Lab equipment

Thermo Scientific™ Refrigerated Incubators

Where precision meets innovation

thermo scientific

Refrigerated incubators can help you reach an untapped potential in achieving temperature precision and efficiency. Excellent for applications where results demand precisely controlled temperatures, including the development of new products, quality control in food, beverage and cosmetics industries, waste-water testing, cell culture, growth and preservation of samples, our equipment is always designed with your samples in mind.

Thermo Scientific Heratherm Refrigerated Incubators with a temperature range of +5° C to +70° C, are equipped with energy efficient Peltier technology to help reach the precise temperatures needed to perform your applications in a sustainable manner and are available in benchtop and floor standing models.

Thermo Scientific Refrigerated Incubators, with a temperature range of +4° C to +60° C, utilize robust compressor cooling to help ensure a controlled temperature environment and are available in a range of sizes to fit your application needs.

Refrigerated incubator comparison

Incubator type	Temperature range	Capacity	Temperature stability	Temperature uniformity	Cooling technology	Voltage	Internal outlet
Heratherm IMP 180	5° C - 70° C	178 L	±0.1° C at 20° C	±0.2° C at 20° C	Peltier	100-230 V, 50/60 Hz	Optional
Heratherm IMP 400	5° C - 70° C	381 L	±0.1° C at 20° C	±0.3° C at 20° C	Peltier	100-230 V, 50/60 Hz	Optional
Thermo Scientific RI 150	4° C - 60° C	150 L	±0.1° C at 20° C	±0.7° C at 20° C	Compressor, R290	115 V, 60 Hz or 230 V, 50 Hz	N/A
Thermo Scientific RI 250	4° C - 60° C	250 L	±0.1° C at 20° C	±0.7° C at 20° C	Compressor, R290	115 V, 60 Hz or 230 V, 50 Hz	N/A
Thermo Scientific RI 420	4° C - 60° C	420 L	±0.2° C at 20° C	±0.7° C at 20° C	Compressor, R290	115 V, 60 Hz or 230 V, 50 Hz	N/A
Thermo Scientific RI 720	4° C - 60° C	670 L	±0.2° C at 20° C	±0.7° C at 20° C	Compressor, R290	115 V, 60 Hz or 230 V, 50 Hz	N/A

A complete package to help take your applications to the next level

Refinement in incubation paired with intuitive features

- Large and clear display for easy viewing
- Intuitive user interface
  - Heratherm IMP models are equipped with an LED display
  - Thermo Scientific RI models come standard with a 7” touchscreen display
- Set temperature in 0.1° C increments
- Select Celsius or Fahrenheit for easy viewing

Space-saving design and efficient use of the chamber

- Flexible shelf system for better loading, easy to remove for cleaning, with non-tip protection in Heratherm IMP models
- Small footprint to use limited lab space efficiently
- Benchtop models come with leveling feet, and floor models with lockable casters for easy relocation
- Heratherm IMP table-top units are stackable without the need for tools or other devices

Optimized design for ease-of-use

- Standard access port on every unit
- Data logging capabilities
  - Heratherm IMP – RS232
  - Thermo Scientific RI – USB, RS232, RS485
- Perforated, adjustable shelves for enhanced airflow

Advancement in incubation

Heratherm refrigerated incubators with Peltier technology are available in two sizes: a benchtop model (178 L /6.3 cuft), and a floor model with casters (381 L /13.5 cuft)

Features include:

- Temperature range +5° C to +70° C
- Outstanding temperature uniformity and stability to keep the samples in a safe environment - uniformity as good as ±0.3° C (at +25° C), and stability as tight as ±0.1° C
- Energy consumption as low as 80Wh/h (benchtop model) 150Wh/h (floor model) at +20° C - compressor cooled units consume up to 6 times this amount**
- CFC free/HFC free polyurethane insulation foam for outstanding temperature performance and condensation prevention
- Heated door with intelligent energy control to ensure reduced condensation – even at low temperatures
- Sophisticated timer function with weekly/daily or real time mode
- Intuitive programmability function for defined temperature ramping, soak/cool and dwell: store up to 10 programs with 10 temperature steps, loop program, and select mode at end of cycle
- Adjustable over-temperature shut-off for protocols that require setting of over temperature for protection – (class 2 according to norm DIN12880)
- Fan speed adapts automatically to help achieve optimal temperature performance

**Based on comparison with BK6160 / Precision815

Specification information

Model		IMP180 Benchtop Model	IMP400 Floor Model
Chamber volume	L/cu ft	178/6.3	381/13.5
Temperature range	°C	+5° to +70°	
Temperature deviation over time (Measured in mid of work space)***	± °C	at 20° ≤ ±0.1 at 37° ≤ ±0.1	
Spatial temperature deviation (Measured with 27 sensors)***	± °C	at 20° ≤ ±0.2 at 37° ≤ ±0.5	20° ≤ ±0.3 37° ≤ ±0.7
Internal dimensions W x H x D	mm/in	464 x 708 x 543/ 18.3 x 27.9 x 21.4	544 x 1335 x 524/ 21.4 x 52.6 x 20.6
External dimensions W x H x D	mm/in	640 x 920* x 738*/ 25.2 x 36.2* x 29.1*	778 x 1545** x 770**/ 30.6 x 60.8** x 30.3**
Footprint	m^2/ft^2	0.47/5.1	0.56/6.0
Number of shelves: supplied/maximum	units	2/9	2/17
Number of shelf positions	positions	19	39
Shelf size (W x D)	mm/in	439 x 505/17.28 x 19.88	528 x 498/20.79 x 21.06
Loading capacity per shelf**	kg/lbs	25/55	30/66
Loading capacity of unit**	kg/lbs	75/165	75/165
Weight of unit	kg/lbs	84/185	167/368
Shipping weight	kg/lbs	97/214	216/476
Peltier modules	units	1	2
Energy consumption at 20°C	Wh/h	80	150
Access port diameter	mm/in	42/1.65	
Interior material		Stainless steel 1.4301/304	
Housing materials		Coated sheet metal	

* Depth of handle/display not included in depth (65 mm/2.6 in.); adjustable feet not included in height (35 mm/1.4 in.) – required distance to rear wall: 130 mm/5.1 in.
** Depth of handle/display not included in depth (65 mm/2.6 in.); casters not included in height (180 mm/7.1 in.) – required distance to rear wall: 150 mm/5.9 in.
*** All figures in this table are typical average values for series devices, based on factory standard following norm DIN12880. Please contact us for certification information or IQ/OQ documents.

Reliable convenience

Thermo Scientific Refrigerated Incubators are available in 4 sizes: two benchtop models (150 L, 250 L) and two floor standing models (420 L, 640 L) for increased range

Features include:

- Temperature range +4° C to +60° C
- Temperature stability and uniformity fitting most applications
- Environmentally-friendly hydrocarbon refringent, R290, has a Global Warming Potential index (GWP) of 3, keeping the environmental impact of the refrigeration system minimized
- 7” touch screen for data export, alarm history, operating status, and real-time temperature curve
- Coated cabinet interior and adjustable shelves make cleaning a breeze, with flexible and corrosive-resistant operation
- USB data export
- Temperature sensor open/short cut-off alarm, door open alarm, standby or auto-restart after power failure
- High temperature cut-off and low temperature alarm
- Ability to program and store up-to 10 programs, with 99 segments each on user interface
- Three level access control to avoid non-authorized operation

Specification information

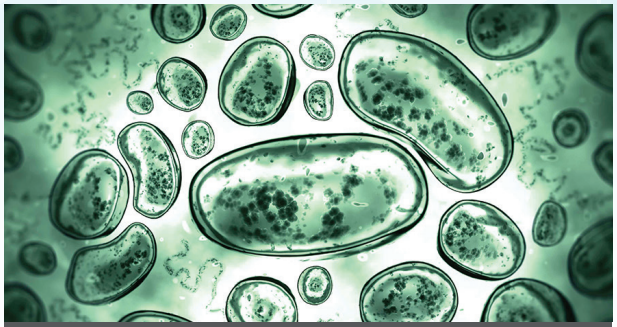
Model			Thermo Scientific RI 150	Thermo Scientific RI 250	Thermo Scientific RI 420	Thermo Scientific RI 720
Effective capacity		L	150	250	420	670
Temperature range		°C	4 to 60			
Temperature stability	@5° C	±°C	0.2	0.2	0.2	0.2
	@20° C	±°C	0.1	0.1	0.2	0.2
	@37° C	±°C	0.1	0.1	0.2	0.2
	@58° C	±°C	0.1	0.1	0.2	0.2
Temperature uniformity	@5° C	±°C	1	1	1	1
	@20° C	±°C	0.7	0.7	0.7	0.7
	@37° C	±°C	0.7	0.7	0.7	0.7
	@58° C	±°C	1	1	1	1
Recovery time	@20° C	min	2	2	2	2
	@37° C	min	5	5	5	5
ACC temperature		°C	≤40			
Heater wattage		W	500			600
Interior size (WxDxH)		mm	550×450×615	550×450×1015	640×628×1050	790×628×1350
Overall dimensions (WxDxH)		mm	700×640×1215	700×640×1615	790×820×1690	940×820×1990
Shelves (standard / max)		EA	2 / 5	3 / 7	3 / 7	4 / 9
Refrigerant charge		g	80	90	110	130
Refrigerant			R290			
Interior material			SUS 430 stainless steel, white coated			
Housing materials			Carbon steel SPCC, painted			
Temperature programming			10 programs, 99 segments, 9999 cycles			
Power			230 V, 50 Hz; 6.3 A		230 V, 50 Hz; 10 A	
			115 V, 60 Hz; 10 A		115 V, 60 Hz; 12 A	

Cool solutions for sensitive applications

Refrigerated incubators are crucial for maintaining precise low-temperature conditions necessary for the growth and preservation of biological samples, helping ensure experimental accuracy and reproducibility. By providing a stable, controlled environment, these incubators help prevent sample degradation and support a wide array of applications.

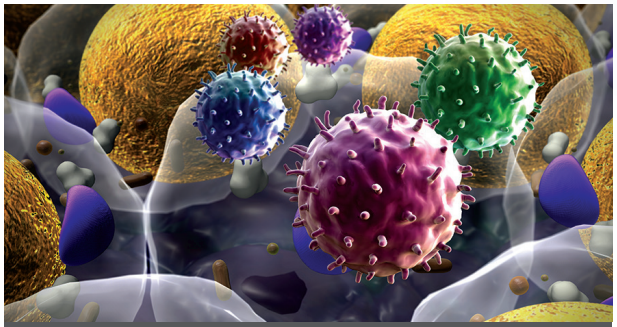
Waste water samples testing

Microbiology, fungi, and yeast studies



Cell culture

Shelf life testing



Reagent storage

Crystallization

Ordering information

Heratherm refrigerated incubator models

Description	IMP180	IMP400
Base model* (100-230 V, 50/60 HZ) • N. America customers will receive Nema 5-15 plug with 120 V 60 Hz configuration • All other customers will receive CEE7/7 plug with 230 V 50 Hz configuration	51031562	51031565
Customers ordering from the countries listed below should include one of the additional numbers to ensure receipt of the correct electrical configuration for the unit		
Australia - AS 3112, 230 V 50 Hz		51900449
China - GB 2099, 220 V 50 Hz		51900900
Denmark - SB 107, 230 V 50 Hz		51900481
Italy - CEI 23-50, 230 V 50 Hz		51900306
Japan - NEMA 5-15, 100 V 60 Hz		51900312
Switzerland - SEV 1011, 230 V 50 Hz		51900300
South/Central America - NEMA 5-15, 120 V 60 Hz		51900307
United Kingdom - BS1363/A, 230 V 50 Hz		51900303

IMP400
Floor Model

IMP180
Benchtop Model

Heratherm refrigerated incubator models with internal electrical outlet:

(The units below include the base model with one internal electrical outlet)

Description	IMP180	IMP400
Unit with electrical outlet US - 120 V, 60 Hz (Nema 5-15 plug and interior outlet)	51031563	51031566
Unit with electrical outlet EU - 230 V, 50/60 Hz (CEE 7/4 plug and interior outlet)	51031564	51031567
Unit with electrical outlet UK - 230 V, 50/60 Hz (BS 1363 plug and interior outlet)	51031564 + 51900303	51031567 + 51900303

Internal electric outlet

Factory installed options:

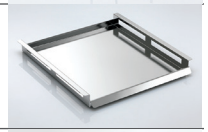
Description	IMP180	IMP400
Door hinge left	51900993	51901213
Door handle with key lock	51901461	51901461
Stainless steel exterior	51900992	51901212
Heratherm access port center of left side, small*	51900996	51900996
Heratherm access port center of left side, large**	51900997	51900997
Heratherm access port center of right side, small*	51900998	51900998
Heratherm access port center of right side, large**	51900999	51900999
Heratherm access port center of top, small*	51901000	51901000
Heratherm access port center of top, large**	51901001	51901001

* Diameter: 22 mm/0.87 in.
** Diameter: 52 mm/2.05 in.

Access ports on the top and side of the unit

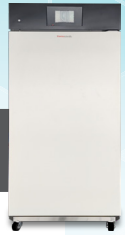
Ordering information

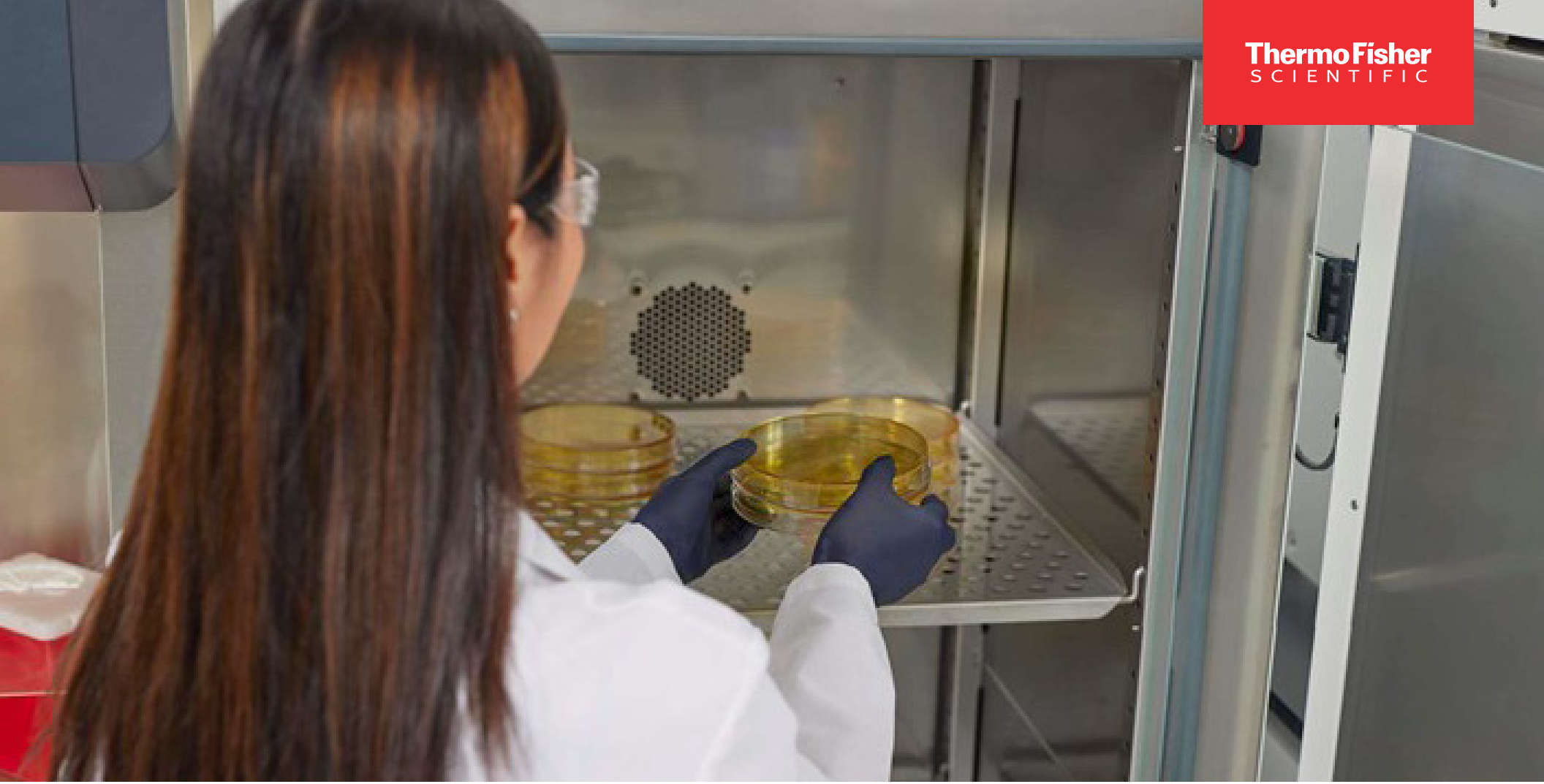
Heratherm IMP customer installed accessories

Description	Cat. No.	Additional information	
Additional perforated stainless steel shelf for IMP180	50127777	Includes 2 shelf supports, 439 x 505 mm	
Additional perforated stainless steel shelf for IMP400	50135241	Includes 2 shelf supports, 528 x 498 mm	
Wire mesh shelf for IMP180	50127766	Includes 2 shelf supports, 448 x 511 mm	
Wire mesh shelf for IMP400	50135243	Includes 2 shelf supports, 528 x 503 mm	
Petri dish holder (90 mm) IMP180	50128819	Shelf with holders for Petri dishes; ø 90mm; stainless steel; for all 180 l incubators; incl. 2 shelf supports; 16 stacks; 77 mm height	
Petri dish holder (50 mm) for IMP180	50128815	Shelf with holders for Petri dishes; ø 50mm; stainless steel; for all 180 l incubators; incl. 2 shelf supports; 36 stacks; 77 mm height	
Drip tray for IMP180	50128792	Includes 2 shelf supports, 405 x 500 x 20 mm drip space	
Stacking kit for IMP180	50126667	Required for stacking with ovens - to stack two 180 L models or 60 L/100 L on 180 L	
Support stand with casters for IMP180	50127743	Height including casters: 187 mm	
Viton® gasket for IMP180	50130659	Gasket made of silicone-free Viton material for special applications	
Viton gasket for IMP400	50135869	Gasket made of silicone-free Viton material for special applications	
Vent gasket for 180 L Heratherm models	50134908	For reduced condensation in applications with higher humidity	
Vent gasket for 400 L Heratherm models	50152305	For reduced condensation in applications with higher humidity	

Ordering information

Thermo Fisher refrigerated incubator models

Model	Thermo Scientific RI 150	Thermo Scientific RI 250	Thermo Scientific RI 420	Thermo Scientific RI 720 
Capacity	150 L	250 L	420 L	670 L
Outer dimensions (WxDxH)	700 x 640 x 1215 mm	700 x 640 x 1615 mm	790 x 820 x 1690 mm	940 x 820 x 1990 mm
Voltage - 115 v				
	115 V 60 Hz	115 V 60 Hz	115 V 60 Hz	115 V 60 Hz
Catalog Number	TFSRI150- 115 V	TFSRI250- 115 V	TFSRI420- 115 V	TFSRI720- 115 V
Voltage - 230 v				
	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz	230 V 50 Hz
Catalog Number	TFSRI150- 230 V	TFSRI250- 230 V	TFSRI420- 230 V	TFSRI720- 230 V



Learn more at **thermofisher.com/refrigeratedincubators**

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