



Centrifuge
optimized for swing-out application

4-5L

SIGMA 4-5L – High-tech is more quiet

This new instrument has been designed specifically targeting the requirement for high-throughput in clinical applications. Key features include a new motor with high torque for fast acceleration, and the optimized air circulation design for efficient rotor cooling and low noise.

SIGMA 4-5L

No. 10405 (220 – 240 V, 50/60 Hz), No. 10404 (120 V, 60 Hz)

No. 1040590: Sigma No. 10405 + Rotor No. 11650 + 2 sets buckets No. 13450 + 2 sets caps No. 17170 + 2 sets adapter No. 17658

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- *Table top centrifuge; speed range up to 4.700 rpm*
- *Control unit Spincontrol L*
- *Optimized for swing-out applications*
- *Robust components for routine use*
- *Lid can easily be opened due to pneumatic spring support*
- *Maximum capacity of 4 x 650 ml down to microtubes with different adapters in the same bucket*
- *Maintenance-free induction drive motor. A microcontroller controls speed or gravitational field, time*
- *2 Motorized lid locks*
- *Up to 20g imbalance tolerance*
- *Suitable for low speeds e.g. for cell sedimentation, accuracy +/- 1 rpm*
- *Stainless steel bowl*
- *Imbalance switch*
- *No need to open the casing for emergency lid lock release*
- *Produced according to national and international safety regulations (e.g. EN 61010-2-020)*
- *Window in the centrifuge lid for external speed control*
- *Backlit keys for start, stop, lid open*

Created during production.	
	Sigma 4-5L
<i>Calibration certificate for speed and time</i>	No. 17714
<i>IQQQ</i>	No. 17710

Temperature increase after 1h runtime	
rpm	°C above ambient temperature
3,000	4
4,000	8
4,700	11

Tube name	Tube diameter [mm]	Tube height with cap [mm]	Cap diameter [mm]	Cap height [mm]	Tube material	Bottom	Volume [ml]	Fits adapter	Tubes per adapter	Tubes per run
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BD										
Vacutainer 13 x 75 mm	12.2	81.5	15	19.7	plastic	round	1.6 / 1.8 / 2.0 / 2.4 / 2.5 / 2.7 / 3.0 / 3.15 / 3.5 / 4.0 / 4.5 / 4.8 / 5.0 / 5.3	17656	22	88
Vacutainer 13 x 100 mm	12.2	106.1	16.3	20	plastic	round	4.0 / 4.2 / 4.5 / 5.0 / 5.3 / 6.0 / 7.0	17656	22	88
Vacutainer 16 x 100 mm	15.4	105.5	17.5	20	plastic	round	2.5 / 6.0 / 8.0 / 8.5 / 9.5 / 10.0 / 11.0	17658	19	76
Vacutainer 16 x 125 mm	15.3	129.3	17.5	20	glass	round	8.0	17658	7	28

Greiner										
Vacurette 13 x 75 mm	12.3	82.4	17.0	13.9	plastic	round	1.0 / 1.5 / 2.0 / 2.5 / 3.0 / 3.5 / 4.0 / 4.5	17656	22	88
Vacurette 13 x 100 mm	12.2	106.5	17.0	13.9	plastic	round	3.5 / 5.0 / 6	17656	22	88
Vacurette 16 x 100 mm	15.1	106.2	17.5	15.1	plastic	round	7.0 / 8.0 / 9.0	17658	19	76

Sarstedt										
S-Monovette or Special S-Monovette	16.8	108.6	19.3	24.5	plastic	round	9.0 / 10.0	17658	19	76
S-Monovette or Special S-Monovette	15.3	108.5	18.0	26.0	plastic	round	7.5 / 8.2 / 8.5	17658	19	76
S-Monovette	15.5	91.2	18.0	25.0	plastic	round	4.0 / 4.7 / 5.5	17655	20	80
S-Monovette	11.6	108.3	13.4	24.0	plastic	flat	4.5 / 5.0	17652	36	144
S-Monovette or Special S-Monovette	12.5	106.3	15.8	25.0	plastic	round	4.9 / 5.6	17656	22	88
S-Monovette or Special S-Monovette	12.6	81.5	15.8	24.0	plastic	round	2.6 / 2.9 / 3.4 / 3.8	17656	22	88
S-Monovette or Special S-Monovette	11.6	82.0	13.5	24.0	plastic	flat	2.0 / 2.7 / 3.0	17652	36	144
S-Monovette	8.8	82.2	13.4	23.5	plastic	flat	1.1 / 1.2 / 1.4 / 2.0	17652	36	144

Terumo										
Venosafe 13 x 75 mm	12.4	80.0	15.6	19.0	plastic	round	1.8 / 2.4 / 2.7 / 3.6 / 4.0 / 5.0	17656	22	88
Venosafe 13 x 100 mm	12.3	105.0	15.5	19.0	plastic	round	4.5 / 5.5 / 8.1	17654	32	128
Venosafe 16 x 100 mm	15.0	105.0	17.5	19.0	plastic	round	6.0 / 8.0 / 9.0 / 10.0	17658	19	76
RIA tube 12 x 75 mm	12.3	80.0	-	-	plastic	round		17652	36	144



Terumo Venosafe



BD Vacutainer

Biosafe Rotor

Rotor	max.	max.
No.	[rpm]	RCF
11650 + 1 x 13421	4,700	4,001
11650 + 2 x 13450	4,700	4,643

- 11650** Swing-out rotor for 4 buckets No. 13421, 13450,
13421 Bucket for microtiter- and deepwellplates, incl. plate holder No. 17979, max. height = 60 mm, 1 set = 4 pcs.
13450 Round bucket, sealable with cap No. 17170, for adapters, (No. 17649 - 17699, 13654), 1 set = 2 pcs.

Adapter for bucket No. 13450, 1 set = 2 pcs.

- 17653** 26 x 1.5/2.0 ml, max. Ø 11 mm, e.g. No. 15008, 15040
17651 20 x 4 - 7 ml, max. Ø 15.5/18 x 50 - 75 mm, e.g. Monovette, Primavette,
17652 36 x 5 ml, max. Ø 12.5 x 60 - 80 mm, e.g. RIA tube No. 15060, hemolyse tubes
17656 22 x 5 - 6 ml, max. Ø 13.5/17.5 x 70 - 90 mm, e.g. RIA tube No. 15060 Vacutainer -, hemolyse tubes
17654 32 x 7 ml, max. Ø 12.5 x 85 - 115 mm, e.g. No. 15007, 15027
17658 19 x 9 - 15 ml, max. Ø 17.2/19.5 x 85 - 115 mm, e.g. No. 15015, 15020, 15022, 15023, 15024 and Monovettes 9 - 10 ml
17655 20 x 10 - 12 ml, max. Ø 16.2/18 x 65 - 90 mm, e.g. No. 15000, 15010, 15039
17659 12 x 15 ml Culture e.g. No. 15115, cap Ø max. 23 mm
17660 15 x 15 ml Culture e.g. No. 15115 cap Ø max. 22 mm*
17670 8 x 25 - 30 ml, max. Ø 25.4/30 x 90 - 115 mm, e.g. No. 15025, 15026, 15029, 15030, 15032, 15033
17662 7 x 30 ml, max. Ø 25/31 x 65 - 95 mm
17676 7 x 40 - 50 ml max. Ø 29/32 x 90 - 115 mm, e.g. No. 13055, 15051, 15052
17675 4 x 50 ml, max. Ø 35/38 x 90 - 115 mm, e.g. No. 15049, 15056, 15050
17677 5 x 50 ml Culture, e.g. no. 15151, Nunc, Corning, Falcon and Greiner
17678 5 x 50 ml Culture, max. Ø 29,4/36 x 90 - 115 mm**
17649 7 x 50 ml Culture, max. Ø 29/36 x 90 - 115 mm*
17685 3 x 78 - 85 ml, max. Ø 38/40 x 90 - 110 mm, e.g. No. 13085, 15076, 15080
17690 2 x 100 ml, max. Ø 45/47 x 85 - 110 mm, e.g. No. 15100, 15103, 15106
17692 1 x 125 ml, max. Ø 51 x 90 - 115 mm, e.g. No. 15125
17694 1x 150 - 250 ml Culture angle 88°, max. Ø 60 x 120 - 140 mm* e.g. Falcon 175, 225 ml, Labcon 175, 225 ml
17696 1 x 200 ml approx., max. Ø 57 x 90 - 115 mm, e.g. No. 15202
17693 1 x 150 ml - 200 ml Culture, angle 60°, max. Ø 61.5 x 140 mm e.g. No. 15175, 15174
17698 1 x 250 ml, max. Ø 61.5 x 90 - 125 mm, e.g. No. 13255, 15247, 15249
13654 1 x 500 ml, Ø 85 x 130 - 173 mm, e.g. No. 15501
17682 1 x 500 ml Culture, No. Corning 431123, angle 75°, Ø 96 x 150 mm*
13456 1 x 650 ml, Ø 100 x 111 mm, cap No. 17123

* without bucket cap No. 17170
 ** with rim



17677



17659



17652



17653



13421



17682



Corning
431123



17660



17658



17670



17649

Spincontrol L

Display	LCD with backlight
Permanent display set and actual values	+
Display of dimensions	+
Timer	10 sec - 99h 59 min
Runtime starts after set speed has been reached, switchable	+, +
Time increments [sec]	1
Short run	+
Continuous run	+
Speed increments [rpm]	100
Display speed or g-force	+
g-force increments [xg]	10
Programs	50
Acceleration curves	10
Deceleration curves	10
Brakeless	+
Acoustic signal, switchable	+, +
Optical display standstill	+
Cycle counter	+
Signal expired rotor life time	+
Automatic lid opening at the end of the run, switchable	+, +
Control unit lockable	+
Microprozessor controlled	+



Technical data	4-5L
Power consumption [W]	1,010
Max. capacity [ml]	4 x 650
Max. speed [rpm]	4,700
Min. speed [rpm]	100
Interference suppression	EN 61326
Height x Width x Depth [mm]	390 x 496 x 634
Height with open lid [mm]	880
Weight without rotor [kg]	77
Kinetic energy max. [Nm]	23,086
Noise level at max. speed [dB (A)]	67
Max. acceleration [sec]	46
Max. deceleration [sec]	26

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