Universal Centrifuges

Z327

Z327-K

HERMLE

Benchmark

4 x 200 ml

Z327
Z327-K

Z327

Z327-K

Both the Z327 and the refrigerated Z327-K offer a wide assortment of rotor options, making them ideal for a wide variety of research applications. Rotor exchange between swing out, micro, or high volume fixed angle rotors is very simple and can be done in a matter of seconds. The Z327-K features rear mounted refrigeration system, optimized for saving space on the lab bench at only 40 cm wide!

Technical data

max. speed:	18,000 rpm
max. RCF:	23,542 xg
max. volume:	4 x 200 ml
Speed range:	200 – 18,000 rpm
Temperature range Z327-K:	-20°C to 40°C
Running time:	59 min 50 s / 10 s increments 99 h 59 min / 1 min increments
Dimensions Z327:	15.7 in x 14 in x 19 in 40 cm x 36 cm x 48 cm (WxHxD)
Z327-K:	15.7in x14 in x 27.5 in 40 cm x 36 cm x 70 cm (W x H x D)
Weight Z327 / Z327-K:	95 lbs / 132 lbs 43 kg / 60 kg
Power input: Z327 / Z327-K:	460 W / 660 W
Order No.: Z327:	Z327, 120 V / 50-60 Hz Z327-E, 230 V / 50-60 Hz
Z327-K:	Z327-K, 120 V / 50-60 Hz Z327-K-E, 230 V / 50-60 Hz

Z327-K

Specifications

- Maintenance-free induction drive
- Microprocessor with large LCD display
- Motor driven lid lock
- Automatic radio-frequency rotor identification system (RFID) with over speed protection, immediately upon rotor insertion
- Active imbalance identification and cut-off (rotor specific)
- CFC-free refrigeration system (Z327-K)
- A large variety of rotors and accessories
- Audible signal at the end of each run with several melody options
- Noise level under 63 dBA at max. speed
- Manufactured according to international safety regulations, i.e. IEC 61010
- Rotor exchange is easy to handle
- Optimized airflow system keeps the samples cool (Z327)
- Stainless steel chamber

Distinct Control Panel

- Simple one handed Touch-Operation
- Easy to program with gloves on
- Splash proof digital display
- Permanent indication of Preset and Actual Values
- Selection of speed in both rpm and rcf, with increments of 10
- 10 acceleration and 10 deceleration rates, Possibility of brakeless deceleration
- Preselection of the temperature from - 20°C to 40°C with 1°C increments (Z327-K)
- Indication of the sample temperature (Z327-K)
- Pre-cooling program option (Z327-K)
- Standstill cooling (Z327-K)
- Pre-selection of running time from 10 s to 99 h 59 min or continuous
- Storage of up to 99 runs including rotor type
- Quick-key for short runs
- Diagnostic program
- Timer: the centrifuge starts at the preselected time

Accessories Z327 and Z327-K

Rotor/Bucket

Adapter

Order No.: Z327-200

Swing out rotor 4 place w/ buckets
Angle: 0-90°
(w/o buckets: Z327-200-AC)

Z327-200-BUK
Bucket for Adapter

Z327-200-LID
Lid for Bucket I hermetically sealed

Acceleration in s: 21/102
Deceleration in s: 12/387
max. speed: 5,000 rpm
RCF-Value: 4,136 xg
max. radius: 14.8 cm

Volume	200 ml bottle	200 ml conical	100 ml RB Glass	85 ml RB/OR
Tubes Ø in mm	56	56	40	38
Length min./max. (mm)	112	120	95/115	95/108
Tubes per Rotor	4	4	4	4
Radius Correction (cm)	0.0	0.0	0.2	0.2
Order No. Adapter: Z327-200-___	without	A200	A100	A85

Volume	50 ml RB/OR	50 ml conical	50 ml skirted	25/30 ml Universal	25/30 ml RB/OR	15 ml conical	15 ml conical	15 ml RB	5/7 ml RB	5 ml conical	1.5/2.0 ml micro	6-10 ml Vakut.®	6-10 ml Vakut.®	1.8-7 ml Vakut.®	50 ml conical
Tubes Ø in mm	29	29	29	25	25	17	17	17	13	17	11	16	16	13	29
Length min./max. (mm)	95/103	116	116	95/105	90/110	120	120	60/107	65/100	60/70	40	130	100	75/100	116
Tubes per rotor	4	4	4	4	4	16	12	28	32	20	32	4	28	32	8
Radius Correction (cm	0.2	0.1	0.2	0.2	0.2	0.1	0.0	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.0
)Order No. Adapter: Z327-200-___	A50R	A50	A50SS	A25	A30	A15B*	A15	A15R	A57	A5F	A20	A15L	A10	A57	B50

*only without bucket lid

Order No.: Z306-100

Swing out rotor 4 place
Angle: 0-90°

Acceleration in s: 12/93
Deceleration in s: 12/226
max. speed: 4,500 rpm
RCF-Value: 3,350 xg
max. radius: 14.8 cm

Volume	145 ml Nalgene®	100 ml RB Glass	85 ml RB/OR	50 ml RB Glass	50 ml conical
Tubes Ø in mm	50	44	38	29	29
Length min./max. (mm)	100	90/108	90/108	90/118	116
Tubes per rotor	4	4	4	4	4
Radius Correction (cm)	1.0	1.0	0.8	0.7	0.3
Order No. Adapter: Z306-100-___	A145	A100	A85	A50R	A50

Volume	50 ml Rim	30 ml Universal	15 ml conical	15 ml RB	6-10 ml Vakut.®	1.8-7 ml Vakut.®	1.5/2.0 ml micro
Tubes Ø in mm	29	25	17	17	16	13	11
Length min./max. (mm)	116	95/105	120	90/108	90/108	75/100	40
Tubes per rotor	4	4	8	28	28	28	40
Radius Correction (cm)	0.6	1.1	0.0	0.4	0.4	0.7	5.5
Order No. Adapter	A50SS	A30	A15	A10	A10	A57	A20

Order No.: Z326-100H

Swing out rotor 4 Places
w/ sealed buckets
Angle:0-90°

Z326-100H-BUK
Bucket for Tube Rack w/ lid

Z326-100H-LID
Lid for bucket

Acceleration in s: 15/100
Deceleration in s: 15/150
max. Speed: 5000 rpm
RCF-value: 4080 xg
max. Radius: 14.6 cm
Temp. at max. speed: 2°C

Volume	100 ml RB Glass	85 ml RB/OR	50 ml RB/OR	50 ml Falcon®
Tubes ø in mm	40	38	29	29
Length min./max. in mm	90/108	90/108	90/133	116
Tubes per rotor	4	4	4	4
Radius correction (cm)	0.9	0.6	0.6	0.4
Order-No.: Z326-100H-	A100	A85	A50R	A50

Volume	50 ml skirted	30 ml Universal	15 ml Falcon®	15 ml Falcon®	15 ml RB Glass	6-10 ml Vakut.®	10-15ml Vakut.®	1.8-7 ml Vakut.®	1.5 ml Reakt.
Tubes Ø in mm	29	25	17	17	17	16	16	13	11
Length min./max. (mm)	116	95/105	120	120	90/108	75/100	75/125	75/100	42
Tubes per rotor	4	4	4	8	16	16	4	16	20
Radius Correction (cm)	0.7	1.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Order No. Tube rack	A50SS	A30	A15S	A15*	A15R	A10	A15L*	A57	A20

* only without bucket lid

Volume	50ml Falcon®	15ml Falcon®
Tubes Ø in mm	29	17
Length min./max. (mm)	116	120
Tubes per rotor	8	12
Radius Correction (cm)	0.0	0.0
Order No. Tube rack	B50	B15

Accessories Z327 and Z327-K

Rotor/Bucket

Order No.: Z326-02MP

Swing out rotor 2 x 3 Microplates
Angle: 0-90°

Adapter

Acceleration in s: 22/155
Deceleration in s: 16/518
max. speed: 4,500 rpm
RCF-Value: 2,716 xg
max. radius: 12.0 cm
max. loading height: 63 mm
max. loading weight: 310 g
Temp. at max. speed: -5°C

Order No.:	Tube rack
BT1500-A1520	20 x 1.5 ml (2.0 ml) Tubes
BT1500-A05	20 x 0.5 ml
Z326-MPCA	3 x Chamber Slide or 30/60 mm petri dish

Order No.: Z326-3015

Angle rotor
30 x 15 ml Glass or 20 x 15 ml conical
Angle: 35°

Acceleration in s: 17/114
Deceleration in s: 11/632
max. speed: 4,500 rpm
RCF-Value: 2,830/2,467 xg
max. radius: 12.5/10.9 cm
max. Ø: 17 mm
Temp. at max. speed: -7°C

Order No.:	Adapter	Ø [mm]	Length [min/max.]:
without	1 x 15 ml Glass	17.0	95/115
without	1 x 15 ml conical	17.0	120
C3100-ADP	1 x 5/7 ml	13	75/100

Order No.: Z326-1215

Angle rotor 12 x 15 ml
Angle: 32°

Acceleration in s: 18/103
Deceleration in s: 12/356
max. speed: 6,000 rpm
RCF-Value: 4,427 xg
max. radius: 11.0 cm
max. Ø: 17 mm
Temp. at max. speed: -9°C

Volume	15 ml conical	15 ml	4-7ml Vakut.®	1.8-5 ml Vakut.®
Tubes Ø in mm	17	17	13	13
Length min./max. in mm	120	105/120	100	75
Order No. Adapter	without	without	C3100-ADP	C3100-ADP

Order No.: Z326-0650

Angle rotor 6 x 50 ml
Angle: 40°

Acceleration in s: 15/102
Deceleration in s: 11/486
max. speed: 6,000 rpm
RCF-Value: 4,427 xg
max. radius: 11.0 cm
max. Ø: 29 mm
Temp. at max. speed: -6°C

Volume	50 ml conical	50 ml RB/OR	15 ml conical	7 ml	5 ml
Tubes Ø in mm	29	29	17	17	18
Length min./max. in mm	116	100/120	120	97/120	100/105
Order No. Adapter	without	without	Z206-50-A15	Z206-50-A57	Z206-50-A57C* *with Z206-50-A57

Order No.: Z326-0685-25

Angle rotor 6 x 85 ml
Angle: 25°

Acceleration in s: 65/399
Deceleration in s: 38/988
Acceleration in s: 98/495
Deceleration in s: 47/1,068
max. speed: 11,000 rpm
max. speed: 13,500 rpm
RCF-Value: 13,932 xg
RCF-Value: 20,984 xg
max. radius: 10.3 cm
max. Ø: 38 mm
Temp. at max. speed: 15°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 85 ml	38	113
Z326-85-A50R	1 x 50 ml	29	105
Z326-85-A50	1 x 50 ml conical	29	116
Z326-85-A30	1 x 30 ml	25	90/103
Z326-85-B15R	2 x 15 ml	17	95/100
Z326-85-A15R	1 x 15 ml	17	103/110
Z326-85-A15	1 x 15 ml conical	17	120

Order No.: Z326-0685

Angle rotor 6 x 85 ml
Angle: 38°

Acceleration in s: 62/412
Deceleration in s: 34/1,310
max. speed: 9,000 rpm
RCF-Value: 10,413 xg
max. radius: 11.5 cm
max. Ø: 38 mm
Temp. at max. speed: 1°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 85 ml	38	113
Z326-85-A50R	1 x 50 ml	29	105
Z326-85-A50	1 x 50 ml conical	29	116
Z326-85-A30	1 x 30 ml	25	90/103
Z326-85-B15R	2 x 15 ml	17	95/100
Z326-85-A15R	1 x 15 ml	17	103/110
Z326-85-A15	1 x 15 ml conical	17	120

Accessories Z327 and Z327-K

Rotor/Bucket	Adapter

Order No.: Z326-0485

Angle rotor 4 x 85 ml
Angle: 30°

Acceleration in s: 68/307
Deceleration in s: 34/1,102
max. speed: 12,000 rpm
RCF-Value: 14,809 xg
max. radius: 9.2 cm
max. Ø: 38 mm
Temp. at max. speed: 3°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 85 ml	38	113
Z326-85-A50R	1 x 50 ml	29	105
Z326-85-A50	1 x 50 ml conical*	29	116
Z326-85-A30	1 x 30 ml	25	90/103
Z326-85-B15R	2 x 15 ml	17	95/100
Z326-85-A15R	1 x 15 ml	17	103/110
Z326-85-A15	1 x 15 ml conical*	17	120

*only without rotor lid

Order No.: Z326-0650-HS

Angle rotor 6 x 50 ml (round)
Angle: 26°

Acceleration in s: 44/358
Deceleration in s: 26/772
max. speed: 12,000 rpm
RCF-Value: 13,522 xg
max. radius: 8.4 cm
max. Ø: 29 mm
Temp. at max. speed: 4°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 50 ml round	29	95/115
Z326-50-A30	1 x 30 ml	25	92/95
Z326-50-B15R	1 x 15 ml	17	100/105
Z326-50-A15R	1 x 15 ml conical*	17	120

*only without rotor lid

Order No.: Z326-1050

Angle rotor 10 x 50 ml conical
Angle: 38°

Acceleration in s: 59/374
Deceleration in s: 35/1.698
max. speed: 7,500 rpm
RCF-Value: 8,141 xg
max. radius: 13 cm
max. Ø: 29 mm
Temp. at max. speed: 0°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
Z326-50-B15HS	1 x 15 ml RB	17	97/123
Z326-15-A7*	1 x 7 ml	13.5	95/115
Z326-15-A5*	1 x 5 ml	13.5	70/90
Z326-15-A20*	1 x 1.5/2.0 ml	11	42
Z326-50-A15	1 x 15 ml conical	17	120

*only possible with adapter Z326-50-A15 or Z326-50-B15

Order No.: Z326-1205

Angle rotor 12 x 5 ml Tubes
Angle: 45°

Acceleration in s: 24/206
Deceleration in s: 20/436
Acceleration in s: 26/220
Deceleration in s: 21/420
max. speed: 14,000 rpm
max. speed: 15,000 rpm
RCF-Value: 18,624 xg
RCF-Value: 21,379 xg
max. radius: 8.5 cm
max. Ø: 17 mm
Temp. at max. speed: 2°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 5.0 ml conical	17	60
Z216-05-C10	1 x 1.0 ml Cryo, flat	12.6	41
Z216-05-C18	1 x 1.8 ml Cryo, round	12.6	48

Order No.: Z326-2010

Angle rotor 20 x 10 ml
Angle: 30°

Acceleration in s: 54/357
Deceleration in s: 29/842
max. speed: 12,000 rpm
RCF-Value: 15,775 xg
max. radius: 9.8 cm
max. Ø: 16 mm
Temp. at max. speed: 4°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 10 ml	16	80

Order No.: Z326-3020H

Angle rotor 30 x 1.5/2.0 ml
Angle: 45°

Acceleration in s: 31/189
Deceleration in s: 20/504
Acceleration in s: 35/205
Deceleration in s: 22/465
max. speed: 13,000 rpm
max. speed: 14,000 rpm
RCF-Value: 17,758 xg
RCF-Value: 20,595 xg
max. radius: 9.4 cm
max. Ø: 11 mm
Temp. at max. speed: 6°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
704.005	1 x 0.5 ml	8	45
704.004	1 x 0.4/0.2 ml PCR	6	45

Accessories Z 327 and Z 327 K

Rotor/Bucket	Adapter

Order No.: Z326-4420

Angle rotor 44 x 1.5/2.0 ml
Angle: 32°/55°

Acceleration in s: 31/256
Deceleration in s: 21/441
max. speed: 15,000 rpm
RCF-Value: 21,379 xg
max. radius: 8.5 cm
max. Ø: 11 mm
Temp. at max. speed: 3°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
C1008-A5-6	1 x 0.5 ml	8	45
C1008-A2-6	1 x 0.4/0.2 ml PCR	6	45

Order No.: Z326-2420

PPS - Lid

Angle rotor 24 x 1.5/2.0 ml
Angle: 45° I hermetically sealed

Acceleration in s: 25/222
Deceleration in s: 17/261
max. speed: 15,000 rpm
RCF-Value: 21,379 xg
max. radius: 8.5 cm
max. Ø: 11 mm
Temp. at max. speed: 3°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
C1008-A5-6	1 x 0.5 ml	8	45
C1008-A2-6	1 x 0.4/0.2 ml PCR	6	45

Order No.: Z326-2420H

Alu - Lid

Angle rotor 24 x 1.5/2.0 ml
Angle: 45° I hermetically sealed
(aluminum lid)

Acceleration in s: 26/222
Deceleration in s: 17/267
max. speed: 15,000 rpm
RCF-Value: 21,379 xg
max. radius: 8.5 cm
max. Ø: 11 mm
Temp. at max. speed: 4°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without	1 x 2.0 ml	11	40
without	1 x 1.5 ml	11	40
C1008-A5-6	1 x 0.5 ml	8	45
C1008-A2-6	1 x 0.4/0.2 ml PCR	6	45

Order No.: Z326-3202

Angle rotor 4 x 8-place PCR Strips
Angle: 45°

Acceleration in s: 14/126
Deceleration in s: 15/154
max. speed: 15,000 rpm
RCF-Value: 15,343 xg
max. radius: 6.1 cm
max. Ø: 6 mm
Temp. at max. speed: 2°C

The intuitive control panel makes it easy for anyone to operate Hermle Centrifuges.

The Perfect Fit

Easy Handling:

- The ergonomic control panel is very user-friendly and enables a smooth and swift operation process.
- There is no need to remove surgical gloves during operation.
- Strictly a HERMLE application, you can store up to 99 different programs.
- Make yourself comfortable; operate this model from your laptop or computer. Our multi-functional software, "H-Control“, allows you to control the centrifuge independently and save your protocols (this function has to be ordered separately).
- For re-assurance that your samples are finished, an acoustic signal will sound when the centrifugation is complete (this function can be deactivated).

Safety:

- The Z327 and Z327-K have an automatic imbalance shut off system
- There is over speed protection incorporated for each rotor.
- You can only start the models when the centrifuge lid is closed.
- In case of operation malfunction, an error code will appear on the display; this helps to indicate the reason for the malfunction and to eliminate it.
- Its´ stable and firm design, made of massive steel, ensures excellent mechanical protection.
- The buckets of the swing out rotor Z327-100H are hermetically sealable.

Efficient and Versatile:

- Due to the wide range of adapter and rotor options, models Z327 and Z327-K can hold all common tubes and bottles, up to 200 ml.
- With easy rotor exchange, you can switch between different kinds of rotors like swing-out, microlitre, microplate or big volume fixed angle rotors.
- Despite the high capacity, the design of these devices is compact and space saving, even the Z327-K with its powerful refrigeration system.
- Profit from our "pre-cooling“ function, cool down the rotor rapidly to your desired temperature. For this, the centrifuge automatically determines the necessary speed for each individual rotor (Z327-K only).

More from HERMLE Benchmark a wide range of options

Universal Centrifuge Z 366 K

max. speed 16,000 rpm
max. volume 6 x 250 ml

Compact Centrifuge Z 207 A

max. speed 6,800 rpm
max. volume 8 x 15 ml

For more Information, please visit our website www.hermleusa.com

www.HermleUSA.com
PH: 908-769-5555
EM: info@benchmarkscientific.com

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