

# Centrifuges and Accessories



**Complete Catalogue**

**HERMLE**  
LABORTECHNIK



# Table of Content

Company Profile	Page 5
Selection help	Page 6
Features and Functions	Page 7
Compact Centrifuge	Page 8
Microlitre Centrifuges	Page 9 - 11
Universal Centrifuges	Page 13 - 19
High-Speed-Centrifuges	Page 20 - 21
Filtration Centrifuge	Page 22
HERMLE Control Panel	Page 23

CONTENT

TABLE OF CONTENT



Microlitrecentrifuge Z 216 MK



## „From the south of Germany to the whole world“

Since 1956 - for more than 50 years - HERMLE centrifuges are being sold to all parts of the world.

Once a division of Berthold Hermle AG in Gosheim, HERMLE Labortechnik GmbH in Wehingen is a company of its own since the end of 1993.

The whole production program has been entirely renewed during that time. Each unit stands for efficiency, versatility and easy handling. In the meantime our centrifuges are welcome in the fields of medicine, research and industry.

A wide range of rotors is available for the different models. All centrifuges are equipped with a microprocessor and a maintenance-free direct current motor. The refrigeration system is of course CFC-free. We and our partners are always at your assistance.



**Harald Hermle**  
Managing Director  
Head of Finance  
and Controlling



**Alexander Hermle**  
Managing Director  
Head of Service



**Walter Haberkorn**  
Managing Director  
Head of Sales and  
Marketing

# Selection help

	Z 130 M	Z 160	Z 206 A	Z 216 M	Z 216 MK	Z 306	Z 326 Z 326 K	Z 366 Z 366 K	Z 446 Z 446 K	Z 513 Z 513 K	Z 32 HK	Z 36 HK
<b>Angle rotor</b>												
Max. RCF (xg)	2000	15996	4427	21380	21380	17319	23545	24321	23645	16904	38012	65390
Max. Speed 1/min	5500	14000	6000	15000	15000	13500	18000	16000	16000	12000	20000	30000
<b>Swing out rotor</b>												
Max. RCF (xg)			1860			3350	3885	3780	4807	5450	3885	2720
Max. Speed 1/min			4000			4500	5000	4500	5000	5000	5000	4500
<b>Reaction tubes</b>												
0,2-2,0 ml (Ø 6-11 x 38 mm)	12	18	18	44	44	30	44	24	30		44	30
5 ml (Ø 16,5 x 69 mm)				12	12							
<b>Vacutainer</b>												
1,8 - 5 ml (Ø 13 x 75 mm)						28	28	40	84	114	28	40
4 - 7 ml (Ø 13 x 100 mm)						28	28	40	84	114	28	40
5 ml (Ø 16 x 75 mm)						16	16	32	72	76	12	32
6 - 10 ml (Ø 16 x 100 mm)						16	16	32	72	76	12	32
<b>Vessels/Bottles</b>												
15 ml (Ø 17 x 120 mm), RB, RIM			12			8	8	28	68	68	8	28
15 ml (Ø 17 x 120 mm), conical			12			8	8	28	68	68	8	28
50 ml (Ø 29 x 120 mm), RB, RIM			6			4	4	12	28	32	4	12
50 ml (Ø 29 x 116 mm), conical			6			4	4	12	28	32	4	12
100 ml (Ø 44 x 100 mm), FB						4	4	4	12	12	4	4
175 ml (Ø 61 x 118 mm), conical								4	4	4		4
225 ml (Ø 61 x 137 mm), conical									4	4		
250 ml (Ø 62 x 122 mm), FB								6	4	4		4
500 ml (Ø 81 x 125 mm), FB										6		
500 ml (Ø 98 x 114 mm), FB									4			
750 ml (Ø 98 x 152 mm), FB									4	4		
1000 ml (Ø 98 x 172 mm), FB										4		
<b>PCR-strips</b>	4x8	2x8		4x8	4x8		4x8		4x8		4x8	
<b>Hematocrit capillaries</b>				24								
<b>MTP - plates (86 x 128 x 15)</b>						6	6	6	24	18	6	6
Page	9	*	8	10	10	13	14	16	18	*	20	21

The table shows the maximum capacity of the rotors. Of course we offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

\*For more information about this unit, please look into the brochure on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de)  
 FB = Flat bottom | RB = Round bottom

# Features and Functions

	Z 130 M	Z 160	Z 206 A	Z 216 M	Z 216 MK	Z 306	Z 326	Z 326 K	Z 366	Z 366 K	Z 446	Z 446 K	Z 513	Z 513 K	Z 32 HK	Z 36 HK	SIEVA-2
Brushless induction drive	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■
Microprocessor control		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Active imbalance detection and cut-off			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
One-hand closing	■	■	■			■											■
Motor driven lid lock				■		■	■	■	■	■	■	■	■	■	■	■	■
Automatic rotor identification system with over speed protection						■	■	■	■	■	■	■	■	■	■	■	■
Audible signal at the end of each run				■	■	■	■	■	■	■	■	■			■	■	■
Emergency lid lock			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Stainless steel chamber				■	■	■	■	■	■	■	■	■	■	■	■	■	■
Air cooling			■	■		■	■		■		■		■				
CFC-free refrigeration system (-20° to +40°C)					■			■		■		■		■	■	■	
<b>Displayfunctions</b>																	
Diagnostic program			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Program memory for 99 programs				■	■	■	■	■	■	■	■	■	■	■	■	■	■
Quick-key for short runs		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Pre-cooling program					■			■		■		■		■	■	■	■
Standstill cooling					■			■		■		■		■	■	■	■
10 acceleration and 10 deceleration rates, possibility of unbroken deceleration			■	■	■	■	■	■	■	■	■	■	■*	■*	■	■	■
Permanent indication of preset and actual values			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Pre-selection of speed or RCF in steps of 50/10-er			■	■	■	■	■	■	■	■	■	■			■	■	■
Pre-selection of speed in steps of 10 or 500 Pre-selection of RCF in steps of 20 or 1000													■	■			
Pre-selection of speed in steps of 250		■															■
Pre-selection of running time from 10 sec to 99h 59min or continuous		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Simple one handed operation			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
* = 10 deceleration rates																	

# Compact Centrifuge

6 x 50 ml

## Z 206 A

The Z206 A accepts up to 12 x 15 ml conical and round bottom tubes. For tubes with smaller dimensions we offer several adapters. For larger volumes we offer an angle rotor for 6 x 50 ml conical and round bottom tubes.



### Technical Data

max. Speed:	6000 rpm
max. RCF:	4180 xg
max. Volume:	6 x 50 ml
Speed range:	200 - 6000 rpm with 50 rpm increments / 10 rcf increments
Running time:	59 min 50 s / 10 s increments 99 h 59 min / 1 min increments
Dimensions (WxHxD):	28 x 26 x 37 cm
Weight:	12 kg

### Order numbers:

306.00 V01 - Z 206 A, 230 V / 50 - 60 Hz / 100 W  
306.00 V02 - Z 206 A, 120 V / 50 - 60 Hz / 100 W

### Main rotor



max. Volume: 6 x 50 ml  
Round bottom & Falcon  
Order no. 221.55 V01



max. Volume: 12 x 15 ml  
Round bottom & Falcon  
Order no. 221.54 V01



For more information about the control panel, please refer to page 23

## Accessories

max. Volume	max. Speed	RCF-Value	Order number	Angle
6 x 50 ml	6000 rpm	4427 xg	221.55 V01	40°
12 x 15 ml	6000 rpm	4427 xg	221.54 V01	32°
18 x 1,5/2,0 ml	6000 rpm	2930 xg	220.95 V06	45°
6 x 5,0 ml	4000 rpm	1860 xg	220.68 V04	0-90°

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

COMPACT CENTRIFUGE



# Microlitre Centrifuges

Unlike traditional mini centrifuges, the Z 130 M eliminates the need to change the rotors, when switching between microtubes and PCR strips. The included, unique KOMBI-Rotor is all that is required for running 12 microtubes and 4 PCR strips simultaneously. With a fix speed that produces 5500 rpm, this centrifuge is perfect for quick spin downs.

## Technical Data

max. Speed:	5500 rpm
max. RCF:	2000 xg
max. Volume:	12 x 1,5 / 2,0 ml tubes 32 x 0,2 ml PCR tubes 4 x PCR strips (8x0,2 ml)
Dimensions (WxHxD) :	14 cm x 112 cm x 20 cm
Weight:	1,3 kg

## Order number:

324.00 V01 - Z 130 M, 230 V / 50-60 Hz / 40 W  
324.00 V02 - Z 130 M, 120 V / 50-60 Hz / 40 W



KOMBI-Rotor

# Z 130 M

12 x 1.5/2.0 ml



## Specifications

- Unique KOMBI-Rotor for tubes and strips
- Twice the capacity of traditional mini centrifuges
- Starts and stops with closing/opening the lid
- Compact, low profile design
- Short acceleration and deceleration times
- Low noise level 52 dBA
- Manufactured according international safety regulations, e.g. IEC 61010

MICROLITRE CENTRIFUGES

# Microlitre Centrifuges

44 X 2.0 ml

■ Z 216 M  
■ Z 216 MK



## Specifications

- Maintenance-free induction drive
- Microprocessor with large LCD Display
- Motor driven lid lock
- Active imbalance-identification and cut off
- Audible signal at the end of each run
- Quick access to samples with a snap on lid
- CFC- free refrigeration system
- Lowest sample temperature 4°C at 20000 xg
- Standstill cooling
- Extremely compact
- Quick access to samples with a snap on lid
- Noise level < 60 dBA at 21380 xg
- Manufactured according to international safety regulations, i.e. IEC 61010

The Z 216 M and Z 216 MK are setting new standards in this centrifuge class. Capable of centrifuging up to 44 x 1,5 / 2,0 ml at each run. Due to their compact design and quiet running they are fitting perfectly in their working area

The powerful refrigeration system of Z 216 MK keeps samples at temperatures as low as 4°C during a continuous run at 20000xg.

## Technical Data

max. Speed:	15000 rpm
max. RCF:	21380 xg
max. Volume:	44 x 1,5 ml
Speed range:	200 - 15000 rpm
Temperature range Z 216 MK:	-20°C to 40°C
Running time:	59 min 50 s / 10 s increments
	99 h 59 min 50 s / 1 min increments

## Dimensions (WxHxD):

Z 216 M:	28 cm x 29 cm x 39 cm
Z 216 MK:	28 cm x 29 cm x 55 cm

## Weight:

Z 216 M:	17 kg
Z 216 MK:	35 kg

## Order numbers

Z 216 M:	325.00 V01 - Z 216 M, 230 V / 50 - 60 Hz / 280 W
	325.00 V02 - Z 216 M, 120 V / 50 - 60 Hz / 280 W
Z 216 MK:	305.00 V05 - Z 216 MK, 230 V / 50 - 60 Hz / 560 W
	305.00 V06 - Z 216 MK, 120 V / 50 - 60 Hz / 560 W



For more information about the control panel, please refer to page 23

MICROLITRE CENTRIFUGES

# Accessories Z 216 M & Z 216 MK

max. Volume	max. Speed	RCF-Value	Order number	Angle
44 x 1,5/2,0 ml	13500 rpm	17113/14463 xg	220.88 V08	40°
30 x 1,5/2,0 ml	13500 rpm	19153 xg	221.17 V06	45°
12 x 5 ml Reaction tubes	14500 rpm	19974 xg	221.35 V03	45°
24 x 1,5/2,0 ml	15000 rpm	21380 xg	220.87 V13	45°
24 x 1,5/2,0 ml	15000 rpm	21380 xg	220.87 V14	45°
64 x 0,5 ml	13500 rpm	16298/14263 xg	220.92 V07	40°
4 x 8 - PCR-Strips	15000 rpm	15342 xg	221.38 V03	45°
24 capillaries	12000 rpm	14968 xg	220.58 V13	90°

## Examples of possible rotors

### Main rotor



max. Volume: 24 x 1,5/2,0 ml  
Order number: 220.87 V14



max. Volume: 12 x 5 ml Reaction tubes  
Order number: 221.35 V03



max. Volume: 44 x 1,5/2,0 ml  
Order number: 220.88 V08



max. Volume: 24 x 1,5/2,0 ml  
Order number: 220.87 V13



max. Volume: 4 x 8 - PCR-Strips  
Order number: 221.38 V03



max. Volume: 24 Hematocrit capillaries  
Order number: 220.58 V13 *only Z 216 M*

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.



Universal Centrifuge Z 366 K

# Universal Centrifuges

## Z 306

4 x 100 ml

The small universal laboratory centrifuge offers a wide range of applications, which covers clinical laboratory requirements, research, as well as industrial laboratory use. The Z 306 offers many accessories, including rotors for microtitreplates and high-speed fixed angle rotors for reaction vessels or centrifuge tubes up to 50 ml.

Additionally, swing out rotors, which hold a volume of 4 x 100ml can be used for tissue culture tubes and also for all common blood tubes. This wide range of accessories makes the Z 306 laboratory centrifuge indispensable in research laboratories and small clinical laboratories.

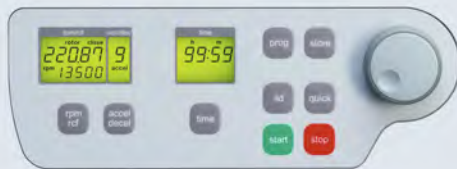
### Technical Data

max. Speed: 14000 rpm  
 max. RCF: 18626 xg  
 max. Volume: 4 x 100 ml  
 Speed range: 200 - 14000 min<sup>-1</sup>  
 Running time: 59 min 50 s / 10 s increments  
 99 h 59 min 50 s / 1 min increments

Dimensions (WxHxD): 35 x 33 x 47 cm  
 Weight: 30 kg

### Order numbers:

310.00 V01 - Z 306, 230 V / 50 - 60 Hz / 240 W  
 310.00 V02 - Z 306, 120 V / 50 - 60 Hz / 300 W



For more information about the control panel, please refer to page 23



### Main rotor



max. Volume: 4 x 100 ml  
 Order no. 221.12 V03



max. Volume:  
 2 x 3 Microtitreplates  
 Order no. 221.16 V03

## Accessories

max. Volume	max. Speed	RCF-Value	Order number	Angle
4 x 100 ml	4500 rpm	3350 xg	221.12 V03	0 - 90°
4 x 100 ml	4000 rpm	2486 xg	220.72 V06	0 - 90°
30 x 15 ml	4500 rpm	2830 xg	221.19 V02	35°
6 x 50 ml	6000 rpm	4427 xg	221.55 V02	40°
12 x 15 ml	6000 rpm	4427 xg	221.54 V02	32°
30 x 1,5/2,0 ml	12000 rpm	15133 xg	221.17 V03	45°
24 x 1,5/2,0 ml	14000 rpm	18626 xg	220.87 V09	45°
24 x 1,5/2,0 ml	14000 rpm	18626 xg	220.87 V10	45°
2 x 3 MTP	4500 rpm	2716 xg	221.16 V03	0 - 90°

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

# Universal Centrifuges

4 x 100 ml

Z 326  
Z 326 K



## Specifications

- Maintenance-free induction drive
- Microprocessor with large LCD Display
- Motor driven lid lock
- Automatic rotor identification system with overspeed protection, immediately upon rotor insertion
- Active imbalance-identification and cut off
- 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 < 60 dBA (depend on rotor)
- Optimized airflow system keeps the samples cool (Z 326)

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 40 cm wide.

## Technical Data

max. Speed :	18000 rpm
max. RCF:	23545 xg
max. Volume:	4 x 100ml
Speed range:	200 - 18000 rpm
Temperature range Z 326 K:	-20°C to 40°C
Running time:	59 min 50 s / 10 s increments
	99 h 59 min 50 s / 1 min increments

## Dimensions (WxHxD):

Z 326:	40 cm x 36 cm x 48 cm
Z 326 K:	40 cm x 36 cm x 70 cm

## Weight:

Z 326:	43 kg
Z 326 K:	60 kg

## Order numbers

Z 326:	312.00 V01 - Z 326, 230 V / 50 - 60 Hz / 455 W
	312.00 V02 - Z 326, 120 V / 50 - 60 Hz / 455 W
Z 326 K:	311.00 V01 - Z 326 K, 230 V / 50 - 60 Hz / 660 W
	311.00 V02 - Z 326 K, 120 V / 50 - 60 Hz / 660 W



For more information about the control panel, please refer to page 23

# Accessories Z 326 and Z 326 K

max. Volume	max. Speed	RCF-Value	Order number	Angle
4 x 100 ml	4500 rpm	3350 xg	221.12 V03	0 - 90°
4 x 100 ml	5000 rpm	3885 xg	220.72 V06	0 - 90°
6 x 85 ml	11000/13500 rpm	13933/20986 xg	220.78 V05	25°
6 x 85 ml	9000 rpm	10414 xg	221.18 V02	38°
4 x 85 ml	12000 rpm	14811 xg	221.20 V02	30°
30 x 15 ml	4500 rpm	2829/2467 xg	221.19 V02	35°
6 x 50 ml	6000 rpm	4427 xg	221.55 V02	40°
6 x 50 ml	12000 rpm	13523 xg	221.22 V02	26°
20 x 10 ml	12000 rpm	15938 xg	221.28 V02	30°
12 x 15 ml	6000 rpm	4427 xg	221.54 V02	32°
44 x 1,5/2,0 ml	13500 rpm	17115/14466 xg	220.88 V07	40°
30 x 1,5/2,0 ml	13000/14000 rpm	17760/20598 xg	221.17 V03	45°
24 x 1,5/2,0 ml	14000/15000 rpm	18625/21381 xg	220.87 V09	45°
24 x 1,5/2,0 ml	14000/15000 rpm	18625/21381 xg	220.87 V10	45°
12 x 1,5/2,0 ml	18000 rpm	23545 xg	221.23 V02	40°
64 x 0,4 ml	6000 rpm	3820 xg	220.92 V06	40°
4 x 8 - PCR-Strips	15000 rpm	15344 xg	221.38 V01	45°
2 x 3 MTP	4500 rpm	2739 xg	221.16 V03	0 - 90°

## Examples of possible rotors

### Main rotor



max. Volume: 4 x 100 ml  
Order number: 221.12 V03



max. Volume: 4 x 100 ml  
Order number: 220.72 V06



max. Volume: 24 x 1,5/2,0 ml  
Order number: 220.87 V09



max. Volume: 6 x 85 ml  
Order number: 221.18 V02



max. Volume: 6 x 50 ml  
Order number: 221.22 V02



max. Volume: 30 x 15 ml  
Order number: 221.19 V02

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

# Universal Centrifuges

6 x 250 ml

Z 366  
Z 366 K



## 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
- 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 < 63 dBA (depend on rotor)
- Optimized airflow system keeps the samples cool

These universal table top centrifuges Z 366 and Z 366 K putting new scales regarding the versatility, running features, easy handling and design. Both, the tube capacity of 28 x 15 ml conical tubes and centrifugal forces up to 24321 xg, turning these table top centrifuges Z 366 and Z 366 K into universal high-powered centrifuges.

## Technical Data

max. speed:	15000 / 16000 rpm
max. RCF:	21382 / 24321 xg
max. Volume:	6 x 250ml
speed range:	200 - 15000 / 17000 rpm
Temperature range Z 366 K:	-20°C bis 40°C
Running time:	59 min 50 s / 10 s increments 99 h 59 min 50 s / 1 min increments

## Dimension (WxHxD):

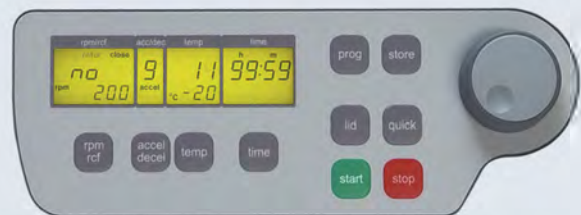
Z 366:	43 cm x 36 cm x 51 cm
Z 366 K:	72 cm x 36 cm x 51 cm

## Weight:

Z 366:	52 kg
Z 366 K:	77 kg

## Order numbers

Z 366:	301.00 V03 - Z 366, 230 V / 50 - 60 Hz / 520 W 301.00 V04 - Z 366, 120 V / 50 - 60 Hz / 520 W
Z 366 K:	319.00 V01 - Z 366 K, 230 V / 50 - 60 Hz / 785 W 319.00 V02 - Z 366 K, 120 V / 50 - 60 Hz / 785 W



For more information about the control panel, please refer to page 23



# Accessories Z 366 and Z 366 K

max. Volume	max. Speed	RCF-Value	Order number	Angle
6 x 250 ml	8000 rpm	10017 xg	221.21 V02	28°
4 x 250 ml	4500 rpm	3780 xg	221.15 V02	0 - 90°
6 x 85 ml	11000 rpm	15556 xg	221.18 V02	38°
30 x 15 ml	4500 rpm	2830 xg	221.19 V02	35 °
4 x 85 ml	12000 rpm	14807 xg	221.20 V02	30°
6 x 50 ml	13000 rpm	15871 xg	221.22 V02	26°
20 x 10 ml	12000 rpm	15777 xg	221.28 V02	30°
24 x 1,5/2,0 ml	15000/16000 rpm	21382/24321 xg	220.87 V09	45°
24 x 1,5/2,0 ml	15000/16000 rpm	21382/24321 xg	220.87 V10	45°
10 x 50 ml conical	9500 rpm	13115 xg	221.52 V02	38°
2 x 3 MTP	4500 rpm	2720 xg	221.16 V03	0 - 90°

## Examples of possible rotors

Main rotor



max. Volume: 4 x 250 ml  
Order number: 221.15 V02



max. Volume: 6 x 250 ml  
Order number: 221.21 V02



max. Volume: 2 x 3 Microtitreplates  
Order number: 221.16 V03



max. Volume: 24 x 1,5/2,0 ml  
Order number: 220.87 V10



max. Volume: 6 x 85 ml  
Order number: 221.18 V02



max. Volume: 10 x 50 ml conical  
Order number: 221.52 V02

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

# Universal Centrifuges

4 x 750 ml

Z 446  
Z 446 K



These high-volume centrifuges Z 446 and Z 446 K achieve a throughput of 68 x 15 ml conical tubes or 28 x 50 ml conical tubes at a max. RCF of 3454/4347 xg. If higher speeds are required, we also offer e.g. an angle rotor with a max. RCF of 16024 xg for 10 x 50 ml. The fixed-angle and swing-out rotors are suitable for almost all applications in everyday use in clinical, industrial and research laboratories.

## Technical Data

max. Speed:	16000 rpm
max. RCF:	23645 xg
max. Volume:	4 x 750 ml
Speed range :	200 - 16000 rpm
Temperature range Z 446 K:	-20°C to 40°C
Running time:	59 min 50 s / 10 s increments
	99 h 59 min 50 s / 1 min increments

## Dimensions (WxHxD):

Z 446:	54 cm x 39 cm x 67 cm
Z 446 K:	73 cm x 39 cm x 67 cm

## Weight:

Z 446:	79 kg
Z 446 K:	111 kg

## Order numbers

Z 446:	316.00 V01 - Z 446, 230 V / 50 - 60 Hz / 640 W
	316.00 V02 - Z 446, 120 V / 50 - 60 Hz / 640 W
Z 446 K:	317.00 V01 - Z 446 K, 230 V / 50 - 60 Hz / 1630 W
	317.00 V02 - Z 446 K, 120 V / 50 - 60 Hz / 1630 W

## Specifications

- Maintenance free induction drive
- Microprocessor control with LCD-Display
- Motor driven lid-lock
- Automatic rotor identification system with over speed protection, immediately upon rotor insertion
- Active imbalance-identification and cut off
- A large variety of rotors and accessories
- CFC free refrigeration system
- Manufactured according international standards, e.g. IEC 61010
- Audible signal at end of the each run with several melody options
- Noise level < 65 dBA (depend on rotor)
- Easy rotor exchange
- Improved ventilation system keeps samples cool



For more information about the control panel, please refer to page 23

# Accessories Z 446 & Z 446 K

max. Volume	max. Speed	RCF-Value	Order number	Angle
4 x 750 ml	4000/4500 rpm	3434/4347 xg	220.36 V02	0 - 90°
4 x 500 ml	4500 rpm	4211 xg	221.08 V04	0 - 90°
4 x 500 ml	8000 rpm	10375 xg	221.51 V02	24°
6 x 250 ml	8000 rpm	10017 xg	221.21 V02	28°
4 x 250 ml	4500/5000 rpm	3894/4807 xg	220.86 V02	0 - 90°
6 x 85 ml	11000 rpm	15552 xg	221.18 V02	38°
10 x 50 ml conical	10000/10500 rpm	14582/16019 xg	221.52 V02	38°
4 x 85 ml	15000/16000 rpm	23142/26331 xg	221.20 V02	30°
6 x 50 ml	13000 rpm	15871 xg	221.22 V02	26°
20 x 10 ml	12000 rpm	15777 xg	221.28 V02	30°
30 x 1,5/2,0 ml	15000 rpm	23645 xg	221.17 V03	45°
24 x 1,5/2,0 ml	16000 rpm	24328 xg	220.87 V09	45°
24 x 1,5/2,0 ml	16000 rpm	24328 xg	221.87 V10	45°
2 x 3 MTP	4500 rpm	2716 xg	221.16 V03	0 - 90°
4 x 8 - PCR Strips	15000 rpm	15342 xg	221.38 V01	45°

## Examples of possible rotors

### Main rotor



max. Volume: 4 x 750 ml  
Order number: 221.36 V02



max. Volume: 4 x 500 ml  
Order number: 221.51 V02



max. Volume: 2 x 3 Microtitreplates  
Order number: 221.16 V03



max. Volume: 6 x 85 ml  
Order number: 221.18 V02



max. Volume: 10 x 50 ml conical  
Order number: 221.52 V02



max. Volume: 24 x 1,5/2,0 ml  
Order number: 221.87 V09

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

# High-Speed Centrifuges

4 x 100 ml

## Z 32 HK



With a wide range of accessories, the Z32HK high speed centrifuge is applicable in a wide variety of research settings. In spite of remarkably small footprint, the Z 32 HK features a powerful refrigeration system capable of maintaining cool sample temperatures even at maximum speed.

### Technical Data

max. speed:	20000 rpm
max. RCF:	38012 xg
max. volume:	4 x 100 ml
Speed range:	200 - 20000 rpm
Temperature range:	-20°C to 40°C
Running time:	59 min 50 s / 10 s increments 99 h 59 min 50 s / 1 min increments
Dimensions (WxHxD):	40 x 36 x 70 cm
Weight:	71 kg

### Order numbers:

311.00 V03 - Z 32 HK, 230 V / 50 - 60 Hz / 1200 W  
311.00 V04 - Z 32 HK, 120 V / 50 - 60 Hz / 1200 W

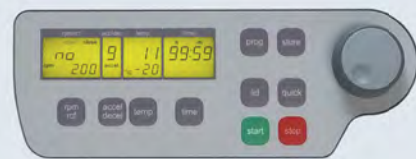
### Main rotor



max. Volume: 6 x 85 ml  
Order number: 220.78 V05



max. Volume: 24 x 1.5/2.0 ml  
Order number: 220.87 V10



For more information about the control panel, please refer to page 23

## Accessories

HIGH-SPEED CENTRIFUGES

max. Volume	max. Speed	RCF-Value	Order number	Angle
24 x 1,5 ml	20000 rpm	38012 xg	220.87 V10	45°
24 x 1,5/2,0 ml	17000 rpm	27467 xg	220.87 V09	45°
30 x 1,5/2,0 ml	17000 rpm	30371 xg	221.17 V03	45°
44 x 1,5/2,0 ml	13500 rpm	17319 xg	220.88 V07	40°
20 x 10 ml	14000 rpm	21693 xg	221.28 V02	30°
6 x 50 ml	16000 rpm	24041 xg	221.22 V02	26°
4 x 85 ml	15000 rpm	23142 xg	221.20 V02	30°
30 x 15 ml	4500 rpm	2829/2467 xg	221.19 V02	35°
6 x 85 ml	13500 rpm	20986 xg	220.78 V05	25°
6 x 85 ml	12000 rpm	18514 xg	221.18 V02	38°
4 x 100 ml	4500 rpm	3350 xg	221.12 V03	0 - 90°
4 x 100 ml	5000 rpm	3885 xg	220.72 V06	0 - 90°
12 x 15 ml conical	6000 rpm	4427 xg	221.54 V01	32°
6 x 50 ml conical	6000 rpm	4427 xg	221.55 V01	40°
2 x 3 MTP	4500 rpm	2739 xg	221.16 V03	0 - 90°
4 x 8 - PCR Strips	15000 rpm	15342 xg	221.38 V01	45°

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

# High-Speed Centrifuges

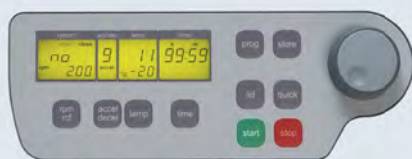
The Z 36 HK is the culmination of many years of centrifuge design experience combined with the latest technology. Featuring speeds up to 30000 rpm (65390 xg) with ten available rotor options, the Z 36 HK is the most capable centrifuge in its class.

## Technical Data

max. speed:	30000 rpm
max. RCF:	65390 xg
max. Volume:	6 x 250 ml
Speed range:	200 - 30000 rpm
Temperature range:	-20°C to 40°C
Running time:	59 min 50 s / 10 s increments 99 h 59 min 50 s / 1 min increments
Dimensions (WxHxD):	71,5 cm x 42 cm x 51 cm
Weight:	91 kg

## Order numbers:

302.00 V01 - Z 36 HK, 230 V / 50 - 60 Hz / 2990 W  
302.00 V02 - Z 36 HK, 120 V / 50 - 60 Hz / 2990 W



For more information about the control panel, please refer to page 23

# Z 36 HK

6 x 250 ml



## Main rotor



max. Volume: 6 x 50 ml  
Order number: 221.22 V01



max. Volume: 12 x 1,5/2,0 ml  
Order number: 221.23 V01

## Accessories

max. Volume	max. Speed	RCF-Value	Order number	Angle
6 x 250 ml	10000 rpm	15650 xg	221.21 V01	28°
4 x 250 ml	4000 rpm	2990 xg	221.15 V01	0 - 90°
6 x 85 ml	12000 rpm	18510 xg	221.18 V01	38°
30 x 15 ml	4500 rpm	2830 xg	221.19 V01	35°
4 x 85 ml	20000 rpm	41140 xg	221.20 V01	30°
6 x 50 ml	21000 rpm	41410 xg	221.22 V01	26°
20 x 10 ml	16000 rpm	28040 xg	221.28 V01	30°
30 x 1,5/2,0 ml	20000 rpm	42030 xg	221.17 V01	45°
12 x 1,5/2,0 ml	30000 rpm	65390 xg	221.23 V01	40°
2 x 3 MTP	4500 rpm	2720 xg	221.16 V02	0 - 90°

The table shows the maximum capacity of the rotors. Of course we also offer adapters for smaller volumes. For more information about that, please look into the brochures on our website: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de). If you will not find the appropriate adapter, please contact us and we can make a special adapter for you.

HIGH-SPEED CENTRIFUGES

# Filtration Centrifuge

500 ml

## SIEVA - 2



### Specifications

- Maintenance free induction drive
- Microprocessor controlled speed regulation
- Speed pre-selection from 250 rpm up to 10000 rpm, in increments of 250 rpm
- Running time pre-selection from 1 min to 60 min and continuous run
- Imbalance switch-off
- Manufactured according to international safety regulations i.e IEC 61010
- Automatic lid-lock
- Transparent centrifuge lid for visual control

SIEVA-2 is a filtration centrifuge with microprocessor control. By an opening in the lid it is possible to fill the centrifugal basket during rotation. The solids remain in the centrifugal basket and the liquid can run off through a opening on the right side. The transparent lid allows a visual monitoring of the centrifugation. The SIEVA-2 is very versatile and suitable for various applications.

### Technical Data

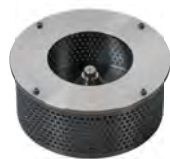
max. Speed:	10000 rpm
max. RCF:	7825 xg
max. Volume:	500 ml
Speed range:	250 - 10000 rpm
Running time:	1min - 60min / 1 min increments continuous run

Dimensions (WxHxD):	39 cm x 37 cm x 49 cm
Weight:	25 kg

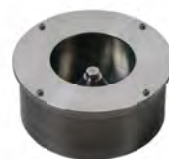
### Order numbers:

288.00 V01 - Sieva 2, 230 V / 50 - 60 Hz  
288.00 V02 - Sieva 2, 120 V / 50 - 60 Hz

## Accessories



Perforated  
Centrifugal basket 500 ml  
Order number: 221.07 V02

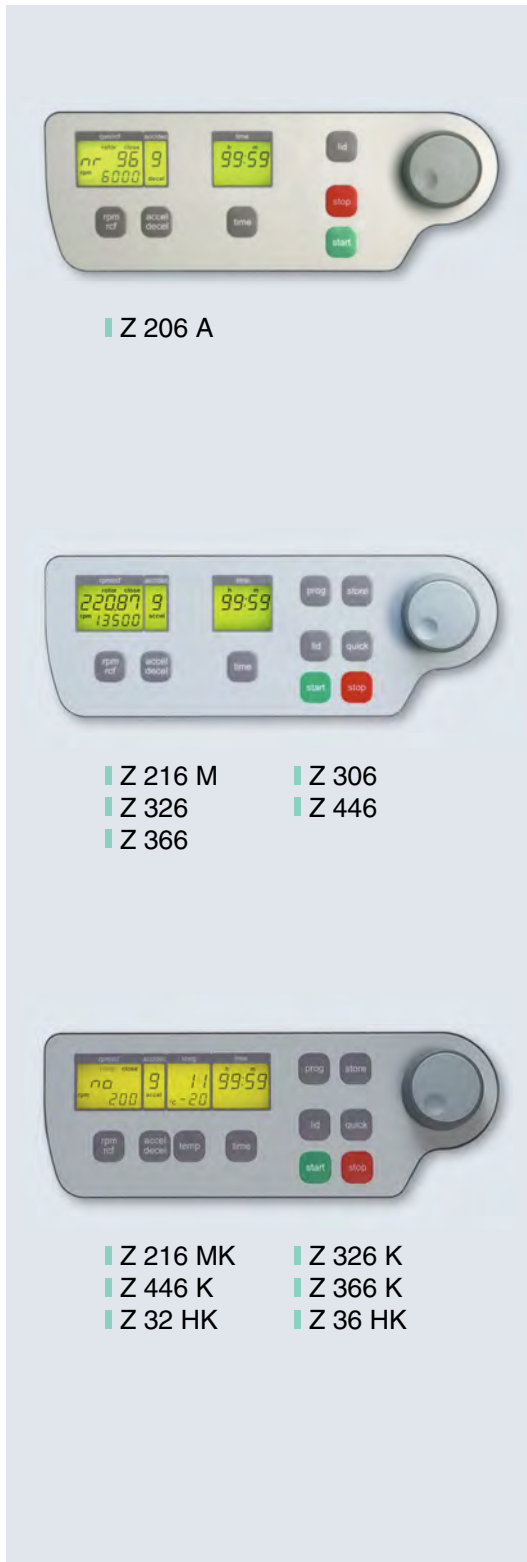


Non-perforated  
Centrifugal basket 500 ml  
Order number: 221.07 V04












# HERMLE Control Panel

The HERMLE control panel is adapted to the needs of a laboratory. It is equipped with a splash proof digital display, which is also easy to program with gloves on. With the corresponding function-key you can do the selection of the parameters and by turning the adjusting knob you can set the desired values. The distinct control panel indicates permanent preset and actual values and gives information for operating. Through the integrated diagnostic program it is possible to call up errors, number of starts or operating hours of the centrifuge.

## Control Panel for: Key- and Displayfunction



### Keyboard

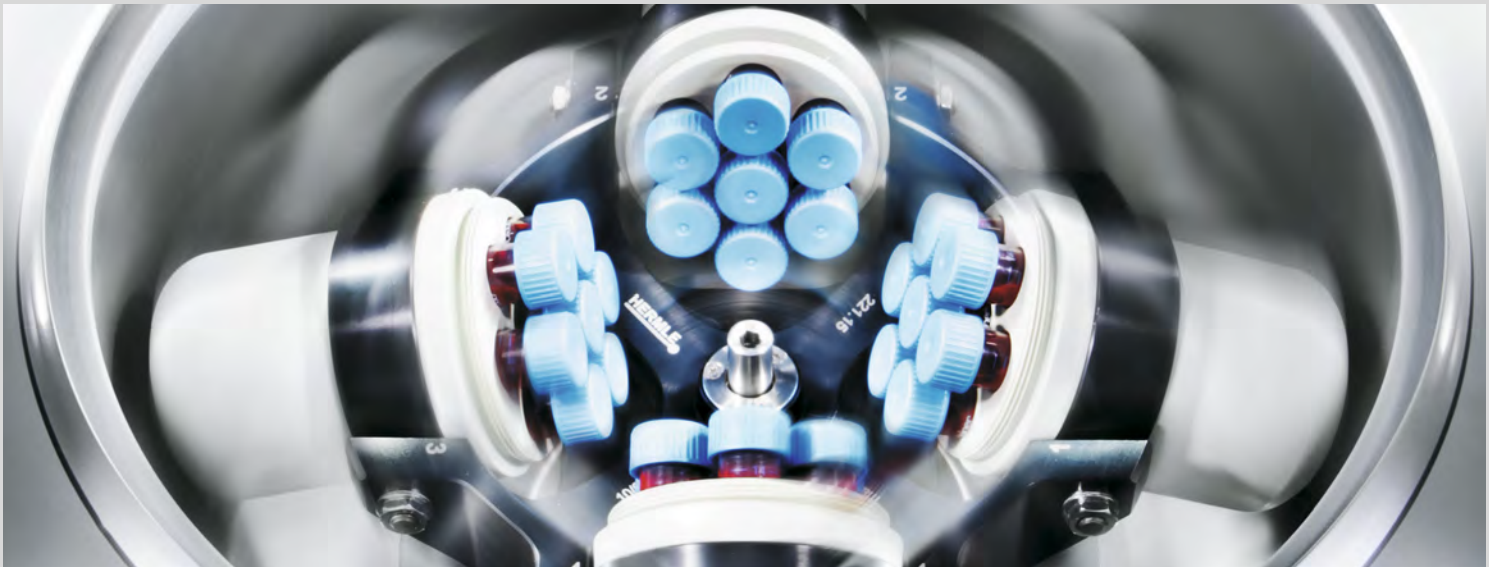
-  = Starts centrifugation
-  = Stops centrifugation
-  = Opens the lid after standstill of the rotor
-  = Selection of the running time
-  = Call up stored programm.  
There are 99 program memory available
-  = Storage of up to 99 runs including rotor type
-  = Quick key for short runs
-  = Selection of 10 acceleration and 10 deceleration rates. Possibility of unbroken deceleration
-  = Selection of speed in both rpm and g-force, with increments of 10
-  = Selection of temperature from - 20°C to 40°C (only refrigerated units)
-  = Adjusting knob

### Display

- rpm/rcf = Permanent indication of preset and actual rpm/rcf value
- acc/dec = Indication of acceleration and deceleration level
- temp = Indication of temperature at refrigerated units
- time = Indication of running time

# HERMLE

separate the best



**HERMLE Labortechnik GmbH**

Siemensstr. 25 | 78564 Wehingen, DE

Mail: [vertrieb@hermle-labortechnik.de](mailto:vertrieb@hermle-labortechnik.de)

Visit us at: [www.hermle-labortechnik.de](http://www.hermle-labortechnik.de)

Telephone: + 49 74 26 / 96 22 - 50 ■ Telefax: + 49 74 26 / 96 22 - 49 ■

# HERMLE

LABORTECHNIK

