Dynamica



The VELOCITY Range

BENCH TOP CENTRIFUGES

Designed in Australia.





REDVOLUTION

The Dynamica Velocity range sets another benchmark in laboratory instrumentation. Dynamica's extensive manufacturing experience, commitment to innovation and continuous refinement, has resulted in an extensive range of precision laboratory instrumentation that fulfils the challenges of the contemporary and multifaceted laboratory environment. Versatilty, flexibility, performance, efficiency, design are hallmarks of Dynamica's dedication to excellence.

The Dynamica range of bench-top centrifuges are characterized by quality and safety and are complemented by a wide array of convenience features, from the user friendly control pad with clear, bright LED display to the dual interlocking door mechanism to name a few. An extensive model range with accompanying accessories extend suitability to many laboratory applications.

We test our electrical products against the CE and safety standard. Dynamica products are independently tested by accredited test house and this is reinforced by comprehensive technical and manufacturing data.





VELOCITY 18R

Refrigerated Benchtop Centrifuge

The Velocity 18R delivers high capacity, refrigerated centrifugation with an impressive maximum speed of 18,000 RPM (27,070 x g) (with the fixed angle FA18 rotor) and all from the convenience of the bench

Quick Set and forget Rotor System

Screwing or bolting rotors to the drive shaft is a thing of the past. Likewise lost spanners and rotor over tightening. With the Velocity 18R simply place the rotor on the drive shaft and that's all. The auto lock and secure mechanism performs the rest. Once centrifugation is complete simply lift the rotor off the drive shaft. Quicker, easier, more efficient and safer.

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 on-board database as they are introduced.

Fast Acceleration and Deceleration

The innovative high torque, drive technology effortlessly accelerates even the heaviest rotors to terminal velocity quickly and efficiently. Even the heaviest rotors with a full load will achieve maximum velocity within a few minutes. Furthermore, 9 pre-set acceleration and 10 pre-set deceleration profiles ensure the best separation even for the most delicate density gradients

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 with the naked eye. No more weighing just fill tubes or bottles to within 5mm of each other.

Powerful Refrigeration

A powerful non -CFC compressor cools the chamber quickly whilst maintaining the rotor at set temperature during centrifugation.

Furthermore, twin cooling fans - one each for the compressor and motor respectively - dissipate heat quickly to improve cooling efficiency and extend motor life.

Actual sample (rotor) temperature Measurement and Display

The temperature displayed on the LCD panel during centrifugation is that of the rotor (and hence samples) and not the temperature of the chamber nor the temperature at the sensor to allow for more precise, reproducible and efficient experimentation.

Safety is Paramount

The Velocity 18R offers many safety features in the unlikely event of an emergency such as:

Non-contact imbalance detection and shutdown based on the run profile for each rotor across its entire speed range rather than the inferior and conventional micro-switch detector.

- > Guard barrier
- > Dual lid electronic interlock
- Auto-hinge for improved sealing and door opening
- > Over speed detection and shutdown
- > Motor overheat detection and shutdown

User friendly operation and information rich display

Parameters are quickly and effortlessly inputted through the uncomplicated touch 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. Furthermore, once centrifugation has commenced, a real time graphic profile of the centrifugation status is displayed.

Quiet Operation

Noise abating insulation in the console including lower noise fans combine to reduce the audible operating noise to <58 dB.

Liquid Seeping Prevention

A single continuous rubber cap with strong gasket, firmly seals the motor chamber opening and drive shaft to prevent liquid from seeping into the motor and electronic components. As additional back-up, a highly absorbent sponge positioned beneath the rubber cap soaks up any liquid or condensation which then evaporates during operation.



VELOCITY 18R ROTORS

	ROTOR TYPE	CAT. NO.#		MATERIAL	MAX SPEED (RPM)	MAX RCF (XG)	TUBE VOLUME (ML)
Fixed Angle FA15A	Fixed Angle	FA18B	20000	Aluminium	18,000	24,990	
Fixed Angle FA15P Plastic 15,000 18,800 1.5 /2.0 0.5 Fixed Angle FA12A Aluminium 12,000 14,100 0.2 Fixed Angle FA18A Aluminium 18,000 27,070 10 Fixed Angle FA18B Aluminium 15,000 21,800 50 15 Fixed Angle FA15B Aluminium 15,000 23,300 50 15 Fixed Angle FA16C Aluminium 15,000 20,900 80 Fixed Angle FA15D Aluminium 15,000 20,900 80 Fixed Angle FA15D Aluminium 10,000 11,400 50 Fixed Angle FA16B Aluminium 10,000 11,400 50 Fixed Angl							0.5 0.2
Fixed Angle FA15P Plastic 15,000 18,800 1.5 /2.0 0.5 0.2 Fixed Angle FA12A Aluminium 12,000 14,100 0.2 Fixed Angle FA18A Aluminium 18,000 27,070 10 Fixed Angle FA15B Aluminium 15,000 21,800 50 15 Fixed Angle FA15C Aluminium 15,000 23,300 50 15 Fixed Angle FA15D Aluminium 15,000 20,300 80 Fixed Angle FA16B Aluminium 15,000 20,300 80 Fixed Angle FA10B Aluminium 15,000 20,300 80 Fixed Angle FA10B Aluminium 15,000 4,170 50 15 Fixed Angle FA10B Aluminium 4,800 4,170 50 15 Fixed Angle 4,800 4,170 50 Fixed Angle 4,	Fixed Angle	FA15A		Aluminium	15,000	21,500	
Fixed Angle FA12A Aluminium 12,000 14,100 0.2 Fixed Angle FA18A Aluminium 18,000 27,070 10 Fixed Angle FA15B Aluminium 15,000 21,800 50 -					п		0.5
Fixed Angle FA12A Aluminium 12,000 14,100 0.2 Fixed Angle FA18A Aluminium 18,000 27,070 10 Fixed Angle FA15B Aluminium 15,000 21,800 50	Fixed Angle	FA15P		Plastic			
Fixed Angle FA18A Aluminium 18,000 27,070 10 Fixed Angle FA15B Aluminium 15,000 21,800 50 Fixed Angle FA15C Aluminium 15,000 23,300 50 Fixed Angle FA15C Aluminium 15,000 20,900 80 Fixed Angle FA15D Aluminium 15,000 20,900 80 Fixed Angle FA15D Aluminium 15,000 20,900 80 Fixed Angle FA10B Aluminium 10,000 11,400 50 Swing Bucket SW5 Aluminium 4,800 4,170 50 4,800 4,170 7 4,800 4,170 7 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 50 4,8					п	п	0.2
Fixed Angle FA15B Aluminium 15,000 21,800 50 15 15 15 15 15 15 15 15 15 15 15 15 15	Fixed Angle	FA12A	(·	Aluminium	12,000	14,100	0.2
Fixed Angle FA15C Aluminium 15,000 23,300 50 15 Fixed Angle FA15D Aluminium 15,000 20,900 80 Fixed Angle FA15D Aluminium 10,000 11,400 50 Fixed Angle FA10B Aluminium 10,000 11,400 50 Swing Bucket SW5 Aluminium 4,800 4,170 50 Aluminium 4,800 4,170 7 4,800 4,170 7 4,800 4,170 10 3,000 1,630 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 50 4	Fixed Angle	FA18A	8	Aluminium	18,000	27,070	10
Fixed Angle FA15C Aluminium 15,000 23,300 50 15 Fixed Angle FA15D Aluminium 15,000 20,900 80 Fixed Angle FA10B Aluminium 10,000 11,400 50 Swing Bucket SW5 Aluminium 4,800 4,170 5 4,800 4,170 7 4,800 4,170 7 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 50 4,800 4,1	Fixed Angle	FA15B		Aluminium			
Fixed Angle FA15C Aluminium 15,000 23,300 50 15 15 15 15 15 15 15 15 15 15 15 15 15							
Fixed Angle FA15D Aluminium 15,000 20,900 80 Fixed Angle FA10B Aluminium 10,000 11,400 50 Swing Bucket SW5 Aluminium 4,800 4,170 50 Aluminium 4,800 4,170 5 4,800 4,170 7 4,800 4,170 10 3,000 1,630 10 3,000 1,630 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 4,800 4,170 50 5Wing Bucket SW5MP Aluminium 4,800 3,120 96 Well Microplates 96 Deep Well Plates 1.5/2.0 0.2							10
Fixed Angle FA15D Aluminium 15,000 20,900 80 Fixed Angle FA10B Aluminium 10,000 11,400 50 Swing Bucket SW5 Aluminium 4,800 4,170 250 4,800 4,170 7 4,800 4,170 7 4,800 4,170 10 3,000 1,630 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 50 4,800 4,	Fixed Angle	FA15C		Aluminium	15,000	23,300	
Fixed Angle FA10B Aluminium Aluminium A,800 A,170 A,800 A,170 A,800 A,170 A,800 A,170 Bucket A,800 Bucket A,170 Bucket Bucket A,800 Bucket Bucket Bucket A,800 Bucket Bucket					 II		
Swing Bucket SW5	Fixed Angle	FA15D		Aluminium	15,000	20,900	80
Bucket 4,800 4,170 5 4,800 4,170 7 4,800 4,170 10 3,000 1,630 10 3,000 1,630 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 15 4,800 4,170 50 4,800 3,990 50 4,800 4,170 50 4,800 4,170 50 4,800 3,990 50 4,800 4,170 50 8wing Bucket SW5MP Aluminium 4,800 3,120 96 Well Microplates " 96 Deep Well Plates		FA10B	8	Aluminium	10,000		
Swing Bucket SW5MP Aluminium 4,800 3,120 96 Well Microplates " " 96 Deep Well Plates " " 1.5 /2.0 0.2 Swing Bucket SW4A Aluminium 4,000 2,900 15	Swing Bucket	SW5			4,800 4,800 4,800 3,000 3,000 4,800 4,800 4,800 4,800 4,800 4,800	4,170 4,170 4,170 1,630 1,630 4,170 4,170 4,170 4,170 3,990 4,170	5 7 10 10 15 15 15 15 50
Swing Bucket SW4A Aluminium 4,000 2,900 15 4,000 2,860 50	Swing Bucket	SW5MP		Aluminium	4,800	3,120	96 Well Microplates 96 Deep Well Plates 1.5 /2.0
•	Swing Bucket	SW4A	75	Aluminium		2,900 2,860	



TUBE DESCRIPTION	TUBE DIMENSIONS(O X MM)	TUBE MATERIAL	CAPACITY	ADAPTOR	ROTOR AUTOCLAVABLE	ROTOR LID
Standard micro-tube	10.5 x 41	PP DD	18 x 1.5/2.0 ml	N/A	121°C	Aluminium
PCR single tube	8 x 32	PP pp	18 x 0.5 ml 18 x 0.2 ml	FA15.05		
PCR single tube	6 x 24	PP	10 X U.Z IIII	FA15.02		
Standard micro-tube	10.5 x 41	PP	24 x 1.5/2.0 ml	N/A	121°C	Aluminium
PCR single tube	8 x 32	PP	24 x 0.5 ml	FA15.05		
PCR single tube	6 x 24	PP	24 x 0.2ml	FA15.02		
Standard micro-tube	10.5 x 41	PP	18 x 1.5/2.0 ml	N/A	No	N/A
PCR single tube	8 x 32	PP	18 x 0.5 ml	FA15.05		,
PCR single tube	6 x 24	PP	18 x 0.2ml	FA15.02		
DCD single or strip	C 24	DD	40 , 0 2 mal	Ν1/Λ	12100	A Lungia in iuma
PCR single or strip	6 x 24	PP	48 x 0.2 ml	N/A	121°C	Aluminium
Round Bottom	16 x 81	PP	8 x 10 ml	N/A	121°C	Aluminium
nouna bottom	10 X 01	TT	0 X 10 1111	IN/A	121 0	Alullilliulli
Round Bottom	29 x 106	PP/PC	4 x 50 ml	N/A	121°C	Aluminium
Culture V Bottom	17 x 120	PP	4 x 15 ml	FA15.15C		
Round Bottom	16.5 x 113	PP	4 x 15 ml	FA15.15R		
Dd D-44	20 104	DC.	0 501	Ν1/Λ	10100	A I
Round Bottom Culture V Bottom	29 x 104 17 x 120	PC PP	6 x 50 ml 6 x 15 ml	N/A FA15.15C	121°C	Aluminium
Round Bottom	17 x 120 16.5 x 113	PP	6 x 15 ml	FA15.15C FA15.15R		
Hourid Dottom	10.5 X 115	11	0 x 13 1111	1415.1511		
Round Bottom	38 x 106	PC	4 x 80 ml	N/A	121°C	Aluminium
Houna Bottom	00 X 100	10	1 / 00 1111	14// (121 0	, danimani
0.1: 1/10.::	00 445	DD	0 50 1	N1 / A	10100	
Culture V Bottom Culture V Bottom	29 x 115 17 x 120	PP PP	6 x 50 ml 6 x 15 ml	N/A FA10.15C	121°C	Aluminium
Culture v Dottom	17 X 120	T T	O X 13 IIII	TA10.150		
Dl	04.0 405	DD /DO	4 050 1	DI / A		
Bottle Blood collection	61.6 x 135 12-13 x 75-78	PP/PC	4 x 250ml 28 x 5ml	N/A SW5.5B	121°C	Plastic Caps
Blood collection	12-13 x 100		28 x 7ml	SW5.7B	(buckets)	with o-ring
Blood collection	16 x 100		28 x 10ml	SW5.10B	(buokoto)	(Order Separately
Round Bottom	12 x 105	Glass	28 x 10ml	SW5.10G		(Order Separater)
Round Bottom	17 x 110	Glass	28 x 15ml	SW5.15G		
Round Bottom	16.5 x 113	PP	16 x 15ml	SW5.15P*		
Culture V Bottom	17 x 120	PP	12 x 15ml	SW5.15CA		
Culture V Bottom	17 x 120	PP	16x 15ml	SW5.15CB*		
Round Bottom	29 x 104	PP	4 x 50ml	SW5.50P		
Round Bottom	35 x 100	Glass	4 x 50ml	SW5.50G		
Culture V Bottom	29 x 115	PP	4x 50ml	SW5.50C		
Skirted bottom	29 x 115	PP (DO	4x 50ml	SW5.50CB	40400	N1 / A
PCR / Culture PCR / Culture	128W x 86L x 14H 128W x 86L x 55H	PP/PC PP/PC	2 x Plates 2 x Plates	N/A N/A	121°C (buckets)	N/A
Standard micro-tube	10.8 x 40.5	PP/PC PP	48x 1.5/2.0 ml	SW5MP.15	(DUCKET2)	
PCR single or strip	10.0 X 40.0	PP	192x 0.2 ml	SW5MP.02		
Culture V Bottom Culture V Bottom	17 x 120 29 x 115	PP PP	24 x 15ml 8 x 50ml	SW4A.15C SW4A.50C	121°C (buckets)	N/A



VELOCITY 18R SPECIFICATIONS

MODEL	V18R
Maximum Speed	18,000 RPM (FA18A rotor)
Maximum RCF	27,070 x g (FA18A rotor)
Maximum Capacity	1,000 ml (4 x 250 ml)
Drive Mechanism	Brushless Induction
Control	Microprocessor based
Speed Range	300-18,000 RPM (100 RPM increments)
Speed Accuracy	±20 RPM
Speed / RCF Conversion	Yes
Timer	1 min - 99 Hrs 59 mins plus HOLD function
Display	Backlit LCD
Operating Noise	<58dB (A)
Temperature Range	-20°C to +40°C
Temperature Accuracy	±2°C
Memory	9 Programs
Acceleration/Deceleration	9 stages / 10 stages
Automatic Rotor Identification	Yes
Imbalance Detection	Yes
Dimensions (L x D x H)	730 x 610 x 380 mm
Weight (Net)	100 Kg
Power Supply	Single Phase AC220V, 50Hz, 10A
	AC220V, 60Hz
	AC110V, 60Hz





VELOCITY 14 / 14R

Benchtop Centrifuges

The Velocity 14 / 14R centrifuges set a new benchmark in versatility and compactness. The clever design results in a compact footprint yet generous capacity which not only frees up precious bench space but also provides the flexibility to alternate from micro-volume centrifugation to medium-volume centrifugation and all at an impressive maximum speed of 14,000 RPM / 20,290xg (with the FA15C rotor). Furthermore the V14R incorporates powerful and efficient refrigeration whilst the absence of refrigeration in the Velocity 14 further reduces its footprint by at least 50% compared to that of the Velocity 14R.

Smart, Compact, 3-in-1 Design

The versatile design of the Velocity 14/14R centrifuges offers the best of both worlds from the perspective of micro-volume and medium-volume centrifugation. The FA15A rotor is sufficiently fast and yet accommodating for up to $24 \times 1.5/2$ ml tubes with a terminal velocity of 14,000 RPM (18,726 x g) whilst the FA15C rotor has sufficient capacity for up to 6×50 ml tubes reaching an impressive terminal velocity of 14,000 RPM (20,290 x g) in V14R. The new SW4C Swing Bucket Rotor further expands the flexibility of the Velocity 14/14R centrifuges to incorporate a wide range of new applications.

Quick Set and forget Rotor System

Screwing or bolting rotors to the drive shaft is a thing of the past. Likewise lost spanners and rotor over tightening. With the Velocity 14 / 14R simply place the rotor on the drive shaft and that's all. The auto lock and secure mechanism performs the rest. Once centrifugation is complete simply lift the rotor off the drive shaft. Quicker ,easier, more efficient and safer.

Auto rotor recognition.

Microchip technology allows for automatic recognition of rotor and confirmation once centrifugation has commenced, including rotational speed calculation and optimum

temperature control.

Furthermore new rotors can be easily loaded onto the on-board database as they are introduced.

Fast Acceleration and Deceleration.

The innovative high torque, drive technology effortlessly accelerates even the heaviest rotors to terminal velocity quickly and efficiently. Even the heaviest rotors with a full load will achieve maximum velocity within a few minutes. Furthermore, 9 pre-set acceleration and 9 pre-set deceleration profiles ensure the right conditions are set for the most precious of samples including density gradients.

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 with the naked eye. No more weighing, just fill tubes or bottles to within 5mm of each other.

Powerful Refrigeration (Velocity 14R model only)

A powerful non -CFC compressor cools the chamber quickly whilst maintaining the rotor at set temperature during centrifugation.

Furthermore, twin cooling fans - one each for the compressor and motor respectively - dissipate heat quickly to improve cooling efficiency and extend motor life.

Actual sample (rotor) temperature Measurement and Display (Velocity 14R only)

The temperature displayed on the LCD panel during centrifugation is that of the rotor (and hence samples) and not the temperature of the chamber nor the temperature at the sensor to allow for more precise, reproducible and efficient experimentation.

Safety is Paramount

The Velocity 14 / 14R offers many safety features in the unlikely event of an emergency such as:

Non-contact imbalance detection and shutdown based on the run profile for each rotor across its entire speed range rather than the inferior and conventional micro-switch detector.

Guard barrier

Dual lid electronic interlock

Auto-hinge for improved sealing and door opening

Over speed detection and shutdown

Motor overheat detection and shutdown

User friendly operation and information rich display

Parameters are quickly and effortlessly inputted through the uncomplicated touch 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. Furthermore, once centrifugation has commenced, a real time graphic profile of the centrifugation status is displayed.

Quiet Operation

Noise abating insulation in the console including lower noise fans combine to reduce the audible operating noise to \leq 53 dB (\leq 58 dB for V14R).

Liquid Seeping Prevention

A single continuous rubber cap with strong gasket, firmly seals the motor chamber opening and drive shaft to prevent liquid from seeping into the motor and electronic components. As additional back-up, a highly absorbent sponge positioned beneath the rubber cap soaks up any liquid or condensation which then evaporates during operation.



VELOCITY 14R & 14 ROTORS

ROTOR TYPE	CAT. NO.#	MATERIAL	V14R (V14) MAX SPEED (RPM)	V14R (V14) MAX RCF (XG)	TUBE VOLUME (ML)
Fixed Angle	FA15A	Aluminium	14,000 (14,000)	18,728 (18,728)	1.5 /2.0 0.5 0.2
Fixed Angle	FA12A	Aluminium	12,000 (12,000)	12,290 (12,290)	0.2
Fixed Angle	FA18A	Aluminium	14,000 (14,000)	16,200 (16,200)	10
Fixed Angle	FA15B	Aluminium	14,000 (12,000) "	18,990 (13,950)	50 15 15
Fixed Angle	FA15C	Aluminium	14,000 (12,000)	20,290 (14,900)	50 15 15
Fixed Angle*	FA10E	Aluminium	10,000 (10,000) "	10,600 (10,600) "	50 15 15
Swing Bucket*	SW4C	Aluminium	4,000 (4,000)	1,780 (1,780)	7

^{*} Please enquire if use in your existing unit.

PP Polypropylene PA Polyallomer PC Polycarbonate



TUBE DESCRIPTION	TUBE DIMENSIONS(O X MM)	TUBE MATERIAL	CAPACITY	ADAPTOR	ROTOR AUTOCLAVABLE	ROTOR LID
Standard micro-tube PCR single tube PCR single tube	10.5 x 41 8 x 32 6 x 24	PP PP PP	24 x 1.5/2.0 ml 24 x 0.5 ml 24 x 0.2ml	N/A FA15A.05 FA15A.02	121°C	Aluminum
PCR single or strip	6 x 24	PP	48 x 0.2 ml	N/A	121°C	Aluminum
Round Bottom	16 x 81	PP	8 x 10 ml	N/A	121°C	Aluminum
Round Bottom Culture V Bottom Round Bottom	29 x 106 17 x 120 16.5 x 113	PP PP PP	4 x 50 ml 4 x 15 ml 4 x 15 ml	N/A FA15.15C FA15.15R	121°C	Aluminum
Round Bottom Culture V Bottom Round Bottom	29 x 106 17 x 120 16.5 x 113	PP PP PP	6 x 50 ml 6 x 15 ml 6 x 15 ml	N/A FA15.15C FA15.15R	121°C	Aluminium
Culture V Bottom Culture V Bottom Round Bottom	29 x 115 17 x 120 16.5 x 113	PP PP PP	4 x 50 ml 4 x 15 ml 4 x 15 ml	N/A FA10.15C N/A	121°C	Aluminium
Blood collection	12 x 81		4 x 5 ml	Included	121°C	Aluminium



VELOCITY 14R & 14 SPECIFICATIONS

MODEL	V14R	V14		
Maximum Speed	14,000 RPM (FA15C rotor)	14,000 RPM (FA15A rotor)		
Maximum RCF	20,290 x g (FA15C rotor)	18,728 x g (FA15A rotor)		
Maximum Capacity	300 ml (6	i x 50 ml)		
Drive Mechanism	Brushless	Induction		
Control	Microproce			
Speed Range	300-14,000 RPM (10	00 RPM increments)		
Speed Accuracy	±20	RPM		
Speed / RCF Conversion	Ye			
Timer	1 min - 99 Hrs 59 min	s plus HOLD function		
Display	Backli	t LCD		
Operating Noise	<58dB (A)	<53dB (A)		
Temperature Range	-20°C to +40°C	-		
Temperature Accuracy	±2°C	-		
Acceleration/Deceleration	9 stages / 9 stages			
Automatic Rotor Identification	Ye	es		
Imbalance Detection	Ye	es		
Dimensions (L x D x H)	560 x 500 x 380 mm	340 x 490 x 380 mm		
Weight (Net)	60 Kg	40 Kg		
Power Supply	Single Phase AC220V, 50Hz, 10A	Single Phase AC220V, 50Hz/60Hz, 8A		
	AC220V, 60Hz	AC110V, 60Hz		
	AC110V, 60Hz			





VELOCITY 10R

Refrigerated Benchtop Centrifuge

The Velocity 10R takes the helm as Dynamica's highest capacity centrifuge —up to 3 litres with the SW3A rotor. Powerful refrigeration combined with an exceptional maximum speed of 10,000 RPM (12,740 x g with the FA10D rotor) offer the versatility and convenience to manage a wide range of larger scale applications and all in a footprint sufficiently compact to fit on a bench.

Auto rotor recognition

Microchip technology allows for 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 on-board database as they are introduced.

Fast Acceleration and Deceleration

The innovative, heavy duty, frequency conversion motor is purposely designed to handle the heaviest of rotors with abundant power output for smooth, quick and efficient acceleration to terminal velocity under fully laden conditions. Furthermore, 9 pre-set acceleration and 9 pre-set deceleration profiles ensure the right conditions are met for the most precious and vibration sensitive samples.

Powerful Refrigeration

A powerful non -CFC compressor cools the chamber quickly whilst maintaining the rotor at set temperature during centrifugation.

Furthermore, twin cooling fans - one each for the compressor and motor respectively - dissipate heat quickly to improve cooling efficiency and extend motor life.

Actual sample (rotor) temperature Measurement and Display

The temperature displayed on the LCD panel during centrifugation is that of the

rotor (and hence samples) and neither the temperature of the chamber nor the temperature at the sensor. This allows for more precise, reproducible and efficient experimentation.

Safety is Paramount

The Velocity 10R offers many safety features in the unlikely event of an emergency such as:

Non-contact imbalance detection and shutdown based on the run profile for each rotor across its entire speed range rather than the inferior and conventional micro-switch detector.

Guard barrier

Dual lid electronic interlock

Auto-hinge for improved sealing and door opening

Over speed detection and shutdown

Motor overheat detection and shutdown

User friendly operation and information rich display

Parameters are quickly and effortlessly inputted through the ergonomic touch 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. Furthermore, once centrifugation has commenced, a real time graphic profile of the centrifugation status is displayed.

Quiet Operation

Noise abating insulation in the console including lower noise fans combine to reduce the audible operating noise to ≤62 dB - quite impressive for a large capacity, refrigerated centrifuge such as the Velocity 10R.

Liquid Seeping Prevention

A single continuous rubber cap with

strong gasket, firmly seals the motor chamber opening and drive shaft to prevent liquid from seeping into the motor and electronic components. As additional back-up, a highly absorbent sponge positioned beneath the rubber cap soaks up any liquid or condensation which then evaporates during operation.



VELOCITY 10R ROTORS

ROTOR TYPE	CAT. NO.#	MATERIAL	MAX SPEED (RPM)	MAX RCF (XG)	TUBE VOLUME (ML)
Fixed Angle	FA8B	Aluminium	8,000 8,000 8,000	9,180 9,000 8,900	50 15 15
Fixed Angle	FA8C	Aluminium	8,000 8,000 8,000	9,560 9,200 9,350	50 15 15
Fixed Angle	FA10D	Aluminium	10,000 10,000 10,000	12,740 11,840 12,070	80 50 50
Swing Bucket	SW3A	Aluminium	3,200	2,500	750
Swing Bucket	SW4B	Aluminium	4,000 4,000 4,000 4,000 4,000 4,000 4,000 4,000	3,500 3,500 3,500 3,500 3,450 3,510 3,500 3,500	250 + 50 3 5 7 10 15 50

PP Polypropylene
PA Polyallomer
PC Polycarbonate
* Plastic seal car

* Plastic seal caps cannot be used with these adaptors



TUBE DESCRIPTION	TUBE DIMENSIONS(O X MM)	TUBE MATERIAL	CAPACITY	ADAPTOR	ROTOR AUTOCLAVABLE	ROTOR LID
Culture V Bottom	29 x 115	PP	10 x 50 ml	N/A	121°C	Aluminum
Culture V Bottom	17 x 120	PP	10 x 15 ml	FA8B.15C		
Round Bottom	16.5 x 113	PP	10 x 15ml	FA8B.15P		
D 10	00 100		10. 50. 1		10100	A1 .
Round Bottom	29 x 106	PP	12 x 50 ml	-	121°C	Aluminum
Culture V Bottom	17 x 120	PP	12 x 15 ml	FA8C.15C		
Round Bottom	16.5 x 113	PP	12 x 15 ml	FA8C.15P		
Round Bottom	38 x 106	PP	6 x 80 ml	-	121°C	Aluminum
Culture V Bottom	29 x 115	PP	6 x 50 ml	FA10D.50C		
Round Bottom	29 x 106	PP	6 x 50 ml	FA10D.50P		
Bottle	97 x 157	PP/PC	4 x 750 ml	N/A	121°C (buckets)	N/A
Dottie	J/ X IJ/	11/16	4 X 7 JU IIII	IN/A	121 G (DUCKELS)	IN/A
Dottle + Culture // Dotters	C1 C v 10E 9 00 v 11C	DD /DC	2 v 2E0 ml + 2 v E0 ml	C/V/AD SEOD	1210C (buolcots)	Diagtic Con-
Bottle + Culture V Bottom	61.6 x 135 & 30 x 116	PP/PC	2 x 250 ml + 2 x 50 ml	SW4B.250P	121°C (buckets)	Plactic Cap
Blood Collection	12 x 81		120 x 3 ml	SW4B.3B		with o-ring
Blood Collection	12.5 x 106		120 x 5 ml	SW4B.5B		(Order
Blood Collection Blood Collection	12.5 x 106		120 x 7 ml 120 x 10 ml	SW4B.5B SW4B.10B		Separately)
	12.5 x 106	DD				
Culture V Bottom	17 x 120	PP DD	64 x 15 ml	SW4B.15C		
Culture V Bottom	29 x 115	PP DD	20 x 50 ml	SW4B.50CB		
Culture V Bottom	29 x 115	PP	32 x 50 ml	SW4B.50CA*		



VELOCITY 10R SPECIFICATIONS

MODEL	V10R
Maximum speed	10,000 RPM (FA10D)
Maximum RCF	12,740 x g (FA10D rotor)
Maximum capacity	3,000 ml (4 x 750ml)
Drive Mechanism	Frequency conversion motor
Control	Microprocessor based
Speed Range	300- 10,000 RPM (100 RPM increments)
Speed Accuracy	±20 RPM
Speed/ RCF conversion	Yes
Timer	1 min- 99 Hrs 59 mins plus HOLD function
Display	Backlit LCD
Operating Noise	≤62 dB (A)
Temperature range	-20°C to 40°C
Temperature accuracy	±2°C
Memory	9 programs
Acceleration	9 stages / 9 stages
Automatic Rotor Identification	Yes
Imbalance Detection	Yes
Dimensions (L x D x H)	876 x 695 x 460 mm
Weight (Net)	160 Kg
Power requirements	Single phase 220V, 50Hz, 15A
	110V, 60Hz





PRODUCT		Cat. No.#	0	
Velocity 18R Refrigerated Centrifuge	(220V, 50Hz)	V18R-2	Components Main Unit	
3	(220V, 60Hz)	V18R-2A	Spanner set and nuts	
	(110V, 60Hz)	V18R-1	Spare Fuses	
			Spirit Level	
			Silicon Grease	
			Rotor rest pad Instruction Manual	
Velocity 14R Refrigerated Centrifuge	(220V, 50Hz)	V14R-2	Main Unit	
velocity 1411 leningerated defininge	(220V, 60Hz)	V14R-2A	Spanner set and nuts	
	(110V, 60Hz)	V14R-1	Spare Fuses	
			Spirit Level	
			Silicon Grease	
			Rotor rest pad	
V. I. '. 44.0 '.	(000)/ 50/0011 \	V/4.4.0	Instruction Manual	
Velocity 14 Centrifuge	(220V, 50/60Hz) (110V, 60Hz)	V14-2 V14-1	Main Unit Spanner set and nuts	
	(1107, 0002)	V 14-1	Spare Fuses	
			Spirit Level	
			Silicon Grease	
			Rotor rest pad	
			Instruction Manual	
Velocity 10R Refrigerated Centrifuge		V10R-2	Main Unit	
	(110V, 60Hz)	V10R-1	Spanner set and nuts	
			Spare Fuses Spirit Level	
			Silicon Grease	
			Rotor rest pad	
			Instruction Manual	
FA18A Fixed angle aluminium rotor		FA18A	Rotor	
			Lubricant	
			Aluminium lid	6044
			Spare rubber o-rings Manual	
			ivialiual	
FA18B Fixed angle aluminium rotor		FA18B	Rotor	
30000			Lubricant	
			Aluminium lid	
			Spare rubber o-rings	
and ordered from 0.2 and DCD took and 4 states		EA1E 00	Manual	
adaptors for 0.2 ml PCR tubes / strips adaptors for 0.5 ml PCR tubes		FA15.02 FA15.02	24 x adaptors 24 x adaptors	
FA15A Fixed angle aluminium rotor		FA15.02	Velocity	
00000			Rotor	
a dipa			Aluminium Biosafety lid	
a Ca			Spare rubber o-rings	
			Lubricant	844
Adapters for 0.2 ml DCD to be a / string		EA1E 02	Manual 24 y adapters	
Adaptors for 0.2 ml PCR tubes / strips Adaptors for 0.5 ml PCR tubes		FA15.02 FA15.05	24 x adaptors 24 x adaptors	
FA15P Fixed angle aluminium rotor		FA15P	Rotor	
and an analysis of the state of			Lubricant	
			Manual	
Adamtana fan 0.0 - I DOD - I - / - :		EA1E 00	04	
Adaptors for 0.2 ml PCR tubes / strips Adaptors for 0.5 ml PCR tubes	S	FA15.02 FA15.05	24 x adaptors	
Adaptors for 0.5 fill I on tubes		TATJ.00	24 x adaptors	



PRODUCT	Cat. No.#	Componente	
FA15B Fixed Angle Aluminium Rotor	FA15B	Components Rotor	
77 (100) Nou 7 (Inglie 7 (Infilliminal)) Thotal	17(10)	Lubricant	
		Aluminium Biosafety lid	
		Spare rubber o-rings	
		Manual	844
Adaptors for 15 ml round bottom tubes	FA15.15R	4 x adaptors	
Adaptors for 15 ml Culture tubes	FA15.15C	4 x adaptors	
FA15C Fixed Angle Aluminium Rotor	FA15C	Rotor	
		Lubricant	
		Aluminium Biosafety lid	
		Spare rubber o-rings	877
Adaptara for 1E ml round bottom tubos	ΓΛ1Ε 1ED	1 v adaptera	
Adaptors for 15 ml round bottom tubes Adaptors for 15 ml Culture tubes	FA15.15R FA15.15C	4 x adaptors 4 x adaptors	333
FA15D Fixed Angle Aluminium Rotor	FA15D	Rotor	
TATOD TIACO Angle Aluminium Hotel	TATOD	Lubricant	
		Aluminium lid	
		Spare rubber o-rings	
		Manual	
FA12A Fixed Angle Aluminium Rotor	FA12A	Rotor	
3		Lubricant	
		Aluminium lid	222
1		Spare rubber o-rings	
		Manual	
FA10B Fixed Angle Aluminium Rotor	FA10B	Rotor	
		Lubricant	
		Aluminium lid	
		Spare rubber o-rings	
		Manual	
Adaptors for 15 ml Culture tubes	FA10.15C	6 x adaptors	
FA10D Fixed Angle Aluminium Rotor	FA10D	Rotor	
C9		Lubricant	
		Aluminium lid Spare rubber o-rings	
		Manual	
Adaptors for 50 ml Culture tubes	FA10D.50C	6 x adaptors	
Adaptors for 50 ml round bottom tubes	FA10D.50P	6 x adaptors	
FA10E Fixed Angle Aluminium Rotor	FA10E	Rotor	
		Lubricant	
		Aluminium lid	
		Spare rubber o-rings	
		Manual	
Adaptors for 15 ml Culture tubes	FA10.15C	4 x adaptors	
FA8B Fixed Angle Aluminium Rotor	FA8B	Rotor	
		Lubricant	
		Aluminium lid	
		Spare rubber o-rings	
Adamtana fan 15 nal Cultuma tula a	FAOD 4FO	Manual	
Adaptors for 15 ml Culture tubes	FA8B.15C	10 x adaptors	
Adaptors for 15 ml round bottom tubes FA8C Fixed Angle Aluminium Rotor	FA8B.15P FA8C	10 x adaptors Rotor	
77.65 FIXED AUGINITION HOLD	17100	Lubricant	
		Aluminium lid	
		Spare rubber o-rings	
		Manual	
adaptors for 15 ml Culture tubes	FA8C.15C	12 x adaptors	
Adaptors for 15 ml round bottom tubes	FA8C.15P	12 x adaptors	



PRODUCT	Cat No.#	Commonwell	
SW5 Swing Bucket Aluminium Rotor	Cat. No.# SW5	Components Rotor	
Ovvo owing Backet / Hamming Flotol	000	4 x Aluminium Round Buckets	
		Lubricant	
		Manual	
	0)4/5 50		
Adaptors for 5 ml blood collection tubes Adaptors for 7 ml blood collection tubes	SW5.5B SW5.7B	4 x adaptors 4 x adaptors	
Adaptors for 10 ml blood collection tubes	SW5.7B SW5.10B	4 x adaptors	
Adaptors for 10 ml round bottom glass tubes	SW5.10G	4 x adaptors	
Adaptors for 15 ml round bottom glass tubes	SW5.15G	4 x adaptors	
Adaptors for 15 ml round bottom PP tubes	SW5.15P*	4 x adaptors	
Adaptors for 15 ml culture tubes Adaptors for 15 ml culture tubes	SW5.15CA SW5.15CB*	4 x adaptors 4 x adaptors	
Adaptors for 50 ml round bottom glass tubes	SW5.50G	4 x adaptors	
Adaptors for 50 ml round bottom PP tubes	SW5.50P	4 x adaptors	
Adaptors for 50 ml culture tubes	SW5.50C	4 x adaptors	
Adaptors for 50 ml skirted bottom culture tubes Plastic Seal Caps	SW5.50CB SW5.SC	4 x adaptors 4 x clear caps with rubber o-rings	
* not suitable with plastic caps	3773.30	4 x clear caps with rubber 0-illigs	
SW5MP Swing Bucket Aluminium Rotor	SW5MP	Rotor	
		2 x Aluminium Rectangular Buckets	
		Lubricant	
A	0)4/51/40/45	Manual	
Adaptors for 1.5 ml micro tubes Adaptors for 0.2 ml PCR tubes	SW5MP.15 SW5MP.02	2 x adaptors 2 x adaptors	
SW4A Swing Bucket Aluminium Rotor	SW4A	Rotor	
		Lubricant	
		4 x Aluminium Rectangular Buckets	
		Manual	
Adaptors for 15 ml culture tubes	SW4A.15C	4 x adaptors	
Adaptors for 50 ml culture tubes	SW4A.13C SW4A.50C	4 x adaptors	
SW4B Swing Bucket Aluminium Rotor	SW4B	Rotor	
OVV4D OWING DUCKELY HUMINIAM HOLOI	OVVTD	Lubricant	
		4 x Aluminium Rectangular	
		Buckets	
		Spare rubber o-rings	
		Manual	
		Rotor lock screw	
		4 x Shield caps	
Adaptors for 250 ml bottles plus 50 ml culture tubes	SW4B.250P	4 x adaptors	
Adaptors for 3 ml blood collection tubes	SW4B.3B	4 x adaptors	
Adaptors for 5 ml blood collection tubes	SW4B.5B	4 x adaptors	
Adaptors for 7 ml blood collection tubes	SW4B.5B	4 x adaptors	
Adaptors for 10 ml blood collection tubes	SW4B.10B	4 x adaptors	
Adaptors for 15 ml culture tubes	SW4B.15C	4 x adaptors	
Adaptors for 50 ml culture tubes	SW4B.50CB	4 x adaptors	
Adaptors for 50 ml culture tubes	SW4B.50CA*	4 x adaptors	
*not suitable with plastic caps			
SW4C Swing Bucket Aluminium Rotor	SW4C	Rotor	
		4 x Aluminium Rectangular Buckets	
		Lubricant	
		Manual 4 x adapters	
SW/3A Swing Bucket Aluminium Peter	SW3A	4 x adaptors Rotor	
SW3A Swing Bucket Aluminium Rotor	SVV3A	4 x Aluminium Round Buckets	
		Lubricant	
		Manual	



6μ Micro Fuge

- Microtubes Rotor and Tube-strips Rotor Exchangeable
- Spins 8 Microtubes 1.5 2.2 ml and 2 x 8 well Tubestrips
- Rotors can be installed in a single motion without tools
- Compact personal centrifuge fits comfortably in the workspace
- User-friendly advanced design
- Long lasting and high quality



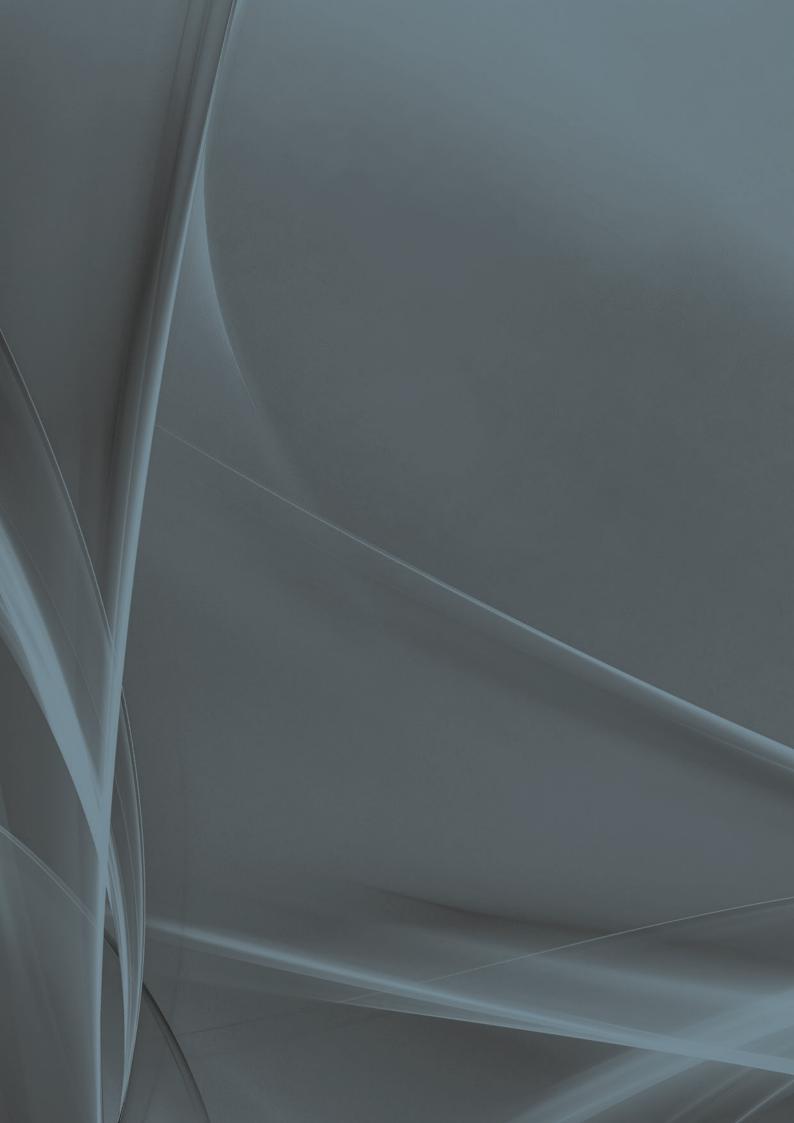
TECHNICAL SPECIFICATIONS	
Rotor	Microtubes Rotor MA-1
	Tube-stripes Rotor PA-1
Maximum Speed	6,000 RPM (+/-20%)
	6,200 RPM (+/-20%)
Maximum RCF	2,910 x g
	2,690 x g
Maximum Volume	1.5 (2.2) ml x 8 Tubes
	0.2 ml x 8 tubes connected x 2 lines
Power Required	AC 230V, 1A, 50/60 Hz (CE Marked)
Fuse	250V, 0.5A
Dimensions (W x D x H) mm	155 x 175 x 125
Speed Control	Automatic / Constant Speed
Drive System	Direct Drive / Vibration Insulated
Brake	Dynamic Braking
Acceleration Time	Within 5 seconds up to 90% of
	rated speed
Deceleration Time	Within 15 seconds (Lid Closed)
	Withini 3 seconds (Lid Open)

13µ Mini Fuge

- Compact design to minimize bench space used
- Rapid acceleration (<12 sec) and deceleration (<16 sec)
- Simple display with mono LCD
- Safe operation with lid-lock function
- Autoclavable rotor
- Corrosion resistant rotor
- Two rotors available 12 x 1.5 / 2 ml Tubes (Standard) & 32 x 0.2 ml Tubes or Strips (option)

TECHNICAL SPECIFICATIONS	
Maximum RPM	13,500 RPM
Maximum RCF	12,300 x g
Maximum Capacity	1.5 ml / 2.0 ml x 12
Run Time	≤ 30 min
Noise Level	≤ 60 dB
Acceleration Time	≤ 12 seconds
Deceleration Time	≤ 16 seconds
Safety	Lid-lock
Available Rotors	1.5 ml x 12
	0.2 ml x 32 PCR Strips
Power & Frequency	220V, 50/60 Hz
Dimensions (W x D x H) mm	208 x 245 x 145
Weight	4.4 kg







The VELOCITY Range

BENCH TOP CENTRIFUGES

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