



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

Frontier 5714 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 FC5714 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 FC5714 delivers precise separation results achieving values up to 14 000 rpm and 18 624 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™ 5714 *Multi-Pro Centrifuges*

Maximum Application Flexibility

FC5714 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, and microliter plates, ensuring versatile and reliable performance for diverse laboratory needs.

- Compatible with up to 10 optional rotors and 95 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 8 × 50 ml conical tubes
- High-speed centrifugation (>10 000 rpm) from 0,2 ml up to 1,5/2,0 ml tubes



Intuitively Designed for Simple Operation

FC5714 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 $26\,361 \times g$
- Optimized airflow system to keep samples cool
- 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



Safety Features for Increased Security

FC5714 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 bio-containment rotors to safeguard operators from harmful aerosols



FRONTIER™ 5714 Multi-Pro Centrifuges

Specifications

Model		FC5714	
Order No.		230V: 30314810	120V: 30314811
Speed Range		200 rpm – 14 000 rpm; 10 rpm / increments Angle Rotor: 14 000 rpm Swing out Rotor: 4 500 rpm	
Maximum RCF		18 624×g; 10×g / increments Angle Rotor: 18 624×g Swing out Rotor: 3 350×g	
Maximum Capacity (Rotor)		Angle Rotor: 30×15 ml Swing out Rotor: 4×200 ml	
Temperature Range		Air cooled	
Refrigerant		N/A	
Running Time		Quick Spin, 10 sec to 99 hr 59 min, or continuous	
Noise Level (depending on the rotor)		≤ 63 + 2 dB(A)	
Acc/Dec Levels		10/10	
Allowable Density at Maximum Speed		1,2 g/ml	
Allowable Kinetic Energy		5 595 Nm	
Rated voltage		230 V/50–60 Hz	120 V/50–60 Hz
Voltage Fluctuation		± 10%	
Rated current		1,3 A	2,4 A
Power continues		240 W	300 W
Dimensions (W×D×H)		355×492×330 mm	
Net Weight (without rotor)		30 kg	
Shipping Dimensions (W×D×H)		490×590×540 mm	
Shipping Weight (without rotor)		32,5 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™ FC5714



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	4,000						
Quantity in Package	2/pk			10/pk	2/pk		
Max. RCF	2,647 x g		n/a		2,647 x g	2,611 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	4,000						
Quantity in Package	2/pk						
Max. RCF	2,611 x g		2,629 x g	2,611 x g			2,629 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	116	95/105	90/110	120

Accessory Specifications							
Accessory Item No.	83041026	83041027	83041593	83041028	83041029	83041030	83041031
Accessory Type	Rack						Bucket
Max. RPM	4,000						
Quantity in Package	2/pk						
Max. RCF	2,647 x g	2,611 x g			2,629 x g		2,647 x g
Tube Specifications							
Tube Type	Conical Bottom	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™ FC5714

	Swing Out Rotor 4 × 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	n/a

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	3,124 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							
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	3259	3350	3282		3214	2241	3169
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)	25	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™ FC5714

	Angle Rotor 30 × 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	n/a			
Accessory Specifications	n/a				
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	2,038 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	42	95/115	65/75

	Swing Out Rotor 4 × 100 ml						
	Item No.	30314823					
	Rotor Capacity	4 x 100 ml					
	Rotor Type	Swing Out, 0-90°					
	Permissible Net Weight	4 x 465 g					
	Lowest Temp. at max. speed	n/a					
Accessory Specifications							
Accessory Item No.	30314860*	30314861*	30314862	30314863	30314864	30314865	30314866
Accessory Type	Bucket		Screw Cap	Spare O-Ring	Rack		
Max. RPM	4,000						
Quantity in Package	2/pk			10/pk	2/pk		
Max. RCF	n/a				2,350 x g	2,384 x g	
Tube Specifications	n/a						
Tube Type	n/a				Round Bottom	Round Bottom/ Oak Ridge	Round Bottom
Tube volume	n/a				100 ml	85 ml	50 ml
Tubes per Rotor	n/a				4		
Max. Tube Diameter (mm)	n/a				40	38	34
Tube Height (mm)	n/a				90/108		92/118

*Must use rack - 30314864 when using 100mL tubes

Rotors for FRONTIER™ FC5714

Accessory Specifications							
Accessory Item No.	30314867	30314868	30314869	30314870	30314871	30314872	30314873*
Accessory Type	Rack						
Max. RPM	4,000						
Quantity in Package	2/pk						
Max. RCF	2,383 x g	2,400 x g	2,366 x g	2,230 x g	2,383 x g	2,401 x g	
Tube Specifications							
Tube Type	Round Bottom/ Oak Ridge	Conical Bottom	Skirted Conical Bottom		Round Bottom	Conical Bottom	
Tube volume	50 ml			30 ml	25 ml	15 ml	
Tubes per Rotor	4					4	8
Max. Tube Diameter (mm)	29			25		17	
Tube Height (mm)	90/113	116		95/105	95/110	120	

*Only without bucket lid

Accessory Specifications								
Accessory Item No.	30314874*	30314875	83041589	30314876	30314877	30314878	30314879	30314880
Accessory Type	Rack							
Max. RPM	4,000							
Quantity in Package	2/pk							
Max. RCF	2,383 x g		2,611 x g	2,383 x g				
Tube Specifications								
Tube Type	Skirted Conical Bottom	Round Bottom	Vacutainer®	Round Bottom	Microtube	Sarstedt®	Vacutainer®	
Tube volume	15 ml		8 ml	5-7 ml	1.5 ml	10 ml	5-7 ml	10 ml
Tubes per Rotor	8	16	4	28	20	12	16	
Max. Tube Diameter (mm)	17		16	13	11	17	13	16
Tube Height (mm)	120	90/108	125	75/100	42	85/100	75/100	

Accessory Specifications			
Accessory Item No.	30314881	30314882	83041589
Accessory Type	Bucket		Rack
Max. RPM	4,000		4,000
Quantity in Package	2/pk		
Max. RCF	2,486 x g		2,611 x g
Tube Specifications			n/a
Tube Type	Conical Bottom		Vacutainer®
Tube volume	50 ml	15 ml	8 ml
Tubes per Rotor	8	12	4
Max. Tube Diameter (mm)	29	17	16
Tube Height (mm)	116	120	125

Rotors for FRONTIER™ FC5714

	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	n/a

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 6 × 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	n/a

Accessory Specifications							
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	42	95/100	65/75	100	100/105	97/120

* only possible with adapter 30130894

Rotors for FRONTIER™ FC5714



Rotor Angle 12 x 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	n/a

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/Conical Bottom	Microtube	Round Bottom/Vacutainer®/Sarstedt	Round Bottom/Vacutainer®/Sarstedt
Tube Volume	15 ml	1.5/2.0 ml	7 ml	5 ml
Tubes per Rotor	12			
Max. Tube Diameter (mm)	17	11	13	
Tube Height (mm)	120	42	115	75



Angle Rotor 30 x 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	n/a

Accessory Specifications	n/a		
Accessory Item No.	n/a	30130884	30130885
Accessory Type	n/a	Adapter	
Max. RPM	12,000		
Quantity in Package	n/a	6/pk	
Max. RCF	15,131 x g	13,521 x g	14,648 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™ FC5714



Angle Rotor 12 × 5 ml FA	
Item No.	83041010*
Rotor Capacity	12 x 5 ml
Rotor Type	Angle, 45°
Permissible Net Weight	12 x 9.5 g
Lowest Temp. at max. speed	n/a

Accessory Specifications	n/a			
Accessory Item No.	n/a	30130886	30130887	30130888
Accessory Type	n/a	Adapter		
Max. RPM	4,500	14,000		
Quantity in Package	n/a	6/pk		
Max. RCF	18,624 x g	15,337 x g	15,994 x g	16,433 x g
Tube Specifications				
Tube Type	Microtube		Cryo Tube - Flat Bottom	Cryo Tube - Round Bottom
Tube Volume	5 ml	1.5/2.0 ml	1.0 ml	1.8 ml
Tubes per Rotor	12			
Max. Tube Diameter (mm)	17	11	12.6	
Tube Height (mm)	60	42	41	48

*Only snap-cap tubes, not applicable to screw-cap tubes.



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	n/a

Accessory Specifications	n/a		
Accessory Item No.	n/a	30130884	30130885
Accessory Type	n/a	Adapter	
Max. RPM	14,000		
Quantity in Package	n/a	6/pk	
Max. RCF	18,624 x g	16,433 x g	17,967 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	