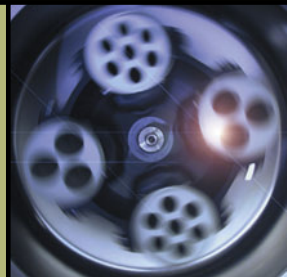


# UNIVERSAL CENTRIFUGES 2326 + 2326K



# Universal Centrifuges **Z 326 + Z 326K**

Both the table top centrifuge Z 326 and the **refrigerated table top centrifuge Z 326 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 angled rotors is very simple and can take place in a matter of seconds. The **Z 326 K** includes the refrigeration system on the back side of the unit, optimized for the lab bench at only 40cm wide.



## Specifications

- Maintenance-free induction drive
- Microprocessor with large LCD display
- Motor driven lid lock
- Automatic rotor identification system with over speed protection, immediately upon rotor insertion
- Active imbalance-identification and -cut off (rotor specific)
- Imbalance tolerant drive
- **CFC free refrigeration system**
- A large variety of rotors and accessories
- Manufactured according to international safety regulations, i.e. IEC 61010
- Audible signal at the end of each run with several melody options
- Rotor exchange is easy to handle
- Noise level under 60 dBA at max. speed
- Optimized airflow system keeps the samples cool (Z 326)

## Distinct Control Panel

- Simple one handed 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 g-force, with increments of 10
- 10 acceleration and 10 deceleration rates, Possibility of unbraked deceleration
- **Preselection of the temperature from - 20°C to 40°C with 1°C increments**
- **Indication of the sample temperature**
- **Pre-cooling program option**
- **Standstill cooling**
- Pre-selection of running time from 10 s to 99h 59min or continuous
- Storage of up to 99 incl. rotor type
- Quick-key for short runs
- Diagnostic program



## Technical data Z 326

max. speed:	18000 rpm
max RCF:	23545 xg
max. volume:	4 x 100 ml
Speed range:	200 - 18000 rpm
Running Time:	99 h 59 min / 59 min 50 s in 1 min / 10 s increments
Dimensions (w x h x d):	40 cm x 36 cm x 48 cm
Weight:	43 kg
Power input:	455 W

### Bestellnummern:

312.00 V01 - Z 326, 230 V / 50 - 60 Hz  
312.00 V02 - Z 326, 120 V / 50 - 60 Hz

## Technical data Z 326 K

max. speed:	18000 rpm
max RCF:	23545 xg
max. volume:	4 x 100 ml
Speed range:	200 - 18000 rpm
Running Time:	99 h 59 min / 59 min 50 s in 1 min / 10 s increments
Dimensions (w x h x d):	40 cm x 36 cm x 70 cm
Weight:	60 kg
Power input:	660 W

### Order numbers:

311.00 V01 - Z 326K, 230 V / 50 - 60 Hz  
311.00 V02 - Z 326K, 120 V / 50 - 60 Hz

# Accessories 2326 + 2326K

## Rotor/Bucket

Order No.:  
221.12 V03



Swing out rotor 4 Places  
Angle: 0-90°

Acceleration in s: 15 / 100  
Deceleration in s: 15 / 150  
max. Speed: 4500 rpm  
RCF-value: 3350 xg  
max. radius: 14,8 cm  
**Temp. at max. Speed: -7°C**

Volume	100 ml RB Glass	85 ml RB/OR	50 ml RB Glass	50 ml RB Glass	50 ml Falcon
Tubes Ø in mm	44	38	34	29	29
Length min./max. (mm)	90/108	90/108	92/118	90/133	116
Tubes per Rotor	4	4	4	4	4
Radiuscorrection (cm)	0,7	0,7	0,3	0,3	0,3
Order-No.: Tube Rack	626.000	626.001	626.008	626.009	626.002

Volume  
Tubes Ø in mm

Length min./max. (mm)  
Tubes per rotor  
Radiuscorrection (cm)  
Order No.: Tube rack

50 ml Rim	30 ml Universal	25 ml RB Glass	15 ml Falcon	15 ml Rim	15 ml RB Glass	5/7 ml RB Glass	1,5 ml Reakt.	4,5 ml Sarstedt	5/7ml	5/7ml Vakut.
29	25	25	17	17	17	13	11	12	13	13
116	95/105	95/110	120	120	90/108	75/100	42	75/100	65/80	75/100
4	4	4	8	8	28	36	40	36	28	28
0,2	0,2	0,2	0,0	0,0	0,3	0,6	0,6	0,6	3,2	0,6
626.010	626.011	626.012	626.003	626.013	626.004	626.005	626.014	626.007	626.015	626.006

Order No.:  
220.72 V06

Swing out rotor 4 Places  
Angle: 0-90°  
605.000  
Bucket for Tube Rack  
605.002



Acceleration in s: 15 / 100  
Deceleration in s: 15 / 150  
max. Speed: 5000 rpm  
RCF-value: 3885 xg  
max. radius: 13,9 cm  
**Temp. at max. Speed: -3°C**

Volume	100 ml RB Glass	85 ml RB/OR	50 ml RB Glass	50 ml RB/OR	50 ml Falcon
Tubes Ø in mm	40	38	34	29	29
Length min./max. (mm)	90/108	90/108	92/118	90/133	116
Tubes per Rotor	4	4	4	4	4
Radiuscorrection (cm)	0,7	0,7	0,0	0,0	0,3
Order-No.: Tube Rack	705.000	705.012	705.001	705.010	705.006

Volume  
Tubes Ø in mm

Length min./max. (mm)  
Tubes per rotor  
Radiuscorrection (cm)  
Order No.: Tube rack

50 ml Rim	30 ml Universal	25 ml RB Glass	15 ml Falcon	15 ml Falcon	15 ml Rim	15 ml RB Glass	5/7 ml RB Glass	1,5 ml Reakt.	10 ml Sarstedt	5/7ml	10 ml Vakutainer	50ml Falcon	15ml Falcon
29	25	25	17	17	17	17	13	11	17	13	17	29	17
116	75/105	95/110	120	120	120	90/108	75/100	42	85/100	75/100	75/100	116	120
4	4	4	4	8	8	16	28	20	12	16	16	8	12
0,7	0,3	0,0	0,0	0,0	0,0	0,3	0,6	0,6	0,2	0,6	0,2	0,7	0,0
705.013	705.014	705.002	705.018	705.005* <sup>1</sup>	705.015* <sup>2</sup>	705.003	705.007	705.009	705.011	705.008	705.016	605.004	605.005

\*<sup>1,2</sup> only without bucket lid

Order No.:  
221.16 V03



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

Acceleration in s: 20 / 160  
Deceleration in s: 15 / 360  
max. Speed: 4500 rpm  
RCF-value: 2739 xg  
max. radius: 12,1 cm  
max. Loading height: 58 mm  
max. Loading weight: 310 g  
**Temp. at max. Speed: -6°C**

Order No.: Tube rack  
706.000 48 x 1,5 ml (2,0 ml)  
Tubes

Order No.:  
221.19 V02



Angle rotor 30 x 15 ml  
Angle: 35°

Acceleration in s: 15 / 160  
Deceleration in s: 10 / 380  
max. Speed: 4500 rpm  
RCF-value: 2829/2467 xg  
max. radius: 12,5/10,9 cm  
max. Ø: 17 mm  
**Temp. at max. Speed: -9°C**

Order No.:	Tube rack	Ø (mm)	Length (min./max.):
701.010	1 x 15 ml-Glas	17,0	95/115
701.011	1 x 7 ml	13,5	95/115
701.012	1 x 5 ml (RIA)	13,5	70/90
701.000	1 x 1,5 ml	11	42

Order No.:  
220.96 V04



Angle rotor 12 x 15 ml  
Angle: 28°

Acceleration in s: 15 / 100  
Deceleration in s: 10 / 160  
max. Speed: 6000 rpm  
RCF-value: 4185 xg  
max. radius: 10,4 cm  
max. Ø: 17 mm  
**Temp. at max. Speed: -7°C**

Volume	15 ml Falcon	15 ml	15 ml	7 ml	5 ml	1,5 ml
Tube Ø in mm	17	17	17	13	13	11
Length in mm	120	105-125	95-105	95-115	70-95	42
Adapter Order No.:	without	without	701.010	701.011	701.012	701.000

# Accessories 2326 + 2326K

## Rotor/Bucket

Order No.:  
220.97 V04



Angle rotor 6 x 50 ml  
Angle: 28°

Order No.:  
220.78 V05



Angle rotor 6 x 80 ml  
Angle: 25°

Order No.:  
221.18 V02



Angle rotor 6 x 85 ml  
Angle: 38°

Order No.:  
221.20 V02



Angle rotor 4 x 85 ml  
Angle: 30°

Order No.:  
221.22 V02



Angle rotor 6 x 50 ml  
Angle: 26°

Order No.:  
221.28 V02



Angle rotor 20 x 10 ml  
Angle: 30°

Order No.:  
221.17 V03



Angle rotor 30 x 1,5 / 2,0 ml  
Angle: 45° | hermetically sealed

## Adapters

Acceleration in s: 15 / 100  
Deceleration in s: 10 / 160  
max. Speed: 6000 rpm  
RCF-value: 3823 xg  
max. radius: 9,5 cm  
max. Ø: 30 mm  
**Temp. at max. Speed: -8°C**

Volume

50 ml Falcon 15 ml Falcon 15 ml



Tube Ø in mm 30 17 17  
Length in mm 120 120-125 95-105  
Adapter Order No.: without 603.001 701.010

Acceleration in s: 40 / 400  
Deceleration in s: 40 / 960  
**Acceleration in s: 60 / 500**  
**Deceleration in s: 50 / 1260**  
max. Speed: 11000 rpm  
**max. Speed: 13500 rpm**  
RCF-value: 13933 xg  
**RCF-value: 20986 xg**  
max. radius: 10,3 cm  
max. Ø: 38 mm  
**Temp. at max. Speed: 17°C**

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
707.001	1 x 15 ml	17	103/110
707.002	1 x 30 ml	25	90/103
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml-Falcon	29	118
707.014	1 x 15 ml-Falcon	17	120
without Adapter	1 x 85 ml	38	113
707.000	2 x 15 ml	17	95/100
707.015	1 x 16 ml	18	103/110

Acceleration in s: 40 / 360  
Deceleration in s: 40 / 1050  
max. Speed: 9000 rpm  
RCF-value: 10414 xg  
max. radius: 11,5 cm  
max. Ø: 38 mm  
**Temp. at max. Speed: -5°C**

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
707.001	1 x 15 ml	17	103/110
707.002	1 x 30 ml	25	90/103
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml-Falcon	29	118
707.014	1 x 15 ml-Falcon	17	120
without Adapter	1 x 85 ml	38	113
707.000	2 x 15 ml	17	95/100
707.015	1 x 16 ml	18	103/110

Acceleration in s: 60 / 300  
Deceleration in s: 40 / 820  
max. Speed: 12000 rpm  
RCF-value: 14811 xg  
max. radius: 9,2 cm  
max. Ø: 38 mm  
**Temp. at max. Speed: 5°C**

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
707.001	1 x 15 ml	17	103/110
707.002	1 x 30 ml	25	90/103
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml-Falcon*	29	118
707.014	1 x 15 ml-Falcon*	17	120
without Adapter	1 x 85 ml	38	113
707.000	2 x 15 ml	17	95/100
707.015	1 x 16 ml	18	103/110

\*only without rotor lid

Acceleration in s: 40 / 360  
Deceleration in s: 30 / 570  
max. Speed: 12000 rpm  
RCF-value: 13523 xg  
max. radius: 8,4 cm  
max. Ø: 29 mm  
**Temp. at max. Speed: -5°C**

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
ohne Adapter	1 x 50 ml	29	95/115
708.019	1 x 30 ml	25	92/95
708.003	1 x 16 ml	18	100/105
708.004	1 x 15 ml	17	100/105
708.017	1 x 15 ml-Falcon*	17,5	116/125

\*only without rotor lid

Acceleration in s: 40 / 360  
Deceleration in s: 30 / 570  
max. Speed: 12000 rpm  
RCF-value: 15938 xg  
max. radius: 9,9 cm  
max. Ø: 16 mm  
**Temp. at max. Speed: 2°C**

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
without Adapter	1 x 10 ml	16	80

Acceleration in s: 25 / 200  
Deceleration in s: 25 / 360  
**Acceleration in s: 25 / 210**  
**Deceleration in s: 30 / 360**  
max. Speed: 13000 rpm  
**max. Speed: 14000 rpm**  
RCF-value: 17760 xg  
**RCF-value: 20598 xg**  
max. radius: 9,4 cm  
max. Ø: 11 mm  
**Temp. at max. Speed: 9°C**

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
without Adapter	1 x 2,0 ml	11	40
without Adapter	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 2326 + 2326K

## Rotor/Bucket

Order No.:  
220.87 V09



Angle rotor 24 x 1,5 / 2,0 ml  
Angle: 45°

Order No.:  
220.87 V10



Angle rotor 24 x 1,5 / 2,0 ml  
Angle: 45° | hermetically sealed

Order No.:  
221.23 V02



Angle rotor 12 x 1,5 / 2,0 ml  
Angle: 40°

Order No.:  
220.88 V07



Angle rotor 44 x 1,5 / 2,0 ml  
Angle: 40°

Order No.:  
220.92 V06



Angle rotor 64 x 0,4 ml  
Angle: 40°

Order No.:  
221.38 V01



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

## Adapters

Acceleration in s: 23 / 210  
Deceleration in s: 16 / 240  
Acceleration in s: 25 / 230  
Deceleration in s: 17 / 420  
max. Speed: 14000 rpm  
max. Speed: 15000 rpm  
RCF-value: 18625 xg  
RCF-value: 21381 xg  
max. radius: 8,5 cm  
max. Ø: 11 mm  
Temp. at max. Speed: 6°C

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
without Adapter	1 x 2,0 ml	11	40
without Adapter	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

Acceleration in s: 23 / 240  
Deceleration in s: 16 / 240  
Acceleration in s: 25 / 230  
Deceleration in s: 17 / 420  
max. Speed: 14000 rpm  
max. Speed: 15000 rpm  
RCF-value: 18625 xg  
RCF-value: 21381 xg  
max. radius: 8,5 cm  
max. Ø: 11 mm  
Temp. at max. Speed: 6°C

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
without Adapter	1 x 2,0 ml	11	40
without Adapter	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

Acceleration in s: 25 / 240  
Deceleration in s: 20 / 210  
max. Speed: 18000 rpm  
RCF-value: 23545 xg  
max. radius: 6,5 cm  
max. Ø: 11 mm  
Temp. at max. Speed: -2°C

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
704.004	0,4 ml tubes (Ø 6 x 50 mm) set of adapters (6 pcs.)		
704.005	0,5 ml tubes (Ø 8 x 32 mm) set of adapters (6 pcs.)		
704.011	1,5 ml Adapter zur vollen Leistungs- ausnutzung (ab 20000 xg) (12 Stück)		

Acceleration in s: 17 / 150  
Deceleration in s: 12 / 140  
max. Speed: 13500 rpm  
RCF-value: 17115/14466 xg  
max. radius: 8,4/7,1 cm  
max. Ø: 11 mm  
Temp. at max. Speed: 6°C

Order No.:	Tube rack	Ø (mm)	Lenght (min./max.):
without Adapter	1 x 2,0 ml	11	40
without Adapter	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

Acceleration in s: 17 / 150  
Deceleration in s: 12 / 170  
max. Speed: 13500 rpm  
RCF-value: 16708/14059 xg  
max. radius: 8,2/6,9 cm  
max. Ø: 8 mm  
Temp. at max. Speed: 2°C

Acceleration in s: 16 / 130  
Deceleration in s: 12 / 130  
max. Speed: 15000 rpm  
RCF-value: 15344 xg  
max. radius: 6,1 cm  
max. Ø: 6 mm  
Temp. at max. Speed: -1°C

## More from HERMLE:



### Refrigerated High Speed Centrifuge **2.32 HK**

max. Speed 20000 rpm  
max. Volume 4 x 100 ml



### Compact Centrifuge **2.206A**

max. Speed 6000 rpm  
max. Volume 6 x 50 ml



# HERMLE

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