

Velocity

Laboratory Centrifuge

14 / 14R Pro / 17 / 17R Pro / 18R Pro



Dynamica
A Techcomp Company

dynamica-sci.com

Velocity

The Versatile Centrifuge



Velocity 18R Pro

The Velocity 18R Pro delivers exceptional capacity (36 x 15ml, 16 x 50ml), a wider range of rotor options, refrigerated centrifugation and an impressive maximum speed of 18,000 RPM (30,318 xg). All from the convenience of your laboratory bench.

Velocity 14/14R Pro

The Velocity 14 Pro and Velocity 14R Pro centrifuges feature a compact footprint and provides the flexibility to alternate from micro-volume centrifugation to medium-volume centrifugation at an impressive maximum speed of 14,000 RPM (22,219xg).

The Velocity 14R Pro also provides refrigeration for protecting the samples.



Velocity 17/17R Pro

The Velocity 17 and 17R Pro offer a compact but powerful solution for your lab. With a maximum speed of 17,000 rpm (25,507xg), the V17 range provides speed and flexibility with the Auto-Rotor lock as standard. And with a high imbalance tolerance, they are among the safest products available.

User experience is at the heart of our design with Auto Rotor Recognition and a new information rich display, plus 10 available programs and a quick key for short runs.

Refrigeration and pre-cooling is available with an impressive temperature range of -20°C to 40°C.



The new Velocity 17Pro information rich display.

Laboratory Applications

How can Velocity benefit your lab?

The Velocity range of centrifuges are compact, safe and reliable. Designed for benchtop use, they offer your laboratory high performance and flexibility. Suitable for general and research purposes they can be used for a wide variety of applications including:

- Cell sedimentation, density gradient centrifugation of cells, flotation purification of cells.
- Small to medium volume extraction.
- Separating and purifying proteins, nucleic acids, plasmids and other components with kits.
- Precipitation of virus, density gradient centrifugation of virus.
- Pre-treatment of biological products, chemical polymer products, nanomaterials and pharmaceutical purification.
- PCR matching and fragment separation of biological macromolecules.



Equipment **Features**



User Friendly Operation And Information Rich Display

Parameters are quickly and effortlessly input through the simple key pad interface and displayed on the brightly backlit and easy to read LCD panel. The LCD panel concurrently displays all experimentation parameters including diagnostic information as it occurs.



Rotor Auto-Lock

With the Velocity 18R Pro, 17/17R Pro, 14/14R Pro, you simply place the rotor onto the drive shaft, the auto lock and secure mechanism perform the rest. Once centrifugation is complete, simply lift the rotor off the drive shaft. Quick, easy, efficient and safe.



Equipment Features



Auto Rotor Recognition

Automatic rotor recognition and confirmation once centrifugation has commenced, including rotational speed calculation and optimum temperature control. Furthermore new rotors can be easily loaded onto the onboard database as they are introduced.



Actual Sample (Rotor) Temperature Display

The temperature displayed on the LCD panel during centrifugation is that of the rotor (and hence samples). This allows more precise, reproducible and efficient experimentation compared to displaying the temperature of the chamber or the temperature at the sensor.



High Imbalance Tolerances

Innovative motor engineering and mounting (including a flexible drive shaft) allow for greater imbalance tolerances, so much so that samples can be balanced simply by eye. No more weighing – just fill tubes or bottles to within 5mm of each other (2mm of each other for specific rotors).



Powerful Refrigeration (R Series)

A powerful, non-CFC compressor cools the chamber quickly whilst maintaining the rotor at a set temperature during centrifugation. The twin cooling fans – one for the compressor and motor respectively – dissipate heat quickly to improve cooling efficiency and extend the motor lifespan.





Quiet Operation

Noise abating insulation in the console, including lower noise fans, combine to reduce the audible operating noise to $\leq 58\text{dB}$.



Acceleration and deceleration

The innovative high-torque drive technology effortlessly accelerates even the heaviest rotors to terminal velocity quickly and efficiently. A full load will achieve maximum velocity within a few minutes. 10 pre-set acceleration and 11 pre-set deceleration profiles (including coasting deceleration) ensure the best separation, even for the most delicate density gradients*.



Wide variety of Rotors

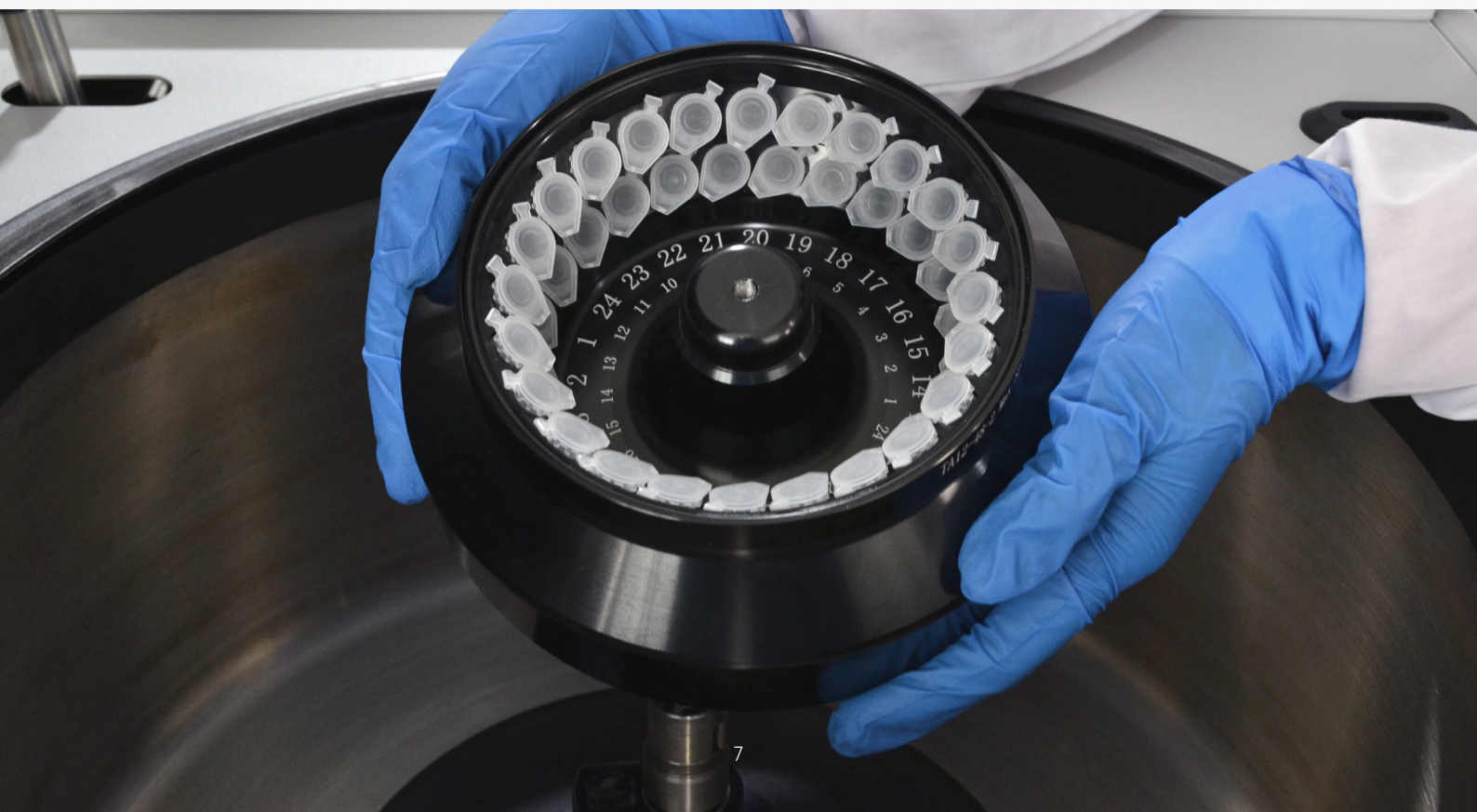
Selection of Angle, Swing Out or Microplate rotors suitable for your need. e.g. separation, isolation, purification for Whole blood cells, Subcellular organelles, Plasma membrane, Polysomes, Ribosomes, Chromatin, Nucleic acid, Lipoproteins and Viruses etc.



Safe, Durable and Reliable

Non contact imbalance sensor monitor the centrifuge actual running. Proper alarms and error code display for warning and diagnostic. Centrifuge structure design for high impact prevent any accident.

*For Velocity 18R Pro, 9 pre-set acceleration and 10 pre-set deceleration profiles (including coasting deceleration)
































Dynamica Rotor Portfolio

Designed for diverse laboratory application



Swing Out Rotors

● Velocity 18R Pro ● Velocity 17/17R Pro ● Velocity 14/14R Pro

V14 / 14R Pro	V17 / 17R Pro	V18R Pro	Rotor	P/N	Rotor ID	rpm	xg	Tube Volume	Tube Dimension (mm)	Tube Qty.	Adaptor						
-	-	●	 SW5	0000442*	50	4,800	4,173	 250ml PP bottle	Φ61.6 x 135	1 x 4	/						
														SW5.5B	0024451		
															SW5.7B	0025831	
															SW5.10B	0034284	
															SW5.10P	0027331	
															SW5.10G	0025834	
															SW5.15G	0024458	
															SW5.15CA	0025833	
															SW5.50CB	0025835	
															SW5.15P	0024449	
															SW5.50G	0025832	
															SW5.50C	0026346	
-	-	●	 SW5L	0033239*	15	4,200	3,388		Φ16.5 x 120	9 x 4		SW5L15C	0033249				
																SW5L.50C	0033254
																SW5L.250P	0033259
																SW5L.300P	0034362
																SW5L.2B	0033977
																SW5L.5B	0033981
																SW5L.8B	0033985
																SW5L15P	0033989
																SW5L.50P	0033993
-	-	●	 SW5MP	0000432**	55	4,800	3,120		128 x 68 x 15	1 x 2	/						
																	128 x 65 x 50
●	●	-	 SW4C	0023164*	5	4,000	1,780		Φ12.5 x 106	1 x 4	/						

*include bucket x 4. **include plate carrier x 2. † Non-refrigerated model.
(C) Conical Bottom. (R) Round Bottom

Fixed Angle Rotors

● Velocity 18R Pro ● Velocity 17/17R Pro ● Velocity 14/14R Pro

V14 / 14R Pro	V17 / 17R Pro	V18R Pro	Rotor	P/N	Rotor ID	rpm	xg	Tube Volume	Tube Dimension (Φ x H mm)	Tube Qty.	Adaptor		
-	●	●	 FA18B	0017942	● 36 ● 10	● 18,000 ● 17,000	● 24,990 ● 22,294	 1.5/2ml (C/R)	Φ11 x 40	18	/		
							 0.5ml micro tube	Φ8 x 32			FA15.05	0026054	
							 0.2ml micro tube	Φ6 x 24			FA15.02	0026053	
-	●	●	 FA18C	0030462	01	● 18,000 ● 16,000 ● 15,000†	● 30,318 ● 22,896 ● 20,124	 10ml (R)	Φ16 x 82	10	/		
●	●	●	 FA15A	0000408	19	● 15,000 ● 14,000 ● 14,000	● 21,658 ● 18,866 ● 18,866	 1.5/2ml	Φ11 x 40	24	/		
							 0.2ml micro tube	Φ6 x 24			FA15.02	0024441	
							 0.5ml micro tube	Φ8 x 32			FA15.05	0024443	
●	●	●	 FA15B	0000415	16	● 15,000 ● 12,000 ● 15,000	● 21,835 ● 13,974 ● 21,835	 50ml (R)	Φ29 x 106	4	/		
							 15ml (R)	Φ18 x 100			FA15.15R	0024372	
							 15ml (R)	Φ15.5 x 113			FA15.15R	0024361	
●	●	●	 FA15C	0000422	18	● 15,000 ● 14,000 ● 12,000† ● 15,000 ● 12,000†	● 23,294 ● 20,291 ● 14,907† ● 23,293 ● 14,970†	 50ml (R)	Φ29 x 106	6	/		
							 15ml (R)	Φ18 x 100			FA15.15R	0024348	
							 15ml (R)	Φ15.5 x 113			FA15.15R	0024329	
								 15ml (C)	Φ17 x 119			AF15.15C*	0024327
-	-	●	 FA15D	0000419	17	15,000	20,900	 80ml PP (R)	Φ38 x 106	4	/		
								 50ml (R)	Φ29 x 106			FA15D.50R	0026051
								 50ml (C)	Φ29 x 117			FA15D.50C*	0025841
								 15ml (C)	Φ17 x 119			FA15D.15C*	0024448
								 15ml (R)	Φ16.5 x 113			FA15D.15R	0024440
●	●	●	 FA15E	0031050	● 06 ● 08 ● 08	● 15,000 ● 14,000 ● 14,000	● 22,600 ● 19,721 ● 19,721	 5ml (C)	Φ16.7 x 60	12	/		
●	●	●	 FA15F	0031047	● 04 ● 07 ● 07	● 15,000 ● 14,000 ● 15,000 ● 14,000†	● 22,600 ● 19,721 ● 22,639 ● 19,721†	 5ml (R)	Φ13.5 x 53.5	16	/		
●	●	●	 FA15G	0034277	09	● 15,000 ● 12,000† ● 15,000 ● 15,000 ● 12,000†	● 25,004 ● 16,002† ● 25,004 ● 25,004 ● 16,002†	 50ml (C)	Φ30 x 116	6		FA15G.15C	0034705
								 15ml (C)	Φ16.5 x 120				
●	●	●	 FA15H	0035479	● 21 ● 17	● 15,000 ● 14,000 ● 12,000† ● 15,000 ● 12,000†	● 24,950 ● 21,737 ● 15,970† ● 24,953 ● 15,970†	 50ml (R)	Φ29 x 113	6	/		
								 15ml (C)	Φ17 x 119			FA15H.15C	0035592
								 15ml (R)	Φ16.5 x 113			FA15H.15R	0035591
●	●	●	 FA15K	0035480	22	● 15,000 ● 14,000 ● 12,000† ● 15,000 ● 12,000†	● 23,210 ● 20,225 ● 14,859† ● 23,218 ● 14,859†	 5ml (R)	Φ13.5 x 53.5	20	/		
●	●	●	 FA15L	0035481	● 23 ● 14	● 15,000 ● 14,000 ● 12,000†	● 25,516 ● 22,219 ● 16,324†	 1.5/2ml (R/C)	Φ11 x 40	30	/		
●	●	●	 FA14C	0030667	13	● 14,000 ● 14,000 ● 15,000 ● 14,000†	● 20,926 ● 20,926 ● 24,023 ● 20,926†	 50ml (C)	Φ30 x 116	4	/		
								 15ml (R)	Φ16.5 x 113			FA14C.15R	0024469
								 15ml (C)	Φ17 x 119			FA14C.15C	0024360
●	●	●	 FA14D	0035355	11	14,000 12,000†	20,203 14,843†	 0.2ml micro tube (C)	Φ6 x 21.5	48	/		
●	●	●	 FA14E	0035356	12	14,000 12,000†	21,123 15,519†	 1.5/2ml (R/C)	Φ11 x 40	48	/		
●	●	●	 FA12A	0000402	03	12,000	14,100	 0.2ml micro tube	Φ6 x 24	48	/		
●	●	●	 FA12B	0031053	02	12,000	13,840	 1.5/2ml	Φ11 x 40	48	/		
-	-	●	 FA10B	0020867	20	10,000	11,400	 50ml (C)	Φ30 x 116	6	/		
								 15ml (C)	Φ17 x 119			FA10.15C	0024328
-	-	●	 FA5A	0031390	07	5,600	4,700	 15ml (C)	Φ17 x 120	12	/		

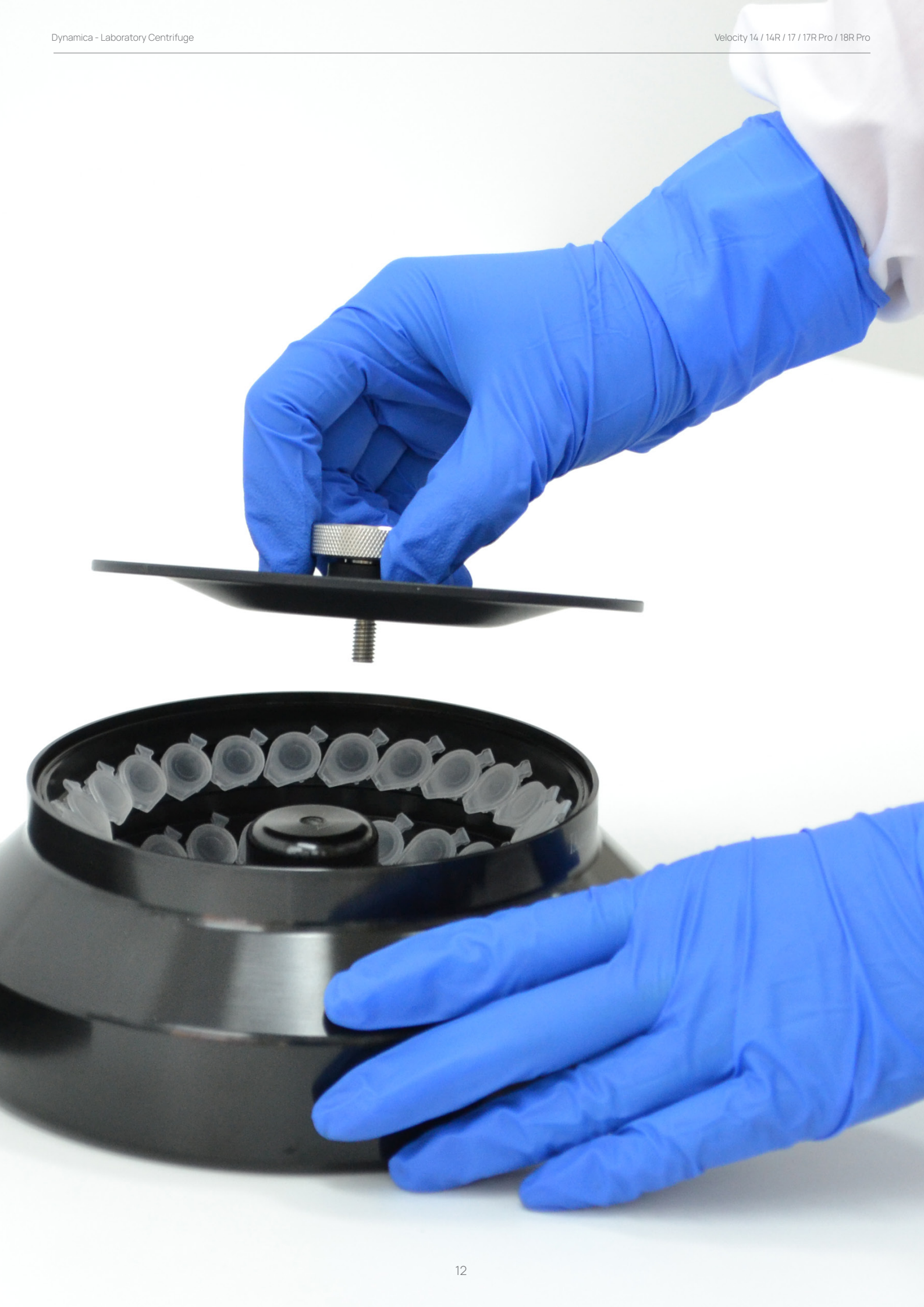
*Only for use without rotor lid. † Non-refrigerated model. (C) Conical Bottom. (R) Round Bottom

Velocity 14 / 14R Pro Specification



MODEL	Velocity 14 pro	Velocity 14R pro
Maximum Speed	14,000 RPM	
Maximum RCF	20,926 xg	22,219 xg
Maximum Capacity	6 x50 ml (FA15C / FA15G)	
Driving System	Brushless DC Motor	
Temperature Setting Range	N/A	-20°C to 40°C
Refrigerant	N/A	R134a
Acceleration / Deceleration mode	1-10 stages Acceleration / 0-10 stages Deceleration	
Timer	Running time from 1 min to 99 hours 59 mins. or *HOLD function*	
Program memory	10 Programs	
Main Power	220V Single phase, ~220-240V±10%, 50/60Hz±1Hz, 1200VA	
Dimensions (W x D x H)	340 x 490 x 380 mm	560 x 500 x 380 mm
Weight	40 kg	60 kg
Packing Size (W x D x H)	650 x 520 x 540 mm	740 x 650 x 640 mm
Shipping Weight	60 kg	70 kg
Ordering Information		
Product Number	0035661	0035660
Description	Velocity 14 Pro (220V, 50/60Hz)	Velocity 14R Pro (220V, 50/60Hz)





Velocity 17 / 17R Pro Specification



MODEL	Velocity 17 pro	Velocity 17R Pro
Maximum Speed	17,000 RPM	
Maximum RCF	22,294 xg	25,507 xg
Maximum Capacity	6 x50 ml	
Driving System	Brushless DC Motor	
Temperature Setting Range	N/A	-20°C to 40°C
Refrigerant	N/A	CFC-free refrigeration system
Acceleration / Deceleration mode	1-10 stages Acceleration / 0-10 stages Deceleration	
Timer	1 min to 99 h 59 min. or *Hold for continuous run*	
Program memory	Store 10 complete centrifuge runs	
Rotor recognition	Automatic rotor recognition and speed correction	
Imbalance indication	Automatic imbalance indication with safety cut off	
Safety Devices	Motor driven lid lock, audio signal after stop	
Noise Level	≤58dB(A)	
Main Power	AC 220V / 50-60Hz (Voltage Fluctuation ±10%) 600VA / 10A	AC 220V / 50-60Hz (Voltage Fluctuation ±10%) 1200VA / 10A
Dimensions (W x D x H)	340 x 490 x 380 mm	560 x 500 x 380 mm
Weight	40 kg	60 kg
Packing Size (W x D x H)	650 x 520 x 540 mm	740 x 650 x 640 mm
Shipping Weight	60 kg	70 kg
Ordering Information		
Product Number	0035304	0035303

Velocity 18R Pro Specification



MODEL	Velocity 18R Pro	
Maximum Speed	18,000 RPM	
Maximum RCF	30,318 x g (FA18C)	
Maximum Capacity	4 x 300ml (SW5L)	
Driving system	Inverted induction motor	
Speed Control Range	300 rpm to 18,000 rpm (100 rpm increments)	
Acceleration / Deceleration mode	1-9 stages / 0-9 stages	
Temperature setting range	-20°C to 40°C in steps of 1°C	
Refrigerant	R134a	
Temperature accuracy	± 2°C	
Timer	Running time from 1 min to 99 hours 59 min. or "HOLD function"	
Program memory	9 Programs	
Display	Backlit LCD	
Noise Level	≤ 58 dB (A)	
Main Power	220V: Single phase, ~220-240V, 50/60Hz (110V 60Hz available)	
Dimensions (W x D x H)	730 x 610 x 380 mm	
Weight	Approx. 100 Kg	
Packing Size (W x D x H)	910 x 770 x 670 mm	
Shipping Weight	130 kg	
Ordering Information		
Product Number	0033285	0033284
Description	Velocity 18R Pro (220V-240V, 50Hz)	Velocity 18R Pro (110V, 60Hz)





Dynamica Scientific Ltd.

4 Bain Square, Kirkton Campus
Livingston, EH54 7DQ, United Kingdom

Tel: +44(0)1506 425 300

Fax: +44(0)1506 425 300

Email: enquiry@dynamica-sci.com

dynamica-sci.com