



FRONTIER™ 5720R

High-Speed Multi-Pro Centrifuges



Powerful and Versatile High-throughput Centrifuges for Virtually Any Lab Application

Frontier 5720R is designed for multipurpose use in various applications within research, industrial, and clinical laboratories. It can be combined with our range of rotors and accessories for customized use. The FC5720R is able to spin containers from 0,2 ml to 4×200 ml with swing-out and fixed angle rotors. It features high-speed performance at maximum volume, automatic rotor identification, and multiple safety features. This model can process large quantities and different sizes of blood collection tubes, conical cell culture tubes, plates, and various volumes and types of bottles.

Features:

- Thanks to its powerful motor, the FC5720R delivers precise separation results achieving values up to 20 000 rpm and 38 007 G-force. This can be configured to fit workflow needs using a selection of rotors and accessories.
- The intuitive design of the centrifuges & accessories enable easy access to parameter settings, with the flexibility to change parameters during operation without the need to stop the machine. Features include automatic rotor recognition and backlit LCD.
- The performance of these centrifuges is propelled by German engineering, and high-quality components for reliable use. Rotor chamber constructed of chemical-resistant stainless steel to ensure durability in lab use.

FRONTIER™ 5720R *High-Speed Multi-Pro Centrifuges*

Maximum Application Flexibility

FC5720R centrifuge is designed for maximum application flexibility efficiently accommodate a wide variety of tubes and bottles, including microtubes, blood tubes, round bottom tubes, conical tubes, PCR Strips/tubes and microliter plates, ensuring versatile and reliable performance for diverse laboratory needs.

- Compatible with up to 17 optional rotors and 90 accessories
- Capacity of up to 4×200 ml with the ability to spin up to 32 blood tubes or 20×15 ml conical tubes and 10×50 ml conical tubes
- High-speed centrifugation: up to 20 000 rpm for microtubes and up to 16 000 rpm for 50 ml
- FC5720R has refrigeration capabilities from 40 °C to -20 °C
 - R290, an environmentally friendly coolant, contributes to the eco-friendliness of refrigerated centrifuges by minimizing their environmental impact and supporting efforts to combat global warming
 - Pre-cool feature quickly lowers the temperature of rotor and chamber before a run



Intuitively Designed for Simple Operation

FC5720R was designed to make lab processes more efficient and easier, and includes many user-friendly features & software that allow for intuitive operation.

- Automatic rotor recognition (RFID) makes switching between applications extremely easy
- Simple one-hand operation enabled by the selection button/rotary knob combination – even when wearing gloves
- Large backlit LCD display shows centrifugation settings and real-time parameters on one interface
- Program storage up to 99 runs including parameter settings and rotor types



Solid Engineering Ensures Reliability

Manufactured with high-quality components for reliable use and German engineered for high performance.

- Maintenance-free induction motor provides maximum G-force of 38 007 × g
- Chemical and corrosion-resistant stainless steel rotor chamber ensures durability in lab environments
- Self-diagnostic program to record usage and error history for easy maintenance and to minimize downtime



FRONTIER™ 5720R High-Speed Multi-Pro Centrifuges

Safety Features for Increased Security

FC5720R centrifuge is equipped with protective features for redundancy in safety and reliable operation.

- Over-speed protection, immediately upon rotor insertion
- Active imbalance-detection with individual imbalance tolerances set for each rotor
- Motorized lid-locking system to protect operators from accidental injuries
- Sealed and TÜV certified rotors to safeguard operators from harmful aerosols
- The rotor cycle counter enhances safety by monitoring the number of centrifugation cycles, providing timely alerts for rotor replacement to prevent potential failure and ensure optimal performance.

Specifications

Model		FC5720R	
Order No.		230V: 83042051	120V: 83042052
Speed Range		200 rpm – 20000 rpm; 10 rpm / increments Angle Rotor: 20 000 rpm Swing out Rotor: 5 000 rpm	
Maximum RCF		38007×g; 10×g / increments Angle Rotor: 38007×g Swing out Rotor: 4136×g	
Maximum Capacity (Rotor)		Angle Rotor: 6×85 ml Swing out Rotor: 4×200 ml	
Temperature Range		-20 °C to 40 °C, 1 °C / increments	
Refrigerant		R290 (Propane)	
Running Time		Quick Spin, 10 sec to 99 hr 59 min, or continuous	
Noise Level (depending on the rotor)		≤ 60 + 2 dB(A)	
Acc/Dec Levels		10/10	
Allowable Density at Maximum Speed		1,2 g/ml	
Allowable Kinetic Energy		24367 Nm	
Rated voltage		230 V/50-60 Hz	120 V/50-60 Hz
Voltage Fluctuation		± 10%	
Rated current		5,9 A	10,5 A
Power continues		1,2 kW	1,1 kW
Dimensions (W×D×H)		407×712×361 mm	
Net Weight (without rotor)		61 kg	
Shipping Dimensions (W×D×H)		640×820×470 mm	
Shipping Weight (without rotor)		83 kg	
Ambient conditions (EN/IEC 61010-1)	Environment	For indoor use only	
	Altitude	Use up to an altitude of 2 000 m	
	Ambient temperature	5 °C up to 35 °C	
	Max. relative humidity	Max. relative humidity 80 % for temperatures up to 31 °C, Decreasing linearly to 50 % relative humidity up to 35 °C.	
EMC		EN/IEC 61326-1 Class B emissions, Basic immunity FCC Class B emissions	
Not suitable for use in hazardous environments.			

Rotors for FRONTIER™ FC5720R



Swing Out Rotor 4 x 200 ml	
Item No.	83041011
Rotor Capacity	4 x 200 ml
Rotor Type	Swing Out, 0-90°
Permissible Net Weight	4 x 560 g
Lowest Temp. at max. speed	-8 °C

Accessory Specifications							
Accessory Item No.	83041013*	83041012*	83041005*	83041015	83041016	83041017	83041018
Accessory Type	Bucket		Screw Cap	Spare O-Ring	Rack		
Max. RPM	5,000						
Quantity in Package	2/pk			10/pk	2/pk		
Max. RCF	4,136 x g		n/a		4,136 x g	4,080 x g	
Tube Specifications			n/a				
Tube Type	Flat Bottom		n/a		Conical Bottom	Round Bottom	
Tube volume	200 ml		n/a		200 ml	100 ml	85 ml
Tubes per Rotor	4		n/a		4		
Max. Tube Diameter (mm)	56		n/a		56	40	38
Tube Height (mm)	112		n/a		120	110/117	90/108

Accessory Specifications							
Accessory Item No.	83041019	83041020	83041021	83041022	83041023	83041024	83041025**
Accessory Type	Rack						
Max. RPM	5,000						
Quantity in Package	2/pk						
Max. RCF	4,080 x g		4,110 x g	4,080 x g			4,110 x g
Tube Specifications							
Tube Type	Round Bottom		Conical Bottom	Skirted Conical Bottom		Round Bottom	Conical Bottom
Tube volume	50 ml				30 ml		15 ml
Tubes per Rotor	4						16
Max. Tube Diameter (mm)	34	29				25	17
Tube Height (mm)	95/118	95/103	116		95/105	90/110	120

Accessory Specifications							
Accessory Item No.	83041026	83041027	83041593	83041028	83041029	83041030	83041031
Accessory Type	Rack						Bucket
Max. RPM	5,000						
Quantity in Package	2/pk						
Max. RCF	4,136 x g	4,080 x g		4,080 x g	4,110 x g		4,136 x g
Tube Specifications							
Tube Type	Conical Bottom	Round Bottom/ Vacutainer®	Vacutainer®	Round Bottom/ Vacutainer®	Conical Bottom	Microtube	Conical Bottom
Tube Volume	15 ml		8 ml	7 ml	5 ml	1.5/2.0 ml	50 ml
Tubes per Rotor	12	28	4	32	20	32	8
Max. Tube Diameter (mm)	17		16	13	17	11	29
Tube Height (mm)	120	60/107	125	65/100	60/70	42	116

All racks are used with bucket 83041012 / 83041013

* BIOSEALS certified: When using the Screw Cap (with 1 EA O-ring) on the rotor, the buckets are hermetically sealed. O-ring should be changed when it's worn.

**Only without Bucket Screw Cap

Rotors for FRONTIER™ FC5720R

	Swing Out Rotor 4 x 145 ml	
	Item No.	30314822
	Rotor Capacity	4 x 145 ml
	Rotor Type	Swing Out, 0-90°
	Permissible Net Weight	4 x 340 g
	Lowest Temp. at max. speed	-13 °C

Accessory Specifications								
Accessory Item No.	83041035	30314842	30314843	30314844	30314845	30314846	30314847	30314848
Accessory Type	Rack							
Max. RPM	4,500							
Quantity in Package	2/pk							
Max. RCF	3,147 x g	3,192 x g		3,214 x g		3,192 x g	3,237 x g	3,213 x g
Tube Specifications								
Tube Type	Flat Bottom Nalgene®	Round Bottom	Round Bottom/Oak Ridge	Round Bottom		Conical Bottom	Skirted Conical Bottom	
Tube volume	145 ml	100 ml	85 ml	50 ml				30 ml
Tubes per Rotor	4	4						
Max. Tube Diameter (mm)	50	44	38	34	29			25
Tube Height (mm)	100	90/108		92/118	90/108	116		95/105

Accessory Specifications							
Accessory Item No.	30314849	30314850	30314851	30314852	30314853	30314854	30314855
Accessory Type	Rack						
Max. RPM	4,500						
Quantity in Package	2/pk						
Max. RCF	3,259 x g	3,350 x g	3,282 x g		3,214 x g	2,241 x g	3169 x g
Tube Specifications							
Tube Type	Round Bottom	Conical Bottom	Skirted Conical Bottom	Round Bottom / Vacutainer®	Round Bottom	Microtube	Flat Bottom
Tube volume	25 ml	15 ml			5-7 ml	1.5 ml	4.5 ml
Tubes per Rotor	4	8	4	28	36	40	36
Max. Tube Diameter (mm)	17	17		16	13	11	12
Tube Height (mm)	95/105	120		90/108	75/100	42	75/100

Accessory Specifications			
Accessory Item No.	30314856	30314857	30314858
Accessory Type	Rack		
Max. RPM	4,500		
Quantity in Package	2/pk		
Max. RCF	2,626 x g	3,214 x g	3,237 x g
Tube Specifications			
Tube Type	Round Bottom	Vacutainer®	Sarstedt®
Tube volume	5-7 ml		4-10 ml
Tubes per Rotor	28		20
Max. Tube Diameter (mm)	13		16
Tube Height (mm)	65/80	75/100	

All racks fits directly in the rotor.

83041631 Package Cell Culture available. For more info check our website.

Rotors for FRONTIER™ FC5720R



Angle Rotor 6 × 85 ml											
Item No.	30314825										
Rotor Capacity	6 x 85 ml										
Rotor Type	Angle, 25°										
Permissible Net Weight	6 x 140 g										
Lowest Temp. at max. speed	4 °C										

Accessory Specifications	n/a										
Accessory Item No.	n/a	30314893	30314894	30314895	30314896	30314897	83041032▲	83041033	83041034	30314898	30314899
Accessory Type	n/a	Adapter									
Max. RPM	13,500										
Quantity in Package	n/a	2/pk									
Max. RCF	20,984 x g	19,557 x g		20,372 x g		18,946 x g	12,715 / 19,151 x g			20,984 x g	19,354 x g
Tube Specifications											
Tube Type	Round Bottom				Conical Bottom			Skirted Conical Bottom		Round Bottom	
Tube volume	85 ml	15 ml	30 ml	50 ml		15 ml	25 ml	50ml	15ml	15 ml	16 ml
Tubes per Rotor	6									12	6
Max. Tube Diameter (mm)	38	17	25	29		17	29	29	17		18
Tube Height (mm)	113	103/110	90/103	105	116	120	82	118	120	95/100	103/110

▲Only possible with Adapter 30304375



Angle Rotor 6 × 85 ml											
Item No.	30314826										
Rotor Capacity	6 x 85ml										
Rotor Type	Angle, 38°										
Permissible Net Weight	6 x 140 g										
Lowest Temp. at max. speed	5 °C										

Accessory Specifications	n/a							
Accessory Item No.	n/a	30314893	30314894	30314895	30314896	30314897	30314898	30314899
Accessory Type	n/a	Adapter						
Max. RPM	13,000							
Quantity in Package	n/a	2/pk						
Max. RCF	21,762 x g	20,025 x g	19,647 x g	20,592 x g	20,025 x g	19,647 x g	20,970 x g	19,647 x g
Tube Specifications								
Tube Type	Round Bottom				Conical Bottom		Round Bottom	
Tube volume	85 ml	15 ml	30 ml	50 ml		15 ml		16 ml
Tubes per Rotor	6						12	6
Max. Tube Diameter (mm)	38	17	25	29		17		18
Tube Height (mm)	113	103/110	90/103	105	116	120	95/100	103/110

Rotors for FRONTIER™ FC5720R



Angle Rotor 10 x 50 ml	
Item No.	30314829
Rotor Capacity	10 x 50 ml
Rotor Type	Angle, 38°
Permissible Net Weight	10 x 76 g
Lowest Temp. at max. speed	-6 °C

Accessory Specifications						
Accessory Item No.	n/a	30130886*	30130889*	30130890*	30472300	30472307
Accessory Type	n/a	Adapter				
Max. RPM	9,000					
Quantity in Package	n/a	6/pk	2/pk			
Max. RCF	11,771 x g	7,515 x g	10,322 x g	8,874 x g	11,499 x g	11,590 x g
Tube Specifications						
Tube Type	Conical Bottom	Microtube	Round Bottom/ Vacutainer®	RIA (Radioimmuno- assay)/Vacutainer®/ Sarstedt®	Round Bottom/ Vacutainer®	Conical Bottom
Tube Volume	50 ml	1.5/2.0 ml	7 ml	5 ml	15 ml	
Tubes per Rotor	10					
Max. Tube Diameter (mm)	29	11	13		17	
Tube Height (mm)	116	40	95/115	65/75	97/123	120

*Only possible with adapter 30472300



Angle Rotor 30 x 15 ml	
Item No.	30314832
Rotor Capacity	30 x 15 ml
Rotor Type	Angle, 35°
Permissible Net Weight	30 x 32 g
Lowest Temp. at max. speed	-8 °C

Accessory Specifications					
Accessory Item No.	n/a	30211180	30130886	30130889	30130890
Accessory Type	n/a	Adapter			
Max. RPM	4,500				
Quantity in Package	n/a	2/pk	6/pk	2/pk	
Max. RCF	2,830 x g	2,716 x g / 2,354 x g	2,038 x g	2,762 x g	2,377 x g
Tube Specifications					
Tube Type	Round Bottom/Conical Bottom	Vacutainer® / Sarstedt®	Microtube	Round Bottom/Vacutainer®	RIA/Vacutainer®/Sarstedt®
Tube Volume	15 ml	9-10ml	1.5/2.0 ml	7 ml	5 ml
Tubes per Rotor	30 Glass Tubes or 20 Conical Tubes	30	30	20	
Max. Tube Diameter (mm)	17	16	11	13	
Tube Height (mm)	95/120	92-107	40	95/115	65/75

Rotors for FRONTIER™ FC5720R



Swing Out Rotor 2 × 3 MTP (Buckets included)	
Item No.	30314824
Rotor Capacity	2 × 3 MTP
Rotor Type	Swing Out, 0-90°
Permissible Net Weight	2 × 310 g
Lowest Temp. at max. speed	-14°C

Accessory Specifications		
Accessory Item No.	30314890	30314891
Accessory Type	Bucket (included)	Adapter
Max. RPM	4,500	
Quantity in Package	2/pk	
Max. RCF	2,716 x g	
Tube Specifications	n/a	
Tube Type	Microplate	Microtube
Tube volume	MTP	1.5/2.0 ml
Tubes per Rotor	6 Standard Microplates or 2 Deepwell Plates	96
Max. Tube Diameter (mm)	87 x 128	11
Tube Height (mm)	63	42



Angle Rotor 4 × 85 ml	
Item No.	30314827
Rotor Capacity	4 x 85 ml
Rotor Type	Angle, 30°
Permissible Net Weight	4 x 140 g
Lowest Temp. at max. speed	1 °C

Accessory Specifications	n/a							
Accessory Item No.	n/a	30314893	30314894	30314895	30314896*	30314897*	30314898	30314899
Accessory Type	n/a	Adapter						
Max. RPM	15,000							
Quantity in Package	n/a	2/pk						
Max. RCF	23,685 x g	17,103 x g	16,902 x g	17,908 x g	17,304 x g	16,700 x g	15,091 x g	16,700 x g
Tube Specifications								
Tube Type	Round Bottom				Conical Bottom		Round Bottom	
Tube volume	85 ml	15 ml	30 ml	50 ml		15 ml		16 ml
Tubes per Rotor	4						8	4
Max. Tube Diameter (mm)	38	17	25	29		17		18
Tube Height (mm)	113	103/110	90/103	105	116	120	95/100	103/110

*Only without rotor lid

Rotors for FRONTIER™ FC5720R



Angle Rotor 6 x 50 ml	
Item No.	30314830
Rotor Capacity	6 x 50 ml
Rotor Type	Angle, 40°
Permissible Net Weight	6 x 72 g
Lowest Temp. at max. speed	-18 °C

Accessory Specifications	n/a							
Accessory Item No.	n/a		30130886*	30130889*	30130890*	30130891	30130892	30130894
Accessory Type	n/a		Adapter					
Max. RPM	6,000							
Quantity in Package	n/a		6/pk	2/pk				
Max. RCF	4,427 x g		2,696 x g	4,105 x g	3,340 x g	4,306 x g	4,145 x g	4,266 x g
Tube Specifications								
Tube Type	Round Bottom	Conical Bottom	Microtube	Round Bottom/ Vacutainer®	RIA/ Vacutainer® / Sarstedt®	Round Bottom/Vacutainer®		Round Bottom/ Conical Bottom
Tube volume	50 ml		1.5/2.0 ml	7 ml	5 ml	30 ml	16 ml	15 ml
Tubes per Rotor	6							
Max. Tube Diameter (mm)	29		11	13		25	18	17
Tube Height (mm)	100/120	116	42	95/100	65/75	100	100/105	97/120

* only possible with adapter 30130894



Angle Rotor 6 x 50 ml	
Item No.	30314831
Rotor Capacity	6 x 50 ml
Rotor Type	Angle, 26°
Permissible Net Weight	6 x 94 g
Lowest Temp. at max. speed	-3 °C

Accessory Specifications	n/a				
Accessory Item No.	n/a	30130891	30130892	30130893	30314892*
Accessory Type	n/a	Adapter			
Max. RPM	16,000				
Quantity in Package	n/a	2/pk			
Max. RCF	24,039 x g	23,466 x g	22,608 x g	22,894 x g	22,035 x g
Tube Specifications					
Tube Type	Round Bottom Oakridge	Round Bottom			Conical Bottom
Tube Volume	50 ml	30 ml	16 ml	15 ml	
Tubes per Rotor	6				
Max. Tube Diameter (mm)	29	25	18	17	
Tube Height (mm)	95/115	92/95	100/105		120

*Only without rotor lid

Rotors for FRONTIER™ FC5720R



Angle Rotor 20 × 10 ml	
Item No.	30314833
Rotor Capacity	20 x 10 ml
Rotor Type	Angle, 30°
Permissible Net Weight	20 x 18 g
Lowest Temp. at max. speed	-1 °C

Accessory Specifications	n/a
Accessory Item No.	n/a
Accessory Type	n/a
Max. RPM	14,000
Quantity in Package	n/a
Max. RCF	21,472 x g
Tube Specifications	
Tube Type	Round Bottom
Tube volume	10 ml
Tubes per Rotor	20
Max. Tube Diameter (mm)	16
Tube Height (mm)	80



Rotor Angle 12 × 15 ml RB/FA ID	
Item No.	30314834
Rotor Capacity	12 x 15 ml
Rotor Type	Angle, 32°
Permissible Net Weight	12 x 25 g
Lowest Temp. at max. speed	-20 °C

Accessory Specifications	n/a			
Accessory Item No.	n/a	30130886	30130889	30130890
Accessory Type	n/a	Adapter		
Max. RPM	6,000			
Quantity in Package	n/a	6/pk	2/pk	
Max. RCF	4,427 x g	4,427 x g	4,427 x g	4,427 x g
Tube Specifications				
Tube Type	Round Bottom	Microtube	Round Bottom/Vacutainer®/Sarstedt	Round Bottom/Vacutainer®/Sarstedt
Tube Volume	10 ml	1.5/2.0 ml	7 ml	5 ml
Tubes per Rotor	12			
Max. Tube Diameter (mm)	16	11	13	
Tube Height (mm)	120	42	115	75

Rotors for FRONTIER™ FC5720R

	Angle Rotor 44 × 1.5/2.0 ml	
	Item No.	30372718
	Rotor Capacity	44 x 1.5/2.0 ml
	Rotor Type	Angle, 32°/55°
	Permissible Net Weight	44 x 3.4 g
	Lowest Temp. at max. speed	-6 °C

Accessory Specifications	n/a		
Accessory Item No.	n/a	30130884	30130885
Accessory Type	n/a	Adapter	
Max. RPM	15,000		
Quantity in Package	n/a	6/pk	
Max. RCF	21,379 x g	20,625 x g	18,864 x g
Tube Specifications			
Tube Type	Microtube		
Tube volume	1.5/2.0 ml	0.2/0.4 ml	0.5 ml
Tubes per Rotor	44		
Max. Tube Diameter (mm)	11	6	8
Tube Height (mm)	40	45	

	Angle Rotor 30 × 1.5/2.0 ml	
	Item No.	30314836
	Rotor Capacity	30 x 1.5/2.0 ml
	Rotor Type	Angle, 45°
	Permissible Net Weight	30 x 3.4 g
	Lowest Temp. at max. speed	7 °C

Accessory Specifications	n/a		
Accessory Item No.	n/a	30130884	30130885
Accessory Type	n/a	Adapter	
Max. RPM	17,000		
Quantity in Package	n/a	6/pk	
Max. RCF	30,368 x g	29,399 x g	27,137 x g
Tube Specifications			
Tube Type	Microtube		
Tube volume	1.5/2.0 ml	0.2/0.4 ml	0.5 ml
Tubes per Rotor	30		
Max. Tube Diameter (mm)	11	6	8
Tube Height (mm)	40	45	

Rotors for FRONTIER™ FC5720R



Angle Rotor 24 × 1.5/2.0 ml BIOSEALS	
Item No.	30304361
Rotor Capacity	24 × 1.5/2.0 ml
Rotor Type	Angle, 45°
Permissible Net Weight	24 x 3.4 g
Lowest Temp. at max. speed	13°C

Accessory Specifications	n/a		
Accessory Item No.	n/a	30130884	30130885
Accessory Type	n/a	Adapter	
Max. RPM	20,000		
Quantity in Package	n/a	6/pk	
Max. RCF	38,007 x g	34,430 x g	37,113 x g
Tube Specifications			
Tube Type	Microtube		
Tube volume	1.5/2.0 ml	0.2/0.4 ml	0.5 ml
Tubes per Rotor	24		
Max. Tube Diameter (mm)	11	6	8
Tube Height (mm)	40	45	

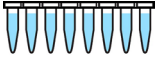


Angle Rotor 24 × 1.5/2.0 ml ID BIOSEALS	
Item No.	83041238
Rotor Capacity	24 x 1.5/2.0 ml
Rotor Type	Angle, 45°
Permissible Net Weight	24 x 3.4 g
Lowest Temp. at max. speed	-1 °C

Accessory Specifications	n/a		
Accessory Item No.	n/a	30130884	30130885
Accessory Type	n/a	Adapter	
Max. RPM	16,000		
Quantity in Package	n/a	6/pk	
Max. RCF	24,325 × g	21,463 × g	23,466 × g
Tube Specifications			
Tube Type	Microtube		
Tube volume	1.5/2.0 ml	0.2/0.4 ml	0.5 ml
Tubes per Rotor	24		
Max. Tube Diameter (mm)	11	6	8
Tube Height (mm)	40	45	

Rotors for FRONTIER™ FC5720R

	Angle Rotor 4 x 8-w PCR Strip	
	Item No.	30314841
	Rotor Capacity	4 x 8-w PCR Strip
	Rotor Type	Angle, 45°
	Permissible Net Weight	4 x 3.5 g
	Lowest Temp. at max. speed	-7 °C

Accessory Specifications	n/a
Accessory Item No.	n/a
Accessory Type	n/a
Max. RPM	15,000
Quantity in Package	n/a
Max. RCF	15,343 × g
Tube Specifications	
Tube Type	8-w PCR Strip
Tube volume	02./04. ml
Tubes per Rotor	32
Max. Tube Diameter (mm)	n/a
Tube Height (mm)	n/a

*No Adapters