



# 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  $\leq 62$  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	9,180	50
				8,000	9,000	15
				8,000	8,900	15
Fixed Angle	FA8C		Aluminium	8,000	9,560	50
				8,000	9,200	15
				8,000	9,350	15
Fixed Angle	FA10D		Aluminium	10,000	12,740	80
				10,000	11,840	50
				10,000	12,070	50
Swing Bucket	SW3A		Aluminium	3,200	2,500	750
Swing Bucket	SW4B		Aluminium	4,000	3,500	250 + 50
				4,000	3,500	3
				4,000	3,500	5
				4,000	3,500	7
				4,000	3,450	10
				4,000	3,510	15
				4,000	3,500	50
				4,000	3,500	50

PP Polypropylene

PA Polyallomer

PC Polycarbonate

\* 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		
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
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)	Plastic Caps with o-ring (Order Separately)
Blood Collection	12 x 81		120 x 3 ml	SW4B.3B		
Blood Collection	12.5 x 106		120 x 5 ml	SW4B.5B		
Blood Collection	12.5 x 106		120 x 7 ml	SW4B.5B		
Blood Collection	12.5 x 106		120 x 10 ml	SW4B.10B		
Culture V Bottom	17 x 120	PP	64 x 15 ml	SW4B.15C		
Culture V Bottom	29 x 115	PP	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 200v – 240V, 50Hz / 60Hz, 15A