

Biosafe Rotor

Rotor No.	max. [rpm]	max. RCF
11650 + 1 x 13421	4,700	4,001
11650 + 2 x 13450	4,700	4,643
11660 + 2 x 13460	4,700	4,470

- 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.
- 13460** Rectangular bucket for adapters (No. 18460,18461), 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
- 17210** 12 x 5 ml Eppendorf
- 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 - 90 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** 1 x 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

Adapter for bucket No. 13460, 1 set = 2 pcs.

- 18460** Rectangular adapter 25 x 17.2 mm / 19.5 x 85 - 115 mm
 - 18461** Rectangular adapter 35 x 13.5 mm / 17.5 x 70 - 106 mm
- * without bucket cap No. 17170
** with rim



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 [kW]	1,2
Max. capacity [ml]	4 x 750
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



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
 No. 1040490: Sigma No. 10404 + Rotor No. 11650 + 2 sets buckets No. 13450 + 2 sets caps No. 17170 + 2 sets adapter No. 17658

IVD-Version

No. 10407 (220 – 240 V, 50/60 Hz), No. 10408 (200 V, 50/60 Hz), No. 10406 (120 V, 60 Hz)

- 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
Calibration certificate for speed and time	No. 17714
IQQQ	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 run	Fits 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	88	18461	140
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	88	18461	140
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	76	18460	100
Vacutainer 16 x 125 mm	15.3	129.3	17.5	20	glass	round	8.0	17658	28	A14-A009	44

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	88	18461	140
Vacurette 13 x 100 mm	12.2	106.5	17.0	13.9	plastic	round	3.5 / 5.0 / 6	17656	88	18461	140
Vacurette 16 x 100 mm	15.1	106.2	17.5	15.1	plastic	round	7.0 / 8.0 / 9.0	17658	76	18460	100

Sarstedt											
S-Monovette or Special S-Monovette	16.8	108.6	19.3	24.5	plastic	round	9.0 / 10.0	17658	76	18461	140
S-Monovette or Special S-Monovette	15.3	108.5	18.0	26.0	plastic	round	7.5 / 8.2 / 8.5	17658	76	18461	140
S-Monovette	15.5	91.2	18.0	25.0	plastic	round	4.0 / 4.7 / 5.5	17655	80	18461	140
S-Monovette	11.6	108.3	13.4	24.0	plastic	flat	4.5 / 5.0	17652	144	18460	100
S-Monovette or Special S-Monovette	12.5	106.3	15.8	25.0	plastic	round	4.9 / 5.6	17656	88	18461	140
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	88	18461	140
S-Monovette or Special S-Monovette	11.6	82.0	13.5	24.0	plastic	flat	2.0 / 2.7 / 3.0	17652	144	18460	100
S-Monovette	8.8	82.2	13.4	23.5	plastic	flat	1.1 / 1.2 / 1.4 / 2.0	17652	144	18460	100

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	88	18461	140
Venosafe 13 x 100 mm	12.3	105.0	15.5	19.0	plastic	round	4.5 / 5.5 / 8.1	17654	128	18461	140
Venosafe 16 x 100 mm	15.0	105.0	17.5	19.0	plastic	round	6.0 / 8.0 / 9.0 / 10.0	17658	76	18460	100
RIA tube 12 x 75 mm	12.3	80.0	-	-	plastic	round		17652	144	18461	140



Terumo Venosafe



BD Vacutainer