Thermo Scientific™ Centrifuge Solutions for Bioprocessing

Please select a workflow to get started

- Cell line development and media optimization
- Mixing, cell culture and fermentation
- Harvest and collection
- Purification
- Bulk storage and final fill

UPSTREAM

PROCESS WORKFLOW

DOWNLOAD

- Harvest → Clarification → Purification & Concentration →
Harvest

Separating and collecting the product of interest from the culture media

VIEW PRODUCTS →
Thermo Scientific™ Centrifuge Solutions for Bioprocessing

**PROCESS WORKFLOW**

- Cell line development and media optimization
- Harvest and collection
- Mixing, cell culture and fermentation
- Purification
- Bulk storage and final fill

**PROCESS VOLUME**

- 10,000 L
- 1,000 L
- 10 L
- 100 L
- 1 L

**HARVEST**

**CLARIFICATION**

**PURIFICATION & CONCENTRATION**

**PLEASE SELECT A WORKFLOW TO GET STARTED**

**Clarification**

Removing of liquid substances from the product of interest

[VIEW PRODUCTS]
Purification & Concentration
Making pure and concentrate the product of interest
VIEW PRODUCTS →
Harvesting for Bioprocessing

Please select a Thermo Scientific™ Batch Centrifuge below to view more details:

**PROCESS VOLUME**
- 2 – 10 L
- 10 – 50 L
- 50 – 300 L

**OUTPUT**
- Harvested supernatant
- Harvested cell pellet

- **Thermo Scientific™ Sorvall™ BIOS 16 Bioprocessing Centrifuge**
- **Thermo Scientific™ 2000mL Bottles for Sorvall BIOS 16 Bioprocessing Centrifuge**
- **Thermo Scientific™ CentriPAK™ BioProcess Container**
Sorvall™ BIOS 16 Bioprocessing Centrifuge

Designed for high quality harvesting, separation and purification bioprocessing methods that require run to run reproducibility and traceability.

Equipped with:

- Thermo Scientific™ Auto-Lid™ function: Instant rotor opening and closing with lid storage
- Thermo Scientific™ Eco-Spin™ technology: Save up to 65% in energy with windshielded rotors
- Thermo Scientific™ DuraFlex™ drive technology: Automatically neutralize up to 125 g loading imbalance

The Sorvall BIOS 16 Centrifuge provides outstanding capacity to maximize productivity.

**Sorvall BIOS 16 swinging bucket rotors**

<table>
<thead>
<tr>
<th>Description</th>
<th>8 x 2000 mL rotor</th>
<th>8 x 1000 mL rotor</th>
<th>6 x 2000 mL rotor</th>
<th>6 x 1000 mL rotor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed (rpm)</td>
<td>3,900 rpm</td>
<td>4,600 rpm</td>
<td>4,700 rpm</td>
<td>5,400 rpm</td>
</tr>
<tr>
<td>Maximum RCF (x g)</td>
<td>5,374 x g</td>
<td>7,117 x g</td>
<td>7,187 x g</td>
<td>8,500 x g</td>
</tr>
</tbody>
</table>

*BIOS Rotors: High-throughput sample processing with the flexibility to select higher capacity rotors or match existing workflows.*

- Certified by UL
- Built in safety and efficiency
2000 mL BIOS Bottle (non-sterile)

The BIOS Bottles have been designed to match the large capacity of Sorvall BIOS 16 Large Capacity Centrifuges.

Benefits:

- Process up to 16L in a single run with speeds up to 7187 x g
- Graduated, wide-mouth design simplifies decanting, re-suspensions and pellet removal
- For centrifugation operating temperatures from 4°C to 40°C
- Translucent design simplifies decanting and re-suspensions
- Polypropylene resin

- USP Class VI USP <88>
- Cytotoxicity USP <87>
- FDA compliance - 21 CFR part 177 section 1520
- Lot controlled
- BSE and TSE transmission safe
CentriPAK™ BioProcess Container

The CentriPAK™ BioProcess Container (BPC) provides a single-use, sterilized closed system for centrifugation. This next generation centrifuge container is specifically designed for use in combination with Thermo Scientific™ Sorvall™ BIOS 16 Centrifuge with 6 x 2000 mL and 8 x 2000 mL Swinging Bucket Rotors.

Benefits:

- Sterilized closed system: maximizes security against costly cross contamination
- High efficiency separation: enables centrifugation for high throughput and gentle separations
- Single-use: minimizes time consumption on preparation and cleaning

Not approved or intended for, and should not be used for medical, clinical, surgical or other patient oriented applications.
Clarification for Bioprocessing

Please select a Thermo Scientific™ Batch Centrifuge or Zonal-Continuous Centrifuge below to view more details.

- **Thermo Scientific™ BIOS A Centrifuges**
- **Thermo Scientific™ Sorvall™ LYNX 4000 Superspeed Centrifuges**
- **Thermo Scientific™ Sorvall™ LYNX 6000 Superspeed Centrifuges**
- **Thermo Scientific™ Fiberlite™ High Performance Centrifuge Bottles**

**PROCESS VOLUME**

- 10 – 100 L
- Up to 200 L

**OUTPUT**

- Clarified product
- Harvested cell pellet
Sorvall™ BIOS A Centrifuge

Designed for high quality harvesting, separation and purification.

Benefits:

- Helps ensure run-to-run reproducibility
- 10L Capacity
- RCF up to 12000 x g
- Offers the benefits of carbon fiber rotors, including corrosion- and fatigue resistance, and is backed by a 15-year warranty**
- Application flexibility

** Subject to our standard limited warranty. See thermofisher.com or your sales representative for details.

---

The Sorvall BIOS A Centrifuge offers efficient, maximized bioprocessing productivity.
Sorvall™ LYNX 4000 Superspeed Centrifuge

Powerful superspeed technology with push-button controls and security designed to enable application flexibility for consistent results and maximum uptime.

Equipped with:

- Auto-Lock™ rotor exchange
- Process sample up 4L at 20,584 x g
- 250-1000 mL high performance Fiberlite bottles
Sorvall™ LYNX 6000 Superspeed Centrifuge

Powerful superspeed technology with push-button controls and security designed to enable application flexibility for consistent results and maximum uptime.

Equipped with:

- Auto-Lock™ rotor exchange
- Light weight carbon fiber rotors
- Accommodates up to 6L at 17,568 x g
- Spins up to 100,605 x g
- Scale-up flexibility using continuous flow or zonal rotors

Rotor cross section displaying the position of the built-in lifting handle and liquid containment annulus (available on select rotors).
Thermo Scientific™ Fiberlite™ High Performance Centrifuge Bottles

Thermo Scientific™ Fiberlite™ Centrifuge Bottle Systems are designed to achieve maximum centrifuge performance of Thermo Scientific™ Superspeed Centrifuges with the volume versatility of 1000 mL (at 20,584 x g), 500 mL (at 24,471 x g) and 250 mL (at 30,240 x g) in both polypropylene copolymer (PPCO) and polycarbonate (PC) options.

Benefits:

- Ideal for bacterial, yeast tissue isolations and viral harvesting
- Smooth inner bottle walls designed to reduce shearing in mammalian culture separations
- Flexibility of material to match application requirements

- Polypropylene copolymer (PPCO) bottles designed for excellent chemical resistance
- Polycarbonate (PC) bottles designed for excellent clarity and mechanical strength
Purification & Concentration for Bioprocessing

UPSTREAM
- Cell line development and media optimization
- Mixing, cell culture and fermentation
- Harvest and collection

DOWNSTREAM
- Bulk storage and final fill

Please select a Thermo Scientific™ Zonal-Continuous Centrifuge below to view more details

Thermo Scientific™ Sorvall™ WX+ Ultracentrifuge Series

Thermo Scientific™ Sorvall™ CC40 Centrifuge Series

PROCESS VOLUME
- 0.5 – 10 L
- 10 – 100 L

OUTPUT
- Purified and concentrated product
WX+ Ultracentrifuge Series, TCF-32 Continuous-Flow Rotors and TZ-32 Zonal Rotors

Maximize space in your lab with the small footprint of the Thermo Scientific™ Sorvall™ WX+ Ultracentrifuge Series. The extensive rotor portfolio for the Sorvall WX+ Ultracentrifuge Series supports labware from microtubes to 250mL bottles – providing application flexibility as your lab’s research focus evolves.

Benefits:

• High g-force and large capacity reduces total run time
• Designed with efficiency for large volume separations
• Scale-up capability from research to pilot and production
• Carbon fiber rotors prolong rotor life without derating speed
Bioprocessing solution for large-scale isolation and purification of viral particles or nanosized particles for the development and manufacture of vaccines and other bio-products with sample protection and maximized yield.

Separation of nanoparticles:

- Maximum RCF up to 118,000 x g to support a wide variety of separation and density-gradient centrifugation applications

High-throughput continuous and batch processing:

- Up to 7.7 L maximum capacity with continuous-flow operation, and 8.0 L maximum with batch operation

Scalable:

- Linear scalability down to 0.2L to develop process in small scale and then scale-up using same process parameters
Select an option below to find out more

Data collection & traceability
Data collection software for process tracking and compliance solution

Reliability
Attain greater productivity and efficiency with Thermo Scientific solutions

Click to connect
Find additional product-specific resources and contact information
Data collection & traceability

Centri-Log Plus (BIOS and LYNX Centrifuges), Log-Manager (WX+ Centrifuges) and CCManager (CC40 Series Centrifuges) data collection software provide effective quality control for the documentation (logging and monitoring) of centrifugation processes enabling lifecycle management of processed samples, equipment optimization, and compliance with standard operating procedures.
Reliability

Thermo Fisher Scientific offers a suite of centrifuge products for biotechnological applications that enable pharmaceutical companies to attain greater productivity and efficiency when expanding capacity of bioproduction.

- Factory inspection, all products are individually inspected and approved for shipment
- Reputable, all products design, test and manufacture by long time history experience and knowledgeable persons
- Local service, all user sites have local factory trained service engineers looking after products, using original approved parts and following site guidelines

These products are intended General Laboratory Use. These products are not approved or intended for, and should not be used for medical, clinical, surgical or other patient oriented applications. It is the customers’ responsibility to ensure that the performance of the products are suitable for customers’ specific use or application.
Click to connect

Complete the product information request form to be connected to a sales representative →

Find out more at thermofisher.com/flexforwhatsnext →

Centrifuge for Harvest
Centrifuge for Clarification
Centrifuge for Purification and Concentration

These products are intended General Laboratory Use. These products are not approved or intended for, and should not be used for medical, clinical, surgical or other patient oriented applications. It is the customers' responsibility to ensure that the performance of the products are suitable for customers' specific use or application.

© 2020 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. BRCENTRIFUGEBIOPROCESS 0520