

The Thermo Scientific MR23i centrifuge combines versatility, performance and affordability in a high-speed, high-capacity refrigerated multifunction centrifuge. Compact, quiet and easy to program, the MR23i centrifuge is perfect for DNA and RNA molecular biology applications, as well as clinical and forensic labs.

## Thermo Scientific MR23i Centrifuge

High-capacity, high-performance refrigerated multifunction centrifuge



The MR23i centrifuge offers a range of certified biocontained accessories that ensure safe sample handling. An intuitive display panel makes operation simple and straightforward.



Expand your capacity with the Thermo Scientific Fiberlite carbon fiber 48-place, high-capacity microtube rotor.



### High Capacity, High Performance

The Thermo Scientific MR23i refrigerated multifunction centrifuge is ideal for researchers who need high RCFs to process a wide range of sample volumes. With its 48-place rotor and g-forces of up to 30,000 x g, the MR23i centrifuge accelerates your sample separations for maximum productivity.

### Versatile

A wide range of tube sizes are supported – from 0.2 ml up to 200 ml – to easily accommodate the different sample formats required in microbiology, molecular biology, genetics and biochemistry. CAMR-approved\* biocontained accessories ensure safe sample handling.

### Unique AUTO-LOCK Rotor Exchange

Changing rotors is fast and convenient with the patented Thermo Scientific AUTO-LOCK rotor exchange. Change your application in seconds from a 48-place microtube rotor to the 2-place sealed microplate rotor with flexibility and ease.

### Quiet and Easy to Use

The quiet induction motor minimizes noise. The interactive Thermo Scientific VIDEOset controller provides a graphic display of all parameters for quick and easy programming: speed, RCF, time, temperature, rotor, integral, acceleration and braking rates, plus a real time graph of the run.

### Sample Protection

The powerful refrigeration system ensures samples are maintained at 4°C even at maximum speed<sup>(1)</sup>. This precise temperature control ensures sample integrity and higher quality separations for better results.

<sup>(1)</sup> When using aluminum rotors

\*CAMR is now incorporated within the UK Health Protection Agency (HPA).

## Thermo Scientific MR23i Rotors and Accessories

Description	Rotor Capacity (ml)	Max Tube Dimensions (mm)	Max Speed (rpm)	Max RCF (x g)	Cat. No.
<b>SWM 180.5 Swinging Bucket Rotor, 90°, R<sub>max</sub> 142mm</b>	<b>4 x 200 ml</b>	<b>57 (Ø)</b>	<b>4,400</b>	<b>3,074</b>	<b>11174711</b>
Standard Buckets (4)		57 (Ø)			11174720
Sealed Buckets (4)		57 (Ø)			11174721
Spare Sealing Lid					25241177
Lid Seal					26436809
Sealed Carriers, 50 ml Conical (4)	4 x 50	30 x 116		3,074	11174210
Sealed Carriers, 15 ml Conical (4)	4 x 15	17 x 122		3,074	11174209
200 ml PP Bottles with Caps (6)	4 x 200	56 x 112		3,074	41193271
<b>Adapters (set of 4):</b>					
100 ml Round Bottom Tube	4 x 100	45 (Ø)		3,074	11174181
50 ml Round Bottom Tube	4 x 50	32.5 (Ø)		3,074	11174501
50 ml Conical or Skirted (no sealing)	4 x 50	30 x 116		3,074	11174528
25 ml Universal Tube	4 x 25	30 x 116		3,074	11174526
20 ml Round Bottom Tube	12 x 20	22 (Ø)		3,074	11174502
15 ml Conical Tube	4 x 15	17 x 122		3,074	11174723
15 ml Round Bottom Tube	28 x 15	17 (Ø)		3,074	11174183
12 ml Round Bottom Tube	12 x 12	17.5 (Ø)		3,074	11174509
10 ml Round Bottom Tube	20 x 10	16 x 105		3,074	11174503
5/ 7 ml Round Bottom Tube	20 x 5	13 (Ø)		3,074	11174504
3/ 5 ml Round Bottom Tube	48 x 3-5	12 (Ø)		3,074	11174506
2.0/ 1.5 ml Microtubes	24 x 1.5 - 2	11 x 39		3,074	11174508
<b>MTM 6.4 Swinging Bucket Rotor, 90°, R<sub>max</sub> 115mm</b>	<b>6 x microplates/ 2 x deepwell blocks</b>		<b>4,500</b>	<b>2,604</b>	<b>11174712</b>
Rubber Cushion for Flexible Microplate (1)					11174207
<b>AM 100.13 Angle Rotor, 28°, R<sub>max</sub> 98mm</b>	<b>6 x 100 ml</b>	<b>38 x 101</b>	<b>13,000</b>	<b>18,516</b>	<b>11174710</b>
<b>Adapters (set of 6):</b>					
50 ml Round Bottom Tube	6 x 50	29 x 103		17,572	11174713
50 ml Conical Tube	6 x 50	30 x 116		17,572	11174714
30 ml Glass Round Bottom Tube	6 x 30	24 x 106		17,572	11174724
25 ml Glass Round Bottom Tube	6 x 25	24 x 104		17,572	11174725
15 ml Glass Round Bottom Tube	6 x 15	18 x 106		17,383	11174726
30-38 ml Round Bottom Tube	6 x 38	25.5 x 92		16,627	11174715
15 ml Conical Tube	6 x 15	17 x 106		17,572	11174716
10 ml Round Bottom Tube	12 x 10	16 x 80		15,682	11174717
1.5/ 2.0 ml Conical Microtube	24 x 2	11 x 39		14,926	11174718
<b>AM 50.14 Angle Rotor, 28°, R<sub>max</sub> 97mm</b>	<b>8 x 50 ml</b>	<b>29 x 104</b>	<b>14,000</b>	<b>21,255</b>	<b>11174709</b>
<b>Adapters (set of 8 unless otherwise noted)</b>					
30 ml Glass Round Bottom Tube (Set of 2)	8 x 30	24 x 106		20,379	11210244
30-38 ml Round Bottom Tube	8 x 38	25 x 92		19,283	11174599
15 ml Glass Round Bottom Tube (Set of 2)	8 x 15	18 x 102		19,941	11210245
15 ml Conical Tube	8 x 15	17 x 122		19,941	11174604
13 ml Round Bottom Tube	8 x 13	17 x 104		18,845	85240287
12 ml Round Bottom Tube	8 x 12	17 x 103		20,160	11174612
10 ml Round Bottom Tube	8 x 10	16 x 80		18,188	11174600



## Thermo Scientific MR23i Rotors and Accessories

Description	Rotor Capacity (ml)	Max Tube Dimensions (mm)	Max Speed (rpm)	Max RCF (x g)	Cat. No.
<b>AM 50C.13 Angle Rotor, 40°, R<sub>max</sub> 112mm</b>	<b>6 x 50 ml conical</b>	<b>29.8 x 118</b>	<b>13,000</b>	<b>21,160</b>	<b>11174732</b>
<b>Adapters (set of 4):</b>					
15 ml Conical Tube	6 x 15	17 x 122		21,160	11174606
10 ml Round Bottom Tube	6 x 10	16 x 80		17,194	11177378
<b>AM 38.15 Sealable Angle Rotor*, 30°, R<sub>max</sub> 89mm</b>	<b>8 x 38</b>	<b>25.5 x 92</b>	<b>15300</b>	<b>23,292</b>	<b>11174708</b>
<b>Optional Transparent Sealing Lid</b>					<b>11174722</b>
<b>Adapters (set of 8):</b>					
13 ml Round Bottom Tube	8 x 13	17 x 85		21,984	11174601
10 ml Round Bottom Tube	8 x 10	16 x 80		20,937	11174602
5 ml Round Bottom Tube	8 x 5	12.5 x 75		19,367	11174610
<b>DRM 6.14 Drum Rotor, 90°, R<sub>max</sub> 72mm</b>	<b>6 racks</b>		<b>14,300</b>	<b>16,461</b>	<b>11174703</b>
1.5/ 2.0 ml Conical Microtube	60 x 1.5/ 2.0	11			11174561
0.5/ 0.8 ml Conical Microtube	80 x 0.5/ 0.8	8			11174573
0.7 ml Conical Microtube	80 x 0.7	6			11174574
0.25/ 0.4 ml Conical Microtube	192 x 0.25/ 0.4	6			11174562
<b>Microtube Rotors</b>					
<b>48 place Sealed Fiberlite Angle Rotor, 45°</b>	<b>48 x 1.5 ml</b>	<b>11 x 39</b>	<b>15,000</b>	<b>24,400</b>	<b>11177523</b>
<b>Adapters:</b>					
0.5/ 0.8 ml		8 x 39			41174928
0.5 ml		6 x 39			41174938
<b>AM 2.19 Sealable Angle Rotor*, 45°, R<sub>max</sub> 73mm</b>	<b>28 x 1.5 - 2 ml</b>	<b>11 x 39</b>	<b>19,200</b>	<b>30,086</b>	<b>11174706</b>
<b>AM 2.18 Sealed Angle Rotor**, 45°, R<sub>max</sub> 84mm</b>	<b>24 x 1.5 - 2 ml</b>	<b>11 x 39</b>	<b>18,750</b>	<b>33,015</b>	<b>11174728</b>
<b>AM 2.21 Sealed Angle Rotor**, 45°, R<sub>max</sub> 62mm</b>	<b>12 x 1.5 - 2 ml</b>	<b>11 x 39</b>	<b>21,500</b>	<b>32,041</b>	<b>11174705</b>
<b>AM 2.23 Unsealed Angle Rotor, 45°, R<sub>max</sub> 62mm</b>	<b>12 x 1.5 - 2 ml</b>	<b>11 x 39</b>	<b>23,000</b>	<b>36,668</b>	<b>11174704</b>
<b>Optional Transparent Sealing Lid for 2.19, 2.18, or 2.21 rotors</b>					<b>11174722</b>
<b>Adapters for 2.19, 2.18, 2.21 and 2.23 (set of 20):</b>					
0.5/ 0.8 ml		8 x 39			41174928
0.2 ml PCR		6.5 x 39			11174631
0.25/ 0.5 ml		6 x 39			41174938
<b>AM 10.17 Sealable Angle Rotor*, 40°, R<sub>max</sub> 85mm</b>	<b>10 x 10 ml</b>	<b>16 x 80</b>	<b>16,600</b>	<b>26,186</b>	<b>11174707</b>
<b>Optional Transparent Sealing Lid</b>					<b>11174722</b>
<b>Adapters (set of 10):</b>					
6 ml Round Bottom Tube	10 x 6	13 x 100		24,646	11174607
1.5/ 2.0 ml Conical Microtube	10 x 1.5/ 2.0	11 x 39		19,717	11174603

\* Sealing lid not sold with AM10.17, AM2.19 and AM38.15.  
Purchase sealing lid Cat No. 11174722 if required

\*\* Rotors AM2.18 and AM2.21 are sold with lid.





## Thermo Scientific MR23i Centrifuge

### Description

<b>Max Speed (rpm)</b>	
Swinging Bucket	4,400
Fixed Angle	23,000
<b>Max RCF (x g)</b>	
Swinging Bucket	3,074
Fixed Angle	36,668
<b>Max Capacity</b>	
Swinging Bucket	4 x 200
Fixed Angle	6 x 100
<b>Controller</b>	Microprocessor
<b>Display</b>	VIDEOset® software on graphic screen 240 x 128 pixels
<b>Memory</b>	32 Programs
<b>Program Protection</b>	Individual Password
<b>Speed</b>	
Range	500 to 23,000 rpm
Step	10 rpm
Accuracy	±10 rpm (low speed) ±20 rpm (high speed)
<b>Integrator</b>	
Range	100 to 281 x 10 <sup>12</sup> m. rd <sup>2</sup> .s
Step	1 m. rd <sup>2</sup> .s
Accuracy	±1 m. rd <sup>2</sup> .s
<b>Timer</b>	
Range	0 to 99h 59 min+ position continue
Step	1 min
Accuracy	less than 1%
<b>RCF</b>	
Range	20 to 36,668 x g
Step	1 x g at low speed, 3 x g at max. speed
Accuracy	±1 x g at low speed, ± 3 x g max. speed
<b>Acceleration/ Braking</b>	10/ 10 Rates
<b>Temperature</b>	
Range	-8°C to 40°C
Step	1°C
<b>Typical Temperature Performance</b>	-5°C at 4,400 rpm, 3,074 x g (4 x 200 ml swinging bucket) 20°C ambient
<b>Dimensions (H x W x D)</b>	360 x 585 x 635 mm
<b>Packed</b>	570 x 720 x 790 mm
<b>Weight (net/ packed)</b>	85 kg/ 100 lb
<b>Max Power (watts)</b>	1300VA
<b>Instant Rotor Exchange System</b>	AUTO-LOCK®

### Ordering Information

Description	Cat. No.
MR23i, 230V/ 50Hz	11174729
MR23i, 120V/ 60HZ	11174730
MR23i, 230V/ 60HZ	11174731

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