

CO₂ Incubators

ThermoFisher
SCIENTIFIC

Evolve. Expand. Excel.

Thermo Scientific™ Vios™ iDx CO₂ Incubators



thermo scientific

Expanding discovery with every evolution

The Thermo Scientific™ Vios™ line of CO₂ Incubators has been the global leader in cell culture incubation technology for over 10 years. Robust performance based on product innovation has cemented Vios CO₂ Incubators as the number one choice for cell scientists. At every stage of research and development, and every stage of your career, you can count on Vios iDx CO₂ Incubators to help you tackle the ever-evolving challenges of your most critical applications.

Ready to excel

As a cell scientist shaping the future of human health, ensuring the integrity of your work is paramount. Choose any Vios iDx CO₂ Incubator with confidence, knowing it is meticulously designed for optimal cell growth and minimal contamination risk.



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Proven performance and protection for sensitive cell cultures

We know that performance and culture quality are paramount. That's why each Vios iDx CO₂ Incubator features active airflow, high-temperature sterilization, and in-chamber HEPA filtration so that you're always ready to excel.

Achieve optimal culturing conditions with THRIVE Active Airflow technology

Your cells experience total recovery of all critical growth parameters in 10 minutes or less after a 30-second door opening.* The in-chamber fan ensures consistent results by evenly distributing filtered, conditioned air for homogeneous culturing throughout the chamber.

Eliminate microbial contaminants with high-temperature sterilization when using the Steri-Run High Temperature Sterilization Cycle

This simple overnight routine provides fast, easy elimination of microbial contaminants and eliminates the need for separate autoclaving of parts.

- Fully automated cycle is shown to reach 180 °C at 48 locations, ensuring all chamber surfaces achieve a 12-log sterility assurance level.
- Avoids the physical constraints and variation associated with UV germicidal lamps and the ongoing costs, handling, and storage of potentially toxic germicides.
- The Steri-Run High-Heat Sterilization Cycle has been proven by independent third-party tests.

Protect cells from airborne contaminants with in-chamber HEPA filtration

Airborne particulates are a primary source of contamination in most lab settings. Our advanced HEPA filtration technology protects cultures, providing ISO Class 5 air quality conditions within only 5 minutes after a 30-second door opening. The entire chamber air volume is filtered every 60 seconds, the filter lasts for one year and is easily replaced without tools.

* Based on internal testing standards for a 30-second door opening, recovery time calculated to 98% of starting value for temperature and CO₂ and 95% of starting value for humidity.





Designs that are ready for where your discoveries take you

Your Vios iDx CO₂ Incubator is carefully designed with technologies based on decades of innovation to help ensure ultra-consistent growth conditions – so your precious cells flourish.

Culture confidently with our exclusive condensation-free humidification system

Our covered, integrated humidity reservoir maximizes relative humidity without condensation. The incubation chamber stays dry, and the design helps limit contamination in the water.

Sensor options help you manage cultures your way

Temperature and gas sensors are strategically positioned within the incubation chamber to swiftly respond to any deviations in desired conditions.

- Our Thermo Scientific IR180Si infrared CO₂ sensor features silicon MEMS emitter technology for improved stability and long service life. This sensor is recommended for labs working under good manufacturing practices (GMP) or conducting time course studies with many door openings.
- Our proprietary TC180 sensor offers the performance advantages of traditional IR technologies without the limiting lifespan, and is excellent for everyday cell culture applications.

Seamless operations in modern labs

Vios iDx CO₂ Incubator features

Simplified interior maintenance

- Choose electropolished stainless steel or 100% pure copper interior, both with easy-to-install shelving systems and easy-to-clean curved chamber corners.
- Electropolishing significantly reduces surface roughness, decreasing bacterial attachment by up to 90%, enhancing corrosion resistance, and easing manual cleaning and disinfection.
- 100% pure natural copper option can help you combat contamination. Copper is easily maintained with mild detergent and 70% ethanol, improves through oxidation over time, and is safe for incubated cells. This makes it an excellent solution for busy research labs.

Ease of use and ergonomics

- Large 7-inch touchscreen display for quicker at-a-glance monitoring of chamber conditions. Set language* and programmable access code for added security.
- Ergonomic door design to make routine loading, unloading, and checking on cultures easy. Electromagnetic door lock comes standard.
- Integrated, covered 3-L water reservoir may be filled or drained without removing shelves or cultures.

*Available language options include: English, Spanish, German, French, Italian, Japanese, and Mandarin.

Flexibility and customization

- Tri-gas options offer variable oxygen control for full culturing flexibility. Simulate hypoxic (1-21% O₂) or hyperoxic (5-90% O₂) conditions based on application need and cell type.
- Connectivity-ready for data management including front-access USB port and optional 4-20 mA signal output or Gateway for OPC-UA for remote monitoring with external data collection solutions, ideal for GMP environments meeting CFR-21 compliance.
- 165 L models offer enhanced protection for valuable samples when configured for Thermo Scientific Cell Locker Systems. [Find out more](#)
- 255 L models offer increased culturing capacity when configured for Thermo Scientific CultiMaxx Shelving Systems. [Find out more](#)

Protect and expand

Configurations for valuable cell culture

Protected chambers for your most sensitive cells

You'll gain enhanced culture security and protection when using the Cell Locker System. It divides the CO₂ incubator into six individual segregated chambers, with individual glass doors, uniquely preserving critical conditions for sensitive cells by isolating cultures from door openings.

The Cell Locker System should be ordered as a factory-installed option. Individual Cell Locker Chambers sold separately.

Expand your incubation capacity with specialized shelving

As you scale out your cell therapy manufacturing, our special CultiMaxx Shelving System – available for the Vios iDx 255 CO₂ Incubator in standard, CR, and AD models – offers additional vessel capacity and/or improved access for specialized cell culture vessels such as Wilson Wolf G-Rex® 500M-CS bioreactors, Thermo Scientific™ Nunc™ Cell Factory systems, or 1 L cell culture bags. This allows you to expand your incubation.

The electropolished stainless-steel reinforced shelves can be ordered as accessory and can be self-installed.

Vios iDx CO₂ Incubators specifications

	Vios iDx 165	Vios iDx 255
Exterior housing	Powder-coated cold-rolled steel	
External dimensions (w x h x d)	637 x 900 x 880 mm (25.1 x 35.4 x 34.6 in.)	774 x 969 x 934 mm (30.5 x 38.2 x 36.8 in.)
Internal dimensions (w x h x d)	470 x 607 x 576 mm (18.5 x 23.9 x 22.7 in.)	607 x 670 x 629 mm (23.9 x 26.4 x 24.8 in.)
Capacity	165 L (5.8 cu. ft.)	255 L (9.0 cu. ft.)
Operating weight (without accessories)	82 kg (180.8 lbs.)	105 kg (231 lbs.)
Shelving dimensions (w x d)	423 x 465 mm (16.7 x 18.3 in.)	560 x 500 mm (22.05 x 19.68 in.)
Shelving no.	3 std. / 11 max., perforated, adjustable	3 std. / 12 max., perforated, adjustable
Max. load per shelf	10 kg (22 lbs.) CU & SST models	10 kg (22 lbs.) CU models, 14 kg (30.9 lbs.) SST models
Temperature control	±0.1°C	
Temperature range	3 °C above ambient to 55 °C	
Temperature uniformity	< ±0.3 °C	
Sterilization cycle temperature	180 °C on all internal surfaces	
Sterilization cycle duration	≤12 hrs	
Constant humidity at 37 °C	High humidity mode: approx. 93 %, Low humidity mode: approx. 90 %	
CO ₂ control	± 0.1%	
CO ₂ range	1-20 %	
O ₂ control*	± 0.1%	
O ₂ range*	1-21% or 5-90%	

* O₂ control available as a factory-installed option.

Selecting a Vios iDx CO₂ Incubator

Factory-installed options

	Vios iDx 165	Vios iDx 255
Door hinge side		
Right hinge door configuration	included	
Left hinge door configuration	51900293	
Outer casing material		
Powder-coated cold rolled steel	included	
Brushed stainless steel	–	
Inner door		
Single glass door	included	
3-segment inner door	51901144	–
6-segment inner door	51901221	51901127
Shelving configurations		
6 half-width shelves each, stainless steel	–	51901123
6 half-width shelves each, copper	–	51901122
3 reinforced shelves with 3 clip bars for installation, stainless steel	51901375	51901377
3 reinforced shelves with 3 clip bars for installation, copper	51901374	51901376
O ₂ Control		
1–21% O ₂ control	51901137	
5–90% O ₂ control	51901138	



Factory-installed options, continued

	Vios iDx 165	Vios iDx 255
Combined options		
1-21% O ₂ control with 6-segment inner door and 3 shelves with 2 half-width shelves each (made of chamber material)	–	51901133
5-90% O ₂ control with 6-segment inner door and 3 shelves with 2 half-width shelves each (made of chamber material)	–	51901134
Gas-tight 6-segment inner door with 3 Cell Locker System shelves*, stainless steel	51901222	–
Gas-tight 6-segment inner door with 3 Cell Locker System shelves*, copper	51901223	–
Other		
Internal 4-20 mA analog data output	51901143	
Active CO ₂ reduction	51901491	
Rear water access	–	
Power cord options		
Switzerland	51900300	
Great Britain	51900303	
Italy	51900306	
Australia	51900449	
Denmark	51900481	
China	51900900	

* Cell Locker Chambers are not automatically included with the Cell Locker System configuration and are available as accessories.

All incubators ship with a standard power cord – 100 V, 120 V, or 230 V EU version. Additional power cord options fit 230 V models only.

Accessories

	Vios iDx 165	Vios iDx 255
Support frames and stacking adapters		
Support frame for dual stack with castors, 182 mm height	50170980	–
Low-profile roller base for dual stack with castors, 85 mm height	50171152	50171157
Cleanroom-compatible low-profile roller base for dual stack with castors, 76 mm height	–	–
Support frame for single incubator, without casters, 780 mm height	50171568	50171747
Stacking adapter kit	50171244	50171746
Stacking adapter kit for stacking Vios iDx model on top of Heracell 150i	50148172	–
Stacking adapter kit for stacking Vios iDx model on top of Heracell 240i	–	50148175
O₂/CO₂ control accessories, including filters		
Replacement in-chamber HEPA filter	50141920	
Replacement pre-filter	50144774	
CO ₂ gas regulator, 2-stage, for gas tank	3429937	
N ₂ gas regulator, 2-stage for gas tank	3429942	
O ₂ gas regulator, 2-stage for gas tank	3429943	
External gas guard automatic change-over to reserve tank, 120 V, 50/60 Hz	50059043	
External gas guard automatic change-over to reserve tank, 230 V, 50/60 Hz	50046033	
Infrared gas tester with travel case, for advanced calibration and testing purposes for CO ₂ model	50121515	



	Vios iDx 165	Vios iDx 255
O₂/CO₂ control accessories, including filters, continued		
Infrared tester for CO ₂ /O ₂	50145789	
Infrared gas tester interface kit	50122015	
5 inlet port filters for infrared testers	50060287	
Cell Locker System accessories		
Single Cell Locker Chamber with sliding tray and transport cover, stainless steel	50151650	—
Single Cell Locker Chamber with sliding tray and transport cover, copper	50154739	—
Set of 6 Cell Locker Chambers, stainless steel	50151650X6	—
Set of 6 Cell Locker Chambers, copper	50154739X6	—
Shelving		
Additional shelf, full width with 2 support rails for installation, stainless steel	50051909	50065793
Additional shelf, full width with 2 support rails for installation, copper	50051910	50065794
Reinforced clip bar shelf, stainless steel	50160246	50160234
Reinforced clip bar shelf, copper	50160247	50160245
Set of 4 HERAtrays, 1/4 width, stainless steel	—	50065807
Set of 4 HERAtrays, 1/4 width, copper	—	50065808
Set of 3 HERAtrays, 1/3 width, stainless steel	50051913	50065805
Set of 3 HERAtrays, 1/3 width, solid copper	50051914	50065806



	Vios iDx 165	Vios iDx 255
Shelving, continued		
Set of 2 HERAtrays, 1/2 width, stainless steel	50058672	–
Set of 2 HERAtrays, 1/2 width, copper	50061050	–
Set of 2 HERAtrays, 1/2 width for half width shelves, stainless steel	–	50065809
Set of 2 HERAtrays, 1/2 width for half width shelves, copper	–	50065810
CultiMaxx Shelving System		
Set of 8 shelves to support up to 116 1 L cell culture bags	–	50166275
Set of 5 shelves to support up to ten 4- or 5-layer culture vessels, such as Thermo Scientific™ Nunc™ Cell Factory™ Systems	–	50166268
Set of 3 shelves to support up to six 10- or 13-layer culture vessels, such as Nunc Cell Factory Systems	–	50166285
Set of 3 shelves to support up to ten G-Rex 500M-CS bioreactors	–	50164781
Monitoring accessories		
Door lock retrofit kit, key entry, to prevent unauthorized access	50145438	
OPC-UA gateway	50168119	
Shakers for CO₂ incubators		
CO ₂ Resistant shaker, 19 mm, with universal platform and flask clamp starter kit, 100 - 120 V	88881103	
CO ₂ Resistant Shaker, 3 mm, with universal platform and flask clamp starter kit, 100 - 120 V	8881103B	
CO ₂ Resistant shaker, 19 mm, with universal platform and flask clamp starter kit, 220 - 240 V	88881104	
CO ₂ Resistant Shaker, 3 mm, with universal platform and flask clamp starter kit, 220 - 240 V	88881104B	



Start-up and compliance services

Invest in a Vios iDx CO₂ Incubator and you can benefit not just from top-tier cell expansion performance, but from the confidence that comes with knowing you're ready to tackle whatever challenges tomorrow may bring. And sometimes that's about more than just technology. With Unity™ Lab Services, you'll have access to exceptional support service experts for help, whenever you need.

From start-up support to comprehensive service plans and compliance solutions, your support package can help you meet your individual research needs.





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Learn more at thermofisher.com/viosidx