TOMY

Suprema

HIGH SPEED REFRIGERATED CENTRIFUGE

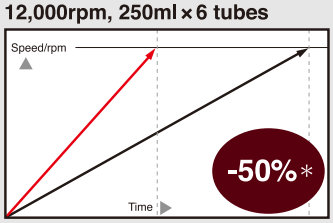
Suprema 25 Suprema 23 Suprema 21

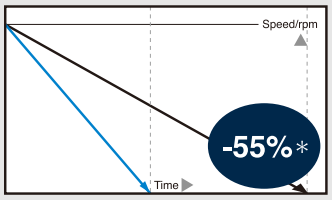
Quick Acceleration and Deceleration
SUPREMA series realize to shorten spinning time and to speed up laboratory work.

Acceleration and deceleration times are reduced by nearly 50%, compared to previous models. SUPREMA series minimize loss of operation time.

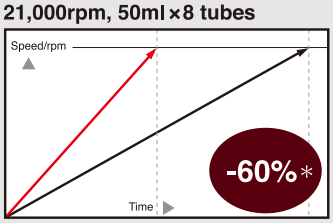
Suprema25
Previous models

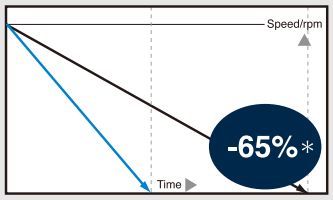
NA-11
12,000rpm, 250ml×6 tubes





NA-4HS
21,000rpm, 50ml×8 tubes

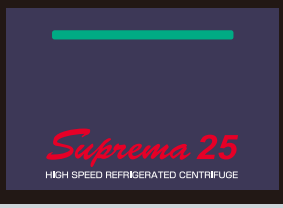




*Compared to the previous model with an equivalent rotor,acceleration and deceleration times are reduced with these percentages approximately.

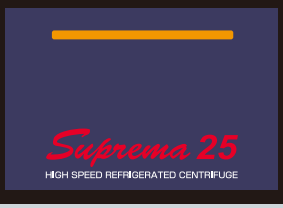
User Friendly Front Indicator

The Front Indicator (green/red/orange line indicator) permits monitoring the operation status from a distance.



The green line indicator lights up when the system is turned on.

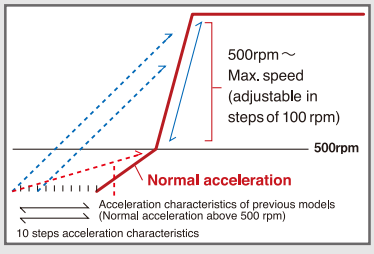
The red line indicator lights up while the rotor type is being identified or the rotor is spinning.

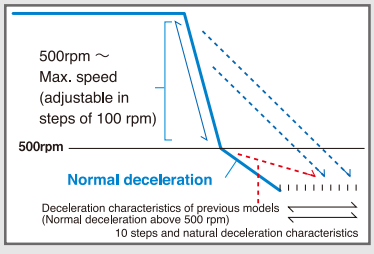


The orange line indicator flashes in case errors occur in the system and relevant error messages are displayed on the LCD.

10-step acceleration characteristics and 10-step and natural deceleration characteristics

The initial value of acceleration and deceleration characteristics is adjusted between 0 and 500 rpm, however, the function setting allows to set the adjustable rotation speed to the maximum speed of the rotor in use, adjustable in steps of 100 rpm.





Multiple memory functions Easy-to-use and convenient LCD

The LCD display on the control panel features such special functions as history and memory functions as well as memory settings for information and operation conditions on the centrifuge program.

- A simple memory function allows setting three operation conditions for each rotor.
- 99 memory settings can be stored.

Sample temperature display

SUPREMA Series high speed refrigerated centrifuge control and maintain the sample temperature near the set temperature using the date from chamber temperature, rotor types and rotational frequency and display the value estimated from each data as actual sample temperature.

Design incorporates friendliness to the global environment and safety

- HFC R404A with the ODP = 0,0, which contains no chlorine to destroy the ozone layer, is used to reduce environmental impact.
- Imbalance detection system: The system prevents operation when the rotor is unbalanced and the maximum permissible imbalance value is exceeded, and automatically slows the rotor down and stops.
- Safety devices:
  Lid interlock, lid Open/Close Detector, Overspeed Detector, Overcurrent Detector (power switch), Motor Overcurrent Detector, Temperature Error Detector (high or low temperature)

Suprema 25

6 tubes × 1,000ml Large Volume Rotor With the lightweight aluminum rotor, large volume of samples can be centrifuged.

NA-610
7,000rpm : 11,120G
For Suprema 25

- ●Data Communications Function (factory option)
  An extemal output port for data communication is provided to output the data stored in memory such as centrifuging conditions and the various historical data to PC.
- ●Programmed operation function
  Several operation conditions can be programmed during a centrifuging operation and automatically executed in linear sequence. This function allows to store five programs in five different combinations.
- ●Centrifugal acceleration integrator function
- ●Capable of consecutive spins

Suprema 23

Suprema 21

Model	Suprema25	Suprema23	Suprema21
Maximum Speed	25,000rpm	23,000rpm	21,000rpm
Maximum RCF	60,110G	51,420G	46,850G
Maximum Capacity	1,000ml×6 tubes	1,000ml×4 tubes	
Speed Control	Microprocessor		
Motor	Induction Motor		
Drive System	Direct Drive		
Data Entry	Jog Dial		
Speed Setting Range	0～25,000rpm (100rpm increments)	0～23,000rpm (100rpm increments)	0～21,000rpm (100rpm increments)
RCF Setting Range	0～60,110G (10G increments)	0～51,420G (10G increments)	0～46,850G (10G increments)
Temperature Setting Range	-9～35℃ (1℃ increment)		
Time Setting Range	0～50sec.(10sec. increments), 0:01～9:59 (1min. increment), 10～24hours (1hours increment), Free		
Acceleration/ Deceleration Setting	Acceleration : 10 steps, Deceleration : 10 steps and Free		
Memory Function	3 Memories for each rotor with Memory Keys and 99 Memories with Menu Key		
Program Operation	○	–	
RCF Integrated Operation	○	–	
Continuous Flow Rotor	○	–	
Other Function	Rotor Speed Automatic Setting with BART Code, Radius Setting, Date and Time Display		
Safety Devices	Lid Interlock System, Lid Open / Close Detector, Overspeed Detector, Imbalance Detector, Overcurrent Detector, Rotor Identification System, Motor Overcurrent Detector, Temperature Error Detector		
Refrigerant	HFC R404A		
Power Requirement	AC 220/230/240V, 50Hz, 30A AC 220/230/240V, 60Hz, 30A		
Rated Current	21A	21A	18A
Power Consumption (Heat output)	3.3kW(2,840kcal/h)	3.3kW(2,840kcal/h)	2.6kW(2,240kcal/h)
Dimensions W×D×Hmm (Except projection)	715W×794D×1,017H mm (Height to Operation Table : 869H mm)		570W×794D×1,018H mm (Height to Operation Table : 869H mm)
Net Weight	265kg		215kg
Accessories	Operator's Manual 1 Warranty Card 1 Customer Card 1 Inspection Sheet 1 Clear Case 1 Attachment Screw 1 Level 1 Special Tool for Continuous Flow Rotor Use(for Suprema25) 1 Rotor puller 1		

Rotor Specifications

Rotor	Maximum Capacity (ml×tubes)	Maximum Speed (rpm)	Maximum RCF (G)
NA-1	50×6	22,000	51,420
NA-3HS ※1	10×16	21,000	50,300
NA-4HS ※1	50×8	21,000	48,820
NA-6 ※4	10×16	25,000	60,110
NA-7 ※4	38×8	25,000	60,110
NA-8	50×12	15,000	31,200
NA-9 ※4	290×4	12,000	22,540
NA-11	250×6	12,000	22,540
NA-12	100×8	15,000	30,700
NA-16	500×4	11,000	18,270
NA-18	500×6	10,000	16,890
NA-20	1.5×24	20,000	43,840
NA-22 ※2	50×8	14,000	26,740
NA-22HS ※1 ※2※4	50×8	14,000	26,740
NA-23 ※2	50×12	11,000	19,620
NA-400	1,000×4	9,000	15,220
NA-610 ※3	1,000×6	7,000	11,120
NC-1 ※3	1,000ml	17,000	31,350
NC-2 ※3	1,000ml	14,000	21,260
NC-4 ※3 ※4	3,000ml	8,000	9,450
NS-1 ※4	50×4	10,000	16,210

Rotor	Bucket	Rack	Maximum Capacity (ml×tubes)	Maximum Speed (rpm)	Maximum RCF (G)
TS-4N	S4096-02		Microplate ×4	1,800	510
TS-7N	7115-08		15×32	3,500	2,380
	7015-08		15×32	3,500	2,190
	7050-02		50×8	3,500	2,150
	7015-06		15×24	3,600	2,320
	7215-06		15×24	3,600	2,430
	7150-01		50×4	5,000	4,670
	7050-01		50×4	4,000	2,810
	7M5015-1		50×4+15×16	3,500	2,370
	B407	0705-10P	Veno-Ject II 5×40	3,100	1,670
		0705-FA10P	FACS Tube 5×40	3,100	1,670
	SC-2		8×4	1,600	420
TS-41N	B241	AS41-96D	Deep-well plate × 4 ※5 Microplate × 8	4,500	3,150

※ Maximum speed and maximum RCF vary by the centrifuge in use. ※ 1 High sealed rotor
※ 2 Tissue Culture tubes are available without adapters. ※ 3 Can be used for Suprema25
※ 4 Custom order ※ 5 When centrifuging with a bucket cover, up to 2×deep-well plate.

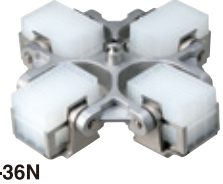
Rotor	Bucket	Rack	Maximum Capacity (ml×tubes)	Maximum Speed (rpm)	Maximum RCF (G)
TS-33N	B433 ※6		250 × 4	5,000	4,720
		3350-TC01P	50 × 4		4,670
		3350-G01P	50 × 4		4,500
		3315-TC04P	15 × 16		4,670
		3315-G07P	PAXgene Blood RNA Tube / Glass 15 × 28		4,500
		3314-04P	14 × 16	4,000	2,990
		3307-07P	Veno-Ject II 7 × 28	4,100	2,990
		3305-07P	Veno-Ject II 5 × 28	4,200	2,900
	Bucket cap kit B433 ※6		—	—	—
TS-36N Can be used for Suprema 23 and 25	B436	3625C-01P	250 × 4	3,900	3,080
		3650-TC05P	50 × 20		3,110
			15 × 8		3,110
		3615-TC14P	15 × 56		3,110
		3615-G16P	15 × 64		3,100
		3650-G05P	50 × 20		3,010
		3610C-G02P	100 × 8		3,040
		3614C-18P	14 × 72		2,990
		3602C-36P	2 × 144		2,860
		3605C-48P	5 × 192	3,800	2,950
			Shionogi Tube 4 × 192	3,900	3,110
		3606C-35P	Eiken Tube 6 × 140		3,110
		AS36C-96D	Deep-well plate × 8		3,100
			Microplate × 16		3,100
TS-38N	B438	3850-04P	50 × 16	3,500	2,380
		3850-N04P	50 × 16	3,500	2,380
		3850-02P	50 × 8	3,500	2,380
		38M-TC0204P	50×8or15×16	3,500	2,380
		3815-10P	15 × 40	3,500	2,380
		3815-16P	15 × 54	3,500	2,370
		3810M-14P	5/7/10× 56	3,500	2,380
		3806-EK20P	Eiken Tube 6 × 80	3,500	2,330
		3810-N20P	10 × 80	3,500	2,270
		3805-FA16P	FACS Tube 5×64 ※7	3,500	2,080
		3802-EP24P	2 × 96	3,500	1,780
	B438-96		Microplate ×4	4,200	3,100
	B438-29		250 × 4	4,200	3,650
	B438-1507BH ※8		15 × 28	4,000	3,310
	B438-5002BH ※8-9		50 × 8		
			15 × 8		

※6 Rotor are High sealed with an optional bucket cap kit (B433). ※7 SHIONOGI tube(4ml × 64)available.
※8 Sealed buckets. ※9 Do not load different type of tubes at the same time.

NA-11
250ml×6(tubes):
12,000rpm:22,540G

NA-22HS
50ml×8(tubes):
14,000rpm:26,740G

TS-33N
250ml×4(tubes):5,000rpm:4,720G
Fig. Rotor is shown with Bucket B433, Rack 3315-TC04P and 3350-G01P for example only.



TS-36N
14ml×72(tubes):3,900rpm:3,110G
Fig. Rotor is shown with Bucket B436 and Rack AS36C-96D for example only.

TS-41N
Deep-well plate×4:
4,500rpm:3,150G
Bucket, Adapter and Bucket Cover are included.

Sales Office

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