

Centrifuge overview

Mini, micro, compact, and general purpose

Thermo Scientific™ centrifuges are designed to deliver optimal speed and quality to fit every application. These products use Thermo Scientific™ GreenCool™ Technology, to enable powerful, high-performance centrifugation with next-generation cooling for enhanced sustainability.



Model name	mySPIN™ 6	mySPIN™ 12	M17 Series (MT 17 & MTR 17)	M21 Series (MT 21 & MTR 21)	Medifuge™	C1T	C1TR	C1FR
GreenCool Technology available only on MTR 17 & MTR 21.								
Fixed angle rotors								
Maximum g-force	2,000	9,800	17,000	21,100	3,114	24,328	30,279	30,279
Maximum RPM	6,000	12,500	13,300	14,800	4,900	16,000	17,850	17,850
Maximum capacity	6 x 2.0 mL	12 x 2.0 mL	24 x 1.5 mL	24 x 1.5 mL	8 x 15 mL	6 x 50 mL	8 x 50 mL	8 x 50 mL
Swinging bucket rotors								
Maximum g-force	-	-	-	-	3,490	3,260	3,260	3,260
Maximum RPM	-	-	-	-	4,900	4,500	4,500	4,500
Maximum capacity	-	-	-	-	8 x 10 mL	4 x 145 mL	4 x 145 mL	4 x 145 mL
Microplate								
Maximum g-force	-	-	-	-	-	2,576	2,576	2,576
Maximum RPM	-	-	-	-	-	4,400	4,400	4,400
Maximum capacity	-	-	-	-	-	4 Standard or 2 Deepwell	4 Standard or 2 Deepwell	4 Standard or 2 Deepwell
Centrifuge details								
Rotor options	2	2	7	7	2	11	13	13
Rotor locking system	Tool-free	Tool-free	Tool	Tool	Knob	Thermo Scientific™ Auto-Lock™ system		
Refrigeration	-	-	MTR 17: -9°C to 40°C	MTR 21: -9°C to 40°C	-	-	-10°C to 40°C	-10°C to 40°C
Display	-	LCD	LED	LED	LED	LCD	LCD	LCD
No. of programs	-	-	-	-	4	4	3 direct program buttons, plus 96 additional programs accessible via folder	
Dimensions (H x W x D)	104 x 128 x 153 mm (4.1 x 5 x 6 in.)	114 x 171 x 203 mm (4.4 x 6.7 x 8 in.)	MT 17/ MT 21 225 x 243 x 352 mm (8.86 x 9.56 x 13.8 in.) MTR 17/ MTR 21: 330 x 290 x 440 mm (12.9 x 11.4 x 17.3 in.)		240 x 325 x 450 mm (9.5 x 12.8 x 17.7 in.)	310 x 370 x 480 mm (12.2 x 4.6 x 18.9 in.)	320 x 460 x 670 mm (12.6 x 18.1 x 26.4 in.)	790-840 x 470 x 520 mm (30.7-32.7 x 18.3 x 20.5 in.)



Model name	X2T / X2TR	S2T / S2TR	X4T / X4TR	S4T / S4TR	X4FR	S4FR
Fixed angle rotors						
Maximum g-force	25,830	25,830	25,830	25,830	25,830	25,830
Maximum RPM	15,200	15,200	15,200	15,200	15,200	15,200
Maximum capacity	6 x 100 mL	6 x 100 mL	6 x 250 mL	6 x 100 mL	6 x 250 mL	6 x 100 mL
Swinging bucket rotors						
Maximum g-force	7,188	5,580	7,197	7,197	7,197	7,197
Maximum RPM	6,300	5,500	6,100	6,100	6,100	6,100
Maximum capacity	4 x 400 mL	4 x 400 mL	4 x 1,000 mL	4 x 1,000 mL	4 x 1,000 mL	4 x 1,000 mL
Microplate						
Maximum g-force	4,297	4,297	7,196	7,196	7,196	7,196
Maximum RPM	4,700	4,700	6,100	6,100	6,100	6,100
Maximum capacity	2 x 5	2 x 5	4 x 6	4 x 6	4 x 6	4 x 6
Centrifuge details						
Rotor options	17	15	18	13	18	13
Rotor locking system	Auto-Lock	Auto-Lock	Auto-Lock	Auto-Lock	Auto-Lock	Auto-Lock
Refrigeration	X2TR: -20°C to 40°C	S2TR: -20°C to 40°C	X4TR: -20°C to 40°C	S4TR: -20°C to 40°C	X4FR: -20°C to 40°C	S4FR: -20°C to 40°C
Display	Touchscreen	LED	Touchscreen	LED	Touchscreen	LED
No. of programs	100	6	100	6	100	6
Dimensions (H x W x D)	X2T: 362 x 445 x 660 mm (14.3 x 17.5 x 26 in.) X2TR: 361 x 625 x 660 mm (14.2 x 24.6 x 26 in.)	S2T: 362 x 445 x 660 mm (14.3 x 17.5 x 26 in.) S2TR: 361 x 625 x 695 mm (14.2 x 24.6 x 26 in.)	X4T: 362 x 566 x 690 mm (14.3 x 22.3 x 27.2 in.) X4TR: 361 x 746 x 695 mm (14.2 x 29.4 x 27.2 in.)	S4T: 362 x 566 x 690 mm (14.3 x 22.3 x 27.2 in.) S4TR: 361 x 746 x 695 mm (14.2 x 29.4 x 27.2 in.)	X4FR: 835 x 564 x 696 mm (32.8 x 22.3 x 27.2 in.)	S4FR: 835 x 564 x 696 mm (32.8 x 22.3 x 27.2 in.)

Centrifuge overview

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Large capacity, superspeed, and ultraspeed



Large capacity

Model name	Cryofuge™ 8	Cryofuge™ 16	BIOS A	BIOS 16
Fixed angle rotors				
Maximum g-force	-	-	12,000	-
Maximum RPM	-	-	6,250	-
Maximum capacity	-	-	10 x 1,000 mL	-
Swinging bucket rotors				
Maximum g-force	7,295	7,187	-	8,500
Maximum RPM	5,000	4,700	-	5,400
Maximum capacity	8 x 550 mL blood bags	16 x 550 mL blood bags	-	8 x Thermo Scientific™ CentriPAK™ BPCs or 8 x 2 L bottles
Microplate				
Maximum g-force	-	7,187	-	7,187
Maximum RPM	-	4,700	-	4,700
Maximum capacity	-	40	-	40
Centrifuge details				
Rotor options	2	2	1	8
Rotor locking system	std	std	std	std
Refrigeration	-20°C to +40°C	-20°C to +40°C	-20°C to +40°C	-20°C to +40°C
Display	Touchscreen	Touchscreen	Touchscreen	Touchscreen
No. of programs	120	120	120	120
Dimensions (H x W x D)	1,015 x 816 x 900 mm (39.9 x 32.1 x 35.4 in.)	1,015 x 816 x 900 mm (39.9 x 32.1 x 35.4 in.)	1,015 x 816 x 900 mm (39.9 x 32.1 x 35.4 in.)	1,015 x 816 x 900 mm (39.9 x 32.1 x 35.4 in.)

Superspeed

Model name	LYNX™ 6000	LYNX™ 4000
Fixed angle rotors		
Maximum g-force	100,605	68,905
Maximum RPM	29,000	24,000
Maximum capacity	6 x 1,000 mL	4 x 1,000 mL
Swinging bucket rotors		
Maximum g-force	30,314	30,314
Maximum RPM	13,100	13,100
Maximum capacity	4 x 1,000 mL	4 x 1,000 mL
Microplate		
Maximum g-force	7,068	7,068
Maximum RPM	5,500	5,500
Maximum capacity	4 x 6	4 x 6
Centrifuge details		
Rotor options	19	16
Rotor locking system	Auto-Lock	Auto-Lock
Refrigeration	-20°C to +40°C	-10°C to +40°C
Display	Touchscreen	Touchscreen
No. of programs	120	120
Dimensions (H x W x D)	1045 x 810 x 735 mm (41.1 x 31.9 x 28.9 in.)	1045 x 810 x 735 mm (41.1 x 31.9 x 28.9 in.)



Ultraspeed

Model name	Sorvall™ MX 120+	Sorvall™ MX 150+	Sorvall™ MTX150	Sorvall™ WX 100+	Sorvall™ WX 90+	Sorvall™ WX 80+	Sorvall™ CC40NX
Fixed angle rotors							
Maximum g-force	770,460	1,048,680	1,048,680	802,010	692,000	602,000	Scalable, continuous-flow ultracentrifuge with up to 118,000 x g/ 40,000 rpm.
Maximum RPM	120,000	150,000	150,000	100,000	90,000	80,000	
Maximum capacity	6 x 30 mL	6 x 30 mL	6x30 mL	6 x 250 mL	6 x 250 mL	6 x 250 mL	
Swinging bucket rotors							
Maximum g-force	258,830	258,830	258,830	488,580	488,580	488,580	Up to 8 L batch, or 200 L in continuous flow mode.
Maximum RPM	55,000	55,000	55,000	60,000	60,000	60,000	
Maximum capacity	4 x 7 mL	4 x 7 mL	4 x 7 mL	6 x 36 mL	6 x 36 mL	6 x 36 mL	
Microplate							
Maximum g-force	-	-	-	-	-	-	Process control and sample integrity. Supports GMP compliance.
Maximum RPM	-	-	-	-	-	-	
Maximum capacity	-	-	-	-	-	-	
Centrifuge details							
Rotor options	18	18	18	36	36	36	Process control and sample integrity. Supports GMP compliance.
Rotor locking system	Self-locking	Self-locking	Self-locking	Self-locking	Self-locking	Self-locking	
Refrigeration	0°C to +40°C	0°C to +40°C	0°C to +40°C	0°C to +40°C	0°C to +40°C	0°C to +40°C	
Display	Touchscreen	Touchscreen	Touchscreen	Touchscreen	Touchscreen	Touchscreen	
No. of programs	20	20	20	1,000	1,000	1,000	
Dimensions (H x W x D)	910 x 440 x 520 mm (35.8 x 17.3 x 20.5 in.)	910 x 440 x 520 mm (35.8 x 17.3 x 20.5 in.)	480 x 590 x 582 mm (16.1 x 23.2 x 22.9 in.)	880 x 790 x 690 mm (34.6 x 31.1 x 27.2 in.)	880 x 790 x 690 mm (34.6 x 31.1 x 27.2 in.)	880 x 790 x 690 mm (34.6 x 31.1 x 27.2 in.)	1,750 x 1,150 x 2,950 mm (68.9 x 45.3 x 116.2 in.)

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