

Micro Centrifuges

Smart R17 Plus / Smart 15 Plus / Smart 13

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Smart R17 Plus / Smart 15 Plus

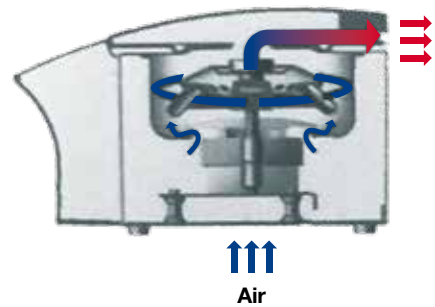
- Rapid acceleration and deceleration to speed up molecular works
- Plastic, snap-fit button lid of 24 hole rotor for convenient and time saving usage
- Ideal for very quiet and speedy operation
- Easy to read graphical LCD display
- Easy to clean specially coated glossy surface
- Compact, light-weighted, and ergonomic design
- Smooth operation completed with motorized lid opening and closure
- Distinct "Fast Cool" button in a refrigerated model



A2.0M-24

A2.0M-18

A0.2M-32



Non-refrigerative Smart 15 Plus with uniquely controlled air cooling structure



Smart R17 Plus



Smart 15 Plus

Micro Centrifuge

Smart 13

- Ideal for simple and efficient spinning at high speed
- Very quiet operation even at max speed of 13,500 rpm
- Rotating knobs enable quick setting of time and speed
- Can be terminated in 8 secs even at max speed
- Any types of micro tubes up to 2.0 mL can be loaded.
- Interchangeable optional PCR rotor for four 8-tube strips
- A sensitive hall sensor can activate a safety stop when lid is opened.
- Well-designed, non-slip silicone rubber feet
- Light weight and portable unit



A2.0-12



A0.2-32

Technical Specifications

		Smart R17 Plus / * Smart R17	Smart 15 Plus / * Smart 15	Smart 13 / * Micro 12
Speed RCF (xg)	Max. RPM / Fixed angle	17,000 rpm	15,000 rpm	13,500 rpm
	Max. RCF / Fixed angle	23,005 xg	21,055 xg	12,032 xg
Max. capacity / Fixed angle		12 x 5.0 mL, 24 x 1.5/2.0 mL, 4 PCR strips		6 x 5.0 mL 12 x 1.5/2.0 mL, 4 PCR strips
ACC/DEC	ACC/DEC ramps	9/10 steps / *5/6 steps	9/10 steps	-
	Acc. time to max. speed	≤ 15 sec		≤ 18 sec
	Dec. time from max. speed	≤ 15 sec		≤ 8 sec
Temperature	Temperature range	-10°C to 40°C	-	-
	Fast cool	Yes	-	-
Time control		< 100 min, pulse, continuous	< 100 min, pulse, continuous	≤15 min, pulse
Program memory		10	10	-
Noise level		< 60 dB		
Imbalance cutoff / tracking		Yes		-
Rotor identification		manual		-
Dimension (W x D x H, mm)		285.2 x 593.3 x 281	293 x 380 x 242	189.7 x 202 x 129
Weight without rotor		33 kg	15 kg	1.5 kg
Power consumption		1.5 kVA	500 VA	200 VA
Power input (V, Hz)		210V~240V, 50/60 Hz (110V optional)		
Cat. No.		SM-R17PL	SM-15PL	SM-13

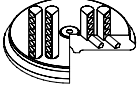


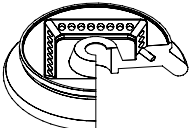


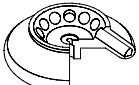





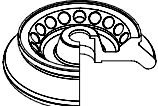










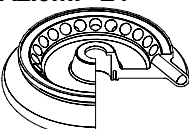







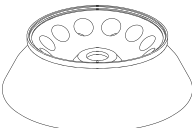

* Registered as medical device at MFDS¹⁾

¹⁾ MFDS : Ministry of Food and Drug Safety (KOREA)

Micro Centrifuges

Smart R17 Plus / Smart 15 Plus / Smart 13

Fixed Angle Rotors for Micro Centrifuges

Rotor	Adaptable Centrifuge	Tube Capacity	Required Adaptor	Bore Ø x L (mm) Radius (mm)	Max. RPM (rpm) Max. RCF (xg)
A0.2-32 (PCR Strip Rotor)  Hole angle : $\angle 45^\circ$ Max. Capacity : 32 x 0.2 mL Size (Ø x H) : Ø124 x 22 mm	Smart 13	 0.2 mL	-	6.5 x 15 Inner line : 31.13 (Min.) 44.06 (Max.) Outer line : 46.13 (Min.) 55.68 (Max.)	6,000 Inner line : 1,253-1,773 Outer line : 1,857-2,241
		 0.2 mL strips	-		
A0.2M-32 (PCR Strip Rotor)  Hole angle : $\angle 45^\circ$ Max. Capacity : 32 x 0.2 mL Size (Ø x H) : Ø172 x 38.5 mm	Smart R17 Plus	 0.2 mL	-	6.5 x 17 55.5	12,500 9,695
	Smart 15 Plus	 0.2 mL strips	-		
A2.0-12  Hole angle : $\angle 45^\circ$ Max. Capacity : 12 x 1.5/2.0 mL Size (Ø x H) : Ø124 x 37 mm Max. height for tube fit : 48 mm	Smart 13	 1.5/2.0 mL	-	11.5 x 38 59	13,500 12,032
		 0.5 mL	TR0.5 	8 x 37 59	
		 0.2 mL	TR0.2 	6 x 21 44	
A2.0M-18  Hole angle : $\angle 45^\circ$ Max. Capacity : 18 x 1.5/2.0 mL Size (Ø x H) : Ø147 x 38.5 mm Max. height for tube fit : 53.5 mm Incl. a lid	Smart R17 Plus	 1.5/2.0 mL Micro-filter tube	-	11 x 38 71.2	17,000 23,005
		 0.5 mL	TR0.5 	8 x 37 66	17,000 21,325
		 0.2 mL	TR0.2 	6 x 21 56	17,000 18,094
	Smart 15 Plus	 1.5/2.0 mL Micro-filter tube	-	11 x 38 71.2	15,000 17,910
		 0.5 mL	TR0.5 	8 x 37 66	15,000 16,602
		 0.2 mL	TR0.2 	6 x 21 56	15,000 14,087
A2.0M-24 A2.0MP-24  Hole angle : $\angle 45^\circ$ Max. Capacity : 24 x 1.5/2.0 mL Size (Ø x H) : Ø172 x 38.5 mm Max. height for tube fit : 56 mm Incl. a lid A2.0MP-24 incl. plastic lid	Smart R17 Plus	 1.5/2.0 mL	-	11 x 38 83.7	15,000 21,055
	Smart 15 Plus	 0.5 mL	TR0.5 	8 x 37 78.5	15,000 19,747
		 0.2 mL	TR0.2 	6 x 21 68.5	15,000 17,231
A5.0-6  Hole angle : $\angle 50^\circ$ Max. Capacity : 6 x 5.0 mL Size (Ø x H) : Ø104 x 37.4 mm Max. height for tube fit : 60 mm Incl. a lid	Smart 13	 5.0 mL	-	17 x 25.5 65	6,000 2,616
A5.0M-12  Hole angle : $\angle 50^\circ$ Max. Capacity : 12 x 5.0 mL Size (Ø x H) : Ø167.2 x 57.4 mm Max. height for tube fit : 60 mm Incl. a lid	Smart R17 Plus Smart 15 Plus	 5.0 mL	-	16.5 x 61 83.5	15,000 20,376

* Radius : From the center of the rotor to the inner end of tube carrier.