

# High Speed Vacuum Centrifuge

High Speed Centrifuge capable of 25,000~30,000 RPM & 4,000ml separation.

## Supra 30K



### Features

- One chip microprocessor control
- Easy control of operation
- Well engineered design of motor assures sound quality
- Environmental refrigerating system of cfc-free
- Automatic RPM/RCF calculating system
- Feed-back system of vacuum control system
- Rotor of autoclave endurance
- high vacuum system and the 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

### Contamination Prevention System

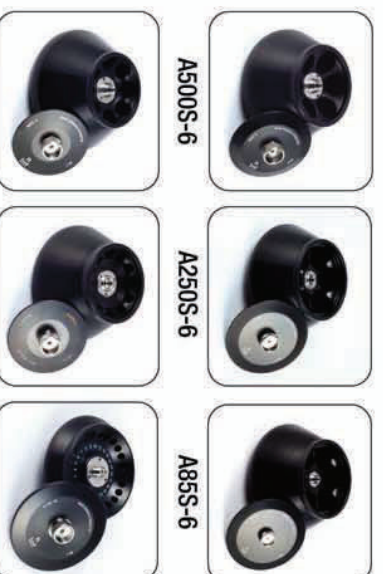
Easy cleaning and preventing contamination during use of machine.

### Various rotors available

Various rotors and tubes in need usable (1.5ml~1000ml)

### Temp. Limit System

Accurate temperature control by temperature recognition function.



| Description   | Specification                                                                                                             | Remarks |
|---------------|---------------------------------------------------------------------------------------------------------------------------|---------|
| RPM           | 30,000 rpm                                                                                                                |         |
| RCF           | 98,608 xg                                                                                                                 |         |
| Max. capacity | 1,000ml x 4                                                                                                               |         |
| Time          | 99hrs 59min 59sec                                                                                                         |         |
| Display       | RPM, RCF, Time, Temperature, Temp.Limit, Program, Accel/Decel Time, Rotor Number, Rotor Radius, Self Test, f $\omega$ 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    | 330Kg                                                                                                                     |         |

※ Please note that technical specifications subject to change.

# Supra 22K



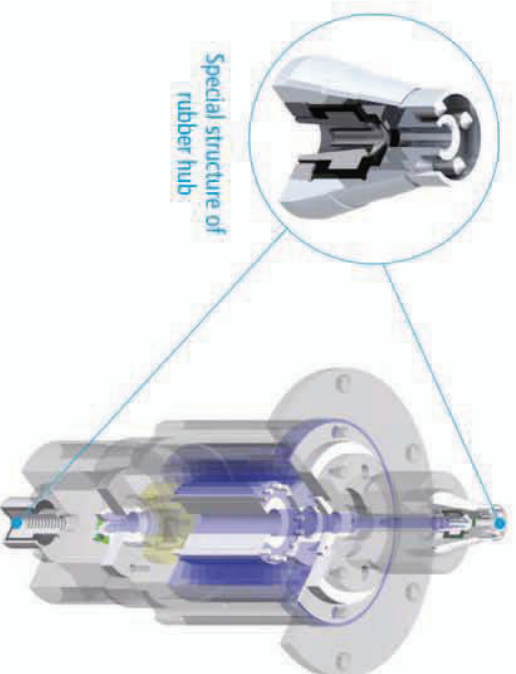
## Control Display

- 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

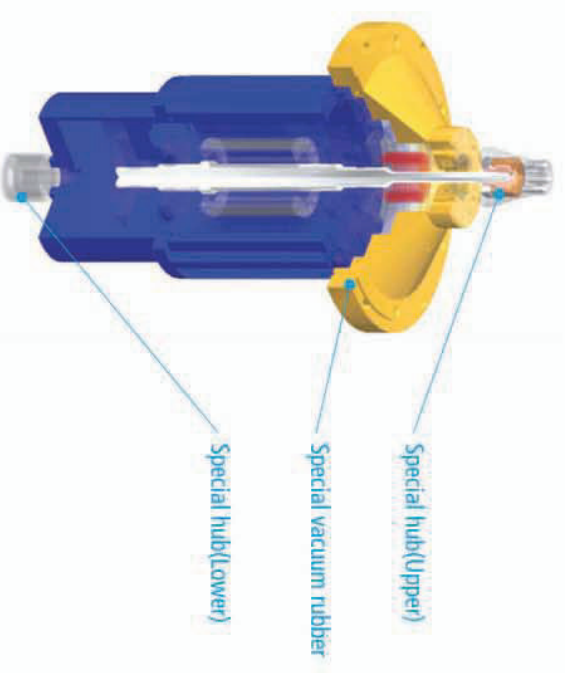


## Supra, Continent 512R, Combi, Mega Series



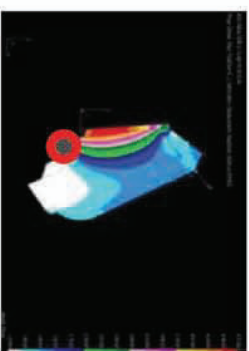
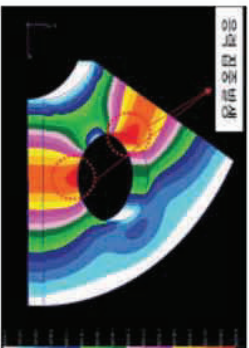
- Double layered vibration absorbing system of shock proof under patent
- Superior durability of bearings
- Easy balancing work
- Excellent durability and convenience

## Supra 25 / 30K

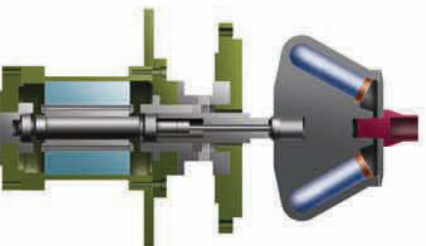


- Double layered vibration absorbing system of shock proof under patent
- Superior durability of bearings
- Easy balancing work
- Excellent durability and convenience

## 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



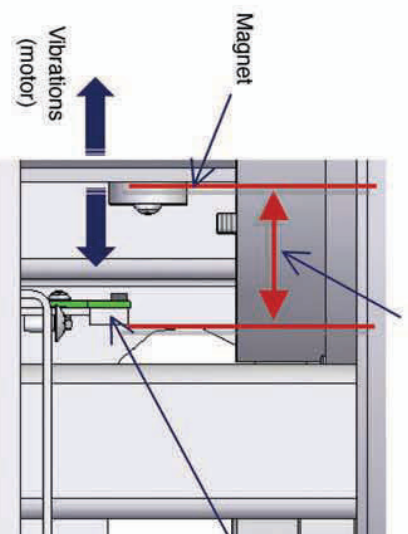
Special hub  
Special lock

Jur(rotating)

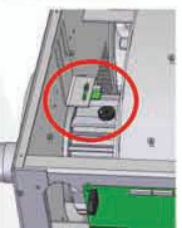
Flat(stop)

- 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)

|                       |                   |                                                                                   |  |            |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                                                                                                                                                                                                 |
|-----------------------|-------------------|-----------------------------------------------------------------------------------|--|------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A1.5S-36</b> No.14 |                   |  |  | Tube Capa. | 0.2ml                                                                             | 0.5ml                                                                             | 1.5ml                                                                              | 2.0ml                                                                               | <b>Mega 17R</b><br>Max. RPM : 15,000<br>Max. RCF : 29,104 xg<br><b>Supra 22K</b><br>Max. RPM : 18,000<br>Max. RCF : 41,910 xg<br><b>Supra 25K</b><br>Max. RPM : 20,000<br>Max. RCF : 51,741 xg<br><b>Supra 30K</b><br>Max. RPM : 20,000<br>Max. RCF : 51,741 xg |
|                       |                   | DIM. Ø 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 ∠45°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 Ø x L mm                                                                   |  |            | 6 x 21                                                                            | 8 x 37                                                                            |                                                                                    | 11 x 37.5                                                                           |                                                                                                                                                                                                                                                                 |
| Radius                | 115.7 mm          | Cat.NO.                                                                           |  |            |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                                                                                                                                                                                                 |

|                     |                   |                                                                                   |  |            |                                                                                   |  |  |  |                                                                                                                                                                                                                                                                 |
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| <b>A10S-12</b> No.2 |                   |  |  | Tube Capa. | 10ml                                                                              |  |  |  | <b>Mega 17R</b><br>Max. RPM : 17,000<br>Max. RCF : 27,496 xg<br><b>Supra 22K</b><br>Max. RPM : 22,000<br>Max. RCF : 46,049 xg<br><b>Supra 25K</b><br>Max. RPM : 25,000<br>Max. RCF : 59,464 xg<br><b>Supra 30K</b><br>Max. RPM : 30,000<br>Max. RCF : 85,628 xg |
|                     |                   | DIM. Ø x L mm                                                                     |  |            | 16 x 82                                                                           |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Tube Type                                                                         |  |            |  |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Adapter                                                                           |  |            |                                                                                   |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Tube per Rotor                                                                    |  |            | 12                                                                                |  |  |  |                                                                                                                                                                                                                                                                 |
| Type                | Angle Rotor ∠36°C | Max.RCF                                                                           |  |            | 85,628                                                                            |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RPM            | 30,000 rpm        | radius (mm)                                                                       |  |            | 85.1                                                                              |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RC             | 85,628 xg         | boring Ø x L mm                                                                   |  |            | 16.3 x 74.5                                                                       |  |  |  |                                                                                                                                                                                                                                                                 |
| Radius              | 85.1 mm           | Cat.NO.                                                                           |  |            |                                                                                   |  |  |  |                                                                                                                                                                                                                                                                 |

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| <b>A15S-12C</b> No.8 |                   |  |  | Tube Capa. | 15ml                                                                                |  |  |  | <b>Mega 17R</b><br>Max. RPM : 15,000<br>Max. RCF : 25,004 xg<br><b>Supra 22K</b><br>Max. RPM : 17,000<br>Max. RCF : 32,116 xg<br><b>Supra 25K</b><br>Max. RPM : 17,000<br>Max. RCF : 32,116 xg<br><b>Supra 30K</b><br>Max. RPM : 17,000<br>Max. RCF : 32,116 xg |
|                      |                   | DIM. Ø x L mm                                                                       |  |            | 17 x 120                                                                            |  |  |  |                                                                                                                                                                                                                                                                 |
|                      |                   | Tube Type                                                                           |  |            |  |  |  |  |                                                                                                                                                                                                                                                                 |
|                      |                   | Adapter                                                                             |  |            |                                                                                     |  |  |  |                                                                                                                                                                                                                                                                 |
|                      |                   | Tube per Rotor                                                                      |  |            | 12                                                                                  |  |  |  |                                                                                                                                                                                                                                                                 |
| Type                 | Angle Rotor ∠25°C | Max.RCF                                                                             |  |            | 32,116                                                                              |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RPM             | 17,000 rpm        | radius (mm)                                                                         |  |            | 99.4                                                                                |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RC              | 32,116 x g        | boring Ø x L mm                                                                     |  |            | 17 x 115                                                                            |  |  |  |                                                                                                                                                                                                                                                                 |
| Radius               | 99.4 mm           | Cat.NO.                                                                             |  |            |                                                                                     |  |  |  |                                                                                                                                                                                                                                                                 |

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| <b>A15S-12</b> No.4 |                   |  |  | Tube Capa. | 15(16)ml                                                                            |  |  |  | <b>Mega 17R</b><br>Max. RPM : 17,000<br>Max. RCF : 31,050 xg<br><b>Supra 22K</b><br>Max. RPM : 22,000<br>Max. RCF : 52,001 xg<br><b>Supra 25K</b><br>Max. RPM : 25,000<br>Max. RCF : 67,150 xg<br><b>Supra 30K</b><br>Max. RPM : 30,000<br>Max. RCF : 96,696 xg |
|                     |                   | DIM. Ø x L mm                                                                       |  |            | 18 x 100                                                                            |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Tube Type                                                                           |  |            |  |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Adapter                                                                             |  |            |                                                                                     |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Tube per Rotor                                                                      |  |            | 12                                                                                  |  |  |  |                                                                                                                                                                                                                                                                 |
| Type                | Angle Rotor ∠25°C | Max.RCF                                                                             |  |            | 96,696                                                                              |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RPM            | 30,000 rpm        | radius (mm)                                                                         |  |            | 96.1                                                                                |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RC             | 96,696 xg         | boring Ø x L mm                                                                     |  |            | 19 x 96                                                                             |  |  |  |                                                                                                                                                                                                                                                                 |
| Radius              | 96.1 mm           | Cat.NO.                                                                             |  |            |                                                                                     |  |  |  |                                                                                                                                                                                                                                                                 |

|                     |                   |                                                                                     |  |            |                                                                                     |  |  |  |                                                                                                                                                                                                                                                                 |
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| <b>A50S-6C</b> No.6 |                   |  |  | Tube Capa. | 50ml                                                                                |  |  |  | <b>Mega 17R</b><br>Max. RPM : 15,000<br>Max. RCF : 22,891 xg<br><b>Supra 22K</b><br>Max. RPM : 17,000<br>Max. RCF : 29,402 xg<br><b>Supra 25K</b><br>Max. RPM : 17,000<br>Max. RCF : 29,402 xg<br><b>Supra 30K</b><br>Max. RPM : 17,000<br>Max. RCF : 29,402 xg |
|                     |                   | DIM. Ø x L mm                                                                       |  |            | 29 x 115                                                                            |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Tube Type                                                                           |  |            |  |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Adapter                                                                             |  |            |                                                                                     |  |  |  |                                                                                                                                                                                                                                                                 |
|                     |                   | Tube per Rotor                                                                      |  |            | 6                                                                                   |  |  |  |                                                                                                                                                                                                                                                                 |
| Type                | Angle Rotor ∠40°C | Max.RCF                                                                             |  |            | 29,402                                                                              |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RPM            | 17,000 rpm        | radius (mm)                                                                         |  |            | 91.0                                                                                |  |  |  |                                                                                                                                                                                                                                                                 |
| Max. RC             | 29,402 xg         | boring Ø x L mm                                                                     |  |            | 29.5 x 108.6                                                                        |  |  |  |                                                                                                                                                                                                                                                                 |
| Radius              | 91 mm             | Cat.NO.                                                                             |  |            |                                                                                     |  |  |  |                                                                                                                                                                                                                                                                 |

## Angle Rotors (High Speed Centrifuge)

|                                                                                   |                   |                 |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                                                                                                                 |
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| <b>A50S-6 No.5</b>                                                                |                   | Tube Capa.      | 15(16)ml                                                                          | 50ml                                                                              | 50ml                                                                               | <b>Mega 17R</b><br>Max. RPM : 17,000<br>Max. RCF : 31,050 xg<br><b>Supra 22K</b><br>Max. RPM : 22,000<br>Max. RCF : 52,001 xg<br><b>Supra 25K</b><br>Max. RPM : 25,000<br>Max. RCF : 67,150 xg<br><b>Supra 30K</b><br>Max. RPM : 30,000<br>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.         |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                                                                                                                 |

|                                                                                   |                   |                 |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                                                                                                                 |
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| <b>A50S-8 No.7</b>                                                                |                   | Tube Capa.      | 15(16)ml                                                                          | 50ml                                                                              | 50ml                                                                               | <b>Mega 17R</b><br>Max. RPM : 15,000<br>Max. RCF : 24,878 xg<br><b>Supra 22K</b><br>Max. RPM : 22,000<br>Max. RCF : 53,516 xg<br><b>Supra 25K</b><br>Max. RPM : 25,000<br>Max. RCF : 69,106 xg<br><b>Supra 30K</b><br>Max. RPM : 30,000<br>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.         |                                                                                   |                                                                                   |                                                                                    |                                                                                                                                                                                                                                                                 |

|                                                                                     |                   |                 |                                                                                     |  |  |                                                                                                                                                                                                                                                                 |
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| <b>A85S-6 No.9</b>                                                                  |                   | Tube Capa.      | 85ml                                                                                |  |  | <b>Mega 17R</b><br>Max. RPM : 15,000<br>Max. RCF : 23,193 xg<br><b>Supra 22K</b><br>Max. RPM : 20,000<br>Max. RCF : 41,232 xg<br><b>Supra 25K</b><br>Max. RPM : 25,000<br>Max. RCF : 64,425 xg<br><b>Supra 30K</b><br>Max. RPM : 25,000<br>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.         |                                                                                     |  |  |                                                                                                                                                                                                                                                                 |

|                                                                                     |                   |                 |                                                                                     |                                                                                     |  |                                                                                                                                                                                                 |
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| <b>A250S-6 No.10</b>                                                                |                   | Tube Capa.      | 250ml                                                                               | 250ml                                                                               |  | <b>Supra 22K</b><br>Max. RPM : 12,000<br>Max. RCF : 22,265 xg<br><b>Supra 25K</b><br>Max. RPM : 14,000<br>Max. RCF : 30,305 xg<br><b>Supra 30K</b><br>Max. RPM : 14,000<br>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)

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

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

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

## Angle Rotors (Ultra High Speed Centrifuge)

|                      |                   |                                                                                   |                 |                                                                                   |                                                                                   |  |  |                                                                                                                                 |
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| <b>A1.5U-24 No.3</b> |                   |  | Tube Capa.      | 1.5ml                                                                             | 2.0ml                                                                             |  |  | <b>Ultra 4.0</b><br>Max. RPM : 30,000<br>Max. RCF : 82,106 xg<br><b>Ultra 5.0</b><br>Max. RPM : 40,000<br>Max. RCF : 145,966 xg |
|                      |                   |                                                                                   | DIM. Ø x L mm   | 11 x 38                                                                           | 11 x 38                                                                           |  |  |                                                                                                                                 |
|                      |                   |                                                                                   | Tube Type       |  |  |  |  |                                                                                                                                 |
|                      |                   |                                                                                   | Adapter         |                                                                                   |                                                                                   |  |  |                                                                                                                                 |
|                      |                   |                                                                                   | Tube per Rotor  | 24                                                                                |                                                                                   |  |  |                                                                                                                                 |
|                      |                   |                                                                                   | Max.RCF         | 145,966                                                                           |                                                                                   |  |  |                                                                                                                                 |
| Type                 | Angle Rotor ∠40°C |                                                                                   | radius (mm)     | 81.6                                                                              |                                                                                   |  |  |                                                                                                                                 |
| Max. RPM             | 40,000 rpm        |                                                                                   | boring Ø x L mm | 11 x 37.5                                                                         | 11 x 37.5                                                                         |  |  |                                                                                                                                 |
| Max. RC              | 145,966 xg        |                                                                                   | Cat.NO.         |                                                                                   |                                                                                   |  |  |                                                                                                                                 |
| Radius               | 81.6 mm           |                                                                                   |                 |                                                                                   |                                                                                   |  |  |                                                                                                                                 |

|                     |                   |                                                                                   |                 |                                                                                   |  |  |  |                                                                                                                                  |
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| <b>A10U-12 No.4</b> |                   |  | Tube Capa.      | 10ml                                                                              |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 35,000<br>Max. RCF : 109,975 xg<br><b>Ultra 5.0</b><br>Max. RPM : 45,000<br>Max. RCF : 181,795 xg |
|                     |                   |                                                                                   | DIM. Ø x L mm   | 16 x 67                                                                           |  |  |  |                                                                                                                                  |
|                     |                   |                                                                                   | Tube Type       |  |  |  |  |                                                                                                                                  |
|                     |                   |                                                                                   | Adapter         |                                                                                   |  |  |  |                                                                                                                                  |
|                     |                   |                                                                                   | Tube per Rotor  | 12                                                                                |  |  |  |                                                                                                                                  |
|                     |                   |                                                                                   | Max.RCF         | 181,795                                                                           |  |  |  |                                                                                                                                  |
| Type                | Angle Rotor ∠26°C |                                                                                   | radius (mm)     | 80.3                                                                              |  |  |  |                                                                                                                                  |
| Max. RPM            | 45,000 rpm        |                                                                                   | boring Ø x L mm | 16.5 x 70                                                                         |  |  |  |                                                                                                                                  |
| Max. RC             | 181,795 xg        |                                                                                   | Cat.NO.         |                                                                                   |  |  |  |                                                                                                                                  |
| Radius              | 80.3 mm           |                                                                                   |                 |                                                                                   |  |  |  |                                                                                                                                  |

|                      |                   |                                                                                     |                 |                                                                                     |  |  |  |                                                                                                                                  |
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| <b>A13.5U-8 No.5</b> |                   |  | Tube Capa.      | 13.5ml                                                                              |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 40,000<br>Max. RCF : 130,046 xg<br><b>Ultra 5.0</b><br>Max. RPM : 50,000<br>Max. RCF : 203,197 xg |
|                      |                   |                                                                                     | DIM. Ø x L mm   | 16.2 x 78                                                                           |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Tube Type       |  |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Adapter         |                                                                                     |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Tube per Rotor  | 8                                                                                   |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Max.RCF         | 203,197                                                                             |  |  |  |                                                                                                                                  |
| Type                 | Angle Rotor ∠26°C |                                                                                     | radius (mm)     | 72.7                                                                                |  |  |  |                                                                                                                                  |
| Max. RPM             | 50,000 rpm        |                                                                                     | boring Ø x L mm | 16.5 x 83.5                                                                         |  |  |  |                                                                                                                                  |
| Max. RC              | 203,197 xg        |                                                                                     | Cat.NO.         |                                                                                     |  |  |  |                                                                                                                                  |
| Radius               | 72.7 mm           |                                                                                     |                 |                                                                                     |  |  |  |                                                                                                                                  |

|                       |                   |                                                                                     |                 |                                                                                     |  |  |  |                                                                                                                                  |
|-----------------------|-------------------|-------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------|--|--|--|----------------------------------------------------------------------------------------------------------------------------------|
| <b>A13.5U-12 No.1</b> |                   |  | Tube Capa.      | 13.5ml                                                                              |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 40,000<br>Max. RCF : 155,447 xg<br><b>Ultra 5.0</b><br>Max. RPM : 50,000<br>Max. RCF : 242,886 xg |
|                       |                   |                                                                                     | DIM. Ø x L mm   | 16.2 x 78                                                                           |  |  |  |                                                                                                                                  |
|                       |                   |                                                                                     | Tube Type       |  |  |  |  |                                                                                                                                  |
|                       |                   |                                                                                     | Adapter         |                                                                                     |  |  |  |                                                                                                                                  |
|                       |                   |                                                                                     | Tube per Rotor  | 12                                                                                  |  |  |  |                                                                                                                                  |
|                       |                   |                                                                                     | Max.RCF         | 242,886                                                                             |  |  |  |                                                                                                                                  |
| Type                  | Angle Rotor ∠26°C |                                                                                     | radius (mm)     | 86.9                                                                                |  |  |  |                                                                                                                                  |
| Max. RPM              | 50,000 rpm        |                                                                                     | boring Ø x L mm | 16.5 x 82.5                                                                         |  |  |  |                                                                                                                                  |
| Max. RC               | 242,886 xg        |                                                                                     | Cat.NO.         |                                                                                     |  |  |  |                                                                                                                                  |
| Radius                | 86.9 mm           |                                                                                     |                 |                                                                                     |  |  |  |                                                                                                                                  |

|                      |                   |                                                                                     |                 |                                                                                     |  |  |  |                                                                                                                                  |
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| <b>A38.5U-6 No.9</b> |                   |  | Tube Capa.      | 38.5ml                                                                              |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 40,000<br>Max. RCF : 161,529 xg<br><b>Ultra 5.0</b><br>Max. RPM : 50,000<br>Max. RCF : 252,389 xg |
|                      |                   |                                                                                     | DIM. Ø x L mm   | 25 x 89                                                                             |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Tube Type       |  |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Adapter         |                                                                                     |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Tube per Rotor  | 6                                                                                   |  |  |  |                                                                                                                                  |
|                      |                   |                                                                                     | Max.RCF         | 252,389                                                                             |  |  |  |                                                                                                                                  |
| Type                 | Angle Rotor ∠29°C |                                                                                     | radius (mm)     | 90.3                                                                                |  |  |  |                                                                                                                                  |
| Max. RPM             | 50,000 rpm        |                                                                                     | boring Ø x L mm | 25.7 x 92.3                                                                         |  |  |  |                                                                                                                                  |
| Max. RC              | 252,389 xg        |                                                                                     | Cat.NO.         |                                                                                     |  |  |  |                                                                                                                                  |
| Radius               | 90.3 mm           |                                                                                     |                 |                                                                                     |  |  |  |                                                                                                                                  |

## Angle Rotors (Ultra High Speed Centrifuge)

|                                                                                                            |                   |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------|-------------------|-----------------|-------------------------------------------------------------------------------------|--|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------|
| <b>A38.5U-8 No.2</b><br>  |                   | Tube Capa.      | 38.5ml                                                                              |  |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 40,000<br>Max. RCF : 175,302 xg<br><br><b>Ultra 5.0</b><br>Max. RPM : 50,000<br>Max. RCF : 221,867 xg |
|                                                                                                            |                   | DIM. Ø x L mm   | 25 x 89                                                                             |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube Type       |    |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Adapter         |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube per Rotor  | 8                                                                                   |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Max.RCF         | 221,867                                                                             |  |  |  |  |                                                                                                                                      |
| Type                                                                                                       | Angle Rotor ∠30°C |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RPM                                                                                                   | 45,000 rpm        |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RC                                                                                                    | 221,867 xg        |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Radius                                                                                                     | 98 mm             |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | boring Ø x L mm | 25.8 x 92.3                                                                         |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Cat.NO.         |                                                                                     |  |  |  |  |                                                                                                                                      |
| <b>A50U-8 No.6</b><br>    |                   | Tube Capa.      | 50ml                                                                                |  |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 30,000<br>Max. RCF : 99,916 xg<br><br><b>Ultra 5.0</b><br>Max. RPM : 40,000<br>Max. RCF : 177,628 xg  |
|                                                                                                            |                   | DIM. Ø x L mm   | 28.8 x 107                                                                          |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube Type       |    |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Adapter         |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube per Rotor  | 8                                                                                   |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Max.RCF         | 177,628                                                                             |  |  |  |  |                                                                                                                                      |
| Type                                                                                                       | Angle Rotor ∠30°C |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RPM                                                                                                   | 40,000 rpm        |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RC                                                                                                    | 177,628 xg        |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Radius                                                                                                     | 99.3 mm           |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | boring Ø x L mm | 29 x 100.5                                                                          |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Cat.NO.         |                                                                                     |  |  |  |  |                                                                                                                                      |
| <b>A94U-6 No.7</b><br>  |                   | Tube Capa.      | 94ml                                                                                |  |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 30,000<br>Max. RCF : 100,016 xg<br><br><b>Ultra 5.0</b><br>Max. RPM : 40,000<br>Max. RCF : 177,807 xg |
|                                                                                                            |                   | DIM. Ø x L mm   | 38 x 102                                                                            |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube Type       |  |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Adapter         |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube per Rotor  | 6                                                                                   |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Max.RCF         | 177,807                                                                             |  |  |  |  |                                                                                                                                      |
| Type                                                                                                       | Angle Rotor ∠25°C |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RPM                                                                                                   | 40,000 rpm        |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RC                                                                                                    | 177,807 xg        |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Radius                                                                                                     | 99.4 mm           |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | boring Ø x L mm | 38 x 100                                                                            |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Cat.NO.         |                                                                                     |  |  |  |  |                                                                                                                                      |
| <b>A250U-6 No.8</b><br> |                   | Tube Capa.      | 250ml                                                                               |  |  |  |  | <b>Ultra 4.0</b><br>Max. RPM : 19,000<br>Max. RCF : 52,064 xg<br><br><b>Ultra 5.0</b><br>Max. RPM : 25,000<br>Max. RCF : 90,139 xg   |
|                                                                                                            |                   | DIM. Ø x L mm   | 60 x 125                                                                            |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube Type       |  |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Adapter         |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Tube per Rotor  | 6                                                                                   |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Max.RCF         | 90,139                                                                              |  |  |  |  |                                                                                                                                      |
| Type                                                                                                       | Angle Rotor ∠25°C |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RPM                                                                                                   | 25,000 rpm        |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Max. RC                                                                                                    | 90,139 xg         |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
| Radius                                                                                                     | 129 mm            |                 |                                                                                     |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | boring Ø x L mm | 60 x 101                                                                            |  |  |  |  |                                                                                                                                      |
|                                                                                                            |                   | Cat.NO.         |                                                                                     |  |  |  |  |                                                                                                                                      |