

# performance simplified at every turn





# Superspeed centrifugation simplified at every turn

Introducing the NEW! Thermo Scientific™ Sorvall™ LYNX superspeed centrifuge series, featuring powerful technologies with breakthrough simplicity.

Multiple users. A variety of processing requirements. A range of user experience. To overcome these everyday challenges of a shared laboratory setting choose the NEW! Thermo Scientific Sorvall LYNX superspeed centrifuge. The result? Productivity, safety, and reliability simplified.



Push-button security and application flexibility Auto-Lock™ rotor exchange



Immediate rotor detection and programming **Auto-ID instant rotor identification** 



Improved ergonomics and performance Fiberlite<sup>™</sup> carbon fiber rotors



One-handed certified¹ sample protection ClickSeal™ biocontainment lids

**Exceptional performance** meeting evolving application needs, from academic research to production facilities, with up to 100,605 x g, and up to 6 Liters capacity.

Versatile, high-throughput sample processing from 6 x 1 L bottles, to 40 x 50 mL conical tubes, to 24 microplates per run. Save time and ensure sample integrity with fast acceleration and deceleration rates, combined with smooth runs at all speeds.

#### Built-in safety and efficiency

- Rotor innovations from Auto-Lock rotor exchange, to Auto-ID instant rotor identification, to speed handles on each rotor lid — shorten run set-up time while providing peace-of-mind that the rotor is secure
- Lightweight, corrosion-resistant Fiberlite carbon fiber rotors, including the new Fiberlite LEX designs, improve ergonomics and performance
- Touchscreen interface with bright, highly visible, and durable display simplifies run set-up while providing on-board training and access controls, such as user login with password protection
- Compact, non-bolt down design, automatic door opening, and an integrated surface work space optimize everyday centrifuge use

**Proven reliability** with robust design for consistent results and maximum uptime, year after year.





## Performance simplified at every turn



Secure, trouble-free rotor installation and removal in as little as 3 seconds

#### **Auto-Lock Rotor Exchange**

Secure, push-button rotor exchange in as little as 3 seconds delivers:

- Improved safety and confidence that the rotor is automatically and securely locked and will not loosen during a run
- Trouble-free rotor installation and removal
  - No tools are required
  - The rotor locks itself to the centrifuge,
     eliminating the need for hand-tightening
- Flexibility to quickly change rotors and applications, matching the needs of your laboratory — today and in the future

#### Auto-ID Instant Rotor Identification

Immediate identification of a rotor when secured in the centrifuge chamber, with rotor specifications automatically loaded into the centrifuge parameters:

- Shortens run set-up time by eliminating the need to find and set rotor codes
- Eliminates over-speed risk, reduces error messages, and improves centrifuge, sample, and operator safety

#### Auto-ID instant rotor identification improves safety, saves time, and protects the integrity of your samples

Door Open



1. Place rotor into the centrifuge chamber



2. Rotor is immediately detected and its parameters are loaded



3. Confirm settings and begin run



Innovative speed handles make tightening the lid safer while also simplifying lid removal



Thermo Scientific BIOFlex HC rotor supports up to 40 x 50 mL conical tubes, 96 x 15 mL conical tubes, 24 microplates, and over 35 other tube styles with dozens of adapters for research flexibility

#### **Extensive Rotor Portfolio**

Supports multiple users and evolving research needs — from microtubes up to 1 L bottles.

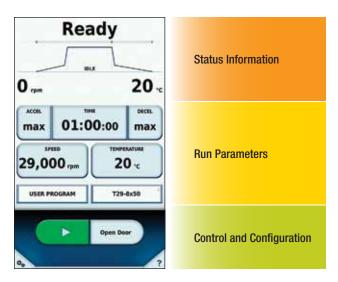
- Fiberlite Carbon Fiber Rotors: Simply lighter, more secure investment
  - Lightweight carbon fiber and innovative construction allow unique rotor designs not possible with metal
  - Corrosion- and fatigue-resistance secures the rotor's structural integrity for unequalled durability
  - Backed by a 15-year warranty<sup>2</sup>
- Swinging Bucket Rotors: Versatility and expanded capacity at high RCF with dozens of adapters for research flexibility
- Fixed Angle Rotors: Address specific protocol requirements with a range of specialty rotors, from dedicated conical tube rotors, to RCFs up to 100,605 x g
- Continuous Flow/Zonal Rotors: Scale-up flexibility from superspeed applications to harvesting and clarification

<sup>&</sup>lt;sup>2</sup> Subject to Thermo Fisher Scientific's standard limited warranty. See thermoscientific.com or your sales representative for details.



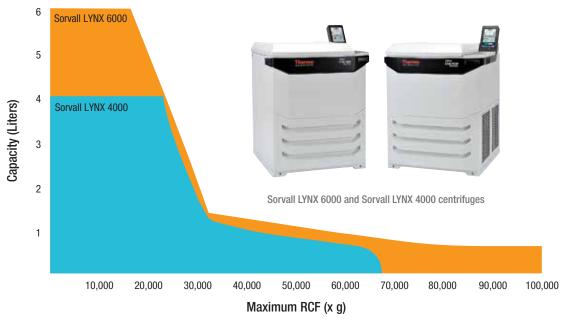


#### Simple, quick run set-up and monitoring



Easily set current parameters and monitor centrifuge status

### The Thermo Scientific Sorvall LYNX superspeed centrifuge series is available in two models



Choose between the **Sorvall LYNX 4000** centrifuge for 4 L capacity and performance up to 68,905 x g, and the **Sorvall LYNX 6000** centrifuge for 6 L capacity with:

- RCF up to 100,605 x g with broad rotor portfolio supporting higher performance and continuous flow/zonal capability
- · Additional energy efficiency settings with Smart Vacuum
- Expanded levels of biosafety with an optional HEPA filter

# Safety simplified at every turn



Lightweight rotors with speed handles



Foot space for better rotor placement ergonomics

#### **Ergonomics and Safety**

Effortless loading and unloading with optimal working height of 860 mm, an integrated surface work space, and front design with foot space allowing a closer position to the centrifuge.

- Easier and safer lifting and carrying of rotors with new speed handles, further enhanced with lightweight Fiberlite rotors
- Latest global safety standards without the need to bolt down the instrument to the floor, greatly simplifying installation and flexibility to relocate within a facility
- Quiet performance (<59 dBA) provides a safe and reduced stress environment
- Centrifuge door opens fully and automatically – even with full hands – by using the door-open bar mounted on front of the centrifuge
- Auto-Lock rotor exchange with Auto-ID instant rotor identification simplifies run set-up and eliminates the worry of overspeeding or rotor accidents



#### Secure Investment

- Outstanding imbalance-tolerant drive improves system reliability and longevity
- Robust design supported by a 1-year unit warranty, 3-year drive warranty, 5-year refrigeration warranty, and comprehensive 15-year Fiberlite carbon fiber rotor warranty<sup>2</sup>
- Protect your investment with our complete portfolio of customized, integrated, and innovative services and support solutions

#### **GMP/GLP Data Management**

- Simplified quality control and record keeping
- On-board and downloadable run logging of user, run conditions, and error messages
- Electronic signatures for runs with user log-in and password protection



USB port for downloading run data

<sup>2</sup> Subject to Thermo Fisher Scientific's standard limited warranty. See thermoscientific com or your sales representative for details.

#### Resource Efficiency and Sustainability

- Energy use options: Choose sleep mode settings for increased energy savings
- Smart Vacuum: Address performance and efficiency requirements with our partial air system, which partially evacuates the rotor chamber and reduces the power needed in a typical run (in the Sorvall LYNX 6000 only)
- Power factor corrector module: Electronics designed for optimized interface with supply power system
- Carbon fiber rotors: Reduce capital investment and eliminate unnecessary equipment disposal issues with longer lifetime of Fiberlite rotors — backed by a 15-year warranty<sup>2</sup>
- Compliant with global environmental standards: RoHS (Restriction of Hazardous Substances) Directive and WEEE (Waste Electrical and Electronic) Directive 2002/96/FC





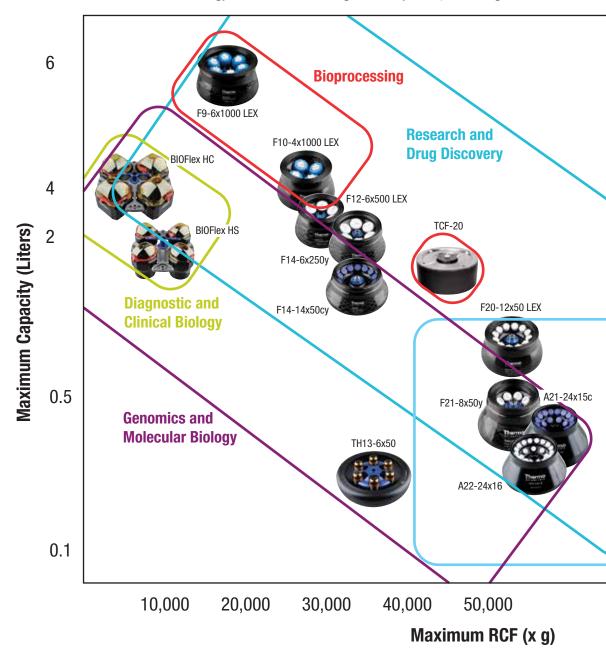
## Applications simplified at every turn

The extensive rotor portfolio for the Sorvall LYNX superspeed centrifuge series supports labware from microplates, to microtubes, to 1 Liter bottles — providing applications flexibility for years to come, even as your lab's research focus evolves.

#### Innovative Rotor Convenience

- · Accelerate and simplify rotor lid tightening, ensuring lid is properly attached with new speed handles
- Store rotor lid with on-board lid holder

Thermo Scientific rotors are available for a wide range of processing needs — Cellular Biology • Diagnostic and Clinical Biology • Genomics and Molecular Biology • Proteomics • Virus and Nanotechnology • Research and Drug Discovery • Bioprocessing



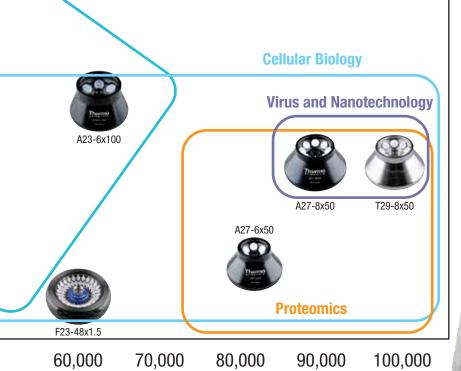


### Thermo Scientific Fiberlite LEX Rotors

The next generation of high capacity
Fiberlite rotors, the Fiberlite LEX rotor
series further advances carbon fiber
design and is now available in 6 Liter
capacity. These rotors combine:

- Superior ergonomics: The lightest of their kind<sup>3</sup>, with improved ergonomics for everyday ease of handling
- Exceptional performance: Achieve outstanding RCF performance for enhanced productivity — up to 17,670 x g with the Fiberlite F9-6x1000 LEX rotor
- Enhanced safety: From lightweight design and lifting handles, to biocontainment technology and certifications, these rotors provide multiple levels of laboratory and operator protection to enhance safety without compromising functionality or convenience







## Rotor specifications

Í	Category	Cat. No.	Rotor	Description	Maximum Capacity	Sample Containment
				Process over 35 tube styles from microtubes to 1 L bottles, plus conical tubes, microplates, tissue culture flasks, and blood bags	4 x 1000 mL 40 x 50 mL conical 24 microplates	*
	Swinging Bucket Rotors	75003002	BIOFlex HS	Versatilty of adapter options supporting more than 30 tube types from microtubes to conical tubes to 400 mL bottles	4 x 400 mL 4 x 250 mL conical	*
		75003010	TH13-6x50	Novel design for round or conical tubes, accommodating gradient separations or pelleting directly to the bottom of the tube	6 x 50 mL round 6 x 50 mL conical 6 x 15 mL conical	<b>*</b>
		096-061075	Fiberlite F9-6x1000 LEX	Process 6 Liters per run in lighter weight Fiberlite LEX design for large volume or bioprocessing or the flexibility of adapters for labware from 1.5 mL to 500 mL	6 x 1000 mL	<b>*</b>
	Fixed Angle	096-041075	Fiberlite F10-4x1000 LEX	Support occasional or lower volume bioprocessing in lighter weight Fiberlite LEX design and the flexibility of adapters for tubes from 1.5 mL to 500 mL	4 x 1000 mL	*
	High Capacity Rotors	096-062375	Fiberlite F12-6x500 LEX	Run popular 500 mL bottles to over 24,400 x g, with adapters available for smaller bottles	6 x 500 mL	<b>*</b>
		096-062075	Fiberlite F14-6x250y	Ideal for tissue homogenates, or smaller volume yeast or bacterial culture separations in up to 250 mL bottles	6 x 250 mL	<b>*</b>
		096-145075	Fiberlite F14-14x50cy	Dedicated solution for 50 mL conical tubes, with adapters for 15 mL or other tubes, for pelleting cells, tissue homogenates, or subcellular separations	14 x 50 mL conical	*
	Fixed Angle High Speed Conical Rotors	75003004	A21-24x15c	Dedicated solution for 15 mL conical tubes for subcellular separations and fractionations	24 x 15 mL conical	<b>⊗</b> −
		096-124375	Fiberlite F20-12x50 LEX	Lighter weight Fiberlite LEX design for subcelluar separations using Oak Ridge tubes	12 x 50 mL	<b>*</b>
		096-084275	Fiberlite F21-8x50y	50 mL 34° angle rotor for subcellular separations	8 x 50 mL	<b>*</b>
	Fixed Angle High Speed Rotors	75003005	A22-24x16	Support 16 mL tubes for subcelluar separations	24 x 16 mL	<b>⊗</b> —
20世間		75003006	A23-6x100	Achieve 100 mL tubes capacity or the versatility of adapters for smaller tubes	6 x 100 mL	<b>*</b>
		096-484075	Fiberlite F23-48x1.5	Combine high g-force and high capacity of 1.5 mL microtubes	48 x 1.5 mL	
A STATE OF THE PARTY OF THE PAR	Fixed Angle	75003007	A27-6x50	Maintain lowest sample temperatures at all speeds	6 x 50 mL	<b>*</b>
	Highest RCF Performance Rotors	75003008	A27-8x50	For virus, proteomics, and subcellular particle separations in a modernized Thermo Scientific SS-34 rotor design	8 x 50 mL	<b>*</b>
10		75003009	T29-8x50	Realize new level of high g-force (up to 100,605 x g) in a superspeed	8 x 50 mL	<b>*</b>
	Continuous Flow/	75003012	TCF-20	Support bioprocessing or separation of large volumes with very low solids content	1350 mL	
	Zonal Rotors	75003013	TCF-20 Zonal	Achieve high g-force for large volume gradient separations	1350 mL	
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			vall LYNX 6000 rspeed Centrifu		Sorvall LYNX 4000 Superspeed Centrifuge						
	Rmax (mm)	Maximum Speed	Maximum RCF	K Factor	Maximum Speed	Maximum RCF	K Factor				
	209	5,500 rpm	7,068 x g	5,522	5,500 rpm	7,068 x g	5,522				
	183	7,000 rpm	10,025 x g	4,889	7,000 rpm	10,025 x g	4,869				
	157	13,100 rpm	30,314 x g	1,503	13,100 rpm <sup>4</sup>	30,314 x g	1,503				
	194	9,000 rpm	17,568 x g	3,415							
	167	10,500 rpm	20,584 x g	4,268	10,500 rpm	20,584 x g	4,268				
	152	12,000 rpm	24,471 x g	2,302	12,000 rpm	24,471 x g	2,302				
	138	14,000 rpm	30,240 x g	1,699	14,000 rpm	30,240 x g	1,699				
	154	14,000 rpm	33,746 x g	798	13,000 rpm	29,097 x g	925				
Outer Row	122	21,500 rpm <sup>4</sup>	63,049 x g	379	19,500 rpm <sup>4</sup>	51,865 x g	461				
Inner Row	122	21,500 rpm <sup>4</sup>	63,049 x g	558	19,500 rpm <sup>4</sup>	51,865 x g	679				
	115	20,000 rpm	51,428 x g	455	18,000 rpm	41,657 x g	562				
	107	20,000 rpm	47,850 x g	744	18,000 rpm <sup>4</sup>	38,759 x g	919				
Outer Row	111	22,000 rpm	60,063 x g	377	22,000 rpm <sup>4</sup>	60,063 x g	377				
Inner Row	111	22,000 rpm	60,063 x g	547	22,000 rpm <sup>4</sup>	60,063 x g	547				
	97	23,500 rpm	62,976 x g	503	21,000 rpm	50,290 x g	630				
	97	23,000 rpm	57,368 x g	199	18,500 rpm	37,116 x g	307				
	97	27,000 rpm <sup>4</sup>	79,057 x g	485	24,000 rpm <sup>4</sup>	62,465 x g	613				
	107	27,000 rpm <sup>4</sup>	87,207 x g	408	24,000 rpm <sup>4</sup>	68,905 x g	517				
	107	29,000 rpm <sup>4</sup>	100,605 x g	354	24,000 rpm <sup>4</sup>	68,905 x g	517				
	96	20,000 rpm <sup>4</sup>	42,931 x g	826							
	96	20,000 rpm <sup>4</sup>	42,931 x g	826							

<sup>&</sup>lt;sup>4</sup> 4 °C cannot be achieved at top speed. Please refer to the rotor manual for published specifications.

#### **Biocontainment Security**

- To enhance containment of biohazardous samples, superspeed rotors certified by the Public Health Laboratory Service, Microbiology Services, Porton Down, UK are noted by 🏤
- In case of tube or bottle failure, a volume of fluid is contained in a special curved containment annulus at the top of most fixed angle rotors
- Thermo Scientific Sorvall LYNX 6000 centrifuges with HEPA filters provide an additional level of safety in case of tube or bottle failure



Fiberlite F9-6x1000 LEX rotor: New lighter weight LEX design supports 6 x 1 L bottles with the versatility of tube adapters from 1.5 mL microtubes to 500 mL bottles



BIOFlex HC swinging bucket rotor with optional ClickSeal lids: Spin more than 35 tube styles with dozens of adapters for research flexibility



### Rotor adapters

for Thermo Scientific BIOFlex HC swinging bucket rotor

Cat. No.		Description	Rotor Capacity (places x volume, mL)	Max Tube Dimensions (Ø x L, mm)
Rotor				
75003000		BIOFlex HC Swinging Bucket Rotor	4 x 1000	
75007309		ClickSeal Biocontainment Lids for BIOFlex HC Buckets (set of 4)		
75007304		BIOLink Adapter for BIOFlex HC Buckets (set of 4)		
Adapters for BIG	OFlex	CHC Rotor (sets of 4)		
75007301	1	1000 mL Polypropylene Wide-Mouth Bio-Bottle (75007300)	4 x 1000	126 x140
75007304	2	750 mL Polypropylene Wide-Mouth Bio-Bottle	4 x 750	98 x 133
75004253	3	500 mL Nalgene Oak Ridge Bottle	4 x 500	70 x 160
75007302	4	500 mL Corning™ Conical Bottle	4 x 500	98 x 133
75005392	5	250 mL Nalgene Wide-Mouth Conical Bottle	4 x 250	62 x 145
75005392	5	250 mL Corning Conical Bottle or 200 mL Nunc Bottle or 175 mL Nalgene Conical Bottle	4 x 250	62 x 145
75007305	6	250 mL Nalgene Oak Ridge Bottle	8 x 250	62 x 130
75007305 + BD 352090	6	225 mL BD Falcon™ Conical Bottle	8 x 225	62 x 130
75007305 + Nunc 377585	6	200 mL Nunc Conical Bottle	8 x 200	62.5 x 139
75007305 + Nalgene DS3126-0175	6	175 mL Nalgene Wide-Mouth Conical Bottle	8 x 175	62 x 130
75003674	7	50 mL Conical Tissue Culture Tube	40 x 50	30 x 120
75004255	8	50 mL Double Biocontainment Vessel for 50 mL Conical Tube	20 x 50	29.5 x 120
75004252	9	50 mL Nalgene Oak Ridge Tube	48 x 50	29.5 x 120
75007306	10	15 mL Conical Tissue Culture Tube	96 x 15	17.5 x 121
75003672	11	10 mL Blood Collection Tube or Corex <sup>™</sup> /Kimble <sup>™</sup> Tube	148 x 10	17 x 110
75003671	12	5/7 mL Blood Collection Tube (BD Vacutainer™)	196 x 5/7	14 x 110
75003709	13	4.5/6 mL Blood Collection Tube (Greiner™)	164 x 4.5/6	14 x 110
75007303	14	Microplate Carriers	4 x 6 Standard or 4 x 2 Deep-Well	86 x 128
75003829	15	Small Blood Bag/Cell Culture Bags	4 x 2 Bags	
Adapters for BIO	OFlex	HC Rotor (sets of 4) <sup>5</sup>		
75003713	16	100 mL Round Bottom Open-Top Tube	8 x 100	62.5 x 139
75003824	17	50 mL Conical or Skirted Tube	20 x 50	29.5 x 120
75003716	18	25 mL Universal Conical or Skirted Tube	28 x 25	29.5 x 120
75003718	19	16 mL Nalgene Round Bottom Tube	48 x 16	18 x 134
75003719	20	15 mL Blood Collection Tube	32 x 15	17 x 125
75003724	21	5 mL RIA or Round Bottom Tube (without cap)	148 x 5	13 x 116
75003733	22	1.5/2.0 mL Conical or Round Bottom Microtube	192 x 1.5/2.0	11 x 50
75008383	23	T-75 Nunc Easy Flask	4 x T-75	
75008384	24	T-25 Nunc Easy Flask	8 x T-25	

<sup>&</sup>lt;sup>5</sup> Must be used with a BIOLink adapter (75007304)



🚸 Biocontainment certification by the Public Health Laboratory Service, Microbiology Services, Porton Down, UK.





### Rotor adapters

for Thermo Scientific BIOFlex HS swinging bucket rotor

Cat. No.		Description	Rotor Capacity (places x volume, mL)	Max Tube Dimensions (Ø x L, mm)
Rotor				
75003002		BIOFlex HS Swinging Bucket Rotor	4 x 400	
75003656		ClickSeal Biocontainment Lids for BIOFlex HS Buckets (set of 4)		
Adapters for B	IOFlex	( HS Rotor (sets of 4)		
No adapter needed	25	400 mL Polypropylene Bio-Bottle (75007585)	4 x 400	80 x 125
75004258	26	250 mL Nalgene Wide-Mouth Conical Bottle	4 x 250	62 x 135
75004257	27	250 mL Nalgene Oak Ridge Bottle	4 x 250	62 x 135
75004257	27	225 mL BD Falcon Conical Bottle	4 x 225	62 x 130
75004258	26	200 mL Nunc PPCO Conical Bottle	4 x 200	62 x 125
75004258	26	175 mL Nalgene Wide Mouth Conical Bottle	4 x 175	62 x 125
75003708	28	100 mL Round Bottom Open-Top Tube	4 x 100	45 x 117
75003707	29	50 mL DIN Round Bottom Tube	12 x 50	34.5 x 105
75004259	30	50 mL Double Biocontainment Vessels for 50 mL Conical Tube	8 x 50	29.5 x 116
75005393	31	50 mL Conical Tissue Culture Tube	12 x 50	29.5 x 116
75003683	32	50 mL Conical Tissue Culture Tube	16 x 50	29.5 x 116
75003799	33	50 mL Nalgene Oak Ridge Tube	16 x 50	28.5 x 114
75003703	34	30 mL DIN Round/Flat Bottom Tube	20 x 30	25.5 x 108
75003706	35	20/25 mL Universal Round Bottom Tube	12 x 20	25 x 110
75003798	36	16 mL Nalgene Round Bottom Tube	28 x 16	18 x 112
75005394	37	15 mL Conical Tissue Culture Tube	36 x 15	17 x 121
75003704	38	15 mL Round Bottom Tube (Sarstedt™)	40 x 15	17 x 105
75003794	39	15 mL Blood Collection Tube (17 x 125 mm)	16 x 15	15.5 x 131
75003681	40	10/15 mL Corex/Kimble Tube or 10 mL Blood Collection Tube (BD Vacutainer/Vacuette™)	56 x 10/15	17 x 113
75003680	41	5/7 mL Blood Collection Tube (BD Vacutainer)	76 x 5/7	13 x 110
75003825	42	4.5/6 mL Blood Collection Tube (Greiner)	64 x 4.5/6	13 x 110
75003793	43	3/5 mL RIA or Round Bottom Tube (without cap)	76 x 3/5	11 x 110
75003700	44	1.5/2 mL Conical or Round Bottom Microtube	136 x 1.5/2	11 x 45

🚸 Biocontainment certification by the Public Health Laboratory Service, Microbiology Services, Porton Down, UK.



# Rotor selection simplified at every turn

Category	Cat. No.	Rotor	1000 mL (A)	500 mL (B)	500 mL Conical (C)	250 mL (D)	250 mL Conical (E)	175 mL Conical (F)	100 mL (G)	80 mL	50 mL	50 mL Conical (H)	30 mL (l)	16 mL (J)	15 mL Conical (K)	12 mL	10 mL (L)	7 mL	5 mL	4 mL Microtubes (M)	3 mL	2.0 Microtubes	1.5 Microtubes	1.0 CAB Tube	Microplates (N)	Tissue Culture Flask (0)	Fitration Kits Blood Tubes (P)	Blood Bags — small
,	75003000	BIOFlex HC	1	1	/		/	1	<b>√</b>			1			/	/	<b>√</b>	/		<b>/</b>	<b>√</b>	/	<b>/</b>	/	<b>√</b>	/	11	′ ✓
Swinging Bucket Rotors	75003002	BIOFlex HS				1	/	1	/	/	/	1	/	1	/	/	/	/	/	/	/	/	/				11	r
	75003010	TH13-6x50									/	1	/		/													
	096-061075	Fiberlite F9-6x1000 LEX	1	1	<b>/</b>	1	<b>/</b>	1	/		/	1	/	1	<b>/</b>		<b>/</b>			<b>√</b>		/	/				1	r
Fixed Angle	096-041075	Fiberlite F10-4x1000 LEX	1	1	/	1	/		/		/	1	/	1	/		/			/		/	/				/	P
High Capacity Rotors	096-062375	Fiberlite F12-6x500 LEX		1		1	/		/		/	1	/	1	/		/										/	P
	096-062075	Fiberlite F14-6x250y				1			/		/	1	/	1	/	/	/										/	7
Fixed Angle	096-145075	Fiberlite F14-14x50cy									/	1	<b>/</b>	1	<b>/</b>		<b>/</b>										11	•
High Speed Conical Rotors	75003004	A21-24x15c													/												<b>√</b>	
	096-124375	Fiberlite F20-12x50 LEX									/		/	1	/		<b>√</b>										<b>✓</b>	-
Fixed Angle	096-084275	Fiberlite F21-8x50y									/		/	1	/		<b>/</b>										1	-
High Speed Rotors	75003005	A22-24x16												1				/	/		/	/						
	75003006	A23-6x100							/	/	/	1	/	1	/	/	/	/	/	/	/		/				/	F
	096-484075	Fiberlite F23-48x1.5																					/					
Fixed Angle High RCF	75003007	A27-6x50									/		/	1		/	/	/		/	/	/		/			/	,
Performance Rotors	75003008	A27-8x50									/		/	1		/	/	/		/	/	/		/			/	-
	75003009	T29-8x50									<b>/</b>		<b>/</b>	1		/	<b>/</b>	<b>/</b>		<b>/</b>	<b>/</b>	<b>√</b>		/			/	r



### Optimize the Performance of Your Centrifuge

It's simple. From 1 L bottles, to 15 and 50 mL conical tubes, to microplates and tissue culture flasks, the versatile selection of Thermo Scientific™ Nalgene™ and Nunc™ centrifugation products work seamlessly with your complete centrifuge and rotor system, bringing together best-in-class quality and performance.



#### Specifications and ordering information

A Liters of X 10000  9.000 rpm, 17,568 x g	Specifications	Thermo Scientific Sorvall LYNX 6000 Su	perspeed Centrifuge	Thermo Scientific Sorvall LYN	IX 4000 Superspeed Centrifuge
Maximum RCF         100,805 x g (with 129-8x50 rotor)         68,905 x g (with A27-8x50 rotor)           Rotor Locking System         Auto-Lock         Auto-Lock           Rotor Identification         Auto-ID Instant, Automatic         Auto-ID Instant, Automatic           Drive System         High Torque Brushless         High Torque Brushless           Imbalance Tolerance         5% of Opposing Loads <sup>9</sup> 5% of Opposing Loads <sup>9</sup> Partial Vacuum System         Smart Vacuum         Not Available           HEPA Filter         Optional         Not Available           Green Technology         Green Mode, Smart Vacuum         Green Mode           Control         Touchscreen Interface         Touchscreen Interface           Accel/Decel Profiles         9 Accel, 10 Decel         9 Accel, 10 Decel           Speed Agne         Minimum 500 rpm, Maximum 29,000 rpm         Minimum 500 rpm, Maximum 24,000 rpm           Speed Control Accuracy         ± 25 rpm         ± 25 rpm           Bun Time         99 hours, hold         99 hours, hold           Pre-Cooling Function         Yes         Yes           Temperature Accuracy         ± 2 °C         ± 2 °C           ACE Integrator (w2t)         Yes         No           Continuous Flow         Yes         No	Maximum Capacity	6 Liters (6 x 1000) 4 Liters (4 9,000 rpm, 17,568 x g 24 microp 96 x 15 n	x 1000) plates, 40 x 50 mL or nL conical tubes	4 Liters (4 x 1000)	4 Liters (4 x 1000) 24 microplates, 40 x 50 mL or 96 x 15 mL conical tubes
Rotor Locking System   Auto-Lock   Auto-Lock   Auto-Lock   Auto-Lock   Auto-Lock   Auto-Lock   Auto-D Instant, Automatic   Auto-ID Instant, Automatic   Au	Maximum Speed	29,000 rpm		24,000 rpm	
Auto-ID Instant, Automatic   Autom	Maximum RCF	100,605 x g (with T29-8x50 rotor)		68,905 x g (with A27-8x50 rotor)	
Drive System         High Torque Brushless         High Torque Brushless           Imbalance Tolerance         5% of Opposing Loads <sup>6</sup> 5% of Opposing Loads <sup>6</sup> Partial Vacuum System         Smart Vacuum         No Vacuum           HEPA Filter         Optional         Not Available           Green Technology         Green Mode         Geen Mode           Control         Touchscreen Interface         Touchscreen Interface           Accel/Decel Profiles         9 Accel, 10 Decel         9 Accel, 10 Decel           Speed Range         Minimum 500 rpm, Maximum 29,000 rpm         Minimum 500 rpm, Maximum 24,000 rpm           Speed Control Accuracy         ± 25 rpm         ± 25 rpm           Run Time         99 hours, hold         99 hours, hold         99 hours, hold           Pre-Cooling Function         Yes         10 to +40 °C         10 to +40 °C           Temperature Set Range         −20 to +40 °C         ± 2 °C         ± 2 °C           ACE Integrator (w2t)         Yes         Yes           Continuous Flow         Yes         Yes           Continuous Flow         Yes         No           Other Functions         Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle         Multilingual Selection,	Rotor Locking System	Auto-Lock		Auto-Lock	
Imbalance Tolerance   5% of Opposing Loads <sup>6</sup>   No Vacuum   No Vacuum	Rotor Identification	Auto-ID Instant, Automatic		Auto-ID Instant, Automatic	
Partial Vacuum System	Drive System	High Torque Brushless		High Torque Brushless	
HEPA Filter   Optional   Not Available	Imbalance Tolerance	5% of Opposing Loads <sup>6</sup>		5% of Opposing Loads <sup>6</sup>	
Green Technology         Green Mode, Smart Vacuum         Green Mode           Control         Touchscreen Interface         Touchscreen Interface           Accel/Decel Profiles         9 Accel, 10 Decel         9 Accel, 10 Decel           Speed Range         Minimum 500 rpm, Maximum 29,000 rpm         Minimum 500 rpm, Maximum 24,000 rpm           Speed Control Accuracy         ± 25 rpm         ± 25 rpm           Run Time         99 hours, hold         99 hours, hold           Pre-Cooling Function         Yes         Yes           Temperature Set Range         −20 to +40 °C         −10 to +40 °C           Temperature Accuracy         ± 2 °C         ± 2 °C           ACE Integrator (w2t)         Yes         Yes           Continuous Flow         Yes         No           Other Functions         Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle         Not Required, Optional Seismic Bolt Down         860 mm/33.9 in         860 mm/33.9 kg/658 lb (Cat. No. 7500658) <t< td=""><td>Partial Vacuum System</td><td>Smart Vacuum</td><td></td><td>No Vacuum</td><td></td></t<>	Partial Vacuum System	Smart Vacuum		No Vacuum	
Control         Touchscreen Interface         Touchscreen Interface           Accel/Decel Profiles         9 Accel, 10 Decel         9 Accel, 10 Decel           Speed Range         Minimum 500 rpm, Maximum 29,000 rpm         Minimum 500 rpm, Maximum 24,000 rpm           Speed Control Accuracy         ± 25 rpm         ± 25 rpm           Run Time         99 hours, hold         99 hours, hold           Pre-Cooling Function         Yes         Yes           Temperature Set Range         -20 to +40 °C         -10 to +40 °C           Temperature Accuracy         ± 2 °C         ± 2 °C           ACE Integrator (w2t)         Yes         Yes           Continuous Flow         Yes         No           Other Functions         Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle         Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle           Instrument Bolt Down         Not Required, Optional Seismic Bolt Down         Not Required, Optional Seismic Bolt Down           Dimensions (H x D x W)         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in           Work Height of Top Deck         860 mm/33.9 in         860 mm/33.9 in         860 mm/	HEPA Filter	Optional		Not Available	
Accel/Decel Profiles         9 Accel, 10 Decel         9 Accel, 10 Decel           Speed Range         Minimum 500 rpm, Maximum 29,000 rpm         Minimum 500 rpm, Maximum 24,000 rpm           Speed Control Accuracy         ± 25 rpm         ± 25 rpm           Run Time         99 hours, hold         99 hours, hold           Pre-Cooling Function         Yes         Yes           Temperature Set Range         -20 to +40 °C         -10 to +40 °C           Temperature Accuracy         ± 2 °C         ± 2 °C           ACE Integrator (w2t)         Yes         Yes           Continuous Flow         Yes         No           Other Functions         Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle         Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging User Lock-Out, Automatic Door Opening, Rotor Speed Handle           Instrument Bolt Down         Not Required, Optional Seismic Bolt Down         Not Required, Optional Seismic Bolt Down           Dimensions (H x D x W)         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in           Work Height of Top Deck         860 mm/33.9 in         860 mm/33.9 in         860 mm/33.9 in           Weight         293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591)         283 kg/622 lb (Cat. No.	Green Technology	Green Mode, Smart Vacuum		Green Mode	
Speed Range Minimum 500 rpm, Maximum 29,000 rpm Minimum 500 rpm, Maximum 24,000 rpm    Speed Control Accuracy ± 25 rpm    Run Time	Control	Touchscreen Interface		Touchscreen Interface	
Run Time 99 hours, hold 90 hours, hold 99 hours, hold 90 hours, hold 99 hours, hold 90 hours, hold 99 hours, ho	Accel/Decel Profiles	9 Accel, 10 Decel		9 Accel, 10 Decel	
Run Time 99 hours, hold 90 hours, hold 90 hours, hold 99 hours, hold 90 hours, ho	Speed Range	Minimum 500 rpm, Maximum 29,000 rpm		Minimum 500 rpm, Maximum 24,000	rpm
Pre-Cooling Function Yes Yes Temperature Set Range -20 to +40 °C Temperature Accuracy ± 2 °C  ACE Integrator (w2t) Yes Yes Continuous Flow Other Functions Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle Instrument Bolt Down Not Required, Optional Seismic Bolt Down Not Required, Optional Seismic Bolt Down Not Required, Optional Seismic Bolt Down Dimensions (H x D x W) 930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in Work Height of Top Deck 860 mm/33.9 in Weight 293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591) Reat Output <	Speed Control Accuracy	± 25 rpm		± 25 rpm	
Temperature Set Range —20 to +40 °C —10 to +40 °C —2 °	Run Time	99 hours, hold		99 hours, hold	
Temperature Accuracy ± 2 °C ± 2 °C  ACE Integrator (w2t) Yes Yes  Continuous Flow Yes No  Other Functions Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle  Instrument Bolt Down Not Required, Optional Seismic Bolt Down Not Required, Optional Seismic Bolt Down Not Required, Optional Seismic Bolt Down 930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in  Work Height of Top Deck 860 mm/33.9 in 860 mm/33.9 in  Weight 293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591) 283 kg/622 lb (Cat. No. 75006580) and 299 kg/658 lb (Cat. No. 75006581) 459 dBA	Pre-Cooling Function	Yes		Yes	
ACE Integrator (w2t)  Yes  Continuous Flow  Yes  No  Other Functions  Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle  Instrument Bolt Down  Not Required, Optional Seismic Bolt Down  Not Required, Optional Seismic Bolt Down  Dimensions (H x D x W)  930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in  930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in  860 mm/33.9 in  Weight  293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591)  4283 kg/622 lb (Cat. No. 75006580) and 299 kg/658 lb (Cat. No. 75006580)  Heat Output  459 dBA  459 dBA	Temperature Set Range	-20 to +40 °C		−10 to +40 °C	
Continuous Flow Yes No Other Functions Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle User Lock-Out, Automatic Door Opening, Rotor Speed Handle Not Required, Optional Seismic Bolt Down  Dimensions (H x D x W) 930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in 930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in  Work Height of Top Deck 860 mm/33.9 in 860 mm/33.9 in  Weight 293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591) 283 kg/622 lb (Cat. No. 75006580) and 299 kg/658 lb (Cat. No. 75006581) 42.0 kW  Noise <59 dBA  Solution, Rotor Calculator, On-Board Training Videos, User Logging, Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle  Not Required, Optional Seismic Bolt Down  930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in  930 x 80	Temperature Accuracy	±2°C		±2°C	
Multilingual Selection, Rotor Calculator, On-Board Training Videos, User Logging, User Lock-Out, Automatic Door Opening, Rotor Speed Handle  Instrument Bolt Down  Not Required, Optional Seismic Bolt Down  Work Height of Top Deck  860 mm/33.9 in	ACE Integrator (w2t)	Yes		Yes	
User L ock-Out, Automatic Door Opening, Rotor Speed Handle         User L ock-Out, Automatic Door Opening, Rotor Speed Handle           Instrument Bolt Down         Not Required, Optional Seismic Bolt Down         Not Required, Optional Seismic Bolt Down           Dimensions (H x D x W)         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in           Work Height of Top Deck         860 mm/33.9 in         860 mm/33.9 in           Weight         293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591)         283 kg/622 lb (Cat. No. 75006580) and 299 kg/658 lb (Cat. No. 75006581)           Heat Output         <2.0 kW         <3.2 kW           Noise         <59 dBA         <59 dBA	Continuous Flow	Yes		No	
Dimensions (H x D x W)         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in         930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in           Work Height of Top Deck         860 mm/33.9 in         860 mm/33.9 in           Weight         293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591)         283 kg/622 lb (Cat. No. 75006580) and 299 kg/658 lb (Cat. No. 75006581)           Heat Output         <2.0 kW	Other Functions			Multilingual Selection, Rotor Calculator, User Lock-Out, Automatic Door Opening	On-Board Training Videos, User Logging, g, Rotor Speed Handle
Work Height of Top Deck         860 mm/33.9 in         860 mm/33.9 in           Weight         293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591)         283 kg/622 lb (Cat. No. 75006580) and 299 kg/658 lb (Cat. No. 75006581           Heat Output         <2.0 kW	Instrument Bolt Down	Not Required, Optional Seismic Bolt Down		Not Required, Optional Seismic Bolt Dov	wn
Weight         293 kg/644 lb (Cat. No. 75006590) and 309 kg/680 lb (Cat. No. 75006591)         283 kg/622 lb (Cat. No. 75006580) and 299 kg/658 lb (Cat. No. 750065834)           Heat Output         <2.0 kW	Dimensions (H x D x W)	930 x 805 x 700 mm/36.6 x 31.7 x 27.6 in		930 x 805 x 700 mm/36.6 x 31.7 x 2	27.6 in
Heat Output         <2.0 kW         <3.2 kW           Noise         <59 dBA         <59 dBA	Work Height of Top Deck	860 mm/33.9 in		860 mm/33.9 in	
Noise <59 dBA <59 dBA	Weight	293 kg/644 lb (Cat. No. 75006590) and 309 kg/6	680 lb (Cat. No. 75006591)	283 kg/622 lb (Cat. No. 75006580) at	nd 299 kg/658 lb (Cat. No. 75006581)
	Heat Output	<2.0 kW		<3.2 kW	
Certification cULus <sup>7</sup> , CE, IEC 61010-2-020 2nd Ed. or later, ROHS, WEEE cULus <sup>7</sup> , CE, IEC 61010-2-020 2nd Ed. or later, ROHS, WEEE	Noise	<59 dBA		<59 dBA	
	Certification	cULus <sup>7</sup> , CE, IEC 61010-2-020 2nd Ed. or later, RO	HS, WEEE	cULus <sup>7</sup> , CE, IEC 61010-2-020 2nd Ed	. or later, ROHS, WEEE
Warranty <sup>2</sup> 1 Yr Unit, 3 Yrs Drive, 5 Yrs Refrigeration 1 Yr Unit, 3 Yrs Drive, 5 Yrs Refrigeration	Warranty <sup>2</sup>	1 Yr Unit, 3 Yrs Drive, 5 Yrs Refrigeration		1 Yr Unit, 3 Yrs Drive, 5 Yrs Refrigeration	n

<sup>&</sup>lt;sup>2</sup> Subject to Thermo Fisher Scientific's standard limited warranty. See thermoscientific.com or your sales representative for details.

<sup>&</sup>lt;sup>7</sup> Applies to Cat. No. 75006590 and 75006580 only.

Ordering Information							
Cat. No.	Description						
75006590	Sorvall LYNX 6000 Superspeed Centrifuge, 200–240 V, 50/60 Hz, 30 A, Single-phase						
75006591	Sorvall LYNX 6000 Superspeed Centrifuge, 380-400 V, 50/60 Hz, 16 A, 3-phase						
75006580	Sorvall LYNX 4000 Superspeed Centrifuge, 200-240 V, 50/60 Hz, 30 A, Single-phase						
75006581	Sorvall LYNX 4000 Superspeed Centrifuge, 380-400 V, 50/60 Hz, 16 A, 3-phase						
75000011	HEPA Filter (for use with Cat. No. 75006590 and 75006591 only)						



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 $<sup>^{\</sup>rm 6}$  Fiberlite F9-6x1000 rotor imbalance is 25 gr; BIOFlex HC rotor imbalance is 20 gr (opposing loads).