



# The VELOCITY Range BENCH TOP CENTRIFUGES





## 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.

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# VELOCITY 18R **Refrigerated Benchtop Centrifuge**

The Velocity 18R delivers high capacity, refrigerated centrifugation with an impressive maximum speed of 18,000 RPM (28,978 x g) (with the fixed angle FA18C 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
  - door opening
- > Motor overheat detection and shutdown



> Auto-hinge for improved sealing and

> Over speed 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  $\leq$ 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)	TUBE DESCRIPTION	TUBE DIMENSIONS( 0 X MN	I) TUBE MATERI	AL CAPACITY	ADAPTOR	ROTOR AUTOCLAVABLE	ROTOR LID
ixed Angle	FA12A		Aluminium	12,000	14,100	0.2	PCR single or strip	6 x 24	PP	48 x 0.2 ml	N/A	121°C	Aluminium
xed Angle	FA18B		Aluminium	18,000 "	24,990 "	1.5/2.0 0.5 0.2	Standard micro-tube PCR single tube PCR single tube	10.5 x 41 8 x 32 6 x 24	PP PP PP	18 x 1.5/2.0 ml 18 x 0.5 ml 18 x 0.2 ml	N/A FA15.05 FA15.02	121°C	Aluminium
xed Angle	FA15A		Aluminium	15,000 "	21,500 "	1.5 /2.0 0.5 0.2	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 FA15.05 FA15.02	121°C	Aluminium
xed Angle	FA15P		Plastic	15,000 " "	18,800 " "	1.5 /2.0 0.5 0.2	Standard micro-tube PCR single tube PCR single tube	10.5 x 41 8 x 32 6 x 24	PP PP PP	18 x 1.5/2.0 ml 18 x 0.5 ml 18 x 0.2ml	N/A FA15.05 FA15.02	No	N/A
xed Angle	FA11A		Aluminum	11,000	12,000	1.5/ 2.0	Standard micro-tube	10.5 x 41	PP	48 x 2 ml	N/A	121°C	Aluminum
ked Angle	FA14A		Aluminum	14,000	20,000	5	V Bottom		РР	12 x 5 ml	N/A	121°C	Aluminum
xed Angle	FA14B		Aluminum	14,000	20,000	5	Round Bottom		РР	12 x 5 ml	N/A	121°C	Aluminium
xed Angle	FA18A		Aluminium	18,000	27,070	10	Round Bottom	16 x 81	PP	8 x 10 ml	N/A	121°C	Aluminium
xed Angle	FA18C		Aluminium	18,000	28,978	10	Round Bottom	16 x 81	PP	10 x 10 ml	N/A	121°C	Aluminium
xed Angle	FA5A	Real	Aluminium	5,500	5,000	15	Culture V Bottom	17 x 120	РР	12 x 15 ml	N/A	121°C	Aluminium
xed Angle	FA15C		Aluminium	15,000 "	23,300 "	50 15 15	Round Bottom Culture V Bottom Round Bottom	29 x 106 17 x 120 16.5 x 113	PP/PC PP PP	6 x 50 ml 6 x 15 ml 6 x 15 ml	N/A FA15.15C FA15.15R	121°C	Aluminium
ixed Angle	FA10B		Aluminium	10,000 "	11,400 "	50 15	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





## VELOCITY 18R ROTORS

ROTOR TYPE	CAT. NO.#		MATERIAL	MAX SPEED (RPM)	MAX RCF (XG)	TUBE VOLUME (ML)	TUBE DESCRIPTION	TUBE DIMENSIONS( O X MM)	TUBE MATERIAL	CAPACITY	ADAPTOR	ROTOR AUTOCLAVABLE	ROTOR LID
Fixed Angle	FA14C*		Aluminium	14,000	21,000	50	himac 50 TC tube∆	30 x 115	PP	4 x 50 ml	N/A	121°C	Aluminium
				10,000	10,600	50	Culture V Bottom	29 x 115	PP	4 x 50 ml	N/A		
				10,000	10,600	15	Culture V Bottom	17 x 120	PP	4 x 15 ml	FA10.15C		
				14,000	21,000	15	Round Bottom	16.5 x 113	PP	4 x 15 ml	N/A		
Fixed Angle	FA15D		Aluminium	15,000	20,900	100	Round Bottom		PC	4 x 100 ml	N/A	121°C	Aluminium
				"	20,900	50	Round Bottom	29 x 106	PP	4 x 50 ml	FA15D.50R		
				и	20,900	15	Culture V Bottom	17 x 120	PP	4 x 15 ml	FA15D.15C		
				н	20,900	15	Round Bottom	16.5 x 113	PP	4 x 15 ml	FA15D.15R		
Swing Bucket	SW5MP		Aluminium	4,800	3,120	96 Well Microplates	PCR / Culture	128W x 86L x 14H	PP/PC	2 x Plates	N/A	121°C	N/A
			÷	и	11	96 Deep Well Plates	PCR / Culture	128W x 86L x 55H	PP/PC	2 x Plates	N/A	(buckets)	
				и	"	1.5 /2.0	Standard micro-tube	10.8 x 40.5	PP	48x 1.5/2.0 ml	SW5MP.15		
				п	"	0.2	PCR single or strip		PP	192x 0.2 ml	SW5MP.02		
Swing Bucket	SW4A		Aluminium	4,000	2,900	15	Culture V Bottom	17 x 120	PP	24 x 15ml	SW4A.15C	121°C	N/A
		FJ		4,000	2,860	50	Culture V Bottom	29 x 115	PP	8 x 50ml	SW4A.50C	(buckets)	
Swing Bucket	SW5		Aluminium	4,800	4,170	250	Bottle	61.6 x 135	PP/PC	4 x 250ml	N/A		
0			Bucket	4,800	4,170	5	Blood collection	12-13 x 75-78		28 x 5ml	SW5.5B	121°C	Plastic Caps
				4,800	4,170	7	Blood collection	12-13 x 100		28 x 7ml	SW5.7B	(buckets)	with o-ring
				4,800	4,170	10	Blood collection	16 x 100		28 x 10ml	SW5.10B		(Order Separately
				3,000	1,630	10	Round Bottom	12 x 105	Glass	28 x 10ml	SW5.10G		
				3,000	1,630	15	Round Bottom	17 x 110	Glass	28 x 15ml	SW5.15G		
				4,800	4,170	15	Round Bottom	16.5 x 113	PP	16 x 15ml	SW5.15P#		
				4,800	4,170	15	Culture V Bottom	17 x 120	PP	12 x 15ml	SW5.15CA		
				4,800	4,170	15	Culture V Bottom	17 x 120	PP	16x 15ml	SW5.15CB#		
				4,800	4,170	50	Round Bottom	29 x 104	PP	4 x 50ml	SW5.50P		
				4,800	3,990	50	Round Bottom	35 x 100	Glass	4 x 50ml	SW5.50G		
				4,800	4,170	50	Culture V Bottom	29 x 115	PP	4x 50ml	SW5.50C		
				4,800	4,170	50	Skirted bottom	29 x 115	PP	4x 50ml	SW5.50CB		

PP- Polypropylene PA - Polyallomer PC - Polycarbonate \* Plastic seal caps cannot be used with these adaptors

\* 50ml TC tubes and 15ml round bottom tubes can be used in FA14C without adaptors. Different volume of tubes cannot be centrifuged together in the same run.

△ himac 50TC tubes are purchased separately. The tubes are specially designed for higher speed at maximum 14,000 rpm.

# Plastic seal caps cannot be used with these adaptors.





## VELOCITY 18R SPECIFICATIONS

MODEL	V18R
Maximum Speed	18,000 RPM (FA18A rotor)
Maximum RCF	28,978 x g (FA18C 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 x 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 x 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

gradients.

model only)

centrifugation.

14R only)

experimentation.

Dynamica

#### 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

#### **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

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

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

#### **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 guickly 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 (≤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

	Aluminium         Aluminium         Aluminum         Aluminum         Aluminum         Aluminum         Aluminum         Aluminum	MAX SPEED (RPM) 12,000 (12,000) 14,000 (14,000) " " 11,000 (11,000) 14,000 (14,000) 14,000 (14,000) 14,000 (14,000)	MAX RCF (XG) 12,290 (12,290) 18,728 (18,728) " 12,000 (12,000) 20,000 (20,000) 20,000 (20,000) 16,200 (16,200)	0.2 1.5 /2.0 0.5 0.2 1.5/ 2.0 5 5	PCR single or strip Standard micro-tube PCR single tube PCR single tube Standard micro-tube V Bottom Round Bottom	6 x 24 10.5 x 41 8 x 32 6 x 24 10.5 x 41 17 x 60 15 x 62	PP PP PP PP PP PP	48 x 0.2 ml 24 x 1.5/2.0 ml 24 x 0.5 ml 24 x 0.2ml 48 x 2 ml 12 x 5 ml 12 x 5 ml	N/A N/A FA15A.05 FA15A.02 N/A N/A N/A	121°C 121°C 121°C 121°C 121°C	Aluminum
	Aluminum Aluminum Aluminum	" " " 11,000 (11,000) 14,000 (14,000) 14,000 (14,000)	" " " 12,000 (12,000) 20,000 (20,000) 20,000 (20,000)	0.5 0.2 1.5/ 2.0 5	PCR single tube PCR single tube Standard micro-tube V Bottom	8 x 32 6 x 24 10.5 x 41 17 x 60	PP PP PP PP	24 x 0.5 ml 24 x 0.2ml 48 x 2 ml 12 x 5 ml	FA15A.05 FA15A.02 N/A N/A	121°C 121°C	Aluminum Aluminum Aluminum Aluminum
	Aluminum	14,000 (14,000)	20,000 (20,000) 20,000 (20,000)	5	V Bottom	17 x 60	РР	12 x 5 ml	N/A	121°C	Aluminum
	Aluminum	14,000 (14,000)	20,000 (20,000)								
				5	Round Bottom	15 x 62	PP	12 x 5 ml	N/A	121°C	Aluminum
P	Aluminium	14,000 (14,000)	16,200 (16,200)								
				10	Round Bottom	16 x 81	РР	8 x 10 ml	N/A	121°C	Aluminum
	Aluminium	14,000 (14,000)	17,530 (17,530)	10	Round Bottom	16 x 81	PP	10 x 10 ml	N/A	121°C	Aluminum
8	Aluminium	14,000 (12,000) "	18,990 (13,950) " "	50 15 15	Round Bottom Culture V Bottom Round Bottom	29 x 106 17 x 120 16.5 x 113	PP/PC PP PP	4 x 50 ml 4 x 15 ml 4 x 15 ml	N/A FA15.15C FA15.15R	121°C	Aluminum
ð	Aluminium	14,000 (12,000) "	20,290 (14,900) "	50 15 15	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
	Aluminium	10,000 (10,000) "	10,600 (10,600) " "	50 15 15	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 FA14.15C N/A	121°C	Aluminium
	Aluminium	4,000 (4,000)	1,780 (1,780)	7	Blood collection	12 x 81		4 x 5 ml	Included	121°C	N/A
	Carbon Fibre	14,000 (N/A)	17,750 (N/A)	0.2 ~ 50	*		- See next page -			► No	N/A
	rg unit.	Image: series of the series	"Image: Second se	Image: Second	**       **       **       15         **       **       **       15         **       **       **       15         **       **       **       15         **       **       **       15         **       **       **       15         **       **       15       15         **       **       10,000 (12,000)       10,600 (10,600)       15         **       **       **       15       15         **       **       **       **       15         **       **       **       **       15         **       **       **       **       15         **       **       **       **       15         **       **       **       **       15         **       **       **       **       15         **       **       **       **       15         **       *       **       **       15         **       *       **       **       **         **       *       *       **       **         *       *       *       <		Image: Section of the section of th		************************************	**       **       15       Culture V Bottom       17 x 120       PP       4 x 15 ml       FA15.15C         **       *       15       Round Bottom       16.5 x 113       PP       4 x 15 ml       FA15.15R         **       *       *       50       Round Bottom       29 x 106       PP       6 x 50 ml       N/A         **       15       Culture V Bottom       17 x 120       PP       6 x 50 ml       FA15.15C         **       15       Culture V Bottom       17 x 120       PP       6 x 50 ml       FA15.15C         **       15       Culture V Bottom       17 x 120       PP       6 x 50 ml       FA15.15C         **       15       Culture V Bottom       17 x 120       PP       6 x 15 ml       FA15.15C         **       15       Culture V Bottom       17 x 120       PP       4 x 50 ml       N/A         **       15       Culture V Bottom       17 x 120       PP       4 x 15 ml       FA14.15C         **       **       15       Round Bottom       16.5 x 113       PP       4 x 15 ml       N/A         **       **       15       Blood collection       12 x 81       4 x 5 ml       Included	************************************



## Dynamica

## IntelliRotor (For Velocity 14R only)

### **Carbon Fibre Construction**

The IntelliRotor's shell is constructed from a carbon fibre composite which imparts strength, durability and reduces overall weight. The benefits include shorter spin times due to reduced acceleration and deceleration cycles and increased capacities for tubes of varying dimensions and volumes. And with a maximum speed of 14,000 RPM and maximum RCF of 17,750 x g, the IntelliRotor's versatility is exceptional.

#### **Simply Set and Forget**

The IntelliRotor is extremely user friendly. Simply place the IntelliRotor shell on the drive shaft, position the preferred polypropylene rack (or rack combinations) into the shell and all is set. Neither tools nor securement to the drive shaft is necessary. Once the spin is complete, the IntelliRotor shell remains in position whilst the racks are removed or replaced accordingly for subsequent applications

#### **Smart, Flexible Design Racks**

The interchangeable and stackable racks underpin the flexibility of the IntelliRotor. The racks are designed to accommodate a wide range of tubes. Mix and match racks accordingly to create the optimum combination for capacity and volume. For example use a single AR015-24 rack to spin up to 24 x 2 ml tubes. Stack three of the AR015-24 racks into the single IntelliRotor shell and increase the capacity to 72 x 2 ml tubes. Consolidate several rotors to a single IntelliRotor.

#### **Capacity and Volumes**

The IntelliRotor handles an impressive range of tube sizes, from as small as 0.2ml PCR tubes with the AR002-64 rack up to 50ml culture tubes with the AR510-04. The PCR96-02 rack is designed for PCR plates. Stack three AR002-64 racks and maximise capacity to 192 x 0.2ml tubes. Mix the AR002-64 and AR015-24 racks to spin 0.2 ml and 2 ml tubes concurrently. Flexibility at your fingertips. Use the table below to configure rack combinations.



### VELOCITY 14R & 14 SPECIFICATIONS

MODEL	V14R	V14				
Maximum Speed	14,000 RPM (FA15C rotor)	14,000 RPM (FA15A rotor)				
Maximum RCF	20.290 x a (FA15C rotor)	18.728 x a (FA15A rotor)				
Maximum Capacity	300 ml (6 x 50 ml)					
Maximum Capacity Drive Mechanism	Brushless	Induction				
Control	Microproce	essor based				
Speed Range	300-14,000 RPM (10	essor based DO RPM increments)				
Speed Accuracy	±20	RPM				
Speed / RCF Conversion		es				
Timer	1 min - 99 Hrs 59 min	ns plus HOLD function				
Display	Backlit 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		es				
Imbalance Detection		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**

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

The Velocity 10R takes the helm as 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

Over speed 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

opening

Dynamica



Motor overheat detection and shutdown

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)	TUBE DESCRIPTION	TUBE DIMENSIONS( 0 X MM	TUBE MATERIAL	CAPACITY	ADAPTOR	ROTOR AUTOCLAVABLE	ROTOR LID
Fixed Angle	FA8B	Aluminium	8,000 8,000 8,000	9,180 9,000 8,900	50 15 15	Culture V Bottom Culture V Bottom Round Bottom	29 x 115 17 x 120 16.5 x 113	PP PP PP	10 x 50 ml 10 x 15 ml 10 x 15ml	N/A FA8B.15C FA8B.15P	121°C	Aluminum
Fixed Angle	FA8C	Aluminium	8,000 8,000 8,000	9,560 9,200 9,350	50 15 15	Round Bottom Culture V Bottom Round Bottom	29 x 106 17 x 120 16.5 x 113	PP PP PP	12 x 50 ml 12 x 15 ml 12 x 15 ml	- FA8C.15C FA8C.15P	121°C	Aluminum
Fixed Angle	FA10D	Aluminium	10,000 10,000 10,000	12,740 11,840 12,070	100 50 50	Round Bottom Culture V Bottom Round Bottom	38 x 106 29 x 115 29 x 106	PP PP PP	6 x 100 ml 6 x 50 ml 6 x 50 ml	- FA10D.50C FA10D.50P	121°C	Aluminum
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 50	Bottle + Culture V Bottom Blood Collection Blood Collection Blood Collection Blood Collection Culture V Bottom Culture V Bottom Culture V Bottom	61.6 x 135 & 30 x 116 12 x 81 12.5 x 106 12.5 x 106 12.5 x 106 17 x 120 29 x 115 29 x 115	PP/PC PP PP PP	$\begin{array}{c} 2 \ x \ 250 \ ml + 2 \ x \ 50 \ ml \\ 120 \ x \ 3 \ ml \\ 120 \ x \ 5 \ ml \\ 120 \ x \ 5 \ ml \\ 120 \ x \ 7 \ ml \\ 120 \ x \ 10 \ ml \\ 64 \ x \ 15 \ ml \\ 20 \ x \ 50 \ ml \\ 32 \ x \ 50 \ ml \end{array}$	SW4B.250P SW4B.3B SW4B.5B SW4B.5B SW4B.10B SW4B.10C SW4B.50CB SW4B.50CA*	121°C (buckets)	Plactic Caps with o-ring (Order Separately)
Swing Bucket	SW3A	Aluminium	3,200	2,500	750	Bottle	97 x 157	PP/PC	4 x 750 ml	N/A	121°C (buckets)	N/A

PP PA PC \* Polypropylene Polyallomer

Polycarbonate

Plastic seal caps cannot be used with these adaptors





## 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

# SW20RHS Large Capacity Refrigerated Floor Centrifuge

Software

SW20RHS is powerful, easy-to-use large capacity refrigerated floor centrifuge that allows you to separate blood components quickly and costeffectively while ensuring product quality, safety, and GMP compliance. SW20RHS is specially for blood bags application with its outstanding performance, which makes SW20RHS a best choice for blood bank usage.

#### **High Performance**

High performance and large capacity of the centrifuge satisfy the stringent requirements of blood bank and biotechnology products manufacturing.

Max. speed at 4,000 rpm

Max. g-force at 5,260 × g

Max. capacity at 12 x 450 ml

#### **Advanced Induction Drive**

With its advanced induction drive, there is no need to change carbon brushes. This innovative drive provides outstanding performance and prolongs drive lifespan.

#### 9 Accel./ 10 Decel. Profile

Choice of 9 acceleration and 10 deceleration settings allow delicate gradients and protect sensitive samples from abrupt speed changes in the crucial range between 0 and 500 rpm.

**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. SW20RHS not only has the advantage of LCD display but also has a convenient conspicuous LED parameter monitor to display real-time running process.

GLP/GMP Management software is a laboratory information system for centrifuges, providing accurate data collection. It also provides consistent processcontrol, complete traceability, multiunit monitoring and database management with a user-friendly interface. Safety is Paramount

for easy fault finding.



#### **Rotor Expandable System**

The parameters for new rotors can be registered into rotor library.

### Intuitive GLP/GMP Management

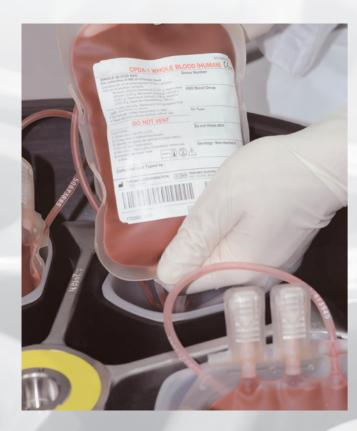
SW20RHS is equipped with dual lid lock and error detection function including overspeed, imbalance and motor overheat as well as 21 types self diagnosis message





## VELOCITY SW20RHS ROTOR

ROTOR TYPE	CAT. NO.#	MATERIAL	MAX SPEED (RPM)	MAX RCF (XG)	BLOOD BAG VOLUME (ML)	TUBE Description	CAPACITY	ADAPTOR
Swing Bucket	SW4E	Aluminium	4,000	5,260	450	Blood Bag	12 x 450 ml quadruple blood bags	Insert cup
			4,000	5,260	350	Blood Bag	12 x 350 ml quadruple blood bags	Insert cup



## SW20RHS SPECIFICATIONS

MODEL	SW20RHS
Maximum Speed	4,000 RPM (SW4E)
Maximum RCF	5,260 x g (SW4E)
Maximum Capacity	12 x 450ml quadruple blood bags
Drive Mechanism	Inverted frequency motor
Control	Microelectronic control
Speed Range	300 - 4,000 RPM (100 RPM increments)
Speed Accuracy	±10 RPM
Speed / RCF Conversion	Yes
Timer	1 min - 99 Hrs 59 mins plus HOLD function (continuous mode) (SW4E)
Display	Blacklit LCD & Parameter Display LED
Operating Noise	62dB (A)
Temperature Range	-20°C to +40°C (±1°C)
Temperature Accuracy	±1°C
Acceleration/Deceleration	9 stages /10 stages (Stages 9 is the fastest)
Automatic Rotor Identification	Yes
Imbalance Detection	3 x 30 g
Other functions	RPM/ RCF settable, run profile display, stored program, accumulated centrifugation
Other functions	function, pre-set time operation, barcode scanner
Dimensions (L x D x H)	1,075 x 860 x 960 mm
Weight (Net)	450 kg
Power Supply	Single phase ~220V±10%
	50±1Hz, Rate 30A





## ORDERING INFORMATION

PRODUCT	(220)/ 5011-)	Cat. No.#	Components Main Unit	
Velocity 18R Refrigerated Centrifuge	(220V, 50Hz) (220V, 60Hz) (110V, 60Hz)	V18R-2 V18R-2A V18R-1	Main Unit Spanner set and nuts Spare Fuses Spirit Level Silicon Grease Rotor rest pad Instruction Manual	
Velocity 14R Refrigerated Centrifuge	(220V, 50Hz) (220V, 60Hz) (110V, 60Hz)	V14R-2 V14R-2A V14R-1	Main Unit Spanner set and nuts Spare Fuses Spirit Level Silicon Grease Rotor rest pad Instruction Manual	
Velocity 14 Centrifuge	(220V, 50/60Hz) (110V, 60Hz)	V14-2 V14-1	Main Unit Spanner set and nuts Spare Fuses Spirit Level Silicon Grease Rotor rest pad Instruction Manual	
Velocity 10R Refrigerated Centrifuge	(220V, 50Hz) (110V, 60Hz)	V10R-2 V10R-1	Main Unit Spanner set and nuts Spare Fuses Spirit Level Silicon Grease Rotor rest pad Instruction Manual	
SW20RHS Large Capacity Refrigerate	d Centrifuge	SW20RHS	Main unit Spanner set and unts Spare fuses Spirit level Silicon grease Rotor rest pad Instruction manual	
FA18A Fixed angle aluminium rotor (8	x 10 ml)	FA18A	Rotor Lubricant Aluminium lid Spare rubber o-rings Manual	<b>V14R</b> V14 <b>R</b> V10 5 V/20 E1 5 V10 E1 E1 5 V10 E1 E1 E1 E1 E1 E1 E1 E1 E1 E1 E1 E1 E1
FA18B Fixed angle aluminium rotor (1	8 x 1.5/2.0 ml)	FA18B	Rotor Lubricant Aluminium lid Spare rubber o-rings 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	

PRODUCT	Cat. No.#	Components	
FA18C Fixed angle aluminium rotor (10 x 10 ml)	FA18C	Rotor Lubricant Aluminium lid Spare rubber o-rings Manual	
FA15A Fixed angle aluminium rotor (24 x 1.5/2.0 ml)	FA15A	Velocity	
		Rotor Aluminium Biosafety lid Spare rubber o-rings Lubricant Manual	
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 (18 x 1.5/2.0 ml)	FA15P	Rotor Lubricant Manual	
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	<b>418</b> 414 414 414 414 414 414 414 414 414 41
FA15B Fixed Angle Aluminium Rotor (4 x 50 ml)	FA15B	Rotor Lubricant Aluminium Biosafety lid Spare rubber o-rings Manual	2 11 20 20 20 20 20 20 20 20 20 20 20 20 20
Adaptors for 15 ml round bottom tubes Adaptors for 15 ml Culture tubes	FA15.15R FA15.15C	4 x adaptors 4 x adaptors	
FA15C Fixed Angle Aluminium Rotor (6 x 50 ml)	FA15C	Rotor Lubricant Aluminium Biosafety lid Spare rubber o-rings	
Adaptors for 15 ml round bottom tubes Adaptors for 15 ml Culture tubes	FA15.15R FA15.15C	4 x adaptors 4 x adaptors	<b>V18</b> V14 V14 V14
FA15D Fixed Angle Aluminium Rotor (4 x 100 ml)	FA15D	Rotor Lubricant Aluminium lid Spare rubber o-rings	
		Manual	
FA14A Fixed Angle Aluminium Rotor (12 x 5 ml)	FA14A	Rotor Lubricant Aluminium lid	
		Spare rubber o-rings Manual	V18R V14R V14B







PRODUCT	Cat. No.#	Components	
FA14B Fixed Angle Aluminium Rotor (12 x 5 ml)	FA14B	Rotor Lubricant Aluminium lid Spare rubber o-rings Manual	<b>V18R</b> <b>V14R</b> V10R SVV20BES
FA14C Fixed Angle Aluminium Rotor (4 x 50 ml)	FA14C FA14.15C	Rotor Lubricant Aluminium Iid Spare rubber o-rings Manual 4 x adaptors	<b>X 2 4 4 4 6 4 4 8 8 4 4 6 6 1 4 4 8 8 6 6 1 4 4 6 6 1 4 4 6 6 1 4 4 6 6 1 4 4 6 6 1 4 4 6 6 1 4 4 6 6 1 4 4 6 6 1 4 6 6 6 1 4 6 6 6 6</b>
CF14A Cabon Fibre IntelliRotor	CF14A ease refer to pa	Rotor Manual ge 10 for detail	V105 V148 V148 SVV2055 SVV205555 SVV205555 SVV205555 SVV205555 SVV205555 SVV205555 SVV205555 SVV2055555 SVV2055555 SVV205555 SVV205555 SVV205555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV20555555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV2055555 SVV205555555 SVV2055555 SVV2055555 SVV2055555555555555555555555555555555555
FA12A Fixed Angle Aluminium Rotor (48 x 0.2 ml)	FA12A	Rotor Lubricant Aluminium lid Spare rubber o-rings Manual	<b>V14R</b> V14R V14B V14B V14B V10B V10B V10B V10B V10B V10B V10B V10
FA11A Fixed Angle Aluminium Rotor (24 x 1.5/2.0 ml)	FA11A	Rotor Lubricant Aluminium lid Spare rubber o-rings Manual	<b>V14B</b> V14B V14B V14B V10 V14B V10 V10 V10 V10 V10 V10 V10 V10 V10 V10
FA10B Fixed Angle Aluminium Rotor (6 x 50 ml)	FA10B FA10.15C	Rotor Lubricant Aluminium lid Spare rubber o-rings Manual 6 x adaptors	V18R V14B V14B V10B V10B V10B V120B 18
FA10D Fixed Angle Aluminium Rotor (6 x 100 ml) Adaptors for 50 ml Culture tubes Adaptors for 50 ml round bottom tubes	FA10D FA10D.50C FA10D.50P	Rotor Lubricant Aluminium lid Spare rubber o-rings Manual 6 x adaptors 6 x adaptors	V105 V145 V1205 SV1205 5120 5120

FASB Fixed Angle Aluminium Rotor (10 x 50 mi)       FASB       Rotor         Adaptors for 15 ml Culture tubes       FABB.15C       10 x adaptors       FABB.15C         FASE Fixed Angle Aluminium Rotor (12 x 50 mi)       FAB       Rotor       Lubricant         Adaptors for 15 ml Culture tubes       FABB.15C       10 x adaptors       FABB.15C       10 x adaptors         FASE Fixed Angle Aluminium Rotor (12 x 50 mi)       FAB       FAB       Rotor       Lubricant         Adaptors for 15 ml Culture tubes       FABC.15C       12 x adaptors       FABC.15C       10 x adaptors         FASE Fixed Angle Aluminium Rotor (12 x 15 ml)       FASA       Rotor       Lubricant       Aluminium id         SVS Swing Bucket Aluminium Rotor (14 x 250 ml)       SV5       Adaptors for 15 ml coult bottom tubes       SV5.78       4 x adaptors       FGB	PRODUCT	Cat. No.#	Components	
Adaptors for 15 ml Culture tubes       FABB.15C       10 x adaptors         FABB.15P       10 x adaptors       FABB.15P         FABC Fixed Angle Aluminium Rotor (12 x 50 ml)       FABC       Rotor         Adaptors for 15 ml Culture tubes       FABC.15C       12 x adaptors         Adaptors for 15 ml Culture tubes       FABC.15C       12 x adaptors         Adaptors for 15 ml Culture tubes       FABC.15C       12 x adaptors         Adaptors for 15 ml Culture tubes       FABC.15C       12 x adaptors         FABC.15C       12 x adaptors       Suber chings         Manual       Suber chings       Manual         SW5 Swing Bucket Aluminium Rotor (12 x 15 ml)       FASA         Rotor       Aluminium Iid         SW5 Swing Bucket Aluminium Rotor (4 x 250 ml)       SW5         Adaptors for 5 ml blood collection tubes       SW5.5B         Adaptors for 10 ml blood collection tubes       SW5.7B         Adaptors for 10 ml blood collection tubes       SW5.1B         Adaptors for 15 ml culture tubes       SW5.1B         Adaptors for 15 ml culture tubes       SW5.1B         Adaptors for 15 ml culture tubes       SW5.15C         Adaptors for 15 ml culture tubes       SW5.15C         Adaptors for 15 ml culture tubes       SW5.5D <td< td=""><td></td><td></td><td>Rotor Lubricant Aluminium lid Spare rubber o-rings</td><td></td></td<>			Rotor Lubricant Aluminium lid Spare rubber o-rings	
Adaptors for 15 ml Culture tubes Adaptors for 15 ml culture tubesFA8: 15C FA8: 15CRotor Lubricant AdaptorsEASA LUbricant AdaptorsEASA LUbricant AdaptorsRotor LUbricant 	•		10 x adaptors	
Adaptors for 15 ml round bottom tubes       FA8C.15P       12 x adaptors         FA5A Fixed Angle Aluminium Rotor (12 x 15 ml)       FA5A       Rotor         Lubricant       Aluminium Iid       Spare rubber orings         Manual       SW5 Swing Bucket Aluminium Rotor (4 x 250 ml)       SW5       Rotor         Adaptors for 5 ml blood collection tubes       SW5.7B       4 x Aluminium Round Buckets         Adaptors for 7 ml blood collection tubes       SW5.7B       4 x adaptors         Adaptors for 10 ml blood collection tubes       SW5.7B       4 x adaptors         Adaptors for 10 ml oudo bottom glass tubes       SW5.10E       4 x adaptors         Adaptors for 15 ml round bottom glass tubes       SW5.16G       4 x adaptors         Adaptors for 15 ml round bottom glass tubes       SW5.16G       4 x adaptors         Adaptors for 15 ml round bottom glass tubes       SW5.16G       4 x adaptors         Adaptors for 5 ml outure tubes       SW5.5D       4 x adaptors         Adaptors for 5 ml outure tubes       SW5.5D       4 x adaptors         Adaptors for 5 ml outure tubes       SW5.5D       4 x adaptors         Adaptors for 5 ml outure tubes       SW5.5D       4 x adaptors         Adaptors for 15 ml round bottom glass tubes       SW5.5DC       4 x adaptors         Adaptors for 0 nl round	FA8C Fixed Angle Aluminium Rotor (12 x 50 ml)	FA8C	Lubricant Aluminium lid Spare rubber o-rings	
Lubricant Aluminium lid Symer rubber o-rings ManualEgresSW5 Swing Bucket Aluminium Rotor (4 x 250 ml)SW5Rotor 4 x Aluminium Round Buckets Lubricant ManualAdaptors for 5 ml blood collection tubes 	•			
Adaptors for 5 ml blood collection tubesSW5.5B4 x adaptorsAdaptors for 7 ml blood collection tubesSW5.7B4 x adaptorsAdaptors for 10 ml blood collection tubesSW5.7B4 x adaptorsAdaptors for 10 ml blood collection tubesSW5.7B4 x adaptorsAdaptors for 10 ml blood collection tubesSW5.1G4 x adaptorsAdaptors for 10 ml round bottom glass tubesSW5.1G4 x adaptorsAdaptors for 15 ml round bottom PP tubesSW5.15G4 x adaptorsAdaptors for 15 ml round bottom PP tubesSW5.5DG4 x adaptorsAdaptors for 15 ml culture tubesSW5.5DG4 x adaptorsAdaptors for 50 ml round bottom glass tubesSW5.5DG4 x adaptorsAdaptors for 50 ml round bottom PP tubesSW5.5DG4 x adaptorsAdaptors for 50 ml round bottom PP tubesSW5.5DG4 x adaptorsAdaptors for 50 ml round bottom PP tubesSW5.5DC4 x adaptorsAdaptors for 50 ml skirted bottom culture tubesSW5.5DC4 x adaptorsAdaptors for 50 ml skirted bottom culture tubesSW5.5DC4 x adaptorsAdaptors for 1.5 ml micro tubesSW5MPRotorAdaptors for 0.2 ml PCR tubesSW5MP22 x adaptorsSW4A Swing Bucket Aluminium RotorSW4ARotorAdaptors for 15 ml culture tubesSW4ARotorAdaptors for 15 ml culture tubesSW4ARotorAdaptors for 0.2 ml PCR tubesSW4ARotorAdaptors for 15 ml culture tubesSW4ARotorAdaptors for 15 ml culture tubesSW4A <td< td=""><td>FA5A Fixed Angle Aluminium Rotor (12 x 15 ml)</td><td>FA5A</td><td>Lubricant Aluminium lid Spare rubber o-rings</td><td><b>V18</b> V14 V10 V10 V12 0 V12 0 V12 0 V12 0 V12 0 V12 0 V12 0 V10 V10 V10 V10 V10 V10 V10 V10 V10 V</td></td<>	FA5A Fixed Angle Aluminium Rotor (12 x 15 ml)	FA5A	Lubricant Aluminium lid Spare rubber o-rings	<b>V18</b> V14 V10 V10 V12 0 V12 0 V12 0 V12 0 V12 0 V12 0 V12 0 V10 V10 V10 V10 V10 V10 V10 V10 V10 V
Adaptors for 7 ml blood collection tubesSW5.7B4 x adaptorsAdaptors for 10 ml blood collection tubesSW5.10B4 x adaptorsAdaptors for 10 ml round bottom glass tubesSW5.10G4 x adaptorsAdaptors for 15 ml round bottom glass tubesSW5.15C4 x adaptorsAdaptors for 15 ml round bottom glass tubesSW5.15P*4 x adaptorsAdaptors for 15 ml round bottom glass tubesSW5.15C4 x adaptorsAdaptors for 51 ml culture tubesSW5.15C4 x adaptorsAdaptors for 50 ml round bottom glass tubesSW5.50C4 x adaptorsAdaptors for 50 ml round bottom PP tubesSW5.50C4 x adaptorsAdaptors for 50 ml round bottom PP tubesSW5.50C4 x adaptorsAdaptors for 50 ml round bottom culture tubesSW5.50C4 x adaptorsAdaptors for 50 ml skitted bottom culture tubesSW5.50C4 x adaptorsPlastic Seal CapsSW5MPRotorZ x Aluminium Rotor (2 x Plates)SW5MPRotorAdaptors for 0.2 ml PCR tubesSW5MP2 x adaptorsSW4A Swing Bucket Aluminium RotorSW4ARotorAdaptors for 15 ml culture tubesSW5MP2 x adaptorsAdaptors for 50 ml skited bottomSW5MP2 x adaptorsAdaptors for 0.2 ml PCR tubesSW5MP2 x adaptorsAdaptors for 15 ml culture tubesSW4ARotorAdaptors	SW5 Swing Bucket Aluminium Rotor (4 x 250 ml)	SW5	4 x Aluminium Round Buckets Lubricant	
Adaptors for 1.5 ml micro tubes Adaptors for 0.2 ml PCR tubesSW5MP.15 SW5MP.022 x adaptors 2 x adaptorsSW4A Swing Bucket Aluminium RotorSW4ARotor Lubricant 4 x Aluminium Rectangular Buckets ManualAdaptors for 15 ml culture tubesSW4A.15C4 x adaptors	Adaptors for 7 ml blood collection tubes Adaptors for 10 ml blood collection tubes Adaptors for 10 ml round bottom glass tubes Adaptors for 15 ml round bottom glass tubes Adaptors for 15 ml round bottom PP tubes Adaptors for 15 ml culture tubes Adaptors for 15 ml culture tubes Adaptors for 50 ml round bottom glass tubes Adaptors for 50 ml round bottom PP tubes Adaptors for 50 ml round bottom PP tubes Adaptors for 50 ml round bottom PP tubes Adaptors for 50 ml culture tubes	SW5.7B SW5.10B SW5.15G SW5.15P* SW5.15CA SW5.15CB* SW5.50G SW5.50P SW5.50C SW5.50CB	4 x adaptors 4 x adaptors	<b>V18R</b> V14 8 V10 8 V10 8 V10 8 1 1 8 V12 0 8 1 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Adaptors for 0.2 ml PCR tubes       SW5MP.02       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	SW5MP Swing Bucket Aluminium Rotor (2 x Plates)	SW5MP	2 x Aluminium Rectangular Buckets Lubricant	
Adaptors for 15 ml culture tubes SW4A.15C 4 x adaptors				
	SW4A Swing Bucket Aluminium Rotor	SW4A	Lubricant 4 x Aluminium Rectangular Buckets	
			-	





RODUCT	Cat. No.#	Components	
W4B Swing Bucket Aluminium Rotor	SW4B	Rotor	
		Lubricant	
		4 x Aluminium Rectangular	
		Buckets	
		Spare rubber o-rings	
		Manual	
		Rotor lock screw	
		4 x Shield caps	
denters for 2 ml blood collection tubes	SW4B.3B		
daptors for 3 ml blood collection tubes		4 x adaptors	
daptors for 5 ml blood collection tubes	SW4B.5B	4 x adaptors	
daptors for 7 ml blood collection tubes	SW4B.5B	4 x adaptors	
daptors for 10 ml blood collection tubes	SW4B.10B	4 x adaptors	
daptors for 15 ml culture tubes	SW4B.15C	4 x adaptors	
daptors for 50 ml culture tubes	SW4B.50CB	4 x adaptors	
daptors for 50 ml culture tubes	SW4B.50CA*	4 x adaptors	
daptors for 250 ml bottles plus 50 ml culture tubes	SW4B.250P	4 x adaptors	
W4E Swing Bucket Aluminum Rotor	SW4E	Rotor	
		Lubricant	
		Aluminium lid	
		6 x Aluminium buckets	<u> </u>
		Spare rubber o-rings	
		Manual	
sert cups for 450 ml quadruple blood bags		6 x insert cup	
sert cups for 350 ml quadruple blood bags		6 x insert cup	a a a a a a a a a a a a a a a a a a a
W4C Swing Bucket Aluminium Rotor (4 x 5 ml)	SW4C	Rotor	
		4 x Aluminium Rectangular	
		Buckets	
		Lubricant	
		Manual	
		4 x adaptors	
			22224
N3A Swing Bucket Aluminium Rotor (4 x 750 ml)	SW3A	Rotor	
		4 x Aluminium Round Buckets	
		Lubricant	
		Manual	
	RST	Rotor Stand	() <sub>E</sub>
otor Stand for Swing Bucket			
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otor Stand for Swing Bucket			
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otor Stand for Swing Bucket			

VELOCITY 6µ Micro Fuge

The Velocity  $6\mu$  and  $13\mu$  are designed to operate easily and save space. They also offer a high degree of convenience and ultimate safety for your laboratory application.

#### Features & Characteristics

- Microtubes rotor and 8-strip rotor included
- Rotors can be easily exchanged without tools
- Compact design
- Simple & user-friendly operation
- Quiet operation (noise level  $\leq$  45dB)

## VELOCITY 6µ Specifications

MODEL	VELOCITY 6µ
Maximum Speed	6,000 RPM
Maximum RCF	2,910 x g
Run Time	Continuous
Rotor (Standard)	8 x 1.5/2.0 ml, 2 x 8-strip PCR or 16 x 0.2 ml PCR tubes
Rotor (Optional)	-
Dimensions	155 x 175 x 125 mm (w x d x h)
Weight	1 kg
Power Supply	AC 110-220V 50/60Hz

## VELOCITY 6µ Ordering Information

**PRODUCT** Velocity 6μ Micro Fuge, with microtube rotor & tube-stripes rotor, 110-

\*not suitable with plastic caps





	CATALOG NUMBER#
-220V, 50/60Hz	V6U

## Dynamica

# VELOCITY 13µ Mini Fuge

#### **Features & Characteristics**

- Maximum speed 13,500rpm (12,300 xg)
- Choices of rotors for 12 x 1.5/2.0ml tubes and 32 PCR tubes or strips
- Compact design
- Rapid acceleration (<12 sec) and deceleration (<16 sec)
- Autoclavable rotor
- Safe operation with lid-lock function
- User-friendly control panel with LCD display

## VELOCITY 13µ Specifications

MODEL	VELOCITY 13µ
Maximum Speed	13,500 RPM
Maximum RCF	12,300 x g
Run Time	Up to 30 minutes or HOLD (Continuous)
Rotor (Standard)	12 x 1.5/2.0 ml tubes
Rotor (Optional)	32 x 0.2 ml PCR tubes or strips
Dimensions	208 x 245 x 145 mm (w x d x h)
Weight	4.4 kg
Power Supply	AC 200-240V 50/60Hz or AC 110-120V 50/60Hz

## VELOCITY 13µ Ordering Information

PRODUCT	CATALOG NUMBER#
Velocity 13µ Mini Fuge, with FA13A rotor & FA13.02 Adapters, 200-240V, 50/60Hz	V13U-2A
Velocity 13µ Mini Fuge, with FA13A rotor & FA13.02 Adapters, 110-120V, 50/60Hz	V13U-1A
12 place rotor, 1.5/2ml x 12, 13,500rpm	FA13A
32 place rotor, 0.2ml x 32 PCR tubes or 4x 8-strip PCR tubes, 6,000rpm	FA6B
0.2ml PCR tube rotor adapter, used with FA13A rotor, 12pcs/pk	FA13.02
0.5ml PCR tube rotor adapter, used with FA13A rotor, 12pcs/pk	FA13.05



# VELOCITY 15µ / 15µR High Speed Microcentrifuge

The Dynamica Velocity Microcentrifuge is now available with refrigerated model, Velocity 15µR. Velocity 15µR is built with a powerful refrigeration module and is able to maintain the sample temperature below 2°C at the highest speed.

The Velocity 15µ / 15µR High Speed Microcentrifuge are designed to accelerate your laboratory works by providing excellent and reliable performance. The Velocity 15µ series are compact and easy to use.

#### **Features & Characteristics**

- Maximum speed 15,000rpm (21,380 xg)
- Choices of rotors for 24 x 0.2/0.5/1.5/2.0ml tubes, 18 x 5ml tubes, 36 x 0.5ml tubes and 4x 8-strip PCR tubes
- Powerful refrigeration for model Velocity 15µR
- Autoclavable Bio-safe rotors ٠
- Advanced air-cooling technology to lower rotor temperature for model Velocity 15µ ٠
- Automatic lid release after run •
- Dual door interlock safety design ٠
- User-friendly control panel with large LCD display

## VELOCITY 15µ / 15µR Specifications

VELOCITY 15µ SPECIFICATIONS	Velocity 15µ	Velocity 15µR	
Maximum Speed	15,00	D RPM	
Maximum RCF	21,38	30 x g	
Run Time	30 seconds to 99 minute	es or HOLD (Continuous)	
Rotor (Standard)	24 x 1.5/2.0 ml tubes		
Rotor (Optional)	18 x 5 ml tubes, 36 x 0.5 ml tubes, 4 x 0.2ml 8-strip PCR tubes		
Temperature Setting Range	N/A -20°C to 40°C		
Noise Level	≤ 58dB	≤ 56dB	
Dimensions (w x d x h)	280 x 364 x 266 mm	338 x 580 x 324 mm	
Weight	12 kg	30 kg	
Power Supply	AC 200-240V 50/60Hz or AC 110-120V 50/60Hz		

## Velocity 15µ Ordering Information

Velocity 15µ High Speed Microcentrifuge, with FAS15B aluminum alloy Velocity 15µ High Speed Microcentrifuge, with FAS15B aluminum alloy Velocity 15µR High Speed Refrigerated Microcentrifuge, with FAS15B Velocity 15µR High Speed Refrigerated Microcentrifuge, with FAS15B 18 place rotor with lid, 5ml x 18, 15000rpm 24 place rotor with lid, 1.5/2ml x 24, 15000rpm 36 place rotor with lid, 0.5ml x 36, 15000rpm 4 place 8-strip PCR tubes rotor with lid, 15000rpm 0.2ml rotor adapter, used with FAS15B 24 place rotor, 24pcs/pk 0.5ml rotor adapter, used with FAS15B 24 place rotor, 24pcs/pk 0.2ml rotor adapter, used with FAS15C 36 place rotor, 36pcs/pk







-ΔS15F

	CATALOG NUMBER#
y rotor kit, 200-240V, 50/60Hz	V15U-220
y rotor kit, 110-120V, 50/60Hz	V15U-110
aluminum alloy rotor kit, 200-240V, 50/60Hz	V15UR-220
aluminum alloy rotor kit, 110-120V, 50/60Hz	V15UR-110
	FAS15A
	FAS15B
	FAS15C
	FAS15D
	FAS15B.02
	FAS15B.05
	FAS15C.02

## Dynamica The VELOCITY Range BENCH TOP CENTRIFUGES

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