

*intuitive*  
*intelligent*  
*interactive*



## **New! Thermo Scientific Heracell 150i and 240i CO<sub>2</sub> Incubators**

# Thermo Scientific Heracell 150i and 240i

>> *Surround your valuable cultures  
with an environment you can trust.*

The Heracell® i is  
available in two  
convenient sizes:  
150L (5.3 cu ft) and  
240L (8.5 cu ft)

You can choose  
between stainless  
steel and 100% pure  
copper interior.

**2 year  
warranty**



**Thermo Scientific Heracell i CO<sub>2</sub> incubators provide the ideal *in vitro* environment: clean, reliable and easy to use, protecting your valuable samples while optimizing cell growth.**

### **NEW: iCAN™ (Interactive Control Access Navigator) Touchscreen**

Exclusive iCAN simplifies operation and enables rapid access of important information for each critical parameter in the incubator. iCAN provides trend analysis for convenient evaluation of your unit's performance.

With our Heracell i, your valuable samples will be:

- **Secured:** Our innovative ContraCon moist heat decontamination technology is proven for simple and worry-free cleaning and operation.
- **Protected:** Proven contamination control is offered with our unique 100% pure solid copper interiors – antimicrobial protection on contact, naturally.
- **Thriving:** Designed to provide optimal growth conditions, delivering superior parameter recovery rates that enhance cell growth.

# Intelligent design, promoting superior cell growth

>> *Our Heracell i offers a range of features that maximize safe, dependable cell growth*

**Our Heracell incubators are renowned for their accuracy, uniformity and quick recovery rates – attributes that contribute to optimal culturing conditions.**

- High quality sensors are mounted directly within the chamber for precise environmental measurements.
- Highly efficient fan-assisted distribution of critical temperature, CO<sub>2</sub> and humidity insures uniformity for all samples—no matter their location within the incubator.

## Gas sensors

For precise and dependable automatic CO<sub>2</sub> control, you can choose between thermal conductivity (TC) or our patented Dual Beam infrared (IR) sensor technology based upon your preferences and experimental need.

TC sensors provide accurate CO<sub>2</sub> control in applications where temperature and humidity values are consistent. IR sensors are recommended where temperature and humidity values fluctuate frequently. Both sensors are thermostable, do not require removal for cleaning, and may remain in place during our exclusive ContraCon decontamination routine.

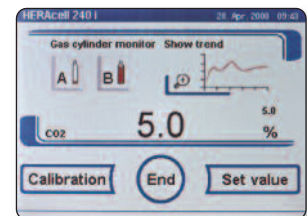
## Optional O<sub>2</sub> control

For those seeking to establish hypoxic or hyperoxic culturing conditions, the Heracell i offers two optional O<sub>2</sub> control ranges. Choose between 1 to 21% O<sub>2</sub>, or a wide-range setting from 5 to 90% O<sub>2</sub>. The advanced maintenance free sensor technology is calibrated automatically (auto-cal) and can remain in place during our high temperature ContraCon decontamination.

## Integrated gas guard

An optional, integrated gas tank switcher for CO<sub>2</sub> and O<sub>2</sub>/N<sub>2</sub> allows the connection of two gas supplies. When the first supply is empty, the controller switches automatically to the second supply.

*A visual alert will appear on the touchscreen display when the gas supply is low and needs changing.*

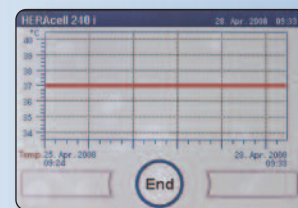




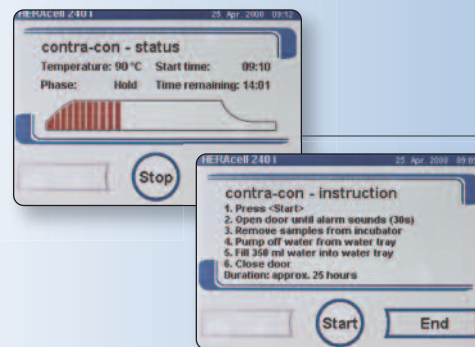
### Patented humidity system for faster recovery rates

Our Heracell i incorporates a unique integral humidity water reservoir that provides a high relative humidity (rH) and allows rapid recovery of optimal humidity level after door openings. A water level sensor indicates when a refill is needed – via a convenient prompt on the touchscreen display – to avoid the desiccation of important cultures. This pan-less system reduces handling and provides recovery rates up to five times faster than ordinary tray humidified incubators, due to:

- A surface area larger than ordinary humidity water pans (provided by a water reservoir with inclined and rounded corners)
- A patented floor heating system that operates after door opening
- Direct heat-transfer from heated floor to humidity reservoir



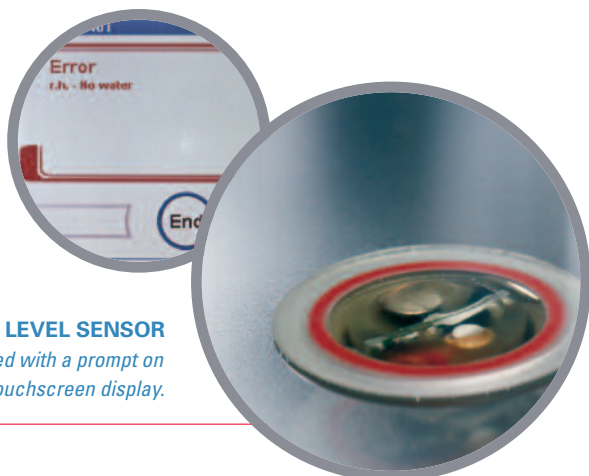
*Review performance trends etc...to better manage your culturing process.*



*View instructions and monitor progress of ContraCon decontamination routine, directly on the iCAN display.*

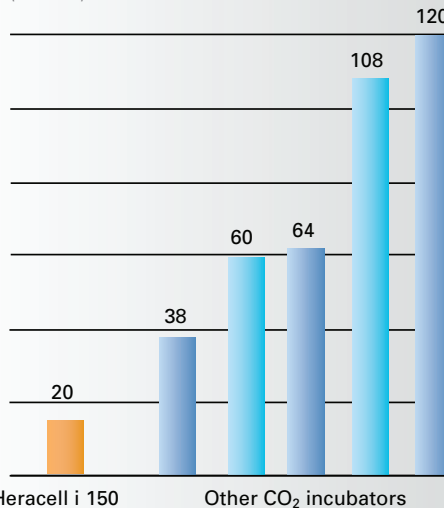
### >> Constant humidity for cell protection and optimal growth

*Short humidity recovery times are critical to cell growth – especially when the incubator door is opened frequently or when low volumes of media are used.*



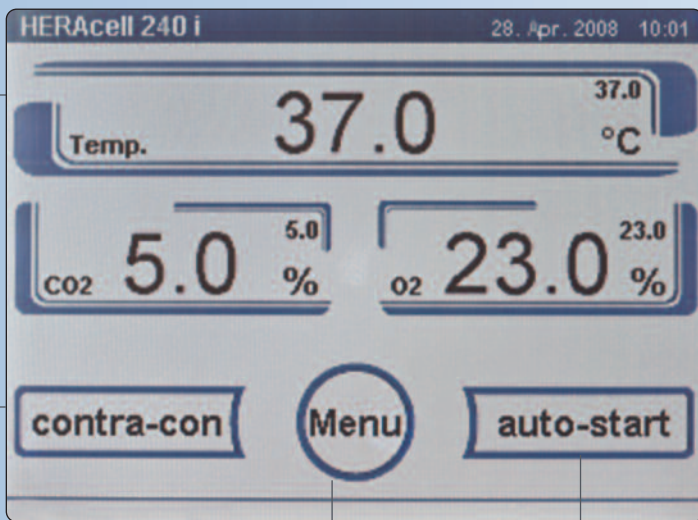
**WATER LEVEL SENSOR**  
Supported with a prompt on the touchscreen display.

Typical humidity recovery time measured in competitive comparison<sup>1</sup> (minutes)



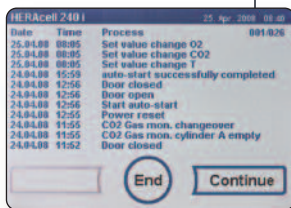
<sup>1</sup> Based upon a 30 second door opening.

# Thermo Scientific iCAN touchscreen – places total control and complete information at your fingertips



**iCAN touchscreen improves your visibility and control of important incubator information helping you to achieve your culturing goals**

- Door mounted for easy accessibility and viewing
- Easy to use: convenient on-screen user prompts
- Select from a variety of languages
- Visibility to changes in culture environment: on screen logs and usage recording
- Monitor alarm alerts visually on the display



*Keeps a running log of all user interactions with the incubator, which can be accessed as needed.*



*Automatically calibrating all electronic measurement and control functions for you.*

> **interactive**  
Complete information at your fingertips.

> **intuitive**  
Easy to use with simple icons and menu prompts to guide you, reducing the potential for costly errors.

> **intelligent**  
Graph performance trends over established timeframes and run event history logs—protected with user passcodes and control lockouts.

# Worry free 24/7 protection against contamination

>> *Thermo Scientific Heracell i incubators offer unmatched contamination prevention*

## **ContraCon – 90°C moist heat decontamination**

Exclusive to all Heracell i incubators is the high-temperature, ContraCon 90°C moist heat decontamination process. It's an automatic, on-demand routine that is proven effective in eliminating bacteria, molds, fungal spores and mycoplasma. ContraCon simplifies cleaning and eliminates variability in disinfection. Also, the cleaning process does not require the disassembly and removal of sensors, hardware or other components for separate autoclaving.

ContraCon has been independently proven to be effective against an assortment of commonly encountered contaminants, including:

- Bacillus subtilis
- Bacillus stearothermophilus (USP 23)
- Enterococcus faecalis
- Escherichia coli
- Pseudomonas aeruginosa
- Staphylococcus epidermidis
- Corynebacterium xerosis
- Aspergillus niger

## **Unique gas-tight segmented door option**

For additional contamination protection, all Heracell incubators now offer an optional three door (Heracell 150i) or six door (Heracell 240i) inner glass door assembly, which allows access to defined sections of the incubator without disturbing the entire inner atmosphere. This minimizes recovery times, gas usage and the risk of contamination.

## **Less means more when it comes to cleaning and maintenance**

Heracell i incubators have a completely smooth inner casing with rounded corners, reducing unnecessary internal surfaces where contamination can hide.

- Faster, more effective cleaning and disinfection
- Surfaces that can be easily contaminated, such as ceiling panels, air ducts and screws are avoided
- High quality electropolished stainless steel finish

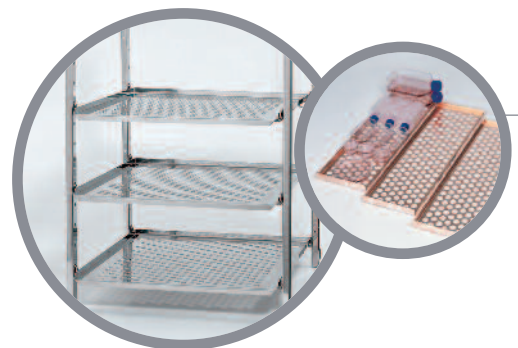
## **100% pure copper antimicrobial interior available**

The Heracell i offers antimicrobial copper interiors that provide maximum protection against contaminants potentially introduced through door openings or sample handling. Ideal for shared-use environments, copper delivers non-stop bactericidal and fungicidal properties on contact.

- Chamber, fan and shelving system are constructed of 100% pure antimicrobial copper
- No ineffective copper alloys or plating finishes

## **COMPLETELY VISIBLE AND ACCESSIBLE THROUGHOUT**

Minimal assembly and 50% less contamination prone surfaces.



*Minimize cleaning time and maximize contamination protection.*



**SECURED:**

Our ContraCon moist heat decontamination cycle is proven to eliminate contaminants, for simple and reliable cleaning.



**PROTECTED:**

100% pure copper interior eliminates microbial growth on contact.

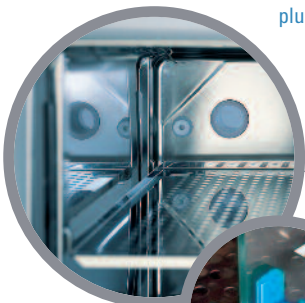


**THRIVING:**

Patented rapid-response humidity system provides superior recovery time upon door openings.

**ACCESS PORT**

Heracell i incubators are supplied with a 42 mm (1.6 in) access port as standard. This allows cables, plugs and tubing to be easily inserted into or out of the chamber.



**GLASS DOORS HAVE A RELIABLE DOOR LATCH**

preventing the inner door from accidentally not being closed and compromising culture conditions.

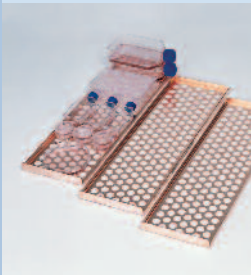
**HERATRAYS ENABLE CONVENIENT TRANSPORT**

of samples; fit readily on shelves.

**FLEXIBLE SET UP**

Doors can be set up for left- or right-handed use to optimize the work space in your laboratory. All door gaskets can be removed by hand and have smooth surfaces for easy cleaning.





### Thermo Scientific Heratrays

Heratrays are shelves for the convenient transportation of your cultures and can be used to divide incubator shelves up to four sections. They work well with a three or six inner glass door configuration. Heratrays are available in stainless steel or copper.



### Half-width shelves

These can be used to subdivide the Heracell 240i's interior to reduce the possibility of mixing up samples, especially when there are multiple users.



### Support frames

The carts provide protection against floor contamination. Choose between a height of 200 mm (8 in) or 780 mm (31 in). The support frames can also be castor-mounted for easy maneuverability.



### Thermo Scientific AquaTec™ water preservation cell

Simply place the 3-inch cell into the water reservoir of your CO<sub>2</sub> incubator. AquaTec prevents infection from most common contaminants for up to six months without harsh germicidal chemicals.



### Unique new roller bottle system

The Heracell 240i can be equipped with up to four rows of bottle-turning devices for roller bottles between 58 to 186 mm in diameter, each with independent speed control.



### Thermo Scientific IR-CO<sub>2</sub> gas tester

The handheld IR-CO<sub>2</sub> gas tester is equipped with a maintenance-free infrared cell to monitor CO<sub>2</sub> concentration inside the chamber. Data download and calibration functions are possible by using optional PM-COM software. The IR-CO<sub>2</sub> gas tester performs to GMP/GLP standards.



### Gas-tight inner glass doors

All Heracell i incubators now offer an optional three door (Heracell 150i) or six door (Heracell 240i) inner glass door, which allow access to defined sections of the incubator without disturbing the inner atmosphere. This minimizes recovery times and the risk of contamination.



*Each unit is lightweight and readily stackable without hardware or tools.*



Type	Unit	Heracell 150i	Heracell 240i
<b>Dimensions</b>			
Internal Volume:	l	150 (5.3 cu.ft.)	240 (8.4 cu.ft.)
External (w x h x d)	mm	637 x 867 x 782	780 x 934 x 834
	inch	25.1 x 34.1 x 30.8	30.7 x 36.8 x 32.8
Internal (w x h x d)	mm	470 x 607 x 530	607 x 670 x 583
	inch	18.5 x 23.9 x 20.9	23.9 x 26.4 x 23.0
Weight (excl. accessories)	kg	70	81
	lbs.	154	178
<b>Shelves</b>			
Shelves full width (w x d)	mm	423 x 465	560 x 500
	inch	16.7 x 18.3	22.0 x 19.7
No. of shelves standard/maximum	no.	3/10	3/12
Max. load per shelf/total load	kg	10/30	10/30
	lbs.	22/66	22/66
Shelves half width (w x d)	mm	–	260 x 500
	inch	–	10.2 x 19.7
No. of shelves standard/maximum	no.	–	6/16
Max. load per shelf/total load	kg	–	5/30
	lbs.	–	11/66
<b>Material</b>			
Interior chamber		stainless steel/solid copper	stainless steel/solid copper
Shelves, fan impeller		stainless steel/solid copper	stainless steel/solid copper
ContraCon decontamination routine		verified by accredited laboratories	verified by accredited laboratories
Decontamination phase, on all surfaces	°C/hrs	90/9	90/9
Period (ambient temperature 20°C)	hrs	25	25
Efficiency spectrum		bacteria, fungi, spores (USP 23), mycoplasma	bacteria, fungi, spores (USP 23), mycoplasma
<b>Temperature</b>			
		air jacket temperature control	air jacket temperature control
Temperature control range	°C	T <sub>A</sub> <sup>1</sup> +3 ... 55	T <sub>A</sub> <sup>1</sup> +3 ... 55
Temperature deviation, time <sup>2</sup> /spatial <sup>2</sup>	K	± 0.1/± 0.5	± 0.1/± 0.5
Ambient temperature range	°C	+18 ... 33	+18 ... 33
<b>Humidity</b>			
Constant humidity <sup>3</sup>	%rH	95 ± 3	95 ± 3
Fill amount/water quality	l	max. 3	max. 4.5
		distilled/autoclaved and demineralized	distilled/autoclaved and demineralized
<b>CO<sub>2</sub></b>			
Measure and control range	Vol – %	0 ... 20	0 ... 20
Control accuracy	Vol – %	± 0.1	± 0.1
Inlet pressure	bar	0.8 ... max. 1	0.8 ... max. 1
Gas purity	%	99.5, medical quality min.	99.5, medical quality min.
<b>O<sub>2</sub></b>			
Measure and control range	Vol – %	1..21 / 5..90	1..21 / 5..90
Control accuracy	Vol – %	± 0.2	± 0.2
Inlet pressure	bar	0.8... max. 1	0.8... max. 1
Gas purity	%	99.5; medical quality min.	99.5; medical quality min.
<b>Electrical Data</b>			
Rated voltage	V	1/N/PE AC; 230 (120)	1/N/PE AC; 230 (120)
Rated output	kW	0.58 (0.62)	0.64 (0.65)
Rated frequency	Hz	50/60	50/60
Heat emission to environment			
at 37°C	kWh/h	0.06	0.07
with ContraCon	kWh/h	0.11	0.25

<sup>1</sup> Ambient temperature

<sup>2</sup> Determined according to DIN 12880 for the standard configuration. For details refer to calibration instructions.

<sup>3</sup> The relative humidity inside the incubator may increase during incubation of open culture vessels



Standard equipment <sup>1</sup>	Description	Cat. No. Heracell 150i		Cat. No. Heracell 240i	
		Stainless Steel	Copper	Stainless Steel	Copper
Heracell	single chamber with TCD CO <sub>2</sub> sensor, 120 V, 50/60 Hz	51026282	51026283	51026331	51026332
Heracell	dual incubator units with support stand with TCD sensor 120 V, 50/60 Hz, complete with support frame	50116048	50116050	–	–
<b>Additional Models<sup>2</sup></b>					
IR CO <sub>2</sub> Sensor	single chamber, 120 V 50/60 Hz	51026406	51026534	51026420	51026419
Internal Gas Guard CO <sub>2</sub>	single chamber with TCD sensor, 120 V, 50/60 Hz	51026528	51026535	51026681	51026679
IR sensor with Internal CO <sub>2</sub> Gas Guard	single chamber, 120 V, 50/60 Hz	51026686	51026688	51026703	51026705
<b>Tri-Gas Units<sup>2</sup></b>					
O <sub>2</sub> control Vol-% 1..21 incl. 3 gas tight inner doors with TCD CO <sub>2</sub> sensor		51026410	51026408	–	–
O <sub>2</sub> control Vol-% 5..90 incl. 3 gas tight inner doors with TCD CO <sub>2</sub> sensor		51026529	51026536	–	–
O <sub>2</sub> control Vol-% 1..21 incl. 6 gas tight inner doors and half-width shelves with TCD CO <sub>2</sub> sensor		–	–	51026423	51026422
O <sub>2</sub> control Vol-% 5..90 incl. 6 gas tight inner doors and half-width shelves with TCD CO <sub>2</sub> sensor		–	–	51026552	51026581
O <sub>2</sub> control Vol-% 1..21 incl. 3 gas tight inner doors with IR CO <sub>2</sub> Sensor		51026402	51026537	–	–
O <sub>2</sub> control Vol-% 5..90 incl. 3 gas tight inner doors with IR CO <sub>2</sub> sensor		51026530	51026538	–	–
O <sub>2</sub> control Vol-% 1..21 incl. 6 gas tight inner doors and half-width shelves with IR CO <sub>2</sub> sensor		–	–	51026556	51026533
O <sub>2</sub> control Vol-% 5..90 incl. 6 gas tight inner doors and half-width shelves with IR CO <sub>2</sub> sensor		–	–	51026557	51026582
<b>Accessories</b>		<b>Cat. No. Heracell 150i</b>		<b>Cat. No. Heracell 240i</b>	
3 gas tight inner doors <sup>3</sup>	for segmented access for stainless steel/copper incubator	50115496		–	
6 gas tight inner doors <sup>3</sup>	for segmented access for stainless steel/copper incubator	–		50115495	
Roller bottle system	One level (replacing one shelf)	–		51900572	
	Two levels (replacing two shelves)	–		51900573	
	Three levels (replacing three shelves)	–		51900574	
	Four levels (replacing three shelves)	–		51900614	
	Factory installed outlet option for field retrofit of up to 4 levels (comes with 3 shelves)	–		51900732	
USB interface for data documentation (factory installed)		51900930		51900930	
Security door lock		50072430		50072430	
Support frame	200 mm / 7.9 in (without castors)	50051376		50065754	
Support frame	185 mm / 7.3 in (with castors, height incl. castors)	50057161		50067224	
Support frame	780 mm / 30.7 in (without castors)	50051436		50065753	
Support cart with drawers/castors	780 mm / 30.7 in, three drawers, with four castors	50056459		50081774	
Castor set	100 mm / 3.9 in, four castors for support frames no. 50051376, 50051436, 50065753 and 50065754	50052528		50052528	
Stack adapter	for 240i unit: for stacking two Heracell 240	–		50068677	
Heratray, stainless steel	shelf tray 1/2 width; two pieces	50058672		–	
Heratray, stainless steel	shelf tray 1/3 width; three pieces	50051913		50065805	
Heratray, stainless steel	shelf tray 1/4 width, four pieces	–		50065807	
Heratray, stainless steel	shelf tray 1/2 width for half-width shelf, four pieces	–		50065809	
Heratray, all copper	shelf tray 1/2; two pieces	50061050		–	
Heratray, all copper	shelf tray 1/3 width; three pieces	50051914		50065806	
Heratray, all copper	shelf tray 1/4 width, four pieces	–		50065808	
Heratray, all copper	shelf tray 1/2 width for half-width shelf, four pieces	–		50065810	
Additional shelf, full-width	stainless steel, incl. two support bars	50051909		50065793	
Additional shelf, full-width	stainless steel, reinforced, incl. two support bars	–		50077367	
Additional shelf, half-width	stainless steel, incl. two support bars	–		50065795	
Additional shelf, full-width	copper, incl. two support bars	50051910		50065794	
Additional shelf, full-width	copper, reinforced, incl. two support bars	–		50077365	
Additional shelf, half-width	copper, incl. two support bars	–		50065796	
IR-CO <sub>2</sub> gas tester	120 - 240 VAC	50060283		50060283	
	five spare inlet port filters	50060287		50060287	
	IrDa computer interface and cable (incl. PM-COM Software)	50060289		50060289	

<sup>1</sup> Standard equipment includes air-jacket heating, ContraCon decontamination routine, right hinged door.

<sup>2</sup> Additional Configurations are available as special orders.

<sup>3</sup> Field installed. Without inner glass door. Our recommendation: apply 6 gas tight inner doors only in combination with half-width shelves or Heratrays.

[www.thermo.com/incubators](http://www.thermo.com/incubators)

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