

The very first

Ultra Series, since 1997

Vacuum freezing system, various Ultra tubes available for microscopic tissue separation.

Ultra 5.0



Features

- Maximum rotating speed : 50,000 rpm (254,345xg)
- Sealing system prevents leaking out of hazardous substance
- Surface treatment of rotor avoids the corrosion by caustic agent
- Control of operation is easy
- Well engineered design assures sound quality
- Autoclave of motor is workable
- High vacuum and especially flexible driving system of ultra high speed
- Ultra fine structure such as microbe and virus can be treated
- Vacuum pressure is precisely measured by digital gauge



A38.5U-8

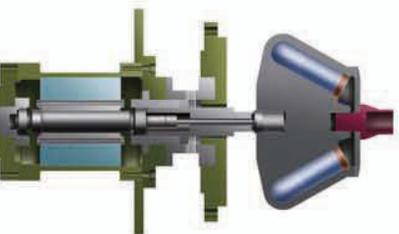


A250U-6

Ultra Speed in economic price
DNA, RNA, Protein separation by 50,000 rpm.

Accurate RPM repeatability
One-chip microprocessor control
250,000 xg / 50,000 RPM.

Durability
High vacuum system and high-speed flexible drive system.



Description	Specification	Remarks
RPM	50,000 rpm	
RCF	254,345 xg	
Max. capacity	250ml x 6	
Time	99hrs 59min 59sec	
Display	RPM, RCF, Time, Temperature, Temp.Limit, Program, Accel/Decel, Rotor Number, Rotor Radius, Self Test, f 0.2dt	
Accel/Decel	10 step	
Temperature	-10 °C ~ 40 °C	
Motor	AC Induction Motor	
Power supply	220V, 60Hz, single phase	
Dimension	710W x 1,000D x 1,260H/mm	
Weight, Kg	430Kg	

* Please note that technical specifications subject to change.

Supra 22K



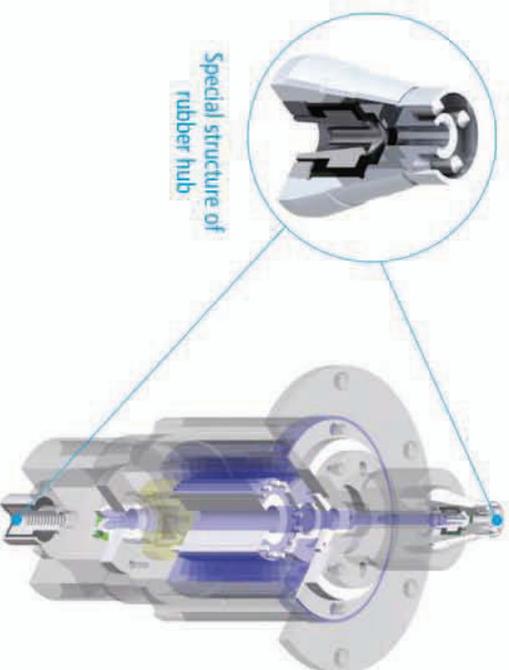
Control Display

- Customized Key Pad (Easy-to-use operation and correction)
- 10 steps for acceleration and deceleration can be selected for delicate liquid experiment
- Automatic RPM/RCF calculating system
- Changing term of timer during operation
- Time set up, max. 99 hours 59 minutes 59secs
- Radius of rotor set up by unit of 0.1mm
- Memory for saving experiment condition [100 memories]

Ultra 4.0 / 5.0 Supra 25 / 30K

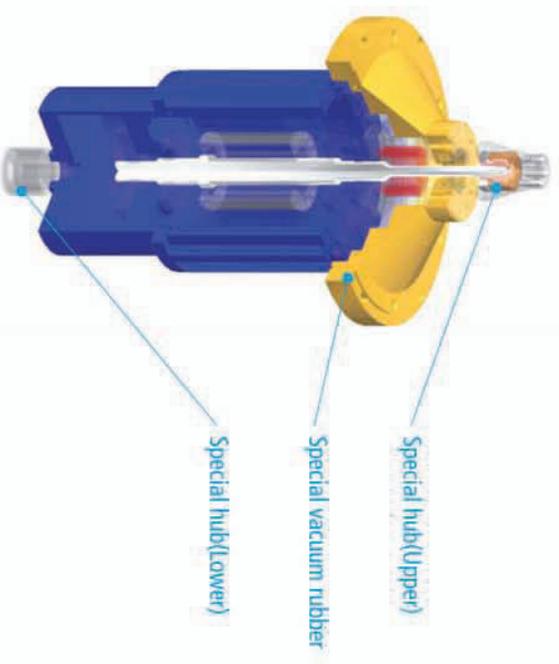


Supra, Continent 512R, Combi, Mega Series



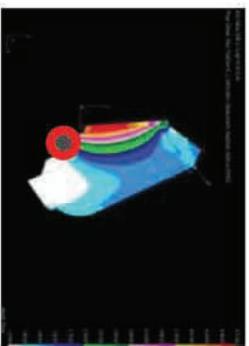
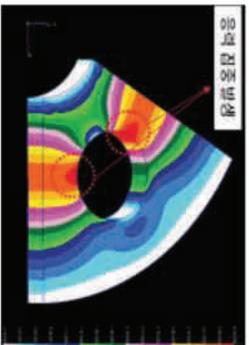
- Double layered vibration absorbing system of shock proof under patent
- Superior durability of bearings
- Easy balancing work
- Excellent durability and convenience

Supra 25 / 30K

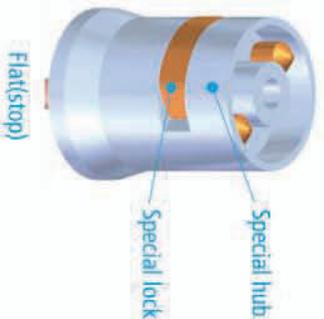
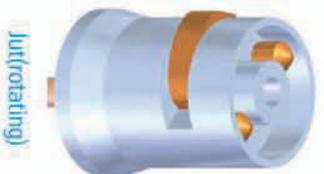
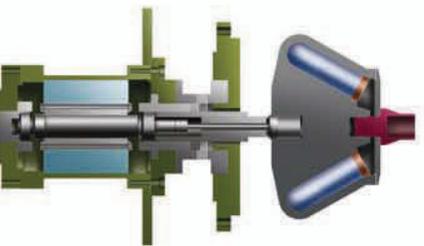


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Ultra 4.0 / 5.0

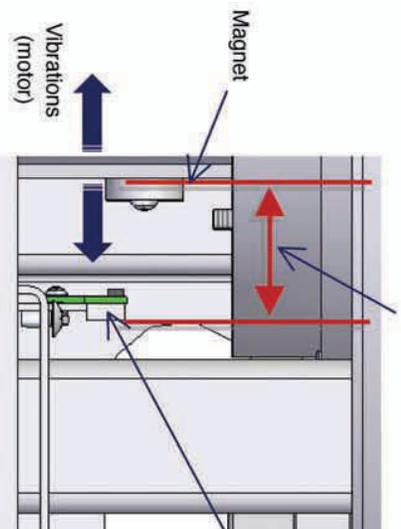


- Analyzing the phase of the ultra high speed rotor
- Principle
 - Rotation of body generates centrifigical force
 - Value of centrifigical force is proportioned to density X radius X rpm square
- Design is for the safety of operator performing the ultra high speed rotation



- Rotor with easy loading and unloading
- Compensation function of rotor with the special structure under patent.

Supra, Continent 512R, Combi Series



Imbalance hall sensor

- Recognition of motor imbalance to stop working. Based on theory that resistance can be different by proximity of magnet and hall sensor resistance

Angle Rotors (High Speed Centrifuge)

	A1.5S-36 No.14	Tube Capa.	0.2ml	0.5ml	1.5ml	2.0ml	Mega 17R Max. RPM : 15,000 Max. RCF : 29,104 xg Supra 22K Max. RPM : 18,000 Max. RCF : 41,910 xg Supra 25K Max. RPM : 20,000 Max. RCF : 51,741 xg Supra 30K Max. RPM : 20,000 Max. RCF : 51,741 xg
		DIM. \varnothing x L mm	6 x 18	8 x 30	11 x 38	11 x 38	
		Tube Type					
		Adapter					
		Tube per Rotor	36				
	Type	Angle Rotor $\angle 45^{\circ}\text{C}$	Max.RCF	42,573	46,643	52,546	
	Max. RPM	20,000 rpm	radius (mm)	95.2	104.3	115.7	
	Max. RC	52,546 xg	boring \varnothing x L mm	6 x 21	8 x 37	11 x 37.5	
	Radius	115.7 mm	Cat.NO.				
	A10S-12 No.2	Tube Capa.	10ml				Mega 17R Max. RPM : 17,000 Max. RCF : 27,496 xg Supra 22K Max. RPM : 22,000 Max. RCF : 46,049 xg Supra 25K Max. RPM : 25,000 Max. RCF : 59,464 xg Supra 30K Max. RPM : 30,000 Max. RCF : 85,628 xg
		DIM. \varnothing x L mm	16 x 82				
		Tube Type					
		Adapter					
		Tube per Rotor	12				
	Type	Angle Rotor $\angle 36^{\circ}\text{C}$	Max.RCF	85,628			
	Max. RPM	30,000 rpm	radius (mm)	85.1			
	Max. RC	85,628 xg	boring \varnothing x L mm	16.3 x 74.5			
	Radius	85.1 mm	Cat.NO.				
	A15S-12C No.8	Tube Capa.	15ml				Mega 17R Max. RPM : 15,000 Max. RCF : 25,004 xg Supra 22K Max. RPM : 17,000 Max. RCF : 32,116 xg Supra 25K Max. RPM : 17,000 Max. RCF : 32,116 xg Supra 30K Max. RPM : 17,000 Max. RCF : 32,116 xg
		DIM. \varnothing x L mm	17 x 120				
		Tube Type					
		Adapter					
		Tube per Rotor	12				
	Type	Angle Rotor $\angle 25^{\circ}\text{C}$	Max.RCF	32,116			
	Max. RPM	17,000 rpm	radius (mm)	99.4			
	Max. RC	32,116 xg	boring \varnothing x L mm	17 x 115			
	Radius	99.4 mm	Cat.NO.				
	A15S-12 No.4	Tube Capa.	15(16)ml				Mega 17R Max. RPM : 17,000 Max. RCF : 31,050 xg Supra 22K Max. RPM : 22,000 Max. RCF : 52,001 xg Supra 25K Max. RPM : 25,000 Max. RCF : 67,150 xg Supra 30K Max. RPM : 30,000 Max. RCF : 96,696 xg
		DIM. \varnothing x L mm	18 x 100				
		Tube Type					
		Adapter					
		Tube per Rotor	12				
	Type	Angle Rotor $\angle 25^{\circ}\text{C}$	Max.RCF	96,696			
	Max. RPM	30,000 rpm	radius (mm)	96.1			
	Max. RC	96,696 xg	boring \varnothing x L mm	19 x 96			
	Radius	96.1 mm	Cat.NO.				
	A50S-6C No.6	Tube Capa.	50ml				Mega 17R Max. RPM : 15,000 Max. RCF : 22,891 xg Supra 22K Max. RPM : 17,000 Max. RCF : 29,402 xg Supra 25K Max. RPM : 17,000 Max. RCF : 29,402 xg Supra 30K Max. RPM : 17,000 Max. RCF : 29,402 xg
		DIM. \varnothing x L mm	29 x 115				
		Tube Type					
		Adapter					
		Tube per Rotor	6				
	Type	Angle Rotor $\angle 40^{\circ}\text{C}$	Max.RCF	29,402			
	Max. RPM	17,000 rpm	radius (mm)	91.0			
	Max. RC	29,402 xg	boring \varnothing x L mm	29.5 x 108.6			
	Radius	91 mm	Cat.NO.				

Angle Rotors (High Speed Centrifuge)

	A50S-6 No.5	Tube Capa.	15(16)ml	50ml	50ml	Mega 17R Max. RPM : 17,000 Max. RCF : 31,050 xg Supra 22K Max. RPM : 22,000 Max. RCF : 52,001 xg Supra 25K Max. RPM : 25,000 Max. RCF : 67,150 xg Supra 30K Max. RPM : 30,000 Max. RCF : 96,696 xg
		DIM. Ø x L mm	18 x 100	28.7 x 104	28.8 x 107	
		Tube Type				
		Adapter				
		Tube per Rotor	6			
Type	Angle Rotor ∠30°C	Max.RCF	90,558	96,696		
Max. RPM	30,000 rpm	radius (mm)	90.0	96		
Max. RC	96,696 xg	boring Ø x L mm	18.5 x 92	29 x 100		
Radius	96.1 mm	Cat.NO.				
	A50S-8 No.7	Tube Capa.	15(16)ml	50ml	50ml	Mega 17R Max. RPM : 15,000 Max. RCF : 24,878 xg Supra 22K Max. RPM : 22,000 Max. RCF : 53,516 xg Supra 25K Max. RPM : 25,000 Max. RCF : 69,106 xg Supra 30K Max. RPM : 30,000 Max. RCF : 99,513 xg
		DIM. Ø x L mm	18 x 100	28.7 x 104	28.8 x 107	
		Tube Type				
		Adapter				
		Tube per Rotor	8			
Type	Angle Rotor ∠36°C	Max.RCF	93,375	99,513		
Max. RPM	30,000 rpm	radius (mm)	92.8	98.9		
Max. RC	99,513 xg	boring Ø x L mm	18.5 x 92	29 x 100		
Radius	98.9 mm	Cat.NO.				
	A85S-6 No.9	Tube Capa.	85ml			Mega 17R Max. RPM : 15,000 Max. RCF : 23,193 xg Supra 22K Max. RPM : 20,000 Max. RCF : 41,232 xg Supra 25K Max. RPM : 25,000 Max. RCF : 64,425 xg Supra 30K Max. RPM : 25,000 Max. RCF : 64,425 xg
		DIM. Ø x L mm	38.2 x 105.7			
		Tube Type				
		Adapter				
		Tube per Rotor	6			
Type	Angle Rotor ∠25°C	Max.RCF	64,425			
Max. RPM	25,000 rpm	radius (mm)	92.2			
Max. RC	64,425 xg	boring Ø x L mm	38.5 x 90			
Radius	92.2 mm	Cat.NO.				
	A250S-6 No.10	Tube Capa.	250ml	250ml		Supra 22K Max. RPM : 12,000 Max. RCF : 22,265 xg Supra 25K Max. RPM : 14,000 Max. RCF : 30,305 xg Supra 30K Max. RPM : 14,000 Max. RCF : 30,305 xg
		DIM. Ø x L mm	61.8 x 127.7	61 x 134		
		Tube Type				
		Adapter				
		Tube per Rotor	6			
Type	Angle Rotor ∠25°C	Max.RCF	30,305			
Max. RPM	14,000 rpm	radius (mm)	138.3			
Max. RC	30,305 xg	boring Ø x L mm	62 x 103			
Radius	138.3mm	Cat.NO.				

Angle Rotors (High Speed Centrifuge)

S250S-4 No.10		Tube Capa.	250ml	250ml					
		DIM. Øx Lmm	61.8x127.7	61x134					
		Tube Type							
		Adapter							
		Tube per Rotor	4						
		Max.RCF	30,305						
Type	Swing Rotor ∠90°	Radius (mm)	140.4						
Max. RPM	6,000 rpm	boring ØxLmm	62x103						
Max. RCF	5,796 xg	Cat.NO.							
Radius	140.4mm								
		Supra 22K Max. RPM : 6,000 Max. RCF : 5,796 xg Supra 25K Max. RPM : 6,000 Max. RCF : 5,796 xg Supra 30K Max. RPM : 6,000 Max. RCF : 5,796 xg							

A500S-6 No.11		Tube Capa.	500ml						
		DIM. Ø x L mm	69.5 x 170						
		Tube Type							
		Adapter							
		Tube per Rotor	6						
		Max.RCF	17,743						
Type	Angle Rotor ∠25°C	radius (mm)	158.7						
Max. RPM	10,000 rpm	boring Ø x L mm	70 x 141						
Max. RC	17,743 xg	Cat.NO.							
Radius	158.7 mm								
		Supra 22K Max. RPM : 9,000 Max. RCF : 14,372 xg Supra 25K Max. RPM : 10,000 Max. RCF : 17,743 xg Supra 30K Max. RPM : 10,000 Max. RCF : 17,743 xg							

A1000S-4 No.12		Tube Capa.	1000ml						
		DIM. Ø x L mm	96 x 176						
		Tube Type							
		Adapter							
		Tube per Rotor	4						
		Max.RCF	12,157						
Type	Angle Rotor ∠25°C	radius (mm)	169.9						
Max. RPM	8,000 rpm	boring Ø x L mm	97 x 144						
Max. RC	12,157 xg	Cat.NO.							
Radius	169.9 mm								
		Supra 22K Max. RPM : 8,000 Max. RCF : 12,157 xg Supra 25K Max. RPM : 8,000 Max. RCF : 12,157 xg Supra 30K Max. RPM : 8,000 Max. RCF : 12,157 xg							

Angle Rotors (Ultra High Speed Centrifuge)

A1.5U-24 No.3 		Tube Capa. DIM. Ø x L mm Tube Type Adapter Tube per Rotor Max.RCF radius (mm) boring Ø x L mm Cat.NO.	1.5ml 11 x 38   24 145,966 81.6 11 x 37.5 11 x 37.5	Ultra 4.0 Max. RPM : 30,000 Max. RCF : 82,106 xg Ultra 5.0 Max. RPM : 40,000 Max. RCF : 145,966 xg
Type Angle Rotor ∠40°C Max. RPM 40,000 rpm Max. RC 145,966 xg Radius 81.6 mm				
A10U-12 No.4 		Tube Capa. DIM. Ø x L mm Tube Type Adapter Tube per Rotor Max.RCF radius (mm) boring Ø x L mm Cat.NO.	10ml 16 x 67  12 181,795 80.3 16.5 x 70 16.5 x 70	Ultra 4.0 Max. RPM : 35,000 Max. RCF : 109,975 xg Ultra 5.0 Max. RPM : 45,000 Max. RCF : 181,795 xg
Type Angle Rotor ∠26°C Max. RPM 45,000 rpm Max. RC 181,795 xg Radius 80.3 mm				
A13.5U-8 No.5 		Tube Capa. DIM. Ø x L mm Tube Type Adapter Tube per Rotor Max.RCF radius (mm) boring Ø x L mm Cat.NO.	13.5ml 16.2 x 78  8 203,197 72.7 16.5 x 83.5 16.5 x 83.5	Ultra 4.0 Max. RPM : 40,000 Max. RCF : 130,046 xg Ultra 5.0 Max. RPM : 50,000 Max. RCF : 203,197 xg
Type Angle Rotor ∠26°C Max. RPM 50,000 rpm Max. RC 203,197 xg Radius 72.7 mm				
A13.5U-12 No.1 		Tube Capa. DIM. Ø x L mm Tube Type Adapter Tube per Rotor Max.RCF radius (mm) boring Ø x L mm Cat.NO.	13.5ml 16.2 x 78  12 242,886 86.9 16.5 x 82.5 16.5 x 82.5	Ultra 4.0 Max. RPM : 40,000 Max. RCF : 155,447 xg Ultra 5.0 Max. RPM : 50,000 Max. RCF : 242,886 xg
Type Angle Rotor ∠26°C Max. RPM 50,000 rpm Max. RC 242,886 xg Radius 86.9 mm				
A38.5U-6 No.9 		Tube Capa. DIM. Ø x L mm Tube Type Adapter Tube per Rotor Max.RCF radius (mm) boring Ø x L mm Cat.NO.	38.5ml 25 x 89  6 252,389 90.3 25.7 x 92.3 25.7 x 92.3	Ultra 4.0 Max. RPM : 40,000 Max. RCF : 161,529 xg Ultra 5.0 Max. RPM : 50,000 Max. RCF : 252,389 xg
Type Angle Rotor ∠29°C Max. RPM 50,000 rpm Max. RC 252,389 xg Radius 90.3 mm				

Angle Rotors (Ultra High Speed Centrifuge)

		Tube Capa.	38.5ml			Ultra 4.0 Max. RPM : 40,000 Max. RCF : 175,302 xg Ultra 5.0 Max. RPM : 50,000 Max. RCF : 221,867 xg
		DIM. Ø x L mm	25 x 89			
Type	Angle Rotor ∠30°C					
Max. RPM	45,000 rpm					
Max. RC	221,867 xg					
Radius	98 mm					
		Tube Type				
		Adapter				
		Tube per Rotor	8			
		Max.RCF	221,867			
		radius (mm)	98.0			
		boring Ø x L mm	25.8 x 92.3			
		Cat.NO.				
		Tube Capa.	50ml			Ultra 4.0 Max. RPM : 30,000 Max. RCF : 99,916 xg Ultra 5.0 Max. RPM : 40,000 Max. RCF : 177,628 xg
		DIM. Ø x L mm	28.8 x 107			
Type	Angle Rotor ∠30°C					
Max. RPM	40,000 rpm					
Max. RC	177,628 xg					
Radius	99.3 mm					
		Tube Type				
		Adapter				
		Tube per Rotor	8			
		Max.RCF	177,628			
		radius (mm)	99.3			
		boring Ø x L mm	29 x 100.5			
		Cat.NO.				
		Tube Capa.	94ml			Ultra 4.0 Max. RPM : 30,000 Max. RCF : 100,016 xg Ultra 5.0 Max. RPM : 40,000 Max. RCF : 177,807 xg
		DIM. Ø x L mm	38 x 102			
Type	Angle Rotor ∠25°C					
Max. RPM	40,000 rpm					
Max. RC	177,807 xg					
Radius	99.4 mm					
		Tube Type				
		Adapter				
		Tube per Rotor	6			
		Max.RCF	177,807			
		radius (mm)	99.4			
		boring Ø x L mm	38 x 100			
		Cat.NO.				
		Tube Capa.	250ml			Ultra 4.0 Max. RPM : 19,000 Max. RCF : 52,064 xg Ultra 5.0 Max. RPM : 25,000 Max. RCF : 90,139 xg
		DIM. Ø x L mm	60 x 125			
Type	Angle Rotor ∠25°C					
Max. RPM	25,000 rpm					
Max. RC	90,139 xg					
Radius	129 mm					
		Tube Type				
		Adapter				
		Tube per Rotor	6			
		Max.RCF	90,139			
		radius (mm)	129			
		boring Ø x L mm	60 x 101			
		Cat.NO.				