



Centrifuges

Powerful at every turn

Multifuge Pro and Megafuge Plus
General Purpose Centrifuge Series

Multifuge X Pro and Megafuge ST Plus Centrifuge Series

Performance, power and versatility

Thermo Scientific™ Multifuge™ X Pro and Megafuge™ ST Plus General Purpose Centrifuges are designed to help provide exceptional performance, power and versatility through innovations to support efficiency across applications.

With fixed-angle rotor RCF (Relative Centrifugal Force) of over 25,000 x g, and swinging bucket rotor RCF of over 7,000 x g, even the toughest separations can be completed.

Scientists working across biopharmaceutical, academic research and clinical diagnostic applications can choose between ventilated or refrigerated 1.6 L (4 x 400 ml) and 4 L (4 x 1,000 ml) floor and bench models.



Features and benefits





User interface



Multifuge X Pro touchscreen interface

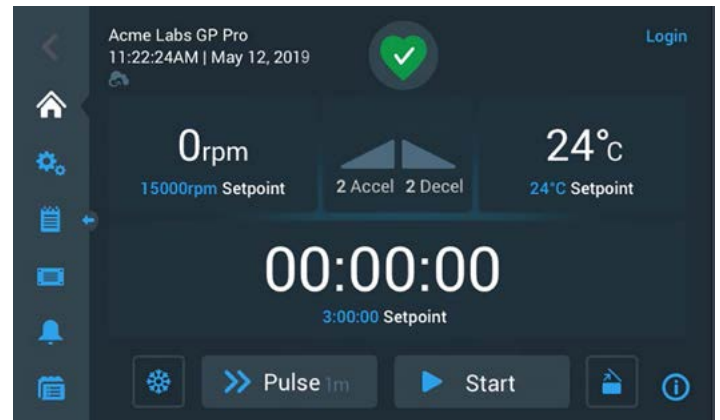


Megafuge ST Plus user interface

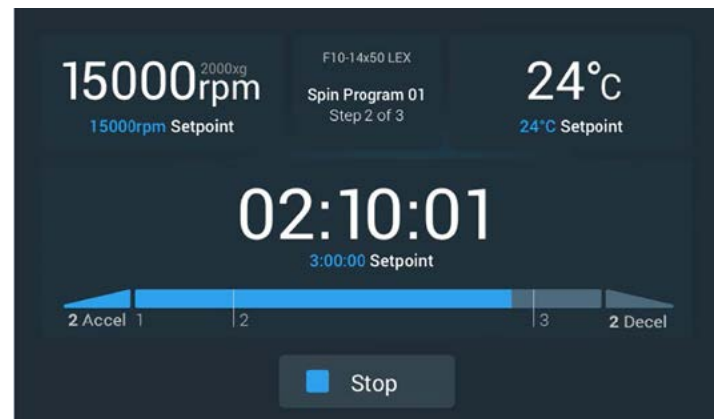
Simple touchscreen programming

Discover the Multifuge X Pro touchscreen features including:

- Easily accessible menu bar
- Centrifuge health icon for at-a-glance monitoring
- Time-saving pre-temp button
- Quick spins
- Useful information icon for additional support
- Thermo Scientific™ Accumulated Centrifugal Effect (ACE™) integrator function for increased reproducibility
- Lighthouse mode to easily monitor your run progress and program end-of-run alerts



Simple touchscreen programming



Lighthouse mode



Rotor exchange

Thermo Scientific™ Auto-Lock™ Rotor Exchange

Helps save time for fast results:

- Secure, ergonomic push-button rotor exchange in as little as three seconds
- Trouble-free installation and removal with no tools required
- Full chamber access for cleaning convenience and helps minimize the risk of contamination
- Flexibility to quickly switch between applications and evolve with changing laboratory needs





Safety and ergonomics



Biocontainment lids

Thermo Scientific™ ClickSeal™ Biocontainment Lids One-handed sample protection

- Biocontainment sealing options for glove-friendly, one-handed open/close capability are ergonomically designed for both right and left-handed operations
- Easy operation for all laboratory users, eliminating multi-turn screw caps and complicated high pressure clips
- Biocontainment certification by National Institute for Health Protection, Porton Down, UK or TÜV NORD CERT GmbH, Germany
- Audible and visual closure cues enhance safety and security





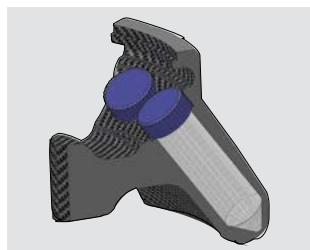
Rotor versatility and carbon fiber technology

Thermo Scientific™ Fiberlite™ Carbon Fiber Rotors

Excellent ergonomics and enhanced performance

- Fiberlite™ rotor/lid combinations offer protection to the user, the centrifuge and the samples during centrifugation
- Outstanding durability provided by carbon fiber construction is supported by a 15 year Fiberlite rotor warranty and no limitation in cycles of use
- Carbon fiber offers a unique ability to mold each cavity to form fit disposable conical tubes, bottles and other consumables, enabling high g-force spins for tougher separations¹ and hybrid superspeed capabilities in a general purpose centrifuge
- Excellent ergonomics driven by lightweight construction, integrated handle design and Auto-Lock rotor exchange

Centrifuge models	Unique rotor options	Fiberlite options
Multifuge X4, X4R, X4F, X4FR (Pro)	18	7
Megaforce ST4, ST4R, ST4F, ST4FR (Plus)	13	3
Multifuge X1, X1R (Pro)	17	5
Megaforce ST1, ST1R (Plus)	15	3



Fiberlite rotor cavities are molded to the exact shape of many disposable conical tubes for maximum support; 50 mL conical tube shown here. In addition, a cap support is designed to relieve high g-forces.

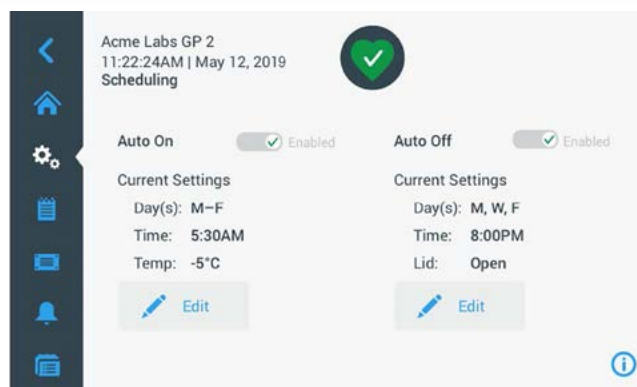


Energy efficiency

Scheduling features and carbon fiber rotors help save energy

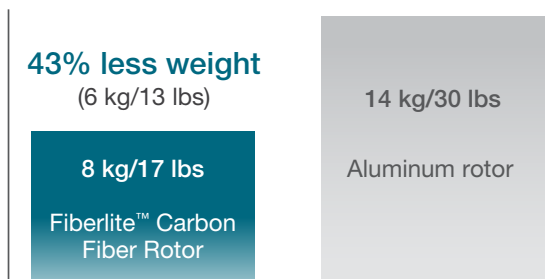
Make your lab more sustainable by saving energy

- Scheduling capability promotes energy savings and enables pre-programmed start-up of compressor for temperature-ready centrifuge as soon as you arrive in the lab
- Green compressor on/off feature with shut-down programming can extend compressor life and reduce energy costs
- Fiberlite rotors weigh up to 60% less than metal equivalent rotors and therefore help accelerate/decelerate faster, helping reduce energy consumption per run²



Less weight of carbon fiber rotors:

Weight comparison of fully loaded 6 x 250 mL capacity floor model rotors



Rotor weight

¹ Compared to metal rotors.

² For additional detail, view the Green Fact Sheet from 2023 at <https://assets.thermofisher.com/TFS-Assets/LPD/Product-Information/PG2030-PJT4622-COL33722-Centrifuges-FactSheet-Americas-FHR.pdf>

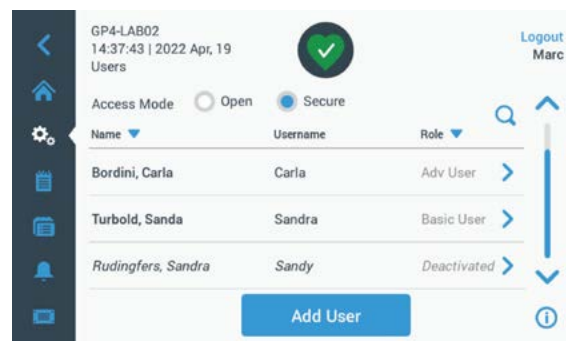


Connectivity and data management

Thermo Scientific™ SECURE-Spin™ Mode

Match the centrifuges to your compliance and sample tracking needs

- Enables advanced and secure control features in the **X Pro centrifuges** by enabling 21 CFR Part 11 data management compliance and traceability
- Assign user rights and create up to 120 users profiles
- Traceable documentation provides audit trail for setting and program changes
- Compatible with Thermo Scientific™ Centri-Log™ Plus Data Management Software



Models for cell therapy manufacturing needs

Thermo Scientific™ General Purpose Pro Centrifuge CTS™ Series

Product and documentation package for cell therapy research and manufacturing needs

The General Purpose Pro Centrifuges Cell Therapy Systems Series consists of our popular Pro centrifuge models (4 L), extensive documentation, and certifications. Our compliance services support your Good Manufacturing Practice (GMP) needs.

The CTS Series helps you get up and running fast, stay compliant, navigate regulatory audits, and stay on schedule as you take your cell therapy from discovery to clinical research and commercial manufacturing.

Learn more at thermofisher.com/ctscentrifuges



Product



Documentation package



Compliance services

Multifuge X4 and X4R Pro Centrifuges



4 L Benchtop centrifuges (Pro series): specifications and ordering information

Specifications	Multifuge X4 Pro		Multifuge X4R Pro	
	IVD	General Use Only	IVD	General Use Only
Swinging buckets rotors				
Maximum capacity	4 x 1,000 mL with TX-1000 rotor			
Maximum speed	6,100 rpm with H-Flex HS4 rotor			
Maximum RCF	7,197 x g with H-Flex HS4 rotor			
Fixed angle rotors				
Maximum capacity	6 x 250 mL with F14-6x250LE rotor			
Maximum speed	15,200 rpm with F21-48x2, Microliter 48x2 or Microliter 30x2			
Maximum RCF	25,830 x g with Microliter 30x2			
Centrifuge details				
Control system	Microprocessor			
Drive system	Direct, brushless induction low profile motor			
Accel/decel profiles	Choices of 9 accel / 10 decel rates			
Material	Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; centrifuge feet: rubber			
Safety features	SMARTSpin Imbalance detection, finger-pinch prevention, crash-proof construction			
Warranty	5 years limited (2 years standard warranty + 3 additional years on motor and refrigeration)			
Includes	Printed English user manual, USB stick with 28 languages of user manual, corrosion resistance oil (70009824), power cord, declaration of conformity			
Temperature range	N/A		-10°C to +40°C	
Number of compatible rotors	18		18	
Display details				
Display	Full color touch screen interface			
Run time	Max 99h, 59min, 59sec; also with continuous and customizable pulse			
Speed	Increments of 1 rpm / 1 x g			
Timer	Count up or down in increments of 1 second			
Temperature	N/A		Sample temperature in increments of 1 degree	
Program storage	Up to 100 run programs with step programming			
Programmability	Via easy access touch screen menu			
Dimensions, weight				
Width (inches) exterior	22.3		29.4	
Width (cm) exterior	56.6		74.6	
Depth (inches) exterior	27.2		27.2	
Depth (cm) exterior	69.0		69.0	
Height (inches) exterior	14.3		14.2	
Height (cm) exterior	36.2		36.1	
Height (inches) open cover	33.9		33.9	
Height (cm) open cover	86.1		86.0	
Footprint dimensions (inches)	22.3 x 23.1		29.4 x 23.0	
Footprint dimensions (cm)	56.6 x 58.8		74.6 x 58.4	
Net weight (lbs)	196		265	
Net weight (kgs)	89		120	
Certifications and standards				
IVD/MD	√		√	
Certifications	EN/UL/IEC 61010-1, EN/UL/IEC 61010-2-020 and 61010-2-101, EN/UL/IEC 61326-1, EN/UL/IEC 61326-2-6, FCC part 15			
Standards	ISO 14971, ISO 13485, ISO 9001			
Cleanroom compatibility	Class ISO 7 according to DIN EN ISO 14644-1			
Ordering information	Multifuge X4 Pro		Multifuge X4R Pro	
	IVD	General Use Only	IVD	General Use Only
230V§	75009500*	75009900	75009515* / 75009615*§	75009915 / 75009815§
120V	75009501*	N/A	75009516*	N/A

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.

§ 220V / 60 Hz [Korea, etc.]

Megafuge ST4 and ST4R Plus Centrifuges



4 L Benchtop centrifuges (Plus series): specifications and ordering information

Specifications	Megafuge ST4 Plus		Megafuge ST4R Plus	
	IVD	General Use Only	IVD	General Use Only
Swinging buckets rotors				
Maximum capacity	4 x 1,000 mL with TX-1000 rotor			
Maximum speed	6,100 rpm with H-Flex HS4 rotor			
Maximum RCF	7,197 x g with H-Flex HS4 rotor			
Fixed angle rotors				
Maximum capacity	6 x 100 mL with F15-6x100y or F10-6x100 LEX rotor			
Maximum speed	15,200 rpm with F21-48x2, Microliter 48x2 or Microliter 30x2			
Maximum RCF	25,830 x g with Microliter 30x2			
Centrifuge details				
Control system	Microprocessor			
Drive system	Direct, brushless induction low profile motor			
Accel/decel profiles	Choices of 9 accel / 10 decel rates			
Material	Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; centrifuge feet: rubber			
Safety features	SMARTSpin imbalance detection, finger-pinch prevention, crash-proof construction			
Warranty	5 years limited (2 years standard warranty + 3 additional years on motor and refrigeration)			
Includes	Printed English user manual, USB stick with 28 languages of user manual, corrosion resistance oil (70009824), power cord, declaration of conformity			
Temperature range	N/A		-10°C to +40°C	
Number of compatible rotors	13		13	
Display details				
Display	Push button and high contrast LCD interface			
Run time	Max 9h, 59min; also with continuous and pulse modes			
Speed	Increments of 50 rpm / 50 x g			
Timer	Count down only in increments of 1 second (from 9 min 59 seconds) and in increments of 1 minute (>10 min)			
Temperature	N/A		Sample temperature in increments of 1 degree	
Program storage	Up to 6 run programs			
Programmability	Via 6 direct access buttons			
Dimensions, weight				
Width (inches) exterior	22.3		29.4	
Width (cm) exterior	56.6		74.6	
Depth (inches) exterior	27.2		27.2	
Depth (cm) exterior	69.0		69.0	
Height (inches) exterior	14.3		14.2	
Height (cm) exterior	36.2		36.1	
Height (inches) open cover	33.9		33.9	
Height (cm) open cover	86.1		86.0	
Footprint dimensions (inches)	22.3 x 23.1		29.4 x 23.0	
Footprint dimensions (cm)	56.6 x 58.8		74.6 x 58.4	
Net weight (lbs)	196		265	
Net weight (kgs)	89		120	
Certifications and standards				
IVD/MD	√		√	
Certifications	EN/UL/IEC 61010-1, EN/UL/IEC 61010-2-020 and 61010-2-101, EN/UL/IEC 61326-1, EN/UL/IEC 61326-2-6, FCC part 15			
Standards	ISO 14971, ISO 13485, ISO 9001			
Cleanroom compatibility	Class ISO 7 according to DIN EN ISO 14644-1			
Ordering information	Megafuge ST4 Plus		Megafuge ST4R Plus	
	IVD	General Use Only	IVD	General Use Only
230V [§]	75009503*	75009903	75009518* / 75009618* [§]	75009918 / 75009818 [§]
120V	75009504*	N/A	75009519*	N/A

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.

§ 220V / 60 Hz [Korea, etc.]

Multifuge X4F and X4FR Pro Centrifuges



4 L Floor model centrifuges (Pro series): specifications and ordering information

Specifications	Multifuge X4F Pro		Multifuge X4FR Pro	
	IVD	General Use Only	IVD	General Use Only
Swinging buckets rotors				
Maximum capacity	4 x 1,000 mL with TX-1000 rotor			
Maximum speed	6,100 rpm with H-Flex HS4 rotor			
Maximum RCF	7,197 x g with H-Flex HS4 rotor			
Fixed angle rotors				
Maximum capacity	6 x 250 mL with F14-6x250LE rotor			
Maximum speed	15,200 rpm with F21-48x2, Microliter 48x2 or Microliter 30x2			
Maximum RCF	25,830 x g with Microliter 30x2			
Centrifuge details				
Control system	Microprocessor			
Drive system	Direct, brushless induction low profile motor			
Accel/decel profiles	Choices of 9 accel / 10 decel rates			
Material	Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; centrifuge feet: lockable casters			
Safety features	SMARTSpin imbalance detection, finger-pinch prevention, crash-proof construction			
Warranty	5 years limited (2 years standard warranty + 3 additional years on motor and refrigeration)			
Includes	Printed English user manual, USB stick with 28 languages of user manual, corrosion resistance oil (70009824), power cord, declaration of conformity			
Temperature range	N/A		-10°C to +40°C	
Number of compatible rotors	18		18	
Display details				
Display	Full color touch screen interface			
Run time	Max 99h, 59min, 59sec; also with continuous and customizable pulse			
Speed	Increments of 1 rpm / 1 x g			
Timer	Count up or down in increments of 1 second			
Temperature	N/A		Sample temperature in increments of 1 degree	
Program storage	Up to 100 run programs with step programming			
Programmability	Via easy access touch screen menu			
Dimensions, weight				
Width (inches) exterior	22.3		22.3	
Width (cm) exterior	56.6		56.6	
Depth (inches) exterior	27.2		27.2	
Depth (cm) exterior	69.0		69.0	
Height (inches) exterior	32.8		32.8	
Height (cm) exterior	83.5		83.5	
Height (inches) open cover	54.1		54.1	
Height (cm) open cover	135		135	
Footprint dimensions (inches)	22.3 x 23.1		22.3 x 23.0	
Footprint dimensions (cm)	56.6 x 58.8		56.6 x 58.4	
Net weight (lbs)	335		319	
Net weight (kgs)	152		145	
Certifications and standards				
IVD/MD	√		√	
Certifications	EN/UL/IEC 61010-1, EN/UL/IEC 61010-2-020 and 61010-2-101, EN/UL/IEC 61326-1, EN/UL/IEC 61326-2-6, FCC part 15			
Standards	ISO 14971, ISO 13485, ISO 9001			
Cleanroom compatibility	Class ISO 7 according to DIN EN ISO 14644-1			
Ordering information	Multifuge X4F Pro		Multifuge X4FR Pro	
	IVD	General Use Only	IVD	General Use Only
230V§	75009530*	75009930	75009536*	75009936
120V	75009531*	N/A	75009537*	N/A

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.

§ 220V / 60 Hz [Korea, etc.]

Megafuge ST4F and ST4FR Plus Centrifuges



4 L Floor model centrifuges (Plus series): specifications and ordering information

Specifications	Megafuge ST4F Plus		Megafuge ST4FR Plus	
	IVD	General Use Only	IVD	General Use Only
Swinging buckets rotors				
Maximum capacity	4 x 1,000 mL with TX-1000 rotor			
Maximum speed	6,100 rpm with H-Flex HS4 rotor			
Maximum RCF	7,197 x g with H-Flex HS4 rotor			
Fixed angle rotors				
Maximum capacity	6 x 100 mL with F15-6x100y or F10-6x100 LEX rotor			
Maximum speed	15,200 rpm with F21-48x2, Microliter 48x2 or Microliter 30x2			
Maximum RCF	25,830 x g with Microliter 30x2			
Centrifuge details				
Control system	Microprocessor			
Drive system	Direct, brushless induction low profile motor			
Accel/decel profiles	Choices of 9 accel / 10 decel rates			
Material	Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; centrifuge feet: lockable casters			
Safety features	SMARTSpin imbalance detection, finger-pinch prevention, crash-proof construction			
Warranty	5 years limited (2 years standard warranty + 3 additional years on motor and refrigeration)			
Includes	Printed English user manual, USB stick with 28 languages of user manual, corrosion resistance oil (70009824), power cord, declaration of conformity			
Temperature range	N/A		-10°C to +40°C	
Number of compatible rotors	13		13	
Display details				
Display	Push button and high contrast LCD interface			
Run time	Max 9h, 59min; also with continuous and pulse modes			
Speed	Increments of 50 rpm / 50 x g			
Timer	Count down only in increments of 1 second (from 9 min 59 seconds) and in increments of 1 minute (>10 min)			
Temperature	N/A		Sample temperature in increments of 1 degree	
Program storage	Up to 6 run programs			
Programmability	Via 6 direct access buttons			
Dimensions, weight				
Width (inches) exterior	22.3		22.3	
Width (cm) exterior	56.6		56.6	
Depth (inches) exterior	27.2		27.2	
Depth (cm) exterior	69.0		69.0	
Height (inches) exterior	32.8		32.8	
Height (cm) exterior	83.5		83.5	
Height (inches) open cover	54.1		54.1	
Height (cm) open cover	135		135	
Footprint dimensions (inches)	22.3 x 23.1		22.3 x 23.0	
Footprint dimensions (cm)	56.6 x 58.8		56.6 x 58.4	
Net weight (lbs)	335		319	
Net weight (kgs)	152		145	
Certifications and standards				
IVD/MD	✓		✓	
Certifications	EN/UL/IEC 61010-1, EN/UL/IEC 61010-2-020 and 61010-2-101, EN/UL/IEC 61326-1, EN/UL/IEC 61326-2-6, FCC part 15			
Standards	ISO 14971, ISO 13485, ISO 9001			
Cleanroom compatibility	Class ISO 7 according to DIN EN ISO 14644-1			
Ordering information	Megafuge ST4F Plus		Megafuge ST4FR Plus	
	IVD	General Use Only	IVD	General Use Only
230V [§]	75009961*	75009947	75009962*	75009948
120V	75009960*	N/A	75009946*	N/A

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.

§ 220V / 60 Hz [Korea, etc.]

Multifuge X1 and X1R Pro Centrifuges



1.6 L Benchtop centrifuges (Pro series): specifications and ordering information

Specifications	Multifuge X1 Pro		Multifuge X1R Pro	
	IVD	General Use Only	IVD	General Use Only
Swinging buckets rotors				
Maximum capacity	4 x 400 mL with TX-400 rotor			
Maximum speed	6,300 rpm with BIOShield 720 rotor			
Maximum RCF	7,188 x g with BIOShield 720 rotor			
Fixed angle rotors				
Maximum capacity	6x100 mL with F15 6x100y			
Maximum speed	15,200 rpm with F21-48x2, Microliter 48x2 or Microliter 30x2			
Maximum RCF	25,830 x g with Microliter 30x2			
Centrifuge details				
Control system	Microprocessor			
Drive system	Direct, brushless induction low profile motor			
Accel/decel profiles	Choices of 9 accel / 10 decel rates			
Material	Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; centrifuge feet: rubber			
Safety features	SMARTSpin imbalance detection, finger-pinch prevention, crash-proof construction			
Warranty	5 years limited (2 years standard warranty + 3 additional years on motor and refrigeration)			
Includes	Printed English user manual, USB stick with 28 languages of user manual, corrosion resistance oil (70009824), power cord, declaration of conformity			
Temperature range	N/A		-10°C to +40°C	
Number of compatible rotors	17		17	
Display details				
Display	Full color touch screen interface			
Run time	Max 99h, 59min, 59sec; also with continuous and customizable pulse			
Speed	Increments of 1 rpm / 1 x g			
Timer	Count up or down in increments of 1 second			
Temperature	N/A		Sample temperature in increments of 1 degree	
Program storage	Up to 100 run programs with step programming			
Programmability	Via easy access touch screen menu			
Dimensions, weight				
Width (inches) exterior	17.5		24.6	
Width (cm) exterior	44.5		62.5	
Depth (inches) exterior	26		26	
Depth (cm) exterior	66		66	
Height (inches) exterior	14.3		14.2	
Height (cm) exterior	36.2		36.1	
Height (inches) open cover	33.6		33.6	
Height (cm) open cover	85.5		85.5	
Footprint dimensions (inches)	17.5 x 23.1		24.6 x 23.0	
Footprint dimensions (cm)	44.5 x 58.8		62.5 x 58.4	
Net weight (lbs)	134		207	
Net weight (kgs)	61		94	
Certifications and standards				
IVD/MD	√		√	
Certifications	EN/UL/IEC 61010-1, EN/UL/IEC 61010-2-020 and 61010-2-101, EN/UL/IEC 61326-1, EN/UL/IEC 61326-2-6, FCC part 15			
Standards	ISO 14971, ISO 13485, ISO 9001			
Ordering information	Multifuge X1 Pro		Multifuge X1R Pro	
	IVD	General Use Only	IVD	General Use Only
230V	75009210*	75009710	75009250*	75009750
120V	75009210*	N/A	75009251*	N/A

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.

Megafuge ST1 and ST1R Plus Centrifuges



1.6 L Benchtop centrifuges (Plus series): specifications and ordering information

Specifications	Megafuge ST1 Plus		Megafuge ST1R Plus	
	IVD	General Use Only	IVD	General Use Only
Swinging buckets rotors				
Maximum capacity	4 x 400 mL with TX-400 rotor			
Maximum speed	5,500 rpm with TX-200 rotor			
Maximum RCF	5,580 x g with TX-200 rotor			
Fixed angle rotors				
Maximum capacity	6x100 mL with F15 6x100y			
Maximum speed	15,200 rpm with F21-48x2, Microliter 48x2 or Microliter 30x2			
Maximum RCF	25,830 x g with Microliter 30x2			
Centrifuge details				
Control system	Microprocessor			
Drive system	Direct, brushless induction low profile motor			
Accel/decel profiles	Choices of 9 accel / 10 decel rates			
Material	Front, top, sides: PC-ABS plastic painted with 2K PUR-based lacquer; metal housing: cold rolled steel with powder paint; centrifuge bowl: stainless steel; centrifuge feet: rubber			
Safety features	SMARTSpin imbalance detection, finger-pinch prevention, crash-proof construction			
Warranty	5 years limited (2 years standard warranty + 3 additional years on motor and refrigeration)			
Includes	Printed English user manual, USB stick with 28 languages of user manual, corrosion resistance oil (70009824), power cord, declaration of conformity			
Temperature range	N/A		-10°C to +40°C	
Number of compatible rotors	15		15	
Display details				
Display	Push button and high contrast LCD interface			
Run time	Max 9h, 59min; also with continuous and pulse modes			
Speed	Increments of 50 rpm / 50 x g			
Timer	Count down only in increments of 1 second (from 9 min 59 seconds) and in increments of 1 minute (>10 min)			
Temperature	N/A		Sample temperature in increments of 1 degree	
Program storage	Up to 6 run programs			
Programmability	Via 6 direct access buttons			
Dimensions, weight				
Width (inches) exterior	17.5		24.6	
Width (cm) exterior	44.5		62.5	
Depth (inches) exterior	26		26	
Depth (cm) exterior	66		66	
Height (inches) exterior	14.3		14.2	
Height (cm) exterior	36.2		36.1	
Height (inches) open cover	33.6		33.6	
Height (cm) open cover	85.5		85.5	
Footprint dimensions (inches)	17.5 x 23.1		24.6 x 23.0	
Footprint dimensions (cm)	44.5 x 58.8		62.5 x 58.4	
Net weight (lbs)	134		207	
Net weight (kgs)	61		94	
Certifications and standards				
IVD/MD	√		√	
Certifications	EN/UL/IEC 61010-1, EN/UL/IEC 61010-2-020 and 61010-2-101, EN/UL/IEC 61326-1, EN/UL/IEC 61326-2-6, FCC part 15			
Standards	ISO 14971, ISO 13485, ISO 9001			
Ordering information	Megafuge ST1 Plus		Megafuge ST1R Plus	
	IVD	General Use Only	IVD	General Use Only
230V	75009230*	75009730	75009270*	75009770
120V	75009230*	N/A	75009271*	N/A

*Indicates a centrifuge, rotor and/or adapter product approved for use in clinical applications; see user manual for details.

Swinging bucket rotors



Thermo Scientific rotor name		TX-1000	TX-750	BIOShield 1000A	TX-400	BIOShield 720
Maximum capacity (mL)		4 x 1,000 mL	4 x 750 mL	4 x 250 mL	4 x 400 mL	4 x 180 mL
Maximum speed (rpm ¹)		4,200 rpm	4,700 rpm	6,000 rpm	5,000 rpm	6,300 rpm
Maximum RCF (x g ¹)		4,122 x g	4,816 x g	7,164 x g	4,696 x g	7,188 x g
Biocontainment 		√ (Optional)	√ (Optional)	√ (Integrated)	√ (Optional)	√ (Integrated)
Multifuge X4 Pro/X4F Pro		√	√	√		
Megafuge ST4 Plus/ST4F Plus		√	√	√		
Multifuge X1 Pro					√	√
Megafuge ST1 Plus					√	√
Maximum capacity 	1,000 mL bio bottle	4	–	–	–	–
	 750 mL bio bottle	4	4	–	–	–
	 500 mL centrifuge bottle	4	–	–	–	–
	 500 mL conical bottle	4	4	–	–	–
	 250 mL centrifuge bottle	8	4	4	4	–
	 250 mL conical bottle	4	*	–	–	–
	 225 mL - 175 mL conical bottle	8	4	–	4	–
	 50 mL conical tube	40	28	16	16	8
	 50 mL skirted conical tube	20	20	16	–	–
	 50 mL round bottom centrifuge tube	48	28	–	16	–
	 30 mL universal tube	28	28	16	12	16
	 15 mL conical tube	96	56	36	36	24
	 10 mL blood collection tube (16 x 100 mm)	148	84	64	56	48
	 5/7 mL blood collection tube (13 x 75-100 mm)	196	108	80	76	48
	 4.5/6 mL blood collection tube	164	108	–	64	–
	 1.5/2 mL microtube	192	192	224	136	160
	 Microplate	24	16	–	–	–

¹Maximum speed based on top performance models.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.

*Fits with 4 x 250 mL Corning™ Conical Bottles and 4 x 200 mL Thermo Scientific™ Nunc™ Conical Bottles.

Note: Labware not shown to scale.

Swinging bucket rotors (continued)



Thermo Scientific rotor name		TX-200	HIGHPlate 6000	Fiberlite H3-LV	M-20	H-Flex 1	H-Flex HS4
Maximum capacity (mL)		4 x 180 mL	10 Microplates	28 Microplates	6 Microplates	16x50 mL	16x50 mL
Maximum speed (rpm ¹)		5,500 rpm	6,300 rpm	3,600 rpm	4,000 rpm	4,700 rpm	6,100 rpm
Maximum RCF (x g ¹)		5,580 x g	6,168 x g	2,738 x g	2,272 x g	4,297 x g	7,197 x g
Biocontainment 		√ (Optional)	√ (Integrated)		√ (Optional)	√ (Optional)	√ (Integrated)
Multifuge X4 Pro/X4F Pro			√	√	√		√
Megafuge ST4 Plus/ST4F Plus					√		√
Multifuge X1 Pro		√			√	√	
Megafuge ST1 Plus		√			√	√	
Maximum capacity 	1,000 mL bio bottle	–	–	–	–	–	–
	 750 mL bio bottle	–	–	–	–	–	–
	 500 mL centrifuge bottle	–	–	–	–	–	–
	 500 mL conical bottle	–	–	–	–	–	–
	 250 mL centrifuge bottle	–	–	–	–	–	–
	 250 mL conical bottle	–	–	–	–	–	–
	 225 mL - 175 mL conical bottle	–	–	–	–	–	–
	 50 mL conical tube	4	–	–	–	16	16
	 50 mL skirted conical tube	4	–	–	–	–	–
	 50 mL round bottom tube	–	–	–	–	–	–
	 30 mL universal tube	4	–	–	–	–	–
	 15 mL conical tube	20	–	–	–	36	36
	 10 mL blood collection tube (16 x 100 mm)	28	–	–	–	66	66
	 5/7 mL blood collection tube (13 x 75-100 mm)	32	–	–	–	84	84
	 4.5/6 mL blood collection tube	32	–	–	–	–	–
	 1.5/2 mL microtube	48	–	–	–	–	–
	 Microplate	–	10	28	6	10	10

¹Maximum speed based on top performance models.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.

Note: Labware not shown to scale.

Rotors and adapters for swinging bucket rotors



TX-1000 Swinging Bucket Rotor¹

90°, R_{max} 209 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4R Pro/X4RF Pro	4,200	4,122
Multifuge X4 Pro/X4F Pro	3,800	3,374
Megafuge ST4R/ST4RF Plus	4,200	4,122
Megafuge ST4 Plus/ST4F Plus	3,800	3,374
Multifuge X1 Pro	n/a	n/a
Megafuge ST1 Plus	n/a	n/a

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	TX-1000 rotor cross with SlideCoat	4 x 1,000 mL or 24 microplate		75003017
	TX-1000 buckets (set of 4)			75003001
	TX-1000 ClickSeal biocontainment lids (set of 4) 			75007309
	Replacement O-rings			75007001
	1,000 mL Bio-bottle - polypropylene (set of 4)			75007300
Adapters for TX-1000 rotor (sets of 4, unless otherwise noted)				
1	1,000 mL Bio-bottle	4 x 1,000 mL	126 x 140	75007301
2	750 mL Polypropylene bio-bottle and any TX-750 round BIoLink adapter	4 x 750 mL	98 x 133	75007304
3	500 mL Thermo Scientific™ Nalgene™ Bottle	4 x 500 mL	70 x 160	75004253
4	500 mL Corning™ Bottle	4 x 500 mL	98 x 133	75007302
5	250 mL Thermo Scientific™ Nunc™ Conical Bottle or 250 mL Corning conical bottle or 200 mL Nunc bottle or 175 mL Nalgene conical bottle	4 x 250 mL	62 x 145	75005392
6	250 mL Nalgene bottle	8 x 250 mL	62 x 145	75007305
6	225 mL BD Falcon™ (requires BD #352090)	8 x 225 mL	62 x 130	75007305
6	200 mL Nunc conical bottle (requires Nunc #377585)	8 x 200 mL	62.5 x 139	75007305
7	50 mL Conical tube	40 x 50 mL	30 x 120	75003674
8	50 mL Double biocontainment vessel for 50 mL conical tube (can be combined with ClickSeal lids), pack of 2 adapters	20 x 50 mL	30 x 120	75004255
9	50 mL Thermo Scientific™ Nalgene™ Oak Ridge Tube	48 x 50 mL	29.5 x 120	75004252
10	15 mL Conical tube	96 x 15 mL	17.5 x 121	75007306
11	10 mL Blood collection tube (16 x 100 mm) or Thermo Scientific™ Savant™ Corex™ / Kimble™ Tubes	148 x 10 mL	17 x 110	75003672
12	9/10 mL Blood collection tube (Sarstedt™)	100 x 9/10 mL	17 x 110	75003697
13	5/7 mL Blood collection tube (13 x 75-100 mm)	196 x 5/7 mL	14 x 110	75003671
14	4.5/6 mL Blood collection tube (Greiner™)	164 x 4.5/6 mL	14 x 110	75003709
15	Microplate carriers	4 x 6 Standard or 4 x 2 Deep well	Height < 88 mm	75007303
16	Small bag/cell culture bags 4 x 2 bags (< 350 mL)	4 x 2 Bags		75003829



¹Rotor, buckets and lids sold separately.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.



TX-750 Swinging Bucket Rotor¹

90°, R_{max} 195 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	4,700	4,816
Megafuge ST4 Plus/ST4F Plus	4,700	4,816
Multifuge X1 Pro	n/a	n/a
Megafuge ST1 Plus	n/a	n/a

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	TX-750 rotor cross with SlideCoat			75003180
	TX-750 round buckets (set of 4)	4 x 750 mL		75003608
	TX-750 round ClickSeal biocontainment lids (set of 4) 			75003609
	Replacement TX-750 round O-rings for lids (set of 4)			75003610
	750 mL Bio-bottle - polypropylene (each)			75006443
1	Microplate carriers and T-75 flask* (includes tray and pads) (set of 2)	4 Standard microplate or	Maximum height 60 mm	75003795
1	Microplate carriers and T-75 flask* (includes tray and pads) (set of 4)	1 Deep well plate per carrier		75003617
1	Bucket for Applied Biosystems™ TaqMan® Array Cards (set of 4)	12 x TaqMan Array Cards		75003618
Adapters for TX-750 rotor (sets of 4, unless stated otherwise)				
	750 mL Bio-bottle	4 x 750 mL	98 x 133	Direct
	500 mL Corning conical bottle (requires Corning #431124)	4 x 500 mL	98 x 133	Direct
2	250 mL Corning conical bottle** and 250 mL Nalgene conical bottle with biocontainment	4 x 250 mL	62.5 x 139	75003792
3	250 mL Nalgene bottle and 250 mL Nunc Conical Tube (conical tube requires cushion adapter #377585)	4 x 250 mL	62.5 x 139	75003710
3	225 mL/175 mL BD Falcon conical bottle (requires BD #352090)**	4 x 225 mL	62.5 x 139	75003710
3	200 mL Nunc conical bottle (requires #377585)**	4 x 200 mL	62.5 x 139	75003710
3	175 mL Nalgene conical bottle (requires #DS3126-0175)**	4 x 175 mL	62.5 x 139	75003710
4	100 mL Round bottom open-top tube	8 x 100 mL	45 x 123	75003713
5	50 mL Conical tube	28 x 50 mL	30 x 120	75003638
6	50 mL Conical or skirted tube	20 x 50 mL	30 x 120	75003824
7	50 mL Nalgene Oak Ridge tube	28 x 50 mL	29.5 x 120	75003715
8	30 mL Thermo Scientific™ Sterilin™ Universal Tube	28 x 30 mL	25.5 x 120	75003716
9	15 mL Conical tube	56 x 15 mL	17 x 122	75003639
10	15 mL Blood collection tube (17 x 125 mm in inner circle)	32 x 15 mL	17 x 134	75003719
10	10 mL Blood collection (16 x 100 mm) or 15 mL Savant Corex/Kimble Tube	84 x 10/15 mL	17 x 117	75003719
11	14 mL Round or conical urine tube	48 x 14 mL	18 x 124	75003718
12	5/7 mL or 4.5/6 mL blood collection tube (13 x 75-100 mm)	108 x 5/7 mL	13 x 116	75003723
13	5 mL RIA or round bottom tube	148 x 5 mL	13 x 111	75003724
13	5/7 mL Round bottom tube with decanting aid	148 x 5/7 mL	13 x 111	75003732
14	1.5/2 mL Microtube	192 x 2 mL	11 x 50	75003733
15	T-75 Thermo Scientific™ Nunc™ EasYFlask™ Cell Culture Flasks (set of 2)	4 x T-75	–	75008383
16	T-25 Nunc EasYFlask cell culture flask (set of 2)	8 x T-25	–	75008384
17	Blood Bag/ Cell Culture Bag (<600 mL)	4 x 1 bags	–	75003427



¹Rotor, buckets and lids sold separately.

* Compatible with Nunc #178905

** Compatible in open bucket configuration without biocontainment

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.

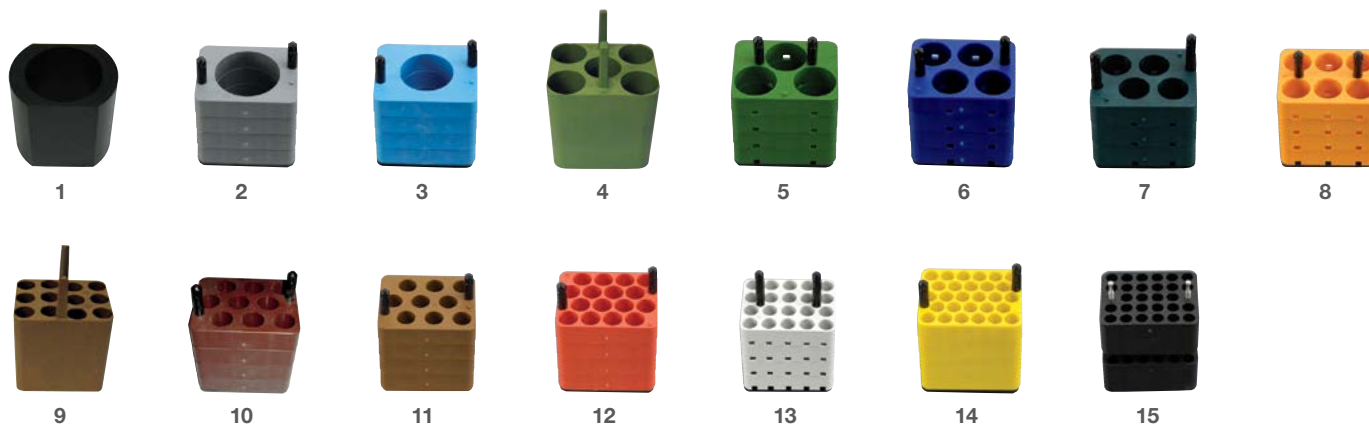


TX-750 Swinging Bucket Rotor¹

90°, R_{max} 195 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4R Pro/X4RF Pro, Megafuge ST4R/ST4RF Plus, 230V	4,700	4,816
Multifuge X4 Pro/X4F Pro, Megafuge ST4 Plus/ST4F Plus, 230V	4,500	4,415
Multifuge X4 Pro/X4F Pro Series, Megafuge ST4 Plus/ST4F Plus Series, 120V	4,300	4,031
Multifuge X1 Pro, Megafuge ST1 Plus	n/a	n/a

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	TX-750 rotor cross with SlideCoat			75003180
	TX-750 rectangular buckets (set of 4)	4 x 250 mL		75003614
	TX-750 rectangular ClickSeal biocontainment lids (set of 4) 			75003615
Adapters for TX-750 rotor (sets of 4)				
1	250 mL Flat bottom bottle	4 x 250 mL	63 x 130	75003737
2	150 mL Round bottom open-top tube	4 x 150 mL	56 x 124	75003738
3	100 mL Round bottom open-top tube	4 x 100 mL	46 x 124	75003742
4	50 mL Conical tube	20 x 50 mL	30 x 121	75003685
5	50 mL Round bottom tube	12 x 50 mL	35 x 121	75003749
6	45 mL Flat/round tube	16 x 45 mL	30 x 121	75003750
7	30 mL Sterilin universal tube	16 x 30 mL	26 x 121	75003755
8	25 mL DIN Round bottom tube	24 x 25 mL	26 x 121	75003756
9	15 mL Conical tube	48 x 15 mL	17 x 120	75003684
10	14 mL Flanged round bottom tube	36 x 14 mL	18 x 121	75003758
11	14 mL Round or conical urine tube	36 x 15 mL	17 x 124	75003759
12	10 mL Blood collection (16 x 100 mm) or 15 mL DIN tube	64 x 10/15 mL	17 x 118	75003767
13	5/7 mL or 4.5/6 mL blood collection tube	80 x 5/7 mL	14 x 118	75003768
14	5/7 mL Round bottom tube (13 x 75-100 mm)	112 x 5/7 mL	13 x 119	75003769
15	1.5/2 mL Microtube	224 x 2 mL	11 x 50	75003770



¹Rotor, buckets and lids sold separately.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.

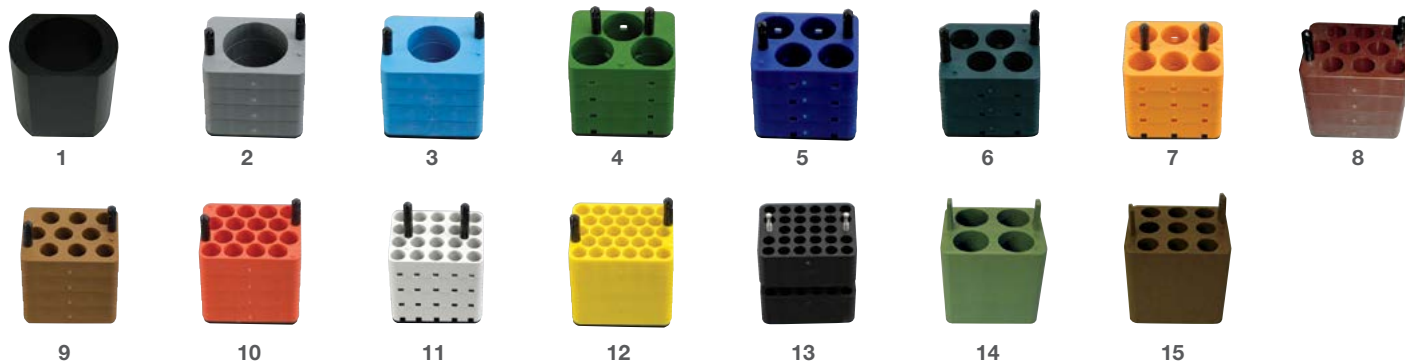


BIOShield 1000A Swinging Bucket Rotor

90°, R_{max} 178 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	6,000	7,164
Megafuge ST4 Plus/ST4F Plus	5,300	5,590
Multifuge X1 Pro	n/a	n/a
Megafuge ST1 Plus	n/a	n/a

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	BIOShield 1000A with SlideCoat 	4 x 250 mL		75003182
Adapters for BIOShield 1000A rotor (sets of 4)				
1	250 mL Flat bottom bottle	4 x 250 mL	63 x 130	75003737
2	150 mL Round bottom open-top tube	4 x 150 mL	56 x 124	75003738
3	100 mL Round bottom open-top tube	4 x 100 mL	46 x 124	75003742
4	50 mL Round bottom tube	12 x 50 mL	35 x 121	75003749
5	45 mL Flat/round tube	16 x 45 mL	30 x 121	75003750
6	30 mL Sterilin universal tube	16 x 30 mL	30 x 121	75003755
7	25 mL DIN Round bottom tube	24 x 25 mL	26 x 121	75003756
8	14 mL Flanged round bottom tube	36 x 14 mL	18 x 121	75003758
9	14 mL Round or conical urine tube	36 x 15 mL	17 x 124	75003759
10	10 mL Blood collection (16 x 100 mm) or 15 mL DIN Tube	64 x 10/15 mL	17 x 118	75003767
11	5/7 mL or 4.5/6 mL Blood collection tube	80 x 5/7 mL	14 x 118	75003768
12	5/7 mL Round bottom tube (13 x 75-100 mm)	112 x 5/7 mL	13 x 119	75003769
13	1.5/2 mL Microtube	224 x 2 mL	11 x 50	75003770
14	50 mL Conical tube	16 x 50 mL	30 x 121	75003643
15	15 mL Conical tube	36 x 15 mL	17 x 120	75003642





TX-400 Swinging Bucket Rotor¹

90°, R_{max} 168 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	n/a	n/a
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro	5,000	4,696
Megafuge ST1 Plus	5,000	4,696

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	TX-400 rotor cross with SlideCoat			75003181
	TX-400 round buckets (set of 4)	4 x 400 mL		75003655
	TX-400 round ClickSeal biocontainment lids (set of 4) ♦			75003656
	Replacement TX-400 O-rings for lids (set of 4)			75003657
	400 mL Bio-bottle - polypropylene (set of 12)			75007585
Adapters for TX-400 rotor (sets of 4)				
	400 mL Bio-bottle	4 x 400 mL	80 x 125	Direct
1	250 mL Nalgene bottle	4 x 250 mL	62 x 135	75003788
1	200 mL Nunc conical bottle (requires Nunc #377585)	4 x 200 mL	62 x 125	75003788
1	175 mL BD Falcon conical bottle (requires BD #352090)	4 x 175 mL	62 x 125	75003788
2	100 mL Round bottom open-top tube	4 x 100 mL	45 x 117	75003708
3	50 mL DIN Round bottom tube	12 x 50 mL	34.5 x 105	75003707
4	50 mL Nalgene Oak Ridge tube	16 x 50 mL	29.5 x 114	75003799
5	50 mL Conical tube	16 x 50 mL	30 x 116	75003683
6	30/25 mL DIN round/flat bottom tube	20 x 30 mL	25.5 x 108	75003703
7	30 mL Sterilin universal tube	12 x 30 mL	25 x 110	75003706
8	15 mL Conical tube	36 x 15 mL	17 x 121	75003682
9	15 mL Blood collection tube (17 x 125 mm)	16 x 15 mL	17 x 131	75003794
10	15 mL Round bottom tube (Sarstedt)	40 x 15 mL	17 x 105	75003704
11	14 mL Round or conical urine tube	28 x 14 mL	17 x 112	75003798
12	10 mL Blood collection (16 x 100 mm)	56 x 10/15 mL	16 x 113	75003681
13	5/7 mL Blood collection tube (13 x 75-100 mm)	76 x 5/7 mL	13 x 110	75003680
14	4.5/6 mL Blood collection tube (Greiner)	64 x 4.5/6 mL	13 x 110	75003825
15	3 mL RIA or Round bottom tube	76 x 3/5 mL	11 x 110	75003793
16	1.5/2 mL Microtube	136 x 2 mL	11 x 45	75003700



¹Rotor, buckets and lids sold separately.

♦ Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.



BIOShield 720 Swinging Bucket Rotor

90°, R_{max} 162 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	n/a	n/a
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro	6,300	7,188
Megafuge ST1 Plus	5,300	5,088

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	BIOShield 720 with SlideCoat 	4 x 180 mL	n/a	75003183
	180 mL Bio-bottle - polypropylene (set of 12)			75003800
BIOShield 720A adapters (sets of 4)				
1	180 mL Bio-bottle	4 x 180 mL	56 x 128	75003693
2	100 mL Round bottom open-top tube	4 x 100 mL	44 x 120	75003814
3	50 mL Conical tube	8 x 50 mL	30 x 116	75003677
4	50 mL DIN round bottom tube	8 x 50 mL	34 x 109	75003816
5	30 mL Sterilin universal tube	16 x 30 mL	26 x 105	75003818
6	25 mL DIN round bottom tube	20 x 25 mL	25 x 107	75003817
7	15 mL Conical tube	24 x 15 mL	17 x 120	75003678
8	15 mL Sarstedt tube	44 x 15 mL	17 x 103	75003820
9	10 mL Blood collection tube (16 x 100 mm)	48 x 10 mL	17 x 105	75003701
10	5/7 mL Blood collection tube (13 x 75-100 mm)	48 x 5/7 mL	13 x 106	75003821
11	5/7 mL Round bottom open-top tube	80 x 5/7 mL	13 x 104	75003822
12	1.5/2 mL Conical microtube	160 x 2 mL	11 x 45	75003823





TX-200 Swinging Bucket Rotor¹

90°, R_{max} 165 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	n/a	n/a
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1R Pro 230V and 120V	5,500	5,580
Multifuge X1 Pro 120V	5,500	5,580
Megafuge ST1R Plus 230V and 120V	5,500	5,580
Megafuge ST1 Plus 120V	5,500	5,080

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	TX-200 rotor cross			75003658
	TX-200 round buckets (set of 4)	4 x 180 mL		75003659
	TX-200 round ClickSeal biocontainment lids (set of 4) ♦			75003660
	Replacement TX-200 O-rings for lids (set of 4)			75003687
	180 mL Bio-bottle - polypropylene (set of 12)			75003800
Adapters for TX-200 rotor (sets of 4)				
	180 mL Bio-bottle	4 x 180 mL	56.5 x 123	Direct
1	100 mL Round bottom open-top tube	4 x 100 mL	48 x 122	75003801
2	50 mL DIN Round bottom tube	4 x 50 mL	35 x 126	75003802
3	50 mL Conical or skirted tube	4 x 50 mL	30 x 126	75003803
4	30 mL Sterilin universal tube	4 x 30 mL	26 x 118	75003804
5	25 mL DIN round/flat bottom tube	8 x 25 mL	25 x 118	75003805
7	15 mL Conical tube	20 x 20 mL	17 x 121	75003771
8	15 mL Blood collection tube	16 x 15 mL	17 x 121	75003809
9	14 mL Conical urine tube	8 x 14 mL	17 x 114	75003807
10	10 mL Blood collection (16 x 100 mm) or 15 mL Savant Corex/Kimble Tube	28 x 10/15 mL	17 x 121	75003808
11	5/7 mL or 4.5/6 mL blood collection tube (13 x 75-100 mm)	32 x 5/7 mL	13 x 122	75003785
12	5/7 mL Round bottom open-top tube	36 x 5/7 mL	13 x 118	75003810
13	1.5/2 mL Microtube	48 x 2 mL	11 x 45	75003812



1



2



3



4



5



6



7



8



9



10



11



12



13

¹Rotor, buckets and lids sold separately.

♦Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.



HIGHPlate 6000 Swinging Bucket Rotor

90°, R_{max} 139 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	6,300	6,168
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro	n/a	n/a
Megafuge ST1 Plus	n/a	n/a

Description	Rotor capacity (places x volume, mL)	Maximum height	Cat. No.
Rotor			
HIGHPlate 6000 rotor 	2 x 5 Standard microplate or 2 x 1 filter plates	< 80 mm	75003606



Fiberlite H3-LV Swinging Bucket Rotor

90°, R_{max} 189 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	3,600	2,738
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro	n/a	n/a
Megafuge ST1 Plus	n/a	n/a

Description	Rotor capacity (places x volume, mL)	Maximum height	Cat. No.
Rotor			
Fiberlite H3-LV rotor	4 x 7 Standard microplate or 2 x 4 Deep well	< 100 mm	75003665



M-20 Swinging Bucket Rotor¹

90°, R_{max} 127 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	4,000	2,272
Megafuge ST4 Plus/ST4F Plus	4,000	2,272
Multifuge X1 Pro	4,000	2,272
Megafuge ST1 Plus	4,000	2,272

Description	Rotor capacity (places x volume, mL)	Maximum height	Cat. No.
Rotor and accessories			
M-20 microplate rotor including standard open carriers	2 x 3 Standard Microplate	< 65 mm	75003624
ClickSeal carriers including carrier and lids 	2 x 1 Deep well	< 45 mm	75003625
ClickSeal replacement lids (set of 2)			75002011

¹Biocontainment system sold separately.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.



H-Flex 1 Swinging Bucket Rotor¹

90°, R_{max} 170 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X1 Pro	4,700	4,297
Megafuge ST1 Plus	4,700	4,297
Multifuge X4 Pro/X4F Pro	n/a	n/a
Megafuge ST4 Plus/ST4F Plus	n/a	n/a



H-Flex HS4 Swinging Bucket Rotor¹

90°, R_{max} 170 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X1 Pro	n/a	n/a
Megafuge ST1 Plus	n/a	n/a
Multifuge X4 Pro/X4F Pro	6,100	7,197
Megafuge ST4 Plus/ST4F Plus	6,100	7,197

Adapter image	Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories				
	H-Flex 1 rotor cross with SlideCoat			75003300
	H-Flex 1 rotor buckets (set of 2)			75003301
	H-Flex 1 rotor biocontainment lids (set of 2) 			75003302
	H-Flex 1 rotor biocontainment lid replacement O-Rings (set of 2)			75003309
	H-Flex HS4 rotor with SlideCoat 			75003330
	H-Flex HS4 replacement bucket (set of 2)			75003338
	H-Flex HS4 replacement windshield lid			75003339
Adapters for H-Flex 1 and HS4 rotor (sets of 2)				
1	50 mL Conical tube	16 x 50 mL	30 x 126	75003303
2	15 mL Conical tube	36 x 15 mL	17 x 121	75003304
3	10/12 mL Blood collection tube (16 x 100 mm)	66 x 10/15 mL	16 x 110	75003305
4	5/7 mL Blood collection tube (13 x 75-100 mm)	84 x 5/7 mL	13 x 108	75003306
5	Microplate carriers	2 x 5 Standard Microplate 2 x 1 Deep well	<77 mm	75003307
6	H-Flex 1 rotor 400 mL bottle and Centri-lab BIOLink Adapter*	n/a	n/a	75003308



1



2



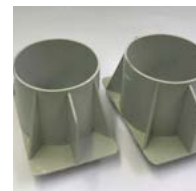
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4



5



6

¹Rotor, buckets and lids sold separately.

* 400 mL Bottle/Centrilab Adapter maximum speed is 3800 rpm and 2800 x g.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.

Fixed angle rotors



Thermo Scientific rotor name		Fiberlite F14-6x250 LE	Fiberlite F15-6x100y	Fiberlite F10-6x100 LEX	Fiberlite F13-14x50cy	Fiberlite F15-8x50cy	CLINIConic
Maximum capacity (mL)		6 x 250 mL	6 x 100 mL	6 x 100 mL	14 x 50 mL	8 x 50 mL	30 x 15 mL
Maximum speed (rpm ¹)		11,000 rpm	15,000 rpm	10,500 rpm	10,000 rpm	14,500 rpm	5,650 rpm
Maximum RCF (x g ¹)		18,533 x g	24,652 x g	15,038 x g	17,105 x g	24,446 x g	4,997 x g
Biocontainment 		✓	✓	✓	✓	✓	
Multifuge X4 Pro/X4F Pro		✓	✓	✓	✓	✓	
Megafuge ST4 Plus/ST4F Plus			✓	✓			
Multifuge X1 Pro			✓	✓	✓	✓	✓
Megafuge ST1 Plus			✓	✓			✓
Maximum capacity 	250 mL centrifuge bottle	6	–	–	–	–	–
	 85 mL round bottom centrifuge tube	6	6	6	–	–	–
	 50 mL round bottom centrifuge tube	6	6	6	14	8	–
	 50 mL conical tube	6	6	6	14	8	–
	 30 mL round bottom centrifuge tube	12	6	6	14	8	–
	 16 mL round bottom centrifuge tube	30	6	6	14	8	–
	 15 mL conical tube	30	6	6	14	8	30
	 10 mL round bottom centrifuge tube	42	12	12	14	8	–
	 10 mL blood collection tube (16 x 100 mm)	–	–	–	–	–	30
	 5/7 mL blood collection tube (13 x 75-100 mm)	–	–	–	–	–	30
	 6.5 mL round tube	–	12	12	–	–	–
	 1.5/2 mL microtube	–	24	24	–	–	–

¹Maximum speed based on top performance models.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.

Note: Labware not shown to scale.

Fixed angle rotors (continued)



Thermo Scientific rotor name		8 x 50 Sealed	HIGHConic II	MicroClick 18 x 5	Fiberlite F21-48x2	Microliter 48 x 2	MicroClick 30 x 2	Microliter 30 x 2
Maximum capacity (mL)		8 x 50 mL	6 x 100 mL	18 x 5 mL	48 x 2 mL	48 x 2 mL	30 x 2 mL	30 x 2 mL
Maximum speed (rpm ¹)		6,700 rpm	10,350 rpm	15,000 rpm	15,200 rpm	15,200 rpm	14,000 rpm	15,200 rpm
Maximum RCF (x g ¹)		7,177 x g	15,090 x g	24,652 x g	25,055 x g	25,314 x g	21,693 x g	25,830 x g
Biocontainment 		√ (Individual)	√	√	√	√	√	√
Multifuge X4 Pro/X4F Pro			√	√	√	√	√	√
Megafuge ST4 Plus/ST4F Plus			√	√	√	√	√	√
Multifuge X1 Pro		√	√	√	√	√	√	√
Megafuge ST1 Plus		√	√	√	√	√	√	√
Maximum capacity 	250 mL centrifuge bottle	–	–	–	–	–	–	–
	 85 mL round bottom centrifuge tube	–	6	–	–	–	–	–
	 50 mL round bottom centrifuge tube	–	6	–	–	–	–	–
	 50 mL conical tube	8	6	–	–	–	–	–
	 30 mL round bottom centrifuge tube	–	6	–	–	–	–	–
	 16 mL round bottom centrifuge tube	–	6	–	–	–	–	–
	 15 mL conical tube	8	6	–	–	–	–	–
	 10 mL round bottom centrifuge tube	–	12	–	–	–	–	–
	 10 mL blood collection tube (16 x 100 mm)	8	–	–	–	–	–	–
	 5/7 mL blood collection tube (13 x 75-100 mm)	8	–	–	–	–	–	–
	 6.5 mL round tube	–	12	–	–	–	–	–
	 1.5/2 mL microtube	–	24	18	48	48	30 (Including spin columns)	30
	 5 mL microtube	–	–	18	–	–	–	–
	 PCR tube	–	–	–	48	48	30	30

¹Maximum speed based on top performance models.

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.

Note: Labware not shown to scale.

Rotors and adapters for fixed angle rotors



Fiberlite F14-6x250 LE Fixed Angle Rotor 23°, R_{max} 137 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro 230V	11,000	18,533
Multifuge X4 Pro/X4F Pro 120V	10,000	15,317
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro	n/a	n/a

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
Fiberlite F14-6 x 250LE rotor for 250 mL centrifuge bottles 	6 x 250 mL	62 x 125	75003662
Replacement O-Ring kit			021-062153
250 mL Thermo Scientific™ Nalgene™ Polypropylene Bottle (case of 36)			3141-0250
250 mL Thermo Scientific™ Nalgene™ Polycarbonate Bottle (case of 36)			3140-0250
Adapters for F14-6 x 250LE rotor (sets of 2, unless stated otherwise)			
85 mL Nalgene Oak Ridge tube	6 x 85 mL	38 x 109	010-1119
50 mL Nalgene Oak Ridge tube	6 x 50 mL	29.5 x 121	010-0138
50 mL Conical tube	6 x 50 mL	30 x 121	75100136
30 mL Nalgene Oak Ridge tube / 38 mL round tube	12 x 30 mL	26 x 105	010-1072
16 mL Nalgene Oak Ridge tube	30 x 16 mL	18 x 107	010-1074
15 mL Conical tube	30 x 15 mL	17 x 121	010-1410
10 mL Nalgene Oak Ridge tube / 12 mL round tube (each)	42 x 10 mL	17 x 110	00389



Fiberlite F15-6x100y Fixed Angle Rotor

25°, R_{max} 98 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	15,000	24,652
Megafuge ST4 Plus/ST4F Plus	13,000	18,516
Multifuge X1 Pro	15,000	24,652
Megafuge ST1 Plus	13,000	18,516



Fiberlite F10-6x100 LEX Fixed Angle Rotor

45°, R_{max} 122 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	10,500	15,038
Megafuge ST4 Plus/ST4F Plus	10,500	15,038
Multifuge X1 Pro	10,500	15,038
Megafuge ST1 Plus	10,500	15,038

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
Fiberlite F15-6 x 100y rotor for 100 mL/85 mL Nalgene 	6 x 100 mL	38 x 106	75003698
Replacement O-Ring kit			021-069031
Fiberlite F10-6 x 100 LEX rotor for 100 mL/85 mL Nalgene 	6 x 100 mL	38 x 106	75003340
Replacement O-Ring kit			021-069035
85 mL Nalgene Oak Ridge tube (set of 50)	6 x 85 mL	38 x 106	3118-0085
Adapters for F15-6 x 100y and F10-6x100 LEX rotor (each, unless stated otherwise)			
50 mL Nalgene Oak Ridge tube (set of 2)	6 x 50 mL	29.5 x 117	010-1194
50 mL Conical tube (set of 2)	6 x 50 mL	30 x 121	010-1270
30 mL Nalgene Oak Ridge tube / 38 mL round tube (set of 2)	6 x 30 mL	26 x 110	010-1273
16 mL Nalgene Oak Ridge tube (set of 2)	6 x 16 mL	18 x 123	010-1272
15 mL Conical tube (set of 2)	6 x 15 mL	17 x 123	010-1271
10 mL Nalgene Oak Ridge tube / 12 mL round tube	12 x 12 mL	17 x 95	75003093
6.5 mL Round bottom tube	12 x 6.5 mL	13 x 114	75003092
3 mL Vacutainer / round bottom tube (set of 2)	18 x 3 mL	10 x 64	010-1126
1.5/ 2 mL Microtube	24 x 2 mL	11 x 40	75003091



Fiberlite F13-14x50cy Fixed Angle Rotor

34°, R_{max} 153 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro 230V	10,000	17,105
Multifuge X4 Pro/X4F Pro 120V	9,250	14,636
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro	8,500	12,359
Megafuge ST1 Plus	n/a	n/a

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
Fiberlite F13-14x50cy for 50 mL conical tubes ♦	14 x 50 mL	30 x 121	75003661
Replacement O-Ring kit			021-149027
Adapters for F13-14x50cy rotor (set of 2, unless otherwise stated)			
50 mL Nalgene Oak Ridge tube	14 x 50 mL	29.5 x 108	010-0377
30 mL Nalgene Oak Ridge tube	14 x 30 mL	26 x 102	010-1147
16 mL Nalgene Oak Ridge tube	14 x 16 mL	18 x 123	010-0376
15 mL Corning conical tube	14 x 15 mL	17 x 121	75100378
15 mL Nunc conical tube and filtration devices	14 x 15 mL	17 x 121	010-1340
10 mL Nalgene Oak Ridge tube / 12 mL round tube	28 x 12 mL	17 x 95	010-1311



Fiberlite F15-8x50cy Fixed Angle Rotor

25°, R_{max} 104 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	14,500	24,446
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro 230V	14,500	24,446
Multifuge X1 Pro 120V	14,000	22,789
Megafuge ST1 Plus	n/a	n/a

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
Fiberlite F15-8x50cy for 50 mL conical tubes ♦	8 x 50 mL	30 x 121	75003663
Replacement O-Ring kit			021-085077
Adapters for F15-8x50cy rotor (set of 2, unless otherwise stated)			
50 mL Nalgene Oak Ridge tube	8 x 50 mL	29 x 108	010-0377
30 mL Nalgene Oak Ridge tube	8 x 30 mL	26 x 102	010-1147
16 mL Nalgene Oak Ridge tube	8 x 16 mL	18 x 123	010-0376
15 mL Corning conical tube	8 x 15 mL	17 x 121	75100378
15 mL Nunc conical tube and filtration devices	8 x 15 mL	17 x 121	010-1340
10 mL Nalgene Oak Ridge tube / 12 mL round tube	8 x 12 mL	17 x 95	010-1311

♦ Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.



CLINIConic Fixed Angle Rotor

37°, R_{max} 140 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	n/a	n/a
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro	5,650	4,997
Megafuge ST1 Plus	5,650	4,997

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
CLINIConic fixed angle rotor for 15 mL round and conical tubes	30 x 15 mL	17 x 121	75003623
Adapters for CLINIConic rotor (each)			
10 mL Round bottom tube	30 x 10 mL	17 x 131	75003702
7 mL Blood collection tubes (13 x 100 mm)	30 x 7 mL	17 x 131	11172596
5 mL Blood collection tubes (13 x 75 mm)	30 x 5 mL	13 x 95	11172595



8 x 50 Individually Sealed Fixed Angle Rotor

45°, R_{max} 143 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	n/a	n/a
Megafuge ST4 Plus/ST4F Plus	n/a	n/a
Multifuge X1 Pro 230V	6,700	7,177
Multifuge X1 Pro 120V	6,500	6,755
Megafuge ST1 Plus 230V	6,700	7,177
Megafuge ST1 Plus 120V	6,500	6,755

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
8 x 50 Individually sealed for 50 mL conical tubes 	8 x 50 mL	30 x 121	75003694
50 mL Sealed single bucket replacement, each			75003787
Adapters for 8 x 50 sealed rotor (set of 2)			
15 mL Conical tube adapters	8 x 50 mL	17 x 121	75005808
7 mL Blood collection tube (13 x 100 mm)	8 x 7 mL	13 x 110	75005805
3.5 mL Blood collection tube	16 x 3.5 mL	11 x 75	75005806



HIGHConic II Aluminium Fixed Angle Rotor

45°, R_{max} 126 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	10,350	15,090
Megafuge ST4 Plus/ST4F Plus	10,350	15,090
Multifuge X1 Pro	10,350	15,090
Megafuge ST1 Plus	10,350	15,090

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
HIGHConic fixed angle rotor for 100 mL/85 mL Nalgene Oak Ridge tube 	6 x 100 mL	38 x 123	75003620
Replacement O-Ring kit			75003058
85 mL Nalgene Oak Ridge tube (case of 100)	6 x 85 mL	38 x 106	3118-0085
Adapters for HIGHConic rotor (each, unless stated)			
50 mL Nalgene Oak Ridge tube	6 x 50 mL	30 x 117	75003102
50 mL Conical tube	6 x 50 mL	30 x 121	75003103
30 mL Nalgene Oak Ridge tube / 38 mL round tube	6 x 30 mL	26 x 110	75003094
16 mL Nalgene Oak Ridge tube	6 x 16 mL	18 x 123	76002906
15 mL Conical tube	6 x 15 mL	17 x 123	75003095
10 mL Nalgene Oak Ridge tube / 12 mL round tube	12 x 12 mL	17 x 95	75003093
6.5 mL Round bottom tube	12 x 6.5 mL	13 x 114	75003092
1.5/2 mL Microtube	24 x 2 mL	11 x 40	75003091



MicroClick 18x5 Aluminum Fixed Angle Rotor

45°, R_{max} 102 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	15,000	24,652
Megafuge ST4 Plus/ST4F Plus	15,000	24,652
Multifuge X1 Pro	15,000	24,652
Megafuge ST1 Plus	15,000	24,652

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
18 x 5 MicroClick rotor for 5 mL conical and flip top tubes 	18 x 5 mL	17 x 62	75005765
Replacement O-Ring kit			75005726
Adapter for MicroClick rotor (set of 2)			
1.5/2 mL Microtube	18 x 5	11 x 45	75005756



Fiberlite F21-48x2 Fixed Angle Rotor

45°, R_{max} 97 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	15,200	25,055
Megafuge ST4 Plus/ST4F Plus	15,200	25,055
Multifuge X1 Pro	15,200	25,055
Megafuge ST1 Plus	15,200	25,055

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
Fiberlite F21-48 x 2 for 1.5/2 mL microtubes 	48 x 2 mL	11 x 50	75003664
Replacement O-Ring kit			021-489021
Adapter for F21-48x2 rotor (set of 24)			
1.2 mL PCR tube		5 x 20	76003750



Microliter 48 x 2 Aluminium Fixed Angle Rotor

45°, R_{max} 98 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	15,200	25,314
Megafuge ST4 Plus/ST4F Plus	15,200	25,314
Multifuge X1 Pro	15,200	25,314
Megafuge ST1 Plus	15,200	25,314

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
48 x 2 Aluminum for 1.5/2 mL microtubes 	48 x 2 mL	11 x 50	75003602
Replacement O-Ring kit			75003349



MicroClick 30 x 2 Aluminum Fixed Angle Rotor

45°, R_{max} 99 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	14,000	21,693
Megafuge ST4 Plus/ST4F Plus	14,000	21,693
Multifuge X1 Pro	14,000	21,693
Megafuge ST1 Plus	14,000	21,693

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
30 x 2 MicroClick for 1.5/2 mL microtubes and spin columns 	30 x 2 mL	11 x 50	75005719
Replacement O-Ring kit			75005726

 Biocontainment certification by Public Health England, Porton Down, UK or TÜV NORD CERT GmbH, Germany.



Microliter 30 x 2 Aluminum Fixed Angle Rotor

45°, R_{max} 100 mm

Centrifuge	Maximum speed (rpm)	Maximum RCF (x g)
Multifuge X4 Pro/X4F Pro	15,200	25,830
Megafuge ST4/ST4F Plus	15,200	25,830
Multifuge X1 Pro	15,200	25,830
Megafuge ST1 Plus	15,200	25,830

Description	Rotor capacity (places x volume, mL)	Maximum tube dimensions (Ø x L, mm)	Cat. No.
Rotor and accessories			
30 x 2 Aluminum for 1.5/2 mL microtubes 	30 x 2 mL	11 x 50	75003652
Replacement O-Ring kit			75003349
Adapters for MicroClick 30 x 2, Microliter 30 x 2 and Microliter 48 x 2 rotors (set of 30)			
0.5 mL Microtube		8 x 44	75005753
0.25 mL Microtube		6 x 46	75005754
0.2 mL PCR tube		5 x 20	75005752

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Connectivity

SECURE-Spin mode



Description	Cat. No.
Software and accessories	
SECURE-Spin mode	75009990
Centri-Log Plus Software** (requires SECURE-Spin mode)	75007742
Sample tracking kit* (requires Centri-Log Plus software)	- For floor-standing centrifuges (barcode scanner, holder, and cable) 75007740 - For benchtop centrifuges (barcode scanner and cable) 75007743
Network access kit* (cable)	75007741

* Product sold separately.

† Centri-Log Plus software version must be at least 2.12.0.

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