Enhance productivity through simplified sample handling

Thermo Scientific Sorvall Evolution RC Superspeed Centrifuge

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Efficient, high-volume sample processing for enhanced productivity

Designed with your productivity in mind, the Thermo Scientific Sorvall Evolution RC centrifuge delivers simplified sample handling, reduced overall spin times and superior ergonomics. The bottom line is more throughput, which is just what you would expect from Thermo Scientific superspeed centrifuge solutions.

Fast processing
Combining speeds up to 26,000 rpm with exceptionally fast acceleration and deceleration rates, the Sorvall® Evolution™ RC superspeed centrifuge does more than reduce spin times – it optimizes your overall productivity.

Outstanding reliability
Reliability means consistent results: run to run, day to day, and operator to operator. The Sorvall Evolution RC centrifuge offers proven reliability, incorporating numerous features that eliminate variability in results from outside factors, such as the built-in Thermo Scientifc Constant Power System (CPS). For consistent performance, the CPS provides power factor correction to ensure peak instrument performance even under poor power supply conditions, varying from 187-253 volts.

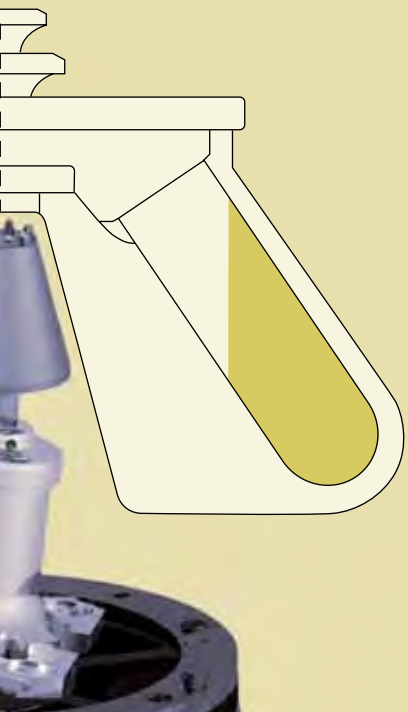
The Sorvall Evolution RC centrifuge inherits its reliability from a proven platform – the Thermo Scientific Sorvall RC2B superspeed. First introduced in 1972, many Sorvall RC2B superspeeds are still in operation around the world today.

Simple, intelligent operation
A user-friendly instrument panel and intuitive software design make this system's advanced functionality easy-to-use. Additionally, the Thermo Scientific RunBrowser provides quick set-up of your frequently-used protocols.

Unsurpassed choice of rotors
Choose from an extensive rotor selection, including fixed angle – such as Thermo Scientific Fiberlite carbon fiber – swinging bucket, and a variety of special-purpose rotors.

Maximum sample protection
The Sorvall Evolution RC centrifuge achieves high performance levels automatically, minimizing the amount of user attention required. Also, sample protection is enhanced with microprocessor control of speed, time and temperature variables so each run is performed exactly as expected.

Strong, imbalance-tolerant drive system
The powerful drive system of the Sorvall Evolution RC centrifuge includes a brushless motor and our Thermo Scientific DuraFlex gyro. This system provides the highest superspeed imbalance tolerance on the market with the convenience of eye balancing. However, if a rotor is unbalanced, the DuraFlex gyro mechanism flexes in two places to accommodate the misalignment without damage to the drive shaft or motor.



The DuraFlex gyro mechanism accommodates unbalanced rotors to prevent damage to the drive shaft or motor.

With the built-in Constant Power System™, input voltage can vary from 187-253 volts without speed or temperature control degradation.

Superior processing saves you time

In a busy high-throughput lab, reliability is essential – and so is increasing sample throughput. With the Sorvall Evolution RC centrifuge, you make significant gains, from higher speed and g-force to features that provide shorter total processing: the time it takes to load a sample, set parameters, perform the separation, and unload. That's where speed counts most and where the Sorvall Evolution RC centrifuge delivers best.

High speed, high RCF
With speeds of up to 26,000 rpm and RCFs up to 70,450 xg, the Sorvall Evolution RC centrifuge gives you all the speed and g-force needed to handle the vast majority of current and emerging superspeed applications.

Rapid 6-liter processing
The Thermo Scientific Fiberlite F8-6x1000y rotor can separate 6-liters of sample at up to 8,500 rpm and 15,810 xg in as little as 9 minutes in Thermo Scientific Nalgene true 1L bottles.

Easy sample handling
Many conventional rotor designs require additional canisters to support the bottle. With a full selection of Fiberlite® carbon fiber rotors supporting capacity up to 6 liters in volume, the Sorvall Evolution RC centrifuge eliminates the need for canisters – you can simply slide sample bottles into the rotor and start your run. This not only reduces handling steps, but minimizes the number of components that could be misplaced or damaged.

The user-friendly control panel makes the unit's advanced functionality easy to use.

Intelligent operation made easy

The Sorvall Evolution RC centrifuge is not only powerful and reliable, it is also user friendly. From its large, easy-to-read control panel to the ergonomic door handle, the Sorvall Evolution RC centrifuge systematically reduces effort.

Quick programming
The RunBrowser program provides quick set-up of your frequently-used protocols.

Simple operator interface
The large digital display continuously shows both the set and run conditions for time, temperature and speed, making them easy to monitor – even from a distance.

Hands-free access
Simply nudge the chamber door with the rotor and it automatically slides open. An integrated rotor lid holder provides convenient lid storage.

Compact, ergonomic design
The deck is only 850 mm (33 in) from the ground, making the rotor chamber and control panel easily accessible.

Maximum versatility
Diverse range of fixed angle – including Fiberlite carbon fiber – swinging bucket, and special purpose rotors

Safety and mobility
The Sorvall Evolution RC centrifuge meets CE, UL and CSA safety requirements without the need to bolt the unit to the floor.

A broad range of rotors offering superior performance and lasting value

High-performance carbon fiber rotors
An advanced alternative to metal rotors, offering superior durability, high-performance, and safety for worry-free operation spin after spin.

- Enhanced productivity: reduce run times and decrease wear of the centrifuge with carbon fiber rotors – up to 60% lighter than metallic rotors[1]
- Unequalled durability: corrosion- and fatigue-resistance secures the rotor's structural integrity, eliminating the need to derate or limit the speed over the rotor lifespan
- Secure investment: backed by an unmatched 15-year warranty
- Superior insulation: carbon fiber material possesses naturally insulating properties, which helps to maintain sample temperature integrity.
- Full integration into our centrifuge software for simplicity of use and maximum performance for your application needs:
  - Fiberlite F8-6x1000y: Unique 6-liter rotor offering unsurpassed sample capacity for processing at speeds up to 8,500 rpm and 15,810 xg

Swinging bucket rotors
Reduce run times with a choice of 4 swinging bucket rotors, ranging in capacity from 80 mL to 3 liters, and providing exceptional g-force.

Special-purpose rotors
To complement our wide selection of traditional fixed angle and swinging bucket rotors, we offer unique rotors designed for specialized applications:

- TZ-28/GK Continuous-flow system efficiently processes large-volume cultures
- TZ-28 Zonal rotor designed for large-volume, reorienting gradient separation and sealed batch runs

Biological containment
Most superspeed rotors have been independently tested for micobiological containment by the HPA, Porton Down, UK (formerly CAMR).

For additional safety of samples and lab personnel, rotors may also feature a dual-locking lid which enables the rotor to remain sealed while being carried to a biocontainment hood for sample retrieval, as well as enhanced liquid containment, which contains fluid in a special curved annulus at the top of rotors in the event of a bottle failure.[2]

[2] Select rotor models only

Introducing the NEW Thermo Scientific Fiberlite LEX Rotor Series
This next generation of high capacity Fiberlite rotors further advances the current carbon fiber design, combining even lower mass with low kinetic energy to deliver **superior ergonomics** with **outstanding performance** and **safety**.

Superior ergonomics: Fiberlite LEX rotors are the lightest rotors available of their kind,[1] with improved ergonomics for everyday ease of handling.

Exceptional performance: The new Fiberlite LEX rotor series provides outstanding RCF performance for enhanced productivity - up to 24,515 xg with 6x500 mL (3 liter) volume and up to 15,150 xg with 4x1000 mL (4 liter) volume per run.

Highest safety: From sample protection with advanced, certified sealing properties, to safety of equipment and lab personnel, Fiberlite LEX rotors are the top choice for a safe work environment.

[1] Based on a comparison with manufacturer's published specifications.

Thermo Scientific Rotors

Rotors for Sorvall Evolution RC Centrifuge

Cat. No.	Description	Capacity (place x mL)	Max Speed (rpm)	Max RCF (xg)	Tube Siz Range (mL)
	Carbon Fiber Fixed Angle Rotors				
76641	Fiberlite F8-6x1000y	6 x 1000	8,500	15,810	8-1000
◆ 096-041053	Fiberlite F10-4x1000 LEX	4 x 1000	9,000	15,150	8-1000
◆ 096-062185	Fiberlite F12-6x500 LEX	6 x 500	12,000	24,515	8-1000
◆ 78500	Fiberlite F14-6x250y	6 x 250	14,000	30,074	8-250
	Aluminum Fixed Angle Rotors				
◆ 28020	SS-34	8 x 50	20,500	50,230	1-50
◆ 07149	SLA-3000	6 x 500	12,000	24,340	3-500
◆ 08142	SLA-1500	6 x 250	15,000	34,160	3-250
76940	SA-800	8 x 100	20,500	49,054	1.5-100
◆ 28500	SA-600	12 x 50	17,000	41,840	1-50
76950	SA-512	32 x 16	19,500	48,930	1.5-16
◆ 18100	SA-300	6 x 50	25,000[1]	67,510	1-50
◆ 29017	SM-24	24 x 16	20,500	51,970	1.5-16
◆ 27004	SE-12	12 x 14	26,000	70,450	1-14
◆ 27038	F-20/MICRO	32 x 1.5	20,000	51,430	0.25-1.5
	Swinging Bucket Rotors				
◆ 11796	SH-3000[3]	4 x 750	4,700	4,580	3-750
11860	HB-61	6 x 50	13,000	27,620	1-50
38018	HS-4	4 x 250	7,500	11,070	1-250
08296	SH-80	8 x 10	20,000	45,400	10
	Special Purpose Rotors				
52358	TZ-28	Bowl x 1,350	20,000	42,580	N/A
52358, 49633, 49089	TZ-28/GK	Bowl x 1,350	19,000	38,430	800[4]

◆ These rotors and bucket/cover assemblies have been rigidly tested for microbiological containment by the Public Health Laboratory Service, Porton Down, UK (formerly CAMR), and shown to be suitable for use with materials up to ACDP Category 3 as categorized by the Advisory Committee on Dangerous Pathogens.

[3] Maximum speed at 4°C is 24,400 rpm.

[4] Precipitate capacity.

Trust Thermo Scientific Nalgene and Nunc centrifuge bottles and tubes to deliver proven quality and performance. These products are manufactured in accordance with ISO 13485: 2003, cGMP and USP Class VI standards. You can find updated speed ratings and lot-specific product certification online. Available in a variety of resins and capacities from 10 mL to 2 L, Nalgene and Nunc™ bottles and tubes are a perfect fit with Fiberlite rotors and Thermo Scientific centrifuges.

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Specifications

Maximum speed	26,000 rpm
Maximum RCF	70,450 xg
Maximum capacity	6 liters
Drive system	Brushless DC motor with gyro drive
Accel/decel profiles	3/3
Speed control accuracy	± 20 rpm in the 0 - 1000 rpm range; ± 0.2% in the 1000 - 26,000 rpm range
Temperature set range	-20°C to +40°C
Temperature accuracy (run mode)	± 2°C under normal laboratory conditions
Operating temperature range	10°C to 38°C
Temperature control system	Non-CFC refrigerant
Average heat output	2.5 kW/8500 BTU/hr
Noise	63 dbA (1 m from instrument at maximum speed)
Dimensions H x W x D	1295 x 710 x 1055 mm (51 x 28 x 42 in)
Height to top of deck	850 mm (33 in)
Depth with door open	1125 mm (44 in)
Weight	390 kg (860 lb)
Certifications	UL listed; CSA Certified; CE marked
Warranty	1 year instrument; 3 years drive motor; 5 years refrigeration system

Ordering Information

Model	Electrical Configuration	Plug	Cat. No.
Sorvall Evolution RC, Keypad Interface	Single Phase, 30 A, UL Listed: 187 - 253 V, 60 HZ	NEMA plug 6-30P	728211
Sorvall Evolution RC, CE Version, Keypad Interface	Single Phase, 32 A, 187 - 253 V, 50 HZ	IEC 60309 3-pin plug	728411
Sorvall Evolution RC, CE Version, Keypad Interface	Polyphase, 32 A, 187 - 253 V, 50/60 HZ	IEC 60309 5-pin plug	728611

Comprehensive Centrifuge Solutions

We offer a wide range of additional high-performance superspeed and ultraspeed centrifuges for the pursuit of scientific discoveries. Models include the Thermo Scientific Sorvall RC6 Plus for fast, high-volume processing, and the Sorvall WX Ultra or MX series for sample processing at speeds up to 100,000 rpm.

Worldwide Service and Support

We are committed to keeping your lab equipment working at peak performance levels. Our goal is to help you lower ownership costs, manage labs more effectively, and increase productivity. Contact your sales representative to learn more about our service offerings, including service agreements, preventative maintenance, onsite field repair, depot repair, compliance services and educational services.

North America: USA/Canada +1 866 984 3766 (866-9-THERMO) www.thermoscientific.com/superspeedsolutions
Europe: Austria +43 1 801 40 0, Belgium +32 53 73 42 41, France +33 2 2803 2180, Germany national toll free 08001-536 376, Germany international +49 6184 90 6940, Italy +39 02 95059 448, Netherlands +31 76 579 55 55, Nordic/Baltic/CIS countries +358 9 329 10200, Russia +7 812 703 42 15, Spain/Portugal +34 93 223 09 18, Switzerland +41 44 454 12 12, UK/Ireland +44 870 609 9203
Asia: Australia +61 39757 4300, China +86 21 6865 4588 or +86 10 8419 3588, India toll free 1800 22 8374, India +91 22 6716 2200, Japan +81 45 453 9220, New Zealand +64 9 980 6700, Other Asian countries +852 2885 4613 **Countries not listed**: +49 6184 90 6940

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