AVANTI J-15 SERIES
THE RELIABILITY AND PERFORMANCE YOU TRUST

ULTRAHarmonic Technology

BRILLIANCE at every turn.

BECKMAN COULTER
Life Sciences
THE NEW AVANTI J-15 SERIES IS PART OF A NEW FAMILY OF LIFE SCIENCE EQUIPMENT THAT PROVIDES THE EXCEPTIONAL PERFORMANCE YOU EXPECT FROM BECKMAN COULTER.

The Avanti J-15 is an all around solution for everyday scientific needs.

**Tissue Culture**
Routine cell culture procedures are made easy and safe with the use of aerosolve canister. The BioCertified* enhancement is made of a clear shell to allow sample visibility even before the canister is opened.

**Transfection/Transduction**
Centrifugal boosts, or spinfection, increases transduction and transfection rate up to 10 fold.

**Assay Setup**
The microplate carriers add the versatility to perform assays or grow cells in a plate format.

**Nucleic Acid Purification**
Achieve high quality plasmid DNA purification using low speed centrifugation and swinging bucket.

**Blood Component Separation**
Optimize blood sample separations with new technology that avoids sample interface disturbances for grow cells in a plate format.

---

* BioCertified has been tested and validated to demonstrate containment of microbial aerosols by an independent third party facility (Health Protection Agency, Porton Down, UK or USAMRIID, Ft. Detrick, MD, USA).
The Ultra Harmonic Technology optimizes sample separation by reducing the net changes of forces to the sample, maximizing the amount of specimen presence in the pellet, and reducing the presence of contaminants or unpelleted materials in the supernatant.

It also optimizes time by implementing faster acceleration and deceleration profiles without compromising on sample quality.
Early Imbalance Detection Within 30 seconds

Increases confidence on experimental runs

We’ve optimized our sensitivity to detect rotor imbalance as close to the beginning of the run as possible. That means the user can set the experiment and walk away with confidence. This saves time and protects the sample.

True Imbalance Detection

Reduces false diagnostics

Our improved hardware and software accurately respond to true imbalance without triggering nuisance imbalance diagnostics. This feature reduces the hassle and downtime during the workflow. System allows up to 12 gram imbalance tolerance*

Lower Lift Over Height

Easy rotor swapping

Designed with the end-user in mind, the J-15 has a 13% lower lift over height when compared to the Allegra X-series centrifuges. This allows for easier rotor swapping for all user types.

ROTORS AVAILABLE

Swinging Bucket

JS-4.750

- Max RPM: 4,739 RPM
- Max RCF: 5,250 x g
- 3 liter Maximum Capacity
- BioSafe options
- Sample containers supported
  - Flasks
  - Tube range: 3 - 50mL
  - Bottles: 230 conical, 250, 500, 750mL
  - Aerosolve Canisters

JS-4.750μ

- Max RPM: 4,450 RPM
- Max RCF: 4,060 x g
- BioSafe options
- Plate Capacity
  - 16 single plates
  - 4 deep well

JA-10.100

- Max RPM: 10,200 RPM
- Max RCF: 11,420 x g
- 600mL Maximum Capacity
- BioSafe Certification
- Sample containers supported
  - 1.5, 10, 15, 50, 100mL tubes

Fixed Angle

Item No. | Item Description
--- | ---
B77580 | Rotor Assembly, JS-4.750
B77584 | Rotor Assembly, JA-10.100
B85980 | Rotor Assembly, JS-4.750 Microplate Carriers

* Using the JS-4.750 rotor
Swinging Bucket

Avanti J-15 series swinging bucket packages
Includes benchtop centrifuge and JS-4.750 (4 x 750 mL) swinging bucket rotor.
Bottles are NOT included and can be ordered separately.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C19399</td>
<td>Avanti J-15, IVD, Ventilated, 100-120 V, 50/60 Hz, Swinging Bucket Package</td>
</tr>
<tr>
<td>C19398</td>
<td>Avanti J-15R, IVD, Refrigerated, 120 V, 60 Hz, Swinging Bucket Package</td>
</tr>
<tr>
<td>C19400</td>
<td>Avanti J-15, Ventilated, 100-120 V, 50/60 Hz, Swinging Bucket Package</td>
</tr>
<tr>
<td>C19397</td>
<td>Avanti J-15R, Refrigerated, 120 V, 60 Hz, Swinging Bucket Package</td>
</tr>
</tbody>
</table>

Avanti J-15 series microplate packages
Includes benchtop centrifuge and JS-4.750µ microplate rotor (yoke with microplate carriers), 4 microplate carriers
Microplates and microplate covers are NOT included and can be ordered separately.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C19405</td>
<td>Avanti J-15, IVD, Ventilated, 100-120 V, 50/60 Hz, Microplate Package</td>
</tr>
<tr>
<td>C19404</td>
<td>Avanti J-15R, IVD, Refrigerated, 120 V, 60 Hz, Microplate Package</td>
</tr>
<tr>
<td>C19406</td>
<td>Avanti J-15, Ventilated, 100-120 V, 50/60 Hz, Microplate Package</td>
</tr>
<tr>
<td>C19403</td>
<td>Avanti J-15R, Refrigerated, 120 V, 60 Hz, Microplate Package</td>
</tr>
</tbody>
</table>

Avanti J-15 series cell culture packages
Includes benchtop centrifuge and JS-4.750 (4 x 750 mL) swinging bucket rotor, 15 mL conical tube adapters (qty 4) and 50 mL conical tube adapters (qty 4).
Bucket covers and tubes/bottles are NOT included and can be ordered separately.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C19417</td>
<td>Avanti J-15, IVD, Ventilated, 100-120 V, 50/60 Hz, Cell Culture Package</td>
</tr>
<tr>
<td>C19416</td>
<td>Avanti J-15R, IVD, Refrigerated, 120 V, 60 Hz, Cell Culture Package</td>
</tr>
<tr>
<td>C19418</td>
<td>Avanti J-15, Ventilated, 100-120 V, 50/60 Hz, Cell Culture Package</td>
</tr>
<tr>
<td>C19415</td>
<td>Avanti J-15R, Refrigerated, 120 V, 60 Hz, Cell Culture Package</td>
</tr>
</tbody>
</table>

Brilliance at Every Turn
Swinging Bucket

Avanti J-15 series biosafe packages

Includes benchtop centrifuge and BioCertified JS-4.750 (4 x 750 mL) swinging bucket rotor, BioCertified aerosolve canisters (qty 4), 15 mL conical BioSafe aerosolve canister tube racks (qty 4) and 50 mL conical BioSafe aerosolve canister tube racks (qty 4). (Rotor is BioCertified when used with aerosolve canisters.)

 Tubes/bottles are NOT included and can be ordered separately.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C19411</td>
<td>Avanti J-15, IVD, Ventilated, 100-120 V, 50/60 Hz, BioSafe Package</td>
</tr>
<tr>
<td>C19410</td>
<td>Avanti J-15R, IVD, Refrigerated, 120 V, 60 Hz, BioSafe Package</td>
</tr>
<tr>
<td>C19412</td>
<td>Avanti J-15, Ventilated, 100-120 V, 50/60 Hz, BioSafe Package</td>
</tr>
<tr>
<td>C19409</td>
<td>Avanti J-15R, Refrigerated, 120 V, 60 Hz, BioSafe Package</td>
</tr>
</tbody>
</table>

Avanti J-15 series blood sample packages

Includes benchtop centrifuge and JS-4.750 (4 x 750 mL) swinging bucket rotor, 13 mm diameter tube adapters (qty 4) and 16 mm diameter tube adapters (qty 4).

 Bucket covers and tubes/bottles are NOT included and can be ordered separately.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C19423</td>
<td>Avanti J-15, IVD, Ventilated, 100-120 V, 50/60 Hz, Blood Sample Package</td>
</tr>
<tr>
<td>C19422</td>
<td>Avanti J-15R, IVD, Refrigerated, 120 V, 60 Hz, Blood Sample Package</td>
</tr>
<tr>
<td>C19424</td>
<td>Avanti J-15, Ventilated, 100-120 V, 50/60 Hz, Blood Sample Package</td>
</tr>
<tr>
<td>C19421</td>
<td>Avanti J-15R, Refrigerated, 120 V, 60 Hz, Blood Sample Package</td>
</tr>
</tbody>
</table>

Fixed Angle

Avanti J-15 series Fixed Angle packages

Includes benchtop centrifuge and BioCertified JA-10.100 (6 x 100 mL) fixed angle rotor.

 Adapters, tubes/bottles are NOT included and can be ordered separately.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C19393</td>
<td>Avanti J-15, IVD, Ventilated, 100-120 V, 50/60 Hz, Fixed Angle Package</td>
</tr>
<tr>
<td>C19392</td>
<td>Avanti J-15R, IVD, Refrigerated, 120 V, 60 Hz, Fixed Angle Package</td>
</tr>
<tr>
<td>C19394</td>
<td>Avanti J-15, Ventilated, 100-120 V, 50/60 Hz, Fixed Angle Package</td>
</tr>
<tr>
<td>C19391</td>
<td>Avanti J-15R, Refrigerated, 120 V, 60 Hz, Fixed Angle Package</td>
</tr>
</tbody>
</table>

4,750 RPM/5,250 x g RCF (J-15R 200-230V)
4,550 RPM/4820 x g RCF (J-15/R 120V)

120 - 13mm Blood Tubes
76 - 16mm Blood Tubes

600 mL Maximum Capacity
10,200 RPM 11,420 x g RCF
Biosafety Lid
**Rotors Accessories**

### Swinging Bucket

Table 1: Additional Biosafety accessories for personal protection and sample protection

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>392805</td>
<td>JS-4.750 Tube-Bottle Bucket Covers (Set of 2)</td>
</tr>
<tr>
<td>393070</td>
<td>JS-4.750 Multi-well Plate Carrier Cover (Set of 2)</td>
</tr>
<tr>
<td>392804</td>
<td>JS-4.750 Replacement Tube-and-bottle bucket (set of 2)</td>
</tr>
<tr>
<td>392806</td>
<td>JS-4.750 Multi-well plate carrier (set of 2)</td>
</tr>
<tr>
<td>359481</td>
<td>JS-4.750 Aerosolve Canister (Set of 2)</td>
</tr>
</tbody>
</table>

### Fixed Angle

Table 4: Bottle and Tube Adapters for the JA-10.100 Rotor

<table>
<thead>
<tr>
<th>Adapter Part Number (Set of 6)</th>
<th>Tube or Bottle Typeb</th>
<th>Tube Dimensions (mm)</th>
<th>Nominal Tube Volume (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>392830</td>
<td>round-bottom tube or bottle</td>
<td>29 x 108</td>
<td>50</td>
</tr>
<tr>
<td>392268</td>
<td>conical tube</td>
<td>30 x 115</td>
<td>50</td>
</tr>
<tr>
<td>392823</td>
<td>bottle</td>
<td>18 x 107</td>
<td>15</td>
</tr>
<tr>
<td>392270</td>
<td>conical tube</td>
<td>17 x 120</td>
<td>15</td>
</tr>
<tr>
<td>392824</td>
<td>round-bottom bottle</td>
<td>16 x 82</td>
<td>10</td>
</tr>
<tr>
<td>344497c</td>
<td>microfuge tube</td>
<td>11 x 39</td>
<td>1.5</td>
</tr>
</tbody>
</table>

a. Unless otherwise indicated, adapters are polypropylene
b. Observe manufacturer’s recommendations for RCF and temperature limitations.
c. 344497 fits in 392830.
### Specification

#### Speed
- **Set Speed**: 200 to 10,200 RPM in 10 RPM increments
- **Set RCF**: 10 to 11,420 x g in 10 x g increments
- **Speed Display**: Actual rotor speed in 10 RPM increments or actual RCF in 10 x g increments
- **Speed Accuracy**: ±25 RPM of Set Speed from 200 to 10,200 RPM
- **Set Time**: 1 minute to 99 hours and 59 minutes or continuous (Hold)
- **Time Display**: Timed run: indicates run time remaining (HH:MM:SS)
  - Hold run: indicates elapsed time (HH:MM:SS)
  - Pulse run: indicates elapsed time (HH:MM:SS)

#### Time
- **Set Temperature**: N/A
- **Temperature Display**: Chamber temperature
- **Temperature Accuracy**: ±2° C of Chamber temperature (after equilibration); applies to 4 to 25°C temp range
- **Over Temperature Shutdown**: > 55° C

#### Acceleration
- **Acceleration Profiles**: 11 acceleration rates, including maximum torque

#### Deceleration
- **Deceleration Profiles**: 11 deceleration rates, including maximum torque and no braking

#### Dimensions
- **Width**: 55.6 cm (21.9 in)
- **Depth**: 74.9 cm (29.5 in)
- **Height**: 36.8 cm (14.5 in)
- **Weight**: 93 kg (205 lbs)

#### Weight
- **Weight, not including rotor**: 120 kg (265 lbs)

#### Ventilation Clearances
- **Sides**: 30 cm (12.0 in)
- **Front**: 30 cm (12.0 in)
- **Rear**: 30 cm (12.0 in)

#### Finishes
- **Top Surface**: Painted steel
- **Front Surface**: Uncoated plastic
- **Door**: Painted aluminum and plastic

#### Electrical Requirements
- **Electrical Supply**: Class I
- **Installation (overvoltage) Category**: II
- **Noise output (1 m in front of instrument, 1.5 m above the floor with JA-100 rotor at 10,200 RPM)**: 61 dBA
- **Ambient Temperature Range**: 10 to 31° C
- **Humidity**: 80%, noncondensing
- **Refrigerant**: R404A
- **Maximum Heat Dissipation under steady state conditions**: 4095 Btu/h (1.2 kW)
- **Pollution Degree**: 2
- **Altitude**: Up to 2,000 meters

#### Technology
- **Ultra Harmonic Technology**

---

1. To reach temperatures above ambient, the centrifuge is dependent on the frictional heat generated inside the chamber during operation.
2. At low run speeds or low ambient temperatures, the centrifuge may not be able to achieve some higher temperatures.
3. If the system reaches this temperature, it will issue a diagnostic and shut down using max brake.

© 2019 Beckman Coulter, Inc. All rights reserved. Beckman Coulter, the stylized logo, and the Beckman Coulter product and service marks mentioned herein are trademarks or registered trademarks of Beckman Coulter, Inc. in the United States and other countries.

For Beckman Coulter’s worldwide office locations and phone numbers, please visit Contact Us at beckman.com

CENT-50995B0319