



Quick. Quiet. **Qualified.**

Just what you'd **expect** from the centrifugation **leader.**

Optima™ MAX-XP  
Benchtop Ultracentrifuge

- Genomics
- Proteomics
- Cell Analysis
- Centrifugation**
- Lab Tools
- Particle Characterization
- Bioseparation
- Lab Automation



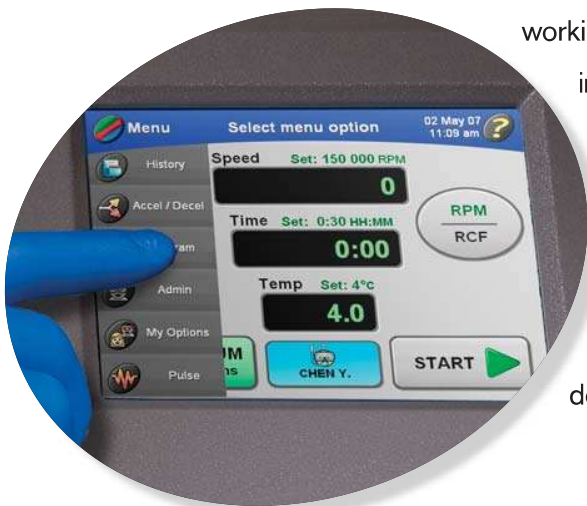


# OPTIMA™ MAX-XP Benchtop Ultracentrifuge

Working together has never been easier.

Meet the Optima MAX-XP, a new generation benchtop ultracentrifuge that makes your lab a pleasurable working environment. With half as much sound output as any similar

instrument, you'll hardly notice this new assistant at your side. Of course, you can't help noticing how fast Optima MAX-XP races through run cycles at up to 150,000 RPM (2,500 revolutions per second). Or, how easy it is to read the full-color touch screen—from across the lab or across the building via remote monitoring and control. With so many big features built into this small ultracentrifuge, you'll get more work done than you ever thought possible.



### Quicker on the job.

Optima MAX-XP offers faster speed, thanks to our new MLA-150 fixed angle rotor. It has a low *k*-factor for faster separation of subcellular particles, viruses, proteins and more. With the most efficient rotor available, you'll reduce overall turnaround time and accelerate workflow.



Work surface with raised edge for holding rotor.

### Reliability you can count on.

As the world leader, Beckman Coulter is known for delivering the highest quality separation in the shortest time, day after day. We've leveraged over 60 years of proven centrifuge technology and made it available to you in this advanced benchtop design.



### Fits in anywhere.

Designed for ultimate flexibility, Optima MAX-XP works well wherever you need it—from your personal lab space to a pedestal table. Keeping biosafety in mind, we made it small enough to fit inside a standard biosafety hood, yet so powerful it will boost efficiency. HEPA filter option available.



### Makes everyone more comfortable.

Just because it's smaller doesn't mean we took shortcuts. Optima MAX-XP operates so quietly, it won't disturb coworkers. Pleasant instrument sounds with adjustable volumes alert you when your run is complete. And the ergonomically designed door handle can be easily opened with just one finger.



### We'll always be around.

Beckman Coulter's legacy for innovation and discovery encompasses more than seven decades. We're the only global leader who designs, manufactures, tests, sells and supports a full line of centrifugation systems, providing scientists with the functionality and performance that revolutionize research—year after year.

#### Optima MAX-XP Benchtop Ultracentrifuge

Fast – up to 150,000 RPM

Quiet – less than 47 dBA

Safe – fits in standard biosafety hood

HEPA filter option

Remote control monitoring option

Door can be opened with just one finger

Supports 21 CFR Part 11, GLP and GMP

Full color, easy-to-read touch screen

Tilted screen on instrument face for easy access

Pulse function – for short and quick spins

USB port for export of run histories to .CSV file

Backed by over 60 years of centrifugation expertise





# OPTIMA™ MAX-XP

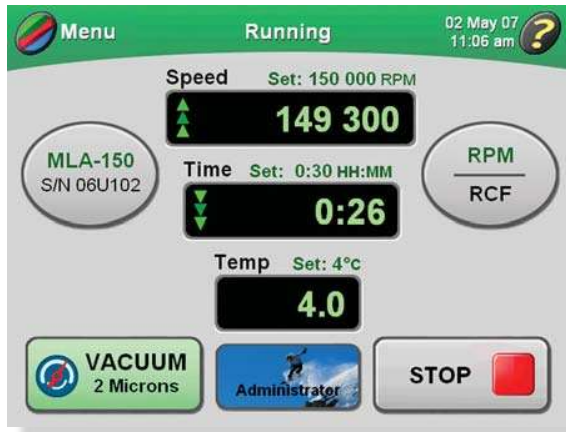
## Benchtop Ultracentrifuge

### Ready. Set. Run.

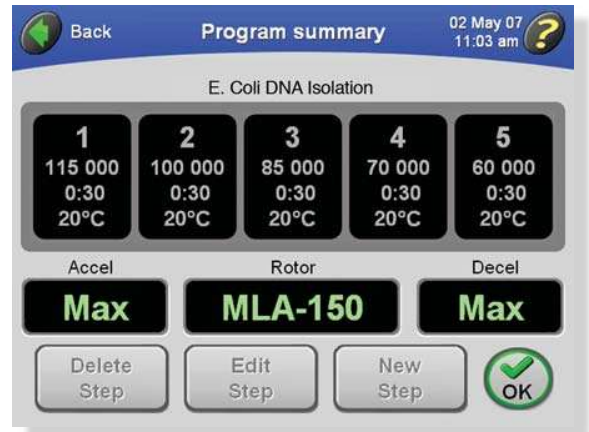
The most intuitive user interface ever seen – or heard – lets you manage runs with ease. That's because Optima MAX-XP is designed to put the fun back in science. You can personalize this ultracentrifuge by choosing from 12 available icons and setting sound volume. The angle of the touch screen is optimized for enhanced readability. All controls are handled in one place. Important elements are front and center so that you have the confidence of success the first time. You can easily switch between RPM and RCF modes. And on-line context sensitive help is always at your fingertips.



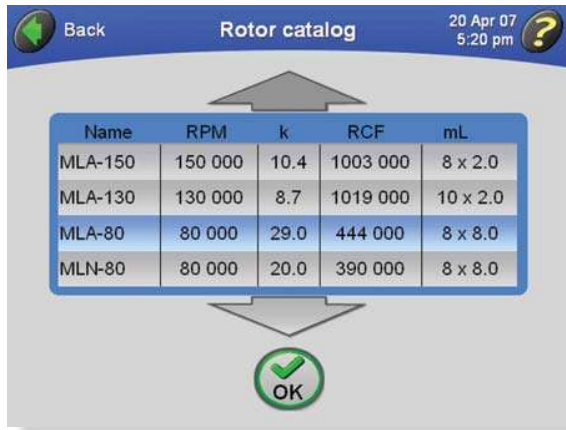
**Optional user ID and password-protected login enhance security. Personalized user icons offer quick confirmation of login.**



Large, full-color touch screen is easy to read and use.



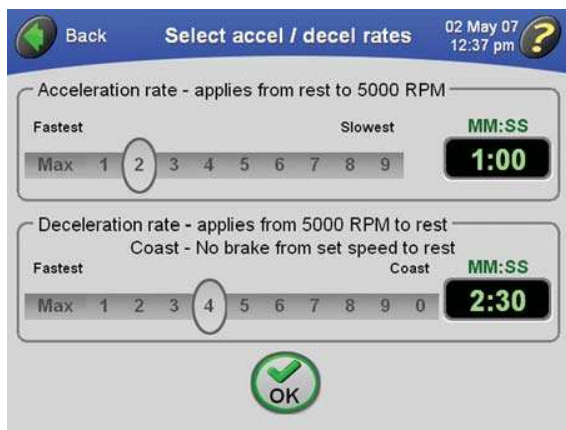
Highly flexible programming options: specify up to five steps per program, set multiple programs, hold run, delay start and more.



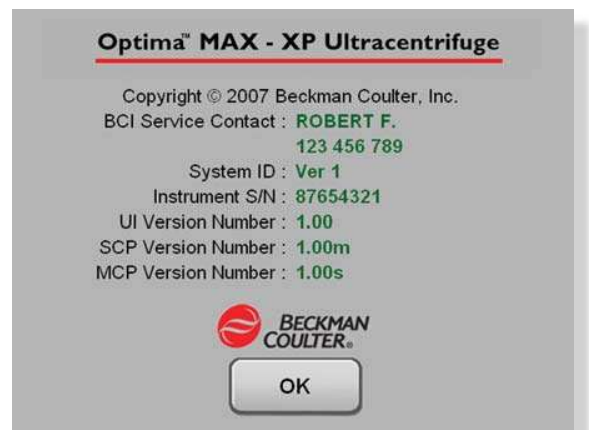
A rotor catalog and library put easy rotor tracking at your fingertips. Rotor run cycle counts provide rotor use history.



History feature allows you to use previous run parameters – just select the run and hit start. This information can be downloaded for documentation purposes.



Select from 10 accel and 11 decel rates with profile number and time reference.



Serial number and service engineer contact are conveniently accessed on the touch screen panel.



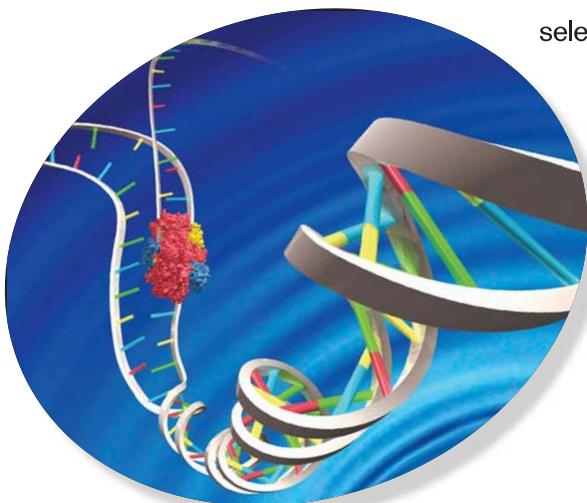


# OPTIMA™ MAX-XP

## Benchtop Ultracentrifuge

No one is this well equipped for compatibility and support.

As the leader in centrifugation, Beckman Coulter continually adds to the industry's most comprehensive selection of compatible rotors, tubes and accessories. Every innovative component is designed to meet the demands of your rapidly changing research environment for protein, cellular and genetic analysis.



**Optima MAX-XP is the right choice for your applications. Capable of handling volumes from as little as 175  $\mu$ L to 108 mL, this versatile benchtop ultracentrifuge excels at separation of:**

- Subcellular particles (pelleting, rate-zonal gradient)
- Viruses (pelleting, rate-zonal gradient)
- Protein purification/isolation (pelleting, rate zonal gradient)
- DNA (pelleting, CsCl isopycnic)
- RNA (CsCl pelleting, density gradient)
- Lipoproteins (differential flotation or gradient)

### **Optimized versatility.**

Beckman Coulter's industry leadership and expertise have inspired a vast array of rotor features to customize and expand the versatility of your system. All existing Optima MAX and Optima TLX rotor libraries are supported.



### **Specially designed for your specialty.**

Innovating application solutions is what we do best. That's why our patented tubes are designed to deliver improved efficiencies:

- konical™ for the most concentrated pellet
- Quick-Seal® for versatility
- g-Max™ for small volume at greatest efficiency
- OptiSeal™ for the easiest sealing



### **Your safety is our business.**

Beckman Coulter is committed to designing systems that provide you with multilevels of biosafety. Not only does Optima MAX-XP fit inside a standard biosafety hood, but it can be ordered with HEPA filtration for enhanced security. As an extra precaution, we added the remote monitoring and control system, so Optima MAX-XP can be monitored and operated from another room.



### **Always at your service.**

The maximized functionality and enhanced efficiencies of the Optima MAX-XP system—combined with Beckman Coulter's unparalleled expertise—make us the best ultracentrifuge investment around. Our Field Rotor Inspection Program is one example of Beckman Coulter's commitment to superior service.



### **Trusted and knowledgeable.**

For over 70 years, Beckman Coulter has maintained an excellent reputation for customer service. As a result, thousands of our instruments are installed worldwide. All backed by our technical support on-line, on-site and on-call.



## Ordering Information

### Part No.

393315

### Description

Optima™ MAX-XP Ultracentrifuge  
Electrical requirements: 220/240 VAC~, 6 A,  
50 Hz; 120VAC~, 12 A, 60 Hz; 100 VAC~,  
12 A, 50/60 Hz

### Additional Features

RPM or RCF user selectable

User ID

Password protection

User customization

Support of 21 CFR Part 11, GMP, GLP

Delay run (start or stop)

Run hold

Pulse function

Detailed run histories

Rotor logging

Export data via USB port

Fits in standard biosafety hood

On-screen rotor catalog

On-screen customer rotor library

Context sensitive online help

Instrument serial number and service contact  
information on touch screen

Visual and audio feedback on run status

Numerical vacuum display

Full-color LCD touch screen

A47882

Optima MAX-XP Biosafe Ultracentrifuge  
includes Optima MAX-XP HEPA filter kit

393395

Remote monitoring and control option

## Specifications

Maximum speed (RPM)

150,000 (with MLA-150 rotor)

Maximum force (RCF<sub>xg</sub>)

1,019,000 (with MLA-130 rotor)

Speed control

±50 rpm of set speed

Sample imbalance tolerance

Up to 10% of volume in opposite tubes

Drive type/cooling  
air-cooled drive type

Variable frequency induction drive,  
rotor overspeed ID

Refrigeration system

Solid state, thermoelectric temperature  
control system with forced air, no coolant,  
no CFCs/ODCs

Set temp range

(1° increments) 0° to 40° C

Temp control

±2° C of set with peak to peak temperature  
fluctuation of 0.1° C

Ambient operating range

15° to 35° C

User-settable programs

All user programs have up to five steps each

Acceleration/Deceleration

10 accel profiles

11 decel profiles

Moisture-purging vacuum system

Power usage/heat output  
steady state BTU/hr (kW)

2400 (0.7)

Sound pressure 1m away

<47dBA

Sound power

1.33 microwatts (A weighted)

Zwicker loudness

6 sones

Dimensions WxDxH inches (mm)

29x23x16.1 (737x584x409)

Weight lb (kg)

230 (105)

The Optima MAX-XP Benchtop Ultracentrifuge is an important part of a broad continuum of Beckman Coulter centrifugation products, including ultracentrifuge, high-performance and general purpose centrifuges and accessories. For over 60 years, we have continuously lead the way by designing, manufacturing, testing, selling and supporting our full line of centrifugation systems worldwide. For information on our comprehensive line of systems, please contact your local Beckman Coulter representative or visit our web site at [www.beckmancoulter.com/SpinningExperts](http://www.beckmancoulter.com/SpinningExperts)

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