Centrifugation





myFuge" Mini MicroCentrifuge



StripSpin 12 & myFuge™ 5 MicroCentrifuges



myFuge[™]12 MicroCentrifuge



PlateFuge[™] MicroCentrifuge

Pg. 9



MC12[™] High Speed MicroCentrifuge MC24 Touch[™] High Speed MicroCentrifuge



LC-8[™] Series Centrifuges



Hermle Large Capacity Centrifuges



Hermle Refrigerated MicroCentrifuge



Also from Hermle...

myFuge[™] Mini **Microcentrifuge**



The myFuge[™] Mini Microcentrifuge is a personal centrifuge that virtually fits in the palm of your hand. Ideal for quick spin downs of microtubes and PCR tubes, the myFuge is extremely easy to use. Simply close the lid and the rotor instantly reaches 6,000 rpm. Open the lid, and the improved braking system quickly and smoothly decelerates the rotor to a complete stop in just one second.

An eight-position microtube rotor is included and comes installed. Also included is a second rotor with increased capacity for four 0.2ml PCR strips (or 32 x 0.2ml tubes) which is stored in a convenient compartment on the bottom of the centrifuge. This compartment is also used for securing the included tube adapters for 0.5ml tubes.

A new **Clik-n-Lok**[™] rotor attachment system eliminates the requirement for set screws and tools during rotor exchange. Simply remove and attach rotors by hand, pulling or pressing the rotor onto the motor shaft.

Technical Data:

Speed:	6,000 rpm / 2,000 xg
Capacity:	8 x 1.5/2.0ml tubes 32 x 0.2ml PCR tubes 4 x PCR strips (8 x 0.2ml)
Dimensions: (W x D x H)	5.7 x 6.9 x 4.5 in. 14.5 x 17.8 x 11.4 cm
Weight:	2.2 lbs. / 1 kg
Electrical:	Universal Voltage 100-240V, 50-60 Hz, 50W
Warranty:	2 Year



- ↓ Clik-n-Lok[™] instant rotor attachment
- + Eight position microtube rotor
- Storage compartment for PCR rotor and 0.5ml adapters
- Decelerates in just <u>1 second</u>
- Rotor for 4 PCR strips





Storage compartment

Includes both rotors



Available in 5 colors

Ordering Information:

Item No.	Description:
C1008-C*	MyFuge Mini Microcentrifuge, clear lid
C1008-B*	MyFuge Mini Microcentrifuge, blue lid
C1008-G*	MyFuge Mini Microcentrifuge, green lid
C1008-P*	MyFuge Mini Microcentrifuge, purple lid
C1008-R*	MyFuge Mini Microcentrifuge, red lid
C1008-A5-8	Replacement adapter pack, 0.5ml 8/pk.
C1008-A2-8	Replacement adapter pack, 0.2ml 8/pk.

*Includes US plug. For EU plug, please add (-E).

All models include microtube rotor, PCR rotor and 0.5ml adapters.

MyFuge[™] 12 **Microcentrifuge**



2000

RCF



- ↓ COMBI-Rotor™ for tubes and strips
- ⁺ Twice the capacity of most mini centrifuges
- Near silent operation
- Starts & stops with closing/opening of the lid





Unique COMBI-Rotor

Compact, low profile design

Unlike traditional mini centrifuges, the new myFuge[™] 12 eliminates the need to change rotors when switching between microtubes and PCR strips. The included, unique COMBI-Rotor[™] is all that is required for running 12 microtubes and/or 4 (eight position) PCR strips.

With a fixed speed that produces 2,000 xg, this centrifuge is perfect for quick spin downs. vSimply close the lid and the unit accelerates to 5,500 rpm. Open the lid, and the rotor quickly decelerates for removal of samples.

At just 5.5 inches wide and less than 4.5 inches tall, the myFuge 12 truly is a personal centrifuge with unmatched capacity and flexibiilty.

Technical Data:

Speed:	5,500 rpm / 2,000 xg
Capacity:	12 x 1.5/2.0ml tubes 32 x 0.2ml PCR tubes 4 x PCR strips (8 x 0.2ml)
Dimensions: (W x D x H)	5.5 x 7.9 x 4.4 in. 14 x 20 x 11.2 cm
Weight:	2.2 lbs. / 1 kg
Electrical:	Universal Voltage 100-240V, 50-60 Hz, 50W
Warranty:	2 Year

Ordering Information:

Item No.	Description:
C1012*	myFuge 12 Microcentrifuge with Combi-Rotor
C1008-A5-6	Adapter pack, 0.5ml 6/pk.
C1008-A2-6	Adapter pack, 0.2ml 6/pk.

*Includes US plug. For EU plug, please add (-E).

StripSpin[™]12 Microcentrifuge





The myFuge[™] 5 microcentrifuge includes a four position rotor for compatibility with a variety of 5ml test tubes, including 5ml snap cap centrifuge tubes. In addition, this combination rotor has four additional slots for centrifuging standard microtubes (1.5/2.0ml). Simply close the lid and the centrifuge quickly accelerates to the fixed speed of 5,500 rpm. Open the lid, and the rotor decelerates to a stop for removing samples.

The 5ml rotor positions accept 5ml centrifuge tubes directly, while 5ml blood and culture tubes (12x75mm) are accepted with the included adapters. The microtube positions are designed to accept 0.5 and 0.2ml tubes with the use of optional adapters.

Technical Data:

Speed:	5,500 rpm / 2,000 xg
Capacity:	4 x 5ml tubes & 4 x 1.5/2.0ml
Dimensions: (W x D x H)	5.5 x 7.9 x 5.5 in. 14 x 20 x 14cm
Weight:	2.2 lbs. / 1 kg
Electrical:	Universal Voltage 100-240V, 50-60 Hz, 50W
Warranty:	2 Year

Ordering Information:

Item No.	Description:
C1005*	myFuge 5 Mini Centrifuge with combination rotor , $4x5ml\&4x1.5/2.0ml$
C1005-AC2	Adapter pack, for crytovials (0.5 to 2.0ml) and 1.5/2.0ml HPLC vials, 4/pk.
C1008-A5-6	Adapter pack, 0.5ml, 6/pk.
C1008-A2-6	Adapter pack, 0.2ml, 6/pk.

*Includes US plug. For EU plug, please add (-E).

600 RCF

PlateFuge[™] Microplate Centrifuge



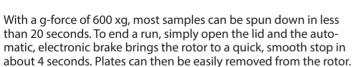


- Quickly spins down droplets in PCR plates
- Unique, patented rotor design prevents sample spillage
- Accepts all popular PCR plates (skirted, semi and non) and most microtiter plates
- -Less than half the size of traditional centrifuges

CE

Benchmark's PlateFuge[™] is the first "mini" sized centrifuge with a swing out rotor for microplates. Centrifugation of plates before PCR ensures all reactants are in the bottom of the wells for optimized concentrations and improved yields.

In spite of its remarkably small footprint (9 x 10 in.), the PlateFuge[™] includes a uniquely designed, patented swing out rotor capable of securing two microplates. The easily accessible rotor chamber includes two plate carriers that rest at a 75° angle. This allows plates to be inserted confidently without sealing tapes or caps. Upon closing the lid of the centrifuge, the rotor accelerates and the centrifugal force "swings" the plates into a vertical position. Any droplets on the walls of the plate, quickly concentrate into the well bottoms.



Technical Data:

Speed:	2550 rpm / 600 xg
Capacity:	2 x 2 PCR plates* 2 x microtiter plates (up to 25mm) 24 x 0.2ml PCR strips
Deceleration:	4 seconds
Dimensions: (W x D x H)	9.2 x 10.2 x 7.75 in. 23 x 26 x 19.7 cm
Weight:	9 lbs. / 4.1 kg
Electrical:	115 or 230V, 50-60 Hz, 250W
Warranty:	2 Years



Before & after centrifugation (angled position)



During centrifugation (horizontal position)

Ordering Information:

Item No.	Description:
C2000*	PlateFuge Microplate Centrifuge with rotor and plate carriers
C2000-A02	Tube adapter, holds 96 x 0.2ml or 8 and 12 position PCR strips, 2/pk.
C2000-DWMP	Optional rotor with carriers for deep well plates up to 35mm tall (speed: 1500rpm)

*115V with US plug. For 230V (EU plug), please add (-E).

*When stacking skirted PCR plates, max. capacity is 4 plates.

MC-12[™] High Speed Microcentrifuge

16,100 RCF



Benchmark's MC-12 is the first and only compact microcentrifuge capable of achieving centrifugal speeds up to the critical threshold of 16,000 xg, often held as the standard for many molecular biology/DNA protocols. A brushless, maintenance free drive system makes it powerful, yet compact enough to allow each work station to be fully equipped with a personal centrifuge.

High speed range



Large LCD controls

The MC-12 defines a new class of microcentrifuge: compact, quick, powerful and affordable. All aspects of microcentrifuge performance were taken into consideration and no compromises were made. In addition to its unsurpassed speed, the MC-12 also delivers shortened acceleration/deceleration times, whisper quiet operation and a computer-designed airflow pattern to minimize sample temperature increases during longer runs at high speeds.

All operating parameters are set using a single, conveniently located control knob. The large, bright LCD provides a clear indication of time and rpm or g-force. A separate momentary spin button permits instant spin downs, without setting or disturbing any preset parameters. The aircraft grade aluminum rotor accepts 1.5 to 2.0ml tubes directly, as well as 0.5 and 0.2ml tubes with optional adapters. For applications requiring sub-ambient temperatures, the MC-12 is cold room safe.

Technical Data:

Speed Range:	500 to15,500 rpm (up to16,100xg)
Capacity:	12 x 1.5/2.0ml
Deceleration:	10 seconds
Acceleration:	12 seconds
Speed Increment:	100 rpm or 100 rcf
Timer:	20 sec. to 99 min. / cont.
Momentary:	Yes
Dimensions: (W x D x H)	8.7 x 10.6 x 5.9 in. 22 x 27 x 15cm
Weight:	10.5 lbs / 4.8 kg
Electrical:	115 or 230V, 50-60 Hz, 100W
Warranty:	2 years

Ordering Information:

Item No.	Description:
C1612*	MC-12 High Speed Microcentrifuge with 12 position rotor
C1008-A5-6	Optional adapter pack, 0.5ml 6/pk.
C1008-A2-6	Optional adapter pack, 0.2ml 6/pk.

6,800 RCF

MC-24 Touch[™] High Speed Microcentrifuge





- -Full color touch screen
- → mySpin[™] 1 button program recall
- COMBI-Rotor™ accepts tubes and strips
- Compact design, 9 x 12 x 7.75 in.
- Unique air-flow system, keeps samples cool



Unique **COMBI-Rotor**[™] Accepts tubes and strips



Full-color Touch Screen

Benchmark's MC-24 Touch is the first microcentrifuge in its class with the convenience of touch pad control. In addition, this model comes complete with a unique COMBI-Rotor™ that accepts both standard microtubes and PCR strips, making this the ideal microcentrifuge for any microbiology laboratory.

The large, color touch screen shows actual speed (in rpm or rcf) along with set and remaining time. Up to 9 speed/time profiles can be stored in memory and the home screen displays a "mySpin" icon for instant recall of a designated favorite profile.

Supplied with Benchmark's unique COMBI-Rotor[™], the MC-24 Touch will accept 24x1.5/2.0ml tubes and 2 strips of 0.2ml tubes (16x0.2ml) without requiring separate adapters. Samples are kept cool, even during extended runs at the maximum speed setting by a proprietary air flow system that moves air evenly and quietly throughout the chamber.

The MC-24 Touch is cold room safe and carries a 2 year warranty.

Technical Data:	
Speed Range:	200 to13,500 rpm (up to16,800xg)
Capacity:	24 x 1.5/2.0ml 2 x PCR Strips (16 x 0.2ml)
Speed Increment:	100 rpm or 100 rcf
Timer:	20 sec. to 99 min. / cont.
Momentary:	Yes
Dimensions: (W x D x H)	9 x 12 x 7.75 in. 23 x 30.5 x 19.7cm
Weight:	14 lbs / 6.4 kg
Electrical:	115 or 230V, 50-60 Hz, 100W
Warranty:	2 years

Ordering Information:

Item No.	Description:
C2417*	MC-24 Touch Microcentrifuge with 24 place COMBI-Rotor
C1008-A5-6	Optional adapters for 0.5ml tubes in standard rotor, 6/pk
C2417-ROT5	Optional rotor, 8x 5ml (13,500rpm)
C2417-5-ADP	Optional adapters for 2ml cryovials in 8x5ml rotor, 8/pk

LC-8[™] Series Centrifuges







- Digital speed control with rcf conversion
- Safety lid-lock prevents opening the lid until the rotor stops
- Unique air flow design limits increase in sample temperature
- Eight position rotor accepts tubes ranging from 5ml to 15ml



Centrifuge Tubes



Collection Tubes



10ml Blood Collection Tubes



5-7ml Blood Collection Tubes (requires adapter)

Benchmark's LC-8 Series of laboratory centrifuges is uniquely designed to meet a wide range of applications in both the clinical and research laboratory. An eight position rotor is included and designed to directly accept 10ml and 15ml test-tubes (conical or round bottom), while optional adapters are also available for use with all popular sizes of blood collection and culture tubes. Unlike most compact centrifuges in this class, the rotor can be easily removed from the chamber for cleaning.

The back-lit, liquid crystal display provides full control over the set run time and rotational speed. The rotational speed can be set/viewed in rpm or rcf and acceleration/deceleration levels can be easily adjusted in the advanced settings mode.

To ensure safety, the digital microprocessor ensures that the lid has been closed and that the safety lid lock is engaged prior to starting a centrifugation cycle. In addition, an advanced imbalance detection system constantly monitors the balance and vibration, automatically bringing the rotor to a stop if an imbalance is detected.

Technical Data:

	LC-8	LC-8 Plus
Speed Range:	400 - 3,500rpm (1500xg)	400 - 5,000rpm (3070xg)
Capacity:	8 x 15ml	8 x 15ml
Accel/Decel:	9 sec. / 25 sec.	19 sec. / 39 sec.
Increment:	100 rpm increments	
Timer:	20 sec. to 99 min.	
Momentary:	Yes	
Dimensions: (W x D x H)	11.6 x 14.4 x 8.3 in. 29.5 x 36.5 x 21 cm	
Weight:	15 lbs / 6.8 kg	
Electrical:	115 or 230V, 50-60 Hz, 150W	
Warranty:	2 years	

Ordering Information:

Item No.	Description:
C3100*	LC-8 Centrifuge with 8 x 15ml rotor (maximum speed: 3,500rpm / 1,500xg)
C3200	LC-8 Plus Centrifuge with 8 x 15ml rotor (maximum speed: 5,000rpm / 3,070xg)
C3100-ADP	Optional adapters for 5ml & 7ml blood collection/culture tubes, 8/pk
C2570	Optional adapters for 5ml centrifuge tubes, 4/pk
*115V with US plug. For 230V (EU plug), please add (-	

HERMLE[™] Z216-M Series **High Speed Microcentrifuges**



Compact, quiet, and powerful are just a few of the features found on the Z216 Series Microcentrifuges. Add to this, the versatility of eight available rotor options, and the result is the ideal microcentrifuge for the modern molecular biology laboratory.

All common microtubes (0.2ml, 0.5ml, 1.5ml, 2.0ml) can be accepted as well as PCR strips, hematocrit tubes, and even 5.0ml centrifuge tubes. Advanced microprocessor controls allow for setting/displaying of the rotational speed in either rpm or rcf. In addition to retrieving saved programs, the easy to use front panel can adjust accel/decel rates, and change the end of run alarm tone.

Despite a remarkably small footprint, the Z216 series offers high output with a uniquely designed 44 x 1.5ml dual row rotor, nearly doubling the capacity when compared to traditional microcentrifuges. A unique COMBI-Rotor[™] for 24 x 1.5/2.0ml and 4 x PCR strips is also available, featuring our new Quick-Seal[™] biocontainment lid that opens and locks with only a quarter turn.

In the Z216-MK model, a powerful, compressor driven cooling system maintains temperatures as low as -20°C and is designed to reach 4°C (from room temperature) in less than 10 minutes.

	Speed Range:	200 to 15,000 rpm (up to 21,631xg)	lte Z2
	Max. Capacity:	44 x 1.5/2.0ml 4 x PCR Strips (32 x 0.2ml)	Z2
	Speed Increment:	10 rpm or 10 rcf	Z2
	Timer:	10 sec. to 99h 99 min. / cont.	Z2
	Temp. Range	-20°C to 40°C (Z216-MK)	Z2
	Momentary:	Yes	Z2 Z2
	Dimensions: (W x D x H)	11 x 15.3 x 11.4 in. 11 x 21.6 x 11.4 in. (Z216-MK)	Z2 Z2 Z2
	Weight:	37.4 lbs / 17 kg 77 lbs / 35 kg (Z216-MK)	Z2 Z2
	Electrical:	115 or 230V, 50-60 Hz, 280W (Z216-MK: 560W)	M
	Warranty:	5 years	

Technical Data:

21,631

Ordering Information:

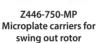
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ltem No.	Description:
Z216-M*	Z216-M High Speed Microcentrifuge
Z216-MK*	Z216-MK Refrigerated High Speed Microcentrifuge
Z216-2420	Rotor, 24 x 1.5/2.0ml
Z216-2420S	NEW! COMBI-rotor with Quick-Seal biocontainment lid for $24 \times 1.5/2.0$ ml and $4 \times PCR$ Strips
Z216-4420	Rotor, 44 x 1.5/2.0ml
Z216-3020H	Rotor, 30 x 1.5/2.0ml with hermetically sealed lid
Z216-1220H	Swing out rotor, 12 x 1.5/2.0ml, 1ml HLA tube compatible
Z216-6405	Rotor, 64 x 0.5ml
Z216-1205	Rotor, 12 x 5ml centrifuge tubes
Z216-3202	Rotor, 4 x PCR Strips (32 x 0.2ml tubes)
Z216-24HEM	Rotor, hematocrit, 24 x capillary
More rotors available	Visit www.hermleusa.com for a complete listing

HERMLE™ Z446 Series High Capacity Universal Centrifuges



Z446-750 Swing out rotor with round buckets

Technical Data:



rotor

7446-MP-BUK Sealable microplate

bucket for swing out

Z446-750-A50 Z446-750-A15 Z446-750-A10 Z446-750-A57

Z446-750-A500

Z446-750-A250

Z446-750-A225

24,325

RCF

Benchmark

High capacity, 4 x 750ml accepts 28 x 50ml or 68 x 15ml

+ Advanced programming with auto rotor recognition

Available with refrigeration

Ideal for tissue culture laboratories

Tube/Bottle

500ml conical

250ml bottle

225ml conical

50ml conical

15ml conical

10ml

5/7ml

1

1

1

7

17

18

21

4

4

4

28

68

72

84

HERMI

The Z446 Universal Centrifuge Series offers the highest capacity of any benchtop Hermle-Benchmark model. With aircraft grade, premium alloy construction, the 4 x 750ml swing out rotor can withstand centrifugal forces upwards of 4,000 xg with full loads of up to 28 x 50ml or 68 x 15ml tubes.

Advanced microprocessor controls allow for instant rotor identification, which automatically converts the rotational speed to the relevant g-force (rcf), preventing the user from setting a speed above the capabilities of the installed rotor. In addition to retrieving saved programs, the easy to use front panel can adjust accel/decel rates, and change the end of run alarm tone.

Rotor exchange is simple and requires less than one minute. An included rotor wrench can be used to loosen and install all rotors. As soon as the rotor is placed on the motor shaft, the identification process activates and the installed rotor code is displayed on the backlit LCD display.

Speed Range:	200 to 16,000 rpm (up to 24,325xg)	lte
		Z4
Capacity:	4 x 750ml 28 x 50ml	Z 4
	68 x 15ml	Z4
Speed Increment:	10 rpm or 10 rcf	Z4
	•	Z4
Timer:	10 sec. to 99h 99 min. / cont.	Z4
Temp. Range	-20°C to 40°C (Z446-K)	Z3
Momentary:	Yes	Z3
Dimensions:	21.3 x 26.4 x 15.4 in.	Z3
(W x D x H)	28.7 x 26.4 x 15.4 in. (Z446-K)	Z3
	174 lbs / 79 kg	Mo
Weight:	244 lbs / 111 kg (Z446-K)	
Electrical:	115 or 230V, 50-60 Hz, 640W (Z446-K: 1630W)	
Warranty:	5 years	

Ordering Information:

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Item No.	Description:
Z446*	Z446 Large Capacity Universal Centrifuge
Z446-K*	Z446-K Refrigerated Large Capacity Universal entrifuge
Z446-750	4 x 750ml swing out rotor with round buckets
Z446-750-MP	Microplate carriers for Z446-750-AC rotor, 2/pk
Z446-MP-BUK	Rectagular microplate buckets for Z446-750-AC rotor, 2/pk
Z446-04500	Rotor, 4 x 500ml bottle
Z366-06250	Rotor, 6 x 250ml bottle
Z326-0685	Rotor, 6 x 85ml
Z326-1050	Rotor, 10 x 50ml conical
Z326-2010	Rotor, 20 x 10ml
More rotors available	Visit www.hermleusa.com for a complete listing

Also from Hermle...



Find the right centrifuge, FAST

With Benchmark's myFuge app, choosing the right centrifuge is now easier than ever.

By answering a few questions, the myFuge app helps you select the best centrifuge for your specific needs.

Access the app by scanning the QR code above. Visit HermleUSA.com for a full listing and promotional literature.







Compatable with:



13