

UniFuge® Single-Use Centrifuges

Minimize complex and expensive cleaning, validation, and commissioning times.



Leading the Way in Single-Use Centrifuges

CARR Biosystems' expertise in centrifugal separation spans over 25 years, and includes pioneering the use of single-use centrifuges. That's why top biopharmaceutical manufacturers worldwide rely on our high performance, low shear separation equipment.



Performance

Our proven low-shear technology boasts a typical cell viability of 98% or higher and up to 98% yield.



Scalability

Our equipment can be used from development to commercial licensure and across different reactor volumes.



Ease of Use

Our machines are easy to install and simple to operate.



Small Footprint

Our UniFuge centrifuges have a small footprint.

The UniFuge Family of Centrifuges

Efficient: Can be incorporated into a fully automated workflow.

Streamlined: Fast set up and changeover after each run.

Reliable: Built in ISO 9001 (instrument) and ISO 13485 (single-use modules) US facilities following the highest standards of quality control, enabling predictable supply chains.

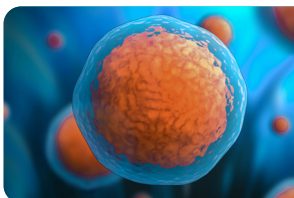
Versatile: Enable bioseparation across applications, from cell therapy to gene therapy, monoclonal antibodies, recombinant proteins, vaccines, and more.

Stop-N-Go: The UniFuge systems are designed to resume and recover from an interrupted process without product loss.

Cell Washing: The UniFuge systems can hold material in the bowl for washing and buffer exchanges.

UniFuge Benefits

- 100% closed system
- Low shear
- Clear supernatant
- Reduce filtration needs by up to 85%
- Set-up and change over within 15 min
- Confidently scale up to the U2k® or scale down to the UFMini®
- Variable speed up to 4,000 x g
- Reduce HCP and other contaminants
- cGMP-compliant 21 CFR Part 11 data trail
- Extractables data available
- SAL level 10⁻⁶



Markets We Serve

Transforming bioseparation across applications.

- Cell therapies
- Gene therapies
- Vaccines
- Biologics
- Cellular agriculture
- Nucleic acids
- Microbial fermentation
- Others

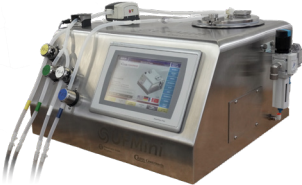


Why Choose UniFuge

Best-in-class performance and capabilities make UniFuge a clear choice.

Differentiation/Technology	UniFuge	Other Single-Use Centrifuges	Stainless Steel Centrifuges	Depth Filtration
Sterile/Closed Systems	✓	✓	Some	No
No Need for SIP and CIP	✓	✓	No	✓
Low Shear Processes (Minimizes HCP)	✓	✓	Some	Some
Viable Cell Recovery Capabilities	✓	✓	Some	No
Ability to Do Cell Washing	✓	Some	Some	No
Small Footprint	✓	Some	No	No
Fast Set-Up and Changeover (15 Min)	✓	Some	No	No
Scale-up/Scale-down Options	✓	Limited	Some	✓
Stop-N-Go Capability	✓	No	Some	✓

Uniquely Scalable

Scale from early stage development to commercial-scale manufacturing and licensure.

		
UFMini® and UFMicro®	UniFuge Pilot®	U2k®
Volume UFMicro 75mL UFMini 300 mL	Volume 1.8 L	Volume 9 L
Flow Rate 29–1,000 mL/min	Flow Rate 1–4 L/min	Flow Rate 5-20 L/min
G-Force Up to 4,000 x g	G-Force Up to 4,000 x g	G-Force Up to 4,000 x g
Footprint (Approx.) 69 cm wide x 56 cm deep x 38 cm high (27" x 22" x 15")	Footprint (Approx.) 61 cm wide x 99 cm deep x 117 cm high (24" x 39" x 46")	Footprint (Approx.) 80 cm x 206 cm x 200 cm high (31" x 81" x 78")
Weight ~40 kg (90 lbs)	Weight ~291kg (640 lbs)	Weight ~1,050 kg (2,300 lbs)