



# Dynamica

*designed in Australia*

## VELOCITY 18R

Refrigerated Benchtop Centrifuge

**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 was 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.

### 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.

- Quick Set Rotor System requires no screws
- Auto Rotor recognition
- Imbalance tolerance allows sample eye-balancing
- Refrigeration to -20°C
- Extremely quiet operation
- Select from 7 Fixed Angle and 2 Swing Out rotors
- Accommodates 48 x 0.2ml up to 4 x 250ml tubes
- Up to 27'000 xg, up to 18'000 rpm
- Large Display
- Easy User Interface
- Onboard memory for 10 programmable routines

**B U I L T**  
**LAB TOUGH**

## 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 (including coasting deceleration) ensure the best separation even for the most delicate density gradients.

## 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 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

Rotors Fixed Angle		RPM max	RCF max (xg)	Tube Description (dimension in mm)	Capacity	Adaptor	Rotor autocl.	Rotor Lid
	FA15A	15.000	21.500	Standard micro (10.5 x 41) PCR single tube (8 x 32) PCR single tube (6 x 24)	24 x 1.5 / 2.0ml 24 x 0.5 ml 24 x 0.2 ml	none required FA15.05 FA15.02	121°C	Aluminium
	FA12A	12.000	14.100	PCR single tubes (6 x 24) PCR strips (6 x 24)	48 x 0.2 ml 48 x 0.2 ml	none required none required	121°C	Aluminium
	FA18A	18.000	27.070	Round bottom (16 x 81)	8 x 10 ml	none required	121°C	Aluminium
	FA15B	15.000	21.800	Round bottom (29 x 106) Culture V-bottom (17 x 120) Round bottom (16.5 x 113)	4 x 50 ml 4 x 15 ml 4 x 5 ml	none required FA15.15C FA15.15R	121°C	Aluminium
	FA15C	15.000	23.300	Round bottom (29 x 104) Culture V-bottom (17 x 120) Round bottom (16.5 x 113)	6 x 50 ml 6 x 15 ml 6 x 5 ml	none required FA15.15C FA15.15R	121°C	Aluminium
	FA15D	15.000	20.900	Round bottom (38 x 106)	4 x 80 ml	none required	121°C	Aluminium
	FA18B	18.000	24.990	Standard micro (10.5 x 41) PCR single tube (8 x 32) PCR single tube (6 x 24)	18 x 1.5 / 2.0ml 18 x 0.5 ml 18 x 0.2 ml	none required FA15.05 FA15.02	121°C	Aluminium

Rotors Swing Out		RPM max	RCF max (xg)	Tube Description (dimension in mm)	Capacity	Adaptor	Rotor autocl.	Rotor Lid
	SW5	4.800 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 4.170 1.630 1.630 4.170 4.170 4.170 4.170 3.990 4.170	250 ml Bottles (61.6 x 135) Blood collection (12-13 x 75-78) Blood collection (12-13 x 100) Blood collection (16x 100) Round bottom glass (12 x 105) Round bottom glass (17 x 110) Round bottom PP (16.5 x 113) Culture V-bottom (17 x 120) Culture V-bottom (17 x 120) Round bottom PP (29 x 104) Round bottom glass (35 x 100) V-Boden Kultur (30 x 115)	4 28 x 5 ml 28 x 7 ml 28 x 10 ml 28 x 10 ml 28 x 15 ml 16 x 15 ml 12 x 15 ml 16 x 15 ml 4 x 50 ml 4 x 50 ml 4 x 50 ml	none required SW5.5B SW5.7B SW5.10B SW5.10G SW5.15G SW5.15P (*) SW5.15CA SW5.15CB (*) SW5.50P SW5.50G SW5.50C	121°C (buckets)	4 x Plastic caps with O-Ring (optional)
	SW5MP	4.800 4.800 4.800	3.120 3.120 3.120	96-Well Microplates 96-Well Deepwell Plates (55H) Standard micro-tube (10.8 x 40.5) PCR single or strip	2 x 2 Platten 2 Platten 48 x 1.5/2.0 ml 192 x 0.2ml	none required none required SW5MP.15 SW5MP.02	121°C (buckets)	--

Specifications	Velocity 18R
RPM - Range	300 - 18.000 RPM (100 Incr.)
Max RCF	27.070 xg (FA18A Rotor)
Max. Capacity	1.000ml (4 x 250ml)
Drive	brushless induction
Control	Microprocessor
Speed Accuracy	± 20 RPM
RPM/RCF Conversion	yes, alternative input option
Timer	1min - 100 hr, plus HOLD function
Display	Grafical Backlit LCD
Operating noise	< 58 dB (A)
Temperature range	- 20°C to +40°C
Temperature accuracy	± 2°C
Memory	9 user defined routines
Acceleration / Deceleration	9 stages / 9 stages
Autom. Rotor identification	Yes
Imbalance-detection	Yes
Measures (BxTxH)	730 x 610 x 380 mm
Weight (net)	100 kg

Presented by: