

Designed to achieve

your next breakthrough





The Thermo Scientific™ Forma™ Steri-Cycle series

represents a new era in advanced incubator design for sensitive cultures like stem and primary cells in leading research, pharmaceutical and clinical laboratory applications.

Through a holistic approach to culturing, our newest incubator series provides everything necessary for your most demanding and highly critical applications. By combining our latest technology advancements in contamination control and uniform growth conditions with existing proven and reliable features, you are now able to achieve your goals faster, more reliably, and with less effort.

> Better solutions for optimal cell growth

Revolutionary Thermo Scientific™THRIVE™ active airflow technology delivers homogeneous growth conditions fast, avoiding unwanted sample variation.

> Complete contamination control

Proven protection from every direction including ISO class 5 HEPA filtered air, on-demand high-temperature sterilization, and easy to maintain copper.

> Enhanced simplicity

Designed to focus on convenience, allowing you to spend more time on your research and less time managing your incubator.

The Forma Steri-Cycle CO₂ incubator delivers the performance reliability, ease of operation, and value required to support a range of culturing needs from basic research to demanding, leading-edge applications, so you're ready for whatever comes next!



A direct heat CO₂ incubator that better supports you and your science

- Choice of either a 165L (5.8 cu ft) or 255L (9.0 cu ft) for a variety of applications
- Readily stackable in a compact footprint
- Choice of electropolished stainless steel or 100% pure copper
- Adjustable, perforated shelving
- Easy-to-clean, coved-corner interior with convenient access port
- Reversible exterior door for added flexibility
- 2 year parts and labor warranty

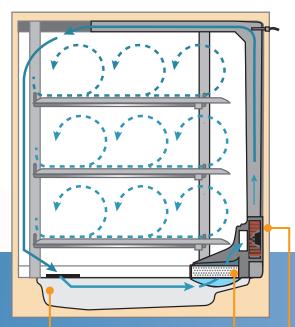
Better solutions for

optimal cell growth

The Forma Steri-Cycle CO₂ incubator incorporates THRIVE active airflow technology, providing faster recovery and uniformity for consistent results. Your cells experience total recovery of all critical growth parameters in **less than**10 minutes following a 30 second door opening.*

Innovative THRIVE active airflow technology

In-chamber fan gently and evenly distributes clean, humidified air throughout the chamber ensuring all cells experience the same conditions without the threat of desiccation.



Incoming air first travels over a direct heated water reservoir resulting in 50% faster humidity recovery than with a standard water pan design.**

The in-line HEPA filter cleans the airstream of microbes and particles protecting cultures from contamination.

The precise, variable speed fan with an auto-stop function disables fan operation during door openings to minimize air exchange. Once the door is closed, the fan temporarily accelerates for quick recovery.

^{*}Based on internal testing standards for a 30 second door opening, recovery time calculated to 98% of starting value for temperature and ${\rm CO_2}$ and 95% of starting value for humidity

^{**}Comparison of internal testing data to published specifications



Advanced in situ sensor technology

Probes and gas sensors are positioned in the chamber to respond quickly to any deviations in desired conditions

- Robust design allows maintenance-free, in situ location, eliminating the need for removal during sterilization and separate cleaning and handling activities
- New! Dual temperature probes with PID controller provide over temperature protection by preventing overshoot during recovery; temperatures recover under 5 minutes*
- Oxygen controlled models are equipped with advanced zirconium oxide sensors, enabling a choice of control ranges 1-21% (hypoxic) and 5-90% (hyperoxic)
- On-demand auto-start facilitates easy start-up and calibration
 - * Temperature recovery time calculated to 98% of starting value, based on internal testing standards of a 30 second door opening on a Forma Steri-Cycle i160 incubator

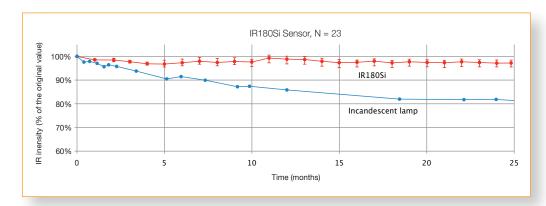


Choice of accurate and reliable CO, sensor technology

Temperature resistant, bulb-free IR CO₂ sensor with MEMS emitter technology

New temperature resistant IR180Si infrared CO₂ sensor replaces the traditional incandescent IR light source with silicon MEMS emitter technology that improves stability and reliable service life. This sensor is ideal for labs looking for the best of both technologies for advanced, high volume, or value culturing.

- Internal auto-calibration eliminates drift due to changes in ambient conditions that can affect traditional IR sensors
- IR180Si CO₂ measurement not affected by changes in temperature, humidity, oxygen, or barometric pressure**
- Highly responsive with recovery under 5 minutes from door openings



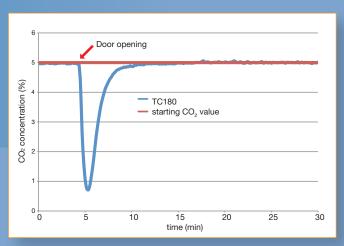
A traditional IR sensor contains an incandescent bulb that puts out less light as it ages, resulting in sensor drift. The IR180Si eliminates this problem. Our silicon MEMS emitter is designed to retain intensity over time, lasting up to 50% longer than ordinary IR sensors.

Innovative TC sensor solution

The NEW TC180 offers the performance advantages of traditional IR technologies without the limiting lifespan of a standard incandescent bulb. This sensor is ideal for everyday cell culture applications.

- Improved stability with internal humidity compensation minimizing drift between calibrations
- CO₂ values unaffected by changes in humidity, enabling fast recovery from a routine door opening
- Economical, long service life

*CO₂ recovery time calculated to 98% of starting value, based on internal testing standards of a 30 second door opening
**Information cited based on sensor manufacturer's data



TC180 (Forma i160 incubator)
CO₂ recovery under 6 minutes from a door opening of 30 seconds.



Introducing the New Large Capacity Forma Steri-Cycle i250 CO, Incubator.

Now you can choose between the 165L or the 255L capacity. Pick the CO_2 incubator that's right for your lab's needs.

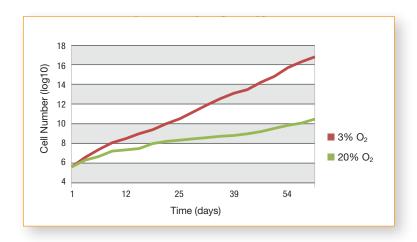
- Ideal for scale-up research and development
- 255L chamber accommodates high throughput and large culture vessels
- Strengthened stainless steel models for increased weight capacity
- Optional reinforced shelves for large capacity, low media level culturing



Added culturing flexibility with variable oxygen control

Many cell types thrive best in CO₂ incubators with reduced oxygen. Culturing cells at lower oxygen concentration will better simulate physiological conditions, resulting in cell behaviors that are more predictive of the *in vivo* environment.

Our variable oxygen control (or "tri-gas") incubators will generate conditions to help your cells grow faster and healthier. With the Forma Steri-Cycle CO_2 incubator, you can select the incubator for your O_2 range: simulate hypoxic (1-21%) environments for primary cell, stem cell and embryo research applications, or hyperoxic (5-90%) conditions for research in lung, retina and other sensitive tissues.



Primary Cell Growth in Atmospheric and Physiological Oxygen

Cells cultured in low oxygen (hypoxia) will generally grow faster, live longer, and show lower stress.

Adapted from Parrinello et al. Nature Cell Biology 2003.

With segmented inner doors, accessing separate sections of the incubator is convenient, minimizing recovery time and contamination risk.

"Our lab mandates this [5% oxygen in the tri-gas incubator] in order to mimic conditions in the body, so that cells are as close to those conditions as possible and nothing is different. All of the signals for proper epigenetics are there."

Stem cell researcher at biomedical research institute





Exclusive condensation free humidification system

Our unique integral covered humidity reservoir maximizes relative humidity without condensation ensuring a dry inner chamber, preventing a breeding ground for contaminants.

- Providing stable, high relative humidity levels, the integrated 3 liter reservoir allows more space for samples than standard pan designs
- The reservoir cover eliminates standing water in the culture area while limiting particles and spilled media from settling into the reservoir
- Water level is continuously monitored and displayed on the Thermo Scientific™ iCAN™ touchscreen with advanced notice of refill needed
- Humidity reservoir may be filled without removing shelves or cultures and is easily drained through built-in copper drain
- CO₂ and optional N₂/O₂ gases are pre-humidified before entering the chamber, providing a more constant, uniform environment

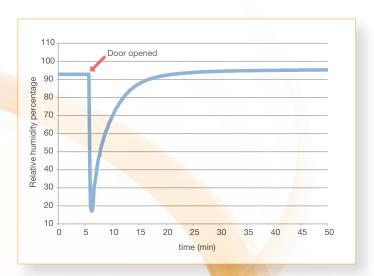
Evaporation is 4X faster at 80% than at ≥ 93% humidity*. Maximum humidity with rapid recovery is critical to limit water evaporation from media that results in toxic concentrations.

*Esser, P and Weitzmann, L. Evaporation From Cell Culture Plates. Thermo Scientific 2011, TILSPNUNCBU02 0111

Directly heated reservoir boosts 5X faster recovery than removable pan designs.

Relative humidity recovery is less than 10 minutes with extended 30 second door opening.**

**Humidity recovery is measured to 95% of starting value.



Complete contamination control

Protect your cultures with proven technologies

Our advanced contamination control technologies are designed to protect your valuable cultures, eliminate the loss of time and resources while providing convenient added security for your research work.

"Normal" indoor air contains
30-700 microorganisms/m³.*
Normal flora on our skin equals
10,000 microorganism/cm².**
These can enter your incubator

during routine door openings.

* Stryjakowska-Sekulska et al. 2007.

Forma Steri-Cycle CO₂ incubators deliver the latest innovations in contamination control technologies that protect the incubator air, surfaces and humidification water.

Cultures are continuously protected 24/7, and convenient on-demand high temperature sterilization offers simplified cleaning protocols.

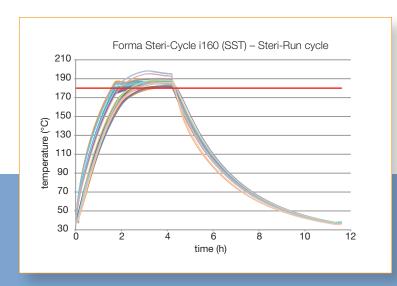


^{**} Grice et al. 2008

High-temperature sterilization with push button simplicity

Our exclusive Thermo Scientific™ Steri-Run™ high temperature sterilization cycle reaches 180°C on all chamber surfaces and is independently proven to achieve total sterilization and a 12 log Sterility Assurance Level (SAL). With the push of a button, the simple overnight routine provides fast, easy elimination of microbial contaminants and eliminates the need for separate autoclaving of parts.

- Fully automatic 180°C cycle assures total, uniform sterilization of all chamber surfaces (12 log SAL)
- Independent third party tests prove elimination of biological contaminants including fungal mold, vegetative and spore forms of bacteria, including mycoplasma
- Avoids the physical constraints and variation associated with UV germicidal lamps and the ongoing costs, handling and storage of potentially toxic germicides



The U.S. and E.U. Pharmacopeias no longer recommend a given temperature and time for sterilization. Instead, they require proof of performance. To meet requirements of a 12 log SAL, a 6 log reduction of biological indicator endospores must be demostrated in half the time.

Validation that all surfaces reach 180°C with 47 point test on all chamber areas including the glass door and shelves.

Microorganisms Eliminated During the Steri-Run Cycle*

| Microorganism | ATCC # | Average Positive Control* | Number Recovered* | Log Reduction* |
|---------------------------------------|--------|---------------------------------|----------------------|-------------------|
| Aspergillus brasiliensis | 16404 | 2.98x10 ⁴ | NG** | -4.5 |
| Escherichia coli | 25922 | 2.22x10 ⁴ | NG | -4.3 |
| Mycoplasma pneumoniae | 15531 | 1.25x10 ⁶ | NG | -6.1 |
| Bacillus atrophaeus spores | 51189 | 2.16x10 ⁷ | NG | -7.3 |
| Geobacillus stearothermophilus spores | 12980 | 4.81x10 ⁶ | NG | -6.7 |

*Average based on 3 independent tests performed on different days.

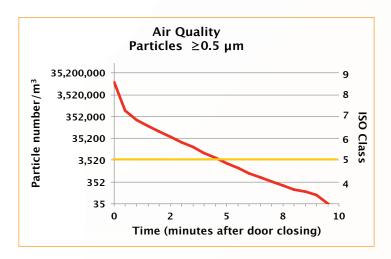
Independent third party testing proved the Steri-Run cycle, when heated to 180°C for 45 minutes, eliminated all microorganisms validating that the full 90-minute cycle meets requirements for a >12 log sterility assurance level (SAL).

^{**} NG = No Growth

HEPA Air Filtration for Air Purity

Airborne particulates are a primary source of contamination in most lab settings. Our advanced HEPA filter technology protects your cultures, providing Class ISO-5 clean room-like air quality conditions within only five minutes after a 30-second door opening.

- Chamber air is filtered every 60 seconds to ensure air quality
- Featuring a space saving configuration, the HEPA filter is readily replaceable with minimal cost



Our unique HEPA air filtration design reaches ISO Class 5 cleanroom air quality and recovers to that quality of air after a door closing within 5 minutes as tested in accordance with ISO 14644-1 and ISO 14644-3.

HEPA filters are rated for their efficiency of capturing 0.3 μ m sized particles, since this is the most penetrating size.

In fact, larger and smaller particles are caught even more efficiently, over 99.95%

easy to maintain

Easy to maintain 100% solid copper

More cell culture professionals are choosing Thermo Scientific incubators with 100% pure copper interiors.

- Easy-to-clean, no special handling required
- Corrosion resistant copper surfaces provide long service life and are safe for cultured cells
- Durability, reliability, and recyclability makes copper a smart, sustainable choice

"Everything we do is cell based. The main thing I've noticed is my ability to maintain my cells. There is just no comparison since we got the copper. I've had stainless steel incubators before but the comfort level you can have with the copper is simply amazing."

Laboratory Manager with 14 years experience working with all types of mammalian cell lines, including adherent, suspension, hybridomas and transformed stem cells



Enhanced Simplicity

The Forma Steri-Cycle series was designed to simplify your interaction with the incubator. Spend more time pursuing your science and less time managing your equipment.

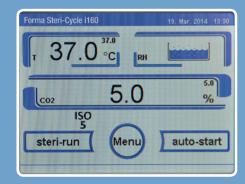
iCAN Touchscreen Interface

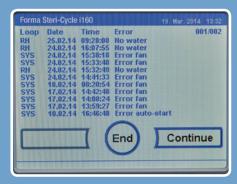
Total control at your fingertips

The intelligent iCAN interface provides complete data visibility to monitor all incubator interaction, featuring door-mounted position for easy access, on-screen menu prompts, error and usage logs, data logging, performance trend graphing and multiple language selection.

New rH monitoring assures the proper humidity level with blue, full line icon. Low water alarm indicates critical low humidity levels requiring water addition.

ISO 5 icon indicates the chamber has reached clean room air quality, protecting your cultures.





On-demand data and error logs provide a downloadable history of activity and conditions including parameter changes and alarms.



Optimized chamber design for easy maintenance and monitoring

- Conveniently manage reminders for HEPA filter, Steri-Run sterilization cycle and Autostart automatic calibration functions
- Programmable access code ensures additional security of your settings and information
- Selectable languages simplify operation: English, Spanish, German, French, Italian, Japanese and Mandarin
- For easier water handling, humidity reservoir may be filled or drained without the removal of shelves or cultures
- Easy-to-clean, coved corners with convenient access port
- No special tools required for assembly and disassembly of interior components





Data collection

Retire your laboratory notebook, data collection is easy with a Forma Steri-Cycle incubator. A data collection software disc is supplied with each unit, to facilitate data capture from the unit's convenient rear mounted USB output port.

Optional 4-20 mA signal output is available for interfacing with external data collection systems, such as Thermo Scientific™ Smart Vue™ remote monitoring system which is ideal for GMP environments with external sensors and CFR-21 compliant software packages.

| Chamber volume 185L (6.8 au.lt) 255L (8.0 au.lt) | | | Forma Steri-Cycle i160 CO ₂ Incubator | Forma Steri-Cycle i250 CO ₂ Incubator | | |
|---|---------------|--------------------------------|---|---|--|--|
| Exterior chamber | | Chamber volume | 165L (5.8 cu.ft.) | 255L (9.0 cu ft) | | |
| Access port 42 mm diameter | construction | Interior chamber | electropolished stainless steel or 100% solid copper | | | |
| Data outputs | | Exterior chamber | 18 gauge (1 mm), col | d-rolled steel, powder coated | | |
| Internal dimensions | | Access port | 42 mm diameter | | | |
| Control Cont | | Data outputs | remote alarm contacts, USB, and optional 4-20 mA | | | |
| Cimensions External dimensions (w x h x d) 25.1 x 35.4 x 34.8 linches 30.5 x 38.1 x 36.8 linches 30.5 x 36.1 | | Internal dimensions | 470 x 607 x 576 mm | 607 x 670 x 629 mm | | |
| Number standard/maximum Size (without accessories), (183 lbs) 97.5 kg (215 lbs) | | (w x h x d) | 18.5 x 23.9 x 22.7 inches | 23.9 x 26.4 x 24.8 inches | | |
| Operating weight 28 kg (without accessories), (183 bs) 97.5 kg (215 bs) | dimensions | | 637 x 900 x 880 mm | 774 x 968 x 934 mm | | |
| Dimensions (w x d) | | (w x h x d) | 25.1 x 35.4 x 34.6 inches | 30.5 x 38.1 x 36.8 inches | | |
| Number standard/maximum 3/10 3/12 | | Operating weight | 83 kg (without accessories), (183 lbs) | 97.5 kg (215 lbs) | | |
| Max. load per shelf/total load 10/30 kg (22/66 lbs) 10/30 kg (CU models), 14/42 kg*(SST models) perforated, adjustable | | Dimensions (w x d) | 423 x 465 mm (16.7 x 18.3 in) | 560 x 500 mm (22.05 x 19.68 in) | | |
| Max. load per shelfrotal load 10/30 kg (22/166 lbs) 10/30 kg (22/160 lbs) 10/30 kg (22/16 lbs) 10/30 kg (| cholyos | Number standard/maximum | 3/10 | 3/12 | | |
| Rated voltage | SHEIVES | Max. load per shelf/total load | 10/30 kg (22/66 lbs) | 10/30 kg (CU models), 14/42 kg*(SST models) | | |
| Nominal kW consumption (Steri-Run) | | Construction | perfora | ted, adjustable | | |
| Steri-Run 0.55 (1.01) - 120V, 0.39 (0.72) - 100V 0.75 (1.25)-120V, 0.53(0.89)-100V Rated frequency | | Rated voltage | 1/N/PE AC (± 109 | %), 230, 220V, 120V, 100V | | |
| Rated frequency | | | 0.56 (1.06) – 230V, 0.51 (0.97) – 220V | 0.76 (1.26)- 230V, 0.69 (1.16) -220V,) | | |
| Heat emission to environment at 37°C During Steri-Run: D.26 kWh/h (average), 0.78 kWh/h (heating time), 0.59 kWh/h (hold time) | | (Steri-Run) | 0.55 (1.01) - 120V, 0.39 (0.72) - 100V | 0.75 (1.25)-120V, 0.53(0.89)-100V | | |
| environment at 37°C During Steri-Run: | electrical | Rated frequency | 50/60 Hz | | | |
| Control #0.1°C Range Range 3°C above ambient to 55°C temperature Uniformity < #0.3°C Ambient range 1834°C Tracking alarm #10°C Sterilization Cycle temperature 180°C on all internal surfaces Cycle duration Under 12 hours Humidity Humidity reservoir max. 3L / min 0.5L Control #0.1% Range 1-20% Tracking alarm #1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or medi. quality Cotrol #0.1% Range 1-21% or 5-90% Tracking alarm #1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Range 1-21% or 5-90% Tracking alarm #1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Range 1-21% or 5-90% Tracking alarm #1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Range 1-21% or 5-90% Tracking alarm #1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Range 1-21% or 5-90% Tracking alarm #1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Range 1-21% or 5-90% Tracking alarm #1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Range 1-21% or 5-90% | | | 0.06 kWh/h | 0.07 kWh/h | | |
| Range | | During Steri-Run: | 0.26 kWh/h (average), 0.78 kWh/h (heating time), 0.59 kWh/h (hold time) | | | |
| Range | | | | | | |
| temperature Uniformity < ±0.3°C | | Control | | ±0.1°C | | |
| Ambient range Tracking alarm \$terilization Cycle Cycle temperature Cycle Cycle duration Cycle Humidity RH | | Range | Range 3°C above ambient to 55°C | | | |
| Tracking alarm ±1°C Sterilization Cycle temperature 180°C on all internal surfaces Cycle duration Under 12 hours BH | temperature | Uniformity | < ±0.3°C | | | |
| Sterilization cycle Cycle temperature 180°C on all internal surfaces Cycle duration Under 12 hours Aumidity RH >_93% @ 37°C Humidity reservoir max. 3L / min 0.5L Control ± 0.1% Range 1-20% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or medical quality Control ± 0.1% Range 1-21% or 5-90% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | | Ambient range | 1834°C | | | |
| Cycle Cycle duration Under 12 hours humidity RH >_93% @ 37°C Humidity reservoir max. 3L / min 0.5L Control ± 0.1% Range 1-20% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or medical quality CO₂ inlet 1/8" hose (barbed) Control ± 0.1% Range 1-21% or 5-90% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | | Tracking alarm | ±1°C | | | |
| Numicity RH | sterilization | Cycle temperature | 180°C on all internal surfaces | | | |
| Humidity reservoir max. 3L / min 0.5L | cycle | Cycle duration | Under 12 hours | | | |
| Control Range Tracking alarm Inlet pressure Control CO2 Inlet Gas purity CO3 Inlet Control Tracking alarm Inlet pressure Inlet pressure Inlet Inlet | burmidity. | RH | >_93% @ 37°C | | | |
| Range | Hulfilalty | Humidity reservoir | max. 3L / min 0.5L | | | |
| Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or medical quality CO2 inlet 1/8" hose (barbed) Control ± 0.1% Range 1-21% or 5-90% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | | Control | ± 0.1% | | | |
| Inlet pressure Gas purity CO ₂ inlet Control Range Tracking alarm Inlet pressure Gas purity Inlet pressure 12-15 PSI (0.8-1.0 bar) min. 99.5 or medical quality 1/8" hose (barbed) ± 0.1% 1-21% or 5-90% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | | Range | 1-20% | | | |
| Gas purity CO ₂ inlet Control Range Tracking alarm Inlet pressure Gas purity min. 99.5 or medical quality 1/8" hose (barbed) ± 0.1% Fange 1-21% or 5-90% Tracking alarm ±1% Inlet pressure Gas purity min. 99.5 or med. quality | 00 | Tracking alarm | ±1% | | | |
| CO ₂ inlet Control Range Tracking alarm Inlet pressure Gas purity 1/8" hose (barbed) ± 0.1% ± 0.1% 1-21% or 5-90% 1-21% or 5-90% 1-21% or 5-90% inlet pressure 12-15 PSI (0.8-1.0 bar) min. 99.5 or med. quality | CO_2 | Inlet pressure | 12-15 PSI (0.8-1.0 bar) | | | |
| Control ± 0.1% Range 1-21% or 5-90% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | | Gas purity | min. 99.5 or medical quality | | | |
| Range 1-21% or 5-90% Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | | CO ₂ inlet | 1/8" hose (barbed) | | | |
| Tracking alarm ±1% Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | 0 | Control | ± 0.1% | | | |
| Inlet pressure 12-15 PSI (0.8-1.0 bar) Gas purity min. 99.5 or med. quality | | Range | 1-21% or 5-90% | | | |
| Gas purity min. 99.5 or med. quality | | Tracking alarm | ±1% | | | |
| | O_2 | Inlet pressure | 12-15 PSI (0.8-1.0 bar) | | | |
| O ₂ inlet 1/8" hose (barbed) | | Gas purity | min. 99.5 or med. quality | | | |
| | | O ₂ inlet | 1/8" hose (barbed) | | | |

* Equal distribution on the shelf

Select the Forma Steri-Cycle incubator that best meets your culturing needs



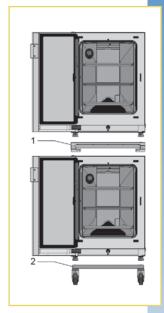


| Forma Steri-Cycle i160 CO ₂ Incubator | Stainless Steel Interior | 100% Copper Interior |
|--|---------------------------------------|-------------------------|
| TC Sensor | | |
| Single chamber with TC CO ₂ sensor, 100V 50/60Hz * | 51030299 | 51030298 |
| Single chamber with TC CO ₂ sensor, 120V 50/60Hz | 51030301 | 51030300 |
| Single chamber with TC CO ₂ sensor, 230V 50/60Hz | 51030303 | 51030302 |
| Dual chamber with TC CO ₂ sensor, stacking adapter, and roller dolly 120V 50/60Hz | 50145518 | 50145520 |
| Dual chamber with TC CO ₂ sensor, stacking adapter, and roller dolly 230V 50/60Hz | 50145519 | 50145521 |
| IR Sensor | | |
| Single chamber with IR CO ₂ sensor, 100V 50/60Hz * | 51030634 | 51030633 |
| Single chamber with IR CO ₂ sensor, 120V 50/60Hz | 51030532 | 51030531 |
| Single chamber with IR CO ₂ sensor, 230V 50/60Hz | 51030534 | 51030533 |
| Dual chamber with IR CO ₂ sensor, stacking adapter, and roller dolly 120V 50/60Hz | 50145522 | 50145524 |
| Dual chamber with IR CO ₂ sensor, stacking adapter, and roller dolly 230V 50/60Hz | 50145523 | 50145525 |
| | · · · · · · · · · · · · · · · · · · · | |

^{*} For 100V units, the left hinged door orientation is standard

ordering information





Ideal for use inside your ${\rm CO_2}$ incubator



Thermo Scientific $^{\text{\tiny{TM}}}$ CO $_{_2}$ Resistant Shaker

Provides reliable around-the-clock operation ideally suited to keep your cells alive and flourishing within your working environment.

Units are easily stackable. Required stacking adapter provides efficient heat dissipation to operate Steri-Run in one unit while culturing in the other without process disruption.

| Fo <mark>rma Steri-Cycle</mark> i250 CO ₂ Incubator | Stainless Steel Interior | 100% Copper Interior |
|--|-----------------------------|-------------------------|
| TC Sensor | | |
| Single chamber with TC CO ₂ sensor, 100V 50/60HZ | 51030978 | 51030977 |
| Single chamber with TC CO ₂ sensor, 120V 50/60HZ | 51030980 | 51030979 |
| Single chamber with TC CO ₂ sensor, 230V 50/60HZ | 51030982 | 51030981 |
| IR Sensor | | |
| Single chamber with IR CO ₂ sensor, 100V 50/60HZ | 51031006 | 51031005 |
| Single chamber with IR CO ₂ sensor, 120V 50/60HZ | 51030998 | 51030997 |
| Single chamber with IR CO ₂ sensor, 230V 50/60HZ | 51031000 | 51030999 |

ordering information

Options and accessories to customize your Forma Steri-Cycle \mathbf{CO}_2 incubators

| factory installed* | Forma Steri-Cycle i160 CO ₂ Incubator | Forma Steri-Cycle CO ₂ Incubator i250 | |
|--|--|--|--|
| Country Versions | | | |
| Electrical configuration for Switzerland | 5190 | 0300 | |
| Electrical configuration for Great Britain | 5190 | 0303 | |
| Electrical configuration for Italy | 5190 | 0306 | |
| Electrical configuration for Australia | 5190 | 0449 | |
| Electrical configuration for Denmark | 5190 | 0481 | |
| Electrical configuration for China | 5190 | 51900900 | |
| Chamber Configuration | | | |
| Internal 4-20 mA analog data output | 5190 | 1143 | |
| Left hinge door configuration | 5190 | 51900293 | |
| Internal gas guard for CO ₂ | 5190 | 51900735 | |
| Internal gas guard for N ₂ /O ₂ | 5190 | 51900736 | |
| Stainless steel external outer casing | 5190 | 1126 | |
| 3 door inner gas tight screen (replaces single inner door configuration) | 51901144 | | |
| 6 gas tight inner doors (replaces single inner door configuration) | | 51901127 | |
| 6 each of split shelf, copper (for use with 6 gas tight inner door configuration) | | 51901122 | |
| 6 each of split shelf, stainless steel (for use with 6 gas tight inner door configuration) | | 51901123 | |
| Reinforced shelves, copper | | 51901161 | |
| Reinforced shelves, stainless steel | | 51901162 | |
| O ₂ Control | | | |
| 1-21% O ₂ control | 51901137 | | |
| 5-90% O ₂ control | 51901138 | | |
| 1-21% O ₂ control with 3 door inner gas tight screen door | 51901145 | | |
| 5-90% O ₂ control with 3 door inner gas tight screen door | 51901146 | | |
| 1-21% $\rm O_2$ control with gas tight screen 6 inner glass doors and 1/2 width shelves | | 51901133 | |
| 5-90% $\mathrm{O_2}$ control with gas tight screen 6 inner glass doors and 1/2 width shelves | | 51901134 | |

^{*} Factory installed options may only be added to single chamber unit part numbers.



External stainless steel option for easy cleaning and GMP environments



HEPA Filter



CO₂ Resistant Shaker



Regulator

ordering information

Options and accessories to customize your Forma Steri-Cycle CO₂ incubators

| customer installed | Forma Steri-Cycle i160 CO ₂ Incubator | Forma Steri-Cycle i250 CO ₂ Incubator | |
|--|--|--|--|
| Support Frames, Stacking Adapters and Shelving | | | |
| Support frame for double chamber, 172 mm high (with castors) | 50145394 | 50145623 | |
| Support frame for double chamber, 200 mm high (without castors) | 50145435 | 50149102 | |
| Support frame for single chamber, 780 mm high (without castors) | 50145436 | 50149125 | |
| Castors for stands | 50052528 | | |
| Adaptor required for stacking i160 models | 50148171 | | |
| Adaptor required for stacking i250 models | | 50148174 | |
| Stacking adaptor for Steri-cycle i160 on top of Steri-cycle models 370, 371, 380, and 381 | 50148173 | | |
| Steel shelf, full-width, 2 support rails | 50051909 | 50065793 | |
| Additional shelf, solid copper, full-width, with 2 support rails | 50051910 | 50065794 | |
| Reinforced shelf, copper | | 50150644 | |
| Reinforced shelf, stainless steel | | 50150643 | |
| Set of 4 HERAtrays, 1/4 width, in stainless steel | | 50065807 | |
| Set of 4 HERAtrays, 1/4 width, in copper | | 50065808 | |
| Set of 3 HERAtrays, 1/3 width, in stainless steel | 50051913 | 50065805 | |
| Set of 3 HERAtrays, 1/3 width, in solid copper | 50051914 | 50065806 | |
| Set of 2 HERAtrays, 1/2 width, in stainless steel | 50058672 | | |
| Set of 2 HERAtrays, 1/2 width, in copper | 50061050 | | |
| Set of 2 HERAtrays, 1/2 width for half width shelves, in stainless steel | | 50065809 | |
| Set of 2 HERAtrays, 1/2 width for half width shelves, in copper | | 50065810 | |
| CO ₂ /O ₂ Accessories and Monitoring | | | |
| Replacement in chamber HEPA filter | 5014 | 41920 | |
| Replacement prefilter | 50144774 | | |
| Door lock retrofit kit, key entry, to prevent unauthorized access | 50145438 | | |
| 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 | | |
| IR gas tester with travel case (for advanced calibration and testing purposes for CO ₂ model) | 50121515 | | |
| IR Tester for CO ₂ /O ₂ | 50145789 | | |
| IR gas tester interface kit | 50122015 | | |
| 5 inlet port filters for IR testers | 50060287 | | |
| Shakers for Co ₂ incubators | | | |
| Thermo Scientific CO ₂ resistant, 120V | 888 | 81101 | |
| Thermo Scientific CO ₂ resistant, 230V | 888 | 81102 | |
| Thermo Scientific CO ₂ resistant with universal platform, 120V | 88881103 | | |
| Thermo Scientific CO ₂ resistant with universal platform, 230V | 888 | 81104 | |













Stacking Adaptor

Wheel Frame

High Frame

Low Frame

Gas Tight Inner Doors with Split Shelves

Stainless Steel and Copper Shelves



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