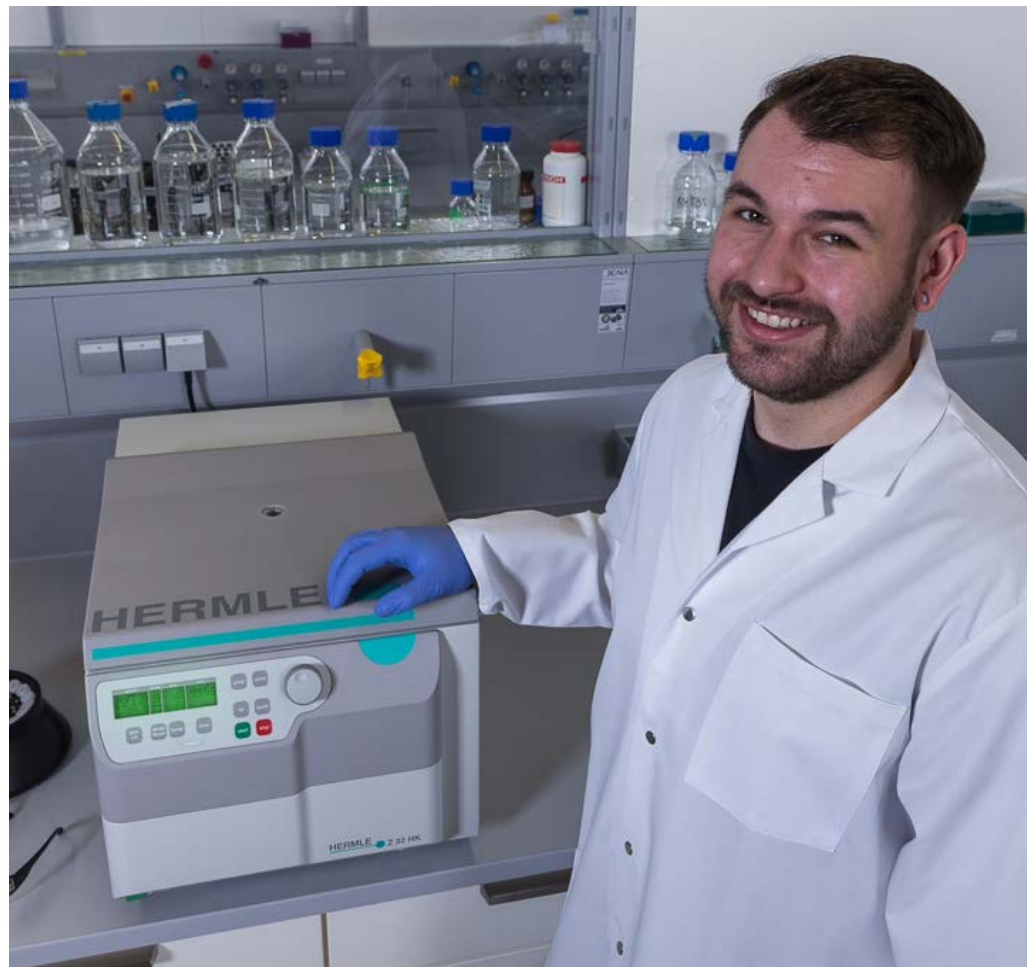


# Refrigerated High Speed Centrifuge

| Z 32 HK



**HERMLE**  
LABORTECHNIK

4 x 200 ml

# Z 32 HK



## 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
- A large variety of rotors and accessories
- Audible signal at the end of each run with several melody options
- Noise level under 65 dBA at max. speed
- Manufactured according to international safety regulations, i.e. IEC 61010
- Rotor exchange is easy to handle
- Stainless steel chamber

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

## Technical data

Max. speed: 20,000 rpm  
 Max. RCF: 38,007 xg  
 Max. volume: 4 x 200 ml  
 Speed range: 200 – 20,000 rpm  
 Temperature range: -20°C to 40°C  
 Running time: 59 min 50 s / 10 s increments  
 99 h 59 min / 1 min increments

Dimensions: 40 cm x 36 cm x 48 cm (w x h x d)

Weight: 71 kg

Order No.: 311.00 V07 - Z 32 HK  
 230 V / 50 - 60 Hz / 1200 W  
 311.00 V08 - Z 32 HK  
 120 V / 50-60 Hz / 1100 W



## 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 99 h 59 min or continuous
- Storage of up to 99 runs incl. rotor type
- Quick-key for short runs
- Diagnostic program
- Timer: the centrifuge starts at the preselected time

# Accessories Z 32 HK

## Rotor/Bucket

Order No.:  
220.78 V21



Angle rotor 6 x 85 ml  
Angle: 25°

## Adapter

Acceleration in s: 61/495  
Deceleration in s: 46/1,407  
Max. speed: 13,500 rpm  
Max. RCF: 20,984 xg  
Max. radius: 10.3 cm  
Max. Ø: 38 mm  
Temp. at max. speed: 4°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]
without Adapter	1 x 85 ml	38	113
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml conical	29	116
707.016	1 x 50 ml Rim	29	118
707.002	1 x 30 ml	25	90/103
707.015	1 x 16 ml	18	103/110
707.000	2 x 15 ml	17	95/100
707.001	1 x 15 ml	17	103/110
707.014	1 x 15 ml conical	17	120
707.017	1 x 15 ml Rim	17	120

Order No.:  
221.18 V21



Angle rotor 6 x 85 ml  
Angle: 38°

Acceleration in s: 62/515  
Deceleration in s: 51/1,869  
Max. speed: 13,000 min<sup>-1</sup>  
Max. RCF: 21,726 xg  
Max. radius: 11.5 cm  
Max. Ø: 38 mm  
Temp. at max. speed: 5°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]
without Adapter	1 x 85 ml	38	113
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml conical	29	116
707.002	1 x 30 ml	25	90/103
707.015	1 x 16 ml	18	103/110
707.000	2 x 15 ml	17	95/100
707.001	1 x 15 ml	17	103/110
707.014	1 x 15 ml conical	17	120

Order No.:  
221.20 V20



Angle rotor 4 x 85 ml  
Angle: 30°

Acceleration in s: 58/511  
Deceleration in s: 51/1,460  
Max. speed: 15,000 rpm  
Max. RCF: 23,140 xg  
Max. radius: 9.2 cm  
Max. Ø: 38 mm  
Temp. at max. speed: 2°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]
without Adapter	1 x 85 ml	38	113
707.003	1 x 50 ml	29	105
707.004	1 x 50 ml conical*	29	116
707.002	1 x 30 ml	25	90/103
707.015	1 x 16 ml	18	103/110
707.000	2 x 15 ml	17	95/100
707.001	1 x 15 ml	17	103/110
707.014	1 x 15 ml conical*	17	120

\*only without rotor lid

Order No.:  
221.52 V20



Angle rotor: 10 x 50 ml conical  
Angle: 38°

Acceleration in s: 66/485  
Deceleration in s: 63/1,859  
Max. speed: 9,000 rpm  
Max. RCF: 11,771 xg  
Max. radius: 13.0 cm  
Max. Ø: 29 mm  
Temp. at max. speed: -6°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]
708.050	1 x 15 ml round	17	97/123
701.011*	1 x 7 ml	13.5	95/115
701.012*	1 x 5 ml	13.5	70/90
707.015*	1 x 1.5/2.0 ml	11	42
708.051	1 x 15 ml conical	17	120

\* only possible with adapter 708.050

Order No.:  
221.22 V21



Angle rotor 6 x 50 ml  
Angle: 26°

Acceleration in s: 50/412  
Deceleration in s: 37/1,087  
Max. speed: 16,000 rpm  
Max. RCF: 24,039 xg  
Max. radius: 8.4 cm  
max. Ø: 29 mm  
Temp. at max. speed: -3°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]
without Adapter	1 x 50 ml round	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 conical*	17	120

\* only without rotor lid

Order No.:  
221.28 V21



Angle rotor 20 x 10 ml  
Angle: 30°

Acceleration in s: 50/412  
Deceleration in s: 37/1,186  
Max. speed: 14,000 rpm  
Max. RCF: 21,472 xg  
Max. radius: 9.8 cm  
max. Ø: 16 mm  
Temp. at max. speed: -1°C

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

Order No.:  
221.17 V21

























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

Acceleration in s: 31/251  
Deceleration in s: 32/642  
Max. speed: 17,000 rpm  
Max. RCF: 30,368 xg  
Max. radius: 9.4 cm  
Max. Ø: 11 mm  
Temp. at max. speed: 7°C

Order No.:	Adapter	Ø [mm]	Length [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 Z 32 HK

Rotor/Bucket		Adapter					
<p><b>Order No.:</b> 220.87 V20</p>  <p>Alu-Lid</p> <p>Angle rotor 24 x 1.5 / 2.0 ml Angle: 45°   hermetically sealed</p>	<p>Acceleration in s: 31/259 Deceleration in s: 28/490 Max. speed: 20,000 rpm Max. RCF: 38,007 xg Max. radius: 8.5 cm Max. Ø: 11 mm Temp. at max. speed: 13°C</p>	<p><b>Order No.:</b> without Adapter without Adapter 704.005 704.004</p>	<p><b>Adapter</b> 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR</p>	<p><b>Ø [mm]</b> 11 11 8 6</p>	<p><b>Length [min./max.]:</b> 40 40 45 45</p>		
<p><b>Order No.:</b> 220.87 V22</p>  <p>PPS-Lid</p> <p>Angle rotor 24 x 1.5 / 2.0 ml Angle: 45°   hermetically sealed</p>	<p>Acceleration in s: 31/259 Deceleration in s: 28/490 Max. speed: 16,000 rpm Max. RCF: 24,325 xg Max. radius: 8.5 cm Max. Ø: 11 mm Temp. at max. speed: -1°C</p>	<p><b>Order No.:</b> without Adapter without Adapter 704.005 704.004</p>	<p><b>Adapter</b> 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR</p>	<p><b>Ø [mm]</b> 11 11 8 6</p>	<p><b>Length [min./max.]:</b> 40 40 45 45</p>		
<p><b>Order No.:</b> 221.68 V20</p>  <p>Angle rotor 44 x 1.5 / 2.0 ml Angle: 32°/55°</p>	<p>Acceleration in s: 26/222 Deceleration in s: 23/477 Max. speed: 15,000 rpm Max. RCF: 21,379 xg Max. radius: 8.5 cm Max. Ø: 11 mm Temp. at max. speed: -6°C</p>	<p><b>Order No.:</b> without Adapter without Adapter 704.005 704.004</p>	<p><b>Adapter</b> 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR</p>	<p><b>Ø [mm]</b> 11 11 8 6</p>	<p><b>Length [min./max.]:</b> 40 40 45 45</p>		
<p><b>Order No.:</b> 221.38 V20</p>  <p>Angle rotor 4 x 8 PCR Strips Angle: 45°</p>	<p>Acceleration in s: 13/104 Deceleration in s: 9/212 Max. speed: 15,000 rpm Max. RCF: 15,343 xg Max. radius: 6.1 cm Max. Ø: 6 mm Temp. at max. speed: -7°C</p>						
<p><b>Order No.:</b> 221.12 V20</p>  <p>Swing out rotor 4 place Angle: 0-90°</p>	<p>Acceleration in s: 12/93 Deceleration in s: 11/328 Max. speed: 4,500 rpm Max. RCF: 3,350 xg Max. radius: 14.8 cm Temp. at max. speed: -13°C</p>	<p><b>Volume</b></p> <p>Tubes ø in mm</p> <p>Length min./max. (mm)</p> <p>Tubes per rotor</p> <p>Radius Correction (cm)</p> <p>Order No. Adapter</p>	<p>145 ml Nalgene® 50</p> <p>100 ml RB Glass 44</p> <p>85 ml RB/OR 38</p> <p>50 ml RB Glass 34</p> <p>50 ml RB Glass 29</p> <p>50 ml conical 29</p>      	<p>100</p> <p>90/108</p> <p>90/108</p> <p>92/118</p> <p>90/118</p> <p>116</p>	<p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p> <p>4</p>	<p>1.0</p> <p>1.0</p> <p>0.8</p> <p>0.7</p> <p>0.7</p> <p>0.3</p>	<p>626.017</p> <p>626.000</p> <p>626.001</p> <p>626.008</p> <p>626.009</p> <p>626.002</p>
<p><b>Volume</b></p> <p>Tubes ø in mm</p> <p>Length min./max. (mm)</p> <p>Tubes per rotor</p> <p>Radius Correction (cm)</p> <p>Order No. Adapter</p>	<p>50 ml skirted 29</p> <p>30 ml Universal 25</p> <p>25 ml RB Glass 25</p> <p>15 ml conical 17</p> <p>15 ml RB 17</p> <p>5/7 ml RB Glass 13</p> <p>1,5/2,0 ml micro. 11</p> <p>4,5 ml Sarsted® 12</p> <p>5/7 ml 13</p> <p>6-10 ml Vakut.® 16</p> <p>1,8-7 ml Vakut.® 13</p>           	<p>116</p> <p>95/105</p> <p>95/110</p> <p>120</p> <p>90/108</p> <p>75/100</p> <p>40</p> <p>75/100</p> <p>65/80</p> <p>90/108</p> <p>75/100</p>	<p>4</p> <p>4</p> <p>4</p> <p>8</p> <p>28</p> <p>36</p> <p>40</p> <p>36</p> <p>28</p> <p>28</p> <p>28</p> <p>4</p>	<p>0.6</p> <p>1.1</p> <p>0.5</p> <p>0.0</p> <p>0.4</p> <p>1.3</p> <p>5.5</p> <p>0.9</p> <p>3.3</p> <p>0.4</p> <p>0.7</p>	<p>626.010</p> <p>626.011</p> <p>626.012</p> <p>626.003</p> <p>626.004</p> <p>626.005</p> <p>626.014</p> <p>626.007</p> <p>626.015</p> <p>626.004</p> <p>626.006</p>		



# Accessories Z 32 HK

## Rotor/Bucket

Order No.:  
221.71 V20

Swing out rotor 4 place  
Angle: 0-90°

605.100  
Bucket for Adapter

605.102  
Lid for Bucket I hermetically sealed



## Adapter

Acceleration in s: 15/104  
Deceleration in s: 12/373  
Max. speed: 5,000 rpm  
Max. RCF: 4,136 xg  
Max. radius: 14.8 cm  
Temp. at max. speed: -8°C

Volume	200 ml bottle	200 ml conical	100 ml RB Glass	85 ml RB/OR	50 ml RB Glass
Tubes ø in mm	56	56	40	38	34
Length min./max. (mm)	112	120	95/115	95/108	95/118
Tubes per rotor	4	4	4	4	4
Radius Correction (cm)	0.0	0.0	0.2	0.2	0.2
Order No. Adapter	ohne Adapter	705.100	705.101	705.102	705.103

Volume  
Tubes ø in mm

Length min./max. (mm)  
Tubes per rotor  
Radius Correction (cm)  
Order No. Adapter

50 ml RB/OR	50 ml conical	50 ml Rim	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.®	1.8-7 ml Vakut.®	50 ml conical
29	29	29	25	25	17	17	17	13	17	11	16	13	29
95/103	116	116	95/105	90/110	120	120	60/107	65/100	60/70	40	100	75/100	116
4	4	4	4	4	16	12	28	32	20	32	28	32	8
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	0.0
705.104	705.105	705.106	705.107	705.108	705.109*	705.110	705.111	705.112	705.113	705.114	705.111	705.112	605.103

Order No.:  
221.16 V20



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

Acceleration in s: 18/158  
Deceleration in s: 18/644  
Max. speed: 4,500 rpm  
Max. RCF: 2,716 xg  
Max. radius: 12.0 cm  
Max. loading height: 63 mm  
Max. loading weight: 310 g  
Temp. at max. speed: -14°C

Order No.:  
706.000  
Tube rack  
48 x 1.5 ml (2.0 ml)  
Micro Tubes

Order No.:  
221.19 V20



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

Acceleration in s: 15/115  
Deceleration in s: 15/777  
Max. speed: 4,500 rpm  
Max. RCF: 2,830/2,467 xg  
Max. radius: 12.5/10.9 cm  
Max. Ø: 17 mm  
Temp. at max. speed: -17°C

Order No.:	Adapter	Ø [mm]	Length [min./max.]:
without Adapter	1 x 15 ml Glass	17.0	95/115
without Adapter	1 x 15 ml conical	17.0	120
701.011	1 x 7 ml	13.5	95/115
701.012	1 x 5 ml (RIA)	13.5	70/90
701.015	1 x 1.5/2.0 ml	11	40
701.018	1 x 4.5-10 ml Sarstedt®	11-16	90/92

Order No.:  
221.54 V20



Angle rotor 12 x 15 ml  
Angle: 32°

Acceleration in s: 13/121  
Deceleration in s: 17/428  
Max. speed: 6,000 rpm  
Max. RCF: 4,427 xg  
Max. radius: 11.0 cm  
Max. Ø: 17 mm  
Temp. at max. speed: -20°C

Volume	15 ml conical	15 ml	4-7 ml Vakut.®	1.8-5 ml Vakut.®	1.5/2.0 ml	6-10 ml Sarstedt®/Vakut.®
Tubes ø in mm	17	17	13	13	11	17
Length min./max. (mm)	120	105-120	100	75	40	92/107
Order No. Adapter	without	without	701.011	701.012	701.015	701.018

Order No.:  
221.55 V20



Angle rotor 6 x 50 ml  
Angle: 40°

Acceleration in s: 13/119  
Deceleration in s: 17/522  
Max. speed: 6,000 rpm  
Max. RCF: 4,427 xg  
Max. radius: 11.0 cm  
Max. Ø: 29 mm  
Temp. at max. speed: -18°C

Volume	50 ml conical	50 ml RB/OR	30 ml	16 ml	15 ml conical	15 ml RB
Tubes ø in mm	29	29	25	18	17	17
Length min./max. (mm)	116	100/120	92/95	100/105	120	97/107
Order No. Adapter	without	without	708.019	708.003	708.030	708.030

# More from HERMLE – a wide range of options



## Universal Centrifuge Z 327 K

Max. speed 18,000 rpm  
Max. volume 4 x 200 ml



## Refrigerated High Speed Centrifuge Z 36 HK

Max. speed 30,000 rpm  
Max. volume 6 x 250 ml

For more Information, please visit our website!

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