



Thermo Scientific Heraeus Multifuge X1 and Multifuge X3 Centrifuge Series

Market-leading throughput, versatility and
efficiency for high-performance processing

Global Leader in Quality and Reliability

For more than 100 years, Thermo Scientific centrifuges have delivered outstanding performance and reliability in the lab. From basic benchtop instruments to advanced floor models, we take pride in manufacturing centrifuges that offer exceptional quality for consistent results year after year.

Thermo Scientific Heraeus Multifuge X1 and Multifuge X3 Centrifuge Series



Secure, push-button **Auto-Lock**® rotor exchange for application versatility



One-handed, certified sample protection with **ClickSeal**® biocontainment rotor lids



High performance and increased capacity with our lightweight **Fiberlite**® carbon fiber rotors

Our Heraeus® Multifuge® X1 and Multifuge X3 centrifuge series are ideal for a wide range of processing needs including:



- Cell Culture
- Bioproduction
- Food Safety
- Blood Separation
- Body Fluids Processing
- Hematology
- DNA/RNA Harvesting
- Pharmaceutical
- Biotechnology
- Stem Cell
- Microbiology
- Molecular Biology
- Proteomics
- Genomics
- Clinical Chemistry
- TB Sputum

Bring superspeed applications to your benchtop

X1



Heraeus Multifuge X1

- Compact 1.6-liter with exceptional design technologies for ultimate efficiency
- Average capacity of a standard 3 liter in 40% less bench space
- Serving a variety of processing needs, unique carbon fiber rotors enhance performance and versatility



X3

Heraeus Multifuge X3

- Market-leading centrifuge trusted by top scientists around the globe
- Unrivalled performance and nearly twice the capacity for common tubes as the industry average in the same footprint
- Unequalled RCF performances on the bench with exclusive carbon fiber rotor technology

Exceptional Throughput

Accelerate research with unmatched capacity

- Up to 76 x 5/7 ml blood tubes or up to 16 x 50 ml conical tubes in our standard 4 x 400 ml swing-out rotor
- 32 x 5/7 ml tube capacity with convenient 4 x 200 ml swing-out rotor, providing quicker processing with acceleration of 0-3000rpm in just 10 seconds
- 6 x 100 ml tubes at 24700 xg with the Fiberlite F15-6x100y, as well as 50 ml conical tubes with adapters.

- Up to 40 x 50 ml conical tubes in swing-out configuration, with biocontainment option increasing experiment size up to 40%
- Up to 14 x 50 ml conical tubes in fixed angle rotor at over 17000 xg for 133% more capacity than traditional 6 place rotors
- High capacities up to 6 x 250 ml (1500 ml) with the Fiberlite F14-6x250 LE rotor

Unmatched Versatility

Industry's broadest range of rotors and adapters available, for your current and future applications including biocertified Thermo Scientific Fiberlite rotors

- 4 swing-out configurations, accommodating microtubes to 400 ml bottles to microplates, all available with biocontainment sealing options
- 9 fixed angle rotors, including our exclusive rotor with optional vessels for safe handling and processing of the most hazardous or sensitive samples

- 9 swing-out configurations, handling up to 750 ml bottles and up to 28 microplates
- 7 fixed angle rotors, featuring corrosion-resistant carbon fiber rotors with unmatched capacity and performance up to 25000 xg

Unsurpassed Performance

Technological leadership providing high performance levels

- The only 1-liter centrifuge capable of spinning 14 x 50 ml conical tubes in angle configuration at over 12000 xg
- Achieve over 25800 xg on 30 x 1.5 and 2.0 ml microtubes and capacity up to 48 microtubes with the Fiberlite F21-48x2.0 rotor
- Superior acceleration and deceleration rates further reduce run time

- Run deepwell and filter plates at over 6000 xg
- Fiberlite F14-6x250 LE rotor for processing 250 ml bottles at RCF over 18500 xg
- Capability to run 50 ml conical tubes and 94 ml tubes at over 24500 xg

Breakthrough Technology for Ultimate Performance

The 4 x 400 ml Heraeus Multifuge X1 and 4 x 750 ml Heraeus Multifuge X3 centrifuges are available in both ventilated and refrigerated units. Ideal for temperature-sensitive protocols, the powerful refrigeration systems allow control of sample and chamber temperature between -10 °C and +40 °C.

B R E A K T H R O U G H

Auto-Lock | Fiberlite | SMARTSpin | ClickSeal | Hybrid Lid Latch



Innovative Thermo Scientific Solutions

Auto-Lock® III Rotor System

Safe and secure locking system delivers:

- Push-button installation and exchange of rotors for quick switch between applications
- Easy rotor removal provides clear chamber access in seconds, enabling quick and efficient cleaning, reducing contamination risk and leading to improved research and a healthier working environment

Fiberlite® Carbon Fiber Rotors

Maximize centrifuge performance with corrosion-resistant Fiberlite rotors providing increased capacity, faster speeds and higher g-force (up to 25,000 xg), allowing super speed applications to be processed on the bench

SMARTSpin® Technology

Dynamic technology improves safety and run results by optimizing a variety of parameters for each rotor and bucket combination and selected speed:

- Auto-corrects maximum rotor speed and adapts the imbalance sensibility to the load, detecting abnormal vibrations, such as those caused by tube breakages or leaks
- Continually measures rotor vibration allowing actual imbalance to be compared to standard rotor type profiles and eliminating over- or under-sensitivity than can occur with traditional switch imbalance devices
- Optimizes motor power during acceleration and braking, resulting in reproducible runs, as well as rotor speed during pre-cooling/ pre-warming programs for super short set-ups

ClickSeal® Bucket Sealing System

Innovative biocontainment solution provides:

- Simple operation for all laboratory users, eliminating screw caps and complicated clips
- Glove-friendly, one-handed open/close capability, ergonomically designed for both right and left-handed operation
- Biocontainment certification by HPA, Porton Down, UK (formerly CAMR)
- Transparent and biocompatible polyetherimide (PEI) sealing covers have broad chemical resistance, excellent thermal properties and exceptional strength for durability



Hybrid Lid Latch

- Improve closure time and reduce wear with our highly reliable, motorized lid latch system – combining the advantages of mechanical and electromechanical systems
- One finger downward motion for easiest closing and locking – even on tall benches
- Optional automatic lid opening at end of run for rapid retrieval of samples during routine operation
- Password protection option for sample security, preventing unwanted removal of samples in multi-user or high security environments

Compact, Comfortable Design

- Exceptional capability in compact dimensions maximizes workspace
- Low profile (only 31 cm/ 12.4 in deck height) and curved design ensure comfortable loading and unloading of samples and cleaning of the unit

Advanced Technology for Resource Efficiency

- Less energy is consumed per tube – up to 40% fewer watts per tube than competing models – since larger capacity reduces number of runs required for a given batch of samples
- 15% energy savings compared with standard stand-by power consumption with unique "powersave" feature, enabled by default, that turns off display when not in use
- Reduce capital investment and eliminate unnecessary equipment disposal issues with longer lifetime of Fiberlite rotors – guaranteed 15 years
- Compliance with RoHS (Restriction of Hazardous Substances Directive) and WEE (Waste Electrical and Electronic Equipment Directive)



Advanced and Intuitive Controls Optimize Performance

Our Heraeus Multifuge X1 and Multifuge X3 general purpose centrifuges feature an enhanced interface designed for maximum protocol versatility, complementing the numerous rotor configurations available.

Programmable, detailed operation controls and real-time information are perfect for research and multi-user environments. Exclusive technologies maximize run performance, guarantee reproducibility and deliver superior temperature accuracy for improved sample protection.

Dedicated Program Keys

Immediate storage and access to the most frequently used programs and to the 99 programs library, supporting high-throughput laboratories

Accessible Programming

Easily adjust speed, time and temperature, even during the run



Program Keys: 5 direct access and folder with storage up to 99 programs including labelling area

Acc/Dec: Choice of 9 acceleration and 10 deceleration rates

Speed Control: Immediate toggle between RCF and speed control, up to 25830 xg or 15200 rpm

Bucket: Quickly adjust rotor parameters for optimal RCF calculation and temperature management

Time

Set time in hrs:min, min:sec or continuous mode.

Dual Timing Mode

At-Start Standard timing down from pushing "Start" button
Used for routine, non-critical runs when reproducibility not required

At-Speed For ultimate replication of result
Timing begins at operating speed for specific run time required.
No variation due to changes in acceleration time to operating speed.
Ideal for filtration devices requiring specific times at speed



Dataport Option

To transport data to a PC, a dataport kit is available (cat. no. 50124205 for Heraeus Multifuge X1 and 20190345 for Heraeus Multifuge X3)



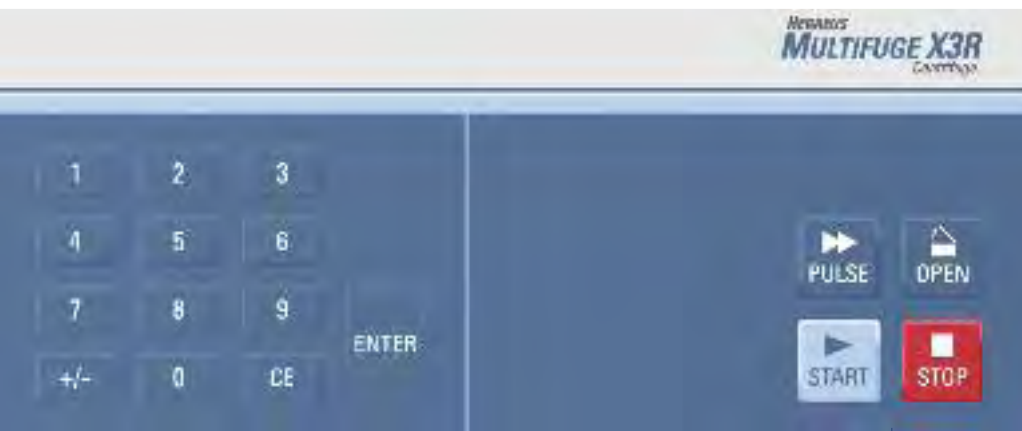
Superior Security

Optional password protection, ideal for multi-user environments

- For programs: prevents accidental adjustments or removal
- To open lid: ensures samples are only removed from the temperature-controlled chamber by the researcher who has set the password

Easy to Read and Use

- Highly visible backlit display for clear reading of running parameters across the lab
- Display of SET and ACTUAL parameters
- Multilingual instructions, including English, German, French, Spanish, Russian, Italian and Dutch, on programming, run conditions, alerts and service messages
- Glove- and detergent-friendly panel
- Convenient keyboard for direct input – without scrolling – of program parameters, reducing preparation time



Save Valuable Lab Space

The Heraeus Multifuge X3 centrifuge series is available in floor-standing configuration to conserve valuable bench space and, with a smaller footprint than a rolling cart, saves additional lab space.

The Heraeus Multifuge X3F centrifuges feature movable, locking casters with the same performance and capacity as our benchtop models. Easily transported, positioned and safely locked for enhanced flexibility. Ergonomic operation at a working height of 79 cm/31.1, ideal for loading and unloading rotors, reducing both overreaching and lifting effort.

Temperature

Temp: Control temperatures between -10°C and +40°C

Pre-Temp (refrigerated versions): Achieve 4°C in 15 minutes from ambient 23°C*

Pulse: Ideal for short runs

Open: Motorized latch with optional automatic operation

Dual Temperature Mode

Air/Chamber Temperature

For most of the temperature-tolerant protocols. For efficient and stable precooling of the chamber and rotor, prior to temperature-sensitive runs.

Sample Temperature






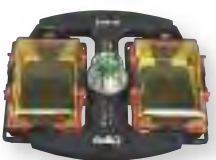


For accurate control of the sample temperature before and during, the run, independently from the rotor, the speed and the environmental conditions. Corrects for natural temperature gradients with the chamber/rotor.

*with Thermo Scientific BIOLiner rotor

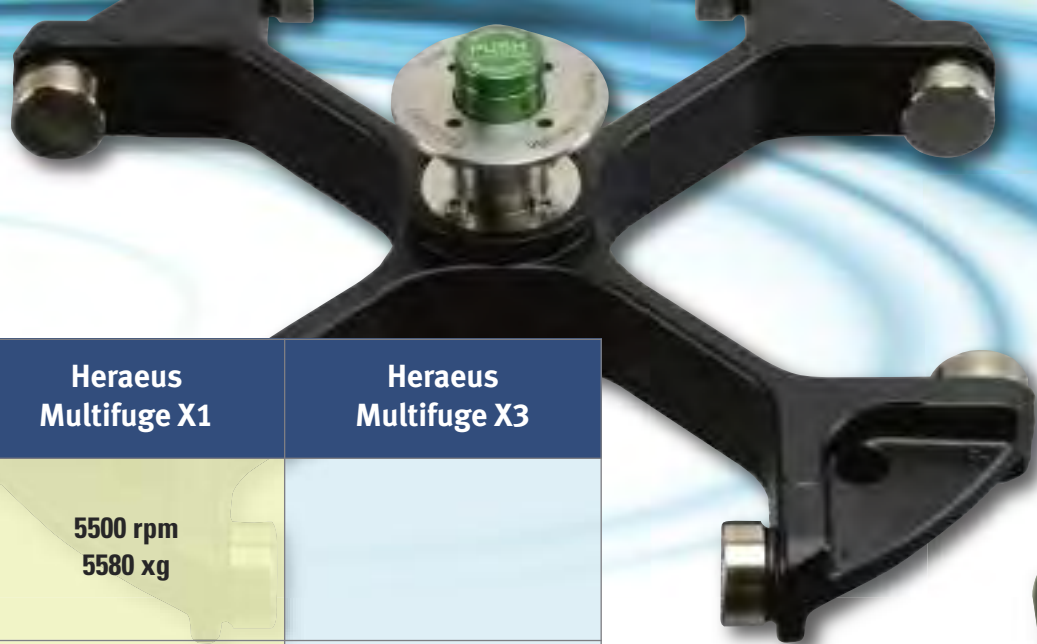
Incredible Capacity and Productivity

Our Heraeus Multifuge X1 and Multifuge X3 centrifuge series feature a wide range of rotors to meet your general purpose processing requirements.

Swinging Bucket Rotors

	<p>TX-200 High Speed Productivity Serving primary swing-out processing needs, with a capacity of 32 blood tubes or 4 conical tubes per run in sealed conditions, achieve an impressive mix of speed and accelerating/braking power.</p>
	<p>TX-400 Maximum Flexibility Designed for a broad range of laboratory throughput needs, with a capacity of 76 blood tubes and up to 16 conical tubes in a single run, for the highest configuration flexibility on the market.</p>
	<p>TX-750 Outstanding Versatility Delivers maximum flexibility at 4700 rpm and features a choice of round or rectangular buckets with multiple adapters as well as microplate carriers.</p>
	<p>BIOLiner® Exceptional capacity Significantly improves productivity – process over 100% more 50 ml conical tubes or 100% more blood tubes with biocontainment sealing per run than with competitive models. Certified sealed microplate carriers expand application options.</p>
	<p>HIGHPlate® 6000 Filtration Quality For filter plate users, ideal for DNA purification protocols, delivering more than 6000 x g and meeting the needs of several filtration devices.</p>
	<p>M-20 Compact Processing Centrifuges up to 6 microplates in optional certified sealed conditions with transportable carriers and the versatility of Auto-Lock rotor installation.</p>
	<p>Fiberlite H3-LV Unmatched Microplate Capacity and Flexibility Perfect for pelleting cells and cellular debris, protein precipitation, plasmid purification and collecting physiological fluids for diagnostic tests. In addition, achieve high-volume microplate processing with a capacity of 8 deepwell blocks or 28 microplates.</p>
	<p>BIOShield® 720 and BIOShield 1000A Excellent Performance Runs frequently used tubes above 7000 xg with the confidence and simplicity of a single, certified biosafety lid.</p>

 Biocontainment certified by CAMR, HPA, Porton Down, UK.



Heraeus Multifuge X1	Heraeus Multifuge X3
5500 rpm 5580 xg	
5000 rpm 4696 xg	
	4700 rpm 4816 xg
	3500 rpm 2739 xg
	6300 rpm 6168 xg
4000 rpm 2272 xg	4000 rpm 2272 xg
	3600 rpm 2738 xg
6300 rpm 7188 xg BIOShield 720	6000 rpm 7164 xg BIOShield 1000A
















Rotor stand is now available to store your rotor when not in use, allowing rotors and buckets to be removed and kept simply and safely (cat. no. 75003711).

Tube Capacity Selector Guide


Unmatched Capacity and Speed

Heraeus Multifuge X1 and Multifuge X3 centrifuge rotors, continued

Fixed Angle Rotors

		<p>Fiberlite F14-6x250 LE Ideal for pelleting bacteria or yeast cells at above 18500 xg and for purifying nucleic acids and cells.</p>
		<p>Fiberlite F15-6x100y Durable design for general purpose pelleting of organelles, density gradients and various protocols requiring angle centrifugation of disposable conical tubes up to 24700 xg.</p>
		<p>Fiberlite F13-14x50cy Ideal for pelleting prokaryotic and eukaryotic cells from cell cultures and with our generous 14-place capacity and high maximum RCF (12300-17100 xg), features more than double the throughput of an industry standard angle rotor.</p>
		<p>Fiberlite F15-8x50cy Achieving more than 24000 xg, pellet cells, bacteria, subcellular fractions and small amounts of nucleic acids and viruses in disposable conical tubes.</p>
		<p>CLINIConic® Spin 30 x 15 ml round or conical tubes and ensure acceleration and throughput for cell culture and blood separation applications.</p>
		<p>8 x 50 Sealed Ideal for TB sputum applications, centrifuge 8 conical tubes in individually sealed vessels, which can be prepared remotely, with rapid acceleration and processing times.</p>
		<p>HIGHConic® II Process 6 x 94 ml tubes between 10000 and 15000 xg in certified sealed conditions.</p>
		<p>Micro-Volume Rotors Perfect blend of capabilities to support micro-volume protocols, such as nucleic acid or protein lysate preparation and PCR reaction set-up. With Auto-Lock rotor exchange, transform your general purpose unit into a powerful microcentrifuge in less than 3 seconds!</p>
		<p>Fiberlite F21-48x2.0</p>
		<p>Microliter 30 x 2</p>
	<p>Microliter 48 x 2</p>	

¹ Performance with 230 V centrifuge models.

 Biocontainment certified by CAMR, HPA, Porton Down, UK.

Heraeus Multifuge X1	Heraeus Multifuge X3
	11000 rpm 18533 xg ¹
15000 rpm 24652 xg	15000 rpm 24652 xg
8500 rpm 12359 xg	10000 rpm 17105 xg
14500 rpm 24446 xg ¹	14500 rpm 24446 xg
5650 rpm 4997 xg	
6700 rpm 7177 xg ¹	
10350 rpm 15090 xg	10350 rpm 15090 xg
15200 rpm 25055 xg	15200 rpm 25055 xg
15200 rpm 25830 xg	
15200 rpm 25314 xg	15200 rpm 25314 xg



Thermo Scientific Fiberlite Rotors

Superspeed performance on the benchtop

Fiberlite carbon fiber rotors maximize the performance of Heraeus Multifuge general purpose centrifuges with increased capacity, faster speeds and higher g-force (up to 25,000 xg), now within your reach.

Unequaled durability and cleaning convenience

- Corrosion- and fatigue-resistance eliminates serious safety hazards caused by exposure to moisture and everyday laboratory chemicals.

Superior insulation

- Naturally insulating properties ensure samples are kept at a constant temperature during centrifugation

Improved ergonomics and productivity

- Lightweight design provides faster acceleration/deceleration rates for shorter run times, as well as a safer work environment

Certified safe sample containment

- In case of tube or bottle failure, fluids are contained in a special curved annulus at the top of rotors with Enhanced Liquid Containment (ELC).
- Enhanced containment of biohazardous samples is achieved with rotors featuring Bioseal technology, certified by HPA, Porton Down, UK (formerly CAMR).

Complete workflow in disposable conical tubes

- Supports complete workflow in single disposable conical tube for cost efficiencies and waste reduction
 - >> Protect from contamination risk, eliminate sample transfers and non-productive tasks, such as autoclaving
 - >> Reduce processing times by spinning at maximum speeds up to 24,500 xg without risk of tube damage
- Enhanced support for conical tubes, enabling many popular tubes to be spun above their rated RCF²
- Process 15 ml conicals with available adapters for flexibility

Exceptional value


- A secure investment, backed by a 15-year warranty ensures dependable results over an extended lifetime

²: Please contact your sales representative for details of recommended tube suppliers.



TX-200
Swinging Bucket Rotor¹

Thermo Scientific Rotors and Adapters

Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
75003658	TX-200 Swinging Bucket Rotor*						
75003659	Round Buckets (set of 4), 90°, R_{max} 165 mm	4 x 180 ml		5500	5580	n/a	n/a
				5250²	5084²		
 75003660	ClickSeal Biocontainment Lids for Round Buckets (set of 4)						
75003687	Replacement O-rings for Lids (set of 4)						
	Adapters for Round Buckets (sets of 4)						
No adapter needed	1 180 ml Polypropylene Screw Cap Bottle (75003800, pkg of 12)	4 x 180 ml	56.5 x 123				
75003801	2 100 ml Round Bottom Open-Top Tube	4 x 100 ml	48 x 122				
75003802	3 50 ml DIN Round Bottom Tube	4 x 50 ml	35 x 126				
75003815	4 50 ml Round Bottom Tube	4 x 50 ml	32 x 126				
75003803	5 50 ml Conical or Skirted Tube	4 x 50 ml	29.5 x 126				
75003804	6 25 ml Universal Tube	4 x 25 ml	25.5 x 118				
75003805	7 25 ml DIN Round/Flat Bottom Tube	8 x 25 ml	25 x 118				
75003806	8 20 ml Round Bottom Tube	12 x 25 ml	22 x 125				
75003771	9 15 ml Conical Tube	20 x 20 ml	17 x 121				
75003809	10 15 ml Blood Collection Tube	16 x 15 ml	17 x 121				
75003807	11 14 ml Conical Urine Tube	8 x 14 ml	17 x 114				
75003808	12 10 ml Blood Collection or 15 ml Corex®/Kimble® Tube	28 x 10/15 ml	17 x 121				
75003785	13 5/7 ml or 4.5/6 ml Blood Collection Tube	32 x 5/7 ml	13 x 122				
75003810	14 5/7 ml Round Bottom Open-Top Tube	36 x 5/7 ml	13 x 118				
75003811	15 3/5 ml RIA or Round Bottom Tube (without cap)	48 x 3/5 ml	12 x 124				
75003812	16 1.5/2 ml Conical Microtube	48 x 2 ml	11 x 45				

¹ Buckets and lids sold separately

² 120 V ventilated centrifuge





TX-400
Swinging Bucket Rotor¹

Thermo Scientific Rotors and Adapters


Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
75003629	TX-400 Swinging Bucket Rotor						
75003655	Round Buckets (set of 4), 90°, R_{max} 168 mm	4 x 400 ml		5000	4696	n/a	n/a
75003656	ClickSeal Biocontainment Lids for Round Buckets (set of 4)						
75003657	Replacement O-rings for Lids (set of 4)						
	Adapters for Round Buckets (sets of 4)						
No adapter needed	17 400 ml Polypropylene Bio-Bottle (75007585, pkg of 12)	4 x 400 ml	80 x 125				
75003788	18 250 ml Thermo Scientific Nalgene Oak Ridge Bottle	4 x 250 ml	62 x 135				
75003788	18 200 ml Thermo Scientific Nunc Conical Bottle + Nunc no. 377585	4 x 200 ml	62 x 125				
75003788	18 225 ml and 175 ml BD Falcon™ Conical Bottle + BD no. 352090	4 x 175 ml	62 x 125				
75003708	19 100 ml Round Bottom Open-Top Tube	4 x 100 ml	45 x 117				
75003707	20 50 ml DIN Round Bottom Tube	12 x 50 ml	34.5 x 105				
75003799	21 50 ml Round Bottom Tube	16 x 50 ml	28.5 x 114				
75003683	22 50 ml Conical Tube	16 x 50 ml	29.5 x 116				
75003703	23 30/25 ml DIN Round/Flat Bottom Tube	20 x 30 ml	25.5 x 108				
75003706	24 25 ml Universal Tube	12 x 20 ml	25 x 110				
75003682	25 15 ml Conical Tube	36 x 15 ml	17 x 121				
75003794	26 15 ml Blood Collection Tube (17 x 125 mm)	16 x 15 ml	15.5 x 131				
75003704	27 15 ml Round Bottom Tube (Sarstedt®)	40 x 15 ml	17 x 105				
75003798	28 14 ml Conical Urine Tube	28 x 14 ml	17 x 112				
75003681	29 10 ml Blood Collection or 15 ml Corex/Kimble Tube	56 x 10/15 ml	17 x 113				
75003680	30 5/7 ml Blood Collection Tube (Vacutainer®)	76 x 5/7 ml	13 x 110				
75003825	4.5/6 ml Blood Collection Tube (Greiner®)	64 x 4.5/6 ml	13 x 110				
75003793	31 3 ml RIA or Round Bottom Tube (without cap)	76 x 3/5 ml	11 x 110				
75003700	32 1.5/2 ml Conical Microtube	136 x 2 ml	11 x 45				





TX-750 Swinging Bucket Rotor¹

Thermo Scientific Rotors and Adapters


Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
75003607	TX-750 Swinging Bucket Rotor						
75003608	Round Buckets (set of 4), 90°, R_{max} 195 mm	4 x 750 ml		n/a	n/a	4700	4816
 75003609	ClickSeal Biocontainment Lids for Round Buckets (set of 4)						
75003610	Replacement O-rings for Lids (set of 4)						
	Adapters for Round Buckets (sets of 4 unless otherwise noted)						
No adapter needed 1	750 ml Polypropylene Bio-Bottle (75003699, pkg of 12)	4 x 750 ml	98 x 133				
Corning no. 431124	500 ml Corning® Conical Bottle	4 x 500 ml	98 x 133				
75003792 2	250 ml Corning Conical Bottle (in open buckets only)	4 x 250 ml	62.5 x 139				
75003710 3	250 ml Nalgene® Oak Ridge Bottle	4 x 250 ml	62.5 x 139				
75003710 3	225 ml and 175 ml BD Falcon Conical Bottle +BD no. 352090	4 x 225 ml	62.5 x 139				
75003710 3	200 ml Nunc™ Conical Bottle + Nunc no. 377585	4 x 200 ml	62.5 x 139				
75003710 3	175 ml Nalgene Bottle + Nalgene no. DS3126-0175	4 x 175 ml	62.5 x 139				
75003713 4	100 ml Round Bottom Open-Top Tube	8 x 100 ml	45 x 123				
75003714 5	50 ml Conical Tube (includes sealing vessel)*	12 x 50 ml	29.5 x 120				
75003638 6	50 ml Conical Tube	28 x 50 ml	29.5 x 120				
75003715 7	50 ml Round Bottom Tube	28 x 50 ml	29.5 x 120				
75003824 8	50 ml Conical or Skirted Tube	20 x 50 ml	29.5 x 120				
75003716 9	25 ml Universal Conical or Skirted Tube	28 x 25 ml	25.5 x 120				
75003639 10	15 ml Conical Tube	56 x 15 ml	17 x 122				
75003719 11	15 ml Blood Collection Tube (17 x 125 mm) (inner circle only)	32 x 15 ml	17 x 134				
75003718 12	14 ml Conical Urine Tube	48 x 14 ml	18 x 124				
75003719 11	10 ml Blood Collection or 15 ml Corex/Kimble Tube	84 x 10/15 ml	17 x 117				
75003723 13	5/7 ml or 4.5/6 ml Blood Collection Tube Blood	108 x 5/7 ml	13 x 116				
75003724 14	5 ml RIA or Round Bottom Tube (without cap)	148 x 5 ml	13 x 111				
75003732 14	5/7 ml Round Bottom Tube (without cap) with Decanting Aid	148 x 5/7 ml	13 x 111				
75003733 15	1.5/2 ml Conical Microtube	192 x 2 ml	11 x 50				
75008383 16	T-75 Nunc Easy Flask (set of 2)	4 x T-75	-				
75008384 17	T-25 Nunc Easy Flask (set of 2)	8 x T-25	-				

¹ Buckets and lids sold separately

*Sealed vessels can also be used with certified ClickSeal lids for double biocontainment protection.



Thermo Scientific Rotors and Adapters

Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
TX-750 Swinging Bucket Rotor (continued)							
75003614	18 Rectangular Buckets (set of 4), 90°, R _{max} 195 mm	4 x 250 ml		n/a	n/a	4500	4415
						4700 ³	4816 ³
						4300 ⁴	4031 ⁴
	75003615 ClickSeal Biocontainment Lids for Rectangular Buckets (set of 4)						
75003616	Replacement O-rings for Lids (set of 4)						
Adapters for Rectangular Buckets (sets of 4)							
75003737	19 250 ml Flat Bottom Bottle	4 x 250 ml	63 x 130				
75003738	20 150 ml Round Bottom Open-Top Tube	4 x 150 ml	56 x 124				
75003742	21 100 ml Round Bottom Open-Top Tube	4 x 100 ml	46 x 124				
75003685	22 50 ml Conical Tube	20 x 50 ml	30 x 121				
75003749	23 50 ml Round Bottom Tube	12 x 50 ml	35 x 121				
75003750	24 45 ml Flat/Round Tube	16 x 45 ml	30 x 121				
75003755	25 25 ml Universal Tube	16 x 25 ml	26 x 121				
75003756	26 25 ml DIN Round Bottom Tube	24 x 25 ml	26 x 121				
75003684	27 15 ml Conical Tube	48 x 15 ml	17 x 120				
75003758	28 14 ml Flanged Round Bottom Tube	36 x 14 ml	18 x 121				
75003759	29 15 ml Conical Urine Tube	36 x 15 ml	17 x 124				
75003767	30 10 ml Blood Collection or 15 ml DIN Tube	64 x 10/15 ml	17 x 118				
75003768	31 5/7 ml or 4.5/6 ml Blood Collection Tube	80 x 5/7 ml	14 x 118				
75003769	32 5/7 ml Round Bottom Tube	112 x 5/7 ml	13 x 119				
75003770	33 1.5/2 ml Conical Microtube	224 x 2 ml	11 x 50				
75003795 (set of 2)	34 Carriers for microplates and T-75 Horizontal Flasks, 4 x 4 Standard or including plate trays and neoprene pad, 90° R _{max} 155 mm	4 x 4 Standard or 4 x 1 Deepwell	H _{max} : 60 mm	n/a	n/a	4700	3828

³ 230 V refrigerated centrifuge

⁴ 120 V ventilated and refrigerated centrifuge



Thermo Scientific Rotors and Adapters

Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
75003667	BIOLiner High Capacity Rotor						
75003668	BIOLiner Buckets (set of 4), 90°, R_{max} 200 mm	4 x 750 ml		n/a	n/a	3500	2739
75003669	ClickSeal Biocontainment Lids for BIOLiner Buckets (set of 4)						
75003688	Replacement O-rings for Lids						
	Adapters for BIOLiner Buckets (sets of 4)						
75003692	1 750 ml Flat Bottom Bottle with all round adapters listed for TX-750 round bucket	4 x 750 ml	98 x 124				
75003692	1 500 ml Corning Conical Bottle + Corning cushion no. 431124	4 x 500 ml	98 x 124				
75003691	2 250 ml Corning Conical Bottle ⁵	4 x 250 ml	62 x 145				
75003675	3 250 ml Nalgene Oak Ridge Bottle	8 x 250 ml	62 x 130				
75003675	3 225 ml and 175 ml BD Falcon Conical Bottle + BD no. 352090	8 x 225 ml	62 x 130				
75003675	3 200 ml Nunc Conical Bottle + Nunc cushion no. 377585	8 x 175 ml	62 x 130				
75003674	4 50 ml Conical Tube	40 x 50 ml	30 x 120				
75003673	5 15 ml Conical Tube	88 x 15 ml	17.5 x 121				
75003697	9/10 ml Sarstedt Tube	100 x 9/10 ml	17 x 110				
75003672	6 10 ml Blood Collection Tube	148 x 10 ml	17 x 110				
75003671	7 5/7 ml Blood Collection Tube	196 x 5/7 ml	14 x 110				
75003709	4.5/6 ml Blood Collection Tube (Greiner)	164 x 4.5/6 ml	14 x 110				
75003796	(set of 2) Microplate Carriers for BIOLiner Rotor, R_{max} 179 mm	4 x 4 Standard or	H_{max}: 60 mm				
75003670	(set of 4)	4 x 1 Deepwell		n/a	n/a	3500	2451
75003689	Sealing Lids for BIOLiner Microplate Carriers (set of 4)						
75003626	Replacement O-rings for Microplate Carrier Lids (set of 4)						
75003606	HIGHPlate 6000 Rotor, R_{max} 139 mm	2 x 5 Standard	H_{max}: 80 mm	n/a	n/a	6300	6168
75003665	Fiberlite H3-LV Large Volume Swinging Bucket Rotor, 90°, R_{max} 189mm	4 x 7 Standard or	H_{max}: 100 mm	n/a	n/a	3600	2738
		2 x 4 Deepwell					
75003624	M-20 Microplate Rotor, 90°, R_{max} 127 mm, includes 2 buckets and 2 adapters	2 x 3 Standard or	H_{max}: 65 mm	4000	2272	4000	2272
75003625	Sealed Carriers, includes trays and lids (set of 2)	2 x 1 Deepwell	H_{max}: 45 mm				
75002011	Replacement Sealing Lids (set of 2)						
75002012	Replacement O-rings (set of 4 with grease)						

¹ Buckets and lids sold separately

⁴ 120 V ventilated and refrigerated centrifuge

⁵ In open buckets only
































BIOShield 720

BIOShield 1000A

M-20 Microplate

Thermo Scientific Rotors and Adapters

Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
 75003621	BIOShield 720 High Speed Swinging Bucket Rotor, 90°, R_{max} 162 mm	4 x 180 ml		6300	7188	n/a	n/a
	Adapters for BIOShield 720 Rotor (sets of 4)						
75003693	180 ml Polypropylene Screw Cap Bottle (75003800, pkg of 4)	4 x 180 ml	56 x 123				
75003813	 150 ml Round Bottom Open-Top Tube	4 x 150 ml	50 x 122				
75003814	 100 ml Round Bottom Open-Top Tube	4 x 100 ml	44 x 120				
75003677	 50 ml Conical Tube	8 x 50 ml	34.5 x 116				
75003816	 50 ml DIN Round Bottom Tube	8 x 50 ml	34 x 109				
75003818	 25 ml Universal Tube	16 x 25 ml	22.5 x 105				
75003817	 25 ml DIN Round Bottom Tube	20 x 25 ml	25 x 107				
75003678	 15 ml Conical Tube	24 x 15 ml	17 x 120				
75003820	 15 ml Sarstedt Tube	44 x 15 ml	17 x 103				
75003701	 10 ml Blood Collection Tube	48 x 10 ml	17 x 105				
75003821	 5/7ml Blood Collection Tube	48 x 5/7 ml	13 x 106				
75003822	 5/7ml Round Bottom Open-Top Tube	80 x 5/7 ml	13 x 104				
75003823	 1.5/2ml Conical Microtube	160 x 2 ml	11 x 45				
 75003603	BIOShield 1000A High Speed Swinging Bucket Rotor, 90°, R_{max} 178 mm	4 x 250 ml		n/a	n/a	6000	7164
	Adapters for BIOShield 1000A Rotor (sets of 4)						
75003737	 250 ml Nalgene Flat Bottom Bottle	4 x 250 ml	62.5 x 124				
75003738	 150 ml Round Bottom Open-Top Tube	4 x 150 ml	56.5 x 119				
75003742	 100 ml Round Bottom Open-Top Tube	4 x 100 ml	45.5 x 120				
75003643	 50 ml Conical Tube	16 x 50 ml	29.5 x 117				
75003749	 50 ml Round Bottom Tube	12 x 50 ml	35 x 113				
75003750	 45 ml Flat/Round Tube	16 x 45 ml	30 x 113				
75003755	 25 ml Universal Tube	16 x 25 ml	26 x 113				
75003756	 25 ml DIN Round Bottom Tube	24 x 25 ml	25.5 x 113				
75003642	 15 ml Conical Tube	36 x 15 ml	17 x 121				
75003758	 14 ml Flanged Round Bottom Tube	36 x 14 ml	18 x 113				
75003759	 15 ml Conical Urine Tube	36 x 15 ml	17 x 115				
75003767	 10 ml Blood Collection or 15 ml DIN Tube	64 x 10/15 ml	17 x 109				
75003768	 5/7 ml Blood Collection Tube	80 x 5/7 ml	14 x 109				
75003769	 5/7 ml Round Bottom Tube	112 x 5/7 ml	13 x 110				
75003770	 1.5/2 ml Conical Microtube	224 x 2 ml	11 x 50				

Fixed Angle Rotors



Fiberlite F14-6x250LE



Fiberlite F15-6x100y



Fiberlite F13-14x50cy



Fiberlite F15-8x50cy



CLINIConic

Thermo Scientific Rotors and Adapters

Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
75003662	Fiberlite F14-6x250LE Fixed Angle Rotor, 23°, R_{max} 137 mm	6 x 250 ml	62 x 125	n/a	n/a	11000	18533
021-062153	O-ring Refresher Kit					10000⁴	15317⁴
	Adapters for F14-6x250LE Rotor (sold separately unless otherwise noted)						
75100136	50 ml Conical Tube (set of 2)	6 x 50 ml	30 x 121				
010-0138	50 ml Round Bottom Tube (set of 2)	6 x 50 ml	30 x 121				
00449	30 ml Glass Round Bottom Tube	18 x 30 ml	24 x 105				
75101073	15 ml Conical Tube	30 x 15 ml	17 x 121				
00389	10 ml Round Bottom Tube	42 x 10 ml	17 x 110				
00369 + 00456	7 ml Round Bottom Tube	30 x 7 ml	14 x 110				
00388	5 ml Round Bottom Tube	72 x 5 ml	13 x 80				
75003698	Fiberlite F15-6x100y Fixed Angle Rotor, 25°, R_{max} 98 mm	6 x 100 ml	38 x 105	15000	24652	15000	24652
021-069031	O-ring Refresher Kit						
	Adapters for F15-6x100y Rotor (sold separately)						
No adapter needed	94 ml Nalgene Tube	6 x 94 ml	38 x 105				
75003103	50 ml Conical Tube	6 x 50 ml	30 x 121				
75003095	15 ml Conical Tube	6 x 15 ml	17 x 123				
75003102	50 ml Round Bottom Tube	6 x 50 ml	30 x 117				
75003094	38 ml Round Bottom Tube	6 x 38 ml	26 x 110				
76002906	16 ml Round Bottom Tube	6 x 16 ml	18 x 123				
75003093	12 ml Round Bottom Tube	12 x 12 ml	16 x 95				
75003092	6.5 ml Round Bottom Tube	12 x 6.5 ml	13 x 114				
75003091	3.5 ml Round Bottom Tube	24 x 3.5 ml	11 x 100				
76002905	1.5/2 ml Conical Microtube	24 x 2 ml	11 x 40				
75003661	Fiberlite F13-14x50cy Fixed Angle Rotor, 34°, R_{max} 153 mm	14 x 50 ml	30 x 121	8500	12359	10000	17105
021-149027	O-ring Refresher Kit					9250⁴	14636⁴
	Adapters for F13-14x50cy Rotor (sold separately)						
010-0378	15 ml Conical Tube (BD and Corning)	14 x 15 ml	17 x 121				
010-1340	15 ml Conical Tube (Nunc) and Filtration Devices	14 x 50 ml	17 x 121				
75003663	Fiberlite F15-8x50cy Fixed Angle Rotor, 25°, R_{max} 104 mm	8 x 50 ml	30 x 121	14500	24446	14500	24446
021-085077	O-ring Refresher Kit			14000⁴	22789⁴		
	Adapters for F15-8 x 50cy Rotor (sold separately)						
010-0378	15 ml Conical Tube (BD and Corning)	8 x 15 ml	17 x 121				
010-1340	15 ml Conical Tube (Nunc) and Filtration Devices	14 x 50 ml	17 x 121				
75003623	CLINIConic Fixed Angle Rotor, 37°, R_{max} 140 mm	30 x 15 ml		5650	4997	n/a	n/a
	Adapters for CLINIConic Rotor						
No adapter needed	15 ml Round/Conical Bottom Tube	30 x 15 ml	16.5 x 131				
75003702	10 ml Round Bottom Tube	30 x 10 ml	16.5 x 95				
11172596	7 ml Round Bottom or Blood Collection Tube (each)	30 x 7 ml	16.5 x 131				
11172595	5 ml Round Bottom or Blood Collection Tube (each)	30 x 5 ml	13 x 95				



8 x 50 Sealed



HIGHConic II



Fiberlite F21-48x2



Microliter 30 x 2



Microliter 48 x 2

Thermo Scientific Rotors and Adapters

Cat. No	Description	Rotor Capacity (Places x Volume)	Max Tube Dimensions (Ø x L, mm)	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R	
				Max Speed (rpm)	Max RCF (xg)	Max Speed (rpm)	Max RCF (xg)
75003694	8 x 50 ml Individually Sealed Fixed Angle Rotor, 45°, R_{max} 143 mm	8 x 50 ml		6700	7177		
75003689	Replacement O-rings (set of 12)			6500⁴	6755⁴	n/a	n/a
	Adapters for 8 x 50 ml Sealed Rotor						
No adapter needed	50 ml Conical Tube	8 x 50 ml	29.5 x 116				
75003620	HIGHConic II Aluminum Fixed Angle Rotor, 45°, R_{max} 126 mm	6 x 94 ml	38 x 105	10350	15090	10350	15090
75003058	Replacement Sealing O-rings (set of 2 with grease)						
	Adapters for HIGHConic II Rotor (sold separately)						
No adapter needed	94 ml Round Bottom Tube	6 x 94 ml	38 x 105				
75003103	50 ml Conical Tube	6 x 50 ml	29.5 x 117				
75003095	15 ml Conical Tube	6 x 15 ml	17 x 123				
75003102	50 ml Round Bottom Tube	6 x 50 ml	29.4 x 117				
75003094	38 ml Round Bottom Tube	6 x 38 ml	26 x 110				
76002906	16 ml Round Bottom Tube	6 x 16 ml	18 x 123				
75003093	12 ml Round Bottom Tube	12 x 12 ml	16 x 95				
75003092	6.5 ml Round Bottom Tube	12 x 6.5 ml	13.5 x 114				
75003091	3.5 ml Round Bottom Tube	24 x 3.5 ml	11 x 100				
76002905	1.5/2 ml Conical Microtube	24 x 2 ml	11 x 40				
75003664	Fiberlite F21-48x2 Fixed Angle Rotor, 45°, R_{max} 97 mm	48 x 2 ml	11 x 50	15200	25055	15200	25055
021-489021	O-ring Refresher Kit						
	Adapters for F21-48 x 2 Rotor (sets of 24)						
76003750	0.2 ml PCR Tube	48 x 0.25 ml	6 x 20				
76003758	0.5 ml Microtube	48 x 0.5 ml	8 x 44				
76003759	0.25 ml Microtube	48 x 0.25 ml	6 x 46				
75003652	Microliter 30 x 2 Sealed Aluminum Fixed Angle Rotor, 45°, R_{max} 100 mm	30 x 2 ml	11 x 50	15200	25830	n/a	n/a
	Adapters for Microliter 30 x 2 Rotor (sets of 24)						
76003750	0.2 ml PCR Tube	30 x 0.25 ml	6.5 x 20				
76003758	0.5 ml Microtube	30 x 0.5 ml	8 x 44				
76003759	0.25 ml Microtube	30 x 0.25 ml	6 x 46				
75003602	Microliter 48 x 2 Sealed Aluminum Fixed Angle Rotor, 45°, R_{max} 98 mm	48 x 2 ml	11 x 50	15200	25314	15200	25314
	Adapters for Microliter 48x2 Rotor (sets of 24)						
76003750	0.2 ml PCR Tube	48 x 0.25 ml	6.5 x 20				
76003758	0.5 ml Microtube	48 x 0.5 ml	8 x 44				
76003759	0.25 ml Microtube	48 x 0.25 ml	6 x 46				

⁴ 120 V ventilated and refrigerated centrifuge

Thermo Scientific
Heraeus Multifuge Centrifuge Series



Specifications	Heraeus Multifuge X1/X1R		Heraeus Multifuge X3/X3R		Heraeus Multifuge X3F/X3FR	
Swinging Bucket Rotors						
Max Capacity	4 x 400 ml (with TX-400 rotor)		4 x 750 ml (with TX-750 and BIOLiner rotors)			
Max Speed	6300 rpm (with BIOShield 720 rotor)		6000 rpm (with BIOShield 1000A rotor)			
Max RCF	7188 xg (with BIOShield 720 rotor)		7164 xg (with BIOShield 1000A rotor)			
Fixed Angle Rotors						
Max Capacity	6 x 100 ml (with F15-6x100 rotor)		6 x 250 ml (with F14-6x250LE rotor)			
Max Speed	15200 rpm (with microvolume rotors)		15200 rpm (with microvolume rotors)			
Max RCF	25830 xg (with 30x2 ml rotor)		25314 xg (with 48x2 ml rotor)			
Control System	Microprocessor					
Drive System	Direct, brushless induction low profile motor					
Rotor Locking System	Auto-Lock III					
Imbalance Detection System	SMARTSpin					
Programs	99 (5 with direct access key)					
Temperature Set Range*	-10 °C to +40 °C					
Pre-Cooling Function*	Yes, with direct button					
Refrigeration System*	CFC free					
Pulse (Short) Run	Yes					
Acceleration / Deceleration Rates	9 / 10					
Centrifugation Chamber	Stainless Steel					
Max Timer Range	9h, 99min + continuous					
Sound Level (dBA) with swinging bucket rotor at top speed	< 61/ < 55* (TX-400)		< 61/ < 57* (TX-750)		< 64/ < 58* (TX-750)	
with F15-8x50 rotor at top speed	< 65		< 64		< 55/ < 57*	
Other Features	Certified ClickSeal biocontainment system, language selection, motorized lid latch					
Max Power Consumption (W)	120 V	850/1200*		1400		
	230 V	1010/1400*		1700/1950*		
Max Heat Output (BTU/h)	120 V	2901/4096*		4776		
	230 V	3447/4776*		5800/6653*		
Dimensions						
Height (lid open)	87 cm / 34.3 in		90 cm / 35.4 in		138.5 cm / 54.5 in 139 cm* / 54.7 in*	
Height (lid closed)	36 cm / 14.2 in		36 cm / 14.2 in		79 cm / 31.1 in	
Width	44 cm / 17.3 in 62.3 cm* / 24.5 in*		56.5 cm / 22.2 in 74.5 cm* / 29.3 in*		56.5 cm / 22.2 in	
Depth	60.5 cm / 23.8 in		67 cm / 26.4 in		67 cm / 26.4 in	
Weight	57.5 kg / 126.8 lb 91.5 kg* / 201.7 lb*		86 kg / 189.6 lb 116 kg* / 255.7 lb*		152.5 kg / 336.2 lb 142.5 kg* / 314.2 lb*	
Technical Standards	IEC 61010-1, IEC 61010-2-020, IEC 61010-2-101, 230 V only: EN 292, EN 61326, EN 55011B					
Certifications	UL listed, CSA certified, CE marked, IVD compliant, Certified Biosafety, RoHS compliant, WEE compliant					
Ordering Information						
Heraeus Multifuge, ventilated, 230 V, 50/60 Hz	75004210		75004500		75004530	
Heraeus Multifuge, ventilated, 120 V, 60 Hz	75004211		75004501		75004531	
Heraeus Multifuge, refrigerated, 230 V, 50/60 Hz	75004250		75004515		75004536	
Heraeus Multifuge, refrigerated, 120 V, 60 Hz	75004251		75004516		75004537	

*Refrigerated models

The quality of the procedures used to design, manufacture, sell and service the Heraeus Multifuge X1 and Multifuge X3 centrifuge series is certified and maintained in accordance to the ISO 13485 international standard.

Our effort to continuously improve our formalized business processes is certified and regularly audited in conformance with ISO 9000 family of Quality Standards.

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