Eppendorf[®] centrifuges guide



	Microcentrifuges							
Centrifuges								
Application	MiniSpin®	MiniSpin® plus	5418	5424	5430	5415 R	5417 R	
Refrigerated	-	-	-	-	-	٠	٠	
Page	126	126	128	129	131	135	136	
Fixed-angle rotor								
rcf max. (x g)	12,100	14,000	16,873	20,238	30,130	16,100	25,000	
rpm max.	13,400	14,500	14,000	14,680	17,500	13,200	16,400	
Swing-bucket rotor								
rcf max. (x g)	-	-	-	-	2,204	-	10,600	
rpm max.	-	-	-	-	4,680	-	10,000	
Drum rotor								
rcf max. (x g)	-	-	-	-	-	-	-	
rpm max.	-	-	-	-	-	-	-	
Vessels/plates								
0.2–0.6 ml Eppendorf Tubes®	12	12	18	24	30	36	30	
1.5 ml Eppendorf Tubes	12	12	18	24	30	24	30 (F)/8 (A)	
2.0 ml Eppendorf Tubes	12	12	18	24	30	24	30 (F)/8 (A)	
8-place PCR strips	2	2	-	4	8	-	6	
15 ml Falcon®	-	-	-	-	6	-	-	
50 ml Falcon	-	-	-	-	6	-	-	
1.2–5 ml tubes (11 mm Ø)	-	-	-	-	-	-	-	
2.6–7 ml tubes (13 mm Ø)	-	-	-	-	-	-	-	
3–15 ml tubes (16 mm Ø)	-	-	-	-	-	-	-	
7–17 ml tubes (17.5 mm Ø)	-	-	-	-	-	-	-	
7–18 ml tubes (20 mm Ø)	-	-	-	-	-	-	-	
18–30 ml tubes (26 mm Ø)	-	-	-	-	-	-	-	
30–50 ml tubes (31 mm Ø)	-	-	-	-	-	-	-	
50–75 ml tubes (35 mm Ø)	-	-	-	-	-	-	-	
80–100 ml tubes (35 mm Ø)	-	-	-	-	-	-	-	
180–250 ml tubes bottles (62 mm Ø)	-	-	-	-	-	-	-	
20–30 ml Oak Ridge tubes (29 mm Ø)	-	-	-	-	-	-	-	
50 ml Oak Ridge tubes (29 mm Ø)	-	-	-	-	-	-	-	
85 ml Oak Ridge tubes (38 mm Ø)	-	-	-	-	-	-	-	
400 ml bottles	-	-	-	-	-	-	-	
MTP / PCR-plates	-	-	-	-	4*1	-	-	
Deepwell plates (DWP)	-	-	-	-	-	-	-	
Filter plate systems	-	-	-	-	-	-	-	

Microcentrifuges

F = Fixed Angle A = Swing Bucket T = Drum rotor * Note: the proper adapters are required to obtain maximum capacity; please check the appropriate rotor and/or adapter combination for proper capacity and sizing.

*1 М

*1 Max. loading height: 29 mm.

Eppendorf[®] centrifuges guide

Small Medical Centrifuges				Multipurpose Ber	chtop Centrifuges		
	5702	5702 R	5702 RH	5804	5804 R	5810	5810 R
	-	•	●/Heated	-	•	-	•
	139	139	139	148	148	148	148
	3,000	3,000	3,000	20,800	20,800	20,800	20,800
	4,400	4,400	4,400	14,000	14,000	14,000	14,000
	-	-	-	4,500	4,500	4,500	4,500
	-	-	-	5,000	5,000	5,000	5,000
	-	-	-	16,400	16,400	16,400	16,400
	-	-	-	14,000	14,000	14,000	14,000
						00 (F)	(100 (T)
24 (F)/16 (A)		30 (F)/			/120 (T)		
24 (F)/16 (A)		30 (F)/96			6 (A)/60 (T)		
24 (F)/16 (A)		30 (F)/96			6 (A)/60 (T)		
			5 16 (A)		6 /48 (A)		
20 (F)/8 (A) 4 (A)			/8 (A)		/20 (A)		
		+ (~)		56			0 (A)
	40 (A) (rectand	gular bucket)/16 (A)	(round bucket)	36			0 (A)
		16 (A) (round bucket					3 (A)
		gular bucket)/16 (A)		48 (A) 24 (A)		64 (A)	
		_	,	16 (A)		32 (A)	
		-		8 (A)		16 (A)	
		-		4 (A)		16 (A)	
		-		4 (A)		8 (A)	
		_		4	(A)		(A)
-		-		4	(A)		
-		6	(F)	6	(F)		
-		6	(F)		(F)		
4		6	(F)		(F)		
-			-		(A)		
		-		10 (A)			6 (A)
		-			(A)	4 (A)	
		-		4	(A)	4	(A)

The Eppendorf 5702 family of centrifuges



Product features

- Very compact design
- Low access height
- Dials and digital display
- Automatic motorized locking of the lid
- Slow startup and braking through the SOFT function
- Stainless steel rotor chamber (rust-proof)
- Optimized airflow for proper cooling
- Conforms to the following safety and application requirements:

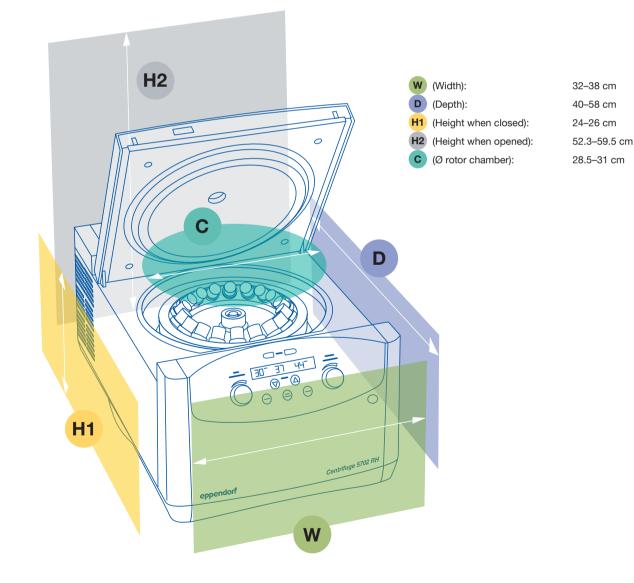
Description

Customer's needs are the reason we continue to advance our success story for the 5702 series.

We have expanded the line with the addition of two new models: the refrigerated **Centrifuge 5702 R** and the temperature controlled **Centrifuge 5702 RH**.

All 5702 models can be used in a range of settings, from the clinical lab to the cell culture lab. With various fixed-angle and swing-bucket rotors available, they can accommodate almost any kind of tube.

Another advantage is that we have designed all rotors within the 5702 line to be interchangeable.



Centrifugation | Instruments

Centrifuge 5702

Product feature

- Parameter locking
- Very silent
- "At Set" function starts timer when set speed is reached for reproducible results.
- Sight glass for quick calibration check 6 Rotor options

Description

The economical centrifuge for the clinical lab. With various fixed-angle and swing-bucket rotors and an extensive range of adapters, nearly all types of tubes can be used.



Technical specifications

Description	Centrifuge 5702
Dimensions (W x D x H)	32 x 40 x 24 cm
Weight	20 kg
Power supply	230 V/50 Hz
Max. power requirement	200 W

Ordering information

Description	Order no.
Centrifuge 5702, 230 V/50 Hz, without rotor	5702 000.019

Application example for Centrifuge 5702:

Rotor A-4-38,

including round bucket with adapter for Vacuette®*1, Monovette®*2 or Vacutainer®*3 2.6-7 ml for infectious samples (with aerosol-tight lid).



Clinical applications include:

- Routine centrifugation
- Plasma and serum purification

*1 Registered trademark of Greiner Bio-One.
 *2 Registered trademark of Sarstedt.
 *3 Registered trademark of Becton Dickinson.

Technical specifications subject to change.



Centrifuge 5702 R (refrigerated)

Product features

- Adjustable from
 -9 °C to 40 °C
- Standby refrigeration
- "Fast Cool" function
- Very silent

"At Set rpm" function
Two programming keys to store routine procedures (back-lit in blue)

Description

This model has all the product characteristics that make refrigerated Eppendorf centrifuges so outstanding:

You can quickly reach the desired temperature by using the "fast temp" function. Like-wise, standby refrigeration will maintain a particular temperature following use. Precise centrifugation is made possible through the "at set rpm" function, time is counted down once the set rpm is reached. As a result, different centrifugal runs can be more easily reproduced.



Technical specifications

Description	Centrifuge 5702 R
Dimensions (W x D x H)	38 x 58 x 26 cm
Weight	36 kg
Power supply	230 V/50 Hz
Max. power requirement	380 W

Ordering information

Description	Order no.	
Centrifuge 5702 R, 230 V/50 Hz, without rotor, refrigerated	5703 000.012	4

Application example for Centrifuge 5702 R:

Rotor F-35-30-17, including 30 steel sleeves for Falcon® 20 x 15 ml tubes



Molecular biology applications include:

- Centrifugation of cell cultures
- Safe holding at 4 °C
- Spin down centrifugation of bacterial suspension

Centrifuge 5702 RH (temperature-controlled)

Product features

Temperature adjustable from -9 °C to 42 °C
Immediately ready-for-use via standby heating/refrigeration
Temperature holds steady at 4 °C and at 37 °C ± 1 °C

Description

Active heating
 More precise temperature control, software-controlled (rotor-dependent)

For active cells, Eppendorf offers a centrifuge with unique temperature control capabilities. It is the first centrifuge from Eppendorf that can consistently maintain special temperatures above room temperature. Temperature-sensitive cells or cell cultures can be centrifuged at defined temperatures, particularly at 37 °C.



Technical specifications

Description	Centrifuge 5702 RH
Dimensions (W x D x H)	38 x 58 x 26 cm
Weight	36 kg
Power supply	230 V/50 Hz
Max. power requirement	380 W

Ordering information

Description	Order no.
Centrifuge 5702 RH, 230 V/50 Hz, without rotor, refrigerated and heated	5704 000.016

Application example for Centrifuge 5702 RH:

Rotor F-45-24-11 or F-45-18-17 Cryo, and adapter



Human medicine applications include:

- Gentle centrifugation of sperm (IVF labs)
- Safe holding at 4 °C
- Spin down centrifugation of
- temperature-sensitive human cells



Displays of the 5702 Centrifuges

All 5702 centrifuges have a user-friendly control panel with a small number of clearly-labeled function keys/knobs and an easy-to-read LCD display.



Simple operation

Large dials and an easy-to-read display
Switch between rpm/rcf
Speed can be set from 100 rpm to a max. of 4,400 rpm, increments of 100
Separate "short-spin" button
Timer can be set for up to 99 minutes
Continuous mode can be selected

Temperature control versions: Two programming keys to store routine procedures Separate "fast-temp" key

Display of Centrifuge 5702



Display of Centrifuges 5702 R and 5702 RH

Fixed-angle Angle of Ø Tube/ Ø tube/adapter **Rotor code:** Swing-bucket rotor adapter bore Adapter roto Т T 1 I All Eppendorf® rotors are identified a simple, alphanumeric format that represents the technical specifications in a uniform series of letters and numbers. F 45 30 P Α 8 Δ Т T Т Aerosol-tight Max. no. tubes/ Max. no. version adapters buckets/adapters

Swing-bucket rotors for Centrifuges 5702/5702 R/5702 RH

Swing-bucket rotor A-4-38

Maximum rcf: 3,000 x g
Aluminum rotor available with and without round buckets
Four aerosol-tight round

buckets with 85 ml capacity

Aerosol-tight lids*1
Optional: 4 rectangular buckets with 90 ml capacity
High g-forces even with short tubes

^{*1} Tested by the Centre for Applied Microbiology & Research (CAMR), Porton Down, Great Britain.

Swing-bucket rotor A-8-17

 Maximum rcf: 2,800 x g
 For centrifugation of
 15 ml Falcon[®] tubes and glass centrifuge tubes • Optional: inserts to fit test tubes (sold separately)



Ordering information

Rotor models and accessories	Max. rotational speed (rpm)	Max. rcf (x g)	Order no.
A-4-38			
with 4 x 85 ml round buckets without round buckets	4,400 4,400	3,000 3,000	5702 720.003 5702 740.004
 4 Round buckets, 85 ml 2 Round buckets, 85 ml 4 Rectangular buckets*², 90 ml 2 Rectangular buckets*², 90 ml 			5702 722.006 5702 761.001 5702 709.000 5702 762.008
Aerosol-tight lids for 85 ml round buckets, set of 2			5702 721.000
Rubber cushions for adapter 5702 737.003, set of 20 for adapter 5702 735.000, set of 20 for adapter 5702 724.009 (models before 2003), set of 16			5702 741.000 5702 742.007 5702 759.007
A-8-17			
8 x 15 ml	4,400	2,800	5702 700.002
8 Adapters, for 15 ml Falcon [®] tubes 8 Rubber cushions, for 15 ml			5702 702.005 5702 701.009

*2 Not for use with aerosol-tight lids.

®: Falcon is a registered trademark of Becton Dickinson.

Fixed-angle rotors for Centrifuges 5702/5702 R/5702 RH

Fixed-angle rotor F-35-30-17

 Maximum rcf: 2,750 x g
 Aluminum rotor available with 10 or 30 steel sleeves, depending on the number of samples (max. 20 x 15 ml Falcons®) Centrifugation of 15 ml Falcon[®] tubes and glass test tubes
 Supplied inserts allow symmetrical heterogeneous loading



Fixed-angle rotor F-45-24-11

 Maximum rcf: 1,770 x g
 Low-noise centrifugation, even without rotor lid
 Centrifugation of 1.5 ml and 2 ml Eppendorf Tubes[®] Adapter for:
0.2 ml PCR tubes
0.4 ml centrifuge tubes
0.5 ml micro test tubes and
0.6 ml Microtainer[®] tubes
Rotor and adapter are autoclavable (121 °C, 20 min)



Fixed-angle rotor F-45-18-17-Cryo

 Maximum rcf: 1,840 x g
 Low-noise centrifugation, even without rotor lid
 Centrifugation of 1–2 ml Cryotubes[®] (max. 13 mm Ø, use with adapter) and screw-cap centrifugation tubes (max. 17 mm Ø, adapter not needed) Rotor and adapter are autoclavable (121 °C, 20 min)



Ordering information

Rotor models and accessories	Max. rotational speed (rpm)	Max. rcf (x g)	Order no.
F-35-30-17			
incl. 30 steel sleeves for 15 ml tubes with 20 Falcon [®] adapters and 30 rubber cushions	4,400	2,750	5702 704.008
incl. 10 steel sleeves for 15 ml tubes with 10 Falcon [®] adapters and 10 rubber cushions	4,400	2,750	5702 705.004
Steel sleeves for 15 ml tubes, set of 10 Adapters, for 15 ml Falcon [®] , conical, set of 10 Rubber cushion, for 15 ml round bottom tubes, set of 4			5702 707.007 5702 706.000 5702 708.003
F-45-24-11			
Fixed-angle rotor 24 x 1.5/2 ml, without lid	4,400	1,770	5702 746.002
F-45-18-17-Cryo			
without lid w/o adapters	4,400	1,840	5702 747.009
6 Adapters, for 1–2 ml Cryotubes Ø 13 mm			5702 752.002

®: Falcon is a registered trademark of Becton Dickinson.

Rotors and accessories for Centrifuges 5702/5702 R/5702 RH

	&
	t rotor A-4-38
	und buckets*1 20.003
Aerosol-tight lid	Round bucket*1 retrofit kit
2 pieces	4 buckets with 85 ml capacity
5702 721.000	5702 722.006
Swing-bucket rotor A-4-38	Rectangular bucket*1
	4 buckets of 90 ml capacity
5702 740.004	5702 709.000
 Registered trademark of Becton Dickinson. 	
*1 Swing-bucket rotors are delivered with buckets of which together do not exceed a maximum weigh Rectangular bucket sets are delivered with buck tho together do not exceed a maximum of 0.2 The following applies to rotors with round bucket The total weight of a loaded bucket (including ac The weight given on the rotor applies to buckets	t of 0.19 kg, can be put in one round bucket. ets of one weight class. Adapters and tubes, 4 kg, can be put in one rectangular bucket. Is, as well as to rotors with rectangular buckets: lapter and filled tubes) may not exceed 0.38 kg.

Tube type			
Volumes (ml)	1.5–2.0	1.1–1.4	
Adapter			
Maximum tube length for all positions below the lid (mm)*2	-	100	
Maximum tube length for all positions without the lid (mm)*2	-	100	
Number of tubes per adapter/per rotor	4/16	5/20	
Adapter bore (Ø mm)	11	8.5	
Maximum rcf (g-force)	2,900	2,850	
Centrifugation radius (mm)	134	132	
Bottom shape	round	flat	
Order no.	5702 745.006	5702 736.007	
(set of 2 adapters)			

Tube type		
Volumes (ml)	5–7	9
Adapter		
Maximum tube length for aerosol-tight lid use (mm)*2	100	100
Maximum tube length for all positions without the lid (mm)*2	-	-
Number of tubes per adapter/per rotor	10/40	8/32
Adapter bore (Ø mm)	13	14.5
Maximum rcf (g-force)	2,750	2,750
Centrifugation radius (mm)	127	127
Bottom shape incl. rubber mat	flat	flat
Order no.	5702 710.008	5702 711.004
(set of 2 adapters)		

^{*2} If the maximum tube length is exceeded, the loading capacity of the adapter may be reduced. Please perform a manual swing test.

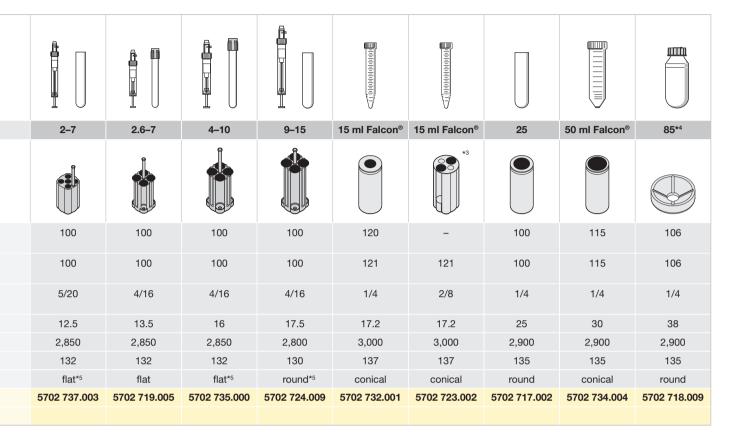
*3 Warning: Aerosol-tight centrifugation not possible.

*4 Nominal volume

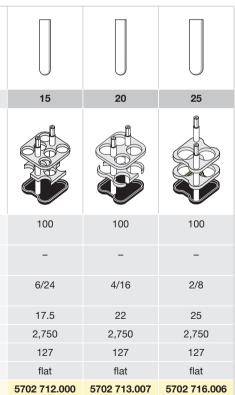
 $^{\ast 5}$ w/o rubber cushion. Rubber cushion available as accessories. See page 178.

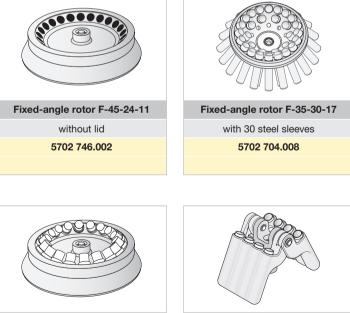
Adapter, caps and rotor are autoclavable at 121 °C 20 min.





Rotors and accessories for Centrifuges 5702/5702 R/5702 RH





Fixed-angle rotor F-45-18-11-cryo without lid

5702 747.009



