Dynamica
designed in Australia

VELOCITY 14R / 14
Refrigerated / Non-Refrigerated Benchtop Centrifuge

Velocity 14R refrigerated Centrifuge

Combines powerful and efficient refrigeration with high speed centrifugation (maximum speed of 14,000 RPM / 20,290xg with the FA15C rotor). 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 for up to 300ml (6 x 50ml tubes) of sample.

Velocity 14 Centrifuge

Incorporates all the features and benefits of the Velocity 14R without the refrigeration thus resulting in an even smaller footprint.

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 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

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.

- Quick Set Rotor System requires no screws

- Auto Rotor recognition

- Imbalance tolerance allows sample eye-balancing

- Refrigeration to -20°C (Velocity 14R)

- Extremely quiet operation

- 5 rotors

- Accommodates 48 x 0.2ml up to 6 x 50ml tubes

- Up to 20'000 xg, up to 14'000 rpm

- Large Display

- Easy User Interface

- Onboard memory for 10 programmable routines

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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.

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)

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		RPM max	RCF max (xg)		Tube Description (dimension in mm)	Capacity	Adaptor	Rotor autocl.	Rotor Lid
	FA15A	V14R: 14.000 V14: 14.000	V14R: 18.728 V14: 18.728		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	V14R: 12.000 V14: 12.000	V14R: 12.290 V14: 12.290		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	V14R: 14.000 V14: 14.000	V14R: 16.200 V14: 16.200		Round bottom (16 x 81)	8 x 10 ml	none required	121°C	Aluminium
	FA15B	V14R: 14.000 V14: 12.000	V14R: 18.990 V14: 13.950		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	V14R: 14.000 V14: 12.000	V14R: 20.390 V14: 14.900		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

Specfications	Velocity 14R	Velocity 14
RPM - Range	300 - 14.000 RPM (100 Incr.)	300 - 14.000 RPM (100 Incr.)
Max RCF	20.290 xg (FA15C Rotor)	18.728 xg (FA15A Rotor)
Max. Capacity	300ml (6x50ml)	300ml (6x50ml)
Drive	brushless induction motor	brushless induction motor
Control	Microprocessor	Microprocessor
Speed Accuracy	± 20 RPM	± 20 RPM
RPM/RCF Conversion	yes, alternative input option	yes, alternative input option
Timer	1min - 100 hr, plus HOLD function	1min - 100 hr, plus HOLD function
Display	Grafical Backlit LCD	Grafical Backlit LCD
Operating noise	< 58 dB (A)	< 53 dB (A)
Temperature range	- 20°C to +40°C	--
Temperature accuracy	± 2°C	--
Memory	9 user defined routines	9 user defined routines
Acceleration / Deceleration	9 stages / 9 stages	9 stages / 9 stages
Autom. Rotor identification	Yes	Yes
Imbalance-detection	Yes	Yes
Measures (BxTxH)	560 x 500 x 380 mm	340 x 490 x 380 mm
Weight (net)	60 kg	40 kg

Presented by: