

# Universal Centrifuges

■ Z 366

■ Z 366 K



**HERMLE**  
LABORTECHNIK

Z 366

Z 366 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
- A large variety of rotors and accessories
- Audible signal at the end of each run with several melody options
- Noise level < 63 dBA (depend on rotor)
- Manufactured according to international safety regulations, i. e. IEC 61010
- Stainless steel chamber

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 40 x 15 ml conical tubes and centrifugal forces up to 24,325 xg, turning these table top centrifuges Z 366 and Z 366 K into universal high-powered centrifuges.

### Technical Data

max. Speed:	15,000 / 16,000 rpm
max. RCF:	21,379 / 24,325 xg
max. Volume:	6 x 250 ml
Speed range:	200 - 15,000 / 16,000 rpm
Temperature range	
Z 366 K:	-20°C to 40°C
Running time:	99 h 59 min / 59 min 50 s in 1 min / 10 s increments

### Dimensions

Z 366:	43 cm x 36 cm x 51 cm (WxHxD)
Z 366 K:	72 cm x 36 cm x 51 cm (WxHxD)

### Weight:

Z 366:	52 kg
Z 366 K:	77 kg

### Power input:

Z 366:	520 W
Z 366 K:	785 W

### Order numbers:

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



### Distinct Control Panel

- Simple one handed operation
- Easy to program with gloves on
- Foil keyboard
- Permanent indication of preset and actual values
- Selection of speed in both rpm and g-force, with increments of 10
- 10 acceleration and deceleration rates, possibility of unbraked deceleration
- Temperature range from -20°C to 40°C with 1°C increments
- Pre-cooling program
- Standstill cooling
- Pre-selection of the running time from 10 s to 99 h 59 min or continuous
- Storage of up to 99 runs including rotor
- Quick-key for short runs
- Timer: the centrifuge starts at the preselected time

# Accessories Z 366 and Z 366 K

## Rotor/Bucket

Order No.:  
221.15 V20  
Swing out rotor 4 place  
Angle: 0-90°



## Adapter

628.100  
PC-Screw cap



Acceleration in s: 34/309  
Deceleration in s: 36/458  
Max. speed: 4,500 rpm  
Max. RCF: 3,780 xg  
Max. radius: 16.7 cm  
Temp. at max. speed: -2°C

Volume	250 ml	100 ml	50 ml	50 ml	50 ml	50 ml	25 ml	25 ml	15 ml	15 ml
ø in mm	62	41	34	29	29	29	24.5	24.5	17	17
					conical	Rim		Rim		conical
Length min./max. (mm)	110/130	95/120	100/120	95/120	116	100/120	100/120	85/100	76/115	120
Tubes per rotor	4	4	4	12	12	8	20	12	36	28
Radius correction (cm)	0.7	0.5	0.6	0.1	0.0	0.6	0.3	0.9	0.1	0.0
Order No. Tube rack:	628.000	628.001	628.008	628.002	628.005	628.006	628.003	628.010	628.004	628.007
Volume	15 ml	10 ml	9 ml	5-7 ml	1.8-7 ml	6-10 ml	2.6-5 ml	4-10 ml	1.5-2.0 ml	
ø in mm	17	16	14	13	13	16	13	15	11	
	Rim				Vacutainer®	Vacutainer®	Sarstedt®	Sarstedt®		
Length min./max. (mm)	100/120	80/100	76/115	65/120	75/100	75/100	65/100	75/100	40	
Tubes per rotor	28	32	36	56	40	32	40	32	36	
Radius correction (cm)	0.3	0.1	0.1	0.5	0.5	0.1	0.5	0.1	0.8	
Order No. Tube rack:	628.011	628.012	628.004	628.013	628.014	628.015	628.014	628.015	628.016*	*only possible with adapter 628.000

Order No.:  
221.16 V20



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

Acceleration in s: 43/432  
Deceleration in s: 38/616  
Max. speed: 4,500 rpm  
Max. RCF: 2,716 xg  
Max. radius: 12 cm  
max. loading height: 63 mm  
max. loading weight: 310 g  
Temp. at max. speed: -3°C

Order No.:  
706.000

Tube rack  
48 x 1.5 ml (2.0 ml)

Order No.:  
220.87 V22



PPS-Lid  
Angle rotor 24 x 1.5/2.0 ml  
Angle: 45° | hermetically sealed

Acceleration in s: 22/219  
Deceleration in s: 23/369  
Acceleration in s: 26/231  
Deceleration in s: 23/392  
Max. speed: 15,000/16,000 rpm  
Max. RCF: 21,379/24,325 xg  
Max. radius: 8.5 cm  
Max. Ø: 11 mm  
Temp. at max. speed: 9°C

Order No.:	Tube rack	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

Order No.:  
220.87 V20



Alu-Lid  
Angle rotor 24 x 1.5/2.0 ml  
Angle: 45° | hermetically sealed

Acceleration in s: 25/217  
Deceleration in s: 24/354  
Acceleration in s: 27/235  
Deceleration in s: 24/490  
Max. speed: 15,000/16,000 rpm  
Max. RCF: 21,379/24,325 xg  
Max. radius: 8.5 cm  
Max. Ø: 11 mm  
Temp. at max. speed: 9°C

Order No.:	Tube rack	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

Order No.:  
221.18 V21










Angle rotor 6 x 85 ml  
Angle: 38°

Acceleration in s: 72/697  
Deceleration in s: 62/1,714  
Acceleration in s: 118/825  
Deceleration in s: 76/1,630  
Max. speed: 11,000/13,000 rpm  
Max. RCF: 15,555/21,726 xg  
Max. radius: 11.5 cm  
Max. Ø: 38 mm  
Temp. at max. speed: 15°C

Order No.:	Tube rack	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

# Accessories Z 366 and Z 366 K

Rotor/Bucket		Adapter				
<b>Order No.:</b> 221.19 V20  Angle rotor 30 x 15 ml glass or 20 x 15 ml conical Angle: 35°	Acceleration in s: 25/149 Deceleration in s: 19/985 Max. speed: 4,500 rpm Max. RCF: 2,830 xg Max. radius: 12.5 cm Max. Ø: 17 mm Temp. at max. speed: -12°C	<b>Order No.:</b> without Adapter 701.011	Tube rack 1 x 15 ml Glass	Ø (mm) 17.0	Length (min./max.) 95/115	
		without Adapter 701.012 701.015 701.018	1 x 15 ml conical 1 x 7 ml 1 x 5 ml (RIA) 1 x 1.5/2.0 ml 1 x 9 ml Sarstedt®	17.0 13.5 13.5 11 17	120 95/115 70/90 40 92/107	
<b>Order No.:</b> 221.20 V20  Angle rotor 4 x 85 ml Angle: 30°	Acceleration in s: 60/506 Deceleration in s: 44/1,745 Max. speed: 12,000 rpm Max. RCF: 14,809 xg Max. radius: 9.2 cm Max. Ø: 38 mm Temp. at max. speed: 5°C	<b>Order No.:</b> without Adapter 707.003	Tube rack 1 x 85 ml	Ø (mm) 38	Length (min./max.) 113	
		707.004 707.002 707.015 707.000 707.001 707.014	1 x 50 ml 1 x 50 ml conical* 1 x 30 ml 1 x 16 ml 2 x 15 ml 1 x 15 ml 1 x 15 ml conical*	29 29 25 18 17 17 17	105 116 90/103 103/110 95/100 103/110 120	
<b>Order No.:</b> 221.21 V20  Angle rotor 6 x 250 ml Angle: 28°	Acceleration in s: 130/664 Deceleration in s: 83/2,906 Max. speed: 8,000 rpm Max. RCF: 10,016 xg Max. radius: 14 cm Max. Ø: 62 mm Temp. at max. speed: 3°C	<b>Order No.:</b> without Adapter 713.045	Tube rack 1 x 250 ml	Ø (mm) 62	Length (min./max.) 122	
		713.042 713.030 713.028 713.025 713.020 713.015	1 x 175/225 ml Falcon® 1 x 50 ml conical 1 x 50 ml 2 x 30 ml 4 x 15 ml conical 5 x 10 ml 8 x 1.5/2.0 ml	61 29 29 26 17 16 11	118/137 118 103 92 120 80 40	
<b>Order No.:</b> 221.22 V20  Angle rotor 6 x 50 ml Angle: 26°	Acceleration in s: 48/446 Deceleration in s: 44/1,323 Max. speed: 13,000 rpm Max. RCF: 15,869 xg Max. radius: 8.4 cm Max. Ø: 29 mm Temp. at max. speed: 0°C	<b>Order No.:</b> without Adapter 708.019	Tube rack 1 x 50 ml	Ø (mm) 29	Length (min./max.) 95/115	
		708.003 708.004 708.017	1 x 30 ml 1 x 16 ml 1 x 15 ml 1 x 15 ml conical*	25 18 17 17	92/95 100/105 100/105 120	
<b>Order No.:</b> 221.28 V21  Angle rotor 20 x 10 ml Angle: 30°	Acceleration in s: 54/512 Deceleration in s: 42/1,439 Max. speed: 12,000 rpm Max. RCF: 15,775 xg Max. radius: 9.8 cm Max. Ø: 16 mm Temp. at max. speed: 0°C	<b>Order No.:</b> without Adapter 708.050	Tube rack 1 x 10 ml	Ø (mm) 16	Length (min./max.) 80	
		<b>Order No.:</b> without Adapter 701.011* 701.012* 701.015* 708.051	Tube rack 1 x 15 ml RB 1 x 7 ml 1 x 5 ml 1 x 1.5/2.0 ml 1 x 15 ml conical	17 13.5 13.5 11 17	97/123 95/115 70/90 40 120	
<b>Order No.:</b> 221.52 V20  Angle rotor 10 x 50 ml conical Angle: 38°	Acceleration in s: 69/647 Deceleration in s: 55/1,942 Acceleration in s: 115/753 Deceleration in s: 65/2,395 Max. speed: 9,000/10,500 rpm Max. RCF: 11,771/16,022 xg Max. radius: 13 mm Max. Ø: 29 mm Temp. at max. speed: 9°C	<b>Order No.:</b> without Adapter 704.005 704.004	Tube rack 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR	Ø (mm) 11 11 8 6	Length (min./max.) 40 40 45 45	
		708.050 701.011* 701.012* 701.015* 708.051	1 x 15 ml RB 1 x 7 ml 1 x 5 ml 1 x 1.5/2.0 ml 1 x 15 ml conical	17 13.5 13.5 11 17	97/123 95/115 70/90 40 120	
<b>Order No.:</b> 221.68 V20  Angle rotor 44 x 1.5/2.0 ml Angle: 32°/55°	Acceleration in s: 31/256 Deceleration in s: 24/327 Acceleration in s: 33/275 Deceleration in s: 26/536 Max. speed: 15,000/16,000 rpm Max. RCF: 21,379/24,325 xg Max. radius: 8.5 cm Max. Ø: 11 mm Temp. at max. speed: 8°C	<b>Order No.:</b> without Adapter 704.005 704.004	Tube rack 1 x 2.0 ml 1 x 1.5 ml 1 x 0.5 ml 1 x 0.4/0.2 ml PCR	Ø (mm) 11 11 8 6	Length (min./max.) 40 40 45 45	
		708.050 701.011* 701.012* 701.015* 708.051	1 x 15 ml RB 1 x 7 ml 1 x 5 ml 1 x 1.5/2.0 ml 1 x 15 ml conical	17 13.5 13.5 11 17	97/123 95/115 70/90 40 120	



# Package Options for Universal Centrifuges

- Z 366
- Z 366 K



**Rotor No.:**  
**221.61 V20**



# ■ Packages Z 366 / Z 366 K + 221.61 V20

With the Swing Out Rotor 221.61 V20, you have the possibility to spin a large quantity of conical, blood tubes or micro tubes.

For high volume, there is an adapter for 250 ml bottles available, as well!

Universal Centrifuge  
Z 366

Rotor No.:  
221.61 V20

Package Z 366  
Order No.:



**301.00 P05** - 230V version  
**301.00 P06** - 120V version

Universal Centrifuge  
Z 366 K

Rotor No.:  
221.61 V20

Package Z 366 K  
Order No.:



**319.00 P03** - 230V version  
**319.00 P04** - 120V version

For Rotor 221.61 V20, there are 7 different adapters/buckets available.  
Order Nos.: 630.000, 630.001, 630.002, 630.003, 630.004, 630.005 and 628.016

**ATTENTION:** These are NOT included in the package - Must be ordered separately!


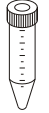

## Order No.: 221.61 V20







Acceleration s: 34/311  
Deceleration s: 36/387  
Acceleration s: 34/307  
Deceleration s: 35/487  
Max. Speed: 4,500 rpm  
Max. RCF: 3,735 xg  
Max. Radius: 16.5 cm  
Temp. At Max. Speed: 2°C

Swing Out Rotor 4 places  
Angle: 0-90°

\*Please Note, Adapter 628.016 can only be used in Bucket 630.004!

Volume	250 ml	50 ml	15 ml
Ø in mm	62	29	17
			
Length min./max. (mm):	122	116	121
Tubes per rotor:	4	16	40
Order No. Adapter:	630.004	630.000	630.001

	Monovets/Vacutainer	Monovets/Vacutainer	Monovets/Vacutainer	
Volume	6-10 ml	1.1-7ml	2-3 ml	1.5/2.0 ml
Ø in mm	16	13	11	11
				
Length min./max. (mm):	92/100	75/100	66	38
Tubes per rotor:	48	56	72	36
Order No. Adapter:	630.003	630.002	630.005	628.016*