tube	6 x 16 ml	18 x 124			76002906
38 ml Round Bottomed Tube	6 x 38 ml	25 x 112			75003094
50 ml Round Bottomed Tube	6 x 50 ml	29 x 118			75003102
50 ml Disposable Conical Tube	6 x 50 ml	29 x 119			75003103
LAC-250 Fixed-angle rotor	6 x 250	62 x 145	10,000	15,320	75006483
Adaptors for LAC-250 rotor					
3 ml Glass Tube	30 x 3 ml	10 x 75			00370 + 00456
5 ml Glass Tube	72 x 5 ml	12 x 75			00388
10 ml Round Bottomed Tube	42 x 10 ml	16 x 100			00389
15 ml Round Bottomed Tube	30 x 15 ml	18 x 120			00456
30 ml Round Bottomed Tube	18 x 30 ml	24 x 105			00449
50 ml Disposable Conical Tube	6 x 50 ml	29 x 119			03072
175/225 ml Disposable Conical Bottle	6 x 175/225 ml	62 x 130			03095
250 ml Flat-Bottomed Bottle	6 x 250 ml	62 x 130			N/A





Thermo Scientific Sorvall RC-4

Specifications		
Description		Speed range rpm 300 – 10,000, adjustable in 10 rpm increments
Max. RCF		15,317 g
Max. capacity		8 x 500 ml blood bags or 4 x 1,000 ml or 4 x 8 standard microplates
Drive		brushless induction drive
Accel./decel. profiles		9/9
Program memory		9 + 1 pretemp program
Run time		0 – 99 min, plus hold
Temperature range		-9 to +40 °C, CFC-free refrigerant
Control		microprocessor controlled via EASYcontrol™ II
Functions		RCF-preselection, Quick-run, automatic rotor recognition, imbalance detection and Soft-Touch lid-lock
Imbalance		electronic, speed and rotor dependent
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Dimensions (H x W x D)	mm	960 x 680 x 720
	inch	37.8 x 26.8 x 28.3
Weight	kg (lbs)	286 (631)
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Sorvall RC-4		
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Test standards		Designed and tested in accordance with EN 61 010-1, EN 61 010-2-020, EN 50 081-1, EN 50 082-1

Ordering Information

Model	Description	Order no.
Sorvall RC-4	Refrigerated, 230 V, 50 Hz, 12.9 A	75004473
Sorvall RC-4 (CSA)	Refrigerated, 200 – 230 V, 60 Hz, 16 A / 200 V, 50 Hz, 16 A	75004481
Sorvall RC-4 (CSA)	Refrigerated, 120 V, 60 Hz, 20A	75004477

Centrifuge rotor maintenance is critical to the safety of your lab. We offer rotor safety seminars and rotor inspection and safety clinics to ensure the longevity of your investment, and the safety of your workplace. If you would like to learn more about hosting a clinic at your facility or taking part in one at one of our facilities, please contact your local Thermo Scientific product representative for further information or visit www.thermo.com/rotors.



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