eppendorf



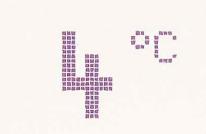
The Next Benchmark

Eppendorf Centrifuge 5910 R and Centrifuge 5920 R



»Eppendorf – A New Spin on Centrifugation.«

Whether you choose the new Centrifuge 5910 R with great versatility or the well established Centrifuge 5920 R with more capacity, both instruments follow the same extremely high Eppendorf standards in temperature management, safety and convenience.







Advanced temperature management

Temperature management is much more than just cooling. Eppendorf offers state-of the art hardware and software features for energy efficiency and sample protection. We have thought of everything so that you don't have to worry about your samples.

Innovative safety features

Eppendorf centrifuges have a reputation of being an essential workhorse in the lab. Operation is simple, seamless and safety comes as standard. Automatic rotor recognition and built-in imbalance sensors protect the centrifuge, your samples and most importantly – you.

> See page 4 for more information.

> See page 4 for more information.

Excellent user convenience

The user is at the center of all our efforts and optimization measures. Centrifuge 5910 R and Centrifuge 5920 R have been engineered to be extremely quiet and handling is convenient. Eppendorf has taken all the measurements to make everyday work more enjoyable.

> See page 5 for more information.

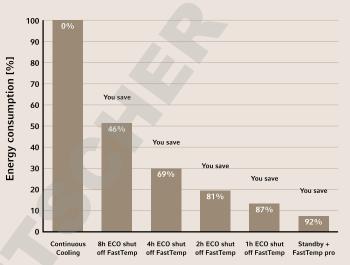
Centrifuge 5910 R and Centrifuge 5920 R

Advanced temperature management

Eppendorf developed the Dynamic Compressor Control (DCC). Unlike other compressors which switch back and forth between 0% and 100% performance output, DCC allows for a constant and smooth temperature regulation. This results in a precise cooling performance and the set temperature is kept stable at all time.

In addition to the well-known FastTemp function for super fast pre-cooling, both instruments include the new FastTemp pro® software option. This feature allows for automated pre-cooling based on pre-programmable time and date. Simply turn the centrifuge into standby mode when you leave your lab and let FastTemp pro take care of pre-cooling in the morning so you don't have to. This saves you more than 90% of energy over night and programming is super easy.

Centrifuge 5920 R: Energy saving overnight with ECO shut-off and FastTemp pro®



Innovative safety features

Centrifuge 5910 R and Centrifuge 5920 R have an automatic rotor recognition. This feature detects a newly inserted rotor and automatically limits the centrifuge speed to the rotor's maximum permissible value.

When handling substances that pose a health hazard it is highly recommended to use aerosol-tight fixed-angle rotors with Eppendorf QuickLock® lids or swing-bucket rotors in combination with Eppendorf QuickLock caps.







- > Automatic rotor recognition and imbalance detection for maximum operational safety
- > Sturdy motor driven lid locks to ensure secure operation
- > Not one but two gas springs to support the lid
- > Aerosol-tight rotors and buckets to avoid contamination

Centrifuge 5910 R and Centrifuge 5920 R

Excellent user convenience

For ergonomic lid operation Eppendorf designed the soft-touch lid closure system. There is no need to exert unnecessary force when closing the centrifuge lid. In combination with a low opening height you can close the centrifuge with ease.

Centrifuge 5910 R and Centrifuge 5920 R feature an advanced operation system that comes with an easy to use interface to make the operation intuitive and more enjoyable. The multilingual operation menu includes 5 program keys for easy access to your routine programs.





- > Soft-touch lid for stress-free instrument closing
- > Low access height for easy loading and unloading
- > Low noise level to improve your work environment
- > Large display and intuitive operating system
- > 5 program keys for easy access to routine programs





Feature	Centrifuge 5910 R	Centrifuge 5920 R
1,000 mL bottles	-	4
750 mL bottles	4	4
250 mL bottles	4	8
50 mL conical tubes	36	52
5 mL and 15 mL conical tubes	68	108
1.5 mL and 2.0 mL micro tubes	200	368
BD Vacutainer® CPT™ (16 mm x 125 mm/8 mL)	28	80
16 mm blood tubes (7.5 mL-12 mL)	104	148
13 mm blood tubes (4 mL-8 mL)	120	196
MTP/DWP	20/4	28/8
Universal adapters for conical tubes, plates and bottles	•	
Dual use of plates and tubes in one rotor bucket	•	•
Plate rotor options for MTP, PCR or DWP	•	•
Fixed-angle rotors for high-speed applications	•	•
Dimensions (W x D x H)	72 x 66 x 37 cm	74 x 71 x 40 cm
Height (with open lid)	85 cm	94 cm
Weight (w/o accessories)	109 kg	139 kg

Centrifuge 5910 R – Great Versatility



Centrifuge 5910 R and its new swing-bucket rotor S-4xUniversal offer great versatility. The new universal adapters accommodate bottles, plates and more 15 mL or 50 mL conical tubes than standard 3 Liter multipurpose centrifuges. No need to change rotor or rotor buckets. This improves handling and saves time.

Great versatility for all your applications

- > Swing-bucket rotors and adapters accommodate tubes and bottles from 0.2 mL to 750 mL
- > Plate rotor options for centrifugation of all types of MTP, PCR or deepwell plates (DWP)
- > Fixed-angle rotors for high-speed molecular biology applications in tubes from 0.2 mL to 50 mL
- > High centrifugation speed of up to $22,132 \times g$ (14,000 rpm)

Super quiet operation

- > Centrifuge 5910 R designed to operate at low noise levels for a relaxing work environment
- > Low noise aerodynamic swing-bucket rotor and cooling fan design
- > Most quiet multipurpose centrifuge within the Eppendorf product range





New versatile universal adapters

Three innovative universal adapters can spin a selection of tubes, bottles and plates:

- > Adapter 1: 5.0 mL and 15 mL conical tubes, DWP, MTP
- > Adapter 2: 50 mL conical tubes, MTP
- > Adapter 3: 50 mL conical tubes, 250 mL bottles, MTP



> More information: www.eppendorf.com/centrifuge-5910R

Centrifuge 5920 R - More Capacity







As awarded by The Chicago Athenaeum: Museum of Architecture and Design.

Centrifuge 5920 R delivers extraordinary high capacity in a very compact and ergonomic product design. It has similar dimensions as competing refrigerated 3 Liter models and yet features a superior capacity of up to $4\times1,000$ mL; thus making it the ideal instrument for high-throughput applications.

More Capacity for higher throughput

- > Swing-bucket rotors accommodate tubes and bottles from 0.2 mL to 1,000 mL
- > Fixed-angle rotors for high-speed molecular biology applications in tubes from 0.2 mL to 50 mL
- > Plate rotor options for centrifugation of all types of MTP, PCR or DWP

Rotor S-4x1000 for 1 liter bottles

- > Round buckets accommodate standard 1 liter Nalgene® bottles setting a new standard in the table top centrifuge segment
- > 4 liter capacity to process a higher volume in fewer runs
- > Range of adapters for tubes and plates available
- > Maximum rcf at 3,413 $\times q$



> More information: www.eppendorf.com/centrifuge-5920R



Overview of Swing-Buckets Rotors









Model	Rotor S-4xUniversal- Large	Rotor S-4x1000 high-capacity buckets	Rotor S-4x1000 plate/tube buckets	Rotor S-4x1000 round buckets
Positioning	Extra high capacity	Extra high capacity	High capacity	Medium capacity, compatible with 1 Liter bottle
5910 R				
5920 R	•			
Universal bucket	yes	no	no	no
Aerosol-tightness	yes	no	yes	yes
Max. capacity	4 × 750 mL	8 × 250 mL	40 × 50 mL	4 × 1,000 mL
Max. RCF	4,402 × <i>g</i>	3,153 × <i>g</i>	$3,076 \times g$	3,413 × <i>g</i>
Max. speed	4,250 rpm	3,700 rpm	3,700 rpm	3,700 rpm
1.5/2.0 mL micro tube	368			200
Eppendorf Tubes®	96	108	88	56
5.0 mL and 15 mL conical				
50 mL conical	40	52	40	28
13 mm blood tube	196	196	140	92
16 mm blood tube	148	144	132	80
750 mL bottle	4			4
1,000 mL bottle				4
MTP/DWP	20/8	24/8	28/8	28/8

Advanced Rotor Design – Swing-Bucket Rotors



Rotor buckets for tubes and plates (selected rotors only)

Advantages:

- > Time saving: No need to exchange buckets
- > Cost saving: No need for separate plate buckets
- > Space saving: No need to store different buckets

The illustrated Rotor S-4xUniversal (Centrifuge 5910 R) additionally comes with »universal adapters« that support multiple plate and tube formats. Your benefit: Even more savings!









Rotor S-4xUniversal	Rotor S-4x750	Rotor S-4x500	Rotor S-4x400
High capacity and versatility	Medium capacity, high speed	Medium capacity	Medium capacity, high speed
•			•
yes	no	no	no
yes	yes	yes	yes
4 x 750 mL	4 × 750 mL	4 × 500 mL	4 × 250 mL
4,347 × g	4,800 × g	3,220 × g	5,263 × <i>g</i>
4,500 rpm	4,700 rpm	4,000 rpm	5,100 rpm
	200	96	104
68	56	48	28
36	28	20	16
120	92	100	60
104	80	64	44
4	4		
20/4	16/4	16/4	





Aerosol-tight Eppendorf QuickLock® caps

- > Significantly improved handling, easy operation with one or two hands
- > Handle allows the closed bucket to be carried to the biosafety cabinet where it can be opened in a safe environment
- > Aerosol-tightness has been tested and verified by Public Health England, Porton Down, UK

Overview of Fixed-Angle Rotors







Model	Rotor FA-6x250*1	Rotor FA-6x50	Rotor FA-20x5
Positioning	Processing of cells in higher	Molecular applications in tubes	Applications in
	volumes at high speed	up to 50 mL conical	Eppendorf Tubes 5.0 mL
5910 R	•	•	•
5920 R	•	•	
Aerosol-tightness	yes	yes	yes
Max. capacity	6 × 250 mL	6 × 50 mL	20 × 5 mL
Max. RCF		20,130 × <i>g</i>	20,913 × g
Max. speed		12,100 rpm	13,100 rpm
1.5/2.0 mL micro tube		6	20
Eppendorf Tubes 5.0 mL and		6	20/0
15 mL conical			
50 mL conical		6	
250 mL	6		

^{*1} from Q4/2018.

Advanced Rotor Design – Fixed-Angle Rotors



Cross section of Rotor FA-6x50 (6 \times 50 mL conical) showing the light-weight design. All metal not needed for safety or performance is hollowed out to reduce weight and improve handling.

Low rotor weight

The fixed-angle rotors of Eppendorf are among the lightest in the industry to improve handling and operational safety. Light-weight rotors cause less wear and tear on the motor and allow for faster acceleration and braking times.





		And Chillifflees.
Rotor FA-48x2	Rotor FA-30x2	Rotor F-48x15
High-throughput applications in	High-throughput applications in	High-capacity fixed-angle rotor for 15 mL
Eppendorf Tubes 1.5/2.0 mL	Eppendorf Tubes 1.5/2.0 mL	conical and glass tubes
		•
	_	-
yes	yes	
48 × 2 mL	30 × 2 mL	40 × 15 mL
21,194 × g (5920 R)/22,132 × g (5910 R)	$20,984 \times g$	$5,005 \times g$
13,700 rpm (5920 R)/14,000 rpm (5910 R) rpm	13,700 rpm	5,500 rpm
48	30	
		0/40



Eppendorf QuickLock® lids for ergonomic lid locking

Our aerosol-tight QuickLock rotors close with only 1/4 of a turn. This not only saves you time during every day use, it also takes repetitive stress off your wrist.

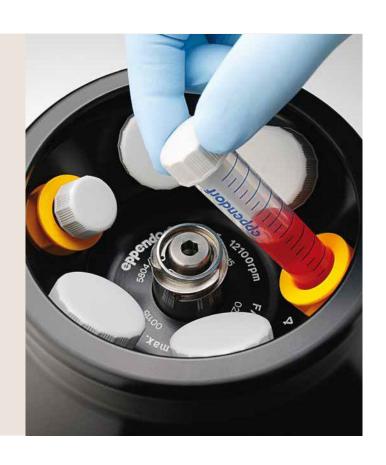
Superior temperature control

Aluminum, with its high heat conductivity, allows fast pre-cooling and accurate temperature control in refrigerated centrifuges.

Perfect fit with Eppendorf Conical Tubes 15 mL and 50 mL

The Eppendorf Conical Tubes are characterized by an outstanding centrifugation stability of up to $19,500 \times g^{*2}$. This makes them suited for a broad range of applications.

^{*2} Test conditions: Rotor FA-45-6-30 in Eppendorf Centrifuge 5810 R (using a suitable centrifuge adapter for 15 ml tube), sample: Saline solution (density: 1.0 g/mL), controlled centrifugation temp.: 25 °C, centrifugation time: 90 min



Rotors for Centrifuge 5910 R



Rotor S-4xUniversal

- > High capacity swing-bucket rotor with max. speed 4,347 \times *g* (4,500 rpm)
- > Broad range of adapters enables high versatility for tubes and flasks from 4 mL to 750 mL and plates
- > Universal bucket design accommodates both plates and tubes
- > Universal adapters accommodate selective plate formats and conical tubes
- > Aerosol-tight QuickLock caps for safe centrifugation of hazardous samples optionally available*1
- > Buckets, caps and adapters are autoclavable
- *1 Aerosol-tightness tested by Public Health England, Porton Down, UK.

Adapters for Rotor S-4xUniversal						
Tube Volume	4–8 mL	7.5–12 mL	9 mL	Eppendorf Tubes® 5.0 mL	15 mL conical	MTP, DWP
Max. tube diameter	13 mm	16 mm	17.5 mm	17 mm	17 mm	
Max. vessel height	119 mm	120 mm	120 mm	124 mm	124 mm	64 mm
Max. vessel height for use with cap/lid*1	117 mm	118 mm	118 mm	122 mm	122 mm	*2
Adapter						
Number of vessels per adapter/rotor	30/120	26/104	21/84	17/68	17/68	1/4
Bottom shape	round	round	round	conical		flat
Centrifugation radius	190 mm	195 mm	188 mm	191 mm		143 mm
Max. RCF	4,302 × g	4,415 × g	4,256 × g	4,324 × g		3,237 × g
Packing	set of 2 pcs.					
Order no.	5910 755.007	5910 754.000	5910 762.003		5910 752.008	

^{*&}lt;sup>†</sup> Please perform a manual test to determine the actual loading capacity.
*² Aerosol-tight caps compatible with MTP, DWP 96 500 μl, DWP 384 200 μl. Aerosol-tight caps not compatible with DWP 96 1,000 μl and 2,000 μl.
*³ When used with aerosol-tight caps the max. capacity is reduced to 20 x 50 mL (5 x 50 mL per adapter).

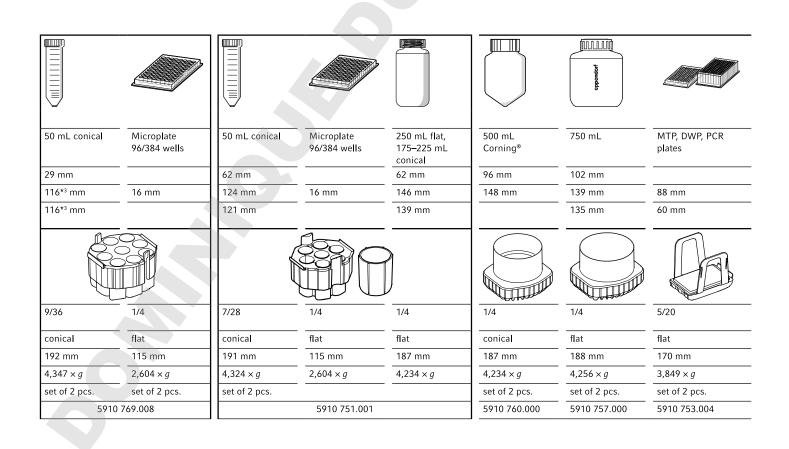


Rotor S-4xUniversal brings outstanding versatility to those customers who need to spin both tubes and plates. Three new innovative »universal adapters« can spin selective conical tube and plate formats:

- > Eppendorf Tubes 5.0 mL/15 mL conical/DWP
- > 50 mL conical/MTP
- > 50 mL conical/250 mL flat/MTP

For customers who need either stacking capability, higher speed or aerosol-tight centrifugation of certain plate formats, a separate plate carrier is available.

Description	Order no.
Rotor S-4xUniversal, incl. universal buckets	5895 200.001
Aerosol-tight caps, for Rotor S-4xUniversal, set of 2 pcs.	5910 750.005
Wide-neck bottle, 750 mL, set of 2 pcs.	5820 708.000



Rotors for Centrifuge 5910 R



Rotor S-4x500

- > Medium capacity swing-bucket rotor with max. speed 3,220 \times *g* (4,000 rpm)
- > Rotor S-4x500 accommodates tubes and bottles from 0.2 mL to 500 mL as well as plates
- > Aerosol-tight caps for safe centrifugation of hazardous samples optionally available*1
- > Mixed loading with 2 plate buckets and 2 rectangular buckets allows for increased versatility
- > Buckets, caps and adapters are autoclavable
- *1 Aerosol-tightness tested by Public Health England, Porton Down, UK.

Adapters for Rotor S-4x500						
Tube Volume	1.5/2.0 mL	1.2–5 mL	2.6–5 mL	2.6 - 7 mL	3–15 mL	7–17 mL
Max. tube diameter	11 mm	11 mm	13 mm	13 mm		 17.5 mm
Max. vessel height	43 mm	118 mm	118 mm	118 mm	118 mm	118 mm
Max. vessel height for use with cap/lid*1	43 mm	108 mm	107 mm	108 mm	108 mm	118 mm
Adapter						
Number of vessels per adapter/rotor	20/80	20/80	25/100	18/72	16/64	16/64
Bottom shape	flat	flat	flat with rubber mat	flat with rubber mat	flat with rubber mat	flat with rubber mat
Centrifugation radius	 165 mm	168 mm	168 mm	168 mm	168 mm	168 mm
Max. RCF	2,950 × g	3,000 × g	3,000 × g	3,000 × g	3,000 × g	3,000 × g
Packing	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.
Order no.	5810 745.004	5810 746.000	5810 720.001	5810 747.007	5810 748.003	5810 721.008

^{*1} Please perform a manual test to determine the actual loading capacity.



Ordering information	
Description	Order no.
Rotor S-4x500, for 500 mL rectangular buckets or MTP/Flex buckets	
incl. 4 x 500 mL rectangular buckets	5895 170.005
without buckets	5895 171.001
Cap for 500 mL rectangular buckets, aerosol-tight, for Rotor A-4-81, set of 2 pcs.	5810 724.007

				Jopunddo	cppendorf	
Eppendorf Tubes® 5.0 mL and 15 mL conical tubes	50 mL conical	30–50 mL and 50 mL conical tubes, skirted	180–250 mL flat/ 175–225 mL conical	400 mL	500 mL	MTP, DWP, PCR plates
17.5 mm	31 mm	31/29 mm	62 mm	81 mm	83 mm	
121 mm	122 mm	121 mm	133 mm		135 mm	60 mm
119 mm	116 mm				135 mm	
12/48	5/20	5/20	1/4	1/4	- /4	4/16 (MTP) 1/4 (DWP)
conical	conical	flat with rubber mat	flat with rubber mat	flat, rubber	flat	flat with rubber mat
173 mm	173 mm	173 mm	173 mm	180 mm	180 mm	163 mm
$3,100 \times g$	3,100 × <i>g</i>	3,100 × <i>g</i>	3,100 × <i>g</i>	$3,220 \times g$	3,220 × g	2,900 × g
set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.		set of 2 pcs.
5810 722.004	5810 723.000	5810 739.004	5825 722.000	5810 728.002		5810 742.005

Rotors for Centrifuge 5910 R



Rotor S-4x400

- > High-speed medium capacity swing-bucket rotor with max. speed 5,234 \times *g* (5,100 rpm)
- > Broad range of adapters enables high versatility for tubes and bottles from 0.2 mL to 250 mL
- > Aerosol-tight QuickLock caps for safe centrifugation of hazardous samples optionally available*1
- > Buckets, caps and adapters are autoclavable
- *1 Aerosol-tightness tested by Public Health England, Porton Down, UK.

Adapters for Rotor S-4x400				
Tube Volume	1.5 mL/2.0 mL	12 mm × 75 mm	4–8 mL	7.5–1 mL
Max. tube diameter	11 mm	12 mm	13 mm	16 mm
Max. vessel height	39 mm	188 mm	119 mm	122 mm
Max. vessel height for use with cap/lid*1		112 mm	105 mm	115 mm
Adapter				
Number of vessels per adapter/rotor	26/104	17/68	15/60	11/44
Bottom shape	open	round	round	round
Centrifugation radius	177 mm	172 mm	171 mm	173 mm
Max. RCF	5,147 × <i>g</i>	5,002 × <i>g</i>	4,818 × g	4,874 × g
Packing	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.
Order no.	5910 708.009	5910 711.000	5910 703.007	5910 704.003



Description	Order no.
Rotor S-4x400, incl. 400 mL round bucket	5895 180.000
Aerosol-tight caps, for Rotor S-4x400, set of 2 pcs.	5910 700.008

9 mL	Eppendorf Tubes® 5.0 mL and 15 mL conical	50 mL conical, skirted	50 mL conical	175–225 mL conical	175–250 mL
17.5 mm	17 mm	29 mm	29 mm	62 mm	62 mm
122 mm	133 mm	122 mm	125 mm	143 mm	138 mm
115 mm	126 mm	120.5 mm	117 mm	137 mm	129 mm
		procedo			The second secon
8/32	7/28	3/12	4/16	1/4	1/4
round	conical	conical	conical	flat	flat
173 mm	180 mm	170 mm	179 mm	181 mm	174 mm
4,874 × g	5,071 × g	4,943 × g	5,043 × g	5,263 × g	$5,060 \times g$
set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.
5910 709.005	5910 702.000	5910 712.006	5910 701.004	5910 714.009	5910 705.000

Rotors for Centrifuge 5910 R and Centrifuge 5920 R



Rotor S-4x750

- > Medium capacity swing-bucket rotor with max. speed 4,800 $\times g$ (4,700 rpm)
- > Broad range of adapters enables high versatility for tubes and flasks from 0.2 mL to 750 mL and plates
- > Mixed loading with 2 plate buckets and 2 round buckets allows for increased versatility
- > Aerosol-tight QuickLock caps for safe centrifugation of hazardous samples optionally available*1
- > Buckets, caps and adapters are autoclavable
- *1 Aerosol-tightness tested by Public Health England, Porton Down, UK.

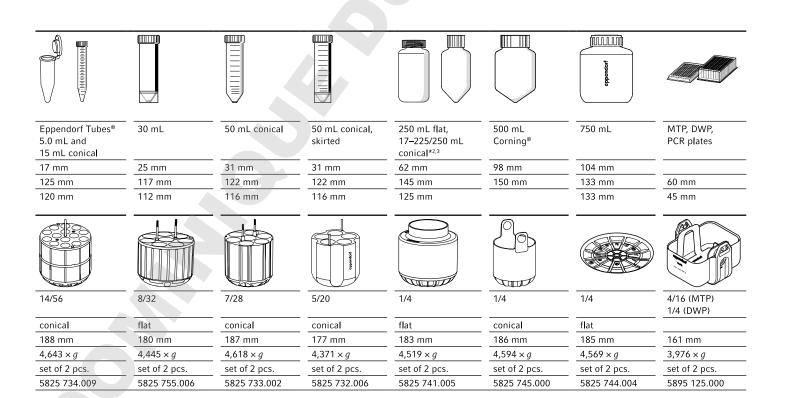
Adams for David C 4:750						(continuodal
Adapters for Rotor S-4x750 Tube Volume	1.5/2.0 mL	12 × 75 mm,	2.6 - 8 mL	5.5 - 12 mL	9 mL	 14 mL
rube vojume	1.3/2.0 IIIL	5 mL FACS	2.0 - 8 IIIL	3.3–12 IIIL	7 IIIL	14 1111
Max. tube diameter	11 mm	12 mm	13 mm	16 mm	17.5 mm	17.5 mm
Max. vessel height	39 mm	120 mm	121 mm	125 mm	117 mm	106 mm
Max. vessel height for use with cap/lid*1	39 mm	113 mm	113 mm	120 mm	112 mm	106 mm
Adapter	opender opender				oppended	opporated
Number of vessels per adapter/rotor	50/200	27/108	23/92	20/80	20/80	14/56
Bottom shape	flat	round	round	round	round	round
Centrifugation radius	194 mm	186 mm	185 mm	186 mm	185 mm	185 mm
Max. RCF	4,800 × g	4,593 × g	4,569 × g	4,594 × g	4,569 × g	4,569 × g
Packing	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.
Order no.	5825 740.009	5825 747.003	5825 738.004	5825 736.001	5825 743.008	5825 748.000

^{*1} Exceeding the maximum tube length may reduce the loading capacity of the rotor. Please perform a manual swing-out test before starting the centrifuge run to make sure the tubes do not hit the rotor yoke.

*2 Please note that these conical bottles need to be used together with a conical form insert provided by the manufacturer.

*2 225 mL conical for S-4-104 and S-4x750, 250 mL conical for S-4x1000 with round bucket.

Description	Order no.
Rotor S-4x750	
Rotor S-4x750, aerosol-tight, without buckets	5895 121.004
Rotor S-4x750, aerosol-tight, incl. 4×750 mL round buckets	5895 120.008
Buckets for Rotor S-4x750	
Round buckets for Rotor S-4x750, set of 2 pcs.	5895 123.007
Round buckets for Rotor S-4x750, set of 4 pcs.	5895 122.000
Plate bucket (aerosol-tight capable), incl. plate carrier, set of 4 pcs.	5895 124.003
Plate bucket (aerosol-tight capable), incl. plate carrier, set of 2 pcs.	5895 125.000
Accessories	
Aerosol-tight caps for plate buckets (aerosol-tight capable), aerosol-tight, for Rotor S-4-104 and Rotor S-4x750, set of 2 pcs.	5820 748.001
Aerosol-tight caps for 750 mL round buckets, aerosol-tight, for Rotor S-4-104, Rotor S-4x750 and Rotor S-4x1000, set of 2 pcs.	5820 747.005
Wide-neck bottle, 750 mL, set of 2 pcs.	5820 708.000

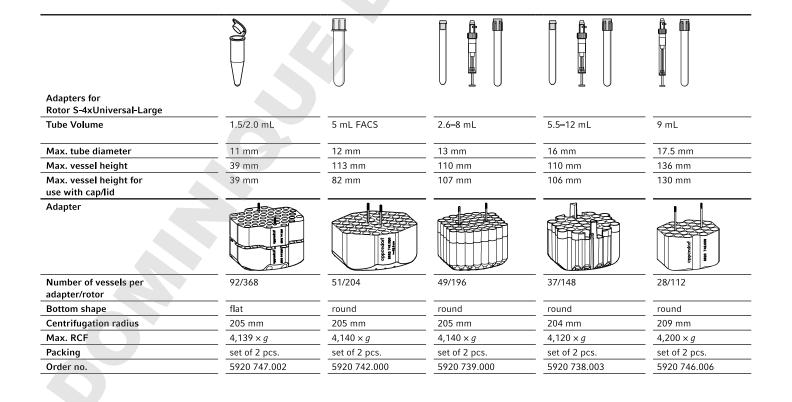


Rotors for Centrifuge 5920 R



Rotor S-4xUniversal-Large

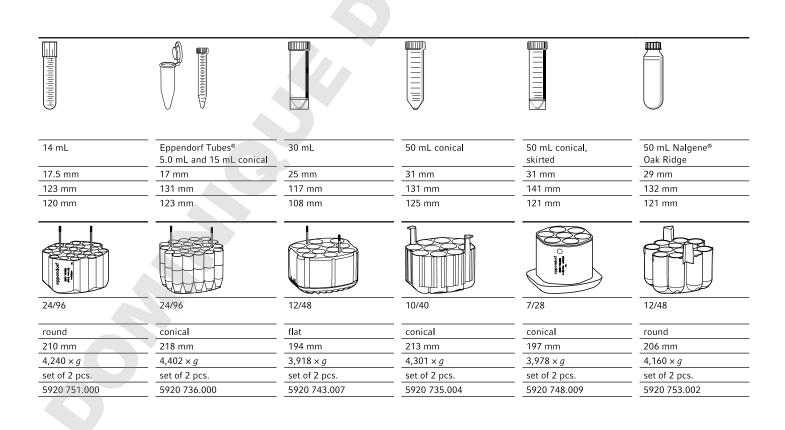
- > Extra high capacity swing-bucket rotor with max. speed $4,402 \times g$ (4,250 rpm)
- > Broad range of adapters enables high versatility for tubes and flasks from 0.2 mL to 750 mL and plates
- > Universal bucket design accommodates both plates and tubes
- > Aerosol-tight Eppendorf QuickLock caps for safe centrifugation of hazardous samples optionally available*1
- > Buckets, caps and adapters are autoclavable



^{*1} Aerosol-tightness tested by Public Health England, Porton Down, UK.

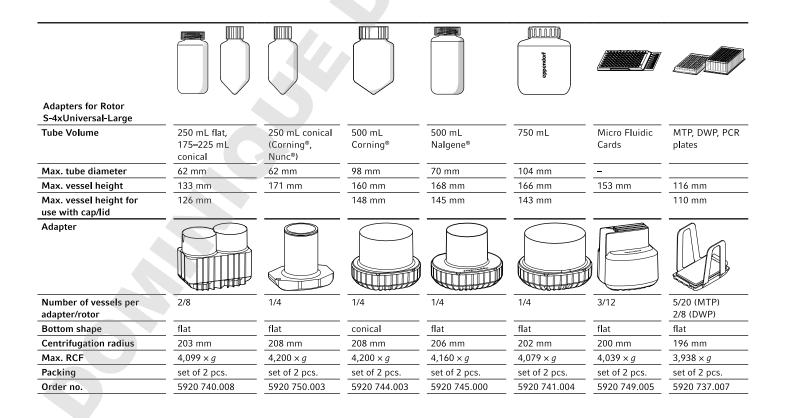


Description	Order no.
Rotor S-4xUniversal-Large, incl. buckets	5895 190.006
Aerosol-tight caps, for Rotor S-4xUniversal-Large, set of 2 pcs.	5920 752.006
Wide-neck bottle, 750 mL, set of 2 pcs.	5820 708.000



Rotors for Centrifuge 5920 R











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Liquid Handling Cell Handling Sample Handling

To make your job in the lab easier and more efficient – with this goal in mind we are developing products and solutions in the areas of Liquid Handling, Cell Handling, and Sample Handling. Visit the Eppendorf Handling Solutions online sphere and dive into the area of your choice, learn new things, and have fun as well: www.eppendorf.com/handling-solutions



Cell Handling

(

Discover our comprehensive range of instruments and consumables for the manipulation, cultivation and analysis of cells. For handling cells, in addition to manipulators and injectors, incubators and consumables for cultivation as well as complete bioreactor systems for cell culture applications are also available. Corresponding



■ Eppendorf Cell Culture Consumables

Experience a new dimension in cell culture with products that meet your needs.

- > Advanced contamination protection
- > Outstanding optical performance
- > Prevention of edge effect



■ Eppendorf Cell Imaging Consumables

Designed for sophisticated imaging and microscopy applications on expert level.

- > TC treated glass and film surfaces
- > Excellent signal-to-noise ratio
- > Extraordinary planarity



■Eppendorf μCuvette® G1.0

Perfect tool for measuring high nucleic acid and protein concentrations in small volumes.

- $> 1.5 10 \mu L$ sample volumes
- > Simple cleaning
- > Low self-absorption



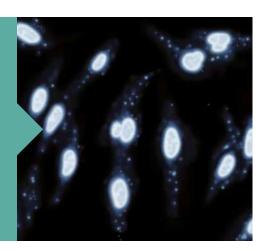
Eppendorf BioSpectrometer®

Compact spectrophotometers for measurements in the UV/ Vis and fluorescence range.

- > UV/V from 200 to 830 nm
- > Freely selectable wavelengths
- > Temperature controlled

Mycoplasma Detection Methods

Find out challenging tips on

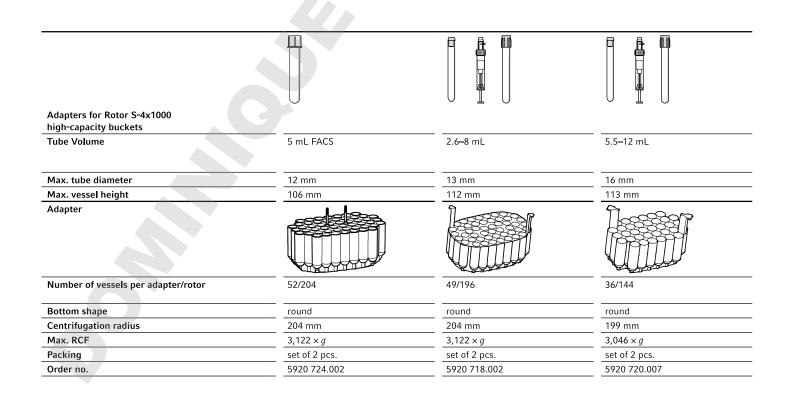


Rotors for Centrifuge 5920 R



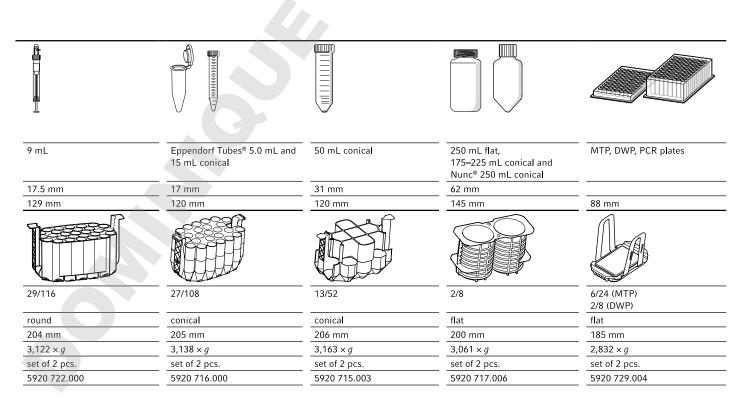
Rotor S-4x1000 with high-capacity buckets

- > Extra high capacity swing-bucket rotor with max. speed 3,153 \times *g* (3,700 rpm)
- > Bucket accommodates both plates and tubes
- > Buckets, caps and adapters are autoclavable





Description	Order no.
Rotor S-4x1000	
Rotor S-4x1000, incl. high-capacity buckets	5895 118.003
Rotor S-4x1000, without buckets	5895 101.003
Buckets for Rotor S-4x1000	
High-capacity bucket for Rotor S-4x1000, set of 2 pcs.	5895 107.001
High-capacity bucket for Rotor S-4x1000, set of 4 pcs.	5895 106.005
Accessories	
Plate carrier for high-capacity bucket, set of 2 pcs.	5920 729.004

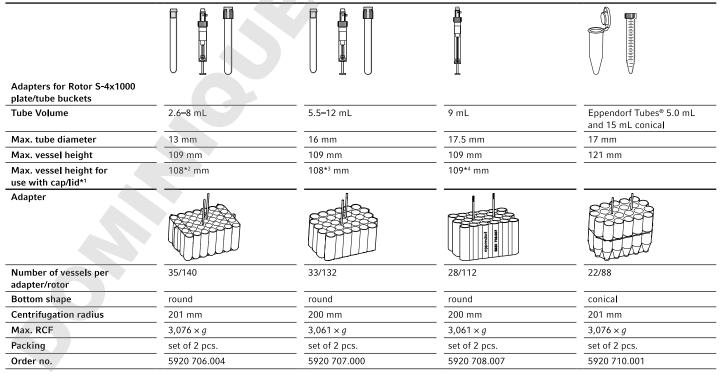


Rotors for Centrifuge 5920 R



Rotor S-4x1000 with plate/tube bucket

- > High capacity swing-bucket rotor with max. speed 3,076 \times *g* (3,700 rpm)
- > Bucket accommodates both plates and tubes
- > Aerosol-tight QuickLock caps for safe centrifugation of hazardous samples optionally available*1
- > Buckets, caps and adapters are autoclavable
- *1 Aerosol-tightness tested by Public Health England, Porton Down, UK.

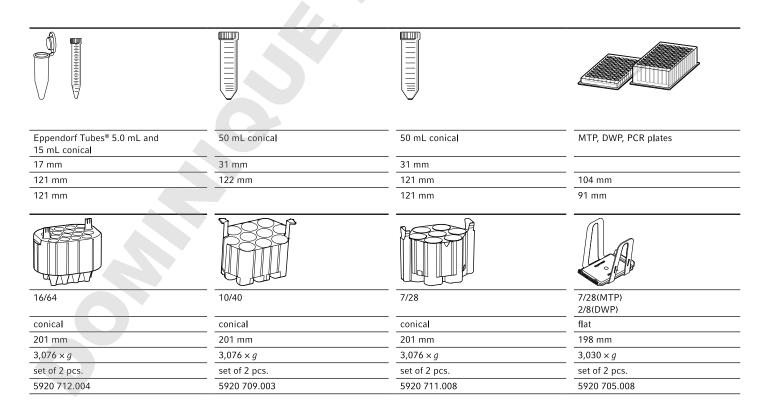


 $^{^{\}star 1}$ Please perform a manual test to determine the actual loading capacity $^{\star 2}$ in 25 center pos.

^{*3} in 23 center pos *4 in 22 center pos



Description	Order no.
Rotor S-4x1000	
Rotor S-4x1000, incl. plate/tube buckets	5895 117.007
Rotor S-4x1000, without buckets	5895 101.003
Buckets for Rotor S-4x1000	
Plate/tube bucket for Rotor S-4x1000, set of 2 pcs.	5895 105.009
Plate/tube bucket for Rotor S-4x1000, set of 4 pcs.	5895 104.002
Accessories	
Aerosol-tight caps, for S-4x1000 plate/tube bucket and S-4x750 plate bucket, set of 2 pcs.	5895 111.009
Plate carrier for plate/tube bucket, for Rotor S-4x1000 with plate/tube buckets, Rotor S-4x1000, set of 2 pcs.	5920 705.008

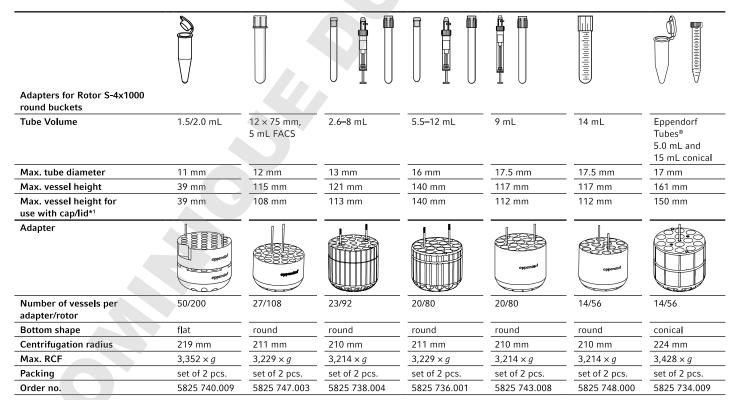


Rotors for Centrifuge 5920 R



Rotor S-4x1000 with round bucket

- > Medium capacity swing-bucket rotor with max. speed 3,413 $\times q$ (3,700 rpm)
- > Broad range of adapters enables high versatility for tubes and flasks from 0.2 mL to 1,000 mL and plates
- > Mixed loading with 2 plate buckets and 2 round buckets allows for increased versatility
- > Aerosol-tight QuickLock caps for safe centrifugation of hazardous samples optionally available*1
- > Buckets, caps and adapters are autoclavable
- *1 Aerosol-tightness tested by Public Health England, Porton Down, UK.



^{*1} Exceeding the maximum tube length may reduce the loading capacity of the rotor. Please perform a manual swing-out test before starting the centrifuge run to make sure the tubes do not hit the rotor yoke

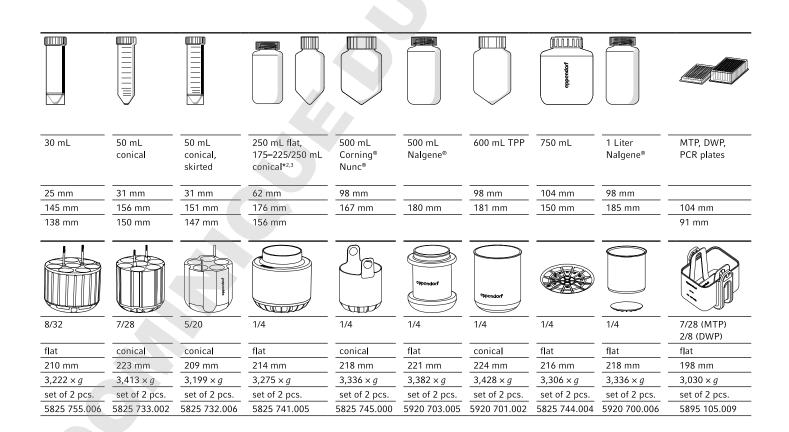
^{*2} Please note that these conical bottles need to be used together with a conical form insert provided

by the manufacturer.

*3 225 mL conical for S-4-104 and S-4x750, 250 mL conical for S-4x1000 with round bucket.

Ord	ering	g info	rmation
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Description	Order no.		
Rotor S-4x1000			
Rotor S-4x1000 round buckets, aerosol-tight, incl. 4 × 1,000 mL round buckets	5895 100.007		
Rotor S-4x1000, aerosol-tight, without buckets	5895 101.003		
Buckets for Rotor S-4x1000			
Round bucket for Rotor S-4x1000, set of 2 pcs.	5895 103.006		
Round bucket for Rotor S-4x1000, set of 4 pcs.	5895 102.000		
Plate/tube bucket for Rotor S-4x1000, set of 2 pcs.	5895 105.009		
Plate/tube bucket for Rotor S-4x1000, set of 4 pcs.			
Accessories			
Aerosol-tight caps for 750 mL round buckets, aerosol-tight, for Rotor S-4-104, Rotor S-4x750 and	5820 747.005		
Rotor S-4x1000, set of 2 pcs.			
Aerosol-tight caps, for S-4x1000 plate/tube bucket and S-4x750 plate bucket, set of 2 pcs.	5895 111.009		
Plate carrier for plate/tube bucket, for Rotor S-4x1000 with plate/tube buckets, Rotor S-4x1000, set of 2 pcs.	5920 705.008		



Rotors for Centrifuge 5910 R



Rotor F-48x15

- > High-capacity fixed-angle rotor for 15 mL conical and glass tubes
- > Maximum speed: 5,005 \times g (5,500 rpm)
- > Form inserts for 15 mL conical tubes



Rotor FA-30x2

- > 30 places for 1.5/2.0 mL tubes
- > Max. speed: 20,984 \times g (max. 13,700 rpm)
- > Eppendorf QuickLock rotor lid for fast lid locking
- > Aerosol-tight for safe centrifugation of hazardous samples*1
- > Anodized aluminum for high chemical resistance
- > Rotor and lid are autoclavable (121 °C, 20 min)

Ordering information

Description	Order no.
Rotor F-48x15, for 40 x 15 mL conical tubes, incl. 48 steel sleeves and adapters	5895 160.000
Rotor FA-30x2, incl. aerosol-tight Eppendorf QuickLock® rotor lid	5895 155.006
Adapter, for 1 tube 0.5 mL, max. Ø 8 mm or microtainer 0.6 mL, max. Ø 8 mm, for all 1.5/2.0 mL rotors, set of 6 pcs.	5425 716.001
Adapter, for 1 tube 0.4 mL, max. Ø 6 mm, for all 1.5/2.0 mL rotors, set of 6 pcs.	5425 717.008
Adapter, for 1 PCR tube 0.2 mL, max. Ø 6 mm, for all 1.5/2.0 mL rotors, set of 6 pcs.	5425 715.005





Centrifuge Performance Plans

An annual inspection and maintenance of centrifuges and rotors by an Eppendorf certified service technician is highly recommended to ensure a safe working environment.

ESSENTIAL CHECK

> Check of all fundamental functions of the product

PREMIUM SERVICE

> Complete maintenance and repair service agreement solution for your peace of mind

ADVANCED MAINTENANCE

> Preventive maintenance service to meet manufacturer specifications

^{*1} Aerosol-tightness tested by Public Health England, Porton Down, UK.

Rotors for Centrifuge 5910 R and Centrifuge 5920 R



Rotor FA-20x5

- > 20 places for Eppendorf Tubes 5.0 mL*2
- > Max. speed: 20,913 \times g (13,100 rpm)
- > Aerosol-tight*3 Eppendorf QuickLock rotor lid
- > Rotor, Iid and adapters are autoclavable (121 °C, 20 min)
- > Anodized aluminum for high chemical resistance



Rotor FA-48x2

- > 48 places for 1.5/2.0 mL tubes
- > Max. speed: 21,194 \times g/13,700 rpm (5920 R)/ 22,132 x *q*/14,000 rpm (5910 R)
- > Eppendorf QuickLock rotor lid for fast lid locking
- > Aerosol-tight*3 for safe centrifugation of hazardous samples
- > Anodized aluminum for high chemical resistance
- > Rotor and lid are autoclavable (121 °C, 20 min)

Ordering information

Description	Order no.
Rotor FA-20x5, for 20 Eppendorf Tubes® 5.0 mL, incl. aerosol-tight Eppendorf QuickLock® rotor lid	5895 130.003
Adapter, for 1 vessel 1.5 – 2.0 mL, for Rotors FA-45-12-17, FA-45-16-17 and FA-45-20-17, set of 4 pcs.	5820 768.002
Adapter, for 1 cryo tube, for Rotors FA-45-12-17, FA-45-16-17 and FA-45-20-17, set of 4 pcs.	5820 769.009
Adapter, for 1 HPLC tube, for Rotors FA-45-12-17, FA-45-16-17 and FA-45-20-17, set of 4 pcs.	5820 770.007
Rotor FA-48x2, incl. aerosol-tight Eppendorf QuickLock® rotor lid	5895 135.005

Certification Services

Installation Qualification (IQ) and Operational Qualification (OQ) services make sure that temperature accuracy, rotational speed verification and operating time meet manufacturer's specifications.

Over the years, all rotor structures will eventually suffer from fatigue due to stress of high numbers of cycles. If not maintained correctly, surface scratches can lead to microscopic and then to critical cracks. Qualified inspection will detect damages early in order to prevent further equipment failure. Our service includes cleaning, instructions for proper care and visual examination of rotors and adapters

determining if the rotor is safe for further operation or needs to be replaced.

The Performance Plans feature

- > Manufacturer-specific test procedures
- > GLP supporting documentation

Value of service

- > Highest degree of security in your lab
- > Longer service life of the system



^{*2} For Eppendorf Tubes 5.0 mL with screw cap the capacity is limited to 10 tubes.
*3 Aerosol-tightness tested by Public Health England, Porton Down, UK.

Rotors for Centrifuge 5910 R and Centrifuge 5920 R



Rotor FA-6x50

- > High-speed rotor for applications in tubes from 5-50 mL
- > Max. speed 20,130 $\times g$ (12,100 rpm)
- > Eppendorf QuickLock rotor lid for fast lid locking
- > Aerosol-tight*1 for safe centrifugation of hazardous samples
- > Low rotor weight (3.2 kg) for easy handling
- > Anodized aluminum for high chemical resistance
- > 45° borehole angle minimizes pellets smear
- > Rotor, lid and adapters are autoclavable
- *1 Aerosol-tightness tested by Public Health England, Porton Down, UK.

Description	Order no.
Rotor FA-6x50, aerosol-tight, incl. rotor lid	5895 150.004

Adapters for Rotor FA-6x50					
Tube Volume	2.6 – 5 mL	4–8 mL	5.5 – 10 mL	7.5 – 12 mL	Eppendorf Tubes® 5.0 mL
Max. tube diameter	13 mm	13 mm	16 mm	16 mm	17 mm
Max. vessel height for use with cap/lid	119 mm	119 mm	119 mm	119 mm	121 mm
Adapter	() proposide	Mbenderf ()		Obberder (
Number of vessels per adapter/rotor	1/6	1/6	1/6	1/6	1/6*1
Bottom shape	round	round	round	round	conical
Centrifugation radius	120 mm	120 mm	120 mm	120 mm	121 mm
Max. RCF	19,642 × g	19,642 × g	19,642 × g	19,642 × g	19,806 × <i>g</i>
Packing	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.	set of 2 pcs.
Order no.	5820 726.008	5820 725.001	5820 728.000	5820 727.004	5820 730.005

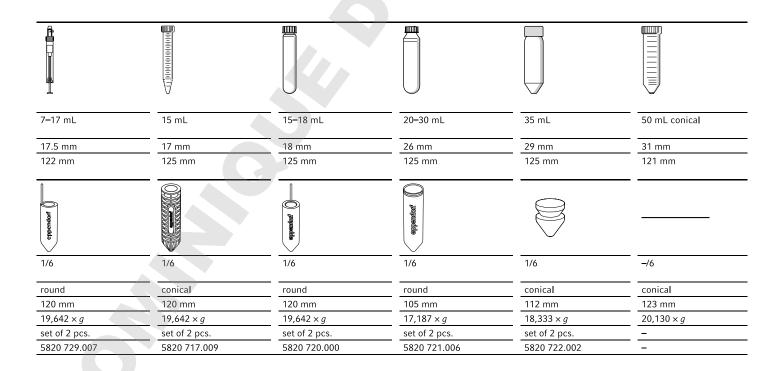
^{*1} Eppendorf Tubes® 5.0 mL with screw cap will not fit in this adapter.

Eppendorf Conical Tubes



Whether centrifugation, mixing, or other applications – the Eppendorf Conical Tubes 15 mL and 50 mL will perfectly fit into your workflows. They represent the next step in Eppendorf's comprehensive system solutions in liquid, sample and cell handling.







Eppendorf Consumables





Eppendorf Conical Tubes 15 mL, 50 mL, and Eppendorf Tubes® 5.0 mL

No Compromise! Eppendorf Tubes meet the highest demands of diverse laboratory applications. The outstanding quality and specifications make them ideally suited for cell biology applications as well as for sample preparation protocols in microbiology and molecular biology laboratories.

- > The newly designed screw cap ensures both an outstanding tight sealing and a user-friendly handling
- > The high g-safe® centrifugation stability enables reliable, safe, and fast centrifugation steps
- > Highest sample integrity due to avoidance of any slip agents, plasticizers, and biocides during manufacturing

Eppendorf Plates® 96 and 384

High-performance plates for manual and automated applications.

- > OptiTrack® high-contrast alphanumeric labeling: up to 30% faster sample identification and fewer pipetting errors
- > RecoverMax® well design: Optimized well geometry for maximum sample recovery and excellent mixing properties
- > q-Safe: exceptional centrifugation stability for faster protocols and improved sample quality





Packages Centrifuge 5910 R and Centrifuge 5920 R

Description

Eppendorf provides a range of different centrifuge packages for Centrifuge 5910 R and Centrifuge 5920 R.

Description	Max. capacity of conical tubes per rotor	Order no.
Centrifuge 5910 R, refrigerated, with Rotor S-4xUniversal,	68 x 15 mL/36 x 50 mL	5942 000.315
230 V/50–60 Hz, incl. universal buckets and		
adapters for 5 mL/15 mL/50 mL conical tubes and plates*1		
Centrifuge 5910 R, refrigerated, with Rotor S-4xUniversal,	68 x 15 mL/28 x 50 mL	5942 000.215
230 V/50–60 Hz, incl. universal buckets and adapters for		
5 mL/15 mL/50 mL conical tubes, 175 mL-250 mL bottles and plates	_	
Centrifuge 5910 R, refrigerated, with Rotor S-4xUniversal,	120 x 13 mm/104 x 16 mm	5942 000.410
230 V/50–60 Hz, incl. universal buckets and		
adapters for round-bottom tubes with diameter 13/16 mm	_	
Centrifuge 5910 R, refrigerated, with Rotor S-4x750,	56 x 15 mL/28 x 50 mL	5942 000.515
230 V/50–60 Hz, incl. round buckets and		
adapters for 5 mL/15 mL/50 mL conical tubes		
Centrifuge 5910 R, refrigerated, with Rotor S-4x500,	48 x 15 mL/20 x 50 mL	5942 000.615
230 V/50–60 Hz, incl. rectangular buckets and		
adapters for 15 mL/50 mL conical tubes		
Centrifuge 5910 R, refrigerated, with Rotor S-4x400,	28 x 15 mL/16 x 50 mL	5942 000.710
230 V/50–60 Hz, incl. round buckets and		
adapters for 5 mL/15 mL/50 mL conical tubes		
Centrifuge 5920 R, refrigerated, with Rotor S-4xUniversal-Large,	96 × 15 mL/40 × 50 mL	5948 000.910
230 V/50–60 Hz, incl. universal buckets and		
adapters for 15 mL/50 mL conical tubes		
Centrifuge 5920 R, refrigerated, with Rotor S-4xUniversal-Large,	196 × 13 mm/148 × 16 mm	5948 000.810
230 V/50–60 Hz, incl. universal buckets and		
adapters for round-bottom tubes with diameter 13/16 mm		
Centrifuge 5920 R, refrigerated, with Rotor S-4x1000,	108 × 15 mL/52 × 50 mL	5948 000.210
230 V/50–60 Hz, incl. high-capacity buckets and		
adapters for 15 mL/50 mL conical tubes		
Centrifuge 5920 R, refrigerated, with Rotor S-4x1000,	56 x 15 mL / 28 x 50 mL	5948 000.315
230 V/50–60 Hz, incl. round buckets and		
adapters for 15 mL/50 mL conical tubes		
Centrifuge 5920 R, refrigerated, with Rotor S-4x1000,	88 × 15 mL/40 × 50 mL	5948 000.410
230 V/50-60 Hz, incl. plate/tube buckets and		
adapters for 15 mL/50 mL conical tubes*2		
Centrifuge 5920 R, refrigerated, with Rotor S-4x1000,	140 × 13 mm/132 × 16 mm	5948 000.615
230 V/50-60 Hz, incl. plate/tube buckets and		
adapters for round-bottom tubes with diameter 13/16 mm* ³		

^{*}¹ When used with aerosol-tight caps the max. capacity is reduced to 20 x 50 mL (5 x 50 mL per bucket)
*² These 15/50 mL adapters are not compatible with aerosol-tight caps. Please refer to page 22/23 for dedicated 15/50 mL adapters for aerosol-tight use.
*² Aerosol-tight caps reduce capacity to 100 x 13 mm/92 x 16 mm per rotor.



Eppendorf Centrifuge 5910 R and Centrifuge 5920 R

Technical specifications

recillical specifications		
Model	Centrifuge 5910 R	Centrifuge 5920 R
Max. RCF		
> with fixed-angle rotor	22,132 × g	21,194 × <i>g</i>
> with swing-bucket rotor	5,234 × <i>g</i>	$4,800 \times g$
Speed	100-14,000 rpm (10 rpm steps)	100-13,700 rpm (10 rpm steps)
Max. capacity	4 × 750 mL/4 × 5 MTP	4 × 1,000 mL/4 × 7 MTP
Acceleration/braking ramps	10/10	10/10
Number of programs	99 (5 program keys)	99 (5 program keys)
Timer	10 s to 99 h 59 min, with continuous	10 s to 99 h 59 min, with continuous
	run function, short-spin	run function, short-spin
Cooling	refrigerated	refrigerated
Temperature control range	_11 °C to 40 °C	11 °C to 40 °C
Noise level		
Rotor FA-6x50	<59 dB(A)	<60 dB(A)
Rotor S-4x750	<57 dB(A)	
Rotor S-4xUniversal	<53 dB(A)	
Rotor S-4xUniversal-Large	-	<55 dB(A)
Power supply	230 V, 50-60 Hz	230 V, 50-60 Hz
Max. power consumption	1,650 W	1,650 W
Dimensions (W × D × H)	72 × 66 × 37 cm	74 × 71 × 40 cm
Footprint (dimensions w/o front panel, WxD)	72 × 62 cm	74 × 67 cm
Height (with open lid)	85 cm	94 cm
Weight w/o accessories	109 kg	139 kg

Technical specifications are subject to change. Errors and omissions excepted.

Ordering information

Description	Order no.
Centrifuge 5910 R, refrigerated, 230 V/50–60 Hz	5942 000.010
Centrifuge 5920 R, refrigerated, 230 V/50–60 Hz	5948 000.010

Your local distributor: www.eppendorf.com/contact Eppendorf AG \cdot Barkhausenweg 1 \cdot 22339 Hamburg \cdot Germany eppendorf@eppendorf.com \cdot www.eppendorf.com

www.eppendorf.com/centrifugation