Thermo Scientific Series 8000 – Direct Heat and Water Jacket CO₂ Incubators

Ultimate cell culture protection
Series 8000 CO₂ Incubators – Superior Selection, Stability and Protection

CO₂ incubators are essential for optimum cell culture, and versatility is a must.

Thermo Fisher Scientific is the world leader in serving science. With over 100,000 CO₂ incubators in use worldwide, we have established our global leadership in cell culture incubation technologies.

Thermo Scientific – the Name to Trust

With the Thermo Scientific Series 8000 CO₂ incubators, you have the ultimate choice of both water jacket (WJ) and direct heat (DH) technology, giving you the flexibility you can depend on for growing cells. Built to the highest standards of workmanship and backed by unsurpassed service and technical support, our new Thermo Scientific Series 8000 CO₂ incubators are designed to provide total peace of mind.

Ultimate Protection

In every Thermo Scientific Series 8000 incubator, a HEPA filter inside the chamber filters out contaminants. The HEPA filter is located inside the incubator chamber for optimum filtering, easy access, and simple replacement (no tools needed). An adjustable built-in timer notifies you when to replace the filter.

Stainless steel shelves and supports can be removed without tools for easy cleaning or adjustment.
Complete Contamination Control

Contamination prevention is better than cure. With the proven contamination prevention technologies of the Thermo Scientific Series 8000 CO₂ incubators, you can save time and money, while keeping your cultures safe.

Rapid Response Class 100 Cleanroom Air Quality
Product yields and reliability can be affected by airborne contamination.

HEPA Class 100 air quality control reduces particulates to cleanroom levels, minimizing the risk of product loss and downtime. The patented HEPA Filter Airflow System:

- continuously filters chamber volume to provide an aseptic culturing atmosphere
- filters out airborne biological particulates, the primary sources of lab contamination
- ensures Class 100 air quality is achieved within five minutes of door closure

Time Saving Easy Cleaning
Every aspect of Thermo Scientific Series 8000 CO₂ incubators is designed to be easy to clean.

- polished stainless steel interior with 100% coved corners saves cleaning time and reduces contamination risk
- an adjustable timer, signals when the easy-to-access HEPA filter needs replacement
- disposable snap-fit blower/scroll mounting, stainless steel shelves and supports, and HEPA filters can all be removed easily without tools

Clear and precise: the intuitive user interface provides easy to use controls for all settings, as well as feedback on all vital information via the message center and alarm array.

Polished stainless steel interior with 100% coved corners is easy to clean, saving time and reducing contamination risk.
Thermo Scientific Series 8000 WJ
Simply More Security

Maximum Thermal Protection
With a triple wall construction and large volume of water, Thermo Scientific Series 8000 WJ water jacket CO₂ incubators provide unsurpassed temperature stability and protection against heat loss.

The water jacket technology holds the temperature for extended periods of time, which is critical during power failures. Under test conditions, the temperature dropped initially at only 1 °C per hour and just 7.6 °C in 10 hours.

Thermo Scientific Series 8000 WJ CO₂ incubators also provide fast temperature recovery. The patented, heated, dual pane glass inner door is more responsive than standard doors and minimizes condensation.

Easy set up
The incubator message center controls are powerful and intuitive. The remote alarm contacts and an optional digital RH display enable continual monitoring for humidity dependent applications.
On-Demand Sterilization
Thermo Scientific Series 8000 DH, direct heat CO₂ incubators include an easy-to-use, safe and proven sterilization system to destroy all forms of microbial life inside the chamber. The automatic high temperature decontamination cycle is ideal for overnight sterilization and ensures consistent sterilization time after time. Audible alarms and access codes ensure laboratory and product safety as well as security.

Direct Heat

High Temperature Uniformity
Directed airflow and direct chamber heating maintain optimum uniformity for an ideal culturing environment. During the sterilization cycle, the same system ensures that your incubator’s entire chamber is sterilized — all contamination is eliminated.

Direct Heat Sterilization Cycle — 120 minutes at 140°C — ensures the elimination of all microorganisms and fungal spores from every incubator surface (ANSI/AAMI/ISO 11134). This claim has been validated with suspensions from B. subtilis spores calibrated for dry heat processes, because these are most resistant against dry heat sterilization and therefore the recommended indicator organism (U.S. Pharmacopoeia, ch. 1035). All spores applied to the different surfaces of the incubator — chamber wall (stainless steel), door (glass) and door gasket (tempered silicone), have been reliably eliminated with the sterilization cycle after 120 minutes at 140°C.

The sterilization cycle starts with the simple press of the white button! During the heat sterilization process, the message center guides you through the cycle with start-up and cycle status messages.

Stable and uniform temperature distribution through heating of all six sides of the chamber, during incubation as well as during sterilization.
Accessories

Accessories are customer installed unless indicated otherwise. In addition to providing a standard line of equipment and accessories, we will manufacture custom accessories to meet your specific requirements. Contact us for details.

<table>
<thead>
<tr>
<th>Cat No.</th>
<th>Description</th>
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<th>Description</th>
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<tbody>
<tr>
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<td>Stainless Steel Shelf and Channels</td>
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<td>Replacement HEPA filter (Fig. 02)</td>
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<td>760209</td>
<td>HEPA Value Pack (four filters)</td>
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<td>HEPA Value Pack (four filters)</td>
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<td>10 Disposable In-Line Filters</td>
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<td>1900067</td>
<td>HEPA Filter Replacement Kit (inline and access port filters)</td>
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<td>Independent inner Glass Door Kit</td>
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<td>Independent inner Glass Door Kit</td>
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<td>190646</td>
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<td>Roller Base (Fig. 01)</td>
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<tr>
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<td>Floor Stand</td>
<td>190648</td>
<td>Floor Stand</td>
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<tr>
<td>190666</td>
<td>Right Hand Door Swing, factory installed at time of order</td>
<td>190666</td>
<td>Right Hand Door Swing, factory installed at time of order</td>
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<tr>
<td>190643</td>
<td>Humidity (RH) Display, factory installed at time of order</td>
<td>190643</td>
<td>Humidity (RH) Display, factory installed at time of order</td>
</tr>
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</table>

**Fig. 01 | Roller Base**
Heavy-duty, dual-caster base with swivel-locks and leveling feet, raising unit by 3.0" (7.6 cm). Supports up to two stacked units.

**Fig. 02 | HEPA Air-Filter**
The High Efficiency Particulate Air-Filter (HEPA) removes more than 99.97% of all particles 0.3 microns and greater in size. Consequently, ‘Class 100’ air quality (<100 particles per cubic foot of air) is achieved within 5 minutes of door closure.

**Fig. 03 | External Automatic Gas Tank Interchange**
Monitors CO₂ and automatically switches from one cylinder to the other when the supply is exhausted.

**Fig. 04 | Two-Stage CO₂ Gas Regulator**
Regulators with barbed connection and shut off valve.
### Technical Specifications

**Temperature**
- Control: ±0.1 °C
- Range: 5 °C above ambient to 56 °C (131 °F)*
- Uniformity: ±0.2 °C @ 37 °C (98.6 °F)
- Tracking Alarm: User-programmable high/low

**Temperature Safety**
- Sensor: Precision thermistor
- Controller: Independent analog electronic
- Setability: 0.1 °C

**CO₂/O₂**
- CO₂/O₂ Control: Better than ±0.1 %
- CO₂ Range: 0–20 %
- O₂ Range: 1–20 %
- Inlet Pressure: 15 PSIG (1.0 bar)
- CO₂ Sensor: T/C or IR
- O₂ Sensor: Fuel cell
- Readability & Setability: 0.1 %
- Tracking Alarm: User-programmable high/low

**Humidity**
- RH: Ambient to 95 % @ 37 °C (98.6 °F)
- Humidity Pan: 3.2 qt. (3.0 liters) standard
- Display (opt.): In 1% increments

**Fittings**
- Fill Port: 3/8” hose (barbed)
- Drain Port: 1/4” hose (barbed)
- Access Port: 1.3” (3.3 cm) with removable silicone plug with filter
- CO₂ Inlet: 1/4” hose (barbed)

**Unit Heat Load**
- 115 V: 344 BTUH (100 watt)

### Shelving (Continued)

**Dimensions**
- 18.5” x 18.5” (47.0 cm x 47.0 cm)

**Construction**
- Stainless steel, perforated

**Surface Area**
- Standard: 2.4 sq. ft. (0.2 sq. m)
- Max. per Chamber: 40.8 sq. ft. (3.8 sq. m)

**Standard, Maximum**
- 4, 17

### Ordering Information

<table>
<thead>
<tr>
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<th>CO₂</th>
<th>O₂</th>
<th>Voltage</th>
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<tr>
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<td>3429</td>
<td>TC</td>
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<td>IR</td>
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<td>230 VAC</td>
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</table>

### Choice of T/C or IR Sensor

Select a T/C sensor when chamber temp and RH are relatively constant. Typically, a T/C sensor has a longer life than an IR sensor.

Select an IR sensor when temp and RH levels are changed frequently. With either sensor, elevated RH is critical to prevent desiccation.
Thermo Scientific Series 8000 DH CO₂ Incubators

### Technical Specifications

<table>
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<tr>
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<tr>
<td><strong>Temperature</strong></td>
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<tr>
<td>Control</td>
<td>±0.1 °C</td>
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<td>Range</td>
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<td>Uniformity</td>
<td>±0.3 °C (0°C, 37 °C, 98.6 °F)</td>
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<td>Tracking Alarm</td>
<td>User-programmable high/low</td>
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<td><strong>Overtemperature</strong></td>
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<tr>
<td>Sensor</td>
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<tr>
<td>Setability</td>
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<tr>
<td>Function</td>
<td>Shuts off heat</td>
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<tr>
<td><strong>Temperature Safety</strong></td>
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<td>115 V/230 V</td>
<td>293 BTUH (86 Watt)</td>
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<tr>
<td>3543</td>
<td>IR</td>
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