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for Every Lab, Every Day

essential solutions for  
**maximizing productivity**

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From heating, stirring and shaking to water purification and fluid handling products, we hope you find this catalog an invaluable resource for selecting the laboratory solutions required to produce consistent, optimal work... in every lab, every day — all backed by the quality, value and expertise you've come to expect from us.

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# baths

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## Thermo Scientific Precision General Purpose Water Baths

Precision water baths are rugged, high-performance baths that maintain water temperature from ambient to 95 °C or 99.9 °C (depending on model).



Precision 183 Analog Water Bath

- These easy-to-maintain baths feature a broad range of bath sizes and models, with digital set-it-and-forget-it control, faster heat-up to time and easy calibration.
- Temperature Controller provides +/- 0.2 °C uniformity and +/- 0.1 °C sensitivity at 37 °C with stainless steel gable cover
- Easy-to-maintain, seamless stainless-steel interior chamber and epoxy powder-coated exterior resist corrosion and chemical damage
- Choice of analog or digital temperature control
- Available in eight sizes with chamber capacities ranging from 1.5 to 43 liters
- Over-temperature safety circuitry prevents thermal runaway
- Front mounted controls simplify operation
- UL listed (120V)

### Analog General Purpose Water Baths Specifications

	Models	180	181	182	183
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	1.5 liters (0.4 gallons) shallow	2.5 liters (0.7 gallons)	5.5 liters (1.5 gallons)	12 liters (3.2 gallons)
	Temperature Range <sup>2</sup>	Ambient to 95 °C	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C
<b>Dimensions (L x W x H)</b>	Work Area	6 x 11.5 x 2 in. (15.2 x 29.2 x 5.1 cm)	6 x 5 x 6 in. (15.2 x 12.7 x 15.2 cm)	11.5 x 6 x 6 in. (29.2 x 15.2 x 15.2 cm)	11.5 x 12.5 x 6 in. (29.2 x 31.7 x 15.2 cm)
	Overall without cover	8.9 x 14 x 6.7 in. (22.6 x 35.6 x 17.1 cm)	9.75 x 8 x 9.75 in. (24.8 x 20.3 x 24.8 cm)	16.2 x 8 x 9.75 in. (41.0 x 20.3 x 24.8 cm)	16.2 x 14.75 x 9.75 in. (41.0 x 37.5 x 24.8 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	225 Watts (2.0 Amps)	225 Watts (2.0 Amps)	300 Watts (2.5 Amps)	400 Watts (3.3 Amps)
	230V	225 Watts (1.0 Amp)	225 Watts (1.0 Amp)	300 Watts (1.3 Amps)	400 Watts (1.75 Amps)
	BTU Output	768	768	1025	1366
<b>Shipping Data</b>	Weight	12 lbs (5.4 kg)	12 lbs (5.4 kg)	16 lbs (7.3 kg)	20 lbs (9.1 kg)
<b>Catalog Number</b>	<b>120V</b>	<b>2823</b>	<b>2827</b>	<b>2831</b>	<b>2835</b>
	<b>230V</b>	<b>2824</b>	<b>2828</b>	<b>2832</b>	<b>2836</b>
	Models	184	185	186	188 (Dual chamber)
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	19.5 liters (5.2 gallons)	18 liters (4.9 gallons)	43 liters (11.4 gallons)	12 liters /12 liters <sup>3</sup> (3.2 gallons / 3.2 gallons <sup>3</sup> )
	Temperature Range <sup>2</sup>	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C
<b>Dimensions (L x W x H)</b>	Work Area	14 x 12 x 8 in. (35.6 x 30.5 x 20.3 cm)	19.5 x 11.5 x 6 in. (49.5 x 29.2 x 15.2 cm)	16 x 28 x 6.5 in. (40.6 x 71.1 x 16.5 cm)	11.5 x 12.5 x 6 in. (29.2 x 31.7 x 15.2 cm)
	Overall without cover	19.7 x 15.75 x 9.75 in. (49.9 x 40 x 24.8 cm)	23.9 x 13.75 x 9.75 in. (60.7 x 34.9 x 24.8 cm)	21.6 x 31.5 x 9.75 in. (55.0 x 80.0 x 24.8 cm)	16.1 x 29 x 9.75 in. (41.0 x 73.7 x 24.8 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	600 Watts (5.0 Amps)	600 Watts (5.0 Amps)	1200 Watts (10.0 Amps)	800 Watts (6.7 Amps)
	230V	600 Watts (2.6 Amps)	600 Watts (2.6 Amps)	1200 Watts (5.2 Amps)	800 Watts (3.5 Amps)
	BTU Output	2048	2048	4095	2732
<b>Shipping Data</b>	Weight	25 lbs (11.3 kg)	30 lbs (13.6 kg)	56 lbs (25.4 kg)	40 lbs (18.1 kg)
<b>Catalog Number</b>	<b>120V</b>	<b>2839</b>	<b>2843</b>	<b>2847</b>	<b>2851</b>
	<b>230V</b>	<b>2840</b>	<b>2844</b>	<b>2848</b>	<b>2852</b>

<sup>1</sup>Filled 1" (25 mm) from top of chamber

<sup>2</sup>With gable cover

<sup>3</sup>Each chamber



Precision 281 Digital Water Bath with optional thermometer



Precision 288 Digital Water Bath

What's included:

- Stainless-steel diffuser shelf
- Stainless-steel gable cover (except on models 181/281)
- Polypropylene gable cover (available on Models 181/281 only)
- Thermometer (on analog models only)

### Digital General Purpose Water Baths Specifications

	Models	280	281	282	283
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	1.5 liters (0.4 gallons) shallow	2.5 liters (0.7 gallons)	5.5 liters (1.5 gallons)	12 liters (3.2 gallons)
	Temperature Range <sup>2</sup>	Ambient to 95 °C	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C
<b>Dimensions (L x W x H)</b>	Work Area	6 x 11.5 x 2 in. (15.2 x 29.2 x 5.1 cm)	6 x 5 x 6 in. (15.2 x 12.7 x 15.2 cm)	11.5 x 6 x 6 in. (29.2 x 15.2 x 15.2 cm)	11.5 x 12.5 x 6 in. (29.2 x 31.7 x 15.2 cm)
	Overall without cover	8 x 14 x 6.7 in. (20.3 x 35.6 x 17.1 cm)	9.75 x 8 x 9.75 in. (24.8 x 20.3 x 24.8 cm)	15.25 x 8 x 9.75 in. (38.7 x 20.3 x 24.8 cm)	15.25 x 14.75 x 9.75 in. (38.7 x 37.5 x 24.8 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	225 Watts (2.0 Amps)	225 Watts (2.0 Amps)	300 Watts (2.5 Amps)	400 Watts (3.3 Amps)
	230V	225 Watts (1.0 Amp)	225 Watts (1.0 Amps)	300 Watts (1.3 Amps)	400 Watts (1.75 Amps)
	BTU Output	768	768	1025	1366
<b>Shipping Data</b>	Weight	12 lbs (5.4 kg)	12 lbs (5.4 kg)	16 lbs (7.3 kg)	20 lbs (9.1 kg)
<b>Catalog Number</b>	<b>120V</b>	<b>2825</b>	<b>2829</b>	<b>2833</b>	<b>2837</b>
	<b>230V</b>	<b>2826</b>	<b>2830</b>	<b>2834</b>	<b>2838</b>
	Models	284	285	286	288 (Dual chamber)
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	19.5 liters (5.2 gallons)	18 liters (4.9 gallons)	43 liters (11.4 gallons)	12 liters /12 liters <sup>3</sup> (3.2 gallons / 3.2 gallons <sup>3</sup> )
	Temperature Range <sup>2</sup>	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C
<b>Dimensions (L x W x H)</b>	Work Area	14 x 12 x 8 in. (35.6 x 30.5 x 20.3 cm)	19.5 x 11.5 x 6 in. (49.5 x 29.2 x 15.2 cm)	16 x 28 x 6.5 in. (40.6 x 71.1 x 16.5 cm)	11.5 x 12.5 x 6 in. (29.2 x 31.7 x 15.2 cm)
	Overall without cover	18.75 x 15.75 x 9.75 in. (47.6 x 40 x 24.8 cm)	23.9 x 13.75 x 9.75 in. (58.4 x 34.9 x 24.8 cm)	20.7 x 31.5 x 9.75 in. (52.7 x 80.0 x 24.8 cm)	15.2 x 29 x 9.75 in. (38.7 x 73.7 x 24.8 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	600 Watts (5.0 Amps)	600 Watts (5.0 Amps)	1200 Watts (10.0 Amps)	800 Watts (6.7 Amps)
	230V	600 Watts (2.6 Amps)	600 Watts (2.6 Amps)	1200 Watts (5.2 Amps)	800 Watts (3.5 Amps)
	BTU Output	2048	2048	4095	2732
<b>Shipping Data</b>	Weight	25 lbs (11.3 kg)	30 lbs (13.6 kg)	56 lbs (25.4 kg)	40 lbs (18.1 kg)
<b>Catalog Number</b>	<b>120V</b>	<b>2841</b>	<b>2845</b>	<b>2849</b>	<b>2853</b>
	<b>230V</b>	<b>2842</b>	<b>2846</b>	<b>2850</b>	<b>2854</b>

<sup>1</sup>Filled 1" (25 mm) from top of chamber

<sup>2</sup>With gable cover

<sup>3</sup>Each chamber

## Thermo Scientific Precision General Purpose Water Baths Accessories



### Thermo Scientific Sample Racks

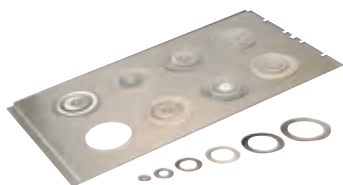
Cat. No.	Description	Holds	Dimensions	Openings
<b>3166183</b>	Petri dish rack, stainless steel	80 (50mm) or 30 (90mm) Petri dishes	9.75 × 8.75 × 6.25in. (24.8 × 22.2 × 15.9cm)	1in. (2.5cm) square
<b>3161601</b>	Test tube rack, stainless steel	50 test tubes up to 25mm from 97 to 150mm high	10 × 8.5 × 5.5in. (25.4 × 21.6 × 14cm)	1in. (2.5cm) square

### Thermo Scientific Spirit-Filled Glass Thermometers\*

Cat. No.	Temp. Range (1.0°C increments)	Thermometer Length
<b>3175997</b>	0° to 105°C	165mm (6.5in.)
<b>3166220</b>	0° to 100°C	305mm (12in.)

\*All thermometers are for monitoring purposes only

### Thermo Scientific Concentric Ring Cover



Cat. No.	Description	Openings	Material
<b>3161593</b>	Concentric ring cover converts the Model 184 or 284 bath for use as a steaming bath	Five openings (3 small, 2 large) accommodate glassware ranging in diameter from 4/5 to 4 in. in 1 in. (2 to 10 cm) increments. Openings enlarge as rings are removed.	Stainless steel

## Thermo Scientific Precision Circulating Water Baths

**When temperature uniformity and control are critical, such as enzymes and serology, Precision Circulating water baths are the ideal choice.** Microprocessor-controlled baths combine operational simplicity with excellent temperature uniformity. Available in three different models, these high performance baths range in capacity from 19 liters to 89 liters.

Precision 270 Circulating Water Bath



Precision 260 Circulating Water Bath with optional Petri dish rack

Precision 260 Circulating Water Bath with optional Petri dish rack

### What's included:

- Stainless-steel diffuser shelf
- Stainless-steel gable cover

- Temperature controller provides +/-0.05 °C uniformity at 37 °C and sensitivity of +/-0.05 °C with stainless steel gable cover
- Water flow directed around bath perimeter
- Elevated sample platform for more thorough circulation
- Easy-to-maintain, corrosion resistant construction
- Automatic sensor to protect bath from overheating
- Single switch control for heater and circulator pump
- Meets ASTM E715 Class IIA standards for uniformity
- UL Listed (120V)

## Digital Circulating Water Baths Specifications

	Models	260	265	270
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	19 liters (5.0 gallons)	34.5 liters (9.1 gallons)	89 liters (23.85 gallons)
	Temperature Display <sup>2</sup>	Ambient +5 °C to 99.9 °C	Ambient +5 °C to 99.9 °C	Ambient +5 °C to 99.9 °C
<b>Dimensions (L x W x H)</b>	Work Area	12 x 15 x 7.5 in. (30.5 x 38.1 x 19.0 cm)	12 x 27 x 7.5 in. (30.5 x 68.6 x 19.0 cm)	18 x 36 x 9.5 in. (45.7 x 91.4 x 24.1 cm)
	Overall without cover	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)	14 x 36.5 x 9.5 in. (35.6 x 92.7 x 24.1 cm)	20 x 45 x 12 in. (50.8 x 114.3 x 30 cm)
	Shelf	11 x 14.5 in. (27.9 x 36.8 cm)	11 x 26.5 in. (27.9 x 67.3 cm)	17 x 35 in. (43.2 x 88.9 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	1000 Watts	1550 Watts	1550 Watts
	230V	1000 Watts	1550 Watts	1550 Watts
	BTU Output	3415	5294	5294
<b>Shipping Data</b>	Weight	45 lbs. (20.4 kg)	68 lbs. (30.8 kg)	85 lbs. (38.5 kg)
<b>Catalog Number</b>	<b>120V</b>	<b>2864</b>	<b>2866</b>	<b>2868</b>
	<b>230V<sup>3</sup></b>	<b>2865</b>	<b>2867</b>	<b>2869</b>

<sup>1</sup> Filled 3.5" (89 mm) from top of chamber

<sup>2</sup> With gable cover

<sup>3</sup> 50/60Hz (Includes European style 50Hz power cord; standard 220V 60Hz power cord available separately. Part number 3176836)



## Thermo Scientific Precision Circulating Water Baths Accessories



### Thermo Scientific Sample Racks

Cat. No.	Description	Holds	Dimensions	Openings
<b>3166183</b>	Petri dish rack, stainless steel	80 (50mm) or 30 (90mm) Petri dishes	9.75 × 8.75 × 6.25in. (24.8 × 22.2 × 15.9cm)	N/A
<b>3161601</b>	Test tube rack, stainless steel	50 test tubes up to 25mm from 97 to 150mm high	10 × 8.5 × 5.5in. (25.4 × 21.6 × 14cm)	1in. (2.5cm) square



### Thermo Scientific Water Level Regulator Kit

Cat. No.	Description	Includes
<b>3166223</b>	Adjustable float valve automatically opens when the water level in the bath falls below preset limits to keep the bath full	6ft. (1.8m) 0.25in. Tygon® tubing, nylon fittings, clamps and adjustable mounting bracket

### Thermo Scientific Spirit-Filled Glass Thermometers\*

Cat. No.	Temp. Range (1.0°C increments)	Thermometer Length
<b>3175997</b>	0° to 105°C	165mm (6.5in.)
<b>3166220</b>	0° to 100°C	305mm (12in.)

\*All thermometers are for monitoring purposes only

## Thermo Scientific Precision Coliform Water Baths

**Precision Coliform Water Bath Models 251 and 253 are designed specifically for fecal coliform determination.** Each water bath is factory calibrated and can be field calibrated from the front panel without the use of tools. Preset temperature feature is standard on both coliform water bath models for ease of use and meet stringent performance requirements. Model 251 comes with a seamless chamber and the Model 253 comes with a larger-welded chamber.



**What's included:**

- Stainless-steel diffuser shelf
- Stainless-steel gable cover

- Factory pre-set temperatures for easy use, even by untrained operators
- Temperature controller provides +/- 0.05 °C uniformity and +/-0.05 °C sensitivity with stainless steel gable cover
- Microprocessor control with digital LED display
- Water pump gently directs water flow around bath perimeter for non-turbulent agitation
- Over-temperature protection capability
- Rugged stainless-steel chamber with easy to clean epoxy-powder coated exterior
- UL Listed (120V)

### Digital Coliform Water Baths Specifications

	Models	Small Coliform Bath Model 251	Large Coliform Bath Model 253
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	17.5 liters (4.6 gallons)	34.5 liters (9.1 gallons)
	Factory Preset Temperatures	35.0 °C, 41.5 °C, 44.5 °C, 45.5 °C	35.0 °C, 41.5 °C, 44.5 °C, 45.5 °C
<b>Dimensions (L x W x H)</b>	Work Area	14 x 12 x 8 in. (35.6 x 30.5 x 20.3 cm)	12 x 27 x 7.5 in. (30.5 x 68.6 x 19.0 cm)
	Diffuser Shelf	12 x 10 in. (30.5 x 25.4 cm)	11 x 26.5 in. (28 x 67.3 cm)
	Overall without cover	18.5 x 15.5 x 9.5 in. (47 x 39.4 x 24.1 cm)	14 x 36 x 9.5 in. (35.6 x 91.4 x 24.1 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	600 Watts, 5.0 Amps	1550 Watts, 12.9 Amps
	230V	600 Watts, 2.6 Amps	1550 Watts, 6.5 Amps
	BTU Output	2049	5294
<b>Shipping Data</b>	Weight	35 lbs. (15.8 kg)	60 lbs. (27.2 kg)
<b>Catalog Number</b>	<b>120V</b>	<b>2860</b>	<b>2862</b>
	<b>230V<sup>2</sup></b>	<b>2861</b>	<b>2863</b>

<sup>1</sup>Filled to 1" (25 mm) from top of chamber

<sup>2</sup>350/60Hz (Includes European style 50Hz power cord; standard 220V 60Hz power cord available separately. Part number 3176836)

## Thermo Scientific Precision Coliform Water Baths Accessories



### Thermo Scientific Sample Racks

Cat. No.	Description	Holds	Dimensions	Openings
<b>3166183</b>	Petri dish rack, stainless steel	80 (50mm) or 30 (90mm) Petri dishes	9.75 × 8.75 × 6.25in. (24.8 × 22.2 × 15.9cm)	N/A
<b>3161601</b>	Test tube rack, stainless steel	50 test tubes up to 25mm from 97 to 150mm high	10 × 8.5 × 5.5in. (25.4 × 21.6 × 14cm)	1in. (2.5cm) square



### Thermo Scientific Water Level Regulator Kit

Cat. No.	Description	Includes
<b>3166223</b>	Adjustable float valve automatically opens when the water level in the bath falls below preset limits to keep the bath full	6ft. (1.8m) 0.25in. Tygon tubing, nylon fittings, clamps and adjustable mounting bracket

### Thermo Scientific Spirit-Filled Glass Thermometers\*

Cat. No.	Temp. Range (1.0°C increments)	Thermometer Length
<b>3175997</b>	0° to 105°C	165mm (6.5in.)
<b>3166220</b>	0° to 100°C	305mm (12in.)

\*All thermometers are for monitoring purposes only

## Thermo Scientific Precision Shaking Baths

**Precision Shaking water baths have a capacity of up to 26.5 liters (7 gallon) and are designed for life science and QA/QC applications.** Intuitive digital control makes these baths easy to use, while meeting the stringent standards for laboratory testing.



Precision Models 25 and 50

- Microprocessor control with digital LED display and shaker control
- Adjustable shaking speed from 30 to 200 (OPM) oscillations/min.
- Over-temperature protection function
- Rugged stainless-steel chamber with easy to clean epoxy-powder coated exterior
- Push-button convenience for entry of temperature and shaking speed
- Automatic motor shut-down capability
- Meets ASTM Method E 715 Class IIA standards
- UL Listed (120V)
- ax platform load of 7kg (15.4 lbs) for all models

What's included:

- Stainless-steel diffuser shelf
- Stainless-steel gable cover



Precision Shallow Form Shaking Bath with optional thermometer

Precision Dubnoff Shaking Bath with large gassing hood

### Shaking Water Bath Specifications

	Models	25	50	Shallow Form Shaking Bath	Dubnoff 25
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	14.5 liters (3.8 gallons)	26.5 liters (7 gallons)	14.5 liters (3.8 gallons)	14.5 liters (3.8 gallons)
	Temperature Range <sup>2</sup>	Ambient +5 °C to 99.9 °C	Ambient +5 °C to 99.9 °C	Ambient +5 °C to 99.9 °C	Ambient +5 °C to 99.9 °C
	Temperature Uniformity at 37 °C <sup>2</sup>	±0.05 °C	±0.10 °C	±0.05 °C	±0.05 °C
	Temperature Sensitivity <sup>2</sup>	±0.05 °C	±0.05 °C	±0.05 °C	±0.05 °C
	Oscillations per Minute	30 to 200	30 to 200	30 to 200	30 to 200
	Stroke Length	0.5 to 1.5 in. (1.3 to 3.8 cm)	0.5 to 1.5 in. (1.3 to 3.8 cm)	0.5 to 1.5 in. (1.3 to 3.8 cm)	0.5 to 1.5 in. (1.3 to 3.8 cm)
<b>Dimensions (L x W x H)</b>	Work Area	12 x 15 x 7.5 in. (30.5 x 38.1 x 19.05 cm)	12 x 27 x 7.5 in. (30.5 x 68.6 x 19.05 cm)	12 x 15 x 7.5 in. (30.5 x 38.1 x 19 cm)	12 x 15 x 7.5 in. (30.5 x 38.1 x 19 cm)
	Removable Tray	11.5 x 12 x 6.5 in. (29.2 x 30.5 x 16.5 cm)	11.5 x 24 x 6.5 in. (29.2 x 61 x 16.5 cm)	11.5 x 11 x 3.5 in. (29.2 x 27.9 x 8.9 cm)	11.5 x 11 x 6.5 in. (29.2 x 27.9 x 16.5 cm)
	Overall without cover	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)	14 x 36.5 x 9.5 in. (35.6 x 92.7 x 24.1 cm)	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)	14 x 24.5 x 9.5 in. (35.6 x 62.2 x 24.1 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	1000 Watts, 8.8 Amps	1550 Watts, 12.9 Amps	1000 Watts, 8.3 Amps	1000 Watts, 8.2 Amps
	230V	1000 Watts, 4.4 Amps	1550 Watts, 6.5 Amps	1000 Watts, 4.3 Amps	1000 Watts, 4.3 Amps
	BTU Output	3415	5294	3415	3415
<b>Shipping Data</b>	Weight	48 lbs. (22.2 kg)	62 lbs. (27.2 kg)	55 lbs. (24.9 kg)	55 lbs. (24.9 kg)
<b>Catalog Number</b>	<b>120V</b>	<b>2870</b>	<b>2872</b>	<b>2874</b>	<b>2876</b>
	<b>230V<sup>3</sup></b>	<b>2871</b>	<b>2873</b>	<b>2875</b>	<b>2877</b>

<sup>1</sup> Filled 3.5" (89 mm) from top of chamber

<sup>2</sup> With gable cover

<sup>3</sup> 50/60Hz (Includes European style 50Hz power cord; standard 220V 60Hz power cord available separately. Part number 3176836)

## Thermo Scientific Precision Shaking Water Baths Accessories



### Thermo Scientific Sample Racks

Cat. No.	Description	Holds	Dimensions	Openings
<b>3166183</b>	Petri dish rack, stainless steel	80 (50mm) or 30 (90mm) Petri dishes	9.75 × 8.75 × 6.25in. (24.8 × 22.2 × 15.9cm)	NA
<b>3161601</b>	Test tube rack, stainless steel	50 test tubes up to 25mm from 97 to 150mm high	10 × 8.5 × 5.5in. (25.4 × 21.6 × 14cm)	1in. (2.5cm) square



### Thermo Scientific Water Level Regulator Kit

Cat. No.	Description	Includes
<b>3166223</b>	Adjustable float valve automatically opens when the water level in the bath falls below preset limits to keep the bath full	6ft. (1.8m) 0.25in. Tygon tubing, nylon fittings, clamps and adjustable mounting bracket

### Thermo Scientific Spirit-Filled Glass Thermometers\*

Cat. No.	Temp. Range (1.0°C increments)	Thermometer Length
<b>3175997</b>	0° to 105°C	165mm (6.5in.)
<b>3166220</b>	0° to 100°C	305mm (12in.)

\*All thermometers are for monitoring purposes only



### Thermo Scientific Test Tube and Flask Trays

Cat. No.	Description	Dimensions	Holds
<b>3161597</b>	Test Tube Tray	5 × 10.2in. (12.7 × 25.9cm)	10 × 13-25mm test tubes
<b>3161599</b>	Flask Tray	12.7 × 25.9cm (5 × 10.2in.)	18 × 25mL flasks
<b>3166228</b>	Flask Tray	12.7 × 25.9cm (5 × 10.2in.)	10 × 50mL flasks



### Thermo Scientific Test Tube Clips

Cat. No.	Description	Material	Holds
<b>3166216</b>	Test tube clip (each clip requires one fastener)	Stainless steel	13mm to 25mm tubes
<b>3166189</b>	Clip fastener	Stainless steel	N/A

### Thermo Scientific Flask Clips and Fasteners

Cat. No.	Description	Material	Capacity
<b>3166227</b>	Flask Clip (each clip requires one fastener)	Stainless Steel	20 x 25mL (Model 25), 48 x 25mL (Model 50) Flasks
<b>3166198</b>	Flask Clip (each clip requires one fastener)	Stainless Steel	15 x 50mL (Model 25), 36 x 50mL (Model 50) Flasks
<b>3166221</b>	Flask Clip (each clip requires one fastener)	Stainless Steel	9 x 125mL (Model 25), 24 x 125mL (Model 50) Flasks
<b>3166566</b>	Flask Clip (each clip requires one fastener)	Stainless Steel	6 x 250mL (Model 25), 14 x 250mL (Model 50) Flasks
<b>3166199</b>	Flask Clip (each clip requires one fastener)	Stainless Steel	4 x 500mL (Model 25), 12 x 500mL (Model 50) Flasks
<b>3166200</b>	Flask Clip (each clip requires one fastener)	Stainless Steel	2 x 1000mL (Model 25), 5 x 1000mL (Model 50) Flasks
<b>3166189</b>	Clip fastener	Stainless Steel	NA



### Thermo Scientific Gassing Hoods

Permits control over the atmosphere surrounding the sample. Also improves temperature uniformity and minimizes energy consumption. Polished stainless steel with plastic gas fitting. Each bath will accommodate 1 large hood or 2 small hoods.



Cat. No.	Material	Size
<b>3162639</b>	Polished stainless steel with plastic gas fitting	Small: 142 × 290mm (5.6 × 11.4in.)
<b>3162640</b>	Polished stainless steel with plastic gas fitting	Large: 284 × 290mm (11.2 × 11.4in.)



### Thermo Scientific Microcentrifuge Test Tube Racks

Cat. No.	Description	Measures	Requires	Holds
<b>3166184</b>	For use with Shallow Form or Dubnoff baths; requires Clip Fastener	127 × 101 × 39mm (5 × 4 × 1.5in.)	Clip Fastener	63 × 0.5mL tubes
<b>3166185</b>		127 × 101 × 39mm (5 × 4 × 1.5in.)	Clip Fastener	30 × 1.5mL tubes



### Thermo Scientific High-Wall Tray

Cat. No.	Description	Dimensions
<b>3164716</b>	For use with Precision Shallow Form, Dubnoff, and Shaking Bath Model 25	286 × 318 × 191mm (11.25 × 12.5 × 7.5in.)
<b>3164717</b>	For use with Precision Shaking Bath Model 50	286 × 610 × 191mm (11.25 × 24 × 7.5 in.)

## Thermo Scientific Lab-Line AquaBath Water Baths

**Lab-Line water baths are available in a variety of sizes from 2 to 28L, including a shallow form to meet specific application needs and budgets. Baths feature dual thermostats and an independent high-limit thermostat for over temperature protection.**

- Hinged acrylic cover lifts to a 90° stay-open position or can be removed completely
- “Fins” on the hinged acrylic gable cover protect hands from hot vapors and lifts to a 90° stay-open position or can be removed completely
- Exterior remains cool to the touch even after extended use to prevent accidental burns
- Rounded, seamless stainless-steel reservoir and diffuser tray resist rust and contamination with easy-to-clean enamel coating resists corrosion
- PID control provides  $\pm 0.5$  °C stability at 37 °C
- UL Listed (120V and 230V)

### What's included:

- Acrylic gable cover (stainless steel covers available)
- Diffuser tray
- Thermometer clip
- Partial immersion (76 mm) thermometer (not included on 230V model)
- Drain pump (included on 5/10L 10L, 20L, 28L models only)



Lab-Line Digital  
Operating System



Lab-Line Analog  
Operating System

## Analog and Digital Lab-Line AquaBaths Specifications

	Models	2L	2L Shallow	5L	5/10L
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	2 liters (0.5 gallons)	2 liters (0.5 gallons)	5 liters (1.3 gallons)	5/10 liters (1.3/2.6 gallons)
	Temperature Range <sup>2</sup>	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C
	Temperature Uniformity at 37 °C	±0.2 °C	±0.5 °C	±0.2 °C	±0.2 °C
<b>Dimensions (L x W x H)</b>	Chamber	5.3 × 5.9 × 6 in. (13 × 15 × 15 cm)	5.9 × 11.8 × 2.5 in. (15 × 30 × 6 cm)	6 × 11.8 × 6 in. (15 × 30 × 15 cm)	11.8 × 5.9 × 6 in./11.8 × 12.9 × 6 in. (30 × 15 × 15 cm/30 × 33 × 15 cm)
	Exterior without cover	9.9 × 10.8 × 7.6 in. (25 × 27 × 19 cm)	10.5 × 14.5 × 7.5 in. (27 × 37 × 19 cm)	10.5 × 14.5 × 7.6 in. (27 × 37 × 19 cm)	16.4 × 24.2 × 8.9 in. (42 × 62 × 23 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	200 Watts, 1.7 Amps	200 Watts, 1.7 Amps	300 Watts, 2.5 Amps	1000 Watts, 8.3 Amps
	230V	200 Watts, 0.9 Amps	200 Watts, 0.9 Amps	300 Watts, 1.3 Amps	993 Watts, 4.3 Amps
	BTU Output	682	682	1024	1024/2388
<b>Shipping Data</b>	Weight	7 lbs. (3.3 kg)	9 lbs. (4 kg)	10 lbs. (4.5 kg)	24.5 lbs. (11.1 kg)
<b>Analog Catalog Number</b>	<b>120V</b>	<b>18050AQ</b>	<b>18020AQ</b>	<b>18000AQ</b>	<b>18800AQ</b>
	<b>230V</b>	<b>18050A-1CEQ</b>	<b>18020A-1CEQ</b>	<b>18000A-1CEQ</b>	<b>18800A-1CEQ</b>
<b>Digital Catalog Number</b>	<b>120V</b>	<b>18052AQ</b>	<b>18022AQ</b>	<b>18002AQ</b>	<b>18802AQ</b>
	<b>230V</b>	<b>18052A-1CEQ</b>	<b>18022A-1CEQ</b>	<b>18002A-1CEQ</b>	<b>18802A-1CEQ</b>

	Models	10L	20L	28L
<b>Specifications</b>	Chamber Capacity <sup>1</sup>	10 liters (2.6 gallons)	20 liters (5.3 gallons)	28 liters (7.4 gallons)
	Temperature Range <sup>2</sup>	Ambient to 99.9 °C	Ambient to 99.9 °C	Ambient to 99.9 °C
	Temperature Uniformity at 37 °C	±0.2 °C	±0.2 °C	±0.2 °C
<b>Dimensions (L x W x H)</b>	Chamber	12.9 × 11.8 × 6 in. (33 × 30 × 15 cm)	11.8 × 19.8 × 6 in. (30 × 50 × 15 cm)	11.7 × 19.7 × 8 in. (30 × 50 × 20 cm)
	Exterior without cover	16.4 × 15.4 × 8.9 in (42 × 39 × 23 cm)	16.4 × 24.2 × 8.9 in (42 × 62 × 23 cm)	16.4 × 24.4 × 10.9 in (42 × 62 × 28 cm)
<b>Electrical Specs (50/60Hz)</b>	120V	700 Watts, 5.8 Amps	1000 Watts, 8.3 Amps	1000 Watts, 8.3 Amps
	230V	663 Watts, 2.9 Amps	948 Watts, 4.1 Amps	948 Watts, 4.1 Amps
	BTU Output	2388	3412	3412
<b>Shipping Data</b>	Weight	16.5 lbs. (7.5 kg)	22.3 lbs. (10.1 kg)	26 lbs. (11.8 kg)
<b>Analog Catalog Number</b>	<b>120V</b>	<b>18005AQ</b>	<b>18100AQ</b>	<b>18900AQ</b>
	<b>230V</b>	<b>18005A-1CEQ</b>	<b>18100A-1CEQ</b>	<b>18900A-1CEQ</b>
<b>Digital Catalog Number</b>	<b>120V</b>	<b>18007AQ</b>	<b>18102AQ</b>	<b>18902AQ</b>
	<b>230V</b>	<b>18007A-1CEQ</b>	<b>18102A-1CEQ</b>	<b>18902A-1CEQ</b>

<sup>1</sup>Filled 1.5" (38.1 mm) from top of chamber. 2L Shallow model Filled 0.75" (19.1 mm) from top of chamber

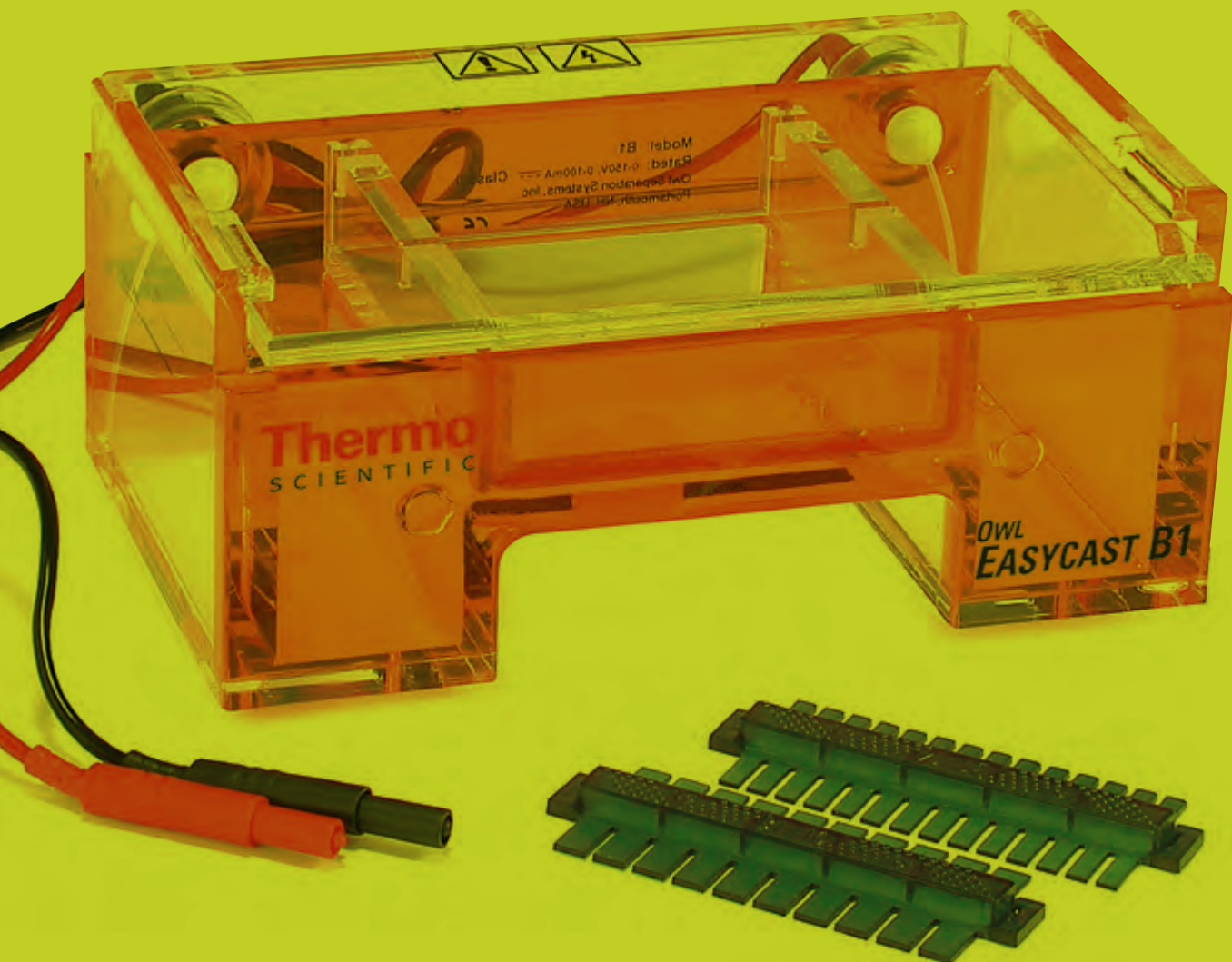
<sup>2</sup>With gable cover

## Thermo Scientific Lab-Line Stainless Steel Gable Covers

Cat. No.	Description
<b>9000-11Q</b>	For use with 2L Lab-Line Digital/Analog Baths
<b>19000-13Q</b>	For use with 2L Shallow and 5L Lab-Line Digital/Analog Baths
<b>19000-15Q</b>	For use with 10L Lab-Line Digital/Analog Baths
<b>19000-17Q</b>	For use with 20L/28L Lab-Line Digital/Analog Baths

# electrophoresis

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## Thermo Scientific Owl EasyCast B1A Mini Gel Electrophoresis Systems

Ideal size for every lab to provide flat, even banding patterns and consistent results with less hassle



- Perfect size to determine molecular weight ranges of PCR fragments or larger sized DNA molecules
- All in one design allows the option of casting and running a gel in the buffer chamber, eliminating the need for additional equipment. Two comb slots on gel tray double sample capacity by doubling number of sample wells
- UVT gel trays are silk screened with a fluorescent ruler for easy measurement of bands
- Feature leakproof casting that allows a gel to be cast and run in the same chamber with no tape or additional parts required
- Run from 5 to 24 samples in 15 minutes

**Ordering Information:** Available with optional buffer exchange ports (B1A-BP) for use with an external recirculation pump.

**Includes:** Main buffer chamber, SuperSafe\* lid with attached power supply leads, EasyCast gasketed UVT gel tray, two double-sided combs: 6 & 10 well, 1.0/1.5mm thick

**Warranty\*:** Three years

**Certifications:** CE marked

Cat. No.	Description	Horizontal System	Gel Size (L x W)	Footprint (L x W x H)	Running Buffer Volume	Sample Range
<b>B1A</b>	EasyCast	Mini	8 x 7cm	16 x 10.5 x 9.5cm (6.31 x 4.13 x 3.75in.)	400mL	5 to 24
<b>B1A-BP</b>	EasyCast w/Buffer exchange ports	Mini	8 x 7cm	16 x 10.5 x 9.5cm (6.31 x 4.13 x 3.75in.)	400mL	5 to 24

### Thermo Scientific Owl EasyCast B1A Mini Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (includes One black and one red lead)
<b>B1A-UVT</b>	EasyCast gasketed rapid load UVT gel tray with 12 slots and 12 rapid load combs (B2-RL-9D)
<b>B1A-GK</b>	Replacement gaskets (1 pair)
<b>B1A-CST</b>	External caster (trays & combs not included)



### Thermo Scientific Owl Leveling Platform

Three-point leveling platform ensures flat casting and running surface  
Includes bubble level

Cat. No.	Description	Dimensions
<b>BBL-1</b>	Bubble Level	N/A
<b>B-LP</b>	Leveling Platform	36 x 46cm

### Thermo Scientific Owl EasyCast B1A Mini Gel Electrophoresis System Combs

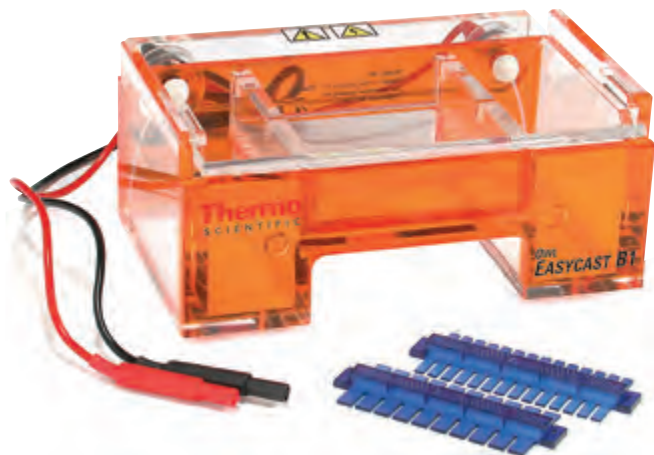
Cat. No.†	Description	Thickness /Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>B1A-5C</b>	Standard comb; 5 teeth	1.0mm / 11.3mm	8µL	30µL	51µL	72µL
<b>B1A-5D</b>	Standard comb; 5 teeth	1.5mm / 11.3mm	13µL	44µL	76µL	108µL
<b>B1A-6</b>	Double-sided comb; 6 teeth	1.0 / 1.5mm / 9.1 / 9.1mm	7 / 10µL	24 / 36µL	41 / 61µL	58 / 87µL
<b>B1A-8</b>	Double-sided comb; 8 teeth	1.0 / 1.5mm / 6.4 / 6.4mm	5 / 7µL	17 / 25µL	29 / 43µL	41 / 61µL
<b>B1A-10</b>	Double-sided comb; 10 teeth	1.0 / 1.5mm / 4.8 / 4.8mm	4 / 5 µL	13 / 19µL	21 / 32µL	30 / 46µL
<b>B1A-12</b>	Double-sided comb; 12 teeth	1.0 / 1.5mm / 3.7 / 3.7mm	3 / 4µL	10 / 14µL	16 / 25µL	23 / 35µL
<b>B1A-PREP</b>	Prep comb; 2 teeth	1.5mm / 57 / 5 mm	64 / 6µL	225 / 19µL	385 / 32µL	550 / 46µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.



## Thermo Scientific Owl EasyCast B1 Mini Gel Electrophoresis Systems

**Durability and ease of use makes this the perfect choice for students and high volume researchers**



- Economical enough for every researcher to have one at their workstation
- Leakproof casting that allows a gel to be cast and run in the same chamber with no tape or additional parts required
- Offers a wide range of combs
- Two comb slots on gel tray double sample capacity by doubling number of sample wells
- UVT gel trays are silk screened with a fluorescent ruler for easy measurement of bands

**Ordering Information:** Available with optional buffer exchange ports, (B1-BP), for use with an external recirculation pump. Please order using Cat. No. B1 when ordering the EasyCast system without buffer exchange ports.

**Includes:** Main buffer chamber, SuperSafe\* lid with attached power supply leads, EasyCast Gasketed UVT gel tray, two Combs: 10 & 14 Well, Double-sided, 1.0/1.5mm thick

**Warranty<sup>†</sup>:** Three years

**Certifications:** CE marked

Cat. No.	Description	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>B1</b>	EasyCast	Mini	11 × 9cm	22 × 15 × 9.5cm (8.63 × 5.88 × 3.75in.)	600mL	5 to 34
<b>B1-BP</b>	EasyCast w/buffer exchange ports	Mini	11 × 9cm	22 × 15 × 9.5cm (8.63 × 5.88 × 3.75in.)	600mL	5 to 34

### Thermo Scientific Owl EasyCast B1 Mini Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (includes one black and one red lead)
<b>B1-UVT</b>	Gasketed UVT Gel Tray
<b>B1-GK</b>	GK Replacement Gaskets (1 pair)
<b>B1-CST</b>	CST External Caster (trays and combs not included)

## Thermo Scientific Owl Leveling Platform

Three-point leveling platform ensures flat casting and running surface

Includes bubble level



Cat. No.	Type	Dimensions
<b>BBL-1</b>	Bubble Level	N/A
<b>B-LP</b>	Leveling Platform	36 x 46cm

## Thermo Scientific Owl EasyCast B1 Mini Gel Electrophoresis System Combs

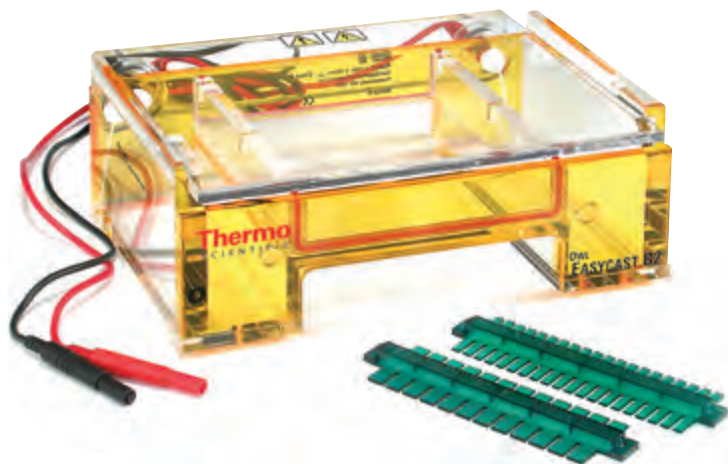
Cat. No.†	Description	Thickness /Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>B1-5C</b>	Standard 5-tooth comb	1.0mm / 15.4mm	12µL	40µL	69µL	98µL
<b>B1-5D</b>	Standard 5-tooth comb	1.5mm / 15.4mm	17µL	61µL	104µL	147µL
<b>B1-8C</b>	Standard 8-tooth comb	1.0mm / 9.0mm	7µL	24µL	40µL	57µL
<b>B1-8D</b>	Standard 8-tooth comb	1.5mm / 9.0mm	10µL	35µL	61µL	86µL
<b>B1-10</b>	Double-sided 10 tooth comb	1.0 / 1.5mm / 6.8 / 6.8mm	5 / 8µL	18 / 27µL	31 / 46µL	43 / 65µL
<b>B1-12C</b>	Standard 12 tooth comb	1.0mm / 5.4mm	4µL	14µL	24µL	34µL
<b>B1-12D</b>	Standard 12 tooth comb	1.5mm / 5.4mm	6µL	21µL	36µL	51µL
<b>B1-14</b>	Double-sided 14 tooth comb	1.0 / 1.5mm / 4.4 / 4.4mm	3 / 5µL	11 / 17µL	20 / 29µL	28 / 42µL
<b>B1-RL-9C‡</b>	Rapid-load 9 tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>B1-RL-9D‡</b>	Rapid-load 9 tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>B1-RL-17C‡</b>	Rapid-load 17 tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
<b>B1-RL-17D‡</b>	Rapid-load 17 tooth (2X) comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
<b>B1-PREP</b>	Prep comb	1.5mm / 78 / 5mm	90 / 6µL	310 / 19µL	525 / 32µL	750 / 46µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl EasyCast B2 Mini Gel Electrophoresis Systems

### Outstanding flexibility in a small footprint



- Our most popular system with simple to use casting method, and multiple comb and tray options
- Leakproof casting allows a gel to be cast and run in the same chamber with no tape or additional parts required.
- Longer gel length and the 2 comb slots provide the flexibility of running 8 to 48 samples on 1 gel
- Optional rapid load tray can increase the maximum number of samples to 108 in an 8 or 12 multichannel pipette format.
- 2 comb slots on the U.V. Transmissible (UVT) gel tray double sample capacity by doubling the number of sample wells
- UVT gel trays are silk screened with a fluorescent ruler for easy measurement of bands

**Ordering Information:** Available with optional buffer exchange ports (B2-BP) for use with an external recirculation pump.  
**Includes:** Buffer chamber, SuperSafe® lid with attached power supply leads, EasyCast gasketed U.V. Transmissible (UVT) gel tray, 2 combs: 12 & 20 well, double-sided, 1.0/1.5 mm thick.  
**Warranty:** Three years  
**Certifications:** CE marked

Cat. No.	Description	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>B2</b>	EasyCast	Mini	14 × 12cm	24.5 × 18 × 9.5cm (9.63 × 7.06 × 3.75in.)	800mL	8 to 48
<b>B2-BP</b>	EasyCast w/buffer exchange ports	Mini	14 × 12cm	24.5 × 18 × 9.5cm (9.63 × 7.06 × 3.75in.)	800mL	8 to 48

### Thermo Scientific Owl EasyCast Mini Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (includes one black and one red lead)
<b>B2-UVT</b>	EasyCast gasketed UVT gel tray
<b>B2-GK</b>	Replacement gaskets (1 pair)

### Thermo Scientific Owl EasyCast B2 Mini Gel System Accessories

Cat. No.	Description
<b>B2-RL-UVT</b>	EasyCast gasketed rapid load UVT gel tray with 12 slots
<b>B2-RL</b>	EasyCast gasketed rapid load UVT gel tray with 12 slots and 12 rapid load combs, B2-RL-9D
<b>B2-CST</b>	External caster for casting up to 3 gels at once (trays & combs not included)

### Thermo Scientific Owl Leveling Platform



Three-point leveling platform ensures flat casting and running surface  
Includes bubble level

Cat. No.	Type	Dimensions
<b>BBL-1</b>	Bubble Level	N/A
<b>B-LP</b>	Leveling Platform	36 x 46cm

### Thermo Scientific Owl EasyCast B2 Mini Gel Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>B2-8C</b>	Standard 8-tooth comb	1.0mm / 12.5mm	9µL	33µL	56µL	80µL
<b>B2-8D</b>	Standard 8-tooth comb	1.5mm / 12.5mm	14µL	49µL	84µL	120µL
<b>B2-12</b>	Double-sided 12 tooth comb	1.0 & 1.5mm / 7.2mm	5 / 8 µL	18 / 28µL	32 / 49µL	46 / 69µL
<b>B2-16</b>	Double-sided 16 tooth comb	1.0 & 1.5mm / 5.4mm	4 / 6µL	14 / 21µL	24 / 36µL	34 / 52µL
<b>B2-20</b>	Double-sided 20 tooth comb	1.0 & 1.5mm / 3.9mm	3 / 4µL	10 / 15µL	18 / 26µL	25 / 37µL
<b>B2-24</b>	Double-sided 24 tooth comb	1.0 & 1.5mm / 3.0mm	2 / 3µL	8 / 12µL	14 / 20µL	19 / 29µL
<b>B2-RL-9C‡</b>	Rapid-load 9 tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>B2-RL-9D‡</b>	Rapid-load 9 tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>B2-RL-25C‡</b>	Rapid-load 25 tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
<b>B2-RL-25D‡</b>	Rapid-load 25 tooth (2X) comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
<b>B2-PREP</b>	Prep comb w/2 teeth	1.5mm / 106 / 5	120 / 5.5µL	415 / 20µL	710 / 34µL	1000 / 48µL
<b>B2-WALL</b>	Wall comb w/1 tooth	1.5mm / 120	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl EasyCast B3 Gel System with Built-In Recirculation

**Built-in Recirculation is ideal for long runs, multiple sample sets or RNA gels**



- Prevent the formation of pH and ionic gradients
- Provide high resolution and uniform, reproducible results
- Deliver clear results for samples run over long time periods
- Does not require external pumps, tubing or stir bars, because recirculation system is built into buffer chamber
- Eliminate uneven migration, band distortion or disassociation of pH-dependent glyoxylated RNA molecules that can result when ionic depletion occurs

**Includes:** Mini gel system that consists of buffer chamber, SuperSafe® lid with attached power supply leads, EasyCast® gasketed UVT gel tray, as well as 12- and 20-well, double-sided 1.0/1.5mm thick combs.

**Warranty<sup>Y</sup>:** Three years

**Certifications:** CE marked

Cat. No.	Description	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>B3</b>	EasyCast	Mini	14 × 12cm	25 × 18 × 12cm (9.75 × 7 × 4.72in.)	1000mL	8 to 50

### Thermo Scientific Owl EasyCast Mini Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (includes one black and one red lead)
<b>B2-UVT</b>	EasyCast gasketed UVT gel tray
<b>B2-GK</b>	Replacement gaskets (1 pair)

### Thermo Scientific Owl EasyCast Mini Gel System Accessories

Cat. No.	Description
<b>B2-RL-UVT</b>	EasyCast gasketed rapid load UVT gel tray with 12 slots
<b>B2-RL</b>	EasyCast gasketed rapid load UVT gel tray with 12 slots and 12 rapid load combs
<b>B2-CST</b>	External caster (trays & combs not included)





### Thermo Scientific Owl Leveling Platform

Three-point leveling platform ensures flat casting and running surface  
Includes bubble level

Cat. No.	Type	Dimensions
<b>BBL-1</b>	Bubble Level	N/A
<b>B-LP</b>	Leveling Platform	36 x 46cm

### Thermo Scientific Owl EasyCast B3 Mini Gel Electrophoresis System Combs

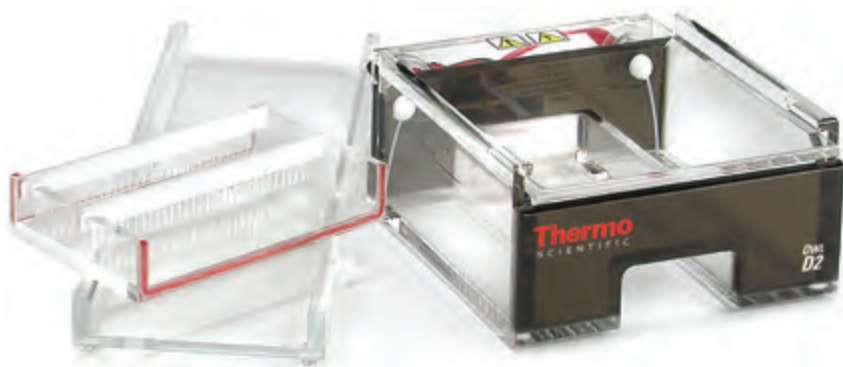
Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>B2-8C</b>	Standard 8-tooth comb	1.0mm / 12.5mm	9µL	33µL	56µL	80µL
<b>B2-8D</b>	Standard 8-tooth comb	1.5mm / 12.5mm	14µL	49µL	84µL	120µL
<b>B2-12</b>	Double-sided 12 tooth comb	1.0 & 1.5mm / 7.2mm	5 / 8 µL	18 / 28µL	32 / 49µL	46 / 69µL
<b>B2-16</b>	Double-sided 16 tooth comb	1.0 & 1.5mm / 5.4mm	4 / 6µL	14 / 21µL	24 / 36µL	34 / 52µL
<b>B2-20</b>	Double-sided 20 tooth comb	1.0 & 1.5mm / 3.9mm	3 / 4µL	10 / 15µL	18 / 26µL	25 / 37µL
<b>B2-24</b>	Double-sided 24 tooth comb	1.0 & 1.5mm / 3.0mm	2 / 3µL	8 / 12µL	14 / 20µL	19 / 29µL
<b>B2-RL-9C‡</b>	Rapid-load 9 tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>B2-RL-9D‡</b>	Rapid-load 9 tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>B2-RL-25C‡</b>	Rapid-load 25 tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
<b>B2-RL-25D‡</b>	Rapid-load 25 tooth (2X) comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
<b>B2-PREP</b>	Prep comb w/2 teeth	1.5mm / 106 / 5	120 / 5.5µL	415 / 20µL	710 / 34µL	1000 / 48µL
<b>B2-WALL</b>	Wall comb w/1 tooth	1.5mm / 120	—	—	—	—
<b>B2-WALL</b>	Wall comb w/1 tooth	1.5mm / 120	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl D2 Wide-Gel Electrophoresis Systems

Run from 10 to 80 samples on one gel



- Wide gel size allows 15 or 30 samples to be loaded per row with a micro well comb
- Using special combs and a multichannel pipetter, samples may be loaded directly from a 96-well plate, 8 or 12 at a time
- Excellent for screening PCR samples or routine DNA fragment analysis
- Small footprint saves space on lab bench
- Incorporates EasyCast\* casting design with external caster — gel tray is fitted with gasket, allowing it to fit snugly into caster and providing a leakproof seal without tape
- Electrode placement allows gel to be run quickly without compromising resolution

**Includes:** Buffer chamber, SuperSafe\* lid with attached power supply leads, EasyCast gasketed UVT gel tray, external multiple gel caster, four combs (two 30-well and two 40-well, 1.5mm thick).  
**Warranty\*:** Three years  
**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>D2</b>	Wide	14.4 × 10.2cm	19 × 20 × 10cm (7.38 × 7.75 × 4in.)	600mL	10 to 80
<b>D2-BP</b>	Wide w/buffer exchange ports	14.4 × 10.2cm	19 × 20 × 10cm (7.38 × 7.75 × 4in.)	600mL	10 to 80

### Thermo Scientific Owl D2 Wide-Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage
- UVT gel tray incorporates gasketed end gates which provide a leakproof seal without tape
- Comb slots are positioned so you can arrange up to 12 sample sets on the same gel

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>D2-UVT</b>	EasyCast gasketed UVT gel tray
<b>D2-GK</b>	Replacement gaskets (1 pair)
<b>D2-CST</b>	External caster (no trays/combs)



### Thermo Scientific Owl Leveling Platform

Three-point leveling platform ensures flat casting and running surface  
Includes bubble level

Cat. No.	Type	Dimensions
<b>BBL-1</b>	Bubble Level	N/A
<b>B-LP</b>	Leveling Platform	36 x 46cm

### Thermo Scientific Owl D2 Wide-Gel Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>D1-10C</b>	Standard 10-tooth comb	1.0mm / 12.2mm	9µL	32µL	55µL	78µL
<b>D1-10D</b>	Standard 10-tooth comb	1.5mm / 12.2mm	14µL	48µL	82µL	117µL
<b>D1-20C</b>	Standard 20-tooth comb	1.0mm / 5.2mm	4µL	14µL	23µL	33µL
<b>D1-20D</b>	Standard 20-tooth comb	1.5mm / 5.2mm	6µL	20µL	35µL	50µL
<b>D1-30C‡</b>	Micro well 30-tooth (2X) comb	1.0mm / 2.7mm	5µL	19µL	32µL	46µL
<b>D1-30D‡</b>	Micro well 30-tooth (2X) comb	1.5mm / 2.7mm	8µL	28µL	49µL	69µL
<b>D1-40C</b>	Standard 40-tooth comb	1.0mm / 1.7mm	1µL	4µL	8µL	11µL
<b>D1-40D</b>	Standard 40-tooth comb	1.5mm / 1.7mm	2µL	7µL	11µL	16µL
<b>D1-MTC‡</b>	Micro well 15-tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>D1-MTD‡</b>	Micro well 15-tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>D2-RL-9C‡</b>	Rapid load 9-tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>D2-RL-9D‡</b>	Rapid load 9-tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	48µL	69µL
<b>D2-RL-25C‡</b>	Rapid load 25-tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
<b>D2-RL-25D‡</b>	Rapid load 25-tooth (2X) comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl D3-14 Horizontal Electrophoresis System

Ideal for screening PCR products, plasmid preps, restriction mapping and cloning



- System screens 25 to 200 samples on a single agarose gel in less than 30 minutes, producing clear, tight banding patterns with no “smiling”
- With special combs and a multichannel pipetter, samples are loaded directly from a 96-well plate, 8 or 12 at a time
- Incorporates our Owl™ EasyCast\* casting design with external caster — gel tray is fitted with gasket, allowing it to fit snugly into caster and providing a leakproof seal without tape
- Sample loading with multichannel pipetter speeds up transfer
- Electrode placement allows gel to be run quickly without compromising resolution
- Bubble level ensures casting of flat, uniformly thick gels

**Includes:** Buffer chamber, SuperSafe\* lid with attached power cords, EasyCast\* gasketed UVT gel tray, external caster, four combs (50 micro well, 1.5mm thick).

**Warranty\*:** Three years

**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>D3-14</b>	Wide	14 × 23cm	30 × 27 × 11cm (11.8 × 10.6 × 4.3in.)	800mL	25 to 200

### Thermo Scientific Owl D3-14 System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage
- UVT gel tray incorporates gasketed end gates which provide a leakproof seal without tape
- Comb slots are positioned so you can arrange up to 12 sample sets on the same gel

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>D3-UVT-14</b>	EasyCast* gasketed UVT Gel Tray
<b>D3-GK</b>	Replacement gaskets (1 pair)
<b>D3-CST-14</b>	External caster (no trays/combs)



### Thermo Scientific Owl Leveling Platform

Three-point leveling platform ensures flat casting and running surface  
Includes bubble level

Cat. No.	Type	Dimensions
<b>BBL-1</b>	Bubble Level	N/A
<b>B-LP</b>	Leveling Platform	36 x 46cm



### Thermo Scientific Owl Casting Dams

- Seal agarose on contact, eliminating the need for tape
- Do not attach to gel tray, enabling gels of any length to be poured
- Easily handled and maneuvered using knob or finger depressions
- High-quality aluminum dam blocks off a portion of UVT gel tray, allowing shorter gels to be cast and run in one device

Cat. No.	Description
<b>DAM-23</b>	Chameleon casting dam; 23cmW

### Thermo Scientific Owl D3-14 Horizontal Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>D3-MTC‡</b>	Micro well 25 (1X)-tooth comb	1.0mm / 7.5mm	6µL	20µL	34µL	48µL
<b>D3-MTD‡</b>	Micro well 25 (1X)-tooth comb	1.5mm / 7.5mm	8µL	30µL	51µL	72µL
<b>D3-MT2C‡</b>	Micro well 50 (2X)-tooth comb	1.0mm / 3mm	2µL	8µL	14µL	19µL
<b>D3-MT2D‡</b>	Micro well 50 (2X)-tooth comb	1.5mm / 3mm	3µL	12µL	20µL	29µL
<b>D3-WALL</b>	Wall comb, 1 tooth	1.5mm / 230mm	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.



## Thermo Scientific Owl A6 Horizontal Electrophoresis System

Ideal for high-throughput laboratories



- System screens 25 to 500 samples on a single agarose gel, producing clear, tight banding patterns with no “smiling”
- Gel tray’s unique comb-slot design allows use of up to 10 evenly spaced combs
- With special combs and a multichannel pipetter, samples are loaded directly from a 96-well plate, 8 or 12 at a time
- Incorporates unique end-gate casting design — gel tray is fitted with gasketed end gates which provide a leakproof seal without tape
- Sample loading with multichannel pipetter speeds up transfer
- Bubble level ensures casting of flat, uniformly thick gels

**Includes:** Buffer chamber with three-point leveling base, SuperSafe\* lid with attached power supply leads, UVT gel tray with gasketed end gates, four combs (two 25-well and two 50-well, 1.5mm thick)  
**Warranty<sup>†</sup>:** Three years  
**Certifications:** CE marked

Cat. No.	Horizontal System Description	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>A6</b>	Wide	25 × 23cm	35 × 38 × 11cm (13.75 × 14.94 × 4.38in.)	3.0L	25 to 500

### Thermo Scientific Owl A6 Wide Gel Electrophoresis System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage
- UVT gel tray incorporates gasketed end gates which provide a leakproof seal without tape

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>A6-UVT</b>	UVT gel tray with gasketed end gates
<b>A3-GK-1</b>	Replacement gaskets (1 pair)
<b>A3-1-EG</b>	Replacement end gates (1 pair)



### Thermo Scientific Owl Leveling Platform

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Type
<b>BBL-1</b>	Bubble Level



### Thermo Scientific Owl Casting Dams

- Seal agarose on contact, eliminating the need for tape
- Do not attach to gel tray, enabling gels of any length to be poured
- Easily handled and maneuvered using knob or finger depressions
- High-quality aluminum dam blocks off a portion of UVT gel tray, allowing shorter gels to be cast and run in one device

Cat. No.	Description
<b>DAM-23</b>	Chameleon casting dam; 23cmW

### Thermo Scientific Owl A6 Horizontal Electrophoresis System Combs

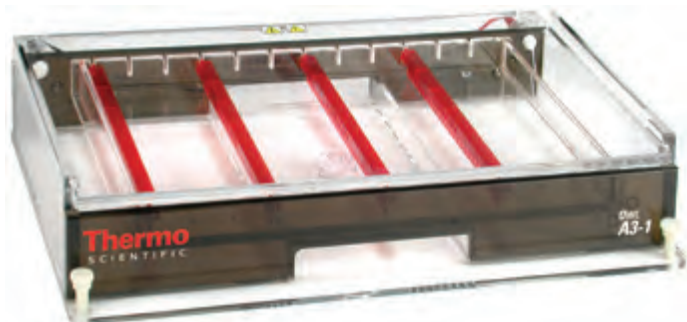
Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>D3-MTC‡</b>	Microwell 25 (1X)-tooth comb	1.0mm / 7.5mm	6µL	20µL	34µL	48µL
<b>D3-MTD‡</b>	Microwell 25 (1X)-tooth comb	1.5mm / 7.5mm	8µL	30µL	51µL	72µL
<b>D3-MT2C‡</b>	Microwell 50 (2X)-tooth comb	1.0mm / 3mm	2µL	8µL	14µL	19µL
<b>D3-MT2D‡</b>	Microwell 50 (2X)-tooth comb	1.5mm / 3mm	3µL	12µL	20µL	29µL
<b>D3-WALL</b>	Wall comb, 1 tooth	1.5mm / 230mm	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl A3-1 Large-Gel Electrophoresis System

Well-suited for plant genomics studies



- Horizontal system can run from 25 to 600 samples on one gel
- Gel can be cast in varying lengths to help conserve agarose when fewer samples need to be run
- Built-in buffer exchange ports allow for buffer recirculation on extended runs
- UVT gel tray has gasketed end gates for leakproof seal without tape
- Built-in leveling ensures flat, uniformly thick gels
- Large number of comb slots provides sample number and resolving distance flexibility
- Microwell-format combs provide fast, error-free sample loading with a multichannel pipetter
- Samples may be loaded directly from a 96-well plate, 8 or 12 at a time

**Includes:** Buffer chamber with three-point leveling base, SuperSafe® lid with attached power supply leads, UVT gel tray, four combs (two 25- and two 50-well), built-in buffer exchange ports and bubble level

**Warranty\*:** Three years

**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>A3-1</b>	Large	40 × 23cm	53 × 32 × 11cm (20.63 × 12.5 × 4.25in.)	4.5L	25 to 600

### Thermo Scientific Owl A3-1 Large Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>A3-UVT-1</b>	UVT gel tray with gasketed end gates
<b>A3-1-EG</b>	Replacement end gates (1 pair)
<b>A3-GK-1</b>	Replacement gaskets (1 pair)



### Thermo Scientific Owl Leveling Platform

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Type
<b>BBL-1</b>	Bubble Level



### Thermo Scientific Owl Casting Dams

- Seal agarose on contact, eliminating the need for tape
- Do not attach to gel tray, enabling gels of any length to be poured
- Easily handled and maneuvered using knob or finger depressions
- High-quality aluminum dam blocks off a portion of UVT gel tray, allowing shorter gels to be cast and run in one device

Cat. No.	Description
<b>DAM-23</b>	Chameleon casting dam; 23cmW

### Thermo Scientific Owl A3-1 Horizontal Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>D3-MTC‡</b>	Microwell 25 (1X)-tooth comb	1.0mm / 7.5mm	6µL	20µL	34µL	48µL
<b>D3-MTD‡</b>	Microwell 25 (1X)-tooth comb	1.5mm / 7.5mm	8µL	30µL	51µL	72µL
<b>D3-MT2C‡</b>	Microwell 50 (2X)-tooth comb	1.0mm / 3mm	2µL	8µL	14µL	19µL
<b>D3-MT2D‡</b>	Microwell 50 (2X)-tooth comb	1.5mm / 3mm	3µL	12µL	20µL	29µL
<b>D3-WALL</b>	Wall comb, 1 tooth	1.5mm / 230mm	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl A1 Large Gel Systems

**Smallest footprint of a large format device, and is ideal for detailed RNA/DNA analysis**



- Gel can be cast in varying lengths to help conserve agarose when fewer samples need to be run
- Optional built-in buffer exchange ports allow for buffer recirculation on extended runs
- Programmable power inverter may be used for field reversal electrophoresis
- UVT gel tray has gasketed end gates for leakproof seal without tape
- Built-in leveling ensures flat, uniformly thick gels
- Comb slots allow two, three or four sample sets of equal lengths to be run on the same gel
- Microwell-format combs provide fast, error-free sample loading with a multichannel pipetter
- Samples may be loaded directly from a 96-well plate, 8 or 12 at a time

**Includes:** Buffer chamber with three-point leveling base, SuperSafe® lid with attached power supply leads, UVT gel tray, gasketed end gates, three combs (12, 16 and 20-well), 1.5mm thick  
**Warranty<sup>†</sup>:** Three years  
**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>A1</b>	Large	25 × 13cm	37.5 × 21.5 × 11cm (14.8 × 8.5 × 4.3in.)	1.6L	8 to 150
<b>A1-BP</b>	Large, w/buffer exchange ports	25 × 13cm	37.5 × 21.5 × 11cm (14.8 × 8.5 × 4.3in.)	1.6L	8 to 150

### Thermo Scientific Owl A1 Large Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage
- Unique electrode placement allows this gel to be run quickly without compromising the resolution
- UVT gel tray incorporates gasketed end gates which provide a leakproof seal without tape

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>A1-UVT</b>	UVT gel tray with gasketed end gates
<b>A1-GK</b>	Replacement gaskets (1 pair)
<b>A1-EG</b>	Replacement end gates (1 pair)





### Thermo Scientific Owl Leveling Platform

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Type
<b>BBL-1</b>	Bubble Level



### Thermo Scientific Owl Casting Dams

- Seal agarose on contact, eliminating the need for tape
- Do not attach to gel tray, enabling gels of any length to be poured
- Easily handled and maneuvered using knob or finger depressions
- High-quality aluminum dam blocks off a portion of UVT gel tray, allowing shorter gels to be cast and run in one device

Cat. No.	Description
<b>DAM-13</b>	Chameleon casting dam; 13cmW

### Thermo Scientific Owl A1 Large Gel Electrophoresis System Combs

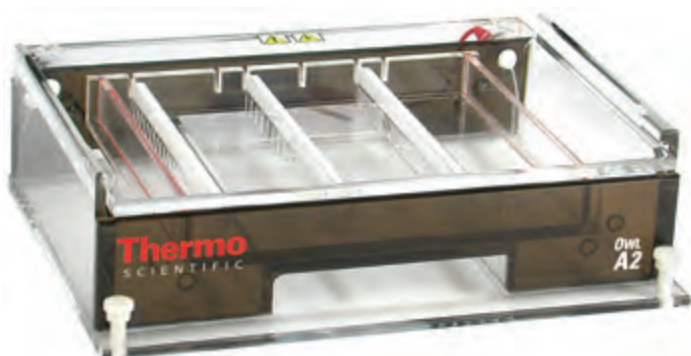
Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>A1-8C</b>	Standard 8-tooth comb	1.0mm / 13.9mm	10µL	36µL	63µL	89µL
<b>A1-8D</b>	Standard 8-tooth comb	1.5mm / 13.9mm	16µL	55µL	95µL	133µL
<b>A1-12C</b>	Standard 12-tooth comb	1.0mm / 8.7mm	7µL	23µL	39µL	55µL
<b>A1-12D</b>	Standard 12-tooth comb	1.5mm / 8.7mm	10µL	34µL	59µL	83µL
<b>A1-16C</b>	Standard 16-tooth comb	1.0mm / 6.1mm	5µL	16µL	27µL	39µL
<b>A1-16D</b>	Standard 16-tooth comb	1.5mm / 6.1mm	7µL	24µL	41µL	58µL
<b>A1-20C</b>	Standard 20-tooth comb	1.0mm / 4.5mm	3µL	12µL	20µL	29µL
<b>A1-20D</b>	Standard 20-tooth comb	1.5mm / 4.5mm	5µL	18µL	30µL	43µL
<b>A1-24C</b>	Standard 24-tooth comb	1.0mm / 3.5mm	3µL	9µL	16µL	22µL
<b>A1-24D</b>	Standard 24-tooth comb	1.5mm / 3.5mm	4µL	14µL	24µL	33µL
<b>A1-MTC‡</b>	Micro well 14 (1X) tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>A1-MTD‡</b>	Micro well 14 (1X) tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>A1-RL-9C‡</b>	Rapid load 9 (1X) tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>A1-RL-9D‡</b>	Rapid load 9 (1X) tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>A1-RL-25C‡</b>	Rapid load 25 (2X) tooth comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
<b>A1-RL-25D‡</b>	Rapid load 25 (2X) tooth comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
<b>A1-PREP</b>	Prep 2-tooth comb	1.5mm / 117 / 5mm	130 / 6µL	455 / 20µL	775 / 34µL	1100 / 48µL
<b>A1-WALL</b>	Wall 1-tooth comb	1.5mm / 130mm	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl A2 Large Gel Systems

Ideal for detailed RNA/DNA analysis and handle high throughput with consistent, reliable results



- Gel can be cast in varying lengths to help conserve agarose when fewer samples need to be run
- Optional built-in buffer exchange ports allow for buffer recirculation on extended runs
- UVT gel tray has gasketed end gates for leakproof seal without tape
- Built-in leveling ensures flat, uniformly thick gels
- Comb slots allow two, three or four sample sets of equal lengths to be run on the same gel
- Microwell-format combs provide fast, error-free sample loading with a multichannel pipetter
- Samples may be loaded directly from a 96-well plate, 8 or 12 at a time
- Offers the greatest variety of comb options

**Includes:** Buffer chamber with three-point leveling base, SuperSafe® lid with attached power supply leads, UVT gel tray, gasketed end gates, three combs (16, 24 and 36-well), 1.5mm thick  
**Warranty<sup>Y</sup>:** Three years  
**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>A2</b>	Large	25 × 20cm	37.5 × 32.5 × 10.5cm (14.8 × 12.8 × 4.1in.)	2.3L	8 to 432
<b>A2-BP</b>	Large, w/buffer exchange ports	25 × 20cm	37.5 × 32.5 × 10.5cm (14.8 × 12.8 × 4.1in.)	2.3L	8 to 432

### Thermo Scientific Owl A2 Large Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (includes one black and one red lead)
<b>A2-UVT</b>	UVT gel tray with gasketed end gates
<b>A2-GK</b>	Replacement gaskets (1 pair)
<b>A2-EG</b>	Replacement end gates (1 pair)



### Thermo Scientific Owl Leveling Platform

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Type
<b>BBL-1</b>	Bubble Level



### Thermo Scientific Owl Casting Dams

- Seal agarose on contact, eliminating the need for tape
- Do not attach to gel tray, enabling gels of any length to be poured
- Easily handled and maneuvered using knob or finger depressions
- High-quality aluminum dam blocks off a portion of UVT gel tray, allowing shorter gels to be cast and run in one device

Cat. No.	Description
<b>DAM-20</b>	Chameleon casting dam; 20cmW

### Thermo Scientific Owl 24-slot Rapid Load UVT Gel Trays

- Enable multiple sample loading

Cat. No.	Description
<b>A2-RL-UVT</b>	24-slot rapid load UVT gel tray with gasketed end gates
<b>A2-RL-12</b>	24-slot rapid load UVT gel tray with (12) 18-well combs
<b>A2-RL-24</b>	24-slot rapid load UVT gel tray with (24) 18-well combs

### Thermo Scientific Owl A2 Large Gel Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>A2-8C</b>	Standard 8-tooth comb	1.0mm / 22.7mm	17µL	59µL	102µL	144µL
<b>A2-8D</b>	Standard 8-tooth comb	1.5mm / 22.7mm	25µL	89µL	153µL	217µL
<b>A2-12C</b>	Standard 12-tooth comb	1.0mm / 14.5mm	11µL	38µL	65µL	92µL
<b>A2-12D</b>	Standard 12-tooth comb	1.5mm / 14.5mm	16µL	57µL	98µL	138µL
<b>A2-16C</b>	Standard 16-tooth comb	1.0mm / 10.5mm	8µL	27µL	47µL	67µL
<b>A2-16D</b>	Standard 16-tooth comb	1.5mm / 10.5mm	12µL	41µL	70µL	100µL
<b>A2-20C</b>	Standard 20-tooth comb	1.0mm / 8.0mm	6µL	21µL	36µL	51µL
<b>A2-20D</b>	Standard 20-tooth comb	1.5mm / 8.0mm	9µL	32µL	54µL	77µL
<b>A2-24C</b>	Standard 24-tooth comb	1.0mm / 6.5mm	5µL	17µL	29µL	41µL
<b>A2-24D</b>	Standard 24-tooth comb	1.5mm / 6.5mm	7µL	25µL	43µL	61µL
<b>A2-28C</b>	Standard 28-tooth comb	1.0mm / 5.0mm	4µL	14µL	23µL	33µL
<b>A2-28D</b>	Standard 28-tooth comb	1.5mm / 5.0mm	6µL	20µL	35µL	50µL
<b>A2-32C</b>	Standard 32-tooth comb	1.0mm / 4.0mm	3µL	11µL	19µL	27µL
<b>A2-32D</b>	Standard 32-tooth comb	1.5mm / 4.0mm	5µL	17µL	29µL	41µL
<b>A2-36C</b>	Standard 36-tooth comb	1.0mm / 3.5mm	3µL	10µL	17µL	24µL
<b>A2-36D</b>	Standard 36-tooth comb	1.5mm / 3.5mm	4µL	15µL	25µL	35µL
<b>A2-MTC‡</b>	Micro well 21 (1X)-tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>A2-MTD‡</b>	Micro well 21 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>A2-MT2C‡</b>	Micro well 42 (2X)-tooth comb	1.0mm / 2.7mm	2µL	7µL	12µL	17µL
<b>A2-MT2D‡</b>	Micro well 42 (2X)-tooth comb	1.5mm / 2.7mm	3µL	11µL	18µL	26µL
<b>A2-RL-18D‡</b>	Rapid Load 18 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>A2-PREP</b>	Prep comb with 2 teeth	1.5mm / 187 / 5mm	211 / 5.5µL	736 / 20µL	1263 / 34µL	1789 / 48µL
<b>A2-WALL</b>	Wall comb with 1 tooth	1.5mm / 130mm	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl A5 Large Gel System

Features built-in recirculation, and are ideal for long runs, multiple sample sets or RNA gels



- Prevent the formation of pH and ionic gradients
- Provide high resolution and uniform, reproducible results
- Deliver clear results for samples run over long time periods
- Do not require external pumps, tubing or stir bars, because recirculation system is built into buffer chamber
- Eliminate uneven migration, band distortion or disassociation of pH-dependent glyoxylated RNA molecules that can result when ionic depletion occurs

**Includes:** Large gel system that consists of buffer chamber with three-point leveling base, Supersafe lid with attached power supply leads, UVT gel tray with gasketed end gates, as well as 16-, 24-, and 36-well, 1.5m thick combs.

**Warranty:** Three years

**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>A5</b>	Large	25 × 20cm	37.5 × 32.5 × 15cm (14.8 × 12.8 × 5.9in.)	2.0L	8 to 432

### Thermo Scientific Owl A5 Large Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage
- UVT gel tray incorporates gasketed end gates which provide a leakproof seal without tape

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (includes one black and one red lead)
<b>A2-UVT</b>	UVT gel tray with gasketed end gates
<b>A2-GK</b>	Replacement gaskets (1 pair)
<b>A2-EG</b>	Replacement end gates (1 pair)



### Thermo Scientific Owl Leveling Platform

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Type
<b>BBL-1</b>	Bubble Level

### Thermo Scientific Owl Casting Dams

- Seal agarose on contact, eliminating the need for tape
- Do not attach to gel tray, enabling gels of any length to be poured
- Easily handled and maneuvered using knob or finger depressions
- High-quality aluminum dam blocks off a portion of UVT gel tray, allowing shorter gels to be cast and run in one device

Cat. No.	Description
<b>DAM-20</b>	Chameleon casting dam; 20cmW

### Thermo Scientific Owl 24-slot Rapid Load UVT Gel Trays

- Enable multiple sample loading

Cat. No.	Description
<b>A2-RL-UVT</b>	24-slot rapid load UVT gel tray with gasketed end gates
<b>A2-RL-12</b>	24-slot rapid load UVT gel tray with (12) 18-well combs
<b>A2-RL-24</b>	24-slot rapid load UVT gel tray with (24) 18-well combs

### Thermo Scientific Owl A5 Large Gel Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>A2-8C</b>	Standard 8-tooth comb	1.0mm / 22.7mm	17µL	59µL	102µL	144µL
<b>A2-8D</b>	Standard 8-tooth comb	1.5mm / 22.7mm	25µL	89µL	153µL	217µL
<b>A2-12C</b>	Standard 12-tooth comb	1.0mm / 14.5mm	11µL	38µL	65µL	92µL
<b>A2-12D</b>	Standard 12-tooth comb	1.5mm / 14.5mm	16µL	57µL	98µL	138µL
<b>A2-16C</b>	Standard 16-tooth comb	1.0mm / 10.5mm	8µL	27µL	47µL	67µL
<b>A2-16D</b>	Standard 16-tooth comb	1.5mm / 10.5mm	12µL	41µL	70µL	100µL
<b>A2-20C</b>	Standard 20-tooth comb	1.0mm / 8.0mm	6µL	21µL	36µL	51µL
<b>A2-20D</b>	Standard 20-tooth comb	1.5mm / 8.0mm	9µL	32µL	54µL	77µL
<b>A2-24C</b>	Standard 24-tooth comb	1.0mm / 6.5mm	5µL	17µL	29µL	41µL
<b>A2-24D</b>	Standard 24-tooth comb	1.5mm / 6.5mm	7µL	25µL	43µL	61µL
<b>A2-28C</b>	Standard 28-tooth comb	1.0mm / 5.0mm	4µL	14µL	23µL	33µL
<b>A2-28D</b>	Standard 28-tooth comb	1.5mm / 5.0mm	6µL	20µL	35µL	50µL
<b>A2-32C</b>	Standard 32-tooth comb	1.0mm / 4.0mm	3µL	11µL	19µL	27µL
<b>A2-32D</b>	Standard 32-tooth comb	1.5mm / 4.0mm	5µL	17µL	29µL	41µL
<b>A2-36C</b>	Standard 36-tooth comb	1.0mm / 3.5mm	3µL	10µL	17µL	24µL
<b>A2-36D</b>	Standard 36-tooth comb	1.5mm / 3.5mm	4µL	15µL	25µL	35µL
<b>A2-MTC‡</b>	Micro well 21 (1X)-tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>A2-MTD‡</b>	Micro well 21 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>A2-MT2C‡</b>	Micro well 42 (2X)-tooth comb	1.0mm / 2.7mm	2µL	7µL	12µL	17µL
<b>A2-MT2D‡</b>	Micro well 42 (2X)-tooth comb	1.5mm / 2.7mm	3µL	11µL	18µL	26µL
<b>A2-RL-18D‡</b>	Rapid Load 18 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
<b>A2-PREP</b>	Prep comb with 2 teeth	1.5mm / 187 / 5mm	211 / 5.5µL	736 / 20µL	1263 / 34µL	1789 / 48µL
<b>A2-WALL</b>	Wall comb with 1 tooth	1.5mm / 130mm	—	—	—	—

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl A2-OK Multiple Gel Electrophoresis System

Ideal for teaching labs or labs that need to run multiple gels simultaneously



- Up to six 7 x 8cm minigels can be run on one system
- Screen up to 120 samples at once with supplied combs
- EasyCast\* casting design permits casting without tape or plugs
- UV-transmissible (UVT) gel trays may be placed directly on the transilluminator for easy photodocumentation
- Teacher can instruct up to 12 students using one system and one power supply

**Includes:** Buffer chamber with three-point leveling base; SuperSafe\* lid with attached power supply leads; Six EasyCast UVT gasketed gel trays; Twelve 10-well, double-sided combs, 1.0/1.5mm thick; Two external multiple gel casters; Gel tray holder

**Warranty\*:** Three years

**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L x W)	Footprint (L x W x H)	Running Buffer Volume	Sample Range
<b>A2-OK</b>	Teaching	8 x 7cm	37.5 x 32.5 x 10.5cm (14.8 x 12.8 x 4.1in.)	2.3L	5 to 144

### Thermo Scientific Owl A2-OK Multi Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage
- UVT gel tray incorporates gasketed end gates which provide a leakproof seal without tape

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>B1A-UVT</b>	EasyCast gasketed UVT gel tray
<b>B1A-GK</b>	Replacement gaskets (1 pair)
<b>B1A-CST</b>	External caster (trays & combs not included)
<b>A2-OT</b>	Gel tray holder for A2-OK large gel system



### Thermo Scientific Owl Leveling Platform

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Type
<b>BBL-1</b>	Bubble Level

### Thermo Scientific Owl A2-OK Multi Gel Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>B1A-5C</b>	Standard comb; 5 teeth	1.0mm / 11.3mm	8µL	30µL	51µL	72µL
<b>B1A-5D</b>	Standard comb; 5 teeth	1.5mm / 11.3mm	13µL	44µL	76µL	108µL
<b>B1A-6</b>	Double-sided comb; 6 teeth	1.0 / 1.5mm / 9.1 / 9.1mm	7 / 10µL	24 / 36µL	41 / 61µL	58 / 87µL
<b>B1A-8</b>	Double-sided comb; 8 teeth	1.0 / 1.5mm / 6.4 / 6.4mm	5 / 7µL	17 / 25µL	29 / 43µL	41 / 61µL
<b>B1A-10</b>	Double-sided comb; 10 teeth	1.0 / 1.5mm / 4.8 / 4.8mm	4 / 5 µL	13 / 19µL	21 / 32µL	30 / 46µL
<b>B1A-12</b>	Double-sided comb; 12 teeth	1.0 / 1.5mm / 3.7 / 3.7mm	3 / 4µL	10 / 14µL	16 / 25µL	23 / 35µL
<b>B1A-PREP</b>	Prep comb; 2 teeth	1.5mm / 57 / 5 mm	64 / 6µL	225 / 19µL	385 / 32µL	550 / 46µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.



## Thermo Scientific Owl D4 Horizontal Electrophoresis System

### Optimal flexibility while conserving valuable bench space



- Designed to provide flat, even banding patterns and consistent results with hassle-free gel casting — no tape, grease, agarose seals, or other accessories are required
- Run one gel tray (51 samples) in the buffer chamber, or to save bench space, two stacked trays (102 samples)
- Two 16 x 17cm UV Transmissible (UVT) gel trays accommodate up to three combs each, allowing the user to run up to three series of samples equal distances
- Stand-alone casting platform included for casting two gels simultaneously
- A single gel can be cast right in the buffer chamber or in the external caster

**Includes:** Buffer chamber (buffer volume, 1.8L); three-point leveling base; SuperSafe\* lid with attached power supply leads; two UVT gel trays; six 1.5mm thick combs; external gel caster; bubble level

**Warranty<sup>†</sup>:** Three years

**Certifications:** CE marked

Cat. No.	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
<b>D4</b>	Space saving	17 × 16cm	23 × 27 × 14cm (9.1 × 10.6 × 5.5in.)	1.8L	17 to 102
<b>D4-BP</b>	Space saving, w/buffer exchange ports	17 × 16cm	23 × 27 × 14cm (9.1 × 10.6 × 5.5in.)	1.8L	17 to 102

### Thermo Scientific Owl D4 Horizontal Electrophoresis System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage
- UVT gel tray incorporates gasketed end gates which provide a leakproof seal without tape

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>D4-UVT</b>	EasyCast* gasketed UVT gel tray
<b>D4-GK</b>	Replacement gaskets (1 pair)
<b>D4-CST</b>	External caster

### Thermo Scientific Owl Leveling Platform

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Type	Dimensions
<b>BBL-1</b>	Bubble Level	N/A
<b>B-LP</b>	Leveling Platform	36 x 46cm



### Thermo Scientific Owl D4 Horizontal Electrophoresis System Combs

Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
<b>D4-17C‡</b>	Micro well 17-tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
<b>D4-17D‡</b>	Micro well 17-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

‡ 8 and 12-channel pipette format (1X) and (2X) combs.

## Thermo Scientific Owl P81 Single-Sided Vertical Electrophoresis System

### Economical system for quick protein runs



Simple, rugged system provides excellent results  
 Upper buffer chamber extends the length of the gel to distribute heat evenly across the entire gel surface  
 Side clamps press glass plates against silicone gasket to provide uniform pressure and form a leakproof seal resulting in flat, even banding patterns  
 Notched alumina ceramic plate (included) may be used in front of notched glass for cooler, faster runs

**Includes:** Upper and lower buffer chambers, SuperSafe\* lid with attached power supply leads, blank glass plate, notched glass plate, notched alumina plate, two combs (10 well, 0.8mm thick), spacer set (0.8mm thick)  
**Warranty<sup>†</sup>:** Three years  
**Certifications:** CE marked

Cat. No.	Vertical System	Gel Size (L × W)	Footprint (L × W × H) (7.1 × 3.1 × 5.1in.)	Running Buffer Volume		
				Upper Buffer	Lower Buffer	Total Buffer
<b>P81</b>	Single Sided	10 × 10cm	18 × 8 × 13cm (7.1 × 3.1 × 5.1in.)	100mL	50mL	150mL

### Thermo Scientific Owl P81 System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description	Dimensions
<b>PSL-5</b>	Power supply leads, 3 ft. (one black and one red lead)	—
<b>P81-009</b>	Supersafe* lid with attached power supply leads	—
<b>P8-GK</b>	Orange replacement gaskets (1 pair)	—
<b>P8-CL</b>	Side clamps (1 pair)	—
<b>R10446</b>	Wing knob	—
<b>P7-SA</b>	Spacer Set (2 sides, 1 bottom)	0.5cmW x 0.5mm thickness
<b>P7-SC</b>	Spacer Set (2 sides, 1 bottom)	0.5cmW x 0.8mm thickness
<b>P7-SD</b>	Spacer Set (2 sides, 1 bottom)	0.5cmW x 1.5mm thickness
<b>P7-10R</b>	Notched glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
<b>P7-10G</b>	Blank Glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
<b>P7-10FR</b>	Frosted notched glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
<b>P7-10FG</b>	Frosted blank glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
<b>P7-10RA</b>	Notched alumina plate	10cmL x 10cmW x 1.0mm thickness



### Thermo Scientific Owl P8-Series Vertical Electrophoresis System Accessories

Cat. No.	Description	Gel Size (L × W)	Footprint (L × W × H)
<b>JGC-4</b>	Gel Casting System; Compatible with P8DS	10 × 10cm	13 × 13 × 11cm
<b>P7-CST</b>	Gradient Gel Caster	10 × 10cm	13 × 15 × 13cm

### Thermo Scientific Owl P8-Series System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
<b>MP-6A</b>	Standard 6-tooth comb	0.5mm	11.1mm	89µL
<b>MP-6C</b>	Standard 6-tooth comb	0.8mm	11.1mm	142µL
<b>MP-6D</b>	Standard 6-tooth comb	1.5mm	11.1mm	266µL
<b>MP-8A</b>	Standard 8-tooth comb	0.5mm	7.7mm	62µL
<b>MP-8C</b>	Standard 8-tooth comb	0.8mm	7.7mm	99µL
<b>MP-8D</b>	Standard 8-tooth comb	1.5mm	7.7mm	185µL
<b>MP-10A</b>	Standard 10-tooth comb	0.5mm	5.7mm	46µL
<b>MP-10C</b>	Standard 10-tooth comb	0.8mm	5.7mm	73µL
<b>MP-10D</b>	Standard 10-tooth comb	1.5mm	5.7mm	134µL
<b>MP-12A</b>	Standard 12-tooth comb	0.5mm	4.3mm	34µL
<b>MP-12C</b>	Standard 12-tooth comb	0.8mm	4.3mm	55µL
<b>MP-12D</b>	Standard 12-tooth comb	1.5mm	4.3mm	103µL
<b>MP-15A</b>	Standard 15-tooth comb	0.5mm	2.9mm	23µL
<b>MP-20A</b>	Standard 20-tooth comb	0.5mm	1.6mm	13µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

## Thermo Scientific Owl P82 Dual-Gel Electrophoresis System

Easy to use system produces flat, even banding and crisp resolution



- Runs two 10 x 10cm gels or one gel when used with blocking plate; accommodates 8 x 10cm gels utilizing the provided adapter
- Allows gels to easily be placed into the device
- Wedge placed in front of the cassettes provides even pressure against the leakproof gasket, places the cassettes in proper running position
- Two sizes of wedges accommodate varying thickness of precast gels
- Flexible — use precast polyacrylamide gels or hand cast gels
- No cooling required

**Includes:** Inner buffer chambers, buffer tank, SuperSafe\* lid with attached power supply leads, two wedges (1.27cm thick), two wedges (1.59cm thick), adapter plates for 10 x 8 gels (2) and blocking plate

**Warranty\*:** Three years

**Certifications:** CE marked

Cat. No.	Vertical System	Gel Size (L x W)	Footprint (L x W x H)	Running Buffer Volume		
				Upper Buffer Chamber Vol.	Lower Buffer Chamber Max. Vol.	Lower Buffer Chamber Min. Vol. (8cm / 10cm gel)
P82	Double Sided	8-10 x 10cm	15.2 x 12.4 x 17cm (5.88 x 4.75 x 6.69")	150mL	300mL	150mL

### Thermo Scientific Owl P82 Dual Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description	Dimensions
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)	—
OG-PL1	Blocking plate	—
R12009	Replacement gaskets (1 pair)	—
P82DS-016	Adapter plate	—
P82DS-012	Thick replacement wedge; 1.59cm	—
P82DS-013	Thin replacement wedge; 1.27cm	—
P82DS-GK	Replacement gasket (1 pair)	—
P7-SA	Spacer Set (2 sides, 1 bottom)	0.5cmW x 0.5mm thickness
P7-SC	Spacer Set (2 sides, 1 bottom)	0.5cmW x 0.8mm thickness
P7-SD	Spacer Set (2 sides, 1 bottom)	0.5cmW x 1.5mm thickness
P7-10R	Notched glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
P7-10G	Blank glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
P7-10FR	Frosted notched glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
P7-10FG	Frosted blank glass	10cmL x 10cmW x $\frac{3}{32}$ " thickness
P7-10RA	Notched alumina plate	10cmL x 10cmW x 1.0mm thickness



### Thermo Scientific Owl P8-Series Vertical Electrophoresis System Accessories

Cat. No.	Description	Gel Size (L × W)	Footprint (L × W × H)
<b>JGC-4</b>	Gel Casting System; Compatible with P8DS	10 × 10cm	13 × 13 × 11cm
<b>P7-CST</b>	Gradient Gel Caster	10 × 10cm	13 × 15 × 13cm

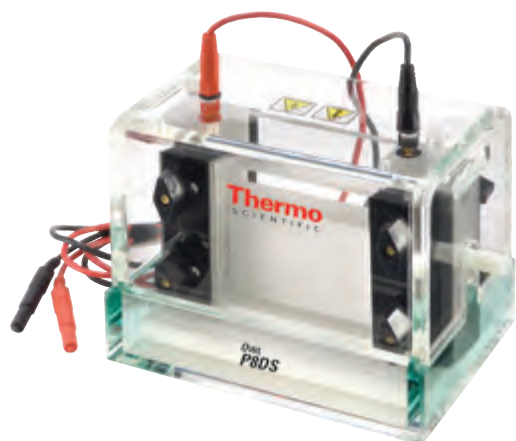
### Thermo Scientific Owl P8-Series System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
<b>MP-6A</b>	Standard 6-tooth comb	0.5mm	11.1mm	89µL
<b>MP-6C</b>	Standard 6-tooth comb	0.8mm	11.1mm	142µL
<b>MP-6D</b>	Standard 6-tooth comb	1.5mm	11.1mm	266µL
<b>MP-8A</b>	Standard 8-tooth comb	0.5mm	7.7mm	62µL
<b>MP-8C</b>	Standard 8-tooth comb	0.8mm	7.7mm	99µL
<b>MP-8D</b>	Standard 8-tooth comb	1.5mm	7.7mm	185µL
<b>MP-10A</b>	Standard 10-tooth comb	0.5mm	5.7mm	46µL
<b>MP-10C</b>	Standard 10-tooth comb	0.8mm	5.7mm	73µL
<b>MP-10D</b>	Standard 10-tooth comb	1.5mm	5.7mm	134µL
<b>MP-12A</b>	Standard 12-tooth comb	0.5mm	4.3mm	34µL
<b>MP-12C</b>	Standard 12-tooth comb	0.8mm	4.3mm	55µL
<b>MP-12D</b>	Standard 12-tooth comb	1.5mm	4.3mm	103µL
<b>MP-15A</b>	Standard 15-tooth comb	0.5mm	2.9mm	23µL
<b>MP-20A</b>	Standard 20-tooth comb	0.5mm	1.6mm	13µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

## Thermo Scientific Owl P8DS Dual-Gel Vertical Electrophoresis System

### Ideal for two-dimensional electrophoresis



- Quickly and easily casts and runs 1 or 2 gels in the same device
- Perfect tool for second dimension protocols of 2-D electrophoresis, SDS and agarose gels, and native PAGE electrophoresis
- Unique agarose plug method makes casting gel simple and quick. Gel assemblies do not have to be moved once set-up. Two individual steps of casting and running in different devices are now combined. Simply secure the glass cassettes, pour the agarose plug in the specially designed trough, cast polyacrylamide solution in the cassettes, load samples, and run the gel. Manufactured using a time-tested acrylic fabrication technology, providing a durable, long-lasting system
- Central cooling core provides even cooling across the gel surface for outstanding resolution and clear banding
- Cooling is achieved by circulating fluid through the core with external circulator or cool tap water
- Very simple clamping mechanism makes loading glass cassettes and most manufacturers' precast gels trouble free

**Includes:** Complete System consist of Upper Buffer Chamber with Internal Cooling Core, Lower Buffer Chamber, SuperSafe Lid with Attached Power Supply Leads, 4 Blank Glass Plates, 2 Notched Glass Plates, 2 Notched Alumina Plates, 2 Spacer Sets: 0.8 mm Thick, Blocking Plate for Single Gel Operation, Spacer Placer, 2 Combs: 10 Well, 0.8 mm Thick

**Warranty<sup>Y</sup>:** Three years

**Certifications:** CE marked

Cat. No.	Description	Vertical System	Gel Size L x W	Footprint (L x W x H)	Running Buffer		
					Lower Buffer	Upper Buffer	Total
<b>P8DS-1</b>	P8DS Complete System plus Caster	Double-sided	8–10 x 10cm	17 x 13 x 14cm (6.7 x 5.1 x 5.5")	150mL	150mL	300mL
<b>P8DS-2</b>	P8DS Complete System	Double-sided	8–10 x 10cm	17 x 13 x 14cm (6.7 x 5.1 x 5.5")	150mL	150mL	300mL
<b>P8DS-3</b>	P8DS Apparatus Only	Double-sided	8–10 x 10cm	17 x 13 x 14cm (6.7 x 5.1 x 5.5")	150mL	150mL	300mL

### Thermo Scientific Owl P8DS Gel System Replacement Parts

- Three-point leveling platform ensures flat casting and running surface
- Includes bubble level

Cat. No.	Description	Dimensions
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)	—
<b>P8DS-016</b>	Blocking Plate	—
<b>P8DS-012</b>	Super Safe Lid with Attached Power Supply Leads	—
<b>R12009</b>	Replacement gaskets (1 pair)	—
<b>P8-CL</b>	Side clamps (1 pair)	—
<b>R10446</b>	Wing knob	—
<b>ST-10</b>	Sponge Tips (Pack of 10)	—
<b>P7-SA</b>	Spacer Set (2 sides, 1 bottom)	0.5cmW x 0.5mm thickness
<b>P7-SC</b>	Spacer Set (2 sides, 1 bottom)	0.5cmW x 0.8mm thickness
<b>P7-SD</b>	Spacer Set (2 sides, 1 bottom)	0.5cmW x 1.5mm thickness
<b>P7-10R</b>	Notched glass	10cmL x 10cmW x 3/32" thickness
<b>P7-10G</b>	Blank Glass	10cmL x 10cmW x 3/32" thickness
<b>P7-10FR</b>	Frosted notched glass	10cmL x 10cmW x 3/32" thickness
<b>P7-10FG</b>	Frosted blank glass	10cmL x 10cmW x 3/32" thickness
<b>P7-10RA</b>	Notched alumina plate	10cmL x 10cmW x 1.0mm thickness





## Thermo Scientific Owl P8-Series Vertical Electrophoresis System Accessories

Cat. No.	Description	Gel Size (L × W)	Footprint (L × W × H)
<b>JGC-4</b>	Gel Casting System; Compatible with P8DS	10 × 10cm	13 × 13 × 11cm
<b>P7-CST</b>	Gradient Gel Caster	10 × 10cm	13 × 15 × 13cm

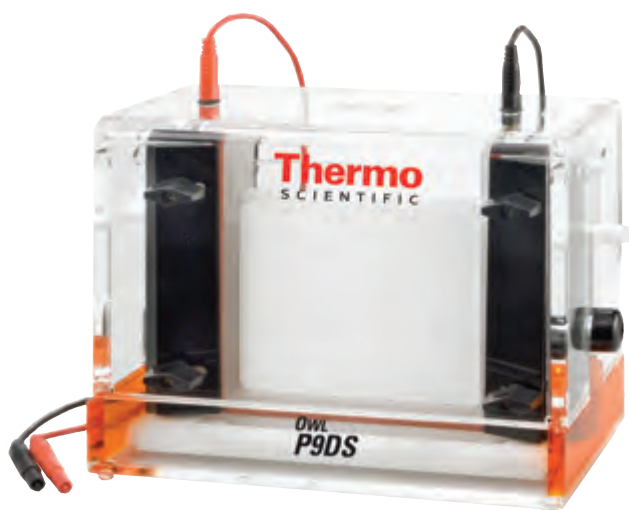
## Thermo Scientific Owl P8-Series System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
<b>MP-6A</b>	Standard 6-tooth comb	0.5mm	11.1mm	89µL
<b>MP-6C</b>	Standard 6-tooth comb	0.8mm	11.1mm	142µL
<b>MP-6D</b>	Standard 6-tooth comb	1.5mm	11.1mm	266µL
<b>MP-8A</b>	Standard 8-tooth comb	0.5mm	7.7mm	62µL
<b>MP-8C</b>	Standard 8-tooth comb	0.8mm	7.7mm	99µL
<b>MP-8D</b>	Standard 8-tooth comb	1.5mm	7.7mm	185µL
<b>MP-10A</b>	Standard 10-tooth comb	0.5mm	5.7mm	46µL
<b>MP-10C</b>	Standard 10-tooth comb	0.8mm	5.7mm	73µL
<b>MP-10D</b>	Standard 10-tooth comb	1.5mm	5.7mm	134µL
<b>MP-12A</b>	Standard 12-tooth comb	0.5mm	4.3mm	34µL
<b>MP-12C</b>	Standard 12-tooth comb	0.8mm	4.3mm	55µL
<b>MP-12D</b>	Standard 12-tooth comb	1.5mm	4.3mm	103µL
<b>MP-15A</b>	Standard 15-tooth comb	0.5mm	2.9mm	23µL
<b>MP-20A</b>	Standard 20-tooth comb	0.5mm	1.6mm	13µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

## Thermo Scientific Owl P9DS Dual-Gel Vertical Electrophoresis Systems

Ideal for two-dimensional electrophoresis



- Quickly and easily casts and runs 1 or 2 gels in the same device
- Perfect tool for second dimension protocols of 2-D electrophoresis, SDS and agarose gels, and native PAGE electrophoresis
- Unique agarose plug method makes casting gel simple and quick. Gel assemblies do not have to be moved once set-up. Two individual steps of casting and running in different devices are now combined. Simply secure the glass cassettes, pour the agarose plug in the specially designed trough, cast polyacrylamide solution in the cassettes, load samples, and run the gel. Manufactured using a time-tested acrylic fabrication technology, providing a durable, long-lasting system
- Central cooling core provides even cooling across the gel surface for outstanding resolution and clear banding
- Cooling is achieved by circulating fluid through the core with external circulator or cool tap water
- Very simple clamping mechanism makes loading glass cassettes and most manufacturers' precast gels trouble free

**Includes:** Complete System consists of Upper Buffer Chamber with Internal Cooling Core, Lower Buffer Chamber, SuperSafe Lid with Attached Power Supply Leads, 4 Blank Glass Plates, 2 Notched Glass Plates, Spacer Set: 1.5mm Thick, Blocking Plate for Single Gel Operation, 2 Combs: (2) 10-Well and (2) 15-Well, 1.5mm Thick

**Warranty<sup>Y</sup>:** Three years

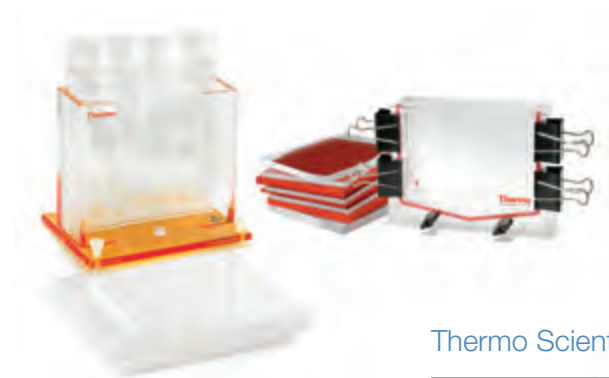
**Certifications:** CE marked

Cat. No.	Description	Vertical System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume		
					Lower Buffer	Upper Buffer	Total
<b>P9DS-1</b>	P9DS Complete System plus Caster	Double-sided	14–16 × 16cm	25 × 13 × 19.5cm (9.8 × 5.1 × 7.7in.)	350mL	200mL	550mL
<b>P9DS-2</b>	P9DS Complete System	Double-sided	14–16 × 16cm	25 × 13 × 19.5cm (9.8 × 5.1 × 7.7in.)	350mL	200mL	550mL
<b>P9DS-3</b>	P9DS Apparatus Only	Double-sided	14–16 × 16cm	25 × 13 × 19.5cm (9.8 × 5.1 × 7.7in.)	350mL	200mL	550mL

### Thermo Scientific Owl P9DS Dual Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description	Dimensions
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)	
<b>P9DS-006</b>	Blocking Plate	—
<b>P9DS-012</b>	Super Safe Lid with Attached Power Supply Leads	—
<b>P9-GK</b>	Orange replacement gaskets (1 pair)	—
<b>P9-CL</b>	Side clamps; pack of 2	—
<b>R10446</b>	Wing knob	—
<b>ST-10</b>	Sponge Tips (Pack of 10)	—
<b>P1-SC</b>	Spacer set (2 sides, 1 bottom)	1.0cmW x 0.8mm thickness
<b>P1-SD</b>	Spacer set (2 sides, 1 bottom)	1.0cmW x 1.5mm thickness
<b>P1-14R</b>	Notched glass	14cmL x 16cmW x 1/8" thickness
<b>P1-14G</b>	Blank glass	14cmL x 16cmW x 1/8" thickness
<b>P1-14FR</b>	Frosted notched glass	14cmL x 16cmW x 1/8" thickness
<b>P1-14FG</b>	Frosted blank glass	14cmL x 16cmW x 1/8" thickness
<b>P1-12G</b>	Offset glass	12cmL x 16cmW x 1/8" thickness



### Thermo Scientific Owl P9-Series Vertical Electrophoresis System Accessories

Cat. No.	Description	Gel Size (L × W)	Footprint (L × W × H)
<b>JGC-2</b>	Gel Casting System	14 × 16cm	17 × 18 × 15cm
<b>P1-CST</b>	Multiple Gradient Gel Caster	14 × 16cm	13 × 20 × 18cm

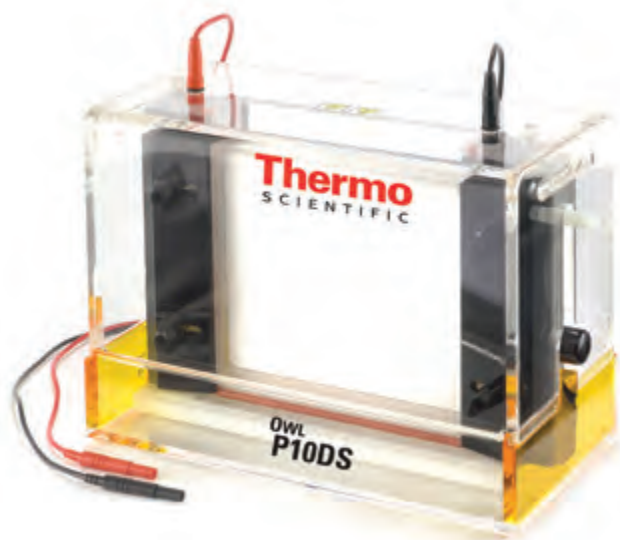
### Thermo Scientific Owl P9DS System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
<b>P1-10C</b>	Standard 10-tooth comb	0.8mm	10.4mm	138µL
<b>P1-10D</b>	Standard 10-tooth comb	1.5mm	10.4mm	343µL
<b>P1-15C</b>	Standard 15-tooth comb	0.8mm	6.1mm	107µL
<b>P1-15D</b>	Standard 15-tooth comb	1.5mm	6.1mm	201µL
<b>P1-20C</b>	Standard 20-tooth comb	0.8mm	3.9mm	69µL
<b>P1-20D</b>	Standard 20-tooth comb	1.5mm	3.9mm	129µL
<b>P1-24C</b>	Standard 24-tooth comb	0.8mm	2.9mm	51µL
<b>P1-24D</b>	Standard 24-tooth comb	1.5mm	2.9mm	96µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

## Thermo Scientific Owl P10DS Dual-Gel Vertical Electrophoresis Systems

Ideal for second dimension protocols of 2-D electrophoresis applications



- Optimal device for a large number of samples that need extended separation and mobility shift assays
- Casts and runs one or two 20 × 20cm gels in the upper buffer chamber
- Larger size cassette gives the maximum number of samples and separation length
- Manufactured using a time-tested acrylic fabrication technology, providing a durable, long-lasting system
- Central cooling core provides even cooling across the gel surface for outstanding resolution and clear banding
- Cooling is achieved by circulating fluid through the core with external circulator or cool tap water
- Very simple clamping mechanism makes loading glass cassettes and most manufacturers' precast gels trouble free

**Applications:** SDS electrophoresis, the second dimension of two-dimensional (2-D) electrophoresis, agarose electrophoresis and native electrophoresis

**Includes:** Complete System consists of Upper Buffer Chamber with Internal Cooling Core, Lower Buffer Chamber, SuperSafe® Lid with Attached Power Supply Leads, 4 Blank Glass Plates, 4 Notched Glass Plates, 4 Combs: (2) 15 Well and (2) 20 Well, 1.5mm Thick, 4 Spacer Sets: 1.5mm Thick, Blocking Plate for Single Gel Operation, and Spacer Placer

**Warranty:** Three years

**Certifications:** CE marked

Cat. No.	Description	Vertical System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume		
					Lower Buffer	Upper Buffer	Total
<b>P10DS-1</b>	P10DS Complete System plus Caster	Double-sided	20 × 20cm	30.5 × 16.5 × 23cm (12 × 6.5 × 9in.)	600mL	650mL	1250mL
<b>P10DS-2</b>	P10DS Complete System	Double-sided	20 × 20cm	30.5 × 16.5 × 23cm (12 × 6.5 × 9in.)	600mL	650mL	1250mL
<b>P10DS-3</b>	P10DS Apparatus Only	Double-sided	20 × 20cm	30.5 × 16.5 × 23cm (12 × 6.5 × 9in.)	600mL	650mL	1250mL

### Thermo Scientific Owl P10DS Dual Gel System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description	Dimensions
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)	—
<b>P10DS-006</b>	Blocking Plate	—
<b>P10DS-012</b>	Super Safe Lid with Attached Power Supply Leads	—
<b>P10-GK</b>	Orange replacement gaskets (1 pair)	—
<b>P10-CL</b>	Side Clamps (1 pair)	—
<b>R10446</b>	Wing knob	—
<b>ST-10</b>	Sponge Tips (Pack of 10)	—
<b>P2-SC</b>	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.8mm thickness
<b>P2-SD</b>	Spacer Set (2 sides, 1 bottom)	1.0cmW × 1.5mm thickness
<b>P2-20R</b>	Notched glass	20cmL × 20cmW × 3/16" thickness
<b>P2-20G</b>	Blank glass	20cmL × 20cmW × 3/16" thickness
<b>P2-20FR</b>	Frosted notched glass	20cmL × 20cmW × 3/16" thickness
<b>P2-20FG</b>	Frosted blank glass	20cmL × 20cmW × 3/16" thickness
<b>P2-18G</b>	Offset glass	18cmL × 20cmW × 3/16" thickness
<b>P10-20R</b>	Notched glass	20cmL × 20cmW × 1/8" thickness
<b>P10-20G</b>	Blank glass	20cmL × 20cmW × 1/8" thickness
<b>P10-18G</b>	Offset glass	20cmL × 18cmW × 1/8" thickness



### Thermo Scientific Owl P10-Series Vertical Electrophoresis System Accessories

Cat. No.	Description	Gel Size (L × W)	Footprint (L × W × H)
<b>JGC-3</b>	Gel Casting System	20 × 20cm	23 × 17 × 17cm
<b>P2-CST</b>	Gradient Gel Caster	20 × 20cm	13 × 25 × 23cm

### Thermo Scientific Owl P10-Series System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
<b>P2-10C</b>	Standard 10-tooth comb	0.8mm	13.6mm	239µL
<b>P2-10D</b>	Standard 10-tooth comb	1.5mm	13.6mm	449µL
<b>P2-15C</b>	Standard 15-tooth comb	0.8mm	8.2mm	144µL
<b>P2-15D</b>	Standard 15-tooth comb	1.5mm	8.2mm	271µL
<b>P2-20C</b>	Standard 20-tooth comb	0.8mm	5.5mm	97µL
<b>P2-20D</b>	Standard 20-tooth comb	1.5mm	5.5mm	182µL
<b>P2-25C</b>	Standard 25-tooth comb	0.8mm	3.9mm	69µL
<b>P2-25D</b>	Standard 25-tooth comb	1.5mm	3.9mm	129µL
<b>P2-PREP</b>	Prep comb with 2 teeth	1.5mm	151 / 5.0mm	4604 / 162µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

## Thermo Scientific Owl S4S Aluminum-Backed Sequencers

Easy setup with even heat distribution for “smile”-free results



- Floating aluminum heat sink reduces chance of plates cracking during runs
- Upper buffer chamber (UBC) requires minimal buffer and is easily drained via inline drain port into removable bottle
- Lower buffer chamber (LBC) is removable for simple buffer disposal
- Full-length side clamps press gel plates against gasket seated on UBC, applying even pressure across the entire plate providing a reliable, leakproof seal between the plate and gasket
- Clamps slide over glass plates for easy setup and removal of gels

**Includes:** UBC with removable drain bottle (with safety interlocking lid and attached power supply lead), removable LBC, anodized aluminum heat sink, two side clamps, two blank glass plates, two notched glass plates, two sharktooth combs (39 teeth, 0.4mm thick), Well comb (20 well, 0.4mm thick), 2 spacer sets (0.4mm)

**Warranty<sup>†</sup>:** Three years

**Certifications:** CE marked

Cat. No.	Vertical System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume		
				Lower Buffer	Upper Buffer	Total
<b>S4S</b>	Sequencing system	45 × 20cm	27 × 23 × 50cm	500mL	300mL	800mL

### Thermo Scientific Owl S4S Aluminum Backed Sequencer System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>S3S-CL</b>	Side Clamp (1 pair)
<b>R10384</b>	Buffer Drain Bottle
<b>S4S-GK</b>	Replacement Gasket
<b>ST-10</b>	Sponge Tips (Pack of 10)
<b>TEMP-5</b>	Adhesive Temperature Indicator (Pack of 5)
<b>STK-10</b>	Stopcocks (1 pair)
<b>S3S-KNOB</b>	Replacement Knob (Pack of 6)



### Thermo Scientific Owl Sequencing System Spacer Sets and Glass Plates

Cat. No.	Description	Dimensions
<b>S2S-SA4</b>	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.4mm thickness
<b>S2S-SA2</b>	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.2mm thickness
<b>S2S-SAW</b>	Wedge (Pack of 2)	1.0cmW × 0.4 - 0.8mm thickness
<b>S1S-45R</b>	Notched Glass	45cmL × 20cmW × 3/16" thickness
<b>S1S-45G</b>	Blank Glass	45cmL × 20cmW × 3/16" thickness
<b>S1S-43G</b>	Offset Glass	43cmL × 20cmW × 3/16" thickness



### Thermo Scientific Owl SGC-1 Sequencing Gel Casters

- Simple method permits bubble-free gels to be cast in less than three minutes
- Horizontal plate sliding procedure, capillary action drawing gel between plates, and surface tension keeps the gel from leaking.
- No taping or special assembly required
- Exposure to hazardous acrylamide is decreased, reducing cleanup time
- Fully adjustable to accommodate glass plates from 20 to 42cm wide

**Includes:** Adjustable casting platform, width adjustment knobs, 12 binder clamps

Cat. No.	Gel Size (L × W)	Footprint (L x W x H)
<b>SGC-1</b>	48 × 20-42cm	71 x 21 x 12.2cm (28 x 8.25 x 4.75in.)

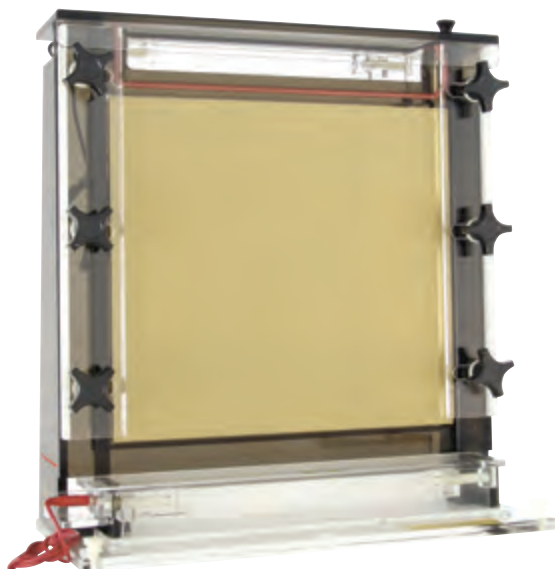
### Thermo Scientific Owl S4S System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
<b>S1S-20A</b>	20-tooth Well Comb	0.4mm	6.8mm	15µL
<b>S1S-30A</b>	30-tooth Well comb	0.4mm	4.1mm	9µL
<b>S1S-SHARK4</b>	39-tooth Sharktooth Comb	0.4mm	—	9µL
<b>S1S-SHARK2</b>	39-tooth Sharktooth Comb	0.2mm	—	5µL
<b>S1S-MT2</b>	36 (2X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	10µL
<b>S1S-MT3</b>	55 (3X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	5.5µL
<b>S1S-MT44</b>	73 (4X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	3.7µL
<b>S1S-MT42</b>	73 (4X)-tooth Sharktooth Micro-Well Comb	0.2mm	—	2.0µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

## Thermo Scientific Owl S3S Aluminum-Backed Sequencers

**Most common size for manual sequencing, providing the optimal size for separation**



- Floating aluminum heat sink reduces chance of plates cracking during runs
- Upper buffer chamber (UBC) requires minimal buffer and is easily drained via inline drain port into removable bottle
- Lower buffer chamber (LBC) is removable for simple buffer disposal
- Side clamps press gel plate against gasket seated on UBC applying even pressure across plate, forming a leakproof seal resulting in flat, even banding patterns
- Clamps slide over glass plates for easy setup and removal of gels

**Includes:** UBC with removable drain bottle (with safety interlocking lid and attached power supply lead), removable LBC, heat sink, two side clamps, two blank glass plates, two notched glass plates, two sharktooth combs (78 teeth, 0.4mm thick), well comb (40 well, 0.4mm thick), 2 spacer sets (0.4mm), Adhesive temperature indicator

**Warranty<sup>†</sup>:** Three years

**Certifications:** CE marked

Cat. No.	Vertical System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume		
				Lower Buffer	Upper Buffer Chamber	Total
<b>S3S</b>	Sequencing System	45 × 35cm	44 × 23 × 50cm	450mL	500mL	950mL

### Thermo Scientific Owl S3S Sequencer System Replacement Parts

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (Includes one black and one red lead)
<b>S3S-CL</b>	Side Clamp (1 pair)
<b>R10383</b>	Buffer drain bottle
<b>S3S-GK</b>	Replacement Gasket
<b>ST-10</b>	Sponge Tips (Pack of 10)
<b>TEMP-5</b>	Adhesive Temperature Indicator (Pack of 5)
<b>STK-10</b>	Stopcocks (1 pair)
<b>S3S-KNOB</b>	Replacement Knob (Pack of 6)

## Thermo Scientific Owl Sequencing System Spacer Sets and Glass Plates

Cat. No.	Description	Dimensions
<b>S2S-SA4</b>	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.4mm thickness
<b>S2S-SA2</b>	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.2mm thickness
<b>S2S-SAW</b>	Wedge (Pack of 2)	1.0cmW × 0.4 - 0.8mm thickness
<b>S2S-45R</b>	Notched Glass	45cmL × 35cmW × 3/16" thickness
<b>S2S-45G</b>	Blank Glass	45cmL × 35cmW × 3/16" thickness
<b>S2S-43G</b>	Offset glass	43cmL × 35cmW × 3/16" thickness



## Thermo Scientific Owl SGC-1 Sequencing Gel Casters

- Simple method permits bubble-free gels to be cast in less than three minutes
- Horizontal plate sliding procedure, capillary action drawing gel between plates, and surface tension keeps the gel from leaking, no taping or special assembly required
- Exposure to hazardous acrylamide is decreased, reducing cleanup time
- Fully adjustable to accommodate glass plates from 20 to 42cm wide

Cat. No.	Gel Size (L × W)	Footprint (L x W x H)
<b>SGC-1</b>	48 × 20-42cm	71 x 21 x 12.2cm (28 x 8.25x 4.75in.)

## Thermo Scientific Owl S3S System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
<b>S2S-20A</b>	40-tooth Well Comb	0.4mm	6.8mm	15µL
<b>S2S-30A</b>	60-tooth Well Comb	0.4mm	4.1mm	9µL
<b>S2S-SHARK4</b>	78-tooth Sharktooth Comb	0.4mm	—	9µL
<b>S2S-SHARK2</b>	78-tooth Sharktooth Comb	0.2mm	—	5µL
<b>S2S-MT2</b>	72 (2X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	10µL
<b>S2S-MT3</b>	110 (3X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	5.5µL
<b>S2S-MT44</b>	146 (4X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	3.7µL
<b>S2S-MT42</b>	146 (4X)-tooth Sharktooth Micro-Well Comb	0.2mm	—	2µL

† Customized combs are available (Order SKU # XCM). Please contact your Customer Service Representative for further details.

## Thermo Scientific Owl JGC-4, JGC-3, JGC-2 Gel Casting Systems

**Fast, unique way to cast polyacrylamide gels**



- Pouch collects excess polyacrylamide and seals bottom of gel, eliminating need for tape or bottom spacers
- Design allows storage of gels without dehydration by adding buffer and heat sealing
- Casts from one to four gels
- Few moving parts result in outstanding durability and extra long life

**Includes:** Casting stand with three-point leveling base, blocking plate, spacer placer, 25 gel pouches, clamping screws, bubble level and leveling screws

**Certifications:** CE marked

Cat. No.	Compatible With	Gel Size	L x W x H
<b>JGC-4</b>	Owl P8DS, P82, P81	10 × 10cm	13 × 13 × 11cm
<b>JGC-3</b>	Owl P10DS	20 × 20cm	23 × 17 × 17cm
<b>JGC-2</b>	Owl P9DS	14 × 16cm	17 × 18 × 15cm

### Thermo Scientific Owl JGC Gel Casting System Replacement Parts

Cat. No.	Description	Dimensions	For Use With
<b>GP4-100</b>	Gel Pouches; Pack of 100	10 × 10cm	JGC-4 Systems
<b>GP4-25</b>	Gel Pouches; Pack of 25	10 × 10cm	JGC-4 Systems
<b>JG4-PL</b>	Spacer Placer; Pack of 3	—	JGC-4 Systems
<b>JGC4-006</b>	Blocking Plate; Each	10 × 10cm	JGC-4 Systems
<b>GP3-100</b>	Gel Pouches; Pack of 100	20 × 20cm	JGC-3 Systems
<b>GP3-25</b>	Gel Pouches; Pack of 25	20 × 20cm	JGC-3 Systems
<b>JG3-PL</b>	Spacer Placer; Pack of 3	—	JGC-3 Systems
<b>JGC-003</b>	Blocking plate; Each	20 × 20cm	JGC-3 Systems
<b>GP2-100</b>	Gel Pouches; Pack of 100	14 × 16cm	JGC-2 Systems
<b>GP2-25</b>	Gel Pouches; Pack of 25	14 × 16cm	JGC-2 Systems
<b>JG2-PL</b>	Spacer Placer; Pack of 3	—	JGC-2 Systems
<b>JGC2-003</b>	Blocking Plate; Each	14 × 16cm	JGC-2 Systems
<b>R10013</b>	Leveling screws	1"L	JGC-4, JGC-3, JGC-2 Systems
<b>R10014</b>	Clamping screws	2"L	JGC-4, JGC-3, JGC-2 Systems



### Thermo Scientific Owl Gradient Gel Casters

#### Simultaneously casts from 1 to 5 gels

- Use external gradient maker to cast gels with ease and great reproducibility
- Gradient gels may be pumped in through port in base of caster—requires no external pump due to gravity pull
- Design and format of unit will provide years of service

**Includes:** Casting stand with base port, spacer plater, foam, acrylic spacer plates, four binder clamps, front plate, 2 wing knobs and blocking plate

Cat. No.	Description	Gel Size (L × W)	Footprint (L × W × H)	Compatible Owl Units
<b>P7-CST</b>	Gradient Gel Caster	10 × 10cm	15 × 13 × 13cm (5.8 × 5.1 × 5.1in.)	P81, P82, P8DS
<b>P1-CST</b>	Gel Caster	14 × 16cm	20 × 13 × 18cm (7.9 × 5.1 × 7in.)	P9DS
<b>P2-CST</b>	Gel Caster	20 × 20cm	25 × 13 × 23cm (9.8 × 5.1 × 9in.)	P10DS



### Thermo Scientific Owl SGC Sequencing Gel Casters

#### Simple method that allows bubble-free gels to be cast in less than three minutes

- Horizontal plate sliding procedure, capillary action drawing gel between plates, and surface tension, keeps the gel from leaking, no taping or special assembly required
- Exposure to hazardous acrylamide is decreased, reducing cleanup time
- Available in two lengths: 48 or 65.5cm
- Fully adjustable to accommodate glass plates from 20 to 42cm wide

**Includes:** Adjustable casting platform, width adjustment knobs, 12 binder clamps

Cat. No.	Plate Size (L × W)	L x W x H	Compatible Owl Units
<b>SGC-1</b>	48 × 20-42cm	71 x 21 x 12.2cm (28 x 8.25x 4.75in.)	S4S, S3S
<b>SGC-2</b>	65.5 × 20-42cm	102 x 21 x 12.2cm (40 x 8.25 x 4.75in.)	S4S, S3S

### Thermo Scientific Owl Accessories for CST Multiple Gradient Gel Casters

Cat. No.	Description
<b>CL-12</b>	Binder clamps (pk. of 12)
<b>CL-125</b>	Stainless-steel clamps (pk. of 12)



### Thermo Scientific Owl Gel-Drying Kits

#### Convenient method of preserving protein gels by air drying them between two sheets of cellophane

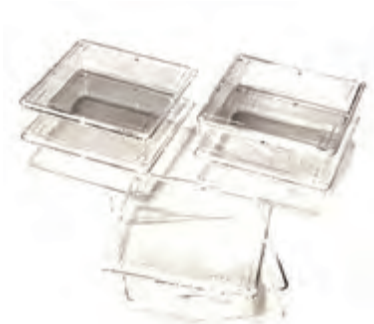
- Preserves protein gels easily and economically, while eliminating distortion problems common in other drying procedures
- Available in minigel and large format sizes
- Beveled-edge design of gel-drying frame makes assembly easy

**Includes:** Complete kits include two sets of gel-drying frames, 50 sheets of precut cellophane, two solid back plates, and eight side clips; frames and cellophane are also available separately

Cat. No.	Description	L x W
<b>GDF-10</b>	Gel-Drying Kit, Minigel Format	14 x 14cm
<b>GDF-20</b>	Gel-Drying Kit, Large Format	24 x 24cm

### Thermo Scientific Owl Gel Drying Kit Accessories

Cat. No.	Description	L x W
<b>GDF-3</b>	Gel drying frame, Minigel	14 x 14cm
<b>GDF-1</b>	Gel drying frame, Large	24 x 24cm
<b>CM10</b>	Precut Cellophane; 50 sheets	14 x 14cm
<b>CM20</b>	Precut Cellophane; 50 sheets	24 x 24cm



### Thermo Scientific Owl Gel Staining Box

#### Permits staining, fixing and destaining in the same container

- Resistant to most organic dyes, silver and other stains.
- Holds up to 125mL of liquid and one gel when used on a shaking platform
- Grooved lid enables proper orientation and stability when stacking
- Made of clear plastic, so gels can be viewed directly in the tray

**Ordering Information:** Package of 5

Cat. No.	Exterior Dimension L x W x H	Capacity
<b>GSB-3</b>	11 x 11 x 3cm	125mL

### Thermo Scientific Owl Blotting Paper

#### High-quality blotting paper ideal for wicking and blotting applications

- Provides sufficient thickness to absorb adequate amounts of buffer for semi-dry electroblotting without the loss of mechanical stability
- Available in pre-cut mini gel and large format gel sizes
- Compatible with Owl electroblotting systems

Cat. No.			Material	Weight	Thickness	Flowrate
<b>FP-1</b>	20 x 20cm	HEP-1	100% cotton fiber	183g/m <sup>2</sup>	0.83mm	35mL/min.
<b>FP-2</b>	35 x 45cm	HEP-3				
<b>FP-3</b>	46 x 57cm	—				
<b>FP-4</b>	10 x 10cm	HEP-1, VEP-2				
<b>FP-5</b>	18 x 20cm	HEP-1, VEP-3				
<b>FP-6</b>	9 x 9cm	HEP-1, VEP-3				
<b>FP-7</b>	12 x 16cm	HEP-1				





### Thermo Scientific Owl Transfer Membranes

#### Hydrophobic membranes that are ideal for Western blotting

- Thermo Scientific offers Immobilon\*-P, PVDF transfer membrane
- This membrane provides the highest signal-to-noise ratio, which allows the use of mild blocking procedures
- Immobilon-P has high protein retention; is compatible with all standard visualization methods; and can be used for protein sequencing
- Immobilon is available in minigel and large-format gel sizes

Cat. No.	Format	Membrane Size
<b>TM151-1</b>	Roll, 26.5cm × 3.75m	26.5cm × 3.75m
<b>TM151-4</b>	Sheets (Pack of 10)	15 × 15cm
<b>TM151-5</b>	Sheets (Pack of 10)	10 × 10cm



### Thermo Scientific Owl RF-3 Filing System

#### Ideal for organizing your refrigerator, coldroom, freezer or benchtop

- Eight compartments constructed of durable 0.64cm thick acrylic
- No skid rubber feet prevent sliding
- Use either vertically or horizontally

**Notes:** Microtube racks are not included

Cat. No.	Array	Compartments	Material	Exterior L × W × H	Interior L × W × D
<b>RF-3</b>	2 × 4	8	Sturdy 0.25" thick acrylic	6 × 9 × 12"	2.625 × 2.625 × 8.875"



### Thermo Scientific Owl Pipet Holder

#### Designed to hold standard glass and disposable pipets in square or round cans

Cat. No.	Description	Material	Exterior L × W × H	Interior L × W × H
<b>PCH-1</b>	Pipet Holder	Sturdy 0.25" thick acrylic	13.5 × 11.5 × 16"	3 × 3 × 11.25"

## Thermo Scientific Owl Survey Detectors

Provides detection of isotopes most commonly used in the lab



- Each meter provides a standard scale of 0 to 5KCPM and reads both CPM and REM
- Meters have a counting range of 0.1X, 1X, 10X and 100X and will provide external calibration plots
- A built-in speaker, clip-on probe handle, and strain relief cable maximize ease of use
- Each meter is factory calibrated to ensure accuracy
- Models for the detection of beta or low-energy gamma radiation are available
- Choose beta detectors in thin-end or pancake styles

**Required Accessories:** Meters require two "D" batteries, which will provide approximately 200 hours of use  
**Certifications:** CE marked

Cat. No.	Description	Indicated Use	Window (mg/cm <sup>2</sup> )	Active Window (cm <sup>2</sup> )
<b>SM-1</b>	Thin-end beta detector with meter	xβ-	1.7±0.3 (mica)	approx. 6.4
<b>SM-1-DET</b>	Thin-end beta detector only	xβ-	1.7±0.3 (mica)	approx. 6.4
<b>SM-2</b>	Pancake beta detector with meter	xβ-	1.7±0.3 (mica)	approx. 15.5
<b>SM-2-DET</b>	Pancake beta detector only	xβ-	1.7±0.3 (mica)	approx. 15.5
<b>SM-3</b>	Gamma scintillator with meter	low energy γ	14	5.0
<b>SM-3-DET</b>	Gamma scintillator only	low energy γ	14	5.0

## Thermo Scientific Owl EC-105 Compact Power Supply

Ideal for DNA and RNA electrophoresis



- Equipped with an over current detector for maximum safety
- Easy-to-use power supply operates in constant voltage
- The adjustment knob and hi-lo range switch control the output, which is variable in 10V increments from 20V to 250V
- Two-position switch toggles the bright LED display from indicating output voltage to output current
- The supply is also equipped with an over current detector for maximum safety and has two jacks

**Warranty<sup>†</sup>:** 1 year  
**Certifications:** CE marked

Cat. No.	Maximum Voltage	Max. Current	No. of Jacks	Display Modes	L × W × H	Electrical
105ECA-115	250V	300mA @ 150-250V; 500mA below 150V	1	Voltage or current	15 × 20 × 11cm (6 × 8 × 4.5in.)	115V/60Hz
105ECA-LVD	250V	300mA @ 150-250V; 500mA below 150V	1	Voltage or current	15 × 20 × 11cm (6 × 8 × 4.5in.)	230V/50Hz

Cat. No.	Description
112ECA	250V Power Supply Timer

## Thermo Scientific Owl EC-300XL2 Compact Power Supply

Simple-to-use, multi-purpose, lightweight and great for DNA/RNA and Pprotein electrophoresis



- Power-off memory retains settings after shut-down
- Stackable design saves benchtop space
- Soft-touch key pad allows quick set-up
- Designed for safety
- Non-skid rubber feet provide stability

**Warranty<sup>†</sup>:** 1 year  
**Certifications:** CE marked

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L × W × H	Electrical
EC300XL	300V	400mA	3	Voltage or current	0-999 min.	26 × 14 × 13.3cm (10.25 × 5.5 × 5.25in.)	120V 50/60Hz
EC300XL2	300V	400mA	3	Voltage or current	0-999 min.	26 × 14 × 13.3cm (10.25 × 5.5 × 5.25in.)	230V 50/60Hz

## Thermo Scientific Owl EC-200XL High Current Power Supply

Simple-to-use, multi-purpose, lightweight and great for DNA/RNA, protein and blotting electrophoresis



- Power-off memory retains settings after shut-down
- Stackable design saves benchtop space
- Soft-touch key pad allows quick set-up
- Designed for safety
- Non-skid rubber feet provide stability

**Warranty<sup>†</sup>:** 1 year  
**Certifications:** CE marked

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L × W × H	Electrical
<b>EC200XL</b>	200V	2000mA	4	Voltage or current	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	120V 50/60Hz
<b>EC200XL2</b>	200V	2000mA	4	Voltage or current	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	230V 50/60Hz

## Thermo Scientific Owl EC-1000XL Programmable Power Supply

Great for DNA/RNA, protein and blotting electrophoresis



- Power-off memory retains settings after shut-down
- Offers constant power mode
- Stackable design saves benchtop space
- Soft-touch key pad allows quick set-up
- Designed for safety
- Non-skid rubber feet
- Easy to operate

**Warranty<sup>†</sup>:** 1 year  
**Certifications:** CE marked

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L × W × H	Electrical
<b>EC1000XL</b>	1000V	500mA	4	Voltage, current, or power	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	120V 50/60Hz
<b>EC1000XL2</b>	1000V	500mA	4	Voltage, current, or power	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	230V 50/60Hz

## Thermo Scientific Owl EC-3000XL Programmable Power Supply

Simple-to-use, multi-purpose and lightweight



- Power-off memory retains settings after shut-down
- Offers constant power mode
- Stackable design saves benchtop space
- Soft-touch key pad allows for quick set-up
- Designed for safety
- Non-skid rubber feet

**Warranty<sup>Y</sup>:** 1 year  
**Certifications:** CE marked

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L × W × H	Electrical
<b>EC3000XL</b>	3000V	400mA	4	Voltage, current, or power	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	120V 50/60Hz
<b>EC3000XL2</b>	3000V	400mA	4	Voltage, current, or power	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	230V 50/60Hz

### Thermo Scientific Owl Power Supply Leads

- Power supply leads include a retractable sheath end for convenience and safety
- Power supply leads are manufactured with strain relief cord to prevent breakage

Cat. No.	Description
<b>PSL-5</b>	Power supply leads, 3 ft. (includes one black and one red lead)

# furnaces

pages 65-89





## Thermo Scientific Thermolyne Small Benchtop Muffle Furnaces

**Fast heatup and excellent energy efficiency – ideal for ashing most types of organic and inorganic samples, heat treating small steel parts, performing ignition tests, conducting gravimetric analysis and for the determination of volatile and suspended solids**



- Available in two capacities and reaches a maximum temperature of 1100°C
- Digital single setpoint temperature control to 1100°C
- Single display shows actual temperature or setpoint
- Ceramic fiber insulation permits faster heatup, reducing energy consumption
- Embedded heating element on top and both sides improves temperature uniformity
- Drop-down door doubles as a shelf for loading and unloading
- Door safety switch stops power to heating elements when door is opened
- Thermocouple break protection cuts power to heating elements, preventing failure runaway condition
- 0.95cm (0.38in.) diameter port in chamber rear for monitoring temperatures with independent measuring devices

**Ordering Information:** Replacement heating elements and thermocouples available separately

**Includes:** Thermocouple, line cord, and 1 hearth tray

**Warranty<sup>Y</sup>:** 1 year (parts and labor)

**Certifications:** All units CSA approved, -33 units also CE marked

Cat. No.	Capacity	Temp. Range	Temp. Stability (Uniformity)	Interior D x W x H	Exterior L x W x H	Electrical	Shipping Weight
<b>FB1315M</b>	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 x 10.3 x 9.8cm (5 x 4 x 3.8in.)	33 x 23 x 36cm (13 x 9 x 14in.)	120V 50/60Hz 1060w	9kg (20 lb.)
<b>FB1318M</b>	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 x 10.3 x 9.8cm (5 x 4 x 3.8in.)	33 x 23 x 36cm (13 x 9 x 14in.)	208V 50/60Hz 1060w	9kg (20 lb.)
<b>FB1310M</b>	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 x 10.3 x 9.8cm (5 x 4 x 3.8in.)	33 x 23 x 36cm (13 x 9 x 14in.)	240V 50/60Hz 1060w	9kg (20 lb.)
<b>FB1314M</b>	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 x 10.3 x 9.8cm (5 x 4 x 3.8in.)	33 x 23 x 36cm (13 x 9 x 14in.)	100V 50/60Hz 1060w	9kg (20 lb.)
<b>FB1310M-33</b>	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 x 10.3 x 9.8cm (5 x 4 x 3.8in.)	33 x 23 x 36cm (13 x 9 x 14in.)	240V 50/60Hz 1060w	9kg (20 lb.)
<b>FB1415M</b>	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 x 12.7 x 10.8cm (6 x 5 x 4.25in.)	40 x 25 x 37cm (15.8 x 10 x 14.5in.)	120V 50/60Hz 1450w	12.7kg (28 lb.)
<b>FB1418M</b>	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 x 12.7 x 10.8cm (6 x 5 x 4.25in.)	40 x 25 x 37cm (15.8 x 10 x 14.5in.)	208V 50/60Hz 1520w	12.7kg (28 lb.)
<b>FB1410M</b>	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 x 12.7 x 10.8cm (6 x 5 x 4.25in.)	40 x 25 x 37cm (15.8 x 10 x 14.5in.)	240V 50/60Hz 1520w	12.7kg (28 lb.)
<b>FB1410M-33</b>	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 x 12.7 x 10.8cm (6 x 5 x 4.25in.)	40 x 25 x 37cm (15.8 x 10 x 14.5in.)	240V 50/60Hz 1520w	12.7kg (28 lb.)
<b>FB1414M</b>	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 x 12.7 x 10.8cm (6 x 5 x 4.25in.)	40 x 25 x 37cm (15.8 x 10 x 14.5in.)	100V 50/60Hz 1450w	12.7kg (28 lb.)

-33 units available with plug for China: please add "CN" at the end of the Cat. No.

### Hearth Trays

Cat. No.	For Use With
<b>PH44X1</b>	FB1300 Furnace
<b>PH48X1</b>	FB1400 Muffle Furnace



## Thermo Scientific Thermolyne Industrial Benchtop Muffle Furnaces

### Rugged design with multiple safety features and choice of two temperature control options



- Reaches 1200°C maximum temperature
- Heavy-duty firebrick insulation surrounds the opening for added durability
- Adjustable alarm or Over-temperature Protection (OTP) setting can be used to protect the furnace or loaded chamber from excessive heat
- Thermocouple break protection cuts power to the heating elements, preventing a thermocouple failure runaway condition
- Counter-weighted door swings upward, directing heat away from operator
- Four individual embedded elements in special refractory cement permit excellent heat distribution in the chamber
- Door safety switch protects operator by removing power to the heating elements upon opening the door
- Rear-mounted 0.38in. (0.95cm) diameter port for monitoring chamber temperatures with independent measuring devices
- LED display simultaneously shows both setpoint and actual furnace temperatures in either °C or °F (programmable models only)

#### Single-setpoint Controller (B1)

- Single ramp to setpoint and a dwell
- Single display shows actual temperature or setpoint

#### 8-step Programmable Controller (C1)

- Ramps to vary heat-up rate and dwell cycles to hold temperature at set levels from 0.1 to 999.9 minutes
- “Holdback” feature “holds” program until furnace temperature heats up or cools down to preprogrammed parameters — program will never outrun furnace performance

**Includes:** Furnace, Platinel® II thermocouple and a ceramic hearth tray (Cat No. PHX2) to protect the bottom heating element  
**Warranty\*:** 1 year (parts and labor)  
**Certifications:** All units cUL, UL listed  
**Notes:** 120V models require power cord and hardwiring. 240V models include a power cord

**NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Temp. Range	Control	Interior D x W x H	Exterior L x W x H	Electrical	Shipping Weight
<b>FD1535M</b>	2.2L (0.08 cu. ft.)	100° to1200°C	B1	22.8 x 10.1 x 9.5cm (9 x 4 x 3.75in.)	45.7 x 27.9 x 41.9cm (18 x 11 x 16.5in.)	120V 50/60Hz, 18.6A 2230w	23.5kg (52 lb.)
<b>FD1530M*</b>	2.2L (0.08 cu. ft.)	100° to1200°C	B1	22.8 x 10.1 x 9.5cm (9 x 4 x 3.75in.)	45.7 x 27.9 x 41.9cm (18 x 11 x 16.5in.)	240V 50/60Hz, 9.3A 2230w	23.5kg (52 lb.)
<b>FD1545M</b>	2.2L (0.08 cu. ft.)	100° to1200°C	C1	22.8 x 10.1 x 9.5cm (9 x 4 x 3.75in.)	45.7 x 27.9 x 41.9cm (18 x 11 x 16.5in.)	120V 50/60Hz, 18.6A 2230w	23.5kg (52 lb.)
<b>FD1540M*</b>	2.2L (0.08 cu. ft.)	100° to1200°C	C1	22.8 x 10.1 x 9.5cm (9 x 4 x 3.75in.)	45.7 x 27.9 x 41.9cm (18 x 11 x 16.5in.)	240V 50/60Hz, 9.3A 2230w	23.5kg (52 lb.)
<b>FD1530M-33</b>	2.2L (0.08 cu. ft.)	100° to1200°C	B1	22.8 x 10.1 x 9.5cm (9 x 4 x 3.75in.)	45.7 x 27.9 x 41.9cm (18 x 11 x 16.5in.)	240V 50/60Hz, 6.5A 1560w	23.5kg (52 lb.)
<b>FD1540M-33</b>	2.2L (0.08 cu. ft.)	100° to1200°C	C1	15.2 x 12.7 x 10.8cm (6 x 5 x 4.25in.)	40 x 25 x 37cm (15.8 x 10 x 14.5in.)	240V 50/60Hz, 6.5A 1560w	12.7kg (28 lb.)

\*available with plug for China: please add “CN” at the end of the Cat. No.

#### Hearth Trays

Cat. No.	D x W x H
<b>PHX1</b>	8.2 x 10.1 x 1.27cm (3.25 x 4 x 0.5in.)
<b>PHX2</b>	20.3 x 9.6 x 1.9cm (8 x 3.8 x 0.75in.)

## Thermo Scientific Thermolyne Benchtop Muffle Furnaces

Ideal for general laboratory use, including gravimetric analysis, sintering, quantitative analysis and heat treating



**Includes:** Power cord and one hearth tray, F48000 models also include a ceramic shelf (SH480X1)  
**Warranty:** 1 year (parts and labor)  
**Certifications:** CSA approved, CE marked as indicated

- Reaches a 1200°C maximum temperature
- Available in two capacities for added flexibility
- Built-in vent port removes contaminants and moisture to extend the life of the heating element and furnace
- For added protection, the door safety switch stops power to heating elements when door opens
- Thermocouple break protection cuts power to heating elements, preventing a thermocouple failure runaway condition
- Two open coil heating elements on chamber sides assure fast heat-up with minimum temperature gradient
- Thermal-efficient ceramic insulation surrounds chamber for maximum energy efficiency
- 0.312in. dia. port for monitoring chamber temperatures with independent measuring device at rear of chamber

### F47900, F48000 Models

- F47900 models have 2L chamber capacity, F48000 models have 5L chamber capacity

### Choice of Temperature Controllers

- Furnaces that use B, C or D control also use a mechanical over-temperature protection relay
- **A1:** Digital single setpoint control; single display shows actual temperature or setpoint
- **B1:** Digital single setpoint control with a single ramp to setpoint and a dwell; single display shows actual temperature or setpoint; mechanical over-temperature protection relay is included
- **C1:** Digital programmable control with one stored program of 8 segments; mechanical over-temperature protection relay is included
- **D1:** Digital programmable control with 4 stored programs, 16 segments per program, and RS-232 communications interface; mechanical over-temperature protection relay is included

### Accessories

Cat. No.	Description	For Use With
PH479X1	Hearth Tray, 15.2 x 14.3 x 0.95cm	F47900 Muffle Furnace
SH480X1	Ceramic Shelf, 17.4 x 17.3 x 1.2cm	F48000 Muffle Furnace
PH480X1	Hearth Tray, 25.4 x 19.3 x 0.95cm	F48000 Muffle Furnace
AY408X1A	Stainless Steel Exhaust Tubing Kit, 2.5in. ID x 60in. L	Atmosphere Controlled Ashing and Muffle Furnaces

Cat. No.	Capacity	Temp. Range	Interior D x W x H	Exterior L x W x H	Control	Electrical	Shipping Weight
<b>F47910‡</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	A1	240V 50/60Hz 1000w 4.2 A	18.5kg (41 lb.)
<b>F47910-33†</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	A1	240V 50/60Hz 1000w 4.2 A	18.5kg (41 lb.)
<b>F47914</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	A1	100V 50/60Hz 750W 7.5A	18.5kg (41 lb.)
<b>F47915‡</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	A1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
<b>F48010‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	A1	240V 50/60Hz 1800w 7.5A	27.2kg (60 lb.)
<b>F48010-33†</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	A1	240V 50/60Hz 1560w 6.5A	27.2kg (60 lb.)
<b>F48015-60‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	A1	120V 50/60Hz 1800w 15A	27.2kg (60 lb.)
<b>F48018‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	A1	208V 50/60Hz 1560w 7.5A	27.2kg (60 lb.)
<b>F47920‡</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	B1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
<b>F47920-33†</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	B1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
<b>F47924</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	B1	100V 50/60Hz 750w 7.5A	18.5kg (41 lb.)
<b>F47925</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	B1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
<b>F48020 -DB‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	B1	240V 50/60Hz 1800w 7.5A	18.5kg (41 lb.)
<b>F48020-33†</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	B1	240V 50/60Hz 1560w 6.5A	27.2kg (60 lb.)
<b>F48028‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	B1	208V 50/60Hz 1560W 7.5A	27.2kg (60 lb.)
<b>F48025-60‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	B1	120V 50/60Hz 1800w 15.0A	27.2kg (60 lb.)
<b>F47920-80</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	C1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
<b>F47920-33-80†</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	C1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
<b>F47924-80</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	C1	100V 50/60Hz 750w 7.5A	18.5kg (41 lb.)
<b>F47925-80</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	C1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
<b>F48020-80</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	C1	240V 50/60Hz 1800w 7.5A	27.2kg (60 lb.)
<b>F48020-33-80†</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	C1	240V 50/60Hz 1800w 6.5A	27.2kg (60 lb.)
<b>F48025-60-80‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	C1	120V 50/60Hz 1800w 15.0A	27.2kg (60 lb.)
<b>F48028-80</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	C1	208V 50/60Hz 1560w 7.5A	27.2kg (60 lb.)
<b>F47950‡</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	D1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
<b>F47950-33†</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	D1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
<b>F47954</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	D1	100V 50/60Hz 750w 7.5A	18.5kg (41 lb.)
<b>F47955</b>	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 x 13.7 x 10cm (6 x 5 x 4in.)	39 x 28.5 x 47cm (15.5 x 11.3 x 18.5in.)	D1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
<b>F48050-33†</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	D1	240V 50/60Hz 1800w 6.5A	27.2kg (60 lb.)
<b>F48050‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	D1	240V 50/60Hz 1800w 7.5A	27.2kg (60 lb.)
<b>F48055-60‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	D1	120V 50/60Hz 1800w 15.0A	27.2kg (60 lb.)
<b>F48058‡</b>	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 x 18 x 13cm (10 x 7 x 5in.)	50 x 34 x 19cm (19.5 x 13.3 x 19in.)	D1	208V 50/60Hz 1560w 7.5A	27.2kg (60 lb.)

† CE marked; ‡ CSA listed; -60 models include 20-amp cord.  
-33 units available with plug for China: please add "CN" at the end of the Cat. No.  
-60 models having a 20-amp power cord.

## Thermo Scientific Thermolyne Premium Large Muffle Furnaces

**Robust design and choice of four temperature controllers, ideal for industrial applications including ashing organic and inorganic samples and conducting gravimetric analysis**



**Includes:** Models F6010 and F6018 include a cord and plug set  
**Required Accessories:** All models except F6010 and F6018 require hardwiring  
**Warranty:** 1 year (parts and labor)  
**Certifications:** All units CSA approved, -33 units also CE marked

- Spacious 14L (0.5 cu. ft.) capacity and reaches a maximum of 1200°C
- Four heating elements are located on the chamber top, bottom and sides for enhanced temperature uniformity
- Built-in vent port removes undesirable contaminants and moisture to extend the life of the element and unit
- Rear of the chamber incorporates a 0.312 in. diameter port for monitoring chamber temperatures with independent measuring devices
- Optional stainless-steel shelf doubles load capacity (maximum temperature of 900°C)
- Door safety switch stops power to heating elements when door opens
- Thermocouple break protection cuts power to the heating elements, preventing a thermocouple failure runaway condition
- Furnaces with B1, C1, and D1 control also use a mechanical over-temperature protection relay

### Choice of Temperature Controllers

- **A1:** Digital single setpoint control; single display shows actual temperature or setpoint
- **B1:** Digital single setpoint control with single ramp to setpoint and a dwell; single display shows actual temperature or setpoint
- **C1:** Digital programmable control with one stored program of eight segments
- **D1:** Digital programmable control with four stored programs, 16 segments per program and Controller includes RS-232 communications

Cat. No.	Capacity	Temp. Range	Temp. Stability/Uniformity at 1000°C	Interior D x W x H	Exterior L x W x H	Control	Electrical	Shipping Weight
<b>F6018</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±0.3°C ±2.2°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	A1	208V 50/60Hz 11.2A 2325w	60.8kg (134 lb.)
<b>F6010*</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±0.3°C ±2.2°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	A1	240V 50/60Hz 12.9A 3095w	60.8kg (134 lb.)
<b>F6028C</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	B1	208V 50/60Hz 19.2A 4000w	60.8kg (134 lb.)
<b>F6020C</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	B1	240V 50/60Hz 18.3A 4400w	60.8kg (134 lb.)
<b>F6020C-33</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	B1	240V 50/60Hz 18.3A 4400w	60.8kg (134 lb.)
<b>F6028C-80</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	C1	208V 50/60Hz 19.2A 4000w	60.8kg (134 lb.)
<b>F6020C-80</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	C1	240V 50/60Hz 18.3A 4400w	60.8kg (134 lb.)
<b>F6020C-33-80</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	C1	240V 50/60Hz 18.3A 4400w	60.8kg (134 lb.)
<b>F6038CM</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	D1	208V 50/60Hz 19.3A 4000w	60.8kg (134 lb.)
<b>F6030CM</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	D1	240V 50/60Hz 18.3A 4400w	60.8kg (134 lb.)
<b>F6030CM-33</b>	14L (0.5 cu.ft.)	100° to 1200°C (212° to 2192°F)	±1.5°C ±4.5°C	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 48.5 x 53.3cm (20.1 x 19.1 x 21in.)	D1	240V 50/60Hz 18.3A 4400w	60.8kg (134 lb.)

\* available with plug and cord for China: order F6010CN

### Accessories

Cat. No.	Description
<b>JSX16</b>	Shelf Pegs (4 required)
<b>PH177X1</b>	Hearth Tray, 22.9 x 27.3 x 1.9cm (one per chamber floor)
<b>PHX1</b>	Hearth Tray, 8.2 x 10.1 x 1.27cm (up to 9 per chamber floor in 3x3 pattern)
<b>SH408X1</b>	Stainless-steel Shelf (requires 4 shelf pegs)

## Thermo Scientific Thermolyne Largest Tabletop Muffle Furnaces

Ideal for safe operation with a range of applications including annealing glass, determinations of volatiles, catalyst research and ashing organic and inorganic samples



- Triple the usable working area using two supplied accessory refractory shelves with optional hearth tray
- Advanced LED digital-set/digital-display temperature controller is microprocessor-controlled
- LED display simultaneously shows both setpoint and actual furnace temperatures in °C or °F
- User-selectable over-temperature protection
- Open thermocouple protection
- Chamber has five shelf positions

### Safety and Design Features

- Heating elements are on chamber top, bottom and sides for enhanced temperature uniformity
- Built-in vent port removes undesirable contaminants and moisture to extend the life of the element and unit
- Rear of chamber incorporates a 0.25in. diameter port for monitoring chamber temperatures with independent measuring devices
- Critical electronic components and heating elements are protected by a 35A circuit breaker
- Door safety switch stops power to the heating elements when door opens

### Choice of Temperature Controllers

- Furnaces that use B1, C1 or D1 control also use a mechanical Over-temperature Protection relay
- **B1:** Digital single setpoint control with a single ramp to setpoint and dwell; single display shows actual temperature or setpoint
- **C1:** Digital programmable control with one stored program of 8 segments
- **D1:** Digital programmable control with 4 stored programs, 16 segments per program, and RS-232 communications interface

**Warranty<sup>1</sup>:** 1 year (parts and labor)  
**Certifications:** All units CSA approved, -33 units also CE marked

Required power cord and hardwiring not included.

Cat. No.	Capacity	Temp. Range	Temp. Stability and Uniformity	Interior D x W x H	Exterior L x W x H	Control	Electrical	Shipping Weight
<b>F30428C</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	B1	208V 50/60Hz 26.4A 5500w	117.9kg (260 lb.)
<b>F30420C</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	B1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
<b>F30420C-33</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	B1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
<b>F30428C-80</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	C1	208V 50/60Hz 26.4A 5500w	117.9kg (260 lb.)
<b>F30420C-80</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	C1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
<b>F30420C-33-80</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	C1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
<b>F30438CM</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	D1	208V 50/60Hz 26.4A 5500w	117.9kg (260 lb.)
<b>F30430CM</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	D1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
<b>F30430CM-33</b>	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 x 36 x 36cm (14 x 14 x 14in.)	64.7 x 54.6 x 74.9cm (25.5 x 21.5 x 29.5in.)	D1	208V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)

### Accessories

Cat. No.	Description	D x W x H
<b>PH146X1</b>	Hearth Tray	17.1 x 14.9 x 1.9cm (6.75 x 5.9 x 0.75in.)
<b>SH412X1</b>	Shelf - max weight 11.3 kg (25 lbs)	35.2 x 25.4 x 1.27cm (13.87 x 10 x 0.56in.)
<b>AY408X1A</b>	Exhaust Tubing Kit	—



# Thermo Scientific Thermolyne Atmosphere Controlled Ashing Furnaces

## Ideal for coal and coke ashing procedures



- Reaches 975°C with the standard stainless-steel manifold and 1093°C with the optional inconel manifold
- Adjustable gas flowmeter/valve (0-80L/min.) on front for easy access when adjusting the airflow rate
- Stainless-steel manifold at rear chamber prewarms incoming gases, provides a maximum temperature gradient of only  $\pm 3^{\circ}\text{C}$  at 750°C
- Chamber rear has a 0.25in. diameter port for monitoring chamber temperatures with independent measuring devices
- Includes hose barb (in back of chamber) for inert gas line with tubing 0.64cm (0.25 in.) I.D. and 0.96cm (0.375in.) O.D

### Type F6000

- Includes two dual-purpose stainless-steel trays and one handle. Each tray can accommodate 24 (30mL) porcelain crucibles or 38 (10mL) quartz crucibles

### Type F6000-80 programmable models

- Meet ASTM<sup>®</sup> D3174 specifications: 3 to 4 air exchanges per min.
- Can be programmed to norm: "Heating rate of 8°C/min. to 500°C, 6°C/min. from 500° to 750°C, Hold at 750°C for two hours, then turn off automatically"

**Warranty<sup>†</sup>:** 1 year (parts and labor)  
**Certifications:** CSA certified, CE marked as indicated  
 Required power cord and hardwiring not included.

Cat. No.	Capacity	Maximum Temp.	Holds	Interior D x W x H	Exterior L x W x H	Control	Electrical
<b>F6020C-33-60†</b>	14L (0.5 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 49 x 53cm (20 x 19.1 x 21in.)	Digital single setpoint with ramp and dwell (B1)	240V, 18.3A 4400w
<b>F6028C-60†</b>	14L (0.5 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 49 x 53cm (20 x 19.1 x 21in.)	Digital single setpoint with ramp and dwell (B1)	208V, 19.2A 4000w
<b>F6020C-33-60-80†</b>	14L (0.5 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 49 x 53cm (20 x 19.1 x 21in.)	Digital programmable with 1 program, 8 segments (C1)	240V, 18.3A 4400w
<b>F6028C-60-80</b>	14L (0.5 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 49 x 53cm (20 x 19.1 x 21in.)	Digital programmable with 1 program, 8 segments (C1)	208V, 19.2A 4000w
<b>F6030CM-33-60†</b>	14L (0.5 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	25 x 33 x 18cm (10 x 12.8 x 6.8in.)	51 x 49 x 53cm (20 x 19.1 x 21in.)	Digital programmable with 4 programs, 16 segments each (D1)	240V, 18.3A 4400w
<b>F30420C-60-80†</b>	45L (1.6 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	36 x 36 x 36cm (14 x 14 x 14in.)	65 x 55 x 75cm (25.5x 21.5 x 29.5in.)	Digital programmable with 1 program, 8 segments (C1)	240V, 22.9A 5500w
<b>F30420-33-60-80†</b>	45L (1.6 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	36 x 36 x 36cm (14 x 14 x 14in.)	65 x 55 x 75cm (25.5x 21.5 x 29.5in.)	Digital programmable with 1 program, 8 segments (C1)	240V, 22.9A 5500w
<b>F30428C-60-80†</b>	45L (1.6 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	36 x 36 x 36cm (14 x 14 x 14in.)	65 x 55 x 75cm (25.5x 21.5 x 29.5in.)	Digital programmable with 1 program, 8 segments (C1)	208V, 23.4A 5500w
<b>F30430CM-60†</b>	45L (1.6 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	36 x 36 x 36cm (14 x 14 x 14in.)	65 x 55 x 75cm (25.5x 21.5 x 29.5in.)	Digital programmable with 4 programs, 16 segments each (D1)	240V, 22.9A 5500w
<b>F30430CM-33-60†</b>	45L (1.6 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	36 x 36 x 36cm (14 x 14 x 14in.)	65 x 55 x 75cm (25.5x 21.5 x 29.5in.)	Digital programmable with 4 programs, 16 segments each (D1)	240V, 22.9A 5500w
<b>F30438CM-60†</b>	45L (1.6 cu.ft.)	975°C	24 (30mL) porcelain or 38 (10mL) quartz crucibles	36 x 36 x 36cm (14 x 14 x 14in.)	65 x 55 x 75cm (25.5x 21.5 x 29.5in.)	Digital programmable with 4 programs, 16 segments each (D1)	208V, 23.4A 5500w

† CSA approved. ‡ CE marked.

## Accessories

Cat. No.	Description	For Use with
<b>TY408X2A</b>	Crucible Trays	Atmosphere Controlled Ashing Furnace
<b>SH408X1</b>	Stainless-steel Shelf	F6000-60 Atmosphere Controlled Ashing Furnace; Premium Large Muffle Furnaces
<b>HN408X2A S</b>	Shelf Handle	Atmosphere Controlled Ashing Furnaces
<b>SH412X1</b>	Refractory Shelf for F30400-60	F30400-60 Atmosphere Controlled Ashing Furnaces
<b>AY408X1</b>	Inconel Manifold	F6000 Furnace
<b>AY408X1A</b>	Exhaust Tubing Kit	Atmosphere Controlled Ashing and Muffle Furnaces
<b>AY718X1</b>	Inconel Manifold	F30400 Furnace

## Thermo Scientific Lindberg/Blue M Moldatherm Box Furnaces

Versatile selection of chamber box furnaces in several popular chamber sizes to meet a variety of demanding industrial and laboratory applications



**Ordering Information:** Factory-installed Optional RS485 Digital Communications Port allows a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Requires Communication Cable # 7043 for First unit and Communication Cable # 7044 for Second and additional units.

**Includes:** 10ft. power cord except 1.5 cu. ft. models which require customer-supplied power cord or hardwiring

**Warranty:** 1 year (parts and labor)  
**Certifications:** UL

- Unique insulation and heating element composites to minimize outer surface temperatures while maintaining uniform heat distribution within the chamber
- Advanced engineering and specialized construction techniques include variable density insulation, double shell cabinets, long-life heating elements and horizontal side swing doors
- Selectable self-tuning feature sets best control parameters for the thermal process
- PID control (proportional, integral, derivative) prevents overshoot
- Main power ON/OFF switch on control panel
- Controlled heat-up rate eliminates thermal shock to materials
- Quick heat-up and cool-down rates
- Adjustable high-limit over-temperature protection
- Simultaneous LED display of actual temperature vs. setpoint (°C or °F)

### Advanced Construction

- Advanced double wall minimizes exterior surface temperatures for operator safety and energy efficiency
- Side-hinge door for convenient operation and full chamber access
- Long-life Type K thermocouple
- Air vent (1in. dia., top) and air inlet (0.375in. dia., rear) for inert atmosphere exchange; note: door is not gas-tight
- Removable and replaceable Moldatherm® hearth plate supports load and prevents damage due to spillage
- Energy efficient Moldatherm insulation with embedded heating elements
- Safety door switch to interrupt power to heating element when door is opened; protects heating element and minimizes exposure to end-user

### Controller choices, with over-temperature protection:

- **A:** Digital single segment, single setpoint, one ramp to setpoint
- **B:** Digital single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control

NOT AVAILABLE IN EUROPE

Cat. No.	Capacity	Temp. Range	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Control	Electrical	Shipping Weight
BF51748A-1	1.99L (0.07 cu. ft.)	100° to 1100°C	20.3 x 10.2 x 10.2cm (4 x 8 x 4in.)	50.8 x 38.1 x 44.4cm (20 x 15 x 17.5in.)	A/OTP	120V 50/60Hz 1800w	25kg (55 lb.)
BF51748C-1	1.99L (0.07 cu. ft.)	100° to 1100°C	20.3 x 10.2 x 10.2cm (4 x 8 x 4in.)	50.8 x 38.1 x 44.4cm (20 x 15 x 17.5in.)	A/OTP	208/240V 50/60Hz 1800w	25kg (55 lb.)
BF51848A-1	1.99L (0.07 cu. ft.)	100° to 1100°C	20.3 x 10.2 x 10.2cm (4 x 8 x 4in.)	50.8 x 38.1 x 44.4cm (20x 15 x 17.5in.)	B/OTP	120V 50/60Hz 1800w	25kg (55 lb.)
BF51848C-1	1.99L (0.07 cu. ft.)	100° to 1100°C	20.3 x 10.2 x 10.2cm (4 x 8 x 4in.)	50.8 x 38.1 x 44.4cm (20 x 15 x 17.5in.)	B/OTP	208/240V 50/60Hz 1800w	25kg (55 lb.)
BF51766A-1	5.3L (0.19 cu. ft.)	100° to 1100°C	22.9 x 15.2 x 15.2cm (9 x 6 x 6in.)	53.3 x 43.1 x 54.6cm (21 x 17 x 21.5in.)	A/OTP	120V 50/60Hz 1800w	50kg (110 lb.)
BF51766C-1	5.3L (0.19 cu. ft.)	100° to 1100°C	22.9 x 15.2 x 15.2cm (9 x 6 x 6in.)	53.3 x 43.1 x 54.6cm (21 x 17 x 21.5in.)	A/OTP	208/240V 50/60Hz 1800w	50kg (110 lb.)
BF51866A-1	5.3L (0.19 cu. ft.)	100° to 1100°C	22.9 x 15.2 x 15.2cm (9 x 6 x 6in.)	53.3 x 43.1 x 54.6cm (21 x 17 x 21.5in.)	B/OTP	120V 50/60Hz 1800w	50kg (110 lb.)
BF51866C-1	5.3L (0.19 cu. ft.)	100° to 1100°C	22.9 x 15.2 x 15.2cm (9 x 6 x 6in.)	53.3 x 43.1 x 54.6cm (21 x 17 x 21.5in.)	B/OTP	208/240V 50/60Hz 1800w	50kg (110 lb.)
BF51794C-1	18.4L (0.65 cu. ft.)	100° to 1100°C	35.6 x 22.9 x 22.9cm (14 x 9 x 9in.)	65.4 x 53.3 x 66cm (25.75 x 21 x 26in.)	A/OTP	208/240V 50/60Hz 3500w	59kg (130 lb.)
BF51894C-1	18.4L (0.65 cu. ft.)	100° to 1100°C	35.6 x 22.9 x 22.9cm (14 x 9 x 9in.)	65.4 x 53.3 x 66cm (25.75 x 21 x 26in.)	B/OTP	208/240V 50/60Hz 3500w	59kg (130 lb.)
BF51728C-1	42.5L (1.5 cu. ft.)	100° to 1100°C	45.7 x 30.5 x 30.5cm (18 x 12 x 12in.)	76.2 x 60.9 x 71.1cm (30 x 24 x 28in.)	A/OTP	208/240V 50/60Hz 5600w	84kg (185 lb.)
BF51828C-1	42.5L (1.5 cu. ft.)	100° to 1100°C	45.7 x 30.5 x 30.5cm (18 x 12 x 12in.)	76.2 x 60.9 x 71.1cm (30 x 24 x 28in.)	B/OTP	208/240V 50/60Hz	84kg (185 lb.)

To add RS-485 Digital Communications Port to Furnace model, add "COM" to model number before last letter in cat. no. – e.g., BF51748COMA-1



## Thermo Scientific Lindberg/Blue M LGO Box Furnaces

**Latest technical advances in heating elements, insulation and temperature control, all integrated into a self-contained cabinet**



- Feature exclusive LGO™ (light gauge overbend) heating elements and Moldatherm insulation for efficient and economical transfer of heat to chamber, with low exterior temperatures
- Variable heat-up rate eliminates thermal shock to materials with quick heat-up and cool-down rates
- Choice of side hinge or vertical lift door
- Air vent (1in. dia., top) and air inlet (0.375in. dia., rear) for inert atmosphere exchange (note: door is not gas-tight)
- Self-tuning, digital instrumentation for precise temperature setpoint and display
- Platinel II thermocouple for long-term stability
- 0.6 cu. ft. models feature vertical lift door; 2 cu. ft. models feature horizontal side swing door, hot side facing away from operator for protection

### Microprocessor Control

- Microprocessor-based self-tuning PID control (proportional, integral, derivative) provides optimum thermal process, prevents overshoot
- Control panel designed for easy access and maintenance
- Main power ON/OFF switch on control panel
- Adjustable high-limit over-temperature protection
- Simultaneous LED display of actual temperature vs. setpoint in °C or °F
- Safety door switch interrupts power to heating element when door is opened; protects heating elements and minimizes exposure to end-user
- Removable shelves for versatility
- Moldatherm hearthplate supports load and prevents damage due to spillage

### Digital, Single-Setpoint Controller (A)

- Single segment, single setpoint, one ramp to setpoint

### Digital Single-Program, Multiple-Segment Programmable Controller (B)

- Single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control

### Digital Multiple-Program, Multiple-Segment Programmable Controller (C)

- Available on models with P designation
- Multiple programs, 4 programs with up to 300 steps, and segments for ramp (up and down) and dwell (timed hold) temperature control

### Over-temperature Control (OTC)

- Adjustable digital over-temperature control, available on selected models with B suffix designation
- Protects furnace and load in the event of primary control circuit failure
- Overrides main controller and shuts off power to furnace if high limit is reached
- Manual reset required for safety
- Operates via magnetic contacts through signal from independent thermocouple

### Flowmeter Option (FM) (Inert Atmosphere Only)

- Available on selected models with FM designation
- Gas flowmeter, adjustable, located on front control panel
- Adjustable flowrate, range 1.0 to 10.0 cu. ft./hr. standard
- Suitable for inert gas or airflow to chamber
- Allows fresh air exchange for ashing applications
- Not suitable for combustible or volatile gases

**Ordering Information:** Required power cord and hardwiring not included. Factory-installed Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Requires Communication Cable # 7043 for First unit and Communication Cable # 7044 for Second and additional units

**Includes:** One two-part shelf (0.6 cu. ft. models have one shelf position at center position; 2.0 cu. ft. models have three shelf positions)

**Warranty:** 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Temp. Range	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Control	Electrical	Shipping Weight
<b>BF51731C-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	A	208/240V 50/60Hz 4500w	75kg
<b>BF51731BC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	A/OTC	208/240V 50/60Hz 4500w	75kg
<b>BF51732C-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	B	208/240V 50/60Hz 4500w	75kg
<b>BF51732BC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	B/OTC	208/240V 50/60Hz 4500w	75kg
<b>BF51732PC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C	208/240V 50/60Hz 4500w	75kg
<b>BF51732PBC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C/OTC	208/240V 50/60Hz 4500w	75kg
<b>BF51732PFMC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C/FM	208/240V 50/60Hz 4500w	75kg
<b>BF51732PBFMC-1</b>	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 x 33.0 x 17.8cm (11 x 12 x 11in.)	58.4 x 61 x 68.6cm (23 x 24 x 27in.)	C/OTC/FM	208/240V 50/60Hz 4500w	75kg
<b>BF51841C-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	A	208/240V 50/60Hz 5800w	127kg
<b>BF51841BC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	A/OTC	208/240V 50/60Hz 5800w	127kg
<b>BF51842C-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	B	208/240V 50/60Hz 5800w	127kg
<b>BF51842BC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	B/OTC	208/240V 50/60Hz 5800w	127kg
<b>BF51842PC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	C	208/240V 50/60Hz 5800w	127kg
<b>BF51842PBC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	C/OTC	208/240V 50/60Hz 5800w	127kg
<b>BF51842PFMC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	C/FM	5800w	127kg
<b>BF51842PBFMC-1</b>	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 x 38.1 x 38.1cm (15 x 15 x 15in.)	71.1 x 73.7 x 83.8cm (28 x 29 x 33in.)	C/OTC/FM	5800w	127kg

A, B, C: see details of control options, previous page

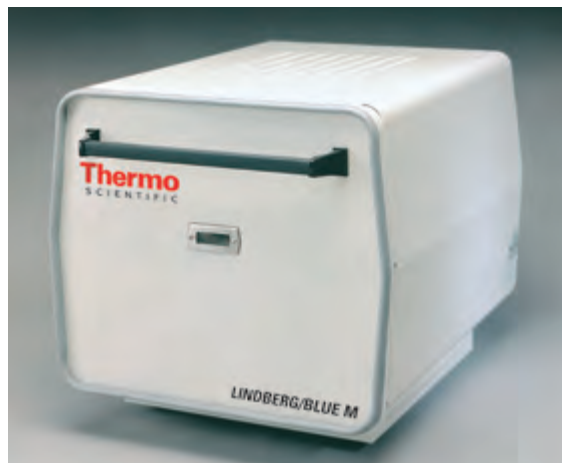
OTC: Over-temperature Control

FM: Flowmeter option

To add RS-485 Digital Communications Port to Furnace model, add **"COM"** to model number before last letter in cat.no. - e.g., BF51731**COM**C-1

## Thermo Scientific Lindberg/Blue M Heavy-Duty 1200°C Box Furnaces

**Unique internal construction and outer shell design that reduces external surface temperatures without compromising interior temperature uniformity**



- Features individual heating elements at chamber top, bottom and sides for uniform heat distribution
- Unique Moldatherm ceramic fiber insulation to allow rapid heatup, recovery and cooldown rates. Swing-down door provides convenient loading platform
- Helically coiled, high-temperature alloy wire elements for extended service life
- High-temperature insulation in vestibule and floating plug door to minimize heat loss and improve temperature control
- Spring-loaded door holds door securely shut; door rests in horizontal position when open
- Sight glass for convenient observation of heated load during operation
- Refractory plate heating unit
- Long-life Platinel II thermocouple with 10ft. compensated lead wire and polarized plug
- Rugged, heavy-duty Inconel® hearthplate supports load and protects the furnace from damage due to spillage (Model BF51542C)
- Heating element imbedded in Moldatherm insulation (Model BF51542C)

**Ordering Information:** Choice of controllers available, including 1200°C digital single-program/multiple-segment programmable controller and over-temperature control

**Required Accessories:** Independent control console CC58114C. Required power cord and hardwiring not included.

**Warranty:** 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Temp. Range	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Description	Electrical	Shipping Weight
<b>BF51442C</b>	9L (0.32 cu. ft.)	100° to 1200°C	35.6 x 19.5 x 13.3cm (14 x 7.5 x 5.25in.)	50.8 x 50.8 x 62.2cm (20 x 20 x 24.5in.)	With refractory plate heating element	208/240V 50/60 Hz 4800w	66kg (145 lb.)
<b>BF51542C</b>	23L (0.81 cu. ft.)	100° to 1200°C	36.8 x 26.7 x 24.1cm (14.5 x 10.5 x 9.5in.)	78.7 x 71.1 x 72.4cm (31 x 28 x 28.5in.)	With Moldatherm Heating Element (Four Sides)	208/240V 50/60 Hz 6200w	152kg (335 lb.)

## Thermo Scientific Controllers for Lindberg/Blue M Heavy-Duty 1200°C Box Furnaces

Temperature accuracy and offer options for over-temperature control and multiple segment configuration



### 1200°C Digital, Single Setpoint Controller

- Control console is fully wired and includes a solid-state power module, ON/OFF circuit breaker and thermocouple input jack
- Microprocessor-based PID control (proportional, integral, derivative), single segment, single setpoint, one ramp to setpoint
- Built-in adjustable high limit over-temperature protection
- Simultaneous LED display of actual temperature vs. setpoint in °C or °F
- Designed for operation on 208, or 240V 50/60Hz, single-phase line

### Over-temperature Control on selected control consoles with "B" suffix designation

- Adjustable digital control is factory installed
- Protects furnace and load in the event of primary control circuit failure
- Overrides main controller and shuts off power to furnace if high limit is reached
- Must be manually reset for safety
- Operates via magnetic contacts through a signal from an independent thermocouple

**Ordering Information:** Factory-installed Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Requires Communication Cable # 7043 for First unit and Communication Cable # 7044 for Second and additional units. Required power cord and hardwiring not included.

**NOT AVAILABLE IN EUROPE**

Cat. No.	Description	Electrical
<b>CC58114C-1</b>	Single-Setpoint	208/240V 50/60Hz 30A
<b>CC58114PC-1</b>	Single-zone Console, Digital, Programmable	208/240V 50/60Hz 30A
<b>CC58114BC-1</b>	Single Setpoint with Over Temperature Control	208/240V 50/60Hz 30A
<b>CC58114PBC-1</b>	Single-zone Console, Digital, Programmable, with Over Temperature Control	208/240V 50/60Hz 30A

To add RS-485 Digital Communications Port to Furnace model, add "COM" to model number before last letter in cat. no. – e.g., CC58114COMC-1

## Thermo Scientific Lindberg/Blue M 1700°C Box Furnaces, Large Chamber, Integral Control

**Designed for efficient, high-temperature use with minimal maintenance**



- Fast heatup to high temperatures, unique door design and control sophistication ranging from solid-state, single setpoint to more versatile microprocessor-based systems with programming and communications options
- Designed for efficient high-temperature use with minimal maintenance
- Choice of single setpoint or programmable control
- Side swing door provides full and easy access to chamber, protects user from heat surge
- Atmosphere port, 0.375in. diameter, for fresh air or inert gas inlet (located at back wall, bottom)
- Solid-state power module with ammeter, circuit breaker, transformer and front panel indicator lights for “Ready Element” and “Main Power Applied”
- Safety power disconnect switch cuts power to heating elements when door is opened
- Moldatherm high-temperature ceramic fiber insulation with advanced graded design for fast heat-up and resistance to thermal shock
- Moldatherm hearthplate supports load and protects chamber from spills or mishandling
- High-volume cooling fans move air between inner and outer chamber to reduce exterior shell temperatures and improve energy efficiency and operator safety
- Long-life type “B” thermocouples with 10ft. compensated lead wire and polarized plug for accurate high-temperature measurement
- Removable panels for easy access to replaceable heating elements and thermocouples

### Smart Heating Elements

- Molybdenum disilicide elements with unique right-angle bend and sidewall mounting reduce maintenance usually associated with element termination and mounting
- Designed for easy replacement without matching resistance values
- Fast heat-up and recovery with excellent uniformity and energy efficiency
- Increased resistance to thermal shock, ideal for rapid cycling over extended periods

### Over-temperature Protection (OTP)†

- Adjustable digital over-temperature control protects furnace and load in the event of primary control circuit failure
- Overrides main controller and shuts off power to furnace if high limit is reached
- Manual reset required for safety
- Operates via signal from independent thermocouple

### Programmable Controller With Communications (COM Models)

- With RS-485 data port (communications card and port) for connection to remote computer
- Enables modification, interrogation and data transfer of instrument control and configuration parameters
- Up to 30 units can be connected to one PC
- Software not included (available as an option)
- Requires Communication Cable # 7043 for First unit and Communication Cable # 7044 for Second and additional units

### Digital Multiple Program, Multiple Segment Programmable Controller

- Microprocessor-based PID control (proportional, integral, derivative) prevents overshoot
- Up to 30 programs and up to 300 segments for ramp (up and down) and dwell (timed hold) temperature control – up to 99 segments per program

- Simultaneous digital LED display of actual temperature vs. setpoint in either °C or °F Digital Single-Setpoint Controller

### Digital Single Setpoint Controller:

- Microprocessor-based PID control (proportional, integral, derivative) prevents overshoot
- Single segment, single setpoint, one ramp to setpoint
- Adjustable high limit over-temperature protection
- Simultaneous LED display of actual temperature vs. setpoint in either °C or °F

**Ordering Information:** Required power cord and hardwiring not included  
**Required Accessories:** Power cord, hardwiring  
**Warranty<sup>†</sup>:** 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Maximum Temp.	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Controller	Electrical	Shipping Weight
<b>BF51634PC-1</b>	17L (0.6 cu. ft.)	1700°C	26.7 x 27.9 x 22.9cm (10.5 x 11 x 9in.)	61 x 71.1 x 78.7cm (24 x 28 x 31in.)	Multisegment/multiprogram	208/240V 50/60Hz 5900w	159kg (350 lb.)
<b>BF51634PCOMC-1</b>	17L (0.6 cu. ft.)	1700°C	26.7 x 27.9 x 22.9cm (10.5 x 11 x 9in.)	61 x 71.1 x 78.7cm (24 x 28 x 31in.)	Multisegment/multiprogram/ communications	208/240V 50/60Hz 5900w	159kg (350 lb.)
<b>BF51664C-1</b>	25.5L (0.9 cu. ft.)	1700°C	39.4 x 27.9 x 22.9cm (15.5 x 11 x 9in.)	76.2 x 71.1 x 78.7cm (30 x 28 x 31in.)	Digital/1 setpoint	208/240V 50/60Hz 7100w	168kg (370 lb.)
<b>BF51664PC-1</b>	25.5L (0.9 cu. ft.)	1700°C	39.4 x 27.9 x 22.9cm (15.5 x 11 x 9in.)	76.2 x 71.1 x 78.7cm (30 x 28 x 31in.)	Multisegment/multiprogram	208/240V 50/60Hz 7100w	168kg (370 lb.)
<b>BF51664PCOMC-1</b>	25.5L (0.9 cu. ft.)	1700°C	39.4 x 27.9 x 22.9cm (15.5 x 11 x 9in.)	76.2 x 71.1 x 78.7cm (30 x 28 x 31in.)	Multisegment/multiprogram/ communications	208/240V 50/60Hz 7100w	168kg (370 lb.)

† For OTP specify Option B before last letter in cat. no. when ordering, e.g., BF51634PBC-1, or BF51634PBCOMC-1  
 COM option requires communication Cable # 7043 for first unit and Communication Cable # 7044 for second and additional units

## Thermo Scientific Lindberg/Blue M Multipurpose 1500°C Box Furnaces

### Multipurpose furnaces feature integral control to 1500°C



- Double-wall construction with Moldatherm insulation for rapid heatup and cooldown, energy efficiency and cooler exterior surface temperatures
- Adjustable high-limit over-temperature protection
- Microprocessor-based PID control
- Choice of two controllers: single program with multiple segments for ramp (up and down) and dwell (timed hold) temperature control or multiple program with up to 300 segments
- Optional adjustable digital over-temperature control (OTC) protects furnace and load in the event of primary control circuit failure
- Simultaneous LED display of actual and setpoint temperatures in either °C or °F
- Silicon carbide heating elements for long-life, safety and reliable service with maximum energy savings
- Safety door switch interrupts power to heating elements when door is opened; protects elements and minimizes exposure to operator
- Moldatherm hearthplate supports load and protects interior from spillage and mishandling
- Type “R” thermocouple is integrated into chamber backwall
- 6L models with vertical lift door, 25L models with side swing door

**Ordering information:** Factory-installed Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace. Up to 30 units can be connected to one PC. Requires Communication Cable # 7043 for First unit and Communication Cable # 7044 for Second and additional units  
 Required power cord and hardwiring are not included.  
**Warranty:** 1 year (parts and labor)

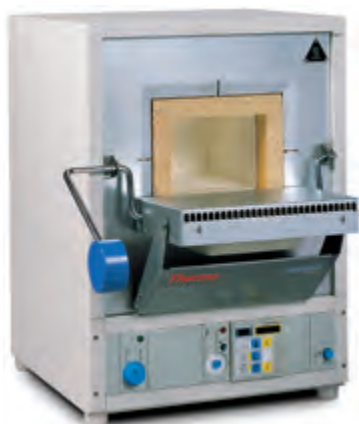
#### NOT AVAILABLE IN EUROPE

Cat. No.	Capacity	Maximum Temp.	Controller	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Electrical
<b>BF51433C-1</b>	6L (0.21 cu. ft.)	1500°C	Multi Seg/1 Prog	30.5 x 15.2 x 12.7cm (12 x 6 x 5in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	208/240V 50/60Hz 6400w
<b>BF51433BC-1</b>	6L (0.21 cu. ft.)	1500°C	Multi Seg/1 Prog/OTC	30.5 x 15.2 x 12.7cm (12 x 6 x 5in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	208/240V 50/60Hz 6400w
<b>BF51433PC-1</b>	6L (0.21 cu. ft.)	1500°C	300 Seg/30 Prog	30.5 x 15.2 x 12.7cm (12 x 6 x 5in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	208/240V 50/60Hz 6400w
<b>BF51433PBC-1</b>	6L (0.21 cu. ft.)	1500°C	300 Seg/30 Prog/OTC	30.5 x 15.2 x 12.7cm (12 x 6 x 5in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	208/240V 50/60Hz 6400w
<b>BF5143COMC-1</b>	6L (0.21 cu. ft.)	1500°C	Multi Seg/1 Prog/RS485 port	30.5 x 15.2 x 12.7cm (12 x 6 x 5in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	208/240V 50/60Hz 6400w
<b>BF51433PBCOMC-1</b>	6L (0.21 cu. ft.)	1500°C	300 Seg/30 Prog/OTC/RS485 port	30.5 x 15.2 x 12.7cm (12 x 6 x 5in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	208/240V 50/60Hz 6400w
<b>BF51643C-1</b>	25L (0.88 cu. ft.)	1500°C	300 Seg/30 Prog	39.4 x 27.9 x 22.9cm (15.5 x 11 x 9in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	208/240V 50/60Hz 14800w
<b>BF51643BC-1</b>	25L (0.88 cu. ft.)	1500°C	300 Seg/30 Prog/OTC	39.4 x 27.9 x 22.9cm (15.5 x 11 x 9in.)	73.7 x 63.5 x 66cm (29 x 25 x 26in.)	1 208/240V 50/60Hz 4800w



## Thermo Scientific M104 Muffle Furnaces

### Excellent protection against sample contamination with abrasion-resistant ceramic annealing chamber



- Designed for minimum space requirements and can be set up under a laboratory fume hood
- Ideal for chemical analysis, annealing loss determination, materials testing and ashing processes
- Environmentally friendly and economical — asbestos-free insulation minimizes energy consumption and keeps exterior temperature low
- Easy handling and loading via tilting door that also protects users from hot inside surface
- Reaches rated temperature of 1000°C in 110 min.\*
- Working volume of 3.5L
- Standard model equipped with electronic controller, digital display and upper limit cut-out; deluxe models available with electronic or programmable controller, timer and exhaust fan
- M104G models feature glazed annealing muffle for use in analytical processes requiring extreme purity

**Ordering Alerts:** Not available in North America  
**Certifications:** CE  
**Warranty\*:** 2 years (parts and labor)

Cat. No.	Description	Capacity	Max. Temp.	Temp. Uniformity	Chamber Dimensions (D x W x H)	Exterior Dimensions (D x W x H)	Heat Output	Electrical	Shipping Weight
<b>M104 Muffle Furnace</b>									
50040485	With electronic controller and upper limit cut-out	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50040486	With electronic controller, upper limit cut-out and 24-hour timer	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50040487	With electronic controller, upper limit cut-out, 24-hour timer and exhaust fan	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50040488	With digital programmable temperature controller and upper limit cut-out	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50040489	With digital programmable temperature controller, upper limit cut-out and exhaust fan	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50049820	With adjustable fresh air supply for incinerating processes	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50040903	With electronic controller	3.5L (0.12cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
<b>M104G Muffle Furnace</b>									
50047438	With electronic controller, upper limit cut-out and 24-hour timer	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50047439	With electronic controller, 24-hour timer and exhaust fan	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50051429	With electronic controller and adjustable fresh air supply	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50047440	With digital programmable controller	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50047441	With digital programmable controller and exhaust fan	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50057773	With digital programmable controller and adjustable fresh air supply for incinerating processes	3.5L (0.12 cu. ft.)	1000°C	± 10°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)

\* measured at ambient temperature of 23°C, with no load

## Thermo Scientific K114 Chamber Furnaces

Ideal for use in crowded laboratories and for routine high temperature laboratory applications such as incinerating, annealing, baking, pre-heating and drying



- Extremely short heating and recovery times along with accurate temperature control
- Asbestos-free insulation for minimal energy consumption and low exterior temperature
- High temperature accuracy and optimised heating system layout ensure most efficient use of work space
- Easy temperature controls and easy handling and loading via tilting door
- Designed for minimum space requirements and can be set up under a laboratory fume hood
- Reaches 1100°C in 35 min.\*

**Ordering Alerts:** Not available in North America. Available options include choice of automatic upper limit cut-out (TWB), Digicon™ controller or Thermicon™ programmable controller, and timer

**Certifications:** CE

**Warranty<sup>†</sup>:** 2 years (parts and labor)

Cat. No.	Description	Capacity	Max. Temp.	Temp. Uniformity	Chamber Dimensions (D x W x H)	Exterior Dimensions (D x W x H)	Heat Output	Electrical	Shipping Weight
50040491	With electronic controller and upper limit cut-out	3.5L (0.12 cu. ft.)	1100°C	± 6°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50040492	With electronic controller, upper limit cut-out, and 24-hr. timer	3.5L (0.12 cu. ft.)	1100°C	± 6°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50040493	With digital programmable temperature controller and upper limit cut-out	3.5L (0.12 cu. ft.)	1100°C	± 6°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50049812	With adjustable fresh air supply for incinerating purposes	3.5L (0.12 cu. ft.)	1100°C	± 6°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50040902	With electronic controller	3.5L (0.12 cu. ft.)	1100°C	± 6°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50047063	With electronic controller and exhaust fan	3.5L (0.12 cu. ft.)	1100°C	± 6°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50051059	With digital programmable controller and exhaust fan	3.5L (0.12 cu. ft.)	1100°C	± 6°K	16 x 17 x 13cm (6.3 x 6.7 x 5.1in)	57 x 45.6 x 64.6cm (22.4 x 18 x 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)

\* measured at ambient temperature of 23°C, with no load

## Thermo Scientific M110 Muffle Furnaces

Even heat distribution and economical operation in a small footprint



- Outstanding insulation and heating element arrangement give even heat distribution with minimal fluctuation
- Two-shell design with air pocket between annealing box and outside walls
- Requires only 0.41 sq m of bench space
- Rugged and flexible — for all types of lab applications, including heating of metals and drying at high temperatures
- Multiple layers of high-quality, asbestos-free ceramic fiber insulation
- Heating elements safely positioned in grooved blocks on side walls of the work space, covered with ceramic plates
- Hinged door designed with parallel forced guidance system — hot surface always faces away from user when door is open
- Adjustable upper limit cut-out protects samples and equipment
- Reaches 1100°C in 100 min.\*

**Ordering Alerts:** Not available in North America; models available with optional 24 hr. timer, Thermicon P digital program controller with microprocessor, exhaust fan and/or exhaust flue. Exhaust flue (50006394) and tray (50006408) available separately

**Certifications:** CE

**Warranty\*:** 2 years (parts and labor)

Cat. No.	Description	Capacity	Max. Temp.	Temp. Uniformity	Chamber Dimensions (D x W x H)	Exterior Dimensions (D x W x H)	Heat Output	Electrical	Shipping Weight
51010272	With electronic controller and upper limit cut-out	9L (0.32 cu. ft.)	1100°C	±7°K	30 x 20 x 15cm (11.8 x 7.9 x 5.9in)	72 x 57.6 x 75.2cm (28.4 x 22.7 x 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)
50057440	With electronic controller, upper limit cut-out and 24-hr. timer	9L (0.32 cu. ft.)	1100°C	±7°K	30 x 20 x 15cm (11.8 x 7.9 x 5.9in)	72 x 57.6 x 75.2cm (28.4 x 22.7 x 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)
51000808	With digital program controller, upper limit cut-out, exhaust fan and flue	9L (0.32 cu. ft.)	1100°C	±7°K	30 x 20 x 15cm (11.8 x 7.9 x 5.9in)	72 x 57.6 x 75.2cm (28.4 x 22.7 x 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)
50056360	With electronic controller, upper limit cut-out, 24-hour timer and exhaust fan	9L (0.32 cu. ft.)	1100°C	±7°K	30 x 20 x 15cm (11.8 x 7.9 x 5.9in)	72 x 57.6 x 75.2cm (28.4 x 22.7 x 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)
51000802	With digital program controller and upper limit cut-out	9L (0.32 cu. ft.)	1100°C	±7°K	30 x 20 x 15cm (11.8 x 7.9 x 5.9in)	72 x 57.6 x 75.2cm (28.4 x 22.7 x 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)

\* measured at ambient temperature of 23°C, with no load

### Accessories M104, K114, M110 Muffle Furnaces

Cat. No.	Description	For Use With
<b>Accessories</b>		
50040537	Exhaust Flue	K114 Chamber Furnace and M104 Muffle Furnace
50040492	Tray	K114 Chamber Furnace and M104 Muffle Furnace
50006394	Exhaust Flue	M110 Muffle Furnace
50006408	Tray	M110 Muffle Furnace
<b>Factory-Installed Options</b>		
50044447	Calibration Certificate for 900°C at center of work space	
50044188	Calibration, Additional Measuring Point	

## Thermo Scientific Lindberg/Blue M Mini-Mite Tube Furnaces

**Compact, portable single tube furnace insulated with Moldatherm for quick heatup and cooldown**



- Microprocessor-based self-tuning PID control provides optimal thermal processes without overshoot
- Single segment, single setpoint, one ramp to setpoint
- Adjustable high-limit over-temperature protection
- Simultaneous LED display of temperature and setpoint in °C or °F
- Split-hinge design simplifies loading and unloading
- Safety switch disconnects power when furnace is opened
- Type K long-life thermocouple

**Ordering information:** Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace; up to 30 units can be connected to one PC. Process tubes not included and required. Purchase separately.  
**Includes:** 9ft. (3m) power cord  
**Warranty<sup>Y</sup>:** 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Temperature Range	Heating Zone	Outside Dia. [Tube]	Overall L x W x H	Control Temperature	Electrical	Shipping Weight
TF55030A-1	100° to 1100°C	30.5cm (12in.)	30.5cm (12in.)	28 x 41 x 38cm (11 x 16 x 15in.)	Digital, Single Segment	120V 50/60Hz 800w	16kg (35 lb.)
TF55030C-1	100° to 1100°C	30.5cm (12in.)	30.5cm (12in.)	28 x 41 x 38cm (11 x 16 x 15in.)	Digital, Single Segment	208/240V 50/60Hz 800w	16kg (35 lb.)
TF55035A-1	100° to 1100°C	30.5cm (12in.)	30.5cm (12in.)	28 x 41 x 38cm (11 x 16 x 15in.)	Digital, Multisegment Programmable	120V 50/60Hz 800w	16kg (35 lb.)
TF55035C-1	100° to 1100°C	30.5cm (12in.)	30.5cm (12in.)	28 x 41 x 38cm (11 x 16 x 15in.)	Digital, Multisegment Programmable	208/240V 50/60Hz 800w	16kg (35 lb.)

To add RS-485 Digital Communications Port to Furnace model, add "COM" before last letter in cat. no. - e.g., TF55030COMA-1

208-240V units are available with cord and plug for China: please add "K" before last letter in cat.no. - e.g., TF55030KC-1 (note: no RS-485 port available for this version)

## Thermo Scientific Lindberg/Blue M 1100°C Tube Furnaces

Three-zone 1100°C tube furnaces feature Moldatherm ceramic fiber insulation, excellent temperature uniformity, fast heatup and cooldown, and quick recovery with optimum power consumption



- Ideal for a variety of process tubes including alumina, mullite, quartz and metallic
- Double-shell construction and variable density insulation combine to enhance performance over conventional furnaces
- Durable, high-strength hardware and a variety of control systems offer both convenience and versatility over a range of sophistication

### Performance Features

- Three zones, three programmable controllers (one for each zone)
- Microprocessor-based self-tuning PID control (proportional, integral, derivative) provides optimum thermal process without overshoot
- Single program with multiple segments for ramp (up/down) and dwell (timed hold) temperature control
- Adjustable high-limit over-temperature protection
- Simultaneous LED display of temperature and setpoint in °C or °F

### Design Features

- Flexible design — can be used for a variety of applications
- Innovative use of venting and insulating air spaces create lower exterior surface temperatures
- Long-life Type K thermocouple
- Accepts an array of tube adapters; largest specified tube size supplied.
- RS485 digital communications port available as an option; allows controller to be connected to a PC for remote monitoring and control

**Ordering information:** Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace; up to 30 units can be connected to one PC. Required process tube not included. For information on process tubes contact your process tube supplier.  
**Includes:** One set of two tube adapters (59545)  
**Required Accessories:** Power cord and hardwiring  
**Warranty:** 1 year (parts and labor)

### NOT AVAILABLE IN EUROPE

Cat. No.	Temperature Range	Heated Length	Heated Zone	Process Tube Diameter	Exterior L x W x H	Power Consumption	Shipping Weight
STF55346C-1	100° to 1100°C (212° to 2012°F)	61cm (24in.)	15.2/30.4/15.2cm (6/12/6in.)	2.5–7.5cm (1–3in.)	43.2 x 88.9 x 53.3cm (17 x 35 x 21in.)	208/240V, 50/60Hz 3800w	102kg (225 lb.)
STF55666C-1	100° to 1100°C (212° to 2012°F)	91.4cm (36in.)	22.3/45.7/22.3cm (9/18/9in.)	7.5–15.2cm (3–6in.)	55.9 x 137.2 x 66cm (22 x 54 x 16in.)	208/240V, 50/60Hz 11,000w	115kg (255 lb.)

To add RS-485 Digital Communications Port to Furnace model, add "COM" before last letter in cat. no. - e.g., STF55346COMC-1

### Tube Adapters/Sleeves

Cat. No.	Description	For Use With
59541	1in. Adapter	STF55346C -1 Tube Furnace
59543	2in. Adapter	STF55346C -1 Tube Furnace
59545	3in. Adapter	STF55346C -1 Tube Furnace
59555	3in. Adapter	STF55666C -1 Tube Furnace
59556	4in. Adapter	STF55666C -1 Tube Furnace
59557	5in. Adapter	STF55666C -1 Tube Furnace
59558TA	6in. Adapter	STF55666C -1 Tube Furnace
59549	Blank (solid) Adapter	STF55346C -1 Tube Furnace
59559TA	Blank (Solid) Adapter	STF55666C -1 Tube Furnace



## Thermo Scientific Lindberg/Blue M 1200°C Split-Hinge Tube Furnaces

### Ease of observation and operation and configurable for horizontal or vertical use



- Moldatherm LGO™ heating element modules for excellent radial and linear temperature uniformity and fast heatup and cooldown
- Long-life, energy-efficient elements require little or no maintenance
- Unique cabinet design achieves lower exterior surface temperature
- Heat-reflecting element support assembly creates two highly effective insulating air spaces
- Compact cabinet with high temperature-resistant painted finish
- Accepts interchangeable Moldatherm tube adapters
- Long-life Platinel II thermocouple(s) with 10ft. compensated lead wire and polarized plug

#### Ordering information:

Independent digital temperature control module (ordered separately) are available in standard or programmable options

**Warranty:** 1 year (parts and labor)

### Three Zone Models

- Three independent power circuits (zones) with independent thermocouples for control references
- Full adjustment of each zone over entire operating range to 1200°C
- Center zone uniformity achieved and operating length maximized through adjustable profiling of end zones by independent controller
- Temperature uniformity achieved with independent setpoint of end zones higher or lower than center

#### NOT AVAILABLE OPTIONAL IN EUROPE

Cat. No.	Controller (Please order separately)	Temperature Range	Heated Zone	Exterior L x W x H	Tube O.D.	Electrical	Shipping Weight
<b>Single Zone</b>							
HTF55122A-1	Independent CC58114A	100° to 1200°C	30.5cm (12in.)	33.0 x 53.3 x 30.5cm (13 x 21 x 12in.)	1.9 to 2.54cm (0.75 to 1in.)	120V 50/60Hz	28kg (60 lb.)
HTF55322A-1	Independent CC58114A	100° to 1200°C	30.5cm (12in.)	43.2 x 58.4 x 40.6cm (17 x 23 x 16in.)	2.54 to 7.62cm (1 to 3in.)	120V 50/60Hz	55kg (120 lb.)
HTF55322C-1	Independent CC58114C	100° to 1200°C	30.5cm (12in.)	43.2 x 58.4 x 40.6cm (17 x 23 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	55kg (120 lb.)
HTF55342C-1	Independent CC58114C	100° to 1200°C	61.0cm (24in.)	43.2 x 88.9 x 40.6cm (17 x 35 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	80kg 175 lb.)
<b>Three Zone</b>							
HTF55347C-1	Independent CC58434C	100° to 1200°C	61.0cm (24in.)	43.2 x 88.9 x 40.6cm (17 x 35 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	89kg (195 lb.)
HTF55667C-1	Independent CC58434C	100° to 1200°C	91.4cm (36in.)	53.3 x 124.5 x 50.8cm (21 x 49 x 20in.)	76.2 to 152.4cm (3 to 6in.)	208/240V 50/60Hz	141kg (310 lb.)

### Accessories

One set of (2) included with furnace:

- Model HTF55122A, (2) 1" dia. adapters; Models HTF55322A/C, (2) 2" dia. adapters;
- Model HTF55342C, (2) 3" dia. adapters.

Cat. No.	Description	For Use with
59510	0.75in. Adapter	HTF55122 Tube Furnace
59511	1in. Adapter	HTF55122 Tube Furnace
59521	1in. Adapter	HTF55322, HTF55342, HTF55347 Tube Furnaces
59522	1.5in. Adapter	HTF55322, HTF55342, HTF55347 Tube Furnaces
59523	2in. Adapter	HTF55322, HTF55342, HTF55347 Tube Furnaces
59524	2.5in. Adapter	HTF55322, HTF55342, HTF55347 Tube Furnaces
59525	3in. Adapter	HTF55322, HTF55342, HTF55347 Tube Furnaces
59535TA	3in. Adapter	HTF55667 Tube Furnace
59536TA	4in. Adapter	HTF55667 Tube Furnace
59537TA	5in. Adapter	HTF55667 Tube Furnace
59538TA	6in. Adapter	HTF55667 Tube Furnace
59539TA	Blank (solid) Adapter	HTF55667 Tube Furnace
59519	Blank (solid) Adapter	HTF55122 Tube Furnace
59529	Blank (solid) Adapter	HTF55322, HTF55342, HTF55347 Tube Furnaces
VFS551	Floor Stand, vertical	HTF55112A -1 Tube Furnace
VFS553	Floor Stand, vertical	HTF55322A -1, HTF55322C, HTF55342C -1, HTF55667C -1 and HTF55347C -1 Tube Furnaces
VFS556	Floor Stand, vertical	HTF55667C -1 Tube Furnace

## Thermo Scientific Controllers for Lindberg/Blue M1200°C Tube Furnaces

### Temperature accuracy and options for over-temperature control and multiple segment configuration



- Fully wired with advanced microprocessor-based digital control, solid-state power module, ON/ OFF circuit breaker and thermocouple input jacks for each zone
- Built-in adjustable high-limit over-temperature protection
- LED simultaneously displays actual temperature vs. setpoint in °C or °F
- Designed for operation on 120, 208, or 240V 50/60Hz, single-phase line

#### Over-temperature Control

- Adjustable digital control is factory installed
- Protects furnace and load in the event of primary control circuit failure
- Overrides main controller and shuts off power to furnace if high limit is reached
- Must be manually reset for safety
- Operates via magnetic contacts through a signal from an independent thermocouple

**Ordering information:** Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace; up to 30 units can be connected to one PC. Required power cord, hardwiring and interconnecting wiring are not included. For information on process tubes contact your process tube supplier.

**Warranty<sup>†</sup>:** 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Description	For Use with	Electrical
CC58114A-1	Single-zone Console, Digital	1200°C Furnaces	120V 50/60Hz
CC58114C-1*	Single-Setpoint	1200°C Furnaces	208/240V 50/60Hz
CC58114BA*	Single-zone Console, Digital, with Over Temperature Control	1200°C Furnaces	120V 50/60Hz
CC58114PA-1	Single-zone, Multiple Segment	1200°C Split-hinge Tube Furnace	120V 50/60Hz
CC58114PBA-1	Single-zone, Multiple Segment	1200°C Split-hinge Tube Furnace	120V 50/60Hz
CC58114BC-1*	Single-zone Console, Digital, with Over Temperature Control	1200°C Furnaces	208/240V 50/60Hz
CC58114PBC-1	Single-zone Console, Digital, Programmable, with Over Temperature Control	1200°C Furnaces	208/240V 50/60Hz
CC58114PC-1	Single-zone Console, Digital, Programmable	1200°C Furnaces	208/240V 50/60Hz
CC58434C-1	Three-zone	1200°C Split-hinge Tube Furnace	208/240V 50/60Hz
CC58434BC-1	Three-zone Console, Digital, with Over Temperature Control	1200°C Furnaces	208/240V 50/60Hz
CC58434PC-1	Three-zone Console, Digital, Programmable Controller for Center Zone, with Over Temperature Control	1200°C Furnaces	208/240V 50/60Hz
CC58434PBC-1	Three-zone Console, Programmable, with Over Temperature Control	1200°C Furnaces	208/240V 50/60Hz
CC584343PC-1	Three-zone Console, Digital, Programmable	1200°C Furnaces	208/240V 50/60Hz
CC58434PBC-1	Three-zone, 16 Segment	1200°C Split-hinge Tube Furnace	208/240V 50/60Hz

\* not available with RS585 port

To add RS-485 Digital Communications Port to Furnace model, add "COM" before last letter in cat. no. – e.g., CC58114COMA-1



## Thermo Scientific Lindberg/Blue M 1500°C General-Purpose Tube Furnaces

**Integral temperature control designed for a range of applications which require processing flexibility with fast heatup and recovery**



- Energy-efficient Moldatherm insulation increases temperature uniformity, improves energy efficiency and helps to maintain low exterior cabinet temperatures during operation
- Accommodate 1in., 2in. and 3in. O.D. process tubes (customer supplied)
- Silicon carbide heating elements positioned above and below tube works with Type “R” thermocouple to stabilize temperature
- Integral microprocessor-based PID programmable control (proportional, integral, derivative) prevents overshoot
- Available with Single Program/Multiple Segment or Multiple Program/ Multiple Segment Programmable Controller
- Program(s) and segment(s) for ramp (up and down) and dwell (timed hold) temperature control
- Adjustable high limit over-temperature protection
- Simultaneous LED display of actual temperature vs. setpoint
- Temperature display in °C or °F
- Optional Over-temperature Control (OTC) on Multi-Program/ Multi-Segment model

**Ordering information:** Optional RS485 Digital Communications Port allows controller to be connected to a PC for remote monitoring and control of the furnace; up to 30 units can be connected to one PC. Required power cord, hardwiring and interconnecting wiring are not included. For information on process tubes contact your process tube supplier

**Includes:** 1 set of two 2” tube adapters

**Warranty<sup>Y</sup>:** 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Type	Temperature Range	Heated Zone	Exterior L x W x H	Tube O.D.	Electrical	Shipping Weight
<b>STF55433C-1</b>	Multisegment (16)/single program	500° to 1500°C	30.5cm (12in.)	33.0 x 53.3 x 30.5cm (13 x 21 x 12in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	123kg (270 lb.)
<b>STF55433PC-1</b>	Multisegment (up to 99 segments)/ multiprogram	500° to 1500°C	30.5cm (12in.)	43.2 x 58.4 x 40.6cm (17 x 23 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	123kg (270 lb.)
<b>STF55433PBC-1</b>	Multisegment (up to 99 segments) multiprogram/OTC	500° to 1500°C	30.5cm (12in.)	43.2 x 58.4 x 40.6cm (17 x 23 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	123kg (270 lb.)

To add RS-485 Digital Communications Port to Furnace model, add “COM” before last letter in cat.no. – e.g., STF55433COMC-1

### Accessories — Tube Adapters

Cat. No.	Description	For Use with
<b>7100-2444-070</b>	2.5cm (1in.)	STF55433C-1, STF55433PC-1, STF55433PBC-1
<b>7100-2444-068</b>	5cm (2in.)	STF55433C-1, STF55433PC-1, STF55433PBC-1
<b>7100-2444-069</b>	7.6cm (3in.)	STF55433C-1, STF55433PC-1, STF55433PBC-1

## Thermo Scientific Lindberg/Blue M 1700°C Tube Furnaces

### Rapid heatup, recovery and cooldown



**Includes:** 1 set of two 3" vestibules and sleeves.  
**Required Accessories:** Independent digital temperature control module, available separately. Required power cord, hardwiring and interconnecting wiring are not included. For information on process tubes contact your process tube supplier.  
**Warranty:** 1 year (parts and labor)

- Feature heating elements with unique right-angle bend and sidewall mounting to deliver exceptional energy release, reduced thermal process cycle time, and cost savings through quicker throughput and energy efficiency
- Moldatherm graduated-density insulation provides safety, performance and outstanding radial and linear temperature uniformity with resistance to thermal shock
- Heating elements tolerate rapid cycling over extended periods; elements are easily replaceable without the need to match resistance values
- Type "B" thermocouples assure accurate temperature measurement and long thermocouple life; 10ft. compensated lead wire with polarized plug included
- Moldatherm graduated density insulation adds to safety and performance by forming enhanced insulation protection between the high-temperature chamber and exterior cabinet surface
- Double shell construction and convection cooling design reduces exterior surface temperature
- Removable louvered panels provide easier access to heating elements and thermocouple
- Temperature range: 500°C to 1700°C

**NOT AVAILABLE IN EUROPE**

Cat. No.	Temp. Range and Control	Heated Zone	Exterior L x W x H	Tube O.D.	Electrical	Shipping Weight
<b>STF54434C</b>	500° to 1700°C Independent	30.5cm (12in.)	40.6 x 55.9 x 48.3cm (16 x 22 x 19in.)	7.6cm (3in.)	208/240V, 50/60Hz 5000w	43kg (95 lb.)
<b>STF54454C</b>	500° to 1700°C Independent	61.0cm (24in.)	40.6 x 86.4 x 48.3cm (16 x 34 x 19in.)	7.6cm (3in.)	208/240V, 50/60Hz 10,000w	75kg (165 lb.)

### Accessories – Vestibules/Sleeves

- Optional Moldatherm vestibules permit operation with 1", 2" and 3" O.D. process tubes for increased versatility. Two vestibules are required for each furnace
- Tube Sleeves may be placed over customer supplied process tubes to reduce thermal shock to the process tube. All tube sleeves are 3" long

Cat. No.	Description	For Use with
<b>7219-2134-001</b>	1in. Sleeve	STF54434C Tube Furnace
<b>7219-2134-002</b>	2in. Sleeve	STF54434C Tube Furnace
<b>7219-2134-003</b>	3in. Sleeve	STF54434C Tube Furnace
<b>7219-2134-011</b>	3in. Sleeve	STF54454C Tube Furnace
<b>7219-2134-012</b>	2in. Sleeve	STF54454C Tube Furnace
<b>7219-2134-013</b>	1in. Sleeve	STF54454C Tube Furnace
<b>7219-2147-001</b>	1in. Vestibule	STF54434C Tube Furnace
<b>7219-2147-002</b>	2in. Vestibule	STF54434C Tube Furnace
<b>7219-2147-011</b>	3in. Vestibule	STF54454C Tube Furnace
<b>7219-2147-003</b>	3in. Vestibule	STF54434C Tube Furnace
<b>7219-2147-012</b>	2in. Vestibule	STF54454C Tube Furnace
<b>7219-2147-013</b>	1in. Vestibule	STF54454C Tube Furnace

## Thermo Scientific Controllers for Lindberg/Blue M 1700°C Tube Furnaces



- Holdback feature allows the operator to set a “process vs. setpoint” temperature value which, when exceeded, holds the program to allow the process to catch up
- RS485 data port for connection to remote computer, allowing modification, interrogation and data transfer of all instrument control and configuration parameters
- Up to 30 units can be connected to one PC (software not included)

Required power cord, hardwiring and interconnecting wiring are not included. Warranty\*: 1 year (parts and labor)

**NOT AVAILABLE IN EUROPE**

Cat. No.	Description	Electrical	For Use with
<b>CC59256PCOMC-1</b>	Digital, with Programmer, RS485 data port	208/240V 50/60 Hz	STF54434C
<b>CC59256PBCOMC-1</b>	Digital, with Programmer and Over Temperature Control, RS485 data port	208/240V 50/60 Hz	STF54434C
<b>CC59256PCM2CTC-1</b>	Digital, with Programmer	208/240V 50/60 Hz	STF54454C

# hotplates & stirrers

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## Thermo Scientific Cimarec Digital Hotplates, Stirring Hotplates & Stirrers

Ideal for labs that require precise temperature stability, strong magnet coupling and advanced safety features



### Performance Features

- Microprocessor controls with feedback technology maintain consistent, repeatable temperature settings
- Thermo Scientific StirTrac technology allows smooth low-speed stirring, consistent speed control and stronger magnetic coupling
- StirTrac™ braking brings stir bar to immediate stop for quick flash removal
- Flat top, high-wattage heating elements combine outstanding heat transfer and fast time-to-boil
- Digital display and large control knob enable precise temperature control
- Direct-drive motor and magnet system permits quiet stirring
- Tight seal and safety trough ensure that accidental spills do not penetrate casing
- Integrated ring stand holder to accommodate 0.5 in. diameter (1.3cm) support rod
- Various sizes offered to handle different sample volumes
- Digital error code display

### Safety Features

- Cast-aluminum base diverts spills from internal electronics
- HOT TOP warning system helps prevent accidental burns; light activates when heating surface is above 50°C (122°F)
- Low-profile design and stable, rugged base prevent tipping and spillage

### Ceramic Top Models

- Clean easily and resist alkalis and acids
- Seamless, reflective white surface aids sample visibility
- High maximum temperature

### Aluminum Top Models

- Rugged and chip-resistant for outstanding durability
- Allow uniform heat distribution across surface

**Includes:** Detachable line cord and plug

**Warranty:** Three years

**Certifications:** cCSAus (120V and 220-240V models), CE (220-240v models)

## Thermo Scientific Cimarec Hotplates

Cat. No.	Heating Surface Area	Material (Surface)	Temp. Range	Overall L x W x H	Electrical
HP130914Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	RT +5° to 540°C (41° to 1004°F)	25 x 13 x 10cm (10 x 5 x 3in.)	100V 50/60hz
HP130915Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	RT +5° to 540°C (41° to 1004°F)	25 x 13 x 10cm (10 x 5 x 3.63in.)	120V 60Hz, 385w, 3.8A
HP130910-33Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	RT +5° to 540°C (41° to 1004°F)	25 x 13 x 10cm (10 x 5 x 3in.)	220-240V, 50/60, 420w, 1.7A
HP131224Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	RT +5° to 540°C (41° to 1004°F)	33 x 21 x 10cm (13 x 8.25 x 3.88in.)	100V 50/60hz
HP131225Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	RT +5° to 540°C (41° to 1004°F)	33 x 21 x 10cm (13 x 8.25 x 3.88in.)	120V 60Hz, 1060w, 8.8A
HP131220-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	RT +5° to 540°C (41° to 1004°F)	33 x 21 x 10cm (13 x 8 x 3in.)	240V, 50/60, 1150w, 4.8A
HP141924Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	RT +5° to 300°C (41° to 572°F)	33 x 21 x 10cm (13 x 8.25 x 3.88in.)	100V 50/60hz
HP141925Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	RT +5° to 300°C (41° to 572°F)	33 x 21 x 10cm (13 x 8.25 x 3.88in.)	120V 60Hz, 660w, 5.5A
HP141920-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	RT +5° to 300°C (41° to 572°F)	33 x 21 x 10cm (13 x 8 x 3in.)	220-240V, 50/60Hz, 690w, 2.9A
HP131534Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	RT +5° to 400°C (41° to 752°F)	41 x 29 x 10cm (16.25 x 11.38 x 4in.)	100V 50/60hz
HP131535Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	RT +5° to 400°C (41° to 752°F)	41 x 29 x 10cm (16.25 x 11.38 x 4in.)	120V 60Hz, 1410w, 11.7A
HP131530-33Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	RT +5° to 400°C (41° to 752°F)	41 x 29 x 10cm (16.25 x 11.38 x 4in.)	220V, 50/60Hz, 1530w, 6.4A

## Thermo Scientific Cimarec Stirring Hotplates

Cat. No.	Heating Surface Area	Material (Surface)	Stirring Range	Temp. Range	Overall L x W x H	Electrical
SP131014Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	60 to 1200rpm	RT +5° to 540°C (41° to 1004°F)	25 x 13 x 10cm (10 x 5 x 3.63in.)	100V 50/60hz
SP131015Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	60 to 1200rpm	RT +5° to 540°C (41° to 1004°F)	25 x 13 x 10cm (10 x 5 x 3.63in.)	120V 60Hz
SP131010-33Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	60 to 1200rpm	RT +5° to 540°C (41° to 1004°F)	25 x 13 x 10cm (10 x 5 x 3.63in.)	220-240V 50/60Hz
SP131324Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	60 to 1200rpm	RT +5° to 540°C (41° to 1004°F)	33 x 21 x 10cm (13x 8.25 x 3.88in.)	100V 50/60hz
SP131325Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	60 to 1200rpm	RT +5° to 540°C (41° to 1004°F)	33 x 21 x 10cm (13x 8.25 x 3.88in.)	120V 60Hz
SP131320-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	60 to 1200rpm	RT +5° to 540°C (41° to 1004°F)	33 x 21 x 10cm (13x 8.25 x 3.88in.)	220-240V 50/60Hz
SP142024Q	18.4 x 18.4cm (7.25 x 7.2 in)	Aluminum	60 to 1200rpm	RT +5° to 300°C (41° to 572°F)	33 x 21 x 10cm (13 x 8.25 x 3.88 in)	100V 50/60Hz
SP142025Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	60 to 1200rpm	RT +5° to 300°C (41° to 572°F)	33 x 21 x 10cm (13x 8.25 x 3.88in.)	120V 60Hz
SP142020-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	60 to 1200rpm	RT +5° to 300°C (41° to 572°F)	33 x 21 x 10cm (13x 8.25 x 3.88in.)	220-240V 50/60Hz
SP131634Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	60 to 1200rpm	RT +5° to 400°C (41° to 752°F)	41 x 29 x 10cm (16.25 x 11.38 x 4in.)	100V 50/60Hz
SP131635Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	60 to 1200rpm	RT +5° to 400°C (41° to 752°F)	41 x 29 x 10cm (16.25 x 11.38 x 4in.)	120V 60Hz
SP131630-33Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	60 to 1200rpm	RT +5° to 400°C (41° to 752°F)	41 x 29 x 10cm (16.25 x 11.38 x 4in.)	220-240V 50/60Hz

## Thermo Scientific Cimarec Stirrers

Cat. No.	Stirring Surface Area	Material (Surface)	Stirring Speed	Overall L x W x H	Electrical
S130814Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	60 to 1200rpm	25.4 x 12.7 x 9.1cm (10 x 5 x 3.6in.)	100V 50/60hz
S130815Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	60 to 1200rpm	25.4 x 12.7 x 9.1cm (10 x 5 x 3.6in.)	120V 60Hz
S130810-33Q	10.8 x 10.8cm (4.25 x 4.25in.)	Ceramic	60 to 1200rpm	25.4 x 12.7 x 9.1cm (10 x 5 x 3.6in.)	220-240V 50/60Hz
S131124Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	60 to 1200rpm	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	100V 50/60hz
S131125Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	60 to 1200rpm	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	120V 60Hz
S131120-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	60 to 1200rpm	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	220-240V 50/60Hz
S142125Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	60 to 1200rpm	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	120V 60Hz
S142120-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	60 to 1200rpm	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	220-240V 50/60Hz
S131434Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	60 to 1200rpm	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	100V 50/60hz
S131435Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	60 to 1200rpm	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	120V 60Hz
S131430-33Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	60 to 1200rpm	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	220-240V 50/60Hz



## Thermo Scientific Super-Nuova Digital Hotplates, Stirring Hotplates & Stirrers

**Programmable, microprocessor controlled models offer high performance features and precise control with calibration**



### Operating Features

- Separate easy to read displays for heating and stirring are adjustable in 1°C and 1rpm increments.
- User programmable preset buttons can store 4 commonly used protocols at the touch of a button – excellent for labs with multiple users
- Microprocessor controlled feedback technology ensures accurate and stable setpoints
- Control either the top plate surface temperature or the liquid temperature (when using the included PTFE-coated probe)
- Calibration mode allows remote probe to the calibrated to external standards at a user selected temperature
- StirTrac technology with superb magnetic coupling provides smooth slow speed stirring and rapid braking.
- Walk away timer shuts off heating, stirring or both after preset user defined interval
- Integrated ring stand, single knob design and RS232 output

### Safety Features

- Cast-aluminum base diverts spills from internal electronics
- Low-profile design and stable, rugged base prevent tipping and spillage
- User-adjustable over-temperature protection prevents overheating, short-circuiting and internal damage in case of sample overflow
- Red HOT TOP warning light activates when heating surface is above 50°C (122°F); unit flashes HOT OFF until surface temperature falls to 50°C or below, even when heat control is turned off
- Lock feature prevents accidental changes

### Ceramic Top Models

- Clean easily and resist alkalis and acids
- Seamless, reflective white surface aids sample visibility
- Heat to higher temperatures than aluminum tops

### Aluminum Top Models

- Rugged and chip-resistant for excellent durability
- Allow uniform heat distribution across surface

**Includes:** Detachable line cord and plug, 6in. Type K probe.

**Warranty:** Three years

**Certifications:** cCSAus (120V, 220-240V models), CE (220-240V models)

### Thermo Scientific Super-Nuova Digital Hotplates

Cat. No.	Heating Surface Area	Material (Surface)	Temperature Range	Overall L x W x H	Electrical
HP131724Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	RT +1° to 370° C (33.8° to 698°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	100V 50/60Hz
HP131725Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	RT +1° to 370° C (33.8° to 698°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	120V 60Hz
HP131720-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Ceramic	RT +1° to 370°C (33.8° to 698°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	220-240V 50/60Hz
HP133424Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	RT +1° to 300°C (33.8° to 572°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	100V 50/60Hz
HP133425Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	RT +1° to 300°C (33.8° to 572°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	120V 60Hz
HP133420-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	Aluminum	RT +1° to 300°C (33.8° to 572°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	220-240V 50/60Hz
HP133734Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	RT +1° to 370° C (33.8° to 698°F)	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	100V 50/60Hz
HP133735Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	RT +1° to 370° C (33.8° to 698°F)	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	120V 60Hz
HP133730-33Q	26 x 26cm (10.25 x 10.25in.)	Ceramic	RT +1° to 370°C (33.8° to 698°F)	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	220-240V 50/60Hz

### Thermo Scientific Super-Nuova Digital Stirring Hotplates

Cat. No.	Heating Surface Area	Stirring Range	Material (Surface)	Temp. Range	Overall L x W x H	Electrical
SP131824Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Ceramic	RT +1° to 370°C (33.8° to 698°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	100V 50/60Hz
SP131825Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Ceramic	RT +1° to 370°C (33.8° to 698°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	120V 60Hz, 670w, 5.6A
SP131820-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Ceramic	RT +1° to 370°C(33.8° to 698°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	220-240V 50/60Hz, 710w, 3.0A
SP133525Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Aluminum	RT +1° to 300°C (33.8° to 572°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	120V 60Hz, 670w, 5.6A
SP133520-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Aluminum	RT +1° to 300°C (33.8° to 572°F)	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	220-240V 50/60Hz, 710w, 3.0A
SP133834Q	26 x 26cm (10.25 x 10.25in.)	50 to 1200rpm	Ceramic	RT +1° to 370°C (33.8° to 698°F)	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	100V 50/60Hz
SP133835Q	26 x 26cm (10.25 x 10.25in.)	50 to 1200rpm	Ceramic	RT +1° to 370°C (33.8° to 698°F)	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	120V 60Hz, 1210w, 10.1A
SP133830-33Q	26 x 26cm (10.25 x 10.25in.)	50 to 1200rpm	Ceramic	RT +1° to 370°C (33.8° to 698°F)	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	220-240V 50/60Hz, 1365w, 5.7A

### Thermo Scientific Super-Nuova Digital Stirrers

Cat. No.	Stirring Surface Area	Stirring Range	Material (Surface)	Overall L x W x H	Electrical
S133324Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Ceramic	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	100V 50/60Hz
S133325Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Ceramic	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	120V, 60Hz
S133320-33Q	18.4 x 18.4cm (7.25 x 7.25in.)	50 to 1200rpm	Ceramic	33 x 20.8 x 9.7cm (13 x 8.2 x 3.8in.)	220-240V, 50/60Hz
S133934Q	26 x 26cm (10.25 x 10.25in.)	50 to 1200rpm	Ceramic	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	100V 50/60Hz
S133935Q	26 x 26cm (10.25 x 10.25in.)	50 to 1200rpm	Ceramic	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	120V, 60Hz
S133930-33Q	26 x 26cm (10.25 x 10.25in.)	50 to 1200rpm	Ceramic	41.1 x 28.7 x 10.2cm (16.2 x 11.3 x 4in.)	220-240V, 50/60Hz

## Thermo Scientific Nuova Hotplates, Stirring Hotplates & Stirrers

**Excellent low end temperature control ideal for warming applications, culture media preparation and slow speed stirring of culture media**



- Full stirring and heating capabilities, a compact design and low temperature stability for a wide range of warming applications requiring stir speeds as low as 100rpm
- Reaches maximum temperature in just 8 minutes.\* Embedded heating element ensures even heat distribution
- Durable, die-cast aluminum case and corrosion-resistant porcelain-coated stainless-steel top
- Excellent low speed stirring (100rpm) can be achieved by turning knob to setting 1
- Topside drip edge protects internal components from spills
- Stirrer accommodates up to 20 lb. (9.1kg) load
- Porcelain coated stainless steel top gives excellent corrosion resistance

**Includes:** Integral ring stand holder accommodates a 0.5in. (1.3cm) diameter support rod, TFE stirbar

**Warranty<sup>†</sup>:** Three years

**Certifications:** UL, CUL listed (S18520Q, S18525Q, SP18420Q, SP18425Q, HP18320Q and HP18325Q only)

**Notes:** Recommended for use with glass vessels only.

### Thermo Scientific Nuova Hotplates

Cat. No.	Surface Area	Temp. Range	Overall L x W x H	Shipping Weight	Electrical
HP18325Q	17.7 x 17.7cm (7.0 x 7.0in.)	38° to 371°C (100° to 700°F)	21.8 x 29.9 x 11.73cm (8.6 x 11.8 x 4.5in.)	4.5kg (10 lb.)	120V, 840w, 7.0A
HP18320Q	17.7 x 17.7cm (7.0 x 7.0in.)	38° to 371°C (100° to 700°F)	21.8 x 29.9 x 11.73cm (8.6 x 11.8 x 4.5in.)	4.5kg (10 lb.)	220 to 240V, 840w, 3.5A
HP18320-26Q	17.7 x 17.7cm (7.0 x 7.0in.)	38° to 371°C (100° to 700°F)	21.8 x 29.9 x 11.73cm (8.6 x 11.8 x 4.5in.)	4.5kg (10 lb.)	220 to 240V (supplied with European cord set), 840w, 3.5A

### Thermo Scientific Nuova Stirring Hotplates

Cat. No.	Stirring Speed Range	Surface Area	Overall L x W x H	Temp. Range	Shipping Weight	Electrical
SP18425Q	100 to 1000rpm	17.7 x 17.7cm (7.0 x 7.0in.)	21.8 x 29.9 x 11.43cm (8.6 x 11.8 x 4.5in.)	38° to 371°C (100° to 700°F)	5kg (11 lb.)	120V, 858w, 7.0A
SP18420Q	100 to 1000rpm	17.7 x 17.7cm (7.0 x 7.0in.)	21.8 x 29.9 x 11.43cm (8.6 x 11.8 x 4.5in.)	38° to 371°C (100° to 700°F)	5kg (11 lb.)	240V, 851ww, 3.5A
SP18420-26Q	100 to 1000rpm	17.7 x 17.7cm (7.0 x 7.0in.)	21.8 x 29.9 x 11.43cm (8.6 x 11.8 x 4.5in.)	38° to 371°C (100° to 700°F)	5kg (11 lb.)	240V (with European cord set), 851w, 3.6A

### Thermo Scientific Nuova Magnetic Stirrers

Cat. No.	Stirring Speed Range	Surface Area	Overall L x W x H	Shipping Weight	Electrical
S18525Q	100 to 1000rpm	17.8 x 17.8cm (7 x 7in.)	21.8 x 29.9 x 11.43cm (8.6 x 11.8 x 4.5in.)	4.5kg (10lbs)	120V 50/60Hz, 18w, 0.3A
S18520Q	100 to 1000rpm	17.8 x 17.8cm (7 x 7in.)	21.8 x 29.9 x 11.43cm (8.6 x 11.8 x 4.5in.)	4.5kg (10lbs)	240V 50/60Hz, 11w, 0.1A
S18520-26Q	100 to 1000rpm	17.8 x 17.8cm (7 x 7in.)	21.8 x 29.9 x 11.43cm (8.6 x 11.8 x 4.5in.)	4.5kg (10lbs)	240V (with European cord set) 50/60Hz, 11w, 0.1A

\*assumes ambient temperature of 23°C

## Thermo Scientific Cimarec Basic Series

Sleek, rugged, no frills design combined with our renowned quality, performance



- Ideal for economical, general-purpose use
- Sleek, rugged design and construction promotes durability
- New top-plate design reduces chance of breakage
- Spill-away design diverts spills away from internal components
- Solid ceramic top plate cleans easily, resists acids and alkalis
- Integral ring-stand holder accommodates 0.5 in. (1.3cm) diameter support rod

**Includes:** TFE-coated stir bar  
**Warranty<sup>Y</sup>:** Three years  
**Certifications:** cCSAus

### Thermo Scientific Cimarec Basic Hotplates

Cat. No.	Surface Area	Top Plate Material	Temp. Range	Overall L x W x H	Electrical
<b>HP194515</b>	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	150° to 538°C (302° to 1000°F)	20 × 14.5 × 12.7cm (7.9 × 5.7 × 5in.)	120V 60Hz, 3.21A, 385w
<b>HP194825</b>	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	150° to 538°C (302° to 1000°F)	28.2 × 21.1 × 12.7cm (11.1 × 8.3 × 5in.)	120V 60Hz, 8.96A, 1062w

### Thermo Scientific Cimarec Basic Stirring Hotplates

Cat. No.	Surface Area	Top Plate Material	Stirring Range	Temp. Range	Overall L x W x H	Electrical
<b>SP194715</b>	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	250 to 2500rpm	150° to 538°C (302 to 1000°F)	20 × 14.5 × 12.7cm (7.9 × 5.7 × 5in.)	120V 60Hz, 3.45A, 405w
<b>SP195025</b>	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	250 to 2500rpm	150° to 538°C (302 to 1000°F)	28.2 × 21.1 × 12.7cm (11.1 × 8.3 × 5in.)	120V 60Hz, 9.18A, 1086w

### Thermo Scientific Cimarec Basic Stirrers

Cat. No.	Surface Area	Top Plate Material	Stirring Range	Overall L x W x H	Electrical
<b>S194615</b>	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	250 to 2500rpm	20× 14.5 × 12.7cm (7.9 × 5.7× 5in.)	120V 60Hz, 0.45A, 21w
<b>S194925</b>	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	250 to 2500rpm	28.2 × 21.1 × 12.7cm (11.1 × 8.3 × 5in.)	120V 60 Hz, 0.48A, 23w

## Thermo Scientific Student Hotplates



**Small diameter heating surfaces, which provide high heat in a small footprint, ideal for quick sample testing**

- Perforated stainless-steel case allows air to circulate to protect controls and countertop from excess heat
- Thermostatic temperature control provides excellent stability of the top plate temperature and the sample
- Hotplate reaches 260°C (500°F) in just 4.5 min.\*
- Recommended for use with glass vessels

Cat. No.	Surface Material	Maximum Temp.	Electrical
HP2305BQ	Aluminum	371°C (700°F)	120V 50/60Hz, 325w, 2.7A
HP2310BQ	Aluminum	371°C (700°F)	240V 50/60Hz, 325w, 1.4A

**Warranty<sup>Y</sup>:** Three years



## Thermo Scientific StirBuddy Personal Stirrer

**Compact and space-saving design with a large stirring surface to reduce risk of spills**

- Solid-state speed control
- Direct-drive motor/magnet assembly stir solutions from water to viscous 50% glycerin
- Stirrer is field recalibratable to accommodate viscous liquids and specialized vessels
- Top plate and base are made of molded thermoplastic polyester

Cat. No.	Stirring Speed	Dimensions	Shipping Weight	Electrical
S168515Q	200 to 2500rpm	15.2 x 7.6cm (6 x 3in.)	1.2kg (2.4 lb.)	120V 60Hz, 0.4A, 48w

**Includes:** TFE-coated stir bar  
**Warranty<sup>Y</sup>:** Three years



## Thermo Scientific Stir Light 7 x 7 Stirrer

**Illuminates hard-to-see titration end points, and ideal for general laboratory applications including reagent mixing and stirring bacteria cultures**

- Lighted top allows easy viewing of samples while stirring
- Light and stirring functions can be used independently
- Large 7 x 7in. acrylic top plate surface accommodates 4L flasks
- Cool fluorescent bulbs minimize heat output
- Features built-in indicator light

Cat. No.	Stirring Speed	Top Plate Dimensions ,L x W	Shipping Weight	Electrical
SL194325	250 to 2500rpm	17.8 x 17.8cm (7 x 7in.)	2.7kg (6 lb.)	120V 60Hz, 37w

**Includes:** TFE-coated stir bar  
**Warranty<sup>Y</sup>:** Three years  
**Certifications:** cCSAus

\* with temperature setting at maximum and ambient temperature 23°C



## Thermo Scientific Super-Nuova Multi-Position Digital Stirring Hotplates and Stirrers

Ideal for high-volume, high-performance processing and life science/biotechnology applications as well as labs with multiple users



**Includes:** Detachable line cord and plug, 6in. Type K probe. Stirring models also include stir bar  
**Warranty:** Three years  
**Certifications:** cCSAus (all models), CE (220-240V models)

### Operating Features

- Features four independently controlled stirring positions
- Separate easy to read displays for heating and stirring are adjustable in 1°C and 1rpm increments.
- User programmable preset buttons can store 4 commonly used protocols at the touch of a button – excellent for labs with multiple users
- Microprocessor controlled feedback technology ensures accurate and stable setpoints
- Control either the top plate surface temperature or the liquid temperature (when using the included PTFE-coated probe)
- Calibration mode allows remote probe to be calibrated to external standards at a user selected temperature
- StirTrac technology with superb magnetic coupling provides smooth slow speed stirring and rapid braking.
- Walk away timer shuts off heating, stirring or both after preset user defined interval
- Integrated ring stand, single knob design and RS232 output

### Safety Features

- Cast-aluminum base diverts spills from internal electronics
- Low-profile design and stable, rugged base prevent tipping and spillage
- User-adjustable over-temperature protection prevents overheating, short-circuiting and internal damage in case of sample overflow
- Red HOT TOP warning light activates when heating surface is above 50°C (122°F); unit flashes HOT OFF until surface temperature falls to 50°C or below, even when heat control is turned off
- Lock feature prevents accidental changes

### Thermo Scientific Super-Nuova Multi-Position Digital Stirring Hotplates

Cat. No.	No. of Places	Stirring Range	Temp. Range	Overall L x W x H	Shipping Weight	Electrical
<b>SP135935Q</b>	4	50 to 1200rpm	RT +1° to 370° C (33.8° to 698°F)	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	9.3kg (20.5 lb.)	120V 60Hz, 1400w, 11.8A
<b>SP135930-33Q</b>	4	50 to 1200rpm	RT +1° to 370° C (33.8° to 698°F)	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	9.3kg (20.5 lb.)	220-240V 50-60Hz

### Thermo Scientific Super-Nuova Multi-Position Digital Stirrers

Cat. No.	No. of Stirring Positions	Stirring Range	Overall L x W x H	Shipping Weight	Electrical
<b>S136035Q</b>	4	50 to 1200rpm	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	9.3kg (20.5 lb.)	120V 60Hz
<b>S136030-33Q</b>	4	50 to 1200rpm	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	9.3kg (20.5 lb.)	220-240V 50/60Hz



## Thermo Scientific Cimarec i Magnetic Stirrers

### No-Compromise Stirring Performance

Renowned for their outstanding quality and durability, Thermo Scientific Cimarec i stirrers are available in a range of sizes, with inductive drive systems to match the application or process need.

Powerful magnetic couplings ensure precise, reproducible stirring performance for both general and specialty applications. Cimarec i® stirrers are available with convenient built-in controllers or with versatile external controllers. All offer safe, low voltage operation. Many models feature hermetically-sealed drive housings that allow operation in challenging laboratory environments and facilitate cleaning.

Units with adjustable power settings, allow users to adjust the power to the lowest level necessary to maintain the desired speed, resulting in an environmentally friendly solution that decreases power consumption and lowers heat output.

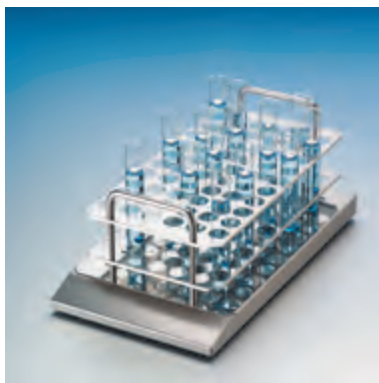
### Cimarec i Magnetic Stirrers – Maintenance-free, inductive-drive stirrers

**Inductive-drive stirrers operate without moving parts, making them uniquely wear-free and maintenance-free.**

- Hermetically-sealed drives for safe operation in demanding environments, easier cleaning and contamination prevention
- Single-point and multi-point stirring configurations



**Cimarec i Stirrers**  
Pages 113-119



## Thermo Scientific Cimarec i Mini & Micro Stirrer



### Cimarec i Mini Stirrers

**No larger than a thumbnail, perfect for stirring cuvettes**

- Stir speeds up to 1400 rpm
- Stir volumes up to 5 mL

### Cimarec i Micro Stirrers

**Hermetically sealed housing resists dust and microorganisms**

- Suitable for use in high humidity conditions, and can be fully submerged in water baths up to 95°C
- Stainless-steel housing has excellent chemical resistance
- Stir speeds up to 1400 rpm; stir volumes up to 1L

### Controller Choices

The Cimarec i Micro and Mini series stirrers come standard with your choice of controller. Choose the Cimarec i standard Telemodul controller with its space saving design or the Cimarec i Telemodul 20C with micro-processor controls, adjustable power setting and programmability.

### LINK & SYNC

Link and Sync up to 8 Mini or Micro stirrers using one controller with optional distributors (see page 118) and 50088140 Mini stirrers without controller or 50134760 Micro stirrers without controller.

**Warranty<sup>†</sup>:** Five years  
**Certifications:** CE

Cat. No.	Model	Stirring Speed	Power Setting	Protection Class (stirrer only)	Overall L x W x H	Weight	Electrical
50088130	Mini w/ Telemodul	130 to 1000rpm	0.1w	IP68	12 × 12 × 5mm (0.47 × 0.47 × 0.19in.)	0.02kg	230V Euro
50088132	Mini w/ Telemodul	130 to 1000rpm	0.1w	IP68	12 × 12 × 5mm (0.47 × 0.47 × 0.19in.)	0.02kg	230V UK
50088126	Mini w/ Telemodul	130 to 1000rpm	0.1w	IP68	12 × 12 × 5mm (0.47 × 0.47 × 0.19in.)	0.02kg	100V Japan
50088118	Mini w/ Telemodul	130 to 1000rpm	0.1w	IP68	12 × 12 × 5mm (0.47 × 0.47 × 0.19in.)	0.02kg	115V USA
50088120	Mini 20 w/ Telemodul 20C	130 to 1400rpm	0.5/0.1/0.15/0.2w	IP68	12 × 12 × 5mm (0.47 × 0.47 × 0.19in.)	0.02kg	100-240V
50088140	Mini w/o Controller	–	–	IP68	12 × 12 × 5mm (0.47 × 0.47 × 0.19in.)	0.02kg	–
50088162	Micro w/Telemodul	130 to 1000rpm	3w	IP68	48 × 48 × 15mm (1.8 × 1.8 × 0.6in.)	0.2kg	230V Euro
50088150	Micro w/Telemodul	130 to 1000rpm	3w	IP68	48 × 48 × 15mm (1.8 × 1.8 × 0.6in.)	0.2kg	115V USA
50088151	Micro w/Standard Telemodul	130 to 1000rpm	3w	IP68	48 × 48 × 15mm (1.8 × 1.8 × 0.6in.)	2.3kg	230V UK
50088155	Micro w/Standard Telemodul	130 to 1000rpm	3w	IP68	48 × 48 × 15mm (1.8 × 1.8 × 0.6in.)	2.3kg	230V Australia
50088149	Micro w/Standard Telemodul	130 to 1000rpm	3w	IP68	48 × 48 × 15mm (1.8 × 1.8 × 0.6in.)	2.3kg	100V Japan
50088148	Micro 20 w/Telemodul 20C	130 to 1400rpm	2/4/6/8w	IP68	48 × 48 × 15mm (1.8 × 1.8 × 0.6in.)	0.2kg	100-240V
50134760	Micro w/o Controller	–	–	IP68	48 × 48 × 15mm (1.8 × 1.8 × 0.6in.)	0.2kg	—

### OPERATING CONDITIONS:

**Mini:** -10 to +56°C at 95% rH ; 100-240 V units contain a cord set with various plugs

**Micro:** -10 to 120°C at 95% rH or 0-95°C submerged in water; 100-240 V units contain a cord set with various plugs

## Thermo Scientific Cimarec i Maxi & Compact Stirrers

**100% maintenance- and wear-free, hermetically sealed units designed for challenging stirring environments**



- Powerful magnets and no moving parts, these inductive-drive stirrers are designed to go into water baths and incubators.
- Outstanding mechanical, physical, thermal and chemical resistance
- Large, flat, easy-to-clean work surfaces
- Hermetically sealed chemically-resistant housing resists dust and microorganisms
- All models submersible for use in water baths up to 50°C
- Link and Sync up to 8 Compact stirrers or 4 Maxi stirrers using one controller with optional distributors (see page 118) and 50134759 Compact stirrer or 50134758 Maxi stirrer without controller

LINK & SYNC

### Cimarec i Maxi Stirrer with External Control

- Stir speeds up to 2000rpm
- Stir volumes up to 5L

### Cimarec i Compact Stirrer with External Control

- Stir speeds up to 1400rpm
- Stir volumes up to 1.5L

### Controller Choices

The Cimarec i Compact and Maxi stirrers come standard with your choice of controller. Choose the Cimarec i standard Telemodul controller with its space-saving design, the Cimarec i Telemodul 20C with microprocessor controls, adjustable power setting and programmability or the Cimarec i Telemodul 40C with higher speeds, more power settings and PC control. Adjustable power settings available on the Telemodul 20C and Telemodul 40C offer decreased power consumption and lower heat output

**Warranty<sup>\*</sup>:** Five years  
**Certifications:** CE

Cat. No.	Model	Stirring Speed	Power Settings	Material	Protection Class (stirrer only)	L x W x H	Weight	Electrical
50088143	Maxi w/Standard Telemodul	130 to 1000rpm	6w	Stainless Steel	IP68	18 × 18 × 3.5cm (7.1 × 7.1 × 1.4in.)	2.3kg (5.1 lb.)	230V, Euro
50088145	Maxi w/Standard Telemodul	130 to 1000rpm	6w	Stainless Steel	IP68	18 × 18 × 3.5cm (7.1 × 7.1 × 1.4in.)	2.3kg (5.1 lb.)	230 V UK
50088146	Maxi w/Standard Telemodul	130 to 1000rpm	6w	Stainless Steel	IP68	18 × 18 × 3.5cm (7.1 × 7.1 × 1.4in.)	2.3kg (5.1 lb.)	100 V Japan
50088147	Maxi w/Standard Telemodul	130 to 1000rpm	6w	Stainless Steel	IP68	18 × 18 × 3.5cm (7.1 × 7.1 × 1.4in.)	2.3kg (5.1 lb.)	115V, USA
50088135	Maxi w/Telemodul 20C	130 to 1400rpm	4.5/9/13.5/18	Stainless Steel	IP68	18 × 18 × 3.5cm (7.1 × 7.1 × 1.4in.)	2.3kg (5.1 lb.)	100-240V
50088122	Maxi w/Telemodul 40C	130 to 2000rpm	3-36w	Stainless Steel	IP68	18 × 18 × 3.5cm (7.1 × 7.1 × 1.4in.)	2.3kg (5.1 lb.)	100-240V
50088152	Compact w/Standard Telemodul	130 to 1000rpm	5w	Stainless Steel	IP68	12 × 12 × 3.5cm (4.7 × 4.7 × 1.4in.)	1kg (2.2 lb.)	Euro 230V
50088142	Compact w/Standard Telemodul	130 to 1000rpm	5w	Stainless Steel	IP68	12 × 12 × 3.5cm (4.7 × 4.7 × 1.4in.)	1kg (2.2 lb.)	115V, USA
50088153	Compact w/Standard Telemodul	130 to 1000rpm	5w	Stainless Steel	IP68	12 × 12 × 3.5cm (4.7 × 4.7 × 1.4in.)	2.3kg (5.1 lb.)	230 V UK
50094111	Compact w/Standard Telemodul	130 to 1000rpm	5w	Stainless Steel	IP68	12 × 12 × 3.5cm (4.7 × 4.7 × 1.4in.)	2.3kg (5.1 lb.)	230 V Australia
50088154	Compact w/Standard Telemodul	130 to 1000rpm	5w	Stainless Steel	IP68	12 × 12 × 3.5cm (4.7 × 4.7 × 1.4in.)	2.3kg (5.1 lb.)	100 V Japan
50088133	Compact w/Telemodul 20C	130 to 1400rpm	3/6/9/12w	Stainless Steel	IP68	12 × 12 × 3.5cm (4.7 × 4.7 × 1.4in.)	1kg (2.2 lb.)	100-240V

**OPERATING CONDITIONS:** -10 to +56°C in air; 0 to 50°C submerged in water.  
100-240 V units contain a cord set with various plugs

## Thermo Scientific Cimarec i Mono & Maxi Direct Stirrers

With powerful magnets and no moving parts, these inductive-drive stirrers are the perfect choice for your general lab needs.



- 100% maintenance- and wear-free
- Compact, space-saving design with large, flat, easy-to-clean work surfaces
- Gradual start acceleration is gentle and ensures optimum magnetic coupling
- Adjustable power settings are separate from the speed control—decreasing power consumption and lowering heat output

### Cimarec i Mono Direct Stirrer

- Easy-to-use rotary knob design
- Rugged powder-coated stainless-steel housing
- Stir volumes up to 3L

### Cimarec i Maxi Direct Stirrers

- Precise microprocessor control with bright digital display
- Easy-to-clean, chemical resistant, sealed stainless-steel housing
- Easily recall last used settings
- Stir volumes up to 5L
- Smooth and even stirring as low as 80 rpm

Warranty\*: Five years  
Certifications: CE

Cat. No.	Description	Overall L x W x H	Stirring Speed	Protection Class	Weight	Power Settings	Voltage/ Plug Type
50094711	Mono Direct	215 × 180 × 35mm (8.5 × 7.1 × 1.4in.)	130 to 1200rpm	IP32	1.4kg (3 lb.)	1/5W	230V Euro
50095601	Mono Direct	215 × 180 × 35mm (8.5 × 7.1 × 1.4in.)	130 to 1200rpm	IP32	1.4kg (3 lb.)	1/5W	115V USA
50096203	Mono Direct	215 × 180 × 35mm (8.5 × 7.1 × 1.4in.)	130 to 1200rpm	IP32	1.4kg (3 lb.)	1/5W	230V UK
50097289	Mono Direct	215 × 180 × 35mm (8.5 × 7.1 × 1.4in.)	130 to 1200rpm	IP32	1.4kg (3 lb.)	1/5W	230V Australia
50095921	Mono Direct	215 × 180 × 35mm (8.5 × 7.1 × 1.4in.)	130 to 1200rpm	IP32	1.4kg (3 lb.)	1/5W	100V Japan
50094713	Maxi Direct	215 × 180 × 35mm (8.5 × 7.1 × 1.4in.)	80 to 2000rpm	IP64	2.5kg (5.5 lb.)	5/10/15/20W	100-240V

**OPERATING CONDITIONS** are -10° to +40°C at 95% RH.  
100-240V units contain a cord set with various plugs

## Thermo Scientific Cimarec i Poly 15 & Multipoint Stirrers

**100% maintenance and wear-free stirrers available in platforms with up to 15 positions**



- Ideal for mass screening applications and other applications requiring multiple stirring points
- Inductive drive stirrers offer 100% maintenance and wear-free features in a fully synchronized multipoint platform
- Large, flat easy-to-clean work surfaces
- Precise microprocessor control with bright digital display
- Easily recall last used settings
- Gradual start acceleration is gentle and ensures good magnetic coupling

### Cimarec i Poly 15 Stirrer

- Rugged powder-coated stainless-steel housing
- Stir speeds up to 990rpm
- Suitable for 15 × 250mL beakers or 6 × 1L flasks

### Cimarec i Multipoint 6/15 Stirrers

- IP64 protection rated; easily cleaned with running water
- Easy-to-clean, chemical resistant, sealed stainless steel housing
- Chemical resistant, sealed stainless-steel housing
- Adjustable power settings are separate from the speed control that decreases power consumption and lowers heat output
- Smooth and even stirring as low as 80rpm and up to 2000rpm
- Stir volumes up to 3L per multipoint

**Warranty<sup>Y</sup>:** Five years  
**Certifications:** CE

Cat. No.	Model	No. of Stirring Positions	Power Settings	Overall L x W x H	Stirring Speed	Protection Class	Weight	Electrical
<b>50094596</b>	Poly 15	15	10w	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	130 to 990rpm	IP32	6kg	100-240V
<b>50093557</b>	Multipoint 6	6	5/10/15/20w	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	80 to 2000rpm	IP64	7.5kg	100-240V
<b>50093538</b>	Multipoint 15	15	5/10/15/20w	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	80 to 2000rpm	IP64	7.5kg	100-240V

**OPERATING CONDITIONS:** -10 to +40°C at 95% rH; 100-240 V units contain a cord set with various plugs

## Thermo Scientific Cimarec i Telesystem Multipoint Stirrers

**Designed for use with aggressive media, in high humidity environments and for integration with incubators and controlled climate chambers**



- All models submersible for use in water baths up to 50°C
- Inductive drive is 100% wear and maintenance free and ensures completely synchronized stirring at all positions
- 6-, 15- or 60-position stirrers
- IP68 protection rated; easily cleaned with running water
- Smooth and even stirring from 100rpm up to 2000rpm
- Stir volumes up to 2L per multipoint
- External controllers decrease power consumption and lower heat output
- Chemical resistant, sealed stainless-steel housing
- Easy recall of last used settings

### Controller Choices

The Cimarec i Telesystem multipoint stirrers come standard with your choice of controller. Choose the Cimarec i Telemodul 20C controllers with microprocessor controls, adjustable power setting, and programmability or the Cimarec i Telemodul 40C controllers with higher speeds, more power settings, and PC control.

**Warranty:** Five years  
**Certifications:** CE

Cat. No.	Model	Protection Class	Power Setting	Stir Volume per point	Overall L x W x H	Stirring Speed	Weight	Electrical
50088077	Telesystem 6 Position w/Telemodul 20C	IP 68	5/10/15/20w	1-1500ml	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	130 to 1400rpm	7.5kg (16.5 lb.)	100-240V
50088078	Telesystem 6 Position w/Telemodul 40C	IP 68	4-40w	1-2000ml	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	100 to 2000rpm	8kg (17.6 lb.)	100-240V
50088034	Telesystem 15 Position w/Telemodul 20C	IP 68	5/10/15/20w	1-1000ml	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	130 to 1400rpm	7.5kg (16.5 lb.)	100-240V
50088036	Telesystem 15 Position w/Telemodul 40C	IP 68	4-40w	1-1200ml	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	100 to 2000rpm	8kg (17.6 lb.)	100-240V
50088009	Telesystem 60 Position w/Telemodul 20C	IP 68	5/10/15/20w	0.1-50ml	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	130 to 1400rpm	7.5kg (16.5 lb.)	100-240V
50088011	Telesystem 60 Position w/Telemodul 40C	IP 68	4-40w	0.1-100ml	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	100 to 2000rpm	8kg (17.6 lb.)	100-240V

**OPERATING CONDITIONS:** -10° to +56°C at 100%RH in air; 0° to 50°C submerged in water.  
100-240 V units contain a cord set with various plugs



## Thermo Scientific Cimarec Stirrer Accessories



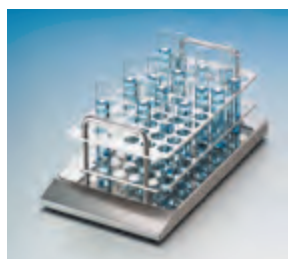
### Thermo Scientific Cimarec i Thermostats

Cat. No.	Model	Voltage	Includes	For Use With
<b>50087876</b>	Thermostat 60°C	115V	Circulation pump and digital temperature display	Telesytem Cimarec i Stirrers
<b>50087884</b>	Thermostat 60°C	230V	Circulation pump and digital temperature display	Telesytem Cimarec i Stirrers
<b>50087867</b>	Thermostat 95°C	115V	Circulation pump and digital temperature display	Telesytem Cimarec i Stirrers
<b>50087875</b>	Thermostat 95°C	230V	Circulation pump and digital temperature display	Telesytem Cimarec i Stirrers



### Thermo Scientific Cimarec i Bath Mounts

Cat. No.	Material	Dimensions (L x W x H)	Capacity	Operating Temp.	For Use With
<b>50087880</b>	Transparent Acrylic	610 x 330 x 185mm (24 x 13 x 7.3in.)	15L (3.9 gal.)	0° to 60°C	Telesytem Cimarec i Stirrers
<b>50087882</b>	Stainless Steel	520 x 315 x 160mm (20.4 x 12.4 x 6.3in.)	15L (3.9 gal.)	-10 to +200°C	Telesytem Cimarec i Stirrers



### Thermo Scientific Cimarec i Test Tube Racks

Cat. No.	Material	For Use With
<b>50087957</b>	Stainless Steel	20mm tubes in Telesytem Cimarec i Stirrers
<b>50087955</b>	Stainless Steel	16mm tubes in Telesytem Cimarec i Stirrers



### Thermo Scientific Cimarec i Benchtop Distributors

LINK & SYNC

- Ensure identical operating conditions for multiple stirrer installations
- Even power distribution for synchronized stirring
- Benchtop distributors ensure identical operating conditions for multiple stirrer installations.
- Simultaneous control of 2, 4, 6 or 8 Mini, Micro or Compact series stirrers using a single Cimarec i Telemodul 20C or Cimarec i Telemodul 40C external controller
- Simultaneous control of 2 or 4 Maxi series stirrers using a single Cimarec i Telemodul 20C or Cimarec i Telemodul 40C external controller
- Even power distribution for synchronized stirring

Cat. No.	Model
<b>50091720</b>	4-Place Distributor
<b>50091721</b>	8-Place Distributor

### Thermo Scientific Cimarec Extension Cables

Cat. No.	Model	Length	Compatibility
<b>50088016</b>	4-Pin Extension Cable	3m (9.8ft.)	Cimarec i Telmodul 20C, 40C and Cimarec Telemodul 10M Controllers
<b>50088021</b>	6-Pin Extension Cable	3m (9.8ft.)	Cimarec Telemodul Biosystem 40B Controller
<b>50088102</b>	8-Pin Extension Cable	3m (9.8ft.)	Cimarec Telemodul 40M and 80M Controllers

## Thermo Scientific Cimarec i Telemodul Controllers



### Included with the Cimarec i Micro, Mini, Compact, and Maxi Stirrers

- Order as replacement controller only.
- Single point stirring power for small to medium volumes (up to 250mL)

Cat. No.	Stirring Speed	Speed Control Accuracy	Stirring Power Relative to Rated Power	Ambient Temp. Range	Overall L x W x H	Weight	Electrical
50119115	130 to 1000rpm	±3	100%	0° to 40°C @ 80% relative humidity	96 × 63 × 50mm (3.7 × 2.4 × 1.9in.)	0.4kg (0.8 lb.)	230V/12V DC 7W
50119119	130 to 1000rpm	±3	100%	0° to 40°C @ 80% relative humidity	96 × 63 × 50mm (3.7 × 2.4 × 1.9in.)	0.4kg (0.8 lb.)	115V/12V DC 7W

## Thermo Scientific Cimarec i Telemodul 40C and 20C Controllers



### Included with the Cimarec i Micro, Mini, Compact, Maxi and Telesystems Stirrers

- Order as replacement controller only
- High speeds and power settings for more demanding stirring tasks
- Single-handed operation with straightforward turn and press adjustment wheel
- Three individual program, store and recall keys for rapid start-up
- Last used settings stored in memory
- Rocking/shake mode reverses stir bar direction for a gentle back and forth stirring motion
- Four power settings to decrease power consumption and lower heat output
- 10 power settings (40C model) and four power settings (20C model) to decrease power consumption and lower heat output
- RS-232 interface for data transfer and PC control (40C model only)

Cat. No.	Stirring Speed	Speed Control Accuracy	Rated Power	Stirring Power Relative to Rated Power	Ambient Temp. Range	Starting Times/ Pause Times	Output Voltage	Overall L x W x H	Weight
50090774	100 to 2000rpm	±1	40w	10 to 100 (10 levels)	0° to 40°C @ 80% relative humidity	5 sec. to 60 min.	36V DC	165 × 155 × 95mm (6.4 × 6.1 × 3.7in.)	0.7kg (1.5 lb.)
50090773	130 to 1400rpm	±1	20w	25/50/75/100 (4 levels)	0° to 40°C @ 80% relative humidity	5 sec. to 60 min.	20V DC	165 × 155 × 95mm (6.4 × 6.1 × 3.7in.)	0.6kg (1.3lb.)

## Thermo Scientific Cimarec Biosystem Slow Speed Stirrer for Cell Culture

Gentle stirring of microcarrier cultures, culture broths and cell suspensions inside your CO<sub>2</sub> incubator



- Hermetically sealed housing resists microorganisms — separate external controller ensures only the hermetically sealed stirrer is exposed to the CO<sub>2</sub> environment
- Heatless operation will not compromise the incubator chamber conditions
- Stainless-steel housing is easy to clean and resists aggressive media
- Gradual low-shear acceleration on start-up
- Smooth and even stirring as low as 5rpm
- Adjustable controller power settings decrease power consumption and lower heat output
- Single position stirrers stir up to 20L; Four-position stirrers stir up to 5L per position

Required Cimarec Biosystem 40B Controller:

<b>50118915</b> – 230V Germany	<b>50118919</b> – 230V Switzerland
<b>50118918</b> – 230V UK	<b>50126086</b> – 115V US
<b>50118921</b> – 230V China	<b>50118917</b> – 230V Denmark
<b>50118916</b> – 230V Italy	<b>50118920</b> – 230V Australia

Cat. No.	Model	Dimensions (L x W x H)	Weight	Stir Speed	Protection Class	Power Setting
<b>50119113</b>	Biosystem w/o Controller	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP68	0.4 to 4w
<b>50119114</b>	Biosystem 4-Position w/o Controller	330 × 330 × 60mm (12.9 × 12.9 × 2.4in.)	9.4kg (20.7 lb.)	5 to 120rpm	IP68	0.4 to 4w

## Thermo Scientific Cimarec Biosystem Direct Slow Speed Stirrer

Gentle stirring outside of a CO<sub>2</sub> incubator



- Heatless operation protects heat-sensitive cell culture
- Stainless-steel housing is easy to clean and resists aggressive media
- Gradual low-shear acceleration on start-up
- Smooth and even stirring as low as 5rpm
- Single position stirrers stir up to 5L; Four-position stirrers stir up to 2L per position
- Built-in controller

**Warranty**<sup>\*</sup>: Five years  
**Certifications**: CE marked

Cat. No.	Model	Dimensions (L x W x H)	Weight	Stir Speed	Protection Class	Electrical	Power Setting
<b>50088071</b>	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	230V Euro	1w
<b>50088058</b>	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	115V USA	1w
<b>50088057</b>	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	230V UK	1w
<b>50088064</b>	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	230V Australia	1w
<b>50101524</b>	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	100V Japan	1w
<b>50088061</b>	Biosystem 4-Position Direct	330 × 330 × 60mm (12.9 × 12.9 × 2.4in.)	11kg (24.3 lb.)	5 to 120rpm	IP64	100-240V	0.05w (x4)

**OPERATING CONDITIONS: Biosystem:** Operating conditions are -10 to +56°C at 100% rH; **Biosystem Direct:** -10 to +40°C at 95% rH; 100-240 V units contain a cord set with various plugs

## Thermo Scientific Cimarec Mobil 10 and Mobil 25 Large Volume & Power Direct Stirrers

**Ideal for hard to stir viscous liquids up to 10L or 40L depending on model with Quick Stop function to stop the drive within three seconds, minimizing after runs and reducing the risk of breakage**



### Cimarec Mobil 10

- Compact space-saving design
- Gradual low-shear acceleration on start-up

### Cimarec Mobil 25

- Ideal for high temperatures up to 121°C and high pressure applications up to 2 bars (29psi)
- Can be used in autoclaves, water baths and climatic chambers
- Perfect for use on sterilized media ensuring even heating and cooling
- Easy-to-clean, chemical resistant, sealed stainless-steel housing
- Gradual low-shear acceleration on start-up

### Cimarec Power Direct (no controller required)

- Ideal for high-capacity (up to 40mL) stirring
- Integrated controller has an adjustable power setting that decreases power consumption and lowers heat output
- Sealed stainless-steel housing is easy to clean and chemical resistant

**Required Accessories:** Cimarec Telemodul 10M controller (#50019120 or #50019121) (Only required for Cimarec Mobil 10 and 25 models)

**Warranty<sup>Y</sup>:** Five years

**Certifications:** CE

Cat. No.	Model	Overall Dimensions	Stir Speed	Stir Capacity	Operating Temp.	Weight	Protection Class	Power Setting	Electrical
50119111	Mobil 10 w/o controller	128 × 32mm (5 × 1.3in.)	100 to 1000 rpm	10L	-10° to +56°C	0.7kg (1.5 lb.)	IP66	10w	–
50119112	Mobil 25 w/o controller	128 × 32mm (5 × 1.3in.)	100 to 1000 rpm	10L	-10° to +121°C	1.7kg (3.7 lb.)	IP68	10w	–
50098760	Power Direct	95 × 240 × 35mm (11.6 × 9.4 × 1.4in.)	100 to 2000 rpm	40L	-10° to +40°C	2.5kg (5.5lbs)	IP22	5/10/15/20w	100-240V

**OPERATING CONDITIONS:** Mobil 10: -10 to 56°C ; Mobil 25: -10 to 121°C; Power Direct: -10 to 40°C  
100-240 V units contain a cord set with various plugs

### Thermo Scientific Cimarec Telemodul 10M Controller

Cat. No.	Stir Speed	Stir Capacity	Electrical	For use with
50119120	100 to 1000 rpm	10L	230V	Mobil 10 and Mobil 25
50119121	100 to 1000 rpm	10L	115V US	Mobil 10 and Mobil 25

## Thermo Scientific Cimarec Mobil Direct, Mobil 200 and Mobil 600 Large Volume Stirrers

### Outstanding stirring power for high-volume applications



- For use in pilot plant or integrated with process equipment
- Quick Stop function stops the drive within three seconds, minimizing after runs and risk of vessel breakage
- Easy-to-clean, chemical resistant, sealed stainless-steel housing
- Maximum shaft torque is 30Ncm for the Mobil Direct and 50Ncm for the Mobil 200 and 600
- Mobil Direct can stir up to 150L and features an integrated controller with adjustable power settings
- Mobil 200 can stir up to 200L; Mobil 600 can stir up to 600L

**Required Accessories:** The Cimarec Mobil 200 and 600 require either the Cimarec Telemodul 40M or 80M controller (order separately).

**Warranty<sup>Y</sup>:** Five years

**Certifications:** CE

Cat. No.	Description	Stir Speed	Power Settings	Type	Dimensions	Weight	Electrical
50088131	Mobil Direct	100 to 1000rpm	40w	IP64	330 × 330 × 80mm (13 × 13 × 3.4in.)	16kg	115V USA
50088128	Mobil Direct	100 to 1000rpm	40w	IP64	330 × 330 × 80mm (13 × 13 × 3.4in.)	16kg	230V Euro
50088129	Mobil Direct	100 to 1000rpm	40w	IP64	330 × 330 × 80mm (13 × 13 × 3.4in.)	16kg	100V Japan
50100547	Mobil Direct	100 to 1000rpm	40w	IP64	330 × 330 × 80mm (13 × 13 × 3.4in.)	16kg	230V UK
50119109	Mobil 200 w/o Controller	100 to 1000rpm	80w	IP65	180 × 180 × 80mm (7 × 7 × 3.4in.)	6kg	–
50119110	Mobil 600 w/o Controller	100 to 1000rpm	80w	IP65	330 × 330 × 80mm (13 × 13 × 3.4in.)	16kg	–

**OPERATING CONDITIONS:** Mobil Direct: -10 to +40°C at 95% rH; Mobil 200 & 600: -10 to +56°C at 100% rH

## Thermo Scientific Cimarec 40M and 80M Telemodul Controllers



- Constant speeds, even during viscosity changes
- High visibility digital display
- Thermal and electrical overload protection, with fault alert

Cat. No.	Stirring Range	Voltage
<b>Cimarec 40M Controllers (40w)</b>		
50118901	100 to 1000rpm	230V Germany
50118902	100 to 1000rpm	230V Italy
50118903	100 to 1000rpm	230V Denmark
50118904	100 to 1000rpm	230V UK
50118905	100 to 1000rpm	230V Swiss
50118906	100 to 1000rpm	230V Australia
50118907	100 to 1000rpm	230V China
50119122	100 to 1000rpm	110V Japan
50119123	100 to 1000rpm	115V US

Cat. No.	Stirring Range	Voltage
<b>Cimarec 80M Controllers (80w)</b>		
50118908	100 to 1000rpm	230V Germany
50118909	100 to 1000rpm	230V Italy
50118910	100 to 1000rpm	230V Denmark
50118911	100 to 1000rpm	230V UK
50118912	100 to 1000rpm	230V Swiss
50118913	100 to 1000rpm	230V Australia
50118914	100 to 1000rpm	230V China
50119124	100 to 1000rpm	110V Japan
50119125	100 to 1000rpm	115V US

## Thermo Scientific Explosion-Proof Series

Deliver the highest protection for hazardous applications, including Class I, Group C and D flammable gases or solvent vapors



- Features over-temperature safety monitors, precise thermostatic controls and sealed aluminum housing
- Corrosion-resistant steel case for easy cleaning and maintenance
- Sturdy construction allows maximum load capacity, 25 lb. (11.3kg) on top plate

### SAFE-T HP6 Hotplates

- Thermostatic safety is set at 243°C (469.4°F) for added protection
- Maintains temperature within  $\pm 5.5^\circ\text{C}$  (9.9°F)
- Sealed aluminum housing contains and protects controls
- Cast aluminum top plate maximizes heat transfer and uniformity ( $\pm 6.5^\circ\text{C}$  or 11.7°F)

### SAFE-T SHP9 Stirring Hotplates

- Feature thermostatic control, over-temperature safety monitors and precise temperature stability
- Large, aluminum top plate surface provides efficient heat transfer
- Precise electronic heat control maintains temperature stability within  $\pm 2^\circ\text{C}$  ( $\pm 4^\circ\text{F}$ )
- Stir solutions with a viscosity of 1200cp at 400rpm (at 21.5°C)
- Stainless-steel case is easily cleaned and maintained and accommodates a metal vessel

### Safe-T S10 Stirrer

- Designed for stirring viscous solutions and suspensions
- Accommodates vessels with a capacity of 1.58 gal. (6L)
- Sturdy construction to handle a maximum load of 25 lb. (11.3kg) on the top plate

**Includes:** Stirrer unit and one 2 x 0.38 in. (5 x 1cm) PTFE-coated stir bar

**Warranty\*:** Three years

**Compliance:** Meets IEC1010 laboratory standards

**Certifications:** UL listed. Safe for Class 1, Group C and D flammable gases or solvent vapors that can produce explosive or ignitable mixtures.

Cat. No.	Model	Surface Dimensions	Surface Material	Stirring Speed	Temp. Range	Overall Dimensions	Weight	Electrical
HP11515B	SAFE-T HP6 Hotplate	15.6 x 15.6cm (6.13 x 6.13in.)	Aluminum	–	38° to 22°C (100° to 428°F)	32.4 x 28.3 x 20cm (12.8 x 11.1 x 7.9in.)	13.6kg (30 lb.)	120V 50/60Hz; 600w; 5A
SP87325	SAFE-T SHP9 Stirring Hotplate	(23.2 x 23.2cm) (9.1 x 9.1in.)	Aluminum	60 to 1200rpm	38° to 220°C (100° to 428°F)	32.4 x 25.4 x 20.8cm (12.8 x 10 x 8.1in.)	13.6kg (30 lb.)	120V 50/60Hz, 1070w, 8.9A
S108525	SAFE-T S20 Stirrer	25.4 x 25.4cm (10 x 10in.)	Ceramic	60 to 1200rpm	–	32.4 x 28.3 x 20cm (12.8 x 11.1 x 7.9in.)	13.6kg (30 lb.)	120V 50/60Hz; 70w; 0.6A



### Thermo Scientific Dial Thermometer for Explosion-Proof Hotplate

Cat. No.	Description	Temp. Range	Stem Diameter	Face Dimensions
MEX126	Dial Thermometer	0° to 300°C	0.64 x 6.4cm (0.25 x 2.5in.)	2.5cm (1in.)



## Thermo Scientific Aluminum-Top Hotplates

**Cast-aluminum top for maximum heat transfer, strength and corrosion resistance**



- Equipped with thermostatic temperature control
- Baffle-vented welded stainless-steel case

**Warranty<sup>Y</sup>:** Three years  
**Certifications:** UL listed (120V model)  
**Notes:** Recommended for use with glass vessels only.

Cat. No.	Heating Surface Area	Temperature Range	Temp. Uniformity	Overall L x W x H	Volts
<b>HPA1915BQ</b>	15.9cm <sup>2</sup> (6.25 sq.in.)	38° to 371°C (100° to 700°F)	±2.4°C at 100°C	19.4 x 16.8 x 11.1cm (7.63 x 6.63 x 4.38in.)	120V
<b>HPA1910MQ</b>	15.9cm <sup>2</sup> (6.25 sq.in.)	38° to 371°C (100° to 700°F)	±2.4°C at 100°C	19.4 x 16.8 x 11.1cm (7.63 x 6.63 x 4.38in.)	240V

## Thermo Scientific Large External-Controlled Hotplates

**Uniform heating of large volumes and multiple vessels**



- External controller operates outside fume hoods
- Robust design for safety; large capacity with excellent temperature stability
- Porcelain-coated, stainless-steel top and case offer chemical and stain resistance
- Chemical-resistant cover protects line cord
- Isolation of controls allows operation in hazardous environments
- Percentage input controller delivers infinite temperature selection
- Power light indicates when control is operating

**Warranty<sup>Y</sup>:** Three years  
**Includes:** 5ft. (1.5m) 3-wire cord and plug

Cat. No.	Heating Surface	Temp. Range	Temp. Stability	Temperature Uniformity	Electrical Requirements
<b>RC2235Q</b>	30.5 x 30.5cm (12 x 12in.)	150° to 371°C (300° to 700°F)	±5°C (9°F)	±10°C (18°F) (at 150°C)	120V 50/60Hz, 1600w, 13.3A
<b>RC2240Q</b>	30.5 x 60.9cm (12 x 24in.)	150° to 371°C (300° to 700°F)	±5°C (9°F)	±10°C (18°F) (at 150°C)	240V 50/60Hz, 3200w, 13.3A

## Thermo Scientific 2200 Series Aluminum Top Hotplates

Ideal for large-volume heating applications requiring precise temperature stability, including acid base digestion, sample drying, general reagent heating, heating TLC plates, and evaporations



- Large, aluminum heating surface, thermostatic temperature controls for outstanding temperature uniformity and stability
- Cycle light indicates when power is being supplied to heating element
- Stainless-steel case provides safe, reliable construction and optimal strength for heavy loads
- Epoxy-painted surface increases chemical resistance in corrosive environments

**Warranty<sup>Y</sup>:** Three years  
**Certifications:** UL listed  
**Alert:** Recommended for use with glass vessels only.

Cat. No.	Heating Surface Area	Temp. Range	Temp.Stability (at 100°C)	Temp.Uniformity (at 100°C)	Overall L x W x H	Electrical
HPA2235MQ	30.5 x 30.5cm (12 x 12in.)	38° to 371°C (100° to 700°F)	±3.0°C (5.4°F)	±4.0°C (7.2°F)	33 x 30.5 x 15.6cm (13 x 12 x 6.13in.)	120V 50/60Hz, 1600w, 13.3A
HPA2230MQ	30.5 x 30.5cm (12 x 12in.)	38° to 371°C (100° to 700°F)	±3.0°C (5.4°F)	±4.0°C (7.2°F)	33 x 30.5 x 15.6cm (13 x 12 x 6.13in.)	240V 50/60Hz, 1600w, 6.7A
HPA2245MQ*	30.5 x 60.9cm (12 x 24in.)	38° to 371°C (100° to 700°F)	±3.5°C (6.3°F)	±10°C (18°F)	34.9 x 60.9 x 15.9cm (13.75 x 24 x 6.25in.)	120V 50/60Hz, 3200w, 26.6A
HPA2240MQ	30.5 x 60.9cm (12 x 24in.)	38° to 371°C (100° to 700°F)	±3.5°C (6.3°F)	±10°C (18°F)	34.9 x 60.9 x 15.9cm (13.75 x 24 x 6.25in.)	240V 50/60Hz, 3200w, 13.3A

\*12x24 top plate models not supplied with cord and plug due to high-wattage consumption requirements. Must be hard wired.

## Thermo Scientific RT Basic Series Magnetic Stirrers

Experience the reliability of our plug-and-play stirrers, ideal for routine stirring applications



### Features

- Strong magnetic coupling to ensure consistent stirring during experimental procedures
- Three size options
- Low profile lightweight design with small footprint
- Speed Control: 150 to 2500rpm
- Two non-slip silicone plate covers included with all units (1 black, 1 white)

Cat. No.	88880007	88880008	88880009	88880010	88880011	88880012
<b>Plug Configuration</b>						
<b>Mechanism</b>	Brushless DC motor		Brushless DC motor		Brushless DC motor	
<b>Stirring Capacity (H2O)</b>	2L		4L		5L	
<b>Speed Range</b>	150 to 2500rpm		150 to 2500rpm		150 to 2500rpm	
<b>Maximum Load (vessel)</b>	15kg / 33.07lbs		20kg / 44.09lbs		25kg / 55.12lbs	
<b>Body Material</b>	Polypropylene		Polypropylene		Polypropylene	
<b>Top Plate Dimensions</b>	120mm / 4.72in diameter		170mm / 6.69in diameter		220mm / 8.66in diameter	
<b>Overall Dimensions (WxDxH)</b>	130 x 130 x 65mm 5.12 x 5.12 x 2.56in		185 x 185 x 65mm 7.28 x 7.28 x 2.56in		230 x 230 x 65mm 9.06 x 9.06 x 2.56in	
<b>Power Consumption</b>	5W		6W		6W	
<b>Power</b>	100 – 240V, 50/60Hz		100 – 240V, 50/60Hz		100 – 240V, 50/60Hz	
<b>Certifications</b>	CE		CE		CE	
<b>Warranty</b>	2 Years		2 Years		2 Years	

Accessories for RT Basic Series Magnetic Stirrers	Cat. No.
Non-slip silicone plate cover for items 88880007 and 88880008 (White color, Silicone Ø120cm)	<b>88880144</b>
Non-slip silicone plate cover for items 88880009 and 88880010 (White color, Silicone Ø170cm)	<b>88880145</b>
Non-slip silicone plate cover for items 88880011 and 88880012 (White color, Silicone Ø220cm)	<b>88880146</b>



Non-slip Silicone Plate Covers

## Thermo Scientific RT Touch Series Magnetic Stirrers

Stay in control with our low profile digital display stirrer, ideal for routine stirring applications where precise stir speed is required.



### Features

- Digital control
- Gradual start-up stirring to prevent splashing
- Threaded hole for support rod
- Low profile lightweight design with small footprint; two sizes available
- Strong magnetic coupling to ensure consistent stirring during experimental procedures
- Speed Control: 30 to 2000rpm
- Two non-slip silicone plate covers included with all units (1 black, 1 white)
- Timer: Run continuously or countdown
- Detachable Plug
- Programmable
- Includes stir bar

Cat. No.	88880013	88880014	88880015	88880016
Plug Configuration				
Speed Control	Digital		Digital	
Stirring Capacity (H <sub>2</sub> O)	4L		5L	
Speed Range	30 to 2000rpm		30 to 2000rpm	
Maximum Load (vessel)	20kg / 44.09lbs		25kg / 55.12lbs	
Body and Top Plate Material	Polypropylene		Polypropylene	
Top Plate Dimensions	170mm / 6.69in diameter		220mm / 8.69in diameter	
Overall Dimensions (WxDxH)	210 x 280 x 72mm 8.27 x 11.02 x 2.82in		260 x 360 x 72mm 10.24 x 14.17 x 2.82in	
Power Consumption	6W		6W	
Power	100 – 240V, 50/60Hz		100 – 240V, 50/60Hz	
Certifications	CE		CE	
Warranty	2 Years		2 Years	

Accessories for RT Touch Series Magnetic Stirrers	Cat. No.
Non-slip silicone plate cover for items 88880013 and 88880014 (White color, Silicone Ø170cm)	88880145
Non-slip silicone plate cover for items 88880015 and 88880016 (White color, Silicone Ø220cm)	88880146



Non-slip Silicone Plate Covers





## Thermo Scientific RT2 Digital Hotplate

Increase your confidence in safety and accuracy with our low-profile digital display hotplate. Equipped with hot top warning and built-in temperature shut-off to provide accurate heating of samples and safety to the laboratory.



### Features

- Precise digital control with 0.1C resolution
- Automatic over-temperature safety shut off at 450C
- Hot top warning indicator
- Microprocessor PID temperature control
- Non-slip heating bath (optional)
- Transparent safety shield (optional)
- Two threaded holes for Support Rods
- Keypad lock
- Heating rate can be set from 0 to 100% at 1% interval
- View current and set temperature simultaneously
- Timer can be set to start immediately, count down or start when top plate reaches desired set point
- Aluminum top provides excellent temperature uniformity while the thin ceramic coating provides excellent corrosion resistance and a white surface for optimal sample viewing.

Cat. No.	88880002	88880001
Plug Configuration		  
Temperature Range	Max 350°C / 662°F	
Heating Control	Feedback Control with PID	
Display	LED digital (0.1C resolution)	
Maximum Load (vessel)	25kg / 55.1lbs	
Body Material	Cast aluminum	
Top Plate Dimensions	140 mm / 5.5in diameter	
Top Plate Material	Ceramic coated aluminum	
Overall Dimensions (WxDxH)	161 x 290 x 100mm 6.34 x 11.42 x 3.94in	
Heating Power	600W	
Power	120V, 60Hz	230V, 50/60Hz
Certifications	CE, cCSAus	
Warranty	2 Years	

Accessories for RT2 Hotplate	Cat. No.
Heating Bath	88880141
Transparent Shield (PC)	88880142
Support Rod (Ø12mm, 400mm, M10)	88880143



RT2 with Transparent Shield





## Thermo Scientific RT2 Basic Hotplate Stirrer

**Rely on the accuracy of our low-profile analog hotplate stirrer for your routine applications. Each unit is equipped with hot top warning and built-in over-temperature safety shut-off.**

### Features

- Automatic Over-temperature safety shut off at 450°C
- Hot top warning indicator
- Max temperature of 350°C
- Non-slip heating bath (optional)
- Transparent safety shield (optional)
- Supporting rod (optional)
- Two threaded holes for Support Rods
- Aluminum top provides excellent temperature uniformity while the thin ceramic coating provides excellent corrosion resistance and a white surface for optimal sample viewing.
- 20L stirring Capacity



Cat. No.	88880004	88880003
Plug Configuration		  
Temperature Range	Max 350°C / 662°F	
Heating Control	Scale	
Stirring Speed Range	50 to 2000rpm	
Maximum Load (vessel)	25kg / 55.1lbs	
Stirring Capacity (H2O)	20L	
Body Material	Cast aluminum	
Top Plate Material	Ceramic coated aluminum	
Top Plate Dimensions	140 mm / 5.5in diameter	
Overall Dimensions (WxDxH)	161 x 290 x 100mm 6.34 x 11.42 x 3.94in	
Heating Power	600W	
Power	120V, 60Hz	230V, 50/60Hz
Certifications	CE, cCSAus	
Warranty	2 Years	

Accessories for the RT2 Basic Hotplate Stirrer	Cat. No.
Heating Bath	88880141
Transparent Shield (PC)	88880142
Support Rod (Ø12mm, 400mm, M10)	88880143



Heating Bath



## Thermo Scientific RT2 Advanced Hotplate Stirrer

Experience precision with our low-profile digital display hotplate stirrer, equipped with PT100 sensor for precise temperature measurements for sensitive experimental procedures



### Features

- Precise digital control with 0.1C resolution
- Hot top warning indicator
- Microprocessor PID temperature control
- User configurable temperature limit setting
- Non-slip heating bath (optional)
- Transparent safety shield (optional)
- Two threaded holes for Support Rods
- Keypad lock
- Automatic Over-temperature safety shut off at 450C
- Heating rate can be set from 0 to 100% at 1% interval
- View current and set temperature simultaneously
- Timer: start immediately or when desired temperature is reached
- Aluminum top provides excellent temperature uniformity while the thin ceramic coating provides excellent corrosion resistance and a white surface for optimal sample viewing.
- 20L stirring Capacity
- Stir speed range: 30-2000RPM
- If stirring viscosity changes, the feedback function allows unit to maintain set speed.
- Temperature probe (included) when coupled, automatically changes to external sensor mode, user can check sample temperature also control via probe on digital display.

Cat. No.	88880006	88880005
Plug Configuration		
Temperature Range	Ambient 50°C to 350°C / 122°F to 662°F	
Heating Control	Feedback Control with PID / Scale	
Stirring Speed Range	30 to 2000rpm	
Maximum Load (vessel)	25kg / 55.1lbs	
Stirring Capacity (H <sub>2</sub> O)	20L	
Body Material	Aluminum	
Top Plate Material	Ceramic coated aluminum	
Top Plate Dimensions	140mm / 5.5in diameter	
Overall Dimensions (WxDxH)	161 x 290 x 100mm 6.34 x 11.42 x 3.94in	
Heating Power	600W	
Power	120V, 60Hz	230V, 50/60Hz
Certifications	CE, cCSAus	
Warranty	2 Years	

Accessories for RT2 Advanced Hotplate Stirrer	Cat. No.
Heating Bath	88880141
Transparent Shield (PC)	88880142
Support Rod (Ø12mm, 400mm, M10)	88880143
Temperature Probe (PT 100, SN-8-4 connector sensor)	88880147
C-5, Clamp Holder (PP body, Ø12 mm)	88880148
3 Prong Clamp ( 60mm grip)	88880149
Temperature Probe (PT100, A Class, 400°C)	88880150



Includes Temperature Probe (PT 100, SN-8-4 connector sensor)

## Thermo Scientific Large Volume Stirrer

Reach speeds up to 2400rpm



- Polished stainless-steel construction resists corrosion
- Digital speed settings
- Stirring capacity up to 200L
- Accommodates stir bars from 1.5 to 6in. (4 to 15cm); sold separately
- Top surface has ridged non-slip white rubber mat

Warranty<sup>1</sup>: Three years

Cat. No.	Speed	Capacity	Top Plate Surface Area	Electrical
1295Q	Up to 2400rpm	Up to 200L	46 x 46cm (18 x 18in.)	120V, 50/60Hz

## Thermo Scientific Cimarec Komet Stir Bars

Generate over three times the torque of conventional stirring bars



- Significantly enhance stirrer performance and applications versatility
- High-energy Samarium-Cobalt (SmCo) magnetic core
- Excellent mixing action at high speeds, and with viscous media
- Evenly coated PTFE surface prevents residue deposits
- Sterilize with steam to 249.8°F (121°C)

Cat. No.	Description	Shape	Outside Dia. x Length
50087902	Cimarec Komet Stir Bar 90, 1 pack	Round	25mm x 90mm
50087909	Cimarec Komet Stir Bar 50, 1 pack	Round	21mm x 50mm
50087930	Cimarec Komet Stir Bar 30, 1 pack	Round	13mm x 30mm
50087924	Cimarec Komet Stir Bar 15, 1 pack	Round	9mm x 15mm
50093336	Cimarec Komet Stir Bar 90 with glide ring, 1 pack	Round, with glide ring	31mm x 90mm
50093335	Cimarec Komet Stir Bar 50 with glide ring, 1 pack	Round, with glide ring	26mm x 50mm
50093334	Cimarec Komet Stir Bar 30 with glide ring, 1 pack	Round, with glide ring	17mm x 30mm

# incubators

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## Thermo Scientific Microbiological Incubators Selector Guide

Application	Material/Sample	Temp. Requirements	Recommended Heratherm Incubator
<b>Bacterial research</b>	Bacteria	Temperatures between 30 °C and 70 °C	General Protocol; Advanced Protocol for highest temperature accuracy, and time control
<b>Microbiology</b>	Microorganisms, cells	Temperatures between 30 °C and 50 °C	
<b>Coliform determination</b>	Bacteria	Temperature around 37 °C	
<b>Histology</b>	Tissue	Temperature around 37 °C	
<b>Paraffin embedding</b>	Paraffin	Temperatures of 37 °C to around 50 °C	
<b>Egg incubation</b>	Eggs	Temperature around 37 °C	General Protocol; Advanced Protocol for highest temperature accuracy, and time control
<b>Heated storage</b>	Media, samples	Temperature depends on material and specific application – between 30 °C and 105 °C	General Protocol for temperatures up to 75 °C; Advanced Protocol for highest temperature accuracy, and time control – up to 105 °C
<b>Gene cloning</b>	Bacteria, cells	Temperature around 37 °C	Advanced Protocol for highest temperature accuracy, and time control Advanced Protocol Security with additional safety features for peace of mind
<b>Pharmaceutical stability testing</b>	Various	Temperatures of 37 °C up to 105 °C	
<b>Food and beverage testing</b>	Various	Temperatures of 37 °C up to 105 °C	Compact
<b>BOD / water pollution testing</b>	Water	Temperature around 20 °C	
<b>Yeast growth</b>	Yeast	Temperatures between 10 °C and 37 °C	General Protocol for temperatures above ambient +5 °C Advanced Protocol for highest temperature accuracy or Compact for temperatures as low as 17 °C
<b>Hatching of insects, fish</b>	Insects	Temperature near or below ambient	

For lower temperatures: check the Thermo Scientific refrigerated models at: [www.thermoscientific.com/incubators](http://www.thermoscientific.com/incubators)

Features	Heratherm Compact Incubator	Heratherm General Protocol Incubator	Heratherm Advanced Protocol Incubator	Heratherm Advanced Protocol Security Incubator
<b>Temperature range</b>	17 - 40 °C	ambient +5 °C - 75 °C	ambient +5 °C - 105 °C	ambient +5 °C - 105 °C
<b>Convection technology</b>	Mechanical	Gravity	Dual: fan off / adjust fan speed	Dual: fan off / adjust fan speed*
<b>Rounded corners</b>	✓	✓	✓	✓
<b>Microprocessor control</b>	✓	✓	✓	✓
<b>Automatic over-temperature alarm</b>		✓	✓	✓
<b>Stackable</b>		✓	✓	✓
<b>Stainless steel interior</b>		AISI 430/1.4016	AISI 304/1.4301	AISI 304/ 1.4301
<b>RS232 interface</b>		✓	✓	✓
<b>Internal glass door</b>		✓	✓	✓
<b>Easy calibration routine</b>		✓	✓	✓
<b>Timer:</b>		on/off	choice of weekly / daily / real time	choice of weekly / daily / real time
<b>Dry alarm contact for connection of alarm device</b>			✓	✓
<b>Access port</b>		✓	✓	✓
<b>Interior socket (120V models only)</b>			✓	
<b>Optional Stainless steel exterior</b>			230V models only	✓
<b>Certified decontamination cycle</b>				✓
<b>Automatic undertemperature alarm</b>				✓
<b>Door alarm</b>				✓
<b>Lockable door</b>				✓**
<b>Optional stainless steel exterior</b>				✓
<b>Connection for optional sample temperature sensor</b>				✓

\*Large capacity units: mechanical convection with 2 speeds

\*\* No lockable door in large capacity units

## Thermo Scientific Heratherm Compact Microbiological Incubators

**Extremely small footprint, making it ideal for personalized workspace or for crowded labs with small sample volumes**



- 18L capacity, and operates in temperatures at or below ambient 17° to 40°C
- Mechanical convection technology
- High temperature accuracy
- Easy-to-use, LED display
- Internal light and window in door facilitates sample observation

**Ordering Alerts:** Availability may vary by country  
**Warranty:** 2 years (parts and labor)  
**Certifications:** cCSAus, CE

Cat. No.	Chamber Volume	Temp. Range	Shelves Supplied (Max)/ Max Load	Chamber Dimensions (D x W x H)	Exterior Dimensions (D x W x H)	Temp. Uniformity/ Stability (@37°C)	Shipping Weight	Electrical/Plug Type
<b>50125590</b>	18L (.65 cu. ft.)	17-40°C	2 (3)/ 2kg (4.4lbs)	290 x 180 x 310mm (11.4 x 7.1 x 12.2in.)	470 x 260 x 415mm (18.5 x 10.2 x 16.3in.)	±1.2°C/ ±0.2°C	7.2kg (15.9 lb.)	100-240V 50/60Hz, 45w; 0.45-0.85A/ US Nema 5-15
<b>50125882</b>	18L (.65 cu. ft.)	17-40°C	2 (3)/ 2kg (4.4lbs)	290 x 180 x 310mm (11.4 x 7.1 x 12.2in.)	470 x 260 x 415mm (18.5 x 10.2 x 16.3in.)	±1.2°C/ ±0.2°C	7.2kg (15.9 lb.)	100-240V 50/60Hz, 45w; 0.45-0.85A/ EU standard, UK and Australia cable/plug
<b>50129111</b>	18L (.65 cu. ft.)	17-40°C	2 (3)/ 2kg (4.4lbs)	290 x 180 x 310mm (11.4 x 7.1 x 12.2in.)	470 x 260 x 415mm (18.5 x 10.2 x 16.3in.)	±1.2°C/ ±0.2°C	7.2kg (15.9 lb.)	100-240V 50/60Hz, 45w; 0.45-0.85A/China cable/plug

## Thermo Scientific Heratherm General Protocol Microbiological Incubators

Ideally suited for routine applications in pharmaceutical, medical, food and research laboratories, with sample safety in mind



- Gravity convection provides gentle airflow and minimal drying out
- Temperature range from ambient +5° to 75°C
- Corrosion-resistant stainless-steel chamber (1.4016 / AISI 430)
- Intuitive user interface for setting temperature
- Large, easy to read vacuum fluorescent display
- Internal glass door allows sample viewing without impacting temperature
- Exceptionally small footprint
- Access port for independent data monitoring or use of equipment, such as shakers or stirrers inside unit

**Ordering Alerts:** Availability may vary by country  
**Warranty<sup>†</sup>:** 2 years (parts and labor)  
**Certifications:** cCSAus (120V, 50/60Hz models) and CE (230V, 50/60Hz models)

Cat. No.	Chamber Volume	Temp. Range	Shelves Supplied (Max)/Max Load	Chamber Dimensions (D x W x H)	Exterior Dimensions (D x W x H)	Temp. Uniformity/ Stability (@37°C)	Shipping Weight	Electrical/ Plug Type
<b>51028063</b>	75L (2.6 cu. ft.)	ambient +5 °C to 75 °C	2 (13)/25kg (55 lb.)	414 x 354 x 508mm (16.3 x 13.9 x 20.0in.)	470 x 565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C/ ±0.2°C	40kg (88 lb.)	120V 60Hz; 300w; 2.5A; Nema 5-15 US
<b>51028130</b>	75L (2.6 cu. ft.)	ambient +5 °C to 75 °C	2 (13)/25kg (55 lb.)	414 x 354 x 508mm (16.3 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C/ ±0.2°C	40kg (88 lb.)	230V 50/60Hz; 300w; 1.3A; Country-specific
<b>51028064</b>	117L (4.0 cu. ft.)	ambient +5 °C to 75 °C	2 (16)/25kg (55 lb.)	414 x 464 x 608mm (16.3 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.2°C	51kg (112 lb.)	120V 60Hz; 540w; 4.5A; Nema 5-15 US
<b>51028131</b>	117L (4.0 cu. ft.)	ambient +5 °C to 75 °C	2 (16)/25kg (55 lb.)	414 x 464 x 608mm (16.3 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3 in.)	±0.6°C/ ±0.2°C	51kg (112 lb.)	230V 50/60Hz; 540w; 2.3A; Country-specific
<b>51028065</b>	194L (6.85 cu. ft.)	ambient +5 °C to 75 °C	2 (19)/25kg (55 lb.)	589 x 464 x 708mm (23.2 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.2°C	65kg (143 lb.)	120V 60Hz; 720w; 6A; Nema 5-15 US
<b>51028132</b>	194L (6.85 cu. ft.)	ambient +5 °C to 75 °C	2 (19)/25kg (55 lb.)	589 x 464 x 708mm (23.2 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.2°C	65kg (143 lb.)	230V 50/60Hz; 710w; 3.1A; Country-specific



## Thermo Scientific Heratherm Advanced Protocol Microbiological Incubators

**Innovative dual convection technology with excellent temperature performance, providing an optimal sample environment**



- Unsurpassed temperature performance — the flexible tool in the lab to be used for multiple applications
- Dual convection for application versatility — fan speed adjustable from 0 to 100%
- Advanced digital timer for daily or weekly ON / OFF cycles
- Access port for independent data monitoring or use of equipment, such as shakers or stirrers inside unit
- Internal 120V socket allows the use of equipment inside the unit (120V MODELS ONLY)
- Easy-to-clean, corrosion-resistant stainless-steel interior (1.4301 / AISI 304)
- Broad temperature range from 5°C above ambient to 105°C — suitable even for drying applications
- Temperature uniformity of +/- 0.6 (Fan off) and between ±0.2°C and +/- 0.4C (Fan full speed) (measured at 37°C)
- Temperature stability of ±0.1°C (measured at 37°C)
- Microprocessor controlled touch button user interface for ease of use and best performance
- Large, easy-to-view vacuum fluorescent display
- Internal glass door allows sample viewing without impacting temperature
- Exceptionally small footprint
- Choice of stainless steel exterior available for demanding pharmaceutical and clinical requirement

**Ordering Alerts:** Availability may vary by country  
**Warranty<sup>y</sup>:** 2 years (parts and labor)  
**Certifications:** cCSAus (120V, 50/60Hz models) and CE (230V, 50/60Hz models)

Cat. No.	Model/Description	Chamber Volume	Temp. Range	Shelves Supplied (Max)/ Max Load	Chamber Dimensions (D x W x H)	Exterior Dimensions* (D x W x H)	Temp Uniformity (@37°C)	Temp Stability (@37°C)	Shipping Weight	Electrical/ Plug Type
51028066	IMH60, coated exterior, Dual Convection	66L (2.3 cu. ft.)	ambient +5 °C to 105 °C	2 (13)/ 25kg (55 lb.)	368 x 354 x 508mm (14.5 x 13.9 x 20in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C*/ ±0.2°C	±0.1°C	45kg (99 lb.)	120V 60Hz; 300w; 2.5A; Nema 5-15 US
51028067	IMH100, coated exterior, Dual Convection	104L (3.67 cu. ft.)	ambient +5 °C to 105 °C	2 (16)/ 25kg (55 lb.)	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.3°C	±0.1°C	56kg (123 lb.)	120V 60Hz; 300w; 2.5A; Nema 5-15 US
51028068	IMH180, coated exterior, Dual Convection	178L (6.3 cu. ft.)	ambient +5 °C to 105 °C	2 (19)/ 25kg (55 lb.)	543 x 464 x 708mm (21.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.4°C	±0.1°C	70kg (154 lb.)	120V 60Hz; 300w; 2.5A; Nema 5-15 US
51028133	IMH60, coated exterior, Dual Convection	66L (2.3 cu. ft.)	ambient +5 °C to 105 °C	2 (13)/ 25kg (55 lb.)	368 x 354 x 508mm (14.5 x 13.9 x 20in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C*/ ±0.2°C	±0.1°C	45kg (99 lb.)	230V 50/60Hz; 850w; 3.7A; Country-specific
51028134	IMH100, coated exterior, Dual Convection	104L (3.67 cu. ft.)	ambient +5 °C to 105 °C	2 (16)/ 25kg (55 lb.)	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.3°C	±0.1°C	56kg (123 lb.)	230V 50/60Hz; 1100w; 4.8A; Country-specific
51028135	IMH180, coated exterior, Dual Convection	178L (6.3 cu. ft.)	ambient +5 °C to 105 °C	2 (19)/ 25kg (55 lb.)	543 x 464 x 708mm (21.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.4°C	±0.1°C	70kg (154 lb.)	230V 50/60Hz; 1300w; 5.7A; Country-specific
51028717	IMH60 SS, stainless steel exterior, Dual Convection	66L (2.3 cu. ft.)	ambient +5 °C to 105 °C	2 (13)/ 25kg (55 lb.)	368 x 354 x 508mm (14.5 x 13.9 x 20in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C*/ ±0.2°C	±0.1°C	45kg (99 lb.)	230V 50/60Hz; 850w; 3.7A; Country-specific
51028718	IMH100 SS, stainless steel exterior, Dual Convection	104L (3.67 cu. ft.)	ambient +5 °C to 105 °C	2 (16)/ 25kg (55 lb.)	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.3°C	±0.1°C	56kg (123 lb.)	230V 50/60Hz; 1100w; 4.8A; Country-specific
51028719	IMH180 SS, stainless steel exterior, Dual Convection	178L (6.3 cu. ft.)	ambient +5 °C to 105 °C	2 (19)/ 25kg (55 lb.)	543 x 464 x 708mm (21.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.4°C	±0.1°C	70kg (154 lb.)	230V 50/60Hz; 1300w; 5.7A; Country-specific

\*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: 80 mm / 3.1 in.

NOTE: All figures in tables are typical average values for series devices, based on factory standard following norm Din12880. Please contact us for certification information or IQ/OQ documents.

## Thermo Scientific Heratherm Advanced Protocol Security Microbiological Incubators

**Unique 140°C decontamination routine, providing outstanding safety for samples**



- Unique 140°C decontamination routine, providing outstanding safety for samples:
  - > at 140°C microorganisms are reduced to a minimum, comparable to sterilization, within a six hour cycle
  - > No need for separate autoclaving of interior fittings
  - > Certified by an accredited microbiological institute (IBFE 09/2010)
- Safety features for ultimate sample protection:
  - > Lockable door for restricted access
  - > Alarm sounds if door is left open accidentally
  - > Automatic over- and under-temperature alarm
- Available with a stainless-steel exterior, meets demanding needs in pharmaceutical and clinical laboratories
- Dual convection for application versatility — fan speed adjustable from 0 to 100%
- Advanced digital timer for daily or weekly ON / OFF cycles
- Temperature Range: Ambient +5°C to 105°C
- Intuitive user interface for setting temperature
- Large, easy to read vacuum fluorescent display
- Optional sample sensor provides exact temperature of sample on display
- Internal glass door allows sample viewing without impacting temperature

**Ordering Alerts:** Availability may vary by country.

**Warranty<sup>†</sup>:** 2 years (parts and labor)

**Certifications:** cCSAus (120V, 50/60Hz units) and CE (230V, 50/60Hz units)

Cat. No.	Model/Description	Chamber Volume	Shelves Supplied (Max)/Max Load	Chamber Dimensions (W x D x H)	Exterior Dimensions* (W x D x H)	Temp. Uniformity (@37°C)	Temp Stability (@37°C)	Shipping Weight	Electrical/ Plug Type
51028069	IMH60-S, coated	66L (2.3 cu. ft.)	2 (13)/25kg (55 lb.)	368 x 354 x 508mm (14.5 x 13.9 x 20in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C/ ±0.2°C	±0.1°C	45kg (99 lb.)	120V 60Hz; 1390w; 11.6A; Country-specific
51028070	IMH100-S, coated	104L (3.67 cu. ft.)	2 (16)/25kg (55 lb.)	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.3°C	±0.1°C	56kg (123 lb.)	120V 60Hz; 1390w; 11.6A; Country-specific
51028111	IMH180-S, coated	178L (6.3 cu. ft.)	2 (19)/25kg (55 lb.)	543 x 464 x 708mm (21.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.4°C	±0.1°C	70kg (154 lb.)	120V 60Hz; 1390w; 11.6A; Country-specific
51028264	IMH60-S SS stainless steel	66L (2.3 cu. ft.)	2 (13)/25kg (55 lb.)	368 x 354 x 508mm (14.5 x 13.9 x 20in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C/ ±0.2°C	±0.1°C	45kg (99 lb.)	120V 60Hz; 1390w; 11.6A; Country-specific
51028535	IMH100-S SS stainless steel	104L (3.67 cu. ft.)	2 (16)/25kg (55 lb.)	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.3°C	±0.1°C	56kg (123 lb.)	120V 60Hz; 1390w; 11.6A; Country-specific
51028327	IMH180-S SS stainless steel	178L (6.3 cu. ft.)	2 (19)/25kg (55 lb.)	543 x 464 x 708mm (21.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2in.)	0.6°C/ ±0.4°C	±0.1°C	70kg (154 lb.)	120V 60Hz; 1390w; 11.6A; Country-specific
51028136	IMH60-S, coated	66L (2.3 cu. ft.)	2 (13)/25kg (55 lb.)	368 x 354 x 508mm (14.5 x 13.9 x 20in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C/ ±0.3°C	±0.1°C	45kg (99 lb.)	230V 50/60Hz; 1390w; 6.1A; Country-specific
51028137	IMH100-S, coated	104L (3.67 cu. ft.)	2 (16)/25kg (55 lb.)	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.3°C	±0.1°C	56kg (123 lb.)	230V 50/60Hz; 1390w; 6.1A; Country-specific
51028138	IMH180-S, coated	178L (6.3 cu. ft.)	2 (19)/25kg (55 lb.)	543 x 464 x 708mm (21.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.3°C	±0.1°C	70kg (154 lb.)	230V 50/60Hz; 1390w; 6.1A; Country-specific
51028541	IMH60-S SS, stainless steel	66L (2.3 cu. ft.)	2 (13)/25kg (55 lb.)	368 x 354 x 508mm (14.5 x 13.9 x 20in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	±0.6°C/ ±0.3°C	±0.1°C	45kg (99 lb.)	230V 50/60Hz; 1390w; 6.1A; Country-specific
51028542	IMH100-S SS, stainless steel	104L (3.67 cu. ft.)	2 (16)/25kg (55 lb.)	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	±0.6°C/ ±0.3°C	±0.1°C	56kg (123 lb.)	230V 50/60Hz; 1390w; 6.1A; Country-specific
51028543	IMH180-S SS, stainless steel	178L (6.3 cu. ft.)	2 (19)/25kg (55 lb.)	543 x 464 x 708mm (21.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	±0.6°C/ ±0.3°C	±0.1°C	70kg (154 lb.)	230V 50/60Hz; 1390w; 6.1A; Country-specific

\*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: 80 mm / 3.1 in.

NOTE: All figures in tables are typical average values for series devices, based on factory standard following norm Din12880. Please contact us for certification information or IQ/OQ documents.

## Thermo Scientific Heratherm Microbiological Incubators Accessories

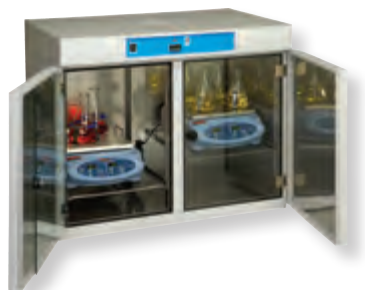
Cat. No.	Description	Details
50125605	SS shelf compact incubator	Stainless steel perforated shelf for Compact incubator
50127770	SS shelf IGS60	Stainless steel perforated shelf for General Protocol 60L unit; includes 2 shelf supports
50127771	SS shelf IGS100	Stainless steel perforated shelf for General Protocol 100L unit; includes 2 shelf supports
50127772	SS shelf IGS180	Stainless steel perforated shelf for General Protocol 180L unit; includes 2 shelf supports
50127773	SS shelf IMH60 / IMH60-S	Stainless steel perforated shelf for Advanced Protocol / Advanced Protocol Security 60L unit; includes 2 shelf supports
50127774	SS IMH100 / IMH100-S	Stainless steel perforated shelf for Advanced Protocol / Advanced Protocol Security 100L unit; includes 2 shelf supports
50127777	SS IMH180 / IMH180-S	Stainless steel perforated shelf for Advanced Protocol / Advanced Protocol Security 180L unit; includes 2 shelf supports
50127764	Wire mesh shelf IGS60/ IMH60 / IMH60-S	Wire mesh shelf for all 60L unit; includes 2 shelf supports
50127765	Wire mesh shelf IGS100/ IMH100 / IMH100-S	Wire mesh shelf for all 100L unit; includes 2 shelf supports
50127766	Wire mesh shelf IGS180/ IMH180 / IMH180-S	Wire mesh shelf for all 180L unit; includes 2 shelf supports

## Thermo Scientific Heratherm Incubators: Additional Accessories & Options

Cat. No.	Description	Details
<b>Additional Shelving &amp; Drip Trays</b>		
50128816	Petri Dish Holder (90 mm) 60L units	Shelf with holders for Petri dishes; 90 mm diameter; wire mesh; for all 60L units; includes 2 shelf supports
50128818	Petri Dish Holder (90 mm) 100L units	Shelf with holders for Petri dishes; 90 mm diameter; wire mesh; for all 100L units; includes 2 shelf supports
50128819	Petri Dish Holder (90 mm) 180L units	Shelf with holders for Petri dishes; 90 mm diameter; wire mesh; for all 180L units; includes 2 shelf supports
50128793	Petri Dish Holder (50 mm) 60L units	Shelf with holders for Petri dishes; 50 mm diameter; wire mesh; for all 60L units; includes 2 shelf supports
50128794	Petri Dish Holder (50 mm) 100L units	Shelf with holders for Petri dishes; 50 mm diameter; wire mesh; for all 100L units; includes 2 shelf supports
50128815	Petri Dish Holder (50 mm) 180L units	Shelf with holders for Petri dishes; 50 mm diameter; wire mesh; for all 180L units; includes 2 shelf supports
50128683	Drip Tray 60L units	Stainless steel drip tray for all 60L units; includes 2 shelf supports
50128791	Drip Tray 100L units	Stainless steel drip tray for all 100L units; includes 2 shelf supports
50128792	Drip Tray 180L units	Stainless steel drip tray for all 180L units; includes 2 shelf supports
<b>Support Stands</b>		
50127741	Support stand 60L units	Support stand with casters for 60L units; height of stand including casters: 187mm / 7.4in
50127742	Support stand 100L units	Support stand with casters for 100L units; height of stand including casters: 187mm / 7.4in
50127743	Support stand 180L units	Support stand with casters for 180L units; height of stand including casters: 187mm / 7.4in
<b>Sample Sensor</b>		
50127768	Sample sensor for IMH60-S / IMH100-S / IMH180-S	All Heratherm Advanced Protocol Security incubators
<b>Stacking Kits</b>		
50126665	Stacking kit 60L units	Kit for stacking 60L units; recommended if decon cycle is used on lower unit
50126666	Stacking kit 100L units	Kit for stacking 100L units; recommended if decon cycle is used on lower unit; stacks also smaller unit on 100L unit
50126667	Stacking kit 180L units	Kit for stacking 180L units; recommended if decon cycle is used on lower unit; stacks also smaller unit on 180L unit
<b>Special Sealing</b>		
50130657	Silicone free viton sealing 60L	Silicone free viton door sealing for all 60L units
50130658	Silicone free viton sealing 100L	Silicone free viton door sealing for all 100L units
50130659	Silicone free viton sealing 180L	Silicone free viton door sealing for all 180L units
<b>Fresh Air Filter</b>		
50127567	Fresh air particle filter	Fresh air particle filter for connection to the fresh air vent (intake); for all Advanced Protocol and Advanced Protocol incubators
<b>Factory-Installed Options — Please order in conjunction with desired incubator</b>		
51900996	Heratherm Access port left, small	Additional access port on center of left side of unit; Ø 24 mm for all incubators
51900997	Heratherm Access port left, large	Additional access port on center of left side of unit; Ø 58 mm for all incubators
51900998	Heratherm Access port right, small	Additional access port on center of right side of unit; Ø 24 mm for all incubators
51900999	Heratherm Access port right, large	Additional access port on center of right side of unit; Ø 58 mm for all incubators
51901000	Heratherm Access port top, small	Additional access port on center of top of unit; Ø 24 mm for all incubators
51901001	Heratherm Access port top, large	Additional access port on center of top of unit; Ø 58 mm for all incubators
51900993	Door hinge left side	Door hinge on left side — Available for General Protocol; Advanced Protocol and Advanced Protocol Security units. Coated exterior only

## Thermo Scientific Precision High-Performance Incubators

**Mechanical or gravity convection with advanced microprocessor controls ideal for applications requiring excellent temperature distribution or gentle sample heating between 5°C above ambient to 75°C**



- Uniform heating, precise temperature control and fast drying
- Blower circulates heated air in a horizontal airflow pattern for efficient heat distribution with tight temperature tolerances of up to  $\pm 0.5^{\circ}\text{C}$
- Gravity convection offers gentle drying with heat-generated convection to move the air vertically through the chamber to heat samples

### 317L units with Advanced Microprocessor PID Controls

- Sophisticated microprocessor PID controls with easy-to-view digital LED readout
- Temperature is displayed on large, three-character screen; can be easily set from 5°C above ambient to up to 75°C (depending on model) in 0.1°C increments using touch-sensitive arrow keys
- Fixed setpoints on control panel eliminate need for tuning
- Offset feature enables easy calibration

### Built-In Safety

- Built-in safety back-up maintains control at 3°C above setpoint if primary heater control fails
- Visual alarm indicates when temperature exceeds 3°C setpoint

### Robust Construction

- Inner glass door permits viewing of samples without disturbing chamber environment in 317L unit
- Silicone gasket on outer door and 7.6cm (3in.)-thick fiberglass insulation prevents heat loss, for high temperature uniformity
- Circuit breaker protects against power surges
- Durable, enamel-coated steel exterior
- Low-watt density heater elements are designed for long life
- Internal electrical outlet allows operation of a shaker, stirrer or other lab apparatus
- Double-door design

**Warranty**†: 1 year (parts and labor)  
**Certifications**: UL/cUL listed

**PRODUCT ONLY AVAILABLE IN NORTH AMERICA**

Cat. No.	Capacity	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Control	Temp. Range	No. of Shelves	Electrical
<b>Gravity Convection</b>							
<b>PR205075G</b>	317L (11.2 cu. ft.)	53 x 94 x 64cm (21 x 37 x 25in.)	64 x 101 x 88cm (25 x 40 x 35in.)	Microprocessor PID	Ambient +5° to 65°C	6 supplied/ 36 max.	120V 60Hz (450w/3.8A)
<b>Mechanical Convection</b>							
<b>PR205075M</b>	317L (11.2 cu. ft.)	53 x 94 x 64cm (21 x 37 x 25in.)	64 x 101 x 88cm (25 x 39.8 x 34.5in.)	Microprocessor PID	Ambient +5° to 75°C	6 supplied/ 36 max.	120V 60Hz (520w/4.3A)

### Accessories

Cat. No.	Description	For Use with
<b>AY2076X1</b>	Shelf Kit	High-Performance Incubator; Double-door 11.2 cu. ft. units

## Thermo Scientific Heratherm Microbiological Incubators – Large Capacity

Designed for high sample volume or large samples



**Warranty<sup>Y</sup>:** 2 years (parts and labor)  
**Certifications:** CE, CSAus (120V, 208-240V/60Hz models) and CE (230V, 50/60Hz models)

### General Protocol Incubators

#### Efficient

- Two sizes (400 and 750 L)
- Gravity convection technology with unique airflow – designed for minimal drying out of samples
- Flexible shelf system for optimal use of chamber volume
- Access port for independent data monitoring

#### Safe

- Automatic overtemperature alarm system
- Inner glass door for undisturbed viewing of samples
- Inner chambers made from corrosion-resistant stainless steel (1.4016)
- Protect delicate samples with stable temperature conditions: uniformity of up to  $\pm 0.5$  °C and temperature stability of 0.4 °K at 37 °C

#### Easy

- Large, easy to view, vacuum fluorescent display with push-button simplicity
- Doors can be opened over 180° for easy access and use
- Lockable casters for easy mobility and stability

### Advanced Protocol Security Incubators

#### Efficient

- Two sizes (400 and 750 L)
- Mechanical convection technology ensures optimal temperature distribution with improved level of temperature uniformity:  $\pm 0.2$  to 0.3 °C
- Temperature ranges from ambient +5 °C to 105 °C for application flexibility: units can even be used for drying applications

#### Safe

- Unique 140°C decontamination cycle eliminating the need for separate autoclaving or use of toxic decontaminants
- 2-speed fan for application flexibility
- Additional undertemp alarm provides safety even when the temperature deviates below set point
- Alarm notifies operator if door is left open
- Inner chamber made from highly corrosion-resistant stainless steel (AISI304 / 1.4301), suited even for use with aggressive substances

#### Easy

- Timer extends the automation options available to user
- Stainless steel inner chamber with rounded edges for easy cleaning
- Available in stainless steel exterior



## Thermo Scientific Heratherm Microbiological Incubators – Large Capacity

Cat. No.	Model/ Exterior	Chamber Volume L (cuft)	Temperature Range	Temp. Uniformity/ Stability (@37°C)	Chamber Dimensions (D x W x H)	Exterior Dimensions* (D x W x H)	Shelves Supplied/ Max (Max. Load)	Shipping Weight	Electrical
<b>General Protocol Incubators - Gravity Convection</b>									
51029322	IGS400 / coated	405 (14.3)	Ambient +5 °C to 75 °C	± 0.5 °C / ± 0.4 °C	569 x 544 x 1307 mm (22 x 21 x 51 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (30kg / 66lb)	145 kg (187 lb)	230V; 50/60Hz; 1200W; 5A
51029321	IGS400 / coated	405 (14.3)	Ambient +5 °C to 75 °C	± 0.5 °C / ± 0.4 °C	569 x 544 x 1307 mm (22 x 21 x 51 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (30kg / 66lb)	145 kg (187 lb)	120V; 60Hz; 1080W; 9A; NEMA5-15
51029334	IGS750 / coated	747 (26.4)	Ambient +5 °C to 75 °C	± 1.3 °C / ± 0.4 °C	569 x 1004 x 1307 mm (22 x 40 x 51 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (30kg / 66lb)	201 kg (251 lb)	230V; 50/60Hz; 1500W; 6.5A
51029333	IGS750 / coated	747 (26.4)	Ambient +5 °C to 75 °C	± 1.3 °C / ± 0.4 °C	569 x 1004 x 1307 mm (22 x 40 x 51 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (30kg / 66lb)	201 kg (251 lb)	120V; 60Hz; 1500W; 12.5A; NEMA5-15
<b>Advanced Protocol Security Incubators - Mechanical Convection</b>									
51029325	IMH400-S / coated	381 (13.4)	Ambient +5 °C to 105 °C	± 0.2 °C / ± 0.2 °C	524 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (30kg / 66lb)	144 kg (186 lb)	230V; 50/60Hz; 1400W; 6A
51029323	IMH400-S / coated	381 (13.4)	Ambient +5 °C to 105 °C	± 0.2 °C / ± 0.2 °C	524 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (30kg / 66lb)	144 kg (186 lb)	120V; 60Hz; 1380W; 11.5A; NEMA5-15
51029326	IMH400-S SS / stainless steel	381 (13.4)	Ambient +5 °C to 105 °C	± 0.2 °C / ± 0.2 °C	524 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (30kg / 66lb)	144 kg (186 lb)	230V; 50/60Hz; 1400W; 6A
51029324	IMH400-S SS / stainless steel	381 (13.4)	Ambient +5 °C to 105 °C	± 0.2 °C / ± 0.2 °C	524 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (30kg / 66lb)	144 kg (186 lb)	120V; 60Hz; 1380W; 11.5A; NEMA5-15
51029337	IMH750-S / coated	702 (24.8)	Ambient +5 °C to 105 °C	± 0.3 °C / ± 0.2 °C	524 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (30kg / 66lb)	205 kg (255 lb)	230V; 50/60Hz; 1600W; 7A
51029335	IMH750-S / coated	702 (24.8)	Ambient +5 °C to 105 °C	± 0.3 °C / ± 0.2 °C	524 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (30kg / 66lb)	205 kg (255 lb)	120V; 60Hz; 1560W; 13A; NEMA5-15
51029338	IMH750-S SS / stainless steel	702 (24.8)	Ambient +5 °C to 105 °C	± 0.3 °C / ± 0.2 °C	524 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (30kg / 66lb)	205 kg (255 lb)	230V; 50/60Hz; 1600W; 7A
51029336	IMH750-S SS / stainless steel	702 (24.8)	Ambient +5 °C to 105 °C	± 0.3 °C / ± 0.2 °C	524 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (30kg / 66lb)	205 kg (255 lb)	120V; 60Hz; 1560W; 13A; NEMA5-15

\*Depth of handle / display not included in depth (65 mm / 2.6 in.); casters not included in height (108 mm / 4.3 in.) – required distance to rear wall: 120 mm / 4.7 in.

NOTE: All figures in tables are typical average values for series devices, based on factory standard following norm Din12880. Please contact us for certification information or IQ/OQ documents.

### Accessories

Cat. No.	Description
50135241	Perforated stainless steel shelf for Heratherm Advanced Protocol Security incubators IMH400-S and General Protocol incubator IGS400
50135242	Perforated stainless steel shelf for Heratherm Advanced Protocol Security incubators IMH750-S and General Protocol incubator IGS750
50135244	Wire mesh shelf for Heratherm Advanced Protocol oven OMH750 3PH; also for use in Advanced Protocol Security incubator IMH750-S; 984 x 503 mm
50135869	Silicone-free viton sealing for all Heratherm 400L models
50135870	Silicone-free viton sealing for all Heratherm 750L models

## Thermo Scientific BK 800 Refrigerated Incubator

### Compact footprint with large capacity



- Compact footprint, temperature range of 3° to 40°C, and a large 220L capacity
- Ideal for incubation and storage at or below ambient temperature
- Unit of choice for sample and chemical storage, microbiological sample testing, water pollution testing, and biochemical oxygen demand protocols
- Energy efficient design for low operating cost
- Easy-to-clean: impact-proof interior with rounded edges
- Internal sockets accommodate stirrers and other equipment inside that can be time controlled for defined cycles
- Easy to use soft touch control panel
- Built in rear wheels for convenient set up and positioning within the lab

**Ordering Alerts:** Not available in North America  
**Warranty<sup>†</sup>:** 2 years (parts and labor)  
**Certifications:** CE

Cat. No.	Description
50120350	Refrigerated incubator BK 800
50120762	Additional shelf

Specifications	
<b>Temp. Range</b>	3 – 40°C
<b>Temp. Deviation, temporal</b>	± 1°C
<b>Temp. Deviation, spatial</b>	± 1°C
<b>Cooling time (25 to 5 °C)</b>	56 min.
<b>Volume</b>	approx. 220L
<b>Number of Shelves</b>	3 supplied, max 14
<b>Internal dimensions (W x H x D)</b>	467 x 1260 x 435mm / 18.4 x 49.6 x 17.1 in.
<b>External dimensions (W x H x D)</b>	560 x 1480 x 570 mm/ 21.3 x 58.3 x 22.4 in.
<b>Electrical Data</b>	200W, 230V, 50Hz
<b>Weight</b>	52 kg (115 lb.)
<b>Air circulation</b>	fan in ceiling of work chamber
<b>Sockets (in the work chamber)</b>	2
<b>Time control (on/off)</b>	1 – 9999 (= 1 min. – 7 days)
<b>Refrigerant Type/Capacity</b>	R600a/20g

## Thermo Scientific BK 6160 Testing Chamber

### Ideal for packaging and shelf-life testing



- Unique heating and cooling system includes a thermal jacket to ensure uniform temperature in the interior chamber
- Heating and cooling systems are located outside and below the chamber, where air is mixed and transported to the thermal jacket
- Unlike conventional incubators, the BK 6160 testing chamber is designed to prevent dehumidification, achieving up to 90% relative humidity with the addition of an internal water pan
- Programmable temperature controllers allow exact temperature settings and timing of temperature cycles, even light cycles to simulate day and night

**Ordering Alerts:** Not available in North America  
**Warranty<sup>1</sup>:** 2 years (parts and labor)  
**Certifications:** CE

Model	Features	Cat. No.
BK 6160 Kelvitron® K	Microprocessor controller	<b>51007617</b>
BK 6160 Kelvitron® KP	Microprocessor controller for programming of temperature profiles	<b>51008404</b>
BK 6160 Kelvitron® KL	Microprocessor controller for day/night simulation	<b>51008667</b>

Specifications		
<b>Temperature</b>	<b>Range</b>	0 – 50°C
	<b>Deviation, temporal</b>	± 0.1°C
	<b>Deviation, spatial</b>	± 0.8°C
	<b>Relative humidity at T = 5 °C</b>	> 75%
	<b>at T = 37 °C</b>	> 90%
<b>Volume</b>		166L
<b>Number of Shelves</b>		2 supplied, max. 7
<b>External (W x H x D)</b>		744 x 920 x 725 mm / 29.3 x 36.2 x 28.5 in.
<b>Internal (W x H x D)</b>		607 x 470 x 585 mm/ 23.9 x 18.5 x 23.0 in.
<b>Electrical Data</b>		
<b>Electrical Data</b>	<b>Air circulation rate (fan option)</b>	150l/h
	<b>Voltage<sup>1</sup>/Frequency</b>	230V, 50Hz
	<b>Rated power</b>	1.0kw
	<b>Power consumption</b>	0.5 kWh/h
	<b>Excluding lighting</b>	100 kg ( 222.5 lb.)
	<b>Including lighting</b>	120 kg (264.6 lb.)
<b>Refrigerant: Type/Capacity</b>		R134a/220g
<b>Lighting<sup>2</sup></b>	<b>Lamps/Intensity/Output</b>	4 lamps/4000 lux/70w
	<b>Color rendering</b>	Daylight in acc. with DIN 5035

<sup>1</sup> Other voltages on request

<sup>2</sup> Included in model Kelvitron KL

### Options & Accessories

Options	Cat. No.
Internal fan for air circulation	<b>51900146</b>
RS 232 interface incl. Kelvilog® documentation software	<b>51900283</b>
Connection for central monitoring	<b>51900083</b>
Temperature limit controller class 3.3 (DIN 12880) for over/undertemperature protection	<b>51900084</b>

Accessories	Cat. No.
Manufacturer's calibration certificate	<b>50044444</b>
Access port, 19mm/0.7in.	<b>50029825</b>
Pt 100 sensor for temperature recording (requires access port)	<b>50034314</b>
Additional stainless steel shelf	<b>50029945</b>

## Thermo Scientific Precision Refrigerated Incubators

Ideal for applications that require temperatures ranging from -10°C to +60°C with excellent stability



### Temperature Uniformity

- Microprocessor control with easy-to-read display shows actual temperature within 0.1°C
- Push-button controls for temperature setpoint selection
- Forced-air circulation delivers excellent temperature stability
- CFC-free, foamed polyurethane insulation prevents heat loss
- RTD temperature probe and protected setpoint mode prevent accidental temperature change
- Door key lock protects samples from unauthorized access

### Efficient Design

- Easy-to-clean, corrosion-resistant construction
- Compressor relay conserves energy

### 173L (6.1 cu. ft.) Unit

- Economical undercounter design
- High/low safety thermostat backups
- Three cooling modes simplify operation: high precision with cooling; high precision without cooling; and frost-free with variable cooling
- Four adjustable leveling feet for stable setup
- 2A outlet easily supports apparatus inside the unit

### 566L (20Cu. ft.) Unit

- Ideal for BOD applications and temperature settings at or below ambient
- Holds up to 333 BOD bottles (300mL)
- Temperature setpoint selection with high- and low-temperature protection and simple calibration
- Available with dual lamp fluorescent lighting for plant growth studies and day/night cycles, programmable lighting conditions
- Safety relay and alarm LED alert to over/undertemperature conditions
- RS-232 and recorder jacks for datalogging
- Standard access port for feeding probes and apparatus cord in/out of unit

**Warranty:** 1 year (parts and labor)  
**Certifications:** 115V units are cCSAus listed

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Shelves	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Uniformity @37°C	Temp. Range	Electrical
<b>PR205745R</b>	173L (6.1 cu. ft.)	2 supplied/4 max*	52 x 52 x 70cm (20.5 x 20.5 x 28in.)	62.2 x 61 x 87.6cm (24.5 x 24 x 34.5in.)	±1.0°C	-10° to +60°C	115V 60Hz (9.5A)
<b>PR205740R</b>	173L (6.1 cu. ft.)	2 supplied/4 max*	52 x 52 x 70cm (20.5 x 20.5 x 28in.)	62.2 x 61 x 87.6cm (24.5 x 24 x 34.5in.)	±1.0°C	-10° to +60°C	230V 50Hz (5.8A)
<b>3721</b>	566L (20.0 cu. ft.)	6 shelves supplied/max	50.8 x 67.3 x 144.8cm (20 x 26.5 x 57in.)	74 x 82 x 191cm (29 x 32 x 75in.)	±0.5°C**	-10° to +50°C	115V 60Hz (7.0A)
<b>3722</b>	566L (20.0 cu. ft.)	6 shelves supplied/max	50.8 x 67.3 x 144.8cm (20 x 26.5 x 57in.)	74 x 82 x 191cm (29 x 32 x 75in.)	±0.5°C**	-10° to +50°C	230V (2.3A)

\* Extra shelf part number for 6.1cuft model is Cat. No. 107384

\*\*Truncated

## Thermo Scientific Precision Plant-Growth Incubators

**Broad temperature range ideal for applications requiring night/day simulation, precise temperature control and uniformity over a broad temperature range**



- Programmable heating and lighting cycles: 7-day program with 2 light cycles per day
- Dual-lamp fluorescent lighting provides 300-foot candles for uniform illumination
- Easy-to-read LED display with 0.1°C setting resolution
- Push-button microprocessor controls feature temperature setpoint selection
- Forced-air circulation delivers excellent temperature stability
- RTD temperature probe and protected setpoint mode prevent accidental temperature change
- Compressor relay conserves energy
- Easy-to-clean, corrosion-resistant construction
- CFC-free, foamed polyurethane insulation prevents heat loss
- Door key lock protects samples from unauthorized access

**Warranty<sup>Y</sup>:** 1 year (parts and labor)  
**Certifications:** 115V unit is cCSAus listed

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Temp. Range	Temperature Uniformity and Sensitivity	No. of Shelves	Electrical
<b>3759</b>	504L (17.8 cu.ft.)	50.8 x 67.3 x 144.8cm (20 x 26.5 x 57in.)	74 x 82 x 191cm (29 x 32 x 75in.)	-10° to +50°C/ +10° to 50°C (illuminated)	±1.5°C at 20°C ±1.2°C	6 supplied; 6 max.	115V 60Hz
<b>3758</b>	504L (17.8 cu.ft.)	50.8 x 67.3 x 144.8cm (20 x 26.5 x 57in.)	74 x 82 x 191cm (29 x 32 x 75in.)	-10° to +50°C/ +10° to 50°C (illuminated)	±1.5°C at 20°C ±1.2°C	6 supplied; 6 max.	230V 50Hz

## Thermo Scientific Plant Growth Chamber

**Designed to facilitate botanical and agricultural research applications including seed germination studies, plant pathology, plant tissue culture studies and plant genetic research**



- 20Cu. ft. chamber with temperature control from -5°C to 55°C (+10°C to 55°C with lights on)
- 24 hour timer/programming for lighting and temperature
- Durable enamel-finished steel chamber construction
- Keylock on door for sample security
- Day and night thermostats with selector switch for automatic operation
- Adjustable Hi-Lo thermostats provide temperature back-up to safeguard samples
- LED display for accurate temperature readings
- Four 20 watt adjustable fluorescent lamps plus two fixed 25 watt incandescent lamps for more than 1000 foot candles of illumination
- Includes five fixed shelves and six door shelves for additional capacity
- Feature controlled humidification by spray nozzles from ambient dew point to 70% RH; +5% RH

**Warranty<sup>Y</sup>:** 1 year (parts); 90 days (labor)

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Chamber Volume	Temp.	Shelf Area	Chamber Dimensions (W x D x H)	Exterior Dimensions (W x D x H)	Shipping Weight	Electrical
<b>845</b>	20Cu. ft. (566L)	-5°C to 55°C without lights (+10°C to 55°C with lights on)	12.1 sq. ft (1.1 sq m)	27 x 18 x 54in (69 x 46 x 137cm)	32 x 32 x 80in (82 x 81 x 202cm)	391 lb. (177 kg)	120V, 60Hz, 2400W, 20A

### Assessoris

Cat. No.	Descriptions
<b>844-6</b>	Extra Shelf
<b>019-168-00</b>	DI Cartridge Assembly includes DI cartridge wall bracket, pressure regulator and gauge and ¼" flexible tubing

## Thermo Scientific Educational Plant Growth Chamber

Ideal for seed germination and plant biology studies in the classroom



- Separate switches for lights on shelves and chamber top allow for different lighting conditions between chambers or between top and bottom of same chamber
- Attractive maple hardwood chamber exterior; easy-to-clean white enamel chamber interior
- Hi-Lo limit thermostats protect samples and experimental conditions
- Plexiglas™ control panel cover locks and locking mechanism on doors, for added security
- 12 cu. ft. storage compartment in base of unit
- Two 24-hour timers for light and temperature control
- Interior reflective glass doors keeps ambient light out

**Warranty<sup>Y</sup>:** 1 year (parts);  
90 days (labor)

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Chamber Volume	Temp. Range	Shelf Area	Chamber Dimensions (W x D x H)	Exterior Dimensions (W x D x H)	Shipping Weight	Electrical
<b>849-6</b>	17.6 cu. ft. (498.4L)	Just above ambient to 37°C with lights off	0.42 sq m (4.5 sq. ft.)	67 x 64 x 116cm (26.5 x 25.25 x 45.5in.)	142 x 72 x 188cm (56 x 28.5 x 74in.)	513 kg (1130 lb.)	120V, 60 Hz, 1920W, 16A

## Thermo Scientific Educational Countertop Plant Growth Chamber

Ideal for growing plants and designed to accommodate plant, animal culture studies in the classroom setting



- Automatic 24-hour programming with timer
- Sliding glass doors for easy access and viewing
- Four fluorescent and three incandescent lamps for various lighting levels (customer supplied)
- Two interior electrical outlets to easily accommodate other electrical equipment
- On/Off indicator lights for main power switch, lamp switch, heater output, fan, thermostat and 24 timer/programmer switches
- Front control panel can be removed for maintenance without disturbing experiments in progress
- Model 846 series combine large viewing area, simplified temperature controls and an economical price
- Black-out panel included

**Warranty<sup>Y</sup>:** 1 year (parts);  
90 days (labor)

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Chamber Volume	Shelf Area	Chamber Dimensions (W x D x H)	Exterior Dimensions (W x D x H)	Shipping Weight	Electrical
<b>846</b>	14.2 cu. ft. (396L)	0.20 sq m (2.2 sq. ft.)	127 x 43 x 74cm (50 x 17 x 29in.)	132 x 47x 97cm (52 x 18.5 x 38in.)	107 kg (236 lb.)	120V, 60 Hz, 800W
<b>846-3</b>	14.2 cu. ft. (396L)	0.20 sq m (2.2 sq. ft.)	127 x 43 x 74cm (50 x 17 x 29in.)	132 x 47x 97cm (52 x 18.5 x 38in.)	107 kg (236 lb.)	220V, 50 Hz, 800W

### Accessories

Cat. No.	Description
<b>846-8</b>	Chamber shelf (H x D) 16.5 x 125.7cm (6.5 x 49.5in.)
<b>846-12</b>	Mobile chamber stand 134.6 x 81.3 x 59.7cm (53 x 32 x 23.5in.)
<b>846-13</b>	Planting Tray (pkg. of 4)



## Thermo Scientific Shake 'n' Stack Hybridization Ovens

**Stackable, space-saving design and excellent uniformity are ideal for molecular biology labs**



- Each unit capable of operating either rotisserie or shaking platform for additional functionality
- One compact triple-oven tower can be set up for three distinct functions at different temperatures
- Digital LED display and controls
- Capacity for 10 medium bottles
- Accurate temperature control for improved experimental results
- Excellent temperature uniformity for reproducible results with low backgrounds
- Multiple rotisserie fittings for flexible choice of consumable
- Interchangeable rotisserie/shaking platform (max. load of 1kg/2.2 lb.) for hybridization and washing procedures
- Variable speed settings for protocol optimization
- Up/down shaking motion

**PRODUCT NOT AVAILABLE IN EUROPE**

**Includes:** Models 6243, 6242 include 10-bottle capacity rotisserie, adjustable feet, drip tray, manual; Models 6241, 6240 includes Shaker platform, 10-bottle capacity rotisserie, adjustable feet, drip tray, manual  
**Warranty:** 1 year (parts and labor)

Cat. No.	Interior D x W x H (9.5 x 13.8 x 9.7in.)	Platform L x W (9.8 x 7in.)	Exterior L x W x H (15 x 17.1 x 16.7in.)	Temperature Range	Temperature Uniformity	Rotisserie Speed Range	Electrical
<b>6243</b>	24 x 35 x 24.5cm (9.5 x 13.8 x 9.7in.)	25 x 18cm (9.8 x 7in.)	38 x 42.5 x 43.5cm (15 x 17.1 x 16.7in.)	35° to 85°C	±0.25°C within bottle	5 to 15rpm	110V 250w
<b>6242</b>	24 x 35 x 24.5cm (9.5 x 13.8 x 9.7in.)	25 x 18cm (9.8 x 7in.)	38 x 42.5 x 43.5cm (15 x 17.1 x 16.7in.)	35° to 85°C	±0.25°C within bottle	5 to 15rpm	220V 250w
<b>6241</b>	24 x 35 x 24.5cm (9.5 x 13.8 x 9.7in.)	25 x 18cm (9.8 x 7in.)	38 x 42.5 x 43.5cm (15 x 17.1 x 16.7in.)	35° to 85°C	±0.25°C within bottle	5 to 15rpm	110V 250w
<b>6240</b>	24 x 35 x 24.5cm (9.5 x 13.8 x 9.7in.)	25 x 18cm (9.8 x 7in.)	38 x 42.5 x 43.5cm (15 x 17.1 x 16.7in.)	35° to 85°C	±0.25°C within bottle	5 to 15rpm	220V 250w

### Thermo Scientific Accessories for Shake 'n' Stack Hybridization Ovens

Cat. No.	Description	For Use with
<b>Rotisseries</b>		
<b>222032</b>	Delrin* Plastic Rotisserie	Shake 'n' Stack ovens
<b>222033</b>	Stainless-steel Rotisserie	Shake 'n' Stack ovens
<b>222041</b>	Stainless-steel Rotisserie	Shake 'n' Stack ovens
<b>222042</b>	Delrin Plastic Rotisserie	Shake 'n' Stack, Maxi 14 ovens
<b>222043</b>	Delrin Plastic Rotisserie	Shake 'n' Stack, Maxi 14 ovens
<b>222044</b>	Delrin Plastic Rotisserie	Shake 'n' Stack, Maxi 14 ovens
<b>Other Accessories</b>		
<b>222051</b>	Drip Tray	Shake 'n' Stack ovens
<b>222000</b>	Shaking Platform	Shake 'n' Stack ovens

## Thermo Scientific Hybridization Bottle & Mesh System

**Manufactured using thick walled borosilicate glass to ensure safe and easy handling**



- Improves the flow of probe solution around and through membranes for optimal results
- Designed to exacting safety standards, these bottles have screw caps containing flat PTFE seals to ensure leak-resistant hybridization
- Full range of bottles accommodates every size of membrane
- Enables multiple blots to be processed simultaneously in one 35mm diameter bottle without direct overlap

**Bottle gripper** for safe and easy handling of bottles. Additional grippers can be purchased separately (Cat. No. 222055 to -057)

Cat. No.	Description	Dimensions
<b>Bottles and Rack</b>		
110103	Bottle Rack	For up to six 35mm bottles
110113	Bottle; Large	300 × 35mm
110115	Bottle; Medium	250 × 35mm
110116	Bottle; Small	150 × 35mm
110094	Bottle; Extra large	300 × 70mm
<b>Bottle Caps and O-Rings</b>		
110108	Bottle cap and seal	35mm
110105	Bottle cap and seal	70mm
110109	Washer seal; For small, medium and large bottle caps	35mm
110107	Washer seal; For extra large bottle caps	70mm
<b>Bottle Grippers</b>		
222055	Bottle gripper; For extra large 70mm bottles	Length: 300mm
222056	Bottle gripper; For large and medium 35mm bottles	Length: 300mm
222057	Bottle gripper; For small 35mm bottles	Length: 150mm
<b>Oven Mesh</b>		
222054	Roll of mesh	5m × 25cm
222052	Oven mesh sheets; Small; Pack of 5	10 × 15cm
222053	Oven mesh sheets; Large; Pack of 5	23 × 23cm
222058	Oven mesh sheets; Small; Pack of 20	10 × 15cm
222059	Oven mesh sheets; Large; Pack of 20	23 × 23cm
<b>Accessory Pack</b>		
222060	Includes two medium bottles, one bottlegripper, one mesh and hybridization guide	250 × 35mm

## Thermo Scientific Peltier Low Temperature Incubators

Manufactured using thick walled borosilicate glass to ensure safe and easy handling



- Innovative thermoelectric cooling technology eliminates the need for a refrigerated compressor. Units consume less power than conventional models while also reducing laboratory ambient temperatures and air conditioning loads
- Thermo Scientific Peltier cooled incubators operate within the temperature range preferred by fruit flies
- Programmable Watlow® controller allows for 40-step ramp and soak profiles, or four files with 10 steps per file
- Capable of programming day/night cycles in models with LED lights
- The lack of compressor coils eliminates the concerns of corrosion from insect waste
- Excellent temperature uniformity allows for effective space utilization
- Peltier technology excludes the need for compressor coils so corrosion from fly secretions is no longer a concern
- Meets American Public Health Association (APHA) specifications for biochemical oxygen demand (BOD)
- Easy to clean and corrosion resistant painted stainless steel interiors.
- All models include an RS 485 output as well as an independent over-temperature thermostat and over-temperature alarm
- Heavy-duty shelves have a 75 lb. capacity
- TUV certification



Cat. No.	3915FL	3990FL	3915LT	3990LT
<b>Description</b>	Drosophila incubator with LED lights	Drosophila incubator with LED lights	Low temperature incubator	Low temperature incubator
<b>Capacity</b>	6.5 Cu.Ft. (185L)	19.5 Cu.Ft. (552L)	6.5 Cu.Ft. (185L)	19.5 Cu.Ft. (552L)
<b>Interior Dimensions W x D x H in. (cm)</b>	25.6 x 24.1 x 18.5 (64.7 x 60.9 x 46.9)	25.6 x 24.1 x 54.8 (64.7 x 60.9 x 138.4)	25.6 x 24.1 x 18.5 (64.7 x 60.9 x 46.9)	25.6 x 24.1 x 54.8 (64.7 x 60.9 x 138.4)
<b>Exterior Dimensions W x D x H in. (cm)</b>	31.8 x 32.3 x 33.5 (76.2 x 80.1 x 85.1)	31.8 x 32.3 x 69.6 (76.2 x 80.1 x 176.6)	31.8 x 32.3 x 33.5 (76.2 x 80.1 x 85.1)	31.8 x 32.3 x 69.6 (76.2 x 80.1 x 176.6)
<b>Temperature Range</b>	15°C to 40°C			
<b>Temperature Uniformity (unit@15°)</b>	+/-0.55°C (at 15-28°C ambient, 50%RH)			
<b>Temperature Uniformity (unit@22°)</b>	+/-0.64°C (at 15-35°C ambient, 50%RH)			
<b>Temperature Uniformity (unit@40°)</b>	+/-1.0°C (at 18-40°C ambient, 50%RH)			
<b>Electrical Specifications</b>	100-120V, 50/60Hz, 360W (3.0A)			
<b>Temperature Control</b>	0.1°C Display increments			
<b>RS 485 interface</b>	Yes			
<b>Shelving</b>	2 Supplied	5 Supplied, Adjustable, Bottom shelf slide	2 Supplied	5 Supplied, Adjustable, Bottom shelf slide
<b>Shelf Capacity</b>	75 lbs/34 kg shelf. 150 lbs/68 kg total	75 lbs/34 kg shelf. 375 lbs/170 kg total	75 lbs/34 kg shelf. 150 lbs/68 kg total	75 lbs/34 kg shelf. 375 lbs/170 kg total
<b>Weight (lbs/kg)</b>	259/118	380/172	259/118	380/172
<b>US style plug</b>	Yes			

### Thermo Scientific Accessories for Peltier Low Temperature Incubators

Cat. No.	Description
<b>3900BR</b>	Sliding shelf brackets only for drosophila and low temperature incubators
<b>3900FSH</b>	Fixed shelf brackets only for drosophila incubator
<b>3900SSH</b>	Sliding shelf brackets only for drosophila incubator

## Thermo Scientific Dry Block Heaters

Analog and digital models offer precise temperature control resolution with a compact footprint



- Built-in temperature-sensing probe for improved temperature accuracy and control
- Anodized aluminum modular blocks accommodate test tubes, square cuvettes, microcentrifuge tubes, 96-well plates, PCR plates and conical bottom centrifuge tubes
- Range of configurations to hold 1, 2, 3, 4, and 6 interchangeable modular blocks to accommodate a variety of vessels and applications
- Powder-coated steel body construction ensures durability
- Chemically resistant design meets the needs the laboratory environment

### Analog Units

- Ideal for fixed temperature applications
- Bimetallic dual temperature control for precise control over two ranges: low range slightly above ambient to 60°C, high range 50° to 130°C
- Read thermometer and adjust knob controller to desired setpoint

### Digital Units

- PID microprocessor controller with digital temperature set and easy-to-read LED display for accurate and reproducible temperature control
- Setpoint easily adjusted via up and down arrow keys on front of unit
- Modular block mounts on a single temperature probe in Dry Block Heater bottom, for optimum temperature accuracy and control

**Warranty**\*: 1 year (parts); 90 days (labor)  
**Certifications**: Digital models are CSA and CE approved, 120V Analog models are UL and cUL approved, 240V Analog Models are CSA approved

Cat. No.	No. of Blocks	Temp. Range	Temp. Uniformity/ Control Resolution	Overall L x W x H	Shipping Weight	Electrical
<b>Digital Models</b>						
<b>2000Q</b>	1	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	28.4 × 22.1 × 9cm (11.2 × 8.7 × 3.6in.)	2kg (5 lb.)	120 V/50/60Hz, 100w, 0.83A
<b>2000-1CEQ</b>	1	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	28.4 × 22.1 × 9cm (11.2 × 8.7 × 3.6in.)	2kg (5 lb.)	240 V/50/60Hz, 100w, 0.42A
<b>2001Q</b>	2	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	36 × 22.1 × 9cm (14.2 × 8.7 × 3.6in.)	3kg (6 lb.)	120 V/50/60Hz, 150w, 1.25A
<b>2001-1CEQ</b>	2	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	36 × 22.1 × 9cm (14.2 × 8.7 × 3.6in.)	3kg (6 lb.)	240 V/50/60Hz, 150w, 0.63A
<b>2002Q</b>	3	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	30.4 × 27.4 × 9cm (12 × 10.8 × 3.6in.)	4kg (8 lb.)	120 V/50/60Hz, 200w, 1.67A
<b>2002-1CEQ</b>	3	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	30.4 × 27.4 × 9cm (12 × 10.8 × 3.6in.)	4kg (8 lb.)	240 V/50/60Hz, 200w, 0.80A
<b>2003Q</b>	4	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	35.5 × 27.4 9cm (14.1 × 10.8 × 3.6in.)	4kg (8 lb.)	120 V/50/60Hz, 300w, 2.5A
<b>2003-1CEQ</b>	4	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	35.5 × 27.4 9cm (14.1 × 10.8 × 3.6in.)	4kg (8 lb.)	240 V/50/60Hz, 300w, 1.25A
<b>2004Q</b>	6	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	43 × 27.4 × 9cm (17 × 10.8 × 3.6in.)	5kg (10 lb.)	120 V/50/60Hz, 400w, 3.33A
<b>2004-1CEQ</b>	6	Ambient +5° to 130°C	±0.4°C at 37°C/±0.5°C	43 × 27.4 × 9cm (17 × 10.8 × 3.6in.)	5kg (10 lb.)	240 V/50/60Hz,400w, 1.67A
<b>Analog Models</b>						
<b>2050Q</b>	1	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	19 × 16 × 9cm (7.6 × 6.2 × 3.4in.)	2kg (5 lb.)	120 V/50/60Hz, 100w, 0.83A
<b>2050-1CEQ</b>	1	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	27.3 × 16 × 9cm (10.8 × 6.2 × 3.4in.)	2kg (5 lb.)	240 V/50/60Hz, 100w, 0.42A
<b>2052Q</b>	2	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	22 × 21 × 9cm (8.6 × 8.4 × 3.4in.)	3kg (6 lb.)	120 V/50/60Hz, 150w, 1.25A
<b>2052-1CEQ</b>	2	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	29.7 × 21 × 9cm (11.7 × 8.4 × 3.4in.)	3kg (6 lb.)	240 V/50/60Hz, 150w, 0.63A
<b>2053Q</b>	3	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	23 × 29 × 9cm (9.1 × 11.25 × 3.4in.)	4kg (8 lb.)	120 V/50/60Hz, 200w, 1.67A
<b>2053-1CEQ</b>	3	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	29.7 × 21 × 9cm (11.7 × 8.4 × 3.4in.)	4kg (8 lb.)	240 V/50/60Hz, 200w, 0.83A
<b>2054Q</b>	4	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	31 × 21 × 9cm (12.4 × 8.3 × 3.4in.)	4kg (8 lb.)	120 V/50/60Hz, 300w, 2.5A
<b>2054-1CEQ</b>	4	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	38.6 × 21 × 9cm (15.2 × 8.3 × 3.4in.)	4kg (8 lb.)	50240 V/0Hz, 300w, 1.25A
<b>2056Q</b>	6	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	33 × 29 × 9cm (12.9 × 11.25 × 3.4in.)	5kg (10 lb.)	120 V/50/60Hz, 400w, 3.3A
<b>2056-1CEQ</b>	6	Ambient +5° to 130°C	±0.5°C at 37°C /±3.5°C	40.1 × 29 × 9cm (15.8 × 11.25 × 3.4in.)	5kg (10 lb.)	240 V/50/60Hz, 400w, 1.67A

## Thermo Scientific Modular Block Accessories



- Anodized aluminum for the greatest heat transfer and retention
- Designed to provide close contact of tubes to block walls for excellent heat transfer

**Includes:** Thermometer well for monitoring block temperatures; block puller for safe, easy block removal

Cat. No.	Type	No. of Wells	Block Dimensions W x H x D	Tube Diameter	For Use with
<b>Blocks</b>					
<b>2070Q</b>	Test Tubes; 6mm	30	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	0.79cm (0.31in.)	Digital 2000 series; Analog 2050 series
<b>2071Q</b>	Test Tubes; 10mm	24	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	1.02cm (0.4in.)	Digital 2000 series; Analog 2050 series
<b>2072Q</b>	Test Tubes; 12 to 13mm	22	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	1.35cm (0.53in.)	Digital 2000 series; Analog 2050 series
<b>2073Q</b>	Test Tubes; 15 to 16mm	12	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	1.73cm (0.68in.)	Digital 2000 series; Analog 2050 series
<b>2081Q</b>	Test Tubes; 17 to 18mm	12	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	1.9cm (0.75in.)	Digital 2000 series; Analog 2050 series
<b>2074Q</b>	Test Tubes; 20mm	8	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	2.06cm (0.81in.)	Digital 2000 series; Analog 2050 series
<b>2075Q</b>	Test Tubes; 25mm	6	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	2.62cm (1.03in.)	Digital 2000 series; Analog 2050 series
<b>2076Q</b>	Test Tubes Combination; Three 25mm, five 12 to 13mm, six 6mm	14	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	2.62cm (1.03in.); 1.35cm (0.53in.); 0.79cm (0.31in.)	Digital 2000 series; Analog 2050 series
<b>BKX40LLQ</b>	Centrifuge Tube Block; 15mL	12	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	16mm	Digital 2000 series; Analog 2050 series
<b>BKX43LLQ</b>	Centrifuge Tube Block; 50mL	4	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	30mm	Digital 2000 series; Analog 2050 series
<b>2059Q</b>	Microcentrifuge; 0.2mL	79	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	0.61cm (0.24in.) taper	Digital 2000 series; Analog 2050 series
<b>2068Q</b>	Microcentrifuge; 0.5mL	30	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	0.74cm (0.29in.) taper	Digital 2000 series; Analog 2050 series
<b>2069Q</b>	Microcentrifuge; 1.5mL	20	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	1.04cm (0.44in.) taper	Digital 2000 series; Analog 2050 series
<b>2058Q</b>	Microcentrifuge Combination; Thirty 0.5mL; Nineteen 0.2mL	49	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	0.74cm (0.29in.) taper; 0.61cm (0.24in.) taper	Digital 2000 series; Analog 2050 series
<b>2078Q</b>	Specialty; Solid block for customization	n/a	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	n/a	Digital 2000 series; Analog 2050 series
<b>2083Q</b>	Specialty; PCR Block (size of 2 blocks)	n/a	9.5 x 5.1 x 7.4cm (3.75 x 2 x 2.9in.)	n/a	Digital 2000 series; Analog 2050 series
<b>Titer Plates</b>					
<b>2064Q</b>	Titer Plate; Direct contact; Size of two blocks	1		n/a	Digital 2000 series; Analog 2050 series
<b>2065Q</b>	Titer Plate; Size of two blocks	1		n/a	Digital 2000 series; Analog 2050 series
<b>2085</b>	Titer Plate; Stainless-steel cover	n/a		n/a	Models 2064Q and 2065Q
<b>Cuvette</b>					
<b>2066Q</b>	Cuvette; 12.5mm	12		n/a	Digital 2000 series; Analog 2050 series

# ovens

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## Thermo Scientific Heratherm Heating and Drying Ovens Selector Guide

Features	Heratherm® General Protocol Oven		Heratherm Advanced Protocol Oven		Heratherm Advanced Protocol Security Oven
	TABLE TOP	LARGE CAPACITY	TABLE TOP	LARGE CAPACITY	TABLE TOP
Temperature range	50°C <sup>1</sup> - 250°C	50°C <sup>1</sup> - 250°C	50°C <sup>1</sup> - 330°C	50 °C - 250 °C	50°C <sup>1</sup> 330°C
Interior material	stainless steel AISI 430 / 1.4016	stainless steel AISI 430 / 1.4016	stainless steel AISI 304 / 1.4301	stainless steel AISI 304 / 1.4301	stainless steel AISI 304 / 1.4301
Rounded corners	✓	✓	✓	✓	✓
Microprocessor control	✓	✓	✓	✓	✓
Automatic over-temperature alarm	✓	✓	✓	✓	✓
Stackable with optional stacking kit	✓	—	✓	—	✓
Easy calibration routine	✓	✓	✓	✓	✓
Gravity Convection	choice	✓	choice	—	choice
Mechanical Convection	choice	—	choice	✓	choice
Timer functions	on / off	on / off	choice of weekly / daily / real time	choice of weekly / daily / real time	choice of weekly / daily / real time
Fresh air damper	manually controlled	manually controlled	electronically controlled	electronically controlled	electronically controlled
Access port for independent data monitoring	Use exhaust vent	Use exhaust vent	✓	✓	✓
RS232 interface	✓	✓	✓	✓	✓
Adjustable fan speed	—	—	5 speeds	2 speeds	5 speeds
Programmable (ramps / dwells)	—	—	✓	✓	✓
Boost function for accelerated heat-up	—	—	✓	—	✓
Optional stainless steel exterior	—	—	—	✓ (not available in NA)	✓
Dry alarm contact for connection of alarm device	—	—	✓	✓	✓
Automatic undertemperature alarm	—	—	—	—	✓
Door alarm	—	—	—	✓	✓
Lockable door	—	—	—	—	✓
Connection for optional sample temperature sensor	—	—	—	✓	✓

<sup>1</sup> Temperatures as low as ambient +10 °C can be selected – requires open damper and no additional heat in unit

Application	Material/Sample*	Temp. Requirements	Recommended Heratherm Oven
<b>Drying</b>	Glassware	Fast drying	Gravity convection for gentle drying, Mechanical convection for fast drying, Choose Advanced Protocol for highest temperature accuracy and selection of fan speed, choose Advanced Protocol Security for highest sample safety. Check also our vacuum ovens for speedy drying at low temperatures.
	Powders	Gentle/Fast drying	
	Paper, textile	Gentle/Fast drying	
	Soil, sand	Gentle drying	
	Electronics	Gentle drying	
	Pharmaceutical preparations	Gentle drying	
<b>Material testing</b>	Cables	Highest temperature accuracy; safe processes	Advanced protocol models with mechanical convection; Advanced protocol security models for highest sample safety.
	Plastics	Highest temperature accuracy; safe processes	
<b>Curing</b>	Paint	Gentle Heating	Gravity convection for gentle heating. Choose Advanced Protocol for high temperature accuracy, Advanced Protocol Security for highest sample safety. If combustible solvents are released: ask your Thermo Fisher Scientific representative!
	Adhesives	Gentle Heating	
	Plastics	Gentle Heating	
	Metals	Gentle Heating	
<b>Heated Storage</b>	Pills, drugs	Gentle heating; safe processes	Gravity convection for gentle heating, or mechanical convection Advanced Protocol at low fan speed. Choose Advanced Protocol Security for highest sample safety.
<b>Vulcanization</b>	Rubber	Gentle Heating	

\* examples



## Thermo Scientific Heratherm General Protocol Ovens

Perfect for routine day to day work, providing the ideal heating and drying solution for research, clinical or industrial needs



- Choice of gravity convection for gentle drying and heating, or mechanical convection for faster drying and heating, and excellent temperature uniformity
- Three sizes; Operating temperatures from 50° to 250°C
- Automatic over-temperature alarm system to protect samples
- Low overall energy consumption
- Excellent footprint/volume ratio
- Corrosion-resistant stainless-steel chambers with rounded corners for easy cleaning
- Large, easy to read vacuum fluorescent display
- Easy to use, microprocessor-controlled touch button operation
- Easy to access – doors can be opened to over 180° degrees

**Ordering Alerts:** Availability may vary by country.

**Warranty<sup>Y</sup>:** 2 years (parts and labor)

**Certifications:** cCSAus (120V 208-240V 60Hz models) and CE (230V, 50/60Hz models)

Cat. No.	Model	Chamber Volume	Footprint	Temp Uniformity/ Stability (@150°C)	Chamber Dimensions (D x W x H)	Exterior Dimensions* (D x W x H)	Shelves Supplied (Max)/ Max Load	Shipping Weight	Electrical/ Plug Type
<b>Gravity Convection</b>									
51028112	OGS60	65L (2.30 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±4.0°C / ±0.4°C	415 x 328 x 480mm (16.4 x 12.9 x 18.9in.)	470 x 565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	42kg (93 lb.)	120V; 60Hz; 1730w; 14.4A
51028139	OGS60	65L (2.30 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±4.4°C / ±0.4°C	415 x 328 x 480mm (16.4 x 12.9 x 18.9in.)	470 x 565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	42kg (93 lb.)	230V; 50/60Hz; 1800w; 7.9A
51028872	OGS100	105L (3.75 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±4.5°C / ±0.4°C	414 x 438 x 580mm (16.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	53kg (117 lb.)	120V; 60Hz; 1680w; 14A
51028140	OGS100	105L (3.75 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±4.0°C / ±0.4°C	414 x 438 x 580mm (16.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	53kg (117 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028113	OGS100	105L (3.75 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±4.0°C / ±0.4°C	414 x 438 x 580mm (16.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	53kg (117 lb.)	208-240V; 60Hz; 3360w; 14A
51028874	OGS180	176L (6.20Cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±5.0°C / ±0.4°C	589 x 438 x 680mm (23.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	66kg (146 lb.)	120V; 60Hz; 1680w; 14Ac
51028141	OGS180	176L (6.20Cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±4.0°C / ±0.4°C	589 x 438 x 680mm (23.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	66kg (146 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028114	OGS180	176L (6.20Cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±4.0°C / ±0.4°C	589 x 438 x 680mm (23.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	66kg (146 lb.)	208-240V; 60Hz; 3360w; 14A
<b>Mechanical Convection</b>									
51028121	OMS60	66L (2.30 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±3.3°C / ±0.3°C	368 x 354 x 508mm (14.5 x 13.9 x 20.0in.)	470 x 565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	40kg (88 lb.)	120V; 60Hz; 1440w; 12A
51028148	OMS60	66L (2.30 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.8°C / ±0.3°C	368 x 354 x 508mm (14.5 x 13.9 x 20.0in.)	470 x 565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	40kg (88 lb.)	230V; 50/60Hz; 1400w; 6.1A
51028873	OMS100	104L (6.30 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±3.5°C / ±0.4°C	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	53kg (117 lb.)	120V; 60Hz; 1660w; 13.8A
51028149	OMS100	104L (6.30 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±2.5°C / ±0.3°C	368 x 464 x 608mm (14.5 x 18.3 x 23.9in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	53kg (117 lb.)	230V; 50/60Hz; 3060w; 13.3A
51028122	OMS100	104L (6.30 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±2.5°C / ±0.3°C	368 x 464 x 608mm (14.5 x 18.3 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	53kg (117 lb.)	208-240V; 60Hz; 3360w; 14A
51028875	OMS180	179L (6.30 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±3.5°C / ±0.3°C	543 x 464 x 708mm (21.4 x 18.3 x 27.9 in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	66kg (146 lb.)	120V; 60Hz; 1660w; 13.8Ac
51028150	OMS180	179L (6.30 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±3.0°C / ±0.3°C	543 x 464 x 708mm (21.4 x 18.3 x 27.9 in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	66kg (146 lb.)	230V 50/60Hz; 3060w; 13.3A
51028123	OMS180	179L (6.30 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.8°C / ±0.3°C	543 x 464 x 708mm (21.4 x 18.3 x 27.9 in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	66kg (146 lb.)	208-240V; 60Hz; 3360w; 14A

\*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: 80 mm / 3.1 in.

NOTE: All figures in tables are typical average values for series devices, based on factory standard following norm Din12880. Please contact us for certification information or IQ/OQ documents.

## Thermo Scientific Heratherm Advanced Protocol Heating and Drying Ovens

**Mechanical or gravity convection technology with excellent temperature values, providing flexibility, accuracy and dependability**



- Unsurpassed temperature performance – the flexible tool in the lab to be used for multiple applications
- Choice of gravity convection for gentle drying and heating, or mechanical convection for faster drying and heating, and outstanding temperature uniformity
- Broad temperature range from 50-330°C
- Adjustable fan speed for application-related airflow in mechanical convection models (e.g., drying of powders)
- High speed for expedited drying and heating, quick recovery, and optimal temperature stability and uniformity
- Programmable controller for temperature ramps and dwells
- Up to 10 programs can be saved, each with 10 discrete steps
- Electronically controlled fan speed and damper position
- Programs can be repeated automatically
- Access port allows the introduction of sensors for independent data monitoring
- Microprocessor control with vacuum fluorescent display
- Simple calibration routine ensures temperature accuracy over time
- Boost function enables rapid heating up – no need to operate the oven 24/7

**Ordering Alerts:** Availability may vary by country

**Warranty<sup>†</sup>:** 2 years (parts and labor)

**Certifications:** CSAus (120V, 208-240V/60Hz models) and CE (230V, 50/60 Hz models)

Cat. No.	Model/ Interior	Chamber Volume	Footprint	Temp Uniformity/ Stability (@150°C)	Chamber Dimensions (D x W x H)	Exterior Dimensions* (D x W x H)	Shelves Supplied (Max)/ Max Load	Shipping weight	Electrical
<b>Gravity Convection</b>									
51028115	OGH60/ coated	61L (2.15 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.5°C / ±0.3°C	389 x 328 x 480mm (15.3 x 12.9 x 18.9in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	120V; 60Hz; 1730w; 14.4A
51028142	OGH60/ coated	61L (2.15 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.5°C / ±0.3°C	389 x 328 x 480mm (15.3 x 12.9 x 18.9in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1800w; 7.9A
51028709	OGH60 SS/ stainless steel	61L (2.15 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.5°C / ±0.3°C	389 x 328 x 480mm (15.3 x 12.9 x 18.9in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1800w; 7.9A
51028116	OGH100/ coated	99L (3.6 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±2.5°C / ±0.3°C	389 x 438 x 580mm (15.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	208-240V; 60Hz; 3360w; 14A
51028143	OGH100/ coated	99L (3.6 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±3.0°C / ±0.3°C	389 x 438 x 580mm (15.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028711	OGH100 SS/ stainless steel	99L (3.6 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±3.0°C / ±0.3°C	389 x 438 x 580mm (15.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028144	OGH180/ coated	168L (6.05 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.5°C / ±0.3°C	564 x 438 x 680mm (17.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028117	OGH180/ coated	168L (6.05 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.9°C / ±0.3°C	564 x 438 x 680mm (17.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	208-240V; 60Hz; 3360w; 14A
51028712	OGH180 SS/ stainless steel	168L (6.05 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.5°C / ±0.3°C	564 x 438 x 680mm (17.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V; 50/60Hz; 3100w; 13.5A
<b>Mechanical Convection</b>									
51028124	OMH60/ coated	62L (2.2 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±1.5°C / ±0.2°C	343 x 354 x 508mm (13.5 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	120V; 60Hz; 1440w; 12A
51028151	OMH60/ coated	62L (2.2 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±1.8°C / ±0.2°C	343 x 354 x 508mm (13.5 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1400w; 6.1A
51028713	OMH60 SS/ stainless steel	62L (2.2 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±1.8°C / ±0.2°C	343 x 354 x 508mm (13.5 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1400w; 6.1A
51028125	OMH100/ coated	97L (3.5 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±1.3°C / ±0.2°C	343 x 464 x 608mm (13.5 x 18.3 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	208-240V; 60Hz; 3360w; 14A
51028152	OMH100/ coated	97L (3.5 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±1.3°C / ±0.2°C	343 x 464 x 608mm (13.5 x 18.3 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3060w; 13.3A
51028715	OMH100 SS/ stainless steel	97L (3.5 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±1.3°C / ±0.2°C	343 x 464 x 608mm (13.5 x 18.3 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3060w; 13.3A
51028126	OMH180/ coated	170L (6.1 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±1.5°C / ±0.2°C	518 x 464 x 708mm (18.3 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	208-240V; 60Hz; 3360w; 14A
51028153	OMH180/ coated	170L (6.1 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±1.8°C / ±0.2°C	518 x 464 x 708mm (18.3 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V; 50/60Hz; 3060w; 13.3Ac
51028716	OMH180 SS/ stainless steel	179L (6.30 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±1.8°C / ±0.2°C	518 x 464 x 708mm (18.3 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V; 50/60Hz; 3060w; 13.3A

\*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: 80 mm / 3.1 in.

NOTE: All figures in tables are typical average values for series devices, based on factory standard following norm Din12880. Please contact us for certification information or IQ/OQ documents.



## Thermo Scientific Heratherm Advanced Protocol Security Heating and Drying Ovens

**Extra layer of security for applications where process reliability and security are paramount**



- Choice of gravity convection for gentle drying and heating, or mechanical convection for faster drying and heating, and exceptional temperature uniformity
- Choice of stainless steel exterior available for demanding pharmaceutical and clinical applications
- Standard over-temperature alarm and an additional under-temperature alarm ensure that your samples stay at the correct temperature
- Door lock prevents disruption, tampering or accidental opening
- Door alarm notifies the operator when door is left open accidentally, preventing the temperature from deviating
- Broad temperatures range from 50-330°C
- Optional sample sensor provides exact temperature of sample on display
- Auto-dry function deactivates oven when the samples are dry, saving energy (Note: Optional sample sensor is required to utilize this feature)
- Advanced digital timer for daily or weekly on / off cycles
- Stainless-steel interior is easy to clean and corrosion resistant (steel quality AISI 304 /1.4301)
- Programmable controller for temperature ramps and dwells
- Up to 10 programs can be saved, each with 10 discrete steps
- Electronically controlled fan speed and damper position can be incorporated; Programs can be repeated automatically
- Access port allows the introduction of sensors for independent data monitoring
- Simple calibration routine ensures temperature accuracy over time
- Boost function enables rapid heating up – no need to operate the oven 24/7

**Ordering Alerts:** Availability may vary by country

**Warranty:** 2 years (parts and labor)

**Certifications:** CSAus (120V, 208-240V/60Hz models) and CE (230V, 50/60Hz models)

Cat. No.	Model/Interior	Chamber Volume	Footprint	Temp Uniformity/ Stability (@37°C)	Chamber Dimensions (D x W x H)	Exterior Dimensions* (D x W x H)	Shelves Supplied (Max)/ Max Load	Shipping weight	Electrical/ Plug Type
<b>Gravity Convection</b>									
51028118	OGH60-S/ coated	61L (2.15 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.5°C / ±0.3°C	389 x 328 x 480mm (15.3 x 12.9 x 18.9in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	120V; 60Hz; 1730w; 14.4A
51028536	OGH60-S SS/ Stainless Steel	61L (2.15 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.5°C / ±0.3°C	389 x 328 x 480mm (15.3 x 12.9 x 18.9in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	120V; 60Hz; 1730w; 14.4A
51028145	OGH60-S/ coated	61L (2.15 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.5°C / ±0.3°C	389 x 328 x 480mm (15.3 x 12.9 x 18.9in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1800w; 7.9A
51028544	OGH60-S SS/ Stainless Steel	61L (2.15 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±2.5°C / ±0.3°C	389 x 328 x 480mm (15.3 x 12.9 x 18.9in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1800w; 7.9A
51028119	OGH100-S/ coated	99L (3.6 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±3.0°C / ±0.3°C	389 x 438 x 580mm (15.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	208-240V; 60Hz; 3360w; 14A
51028537	OGH100-S SS/ Stainless Steel	99L (3.6 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±2.5°C / ±0.3°C	389 x 438 x 580mm (15.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	208-240V; 60Hz; 3360w; 14A
51028146	OGH100-S/ coated	99L (3.6 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±3.0°C / ±0.3°C	389 x 438 x 580mm (15.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028545	OGH100-S SS/ Stainless Steel	99L (3.6 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±3.0°C / ±0.3°C	389 x 438 x 580mm (15.3 x 17.2 x 22.8in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028120	OGH180-S/ coated	168L (6.05 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.9°C / ±0.3°C	564 x 438 x 680mm (17.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	208-240V; 60Hz; 3360w; 14A
51028538	OGH180-S SS/ Stainless Steel	168L (6.05 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.9°C / ±0.3°C	564 x 438 x 680mm (17.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	208-240V; 60Hz; 3360w; 14A
51028147	OGH180-S/ coated	168L (6.05 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.5°C / ±0.3°C	564 x 438 x 680mm (17.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V; 50/60Hz; 3100w; 13.5A
51028546	OGH180-S SS/ Stainless Steel	168L (6.05 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±2.5°C / ±0.3°C	564 x 438 x 680mm (17.2 x 17.2 x 26.8in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V; 50/60Hz; 3100w; 13.5A
<b>Mechanical Convection</b>									
51028127	OMH60-S/ coated	62L (2.2 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±1.5°C / ±0.2°C	343 x 354 x 508mm (13.5 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	120V; 60Hz; 1440w; 12A
51028539	OMH60-S SS/ Stainless Steel	62L (2.2 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±1.5°C / ±0.2°C	343 x 354 x 508mm (13.5 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	120V; 60Hz; 1440w; 12A
51028154	OMH60-S/ coated	62L (2.2 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±1.8°C / ±0.2°C	343 x 354 x 508mm (13.5 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1400w; 6.1A
51028547	OMH60-S SS/ Stainless Steel	62L (2.2 cu. ft.)	0.3 sq. m (3.2 sq. ft.)	±1.8°C / ±0.2°C	343 x 354 x 508mm (13.5 x 13.9 x 20.0in.)	565 x 530 x 720mm (22.2 x 20.9 x 28.3in.)	2 (13)/25kg (55 lb.)	44kg (97 lb.)	230V; 50/60Hz; 1400w; 6.1A
51028128	OMH100-S/coated	97L (3.5 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±1.3°C / ±0.2°C	343 x 438 x 608mm (13.5 x 17.2 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	208-240V; 60Hz; 3360w; 14A
51028326	OMH100-S SS/ Stainless Steel	97L (3.5 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±1.3°C / ±0.2°C	343 x 438 x 608mm (13.5 x 17.2 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	208-240V; 60Hz; 3360w; 14A
51028155	OMH100-S/coated	97L (3.5 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±1.3°C / ±0.2°C	343 x 438 x 608mm (13.5 x 17.2 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3060w; 13.3A
51028548	OMH100-S SS/ Stainless Steel	97L (3.5 cu. ft.)	0.36 sq. m (3.9 sq. ft.)	±1.3°C / ±0.2°C	343 x 438 x 608mm (13.5 x 17.2 x 23.9 in.)	565 x 640 x 820mm (22.2 x 25.2 x 32.3in.)	2 (16)/25kg (55 lb.)	55kg (121 lb.)	230V; 50/60Hz; 3060w; 13.3A
51028129	OMH180-S/coated	170L (6.1 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±1.5°C / ±0.2°C	518 x 464 x 708mm (20.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	208-240V; 60Hz; 3360w; 14A
51028540	OMH180-S SS/ Stainless Steel	170L (6.1 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±1.5°C / ±0.2°C	518 x 464 x 708mm (20.4 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	208-240V; 60Hz; 3360w; 14A
51028156	OMH180-S/ coated	170L (6.1 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±1.8°C / ±0.2°C	518 x 464 x 708mm (18.3 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V 50/60Hz; 3060w; 13.3A
51028549	OMH180-S SS/ Stainless Steel	170L (6.1 cu. ft.)	0.47 sq. m (5.1 sq. ft.)	±1.8°C / ±0.2°C	518 x 464 x 708mm (18.3 x 18.3 x 27.9in.)	738 x 640 x 920mm (29.1 x 25.2 x 36.2 in.)	2 (19)/25kg (55 lb.)	69kg (152 lb.)	230V 50/60Hz; 3060w; 13.3A

\*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: 80 mm / 3.1 in.

NOTE: All figures in tables are typical average values for series devices, based on factory standard following norm Din12880. Please contact us for certification information or IQ/OQ documents.

## Thermo Scientific Heratherm Ovens Accessories

Cat. No.	Description	Details
<b>Additional Shelving</b>		
50128881	Reinforced shelf – 180L, mechanical convection	Shelf with maximum capacity of 70 kg for 180 liter models, mechanical convection of Advanced Protocol and Advanced Protocol Security ovens; max total capacity is 250 kg
50128880	Reinforced shelf – 180L, gravity convection	Shelf with maximum capacity of 70 kg for 180 liter models, gravity convection of Advanced Protocol and Advanced Protocol Security ovens; max total capacity is 250 kg
50127761	Additional shelf kit, 60L model, gravity convection	Additional wire mesh shelf for 60L gravity convection models, including 2 shelf supports
50127762	Additional shelf kit, 100L model, gravity convection	Additional wire mesh shelf for 100L gravity convection models, including 2 shelf supports
50127763	Additional shelf kit, 180L model, gravity convection	Additional wire mesh shelf for 180L gravity convection models, including 2 shelf supports
50127764	Additional shelf kit, 60L model, mechanical convection	Additional wire mesh shelf for 60L mechanical convection models, including 2 shelf supports
50127765	Additional shelf kit, 100L model, mechanical convection	Additional wire mesh shelf for 100L mechanical convection models, including 2 shelf supports
50127766	Additional shelf kit, 180L model, mechanical convection	Additional wire mesh shelf for 180L mechanical convection models, including 2 shelf supports
<b>Stacking kits</b>		
50126665	Stacking kit 60L units	Stacking kit for Heratherm 60L models
50126666	Stacking kit 60L units	Stacking kit for Heratherm 100L models - use also to stack 60L on 100L
50126667	Stacking kit 60L units	Stacking kit for Heratherm 180L models - use also to stack 60L or 100L on 180L
<b>Support Stands</b>		
50127741	Support stand 60L units	Support stand with casters for 60L units; height of stand including casters: 187mm / 7.4in
50127742	Support stand 60L units	Support stand with casters for 100L units; height of stand including casters: 187mm / 7.4in
50127743	Support stand 60L units	Support stand with casters for 180L units; height of stand including casters: 187mm / 7.4in
<b>Sample Sensor</b>		
50127767	Sample sensor Advanced Protocol Security	Sample sensor to measure and display exact sample temperature - for Heratherm Advanced Protocol Security ovens
<b>Underbench installation kit</b>		
50128887	Kit for underbench installation – air exhaust	Kit for underbench installation; for all AP and APS ovens; consists of exhaust tubing (1.5 m length) and details on wall distances; note that maximum temperature for underbench installation is 250 °C
<b>Special Sealing</b>		
50130657	Silicone free viton sealing 60L	Silicone free viton door sealing for all 60 liter Heratherm ovens
50130658	Silicone free viton sealing 100L	Silicone free viton door sealing for all 100 liter Heratherm ovens
50130659	Silicone free viton sealing 180L	Silicone free viton door sealing for all 180 liter Heratherm ovens
<b>Fresh Air Filter</b>		
50127566	Fresh air particle filter	Fresh air particle filter for connection to the fresh air vent (intake), for Advanced Protocol and Advanced Protocol Security models only

\* other voltages available on request

## Thermo Scientific Heratherm Ovens Options

Cat. No.	Description	Details
<b>Factory-Installed Options — Please order in conjunction with desired oven.</b>		
51900996	Access port left, small	Additional access port on center of left side of unit; Ø 24 mm for all mechanical convection ovens / Ø 19 mm for all gravity convection ovens.
51900997	Access port left, large	Additional access port on center of left side of unit; Ø 58 mm for all mechanical convection ovens / Ø 53 mm for all gravity convection ovens.
51900998	Access port right, small	Additional access port on center of right side of unit; Ø 24 mm for all mechanical convection ovens / Ø 19 mm for all gravity convection ovens.
51900999	Access port right, large	Additional access port on center of right side of unit; Ø 58 mm for all mechanical convection ovens / Ø 53 mm for all gravity convection ovens.
51901000	Access port top, small	Additional access port on center of top of unit; Ø 24 mm for all ovens.
51901001	Access port top, large	Additional access port on center of top of unit; Ø 58 mm for all ovens.
51900993	Door hinge left side	Door hinge on left side – Available for General Protocol, Advanced Protocol and Advanced Protocol Security units. Coated exterior only.
<b>Ovens with View Package (ask for other voltages)</b>		
51028897	OGH60 with view package 230VAC; 50/60Hz	Advanced Protocol oven with gravity convection; 61 liters volume; 230VAC; 50Hz; 1 window; light
51028898	OGH100 with view package 230VAC; 50/60Hz	Advanced Protocol oven with gravity convection; 99 liters volume; 230VAC; 50Hz; 1 window, light
51028916	OGH180 with view package 230VAC; 50/60Hz	Advanced Protocol oven with gravity convection; 168 liters volume; 230VAC; 50Hz; 2 windows, light
51028923	OMH60 with view package 230VAC; 50/60Hz	Advanced Protocol oven with mechanical convection; 62 liters volume; 230VAC; 50Hz; 1 window; light
51028734	OMH100 with view package 230VAC; 50/60Hz	Advanced Protocol oven with mechanical convection; 97 liters volume; 230VAC; 50Hz; 1 window, light
51028910	OMH180 with view package 230VAC; 50/60Hz	Advanced Protocol oven with mechanical convection; 170 liters volume; 230VAC; 50Hz; 2 windows, light
51028736	OGH60-S with view package 230VAC; 50/60Hz	Advanced Protocol Security oven with gravity convection; 61 liters volume; 230VAC; 50Hz; 1 window; light
51028924	OGH100-S with view package 230VAC; 50/60Hz	Advanced Protocol Security oven with gravity convection; 99 liters volume; 230VAC; 50Hz; 1 window, light
51028925	OGH180-S with view package 230VAC; 50/60Hz	Advanced Protocol Security oven with gravity convection; 168 liters volume; 230VAC; 50Hz; 2 windows, light
51028926	OMH60-S with view package 230VAC; 50/60Hz	Advanced Protocol Security oven with mechanical convection; 62 liters volume; 230VAC; 50Hz; 1 window; light
51028927	OMH100-S with view package 230VAC; 50/60Hz	Advanced Protocol Security oven with mechanical convection; 97 liters volume; 230VAC; 50Hz; 1 window, light
51028733	OMH180-S with view package 230VAC; 50/60Hz	Advanced Protocol Security oven with mechanical convection; 170 liters volume; 230VAC; 50Hz; 2 windows, light

## Thermo Scientific Heratherm Heating and Drying Ovens – Large Capacity

Designed for high sample volume or large samples



**Warranty<sup>Y</sup>:** 2 years (parts and labor)  
**Certifications:** CSAus (208-240V/60Hz models) and CE (230V, 50/60Hz models)

### General Protocol Ovens

#### Efficient

- Two sizes (400 and 750 L)
- Gravity convection technology for gentle heating and drying
- Low overall energy consumption: 25% energy savings compared to conventional ovens\*
- Great footprint/volume ratio

#### Safe

- Operating from 10 °C above ambient temperature up to 250 °C
- Temperature uniformity of +/- 3.0 to 3.7 °K and temperature stability of 0.5 °K at 150 °C
- 750 L unit available in 400 V for high temperatures and fast heat-up and recovery times
- Inner chambers made from corrosion-resistant stainless steel (1.4016 / AISI430)

#### Easy

- “Plug and play” for 230V models with standard plug: 208/240V 60Hz models have Nema 6-20 plug: no special high voltage connection needed
- Intuitive user interface and easy to read display
- Lockable casters for mobility and easy set-up in your lab

### Advanced Protocol Ovens

#### Efficient

- Two sizes (400 and 750 L)
- Mechanical convection technology ensures optimal temperature distribution with fast heat-up and drying processes

#### Safe

- Operating at temperatures as high as 250 °C – large 400 V unit available for up to 300 °C
- Improved level of temperature uniformity: 2.1 to 3.1 °K

#### Easy

- 2-speed fan for application flexibility:
  - > Programmable controller for pre-defined temperature ramps
  - > Up to 10 temperature steps defined per program
  - > Fan speed and damper position controlled electronically, and can be changed for every program step individually for maximum process flexibility
  - > Up to 10 programs can be saved for simple and speedy process repetition
- Sophisticated timer extends the automation options available to the user
- Inner chamber made from stainless steel (highly resistant quality 1.4301 / AISI304)
- Available in stainless steel exterior

\*Values stated apply to the unloaded oven in conjunction with wire mesh trays (measurement according to DIN 12880, Part 2), air flap closed.

## Thermo Scientific Heratherm Heating and Drying Ovens – Large Capacity

Cat. No.	Model/ Exterior	Chamber Volume L (cuft)	Temperature Range	Temp. Uniformity*/ Stability (@150°C)*	Chamber Dimensions (D x W x H)	Exterior Dimensions * (D x W x H)	Shelves Supplied/Max (Max Load)	Shipping Weight	Electrical/ Plug Type
<b>General Protocol Ovens - Gravity Convection</b>									
51029328	OGS400 / coated	419 (14.8)	50 C to 250 C	± 3°C / ± 0.5°C	590 x 544 x 1307 mm (23 x 21 x 51 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (40kg / 88lb)	136 kg (300 lb)	230V; 50/60Hz; 2400W; 10.5A
51029327	OGS400 / coated	419 (14.8)	50 C to 250 C	± 3°C / ± 0.5°C	590 x 544 x 1307 mm (23 x 21 x 51 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (40kg / 88lb)	136 kg (300 lb)	208/240V; 60Hz; 2640W; 11A; Nema6-20
51029340	OGS750 / coated	774 (27.3)	50 C to 250 C	± 3.7°C / ± 0.5°C	590 x 1004 x 1307 mm (23 x 40 x 51 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	182 kg (401 lb)	230V; 50/60Hz; 3000W; 13A
51029339	OGS750 / coated	774 (27.3)	50 C to 250 C	± 3.7°C / ± 0.5°C	590 x 1004 x 1307 mm (23 x 40 x 51 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	182 kg (401 lb)	208/240V; 60Hz; 3240W; 13.5A; Nema6-20
51029342	OGS750-3P / coated	774 (27.3)	50 C to 300 C	± 2.8°C / ± 0.5°C	590 x 1004 x 1307 mm (23 x 40 x 51 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	182 kg (401 lb)	400V; 50/60Hz; 6350W; 14A
<b>Advanced Protocol Ovens - Mechanical Convection</b>									
51029331	OMH400 / coated	396 (14.0)	50 C to 250 C	± 2.1°C / ± 0.3°C	545 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (40kg / 88lb)	135 kg (298 lb)	230V; 50/60Hz; 3000W; 13A
51029329	OMH400 / coated	396 (14.0)	50 C to 250 C	± 2.1°C / ± 0.3°C	545 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (40kg / 88lb)	135 kg (298 lb)	208/240V; 60Hz; 3240W; 13.5A; Nema6-20
51029332	OMH400 SS / stainless steel	396 (14.0)	50 C to 250 C	± 2.1°C / ± 0.3°C	545 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (40kg / 88lb)	135 kg (298 lb)	230V; 50/60Hz; 3000W; 13A
51029330	OMH400 SS / stainless steel	396 (14.0)	50 C to 250 C	± 2.1°C / ± 0.3°C	545 x 544 x 1335 mm (21 x 21 x 53 in.)	770 x 778 x 1545 mm (30 x 31 x 61 in.)	2 / 39 (40kg / 88lb)	135 kg (298 lb)	208/240V; 60Hz; 3240W; 13.5A; Nema6-20
51029345	OMH750 / coated	731 (25.8)	50 C to 250 C	± 3.1°C / ± 0.4°C	545 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	185 kg (408 lb)	230V; 50/60Hz; 3000W; 13A
51029343	OMH750 / coated	731 (25.8)	50 °C to 250 °C	± 3.1°C / ± 0.4°C	545 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	185 kg (408 lb)	208/240V; 60Hz; 3480W; 14.5A; Nema6-20
51029348	OMH750-3P / coated	731 (25.8)	50 °C to 300 °C	± 2.3°C / ± 0.4°C	545 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	185 kg (408 lb)	400V; 50/60Hz; 5750W; 12A
51029346	OMH750 SS / stainless steel	731 (25.8)	50 °C to 250 °C	± 3.1°C / ± 0.4°C	545 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	185 kg (408 lb)	230V; 50/60Hz; 3000W; 13A
51029344	OMH750 SS / stainless steel	731 (25.8)	50 °C to 250 °C	± 3.1°C / ± 0.4°C	545 x 1004 x 1335 mm (21 x 40 x 53 in.)	770 x 1261 x 1545 mm (30 x 50 x 61 in.)	2 / 39 (40kg / 88lb)	185 kg (408 lb)	208/240V; 60Hz; 3480W; 14.5A; Nema6-20

\*Depth of handle / display not included in depth (65 mm / 2.6 in.); casters not included in height (108 mm / 4.3 in.) – required distance to rear wall: 120 mm / 4.7 in.

NOTE: All figures in tables are typical average values for series devices, based on factory standard following norm Din12880. Please contact us for certification information or IQ/OQ documents.

### Accessories

Cat. No.	Description
50135245	Wire mesh shelf for Heratherm Advanced Protocol oven OMH400 and General Protocol oven OGS400; 528 x 535 mm
50135246	Wire mesh shelf for Heratherm Advanced Protocol oven OMH750 and General Protocol oven OGS750; 984 x 541 mm
50135244	Wire mesh shelf for Heratherm Advanced Protocol oven OMH750 3PH; also for use in Advanced Protocol Security incubator IMH750-S; 984 x 503 mm
50135869	Silicone-free viton sealing for all Heratherm 400L models
50135870	Silicone-free viton sealing for all Heratherm 750L models



## Thermo Scientific Precision High-Performance Ovens

**Built for drying applications requiring high temperatures, ultra-precise temperature stability and reproducibility with a very broad temperature range of ambient +15° to 325°C**



- High-quality construction and high-efficiency insulation provide temperature uniformity as precise as  $\pm 0.5^{\circ}\text{C}$  with excellent stability and air exchange within the chamber
- Mechanical convection provides uniform heating, precise temperature control and fast drying using a blower that circulates heated air in a horizontal airflow pattern

### Advanced Microprocessor PID Controls

- Bright LED display of actual and setpoint temperatures using 2-line, 4-digit
- Built-in 12-hour mechanical timer along with user-adjustable safety thermostat allows for power cut-out in case of over-temperature
- Highly responsive RTD sensor provides temperature sensitivity of  $\pm 0.1^{\circ}\text{C}$  or better

### Two Specialty Units

- Model 605P: Extra baffle provides low airflow for precise drying and testing of material with minimal disruption of volatile components
- Model 625S: Features a rear blowout panel with retaining cage and positive action front-door catches for volatile material testing

### Energy- and Safety-Efficient Construction

- Heat-up time to 325°C: 45-60 minutes, depending on model
- Turbo blowers for efficient drying are side-mounted within stainless-steel chamber
- Stainless-steel exterior door with fiberglass gasket for secure, tight seal
- Cold-rolled, chemical-resistant steel cabinet with powder-coated finish
- High-limit safety with built-in circuit breaker protects oven from power surges
- Fiberglass door gasket prevents heat loss
- Low-density heating elements ensure long life
- Non-tip shelves spaced 4cm (1.6in.) apart quickly, easily remove for thorough cleaning – 2 supplied

**Includes:** Two nickel-plated nontip shelves **Warranty<sup>Y</sup>:** 12 months, parts and labor

**Compliance:** ASTM\* E145 Type IIA, ASTM D-2436, and UL 746B performance/uniformity standards

**Notes:** Requires hardwired installation by a qualified technician **Ordering Alerts:** Not available in Europe

**Warranty<sup>Y</sup>:** 1 year (parts and labor)

**Certifications:** all models are UL listed

**PRODUCT NOT AVAILABLE IN EUROPE**

\*Values stated apply to the unloaded oven in conjunction with wire mesh trays (measurement according to DIN 12880, Part 2), air flap closed.

Cat. No.	Model	Capacity	Interior D x W x H	Exterior D x W x H	Electrical	Temperature Uniformity	Temperature Range	Max. Output Power
<b>6050</b>	605	39.6L (1.4 cu. ft.)	33 × 36 × 33cm (13 × 14 × 13in.)	61 × 97.8 × 63.5cm (24 × 38.5 × 25in.)	120V 50/60Hz, 2500w/20.8A	±0.5° at 100°C; ±1.0° at 200°C; ±2.5° at 300°C	Ambient +15° to 325°C	8538 BTU/hr.
<b>6051</b>	605	39.6L (1.4 cu. ft.)	33 × 36 × 33cm (13 × 14 × 13in.)	61 × 97.8 × 63.5cm (24 × 38.5 × 25in.)	208/230V 50/60Hz, 2500w/10.9A	±0.5° at 100°C; ±1.0° at 200°C; ±2.5° at 300°C	Ambient +15° to 325°C	8538 BTU/hr.
<b>6052</b>	605P	39.6L (1.4 cu. ft.)	33 × 36 × 33cm (13 × 14 × 13in.)	61 × 97.8 × 63.5cm (24 × 38.5 × 25in.)	120V 50/60Hz, 2500w/20.8A	±0.5° at 100°C; ±1.0° at 200°C; ±2.5° at 300°C	Ambient +15° to 325°C	8538 BTU/hr.
<b>6053</b>	605P	39.6L (1.4 cu. ft.)	33 × 36 × 33cm (13 × 14 × 13in.)	61 × 97.8 × 63.5cm (24 × 38.5 × 25in.)	205/230V 50/60Hz, 2500w/10.9A	±0.5° at 100°C; ±1.0° at 200°C; ±2.5° at 300°C	Ambient +15° to 325°C	8538 BTU/hr.
<b>6054</b>	625	113.3L (4.0 cu. ft.)	48.3 × 48.3 × 48.3cm (19 × 19 × 19in.)	71.1 × 114.3 × 73.7cm (28 × 45 × 29in.)	208/230V 50/60Hz 3700w 16.1A	±0.5° at 100°C; ±1.0° at 200°C; ±2.5° at 300°C	Ambient +15° to 325°C	12,636 BTU/hr.
<b>6055</b>	625S	113.3L (4.0 cu. ft.)	48.3 × 48.3 × 48.3cm (19 × 19 × 19in.)	71.1 × 114.3 × 73.7cm (28 × 45 × 29in.)	208/230V 50/60Hz 3700w 16.1A	±0.5° at 100°C; ±1.0° at 200°C; ±2.5° at 300°C	Ambient +15° to 325°C	12,636 BTU/hr.
<b>6056</b>	645	269L (9.5cuft)	48.3x91.4x61cm (19x36x24in.)	78.7x165.1x91.4cm (31x65x36in.)	208/230V 50/60Hz 3700w/16.1A	±0.5° at 100°C; ±1.0° at 200°C; ±2.1° at 300°C	Ambient +15° to 325 °C	16,393 BTU/hr.

### Accessories — Additional Shelving

Cat. No.	For Use with	Max. No. of Shelves
<b>3166188</b>	Precision High-Performance Ovens Models 605/605P	7
<b>3166179</b>	Precision High-Performance Ovens Models 625/625S	11
<b>3166180</b>	Precision High-Performance Oven Model 645	12

## Thermo Scientific Precision Compact Heating and Drying Ovens

Compact heating and drying ovens conserve valuable benchtop space and feature mechanical or gravity convection models, ideal for drying and baking applications



- Double-wall interior with 2.5cm (1in.) silica-based insulation and powder-coated cold-rolled steel exterior
- Pilot light visually indicates oven operation status

### Gravity-Convection Models

- Gentle drying with low turbulence: air is moved vertically through chamber to heat samples
- Preset high-temperature safety bimetallic thermostat (no display) ensures over-temperature protection

### Mechanical-Convection Models

- Uniform heating, precise temperature control and fast drying
- Hydraulic thermostat
- LED display
- Stainless-steel chamber

Unit shown mechanical convection unit PR305225M with LED display.

**Applications:** Drying and baking  
**Ordering Information:** Additional shelves are sold separately  
**Includes:** One fixed and two adjustable shelves.  
**Warranty\*:** 1 year (parts and labor)  
**Certifications:** UL/cUL listed

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Interior D x W x H	Exterior L x W x H	Temp. Range	Chamber Material	Shipping Weight	Electrical
<b>Gravity Convection</b>							
<b>PR305225G</b>	48.1L (1.7 cu. ft.)	41 × 41 × 29cm (11.5 × 16 × 16.2in.)	34 × 47 × 57cm (13.5 × 18.5 × 22.5in.)	Ambient +5° to 210°C	Aluminum	26kg (57 lb.)	120V 60Hz, 800w
<b>PR305220G</b>	48.1L (1.7 cu. ft.)	41 × 41 × 29cm (11.5 × 16 × 16.2in.)	34 × 47 × 57cm (13.5 × 18.5 × 22.5in.)	Ambient +5° to 210°C	Aluminum	26kg (57 lb.)	240V 50/60Hz, 800w
<b>Mechanical Convection</b>							
<b>PR305225M</b>	48.1L (1.7 cu. ft.)	29 × 41 × 41cm (11.5 × 16 × 16in.)	47 × 64 × 40cm (18.4 × 25 × 15.6in.)	Ambient +5° to 210°C	Stainless steel	36kg (80 lb.)	120V 60Hz, 1200w
<b>PR305220M</b>	48.1L (1.7 cu. ft.)	29 × 41 × 41cm (11.5 × 16 × 16in.)	47 × 64 × 40cm (18.4 × 25 × 15.6in.)	Ambient +5° to 210°C	Stainless steel	36kg (80 lb.)	240V 50/60Hz, 1200w

### Thermo Scientific Shelves for Precision Compact Ovens

Cat. No.	Capacity	Type
3511-8Q	48.1L (1.7 cu. ft.)	Gravity Convection
3515M-8Q	48.1L (1.7 cu. ft.)	Mechanical Convection

## Thermo Scientific Vacuum Ovens

Maximum flexibility, with a maximum temperature of 220°C (428°F), two control configurations and display options



- Radiant warm-wall heating system optimizes uniformity and conserves chamber space for drying, curing, vacuum embedding and plating applications
- 3in. (7.6cm) glass wool insulation prevents heat loss
- Silicone door gasket and positive latch door maintain seal at all vacuum levels
- Polycarbonate safety shield protects door glass
- Hydraulic thermostat temperature control  $\pm 1.5^{\circ}\text{C}$  with a uniformity of  $\pm 5^{\circ}\text{C}$  at 100°C, 25in.Hg
- Built-in over-temperature protection
- Vacuum level is displayed on gauges from 0 to 30in.Hg
- Vacuum and air lines are corrosion-resistant stainless-steel tubing for optimum chamber cleanliness and long-term performance
- With two removable stacking aluminum shelves
- Easy-to-clean Type 304 stainless-steel interior chamber
- Powder-coated heavy-gauge steel exterior for durability
- Temperature Range: Ambient +10° to 220°C

### 3606 Models

- Top-mounted independent evacuation and venting vacuum fittings

### 3608 and 3618 Models

- Front-mounted three-way valve for evacuation, venting and purging of inert gases (e.g., Nitrogen or Argon) with vacuum fittings on the front of the unit

**Required Accessories:** Vacuum fittings require 0.25in. (0.6cm) I.D. tubing  
**Warranty:** 1 year (parts and labor)

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Display	Interior D x W x H	Exterior L x W x H	Temp. Resolution	Temp. Uniformity	Shipping Weight	Electrical
<b>3606</b>	12.5L (0.44 cu. ft.)	Bimetallic thermometer with 5°C increments	30 × 20 × 20cm (12 x 8 x 8in.)	41 × 43 × 44cm (16 × 17 × 17in.)	$\pm 1.5^{\circ}\text{C}$	$\pm 2.2^{\circ}\text{C}$ at 100°C 25in.Hg	50kg (110 lb.)	120V 50/60Hz, 600w, 5A
<b>3606-1CE</b>	12.5L (0.44 cu. ft.)	Bimetallic thermometer with 5°C increments	30 × 20 × 20cm (12 x 8 x 8in.)	41 × 43 × 44cm (16 × 17 × 17in.)	$\pm 1.5^{\circ}\text{C}$	$\pm 2.2^{\circ}\text{C}$ at 100°C 25in.Hg	50kg (110 lb.)	240V 50/60Hz 600w 2.5A
<b>3608</b>	19.8L (0.7 cu. ft.)	Bimetallic thermometer with 5°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16x 19.8 × 16.25in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 6.0^{\circ}\text{C}$ at 150°C 25in.Hg	59kg (130 lb.)	120V 50/60Hz, 600w, 5A
<b>3608-1CE</b>	19.8L (0.7 cu. ft.)	Bimetallic thermometer with 5°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16x 19.8 × 16.25in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 6.0^{\circ}\text{C}$ at 150°C, 25in.Hg	59kg (130 lb.)	240V 50/60Hz 600w 2.5A
<b>3608-5</b>	19.8L (0.7 cu. ft.)	LED with 1°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16x19.8 × 16.25in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 6.0^{\circ}\text{C}$ at 150°C, 25in.Hg	59kg (130 lb.)	120V 50/60Hz, 600w, 5A
<b>3608-6CE</b>	19.8L (0.7 cu. ft.)	LED with 1°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16x19.8 × 16.25in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 6.0^{\circ}\text{C}$ at 150°C, 25in.Hg	59kg (130 lb.)	240V 50/60Hz 600w 2.5A
<b>3618</b>	65.1L (2.3 cu. ft.)	Bimetallic thermometer with 5°C increments	51 × 36 × 36cm (20 x 14 x 14in.)	64 × 64 × 56cm (25 × 25 × 22in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 5.0^{\circ}\text{C}$ at 100°C 25in.Hg	134kg (295 lb.)	120V 50/60Hz, 1600w, 13.3A
<b>3618-1CE</b>	65.1L (2.3 cu. ft.)	Bimetallic thermometer with 5°C increments	51 × 36 × 36cm (20 x 14 x 14in.)	64 × 64 × 56cm (25 × 25 × 22in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 5.0^{\circ}\text{C}$ at 100°C 25in.Hg	134kg (295 lb.)	240V 50/60Hz 1600w 6.7A
<b>3618-5</b>	65.1L (2.3 cu. ft.)	LED with 1°C increments	51 × 36 × 36cm (20 x 14 x 14in.)	64 × 64 × 56cm (25 × 25 × 22in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 5.0^{\circ}\text{C}$ at 100°C 25in.Hg	134kg (295 lb.)	120V 50/60Hz, 1600w, 13.3A
<b>3618-6CE</b>	65.1L (2.3 cu. ft.)	LED with 1°C increments	51 × 36 × 36cm (20 x 14 x 14in.)	64 × 64 × 56cm (25 × 25 × 22in.)	$\pm 1.0^{\circ}\text{C}$	$\pm 5.0^{\circ}\text{C}$ at 100°C 25in.Hg	134kg (295 lb.)	240V 50/60Hz 1600w 6.7A

## Thermo Scientific Lindberg/Blue M Vacuum Ovens

**Digital electronic control, built-in over-temperature protection, and a fully flexible vacuum/purge/release system for a range of applications including drying, curing, outgassing, aging, process control and other applications requiring elevated temperature in reduced atmospheres or vacuum/purge with nonflammable and inert atmospheres**



### Single-Setpoint Digital Microprocessor Control

- Maximum temperature: 260°C (500°F) with nominal uniformity of  $\pm 3.5\%$  of setpoint
- Simultaneous LED display of setpoint and actual temperature with push-button view
- Keypad data entry and pull-out control module for easy service
- Independent over-temperature safety system factory set with reset push-button

### Vacuum System

- 1 in. (2.54cm) manifold, chamber rear, exterior, connects to pump or in-house vacuum source
- With inert gas injection valve, fresh air inlet, vacuum exhaust port, controllable vacuum release vent port
- 1000 microns (1torr) capacity
- Vacuum gauge, vacuum, gas and inlet valves located on front

### Construction

- Corrosion-resistant stainless-steel cabinet chamber
- Rear-mounted vacuum manifold connects to pump (not included) or in-house vacuum source
- Low-watt heating element extends oven life
- Heavy-gauge steel, dual-wall construction with fiberglass insulation for minimum heat loss in walls and door
- High-temperature silicone gasket is specially molded for a positive seal
- Magnetic latch for positive door seal (4.5 cu. ft. capacity models include mechanical latches)
- Viewing windows: 0.5in. (1.3cm) thick in two smaller capacity models or 0.75in. (1.9cm) thick in 4.5 cu. ft. model; permit observation of work in progress without loss of heat
- Stainless-steel exterior models come with double door — a solid outer door over inner window door

**Includes:** Power cord and aluminum shelves (number of shelves based on model; see ordering table)

**Warranty:** 1 year (parts and labor)

**Certifications:** UL listed (VO914A, VO914SA, VO1218A, VO1218SA only)

**Alert:** Ovens are not suitable for use with hazardous vapor. For use with nonflammable, noncorrosive inert gases only

**PRODUCT NOT AVAILABLE IN EUROPE**

Cat. No.	Capacity	Interior D x W x H	Exterior L x W x H	Temp. Resolution/Uniformity	Temp. Range	No. of Shelves	Finish	Electrical	Shipping Weight
<b>VO914A</b>	18.6L (0.65 cu. ft.)	36 × 23 × 23cm (14 × 9 × 9in.)	58 × 46 × 66cm (23 × 18 × 26in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	3	Painted Steel	120V 50/60Hz 750w	68kg (150 lb.)
<b>VO914C</b>	18.6L (0.65 cu. ft.)	36 × 23 × 23cm (14 × 9 × 9in.)	58 × 46 × 66cm (23 × 18 × 26in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	3	Painted Steel	208/240V 50/60Hz 750w	68kg (150 lb.)
<b>VO914SA</b>	18.6L (0.65 cu. ft.)	36 × 23 × 23cm (14 × 9 × 9in.)	58 × 46 × 66cm (23 × 18 × 26in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	3	Stainless Steel	120V 50/60Hz 750w	68kg (150 lb.)
<b>VO1218A</b>	42.5L (1.5 cu. ft.)	46 × 31 × 31cm (18 × 12 × 12in.)	66 × 53 × 74cm (26 × 21 × 29in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	3	Painted Steel	120V 50/60Hz, 1250w	113kg (250 lb.)
<b>VO1218C</b>	42.5L (1.5 cu. ft.)	46 × 31 × 31cm (18 × 12 × 12in.)	66 × 53 × 74cm (26 × 21 × 29in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	3	Painted Steel	208/240V 50/60Hz 1250w	113kg (250 lb.)
<b>VO1218SA</b>	42.5L (1.5 cu. ft.)	46 × 31 × 31cm (18 × 12 × 12in.)	66 × 53 × 74cm (26 × 21 × 29in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	3	Stainless Steel	120V 50/60Hz, 1250w	113kg (250 lb.)
<b>VO1824A</b>	127.4L (4.5 cu. ft.)	61 × 46 × 46cm (24 × 18 × 18in.)	81 × 69 × 89cm (32 × 27 × 35in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	2	Painted Steel	120V 50/60Hz 1500w	147kg (325 lb.)
<b>VO1824C</b>	127.4L (4.5 cu. ft.)	61 × 46 × 46cm (24 × 18 × 18in.)	81 × 69 × 89cm (32 × 27 × 35in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	2	Painted Steel	208/240V 50/60Hz 1500w	147kg (325 lb.)
<b>VO1824SA</b>	18.6L (0.65 cu. ft.)	61 × 46 × 46cm (24 × 18 × 18in.)	81 × 69 × 89cm (32 × 27 × 35in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	2	Stainless Steel	120V 50/60Hz, 1500w	147kg (325 lb.)
<b>VO1824HPC</b>	127.4L (4.5 cu. ft.)	61 × 46 × 46cm (24 × 18 × 18in.)	81 × 69 × 89cm (32 × 27 × 35in.)	±1°C/ ±3.5°C	6° above ambient to 260°C	1	Painted Steel	208/240V 50/60Hz 3000w	147kg (325 lb.)

## Thermo Scientific Accessories for Lindberg/Blue M Vacuum Ovens

Catalog No	Description	For use with
<b>6718</b>	White Floor Stand	All Lindberg/Blue M vacuum ovens
<b>6723</b>	Stainless-steel Floor Stand	All Lindberg/Blue M vacuum ovens
<b>118961</b>	Connection Kit – includes NW fittings, centering rings, connectors, vacuum clamps and hose to connect vacuum pump to oven.	All Lindberg/Blue M vacuum ovens
<b>305994H01</b>	Silicone replacement gasket (red)	VO914 Series
<b>305992H01</b>	Silicone replacement gasket (red)	VO1218 Series
<b>305993H01</b>	Silicone replacement gasket (red)	VO1824 Series
<b>118974</b>	Buna-N silicone-free gasket, for temperatures up to 150°C only	VO914 Series
<b>118977</b>	Buna-N silicone-free gasket, for temperatures up to 150°C only	VO1218 Series
<b>34637H01</b>	Buna-N silicone-free gasket, for temperatures up to 150°C only	VO1824 Series
<b>6826</b>	Vacuum Pump	For VO914 Series
<b>6827</b>	Vacuum Pump	For VO1218 and 1824 Series
<b>6831</b>	Vacuum Pump Oil	All Vacuum pumps
<b>6832</b>	Mist Filter Element	All Vacuum pumps
<b>6834</b>	Activated Alumina	All Lindberg/Blue M vacuum ovens



## Thermo Scientific Vacutherm Vacuum Ovens

### Excellent heat transfer and fast heating up minimize operation time



- Ideal for drying of heat-sensitive materials, residue-free drying of intricately designed parts, elimination of oxidation associated with heat treatment and targeted recover of degassed products
- Front window with double-paned safety glass provides unique implosion protection
- Modular system allows application-specific configurations through a wide range of equipment options
- Ovens can dry up to six times faster than conventional units
- Temperature and pressure documentation is available to meet ISO 9000 and GLP/GMP requirements
- User-friendly Kelvtron™ microprocessor (jacket-heated ovens) or Digicon multi-channel controller (shelf-heated ovens)
- Analog pressure display
- Over-temperature sensor protects oven and product – protection class I / IP20
- Stainless steel vacuum fittings, tubing and ball valve
- Inert gas connection with precision valve and overpressure safety valve precisely releases non-flammable, non-toxic gasses
- Standard DN25 access port in rear wall (20 mm)
- Jacket-heated models operate up to 200°C
- Shelf-heated versions operate up to 300 or 400°C for optimum heat transfer
- For applications with flammable solvents, ask your sales representative for our BL version with additional safety features (230V versions only)

**Ordering Alerts:** Not available in some countries  
**Certifications:** CE (230V, 50 / 60Hz models) and cCSAus (120V and 208V, 60Hz models)  
**Warranty<sup>Y</sup>:** 2 years (parts and labor)

Cat. No.	Model	Type	Capacity	Internal Dimensions W x H x D	External Dimensions <sup>1</sup> W x H x D	Rated Temp. <sup>2,3</sup>	Spatial temp. deviation <sup>2,4</sup>	Heat Output (at max. temperature)	Electrical <sup>5</sup>	Weight
51014550	VT 6025	Jacket-Heating no inert gas connection	25L (0.88 cu.ft.)	300 x 275 x 307mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014551	VT 6025	Jacket-Heating no inert gas connection	25L (0.88 cu.ft.)	300 x 275 x 307mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	120V 60Hz, 1.3kW	58kg (128 lb.)
51014552	VT 6025	Jacket-Heating	25L (0.88 cu.ft.)	300 x 275 x 307mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014553	VT 6025	Jacket-Heating <sup>6</sup>	25L (0.88 cu.ft.)	300 x 275 x 307 mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014554	VT 6025	Jacket-Heating with Digicon S <sup>7</sup>	25L (0.88 cu.ft.)	300 x 275 x 307 mm (11.8 x 10.8 x 12.1in.)	480 x 600 x 450 mm (18.9 x 23.6 x 17.7in.)	200°C	±4 (@200°C)	340 Wh/h	230V 50/60Hz, 1.3kW	58kg (128 lb.)
51014539	VT 6060 M	Jacket-Heating	53L (1.87 cu.ft.)	415 x 345 x 371 mm (16.3 x 13.6 x 14.6in.)	744 x 576 x 570 mm (29.3 x 22.7 x 22.4in.)	200°C	±4 (@200°C)	540Wh/h	230V 50/60Hz, 1.7kW	82kg (181 lb.)
51014540	VT 6060 M	Jacket-Heating	53L (1.87 cu.ft.)	415 x 345 x 371 mm (16.3 x 13.6 x 14.6in.)	744 x 576 x 570 mm (29.3 x 22.7 x 22.4in.)	200°C	±4 (@200°C)	550Wh/h	120V 60Hz, 1.4kW	82kg (181 lb.)
51014542	VT 6060 P	Shelf-Heating <sup>8</sup>	53L (1.87 cu.ft.)	415 x 345 x 371 mm (16.3 x 13.6 x 14.6in.)	744 x 576 x 570 mm (29.3 x 22.7 x 22.4in.)	300/400°C	±3 (@200°C) ±7 (@300°C) ±9 (@400°C)	450 Wh/h	230V 50/60Hz, 1.6kW	90kg (198 lb.)
51023263	VT 6060 P	Shelf-Heating <sup>8</sup>	53L (1.87 cu.ft.)	415 x 345 x 371 mm (16.3 x 13.6 x 14.6in.)	744 x 576 x 570 mm (29.3 x 22.7 x 22.4in.)	300/400°C	±3 (@200°C) ±7 (@300°C) ±9 (@400°C)	450 Wh/h	120V 60Hz, 1.4kW	90kg (198 lb.)
51014541	VT 6130 M	Jacket-Heating	128L (4.52 cu.ft.)	495 x 489 x 529 (19.5 x 19.3 x 20.8in.)	895 x 720 x 750 mm (35.2 x 28.3 x 29.5in.)	200°C	±7 (@200°C)	870 Wh/h	230V 50/60Hz, 2.2kW	153kg (337 lb.)
51023262	VT 6130 M	Jacket-Heating	128L (4.52 cu.ft.)	495 x 489 x 529 (19.5 x 19.3 x 20.8in.)	895 x 720 x 750 mm (35.2 x 28.3 x 29.5in.)	200°C	±7 (@200°C)	870 Wh/h	120V 60Hz, 1.8kW	150kg (331 lb.)
51014543	VT 6130 P	Shelf-Heating <sup>8</sup>	128L (4.52 cu.ft.)	495 x 489 x 529 mm (19.5 x 19.3 x 20.8in.)	895 x 720 x 750 mm (35.2 x 28.3 x 29.5in.)	300/400°C	±4 (@200°C) ±7 (@300°C) ±9 (@400°C)	880 Wh/h	230V 50/60Hz, 3.0kW	164kg (362 lb.)
51023264	VT 6130 P	Shelf-Heating <sup>8</sup>	128L (4.52 cu.ft.)	495 x 489 x 529 mm (19.5 x 19.3 x 20.8in.)	895 x 720 x 750 mm (35.2 x 28.3 x 29.5in.)	300/400°C	±4 (@200°C) ±7 (@300°C) ±9 (@400°C)	880 Wh/h	208V 60Hz, 2.5kW	164kg (362 lb.)

<sup>1</sup> Depth without handle and wall distance. Dimensions: handle 70 mm, wall distance 80 mm

<sup>2</sup> The values stated apply to the empty oven and vacuum operation in acc. with DIN 12880, part 2

<sup>3</sup> Control range M: electronic controller from TA + 15°C; control range P: electronic controller from TA + 10°C; TA = Ambient temperature

<sup>4</sup> Measured on the shelves

<sup>5</sup> Other voltages on request

<sup>6</sup> With digital pressure display and recorder output

<sup>7</sup> Digicon S: Analog temperature controller

<sup>8</sup> Comes standard with Digicon multi-channel controller and rated temperature of 300°C; for 400°C: order option in addition, see next page

## Accessories & Options

Accessories	
Cat. No.	Description
50028403	Additional shelf for VT6025 (incl. Shelf supports)
50043975	Additional shelf for VT6060 M (incl. Shelf supports)
50043976	Additional shelf for VT6130 M (incl. Shelf supports)
50048621	Stainless steel tray for VT6060
50048619	Stainless steel tray for VT6130
50048620	Aluminum tray for VT6060 M/P
50048618	Aluminum tray for VT6130 M/P
50046860	Stainless steel vacuum connection kit for tubing, 10mm diameter (all models)
50029890	Support frame, 780 mm height, for VT6060 M/P
50029597	Support frame, 780 mm height, for VT6130 M/P

		Diaphragm pumps			Rotary vane pumps
Vacuum Pumps**		MD 12H	HMD 4C	HMZ 2C	RE 9H
Cat. No.		50040078	50028362	50028364	50028361
<b>Rated pumping capacity (Pneurop)</b>	m <sup>3</sup> /h	9.6	3.0	1.7	8.6
<b>Total final pressure without gas ballast</b>	mbar	2	2	10	0.1
<b>Total final pressure with gas ballast</b>	mbar	<10	<10	<20	6 x 10 <sup>-1</sup>
<b>Water vapor compatibility</b>	mbar	–	–	–	40
<b>Capacity of trap</b>	ml	725	500	500	500
<b>Weight</b>	kg	24	18	14	21.6
<b>Dimensions with trap (w/h/d)</b>	mm	240 x 300 x 610	241 x 500 x 338	241 x 326 x 336	260 x 232 x 460
Vacucenter® with pump model		MD 12H	HMD 4C		RE 9H
Cat. No.*		50044332	50044333	–	50044334
<b>Voltage</b>	V3N–, 50/60 Hz	400	400	–	400
<b>Max. rated power</b>	kW	3.37	3.20	–	3.37
<b>External dimensions (w/h/d)</b>	mm	895/650/900	895/650/900	–	895/650/900
<b>Total weight</b>	kg	88	80	–	86
<b>Protection class</b>		I	I	–	I
<b>Protection type</b>		IP 20	IP 20	–	IP 20

\*In combination with VT 6060 or VT 6130

\*\*Pumps not available in North America

Factory installed options	
Cat. No.	Options for Vacutherm 6060 and 6130 M/P
51900284	RS 232 computer interface for Kelvitron controller
51900069*	Digital pressure display
51900193*	Pressure controller with solenoid valve
51900071	VITON door gasket for VT 6060 M
51900072	VITON door gasket for VT 6130 M
51900205	Daily program timer, mechanical
51900073*	24 hour timer (20 h at 60 Hz)
51900008	Weekly program timer, mechanical
51900161	Weekly program timer, digital
51900074	Digital sample temperature display with flexible Pt 100 temperature sensor and socket for external data recorder
51900209	Thermicon® P temperature program controller (for M-models only)
51900297	Eurotherm 2404/P4 temperature controller with RS 232 interface (for M-models only)
51900298	Eurotherm 2404/P4 temperature controller with RS 422/485 interface (for M-models only)
51900081*	Central monitoring connection
Cat. No. Digicon® S temperature controller with analog interface 0–20 mA/0–10 V	
51900194*	(200 °C): VT 6060 M and VT 6130 M
51900195	(300 °C): VT 6060 P and VT 6130 P
51900196	(400 °C): VT 6060 P
51900197	(400 °C): VT 6130 P
Cat. No. Rated temperature of 400 °C, (door without inspection window)	
51900079	for VT 6060 P
51900080	for VT 6130 P
Cat. No. Vacuum chamber with rounded corners at the rear	
51900075	for VT 6060 M
51900077	for VT 6060 P
51900076	for VT 6130 M
51900078	for VT 6130 P
Cat. No. Options for Vacutherm 6025	
51900326	Precision control valve for standard model (only for order nos. 51014550 and 51014551)
51900284	RS232 computer interface

\* Option not available for North American voltages (120V-60Hz, 208V-60Hz)

## Thermo Scientific Hi-Temp Vacuum Ovens

### Over-temperature protection for peace of mind at temperatures up to 280°C



Warranty\*: 1 year (parts and labor)

PRODUCT NOT AVAILABLE IN EUROPE

- Ideally suited for general drying, conditioning, curing, desiccating, and annealing – as well as moisture tests
- Radiant warm wall heaters mounted on the outside conserve chamber working space and eliminate hazards of open wire heaters
- Compression fittings on the sidewall accept 0.6cm (0.25in.) O.D. hard tubing for pump and air connections
- Durable exterior is powder-coated heavy-gauge steel
- Glass window in the door allows sample viewing
- Two adjustable chrome-plated shelves improve heat conduction to samples; remove easily for cleaning
- Stainless-steel interior chamber resists corrosion
- Vacuum and air lines of corrosion-resistant stainless-steel tubing optimize chamber cleanliness and long-term performance

#### Models 3625A and 3625A-1

- Dual-electronic control system
- For operational convenience, all controls and indicators are located on the front panel: powerswitch and three indicators, purge gas and vacuum control valves, a 0-to-30-inch vacuum gauge and a temperature control

#### Models 3628A and 3628A-1

- Seven-day programmable timer that cycles oven on or off up to eight times per day with automatic temperature/vacuum control in real time steps
- Runs on a single setpoint controller
- Dual displays provide constant day/time and temperature/pressure updates every 5 seconds
- Purge and Vacuum valves conveniently located under the control panel
- Accepts up to eight shelves

Cat. No.	Capacity	Interior D x W x H	Exterior L x W x H	Temp. Range	Temp. Uniformity	Shipping Weight	Electrical
<b>3625A</b>	18.4L (0.65 cu. ft.)	29 × 25.4 × 25.4cm (11.5 × 10 × 10in.)	44 × 46 × 58cm (17.5 × 18 × 23in.)	Ambient +10° to 280°C	±1.0°C at 100°C 25ft.Hg	48kg (90 lb.)	120V 50/60Hz, 1000w, 8.5A
<b>3625A-1</b>	18.4L (0.65 cu. ft.)	29 × 25.4 × 25.4cm (11.5 × 10 × 10in.)	44 × 46 × 58cm (17.5 × 18 × 23in.)	Ambient +10° to 280°C	±1.0°C at 100°C, 25ft.Hg	48kg (90 lb.)	240V 50/60Hz, 1000w; 4.2A
<b>3628A</b>	42.4L (1.5 cu. ft.)	46 × 30 × 30cm (18 × 12 × 12in.)	66 × 58 × 56cm (26 × 23 × 22in.)	50° to 280°C	±5°C at 100°C 25ft.Hg	92.9kg (205 lb.)	120V 50/60Hz, 1800w, 14.7A
<b>3628A-1</b>	42.4L (1.5 cu. ft.)	46 × 30 × 30cm (18 × 12 × 12in.)	66 × 58 × 56cm (26 × 23 × 22in.)	50° to 280°C	±5°C at 100°C 25ft.Hg	92.9kg (205 lb.)	240V 50/60Hz, 1800w, 7.4A

# rockers, rotators & mixers

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## Thermo Scientific Vari-Mix Platform Rocker

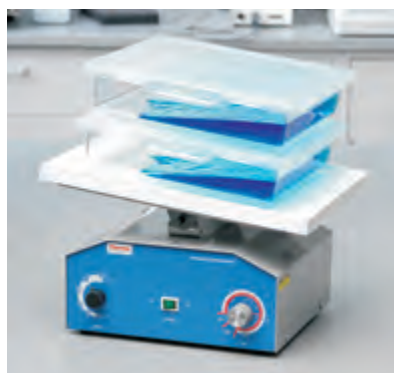
Provides steep angle rocking for applications such as hybridization, blotting and staining or destaining gels



- Variable speed control provides a gentle to vigorous wave motion
- Built-in timer makes it easy to perform time-dependent studies
- Large white nonskid rubber mixing platform easily adjusts angle of motion
- Set timer for continuous or timed operation
- Rocker can be used in many different laboratory applications
- Platform removes easily for autoclaving and allows easy viewing of contents
- All finishes are chemical-resistant and easy to clean
- Optional double-tier platform doubles mixing surface

**Includes:** 3-wire cord and plug; 240V model also includes European cord set  
**Warranty:** 90 days on labor and one year on parts  
**Certifications:** 120V model is CSA approved; 240V model is CE marked

Specifications	
<b>Speed Range</b>	5 to 30rpm variable
<b>Rocking Angle</b>	1° to 48°
<b>Timer</b>	Up to 2 hr. automatic at 60Hz; Up to 3 hr. automatic at 50Hz; Continuous
<b>Platform L x W</b>	32 x 26.9cm (12.6 x 10.6in.)
<b>Load Bearing Capacity</b>	6.8kg (15 lb.)
<b>Exterior L x W x H</b>	30.4 x 39.6 x 18.5cm (12 x 15.6 x 7.3in.)
<b>Operating Temperature Range</b>	4° to 40°C (39.2° to 104°F)
<b>Operating Humidity Range</b>	20 to 80% noncondensing
<b>Shipping Weight</b>	2.7kg (6 lb.)



Cat. No.	Electrical
<b>M79735Q</b>	120V 50/60Hz, 0.10A, 12W
<b>M79730-33</b>	240V 50/60Hz, 0.05A, 12W

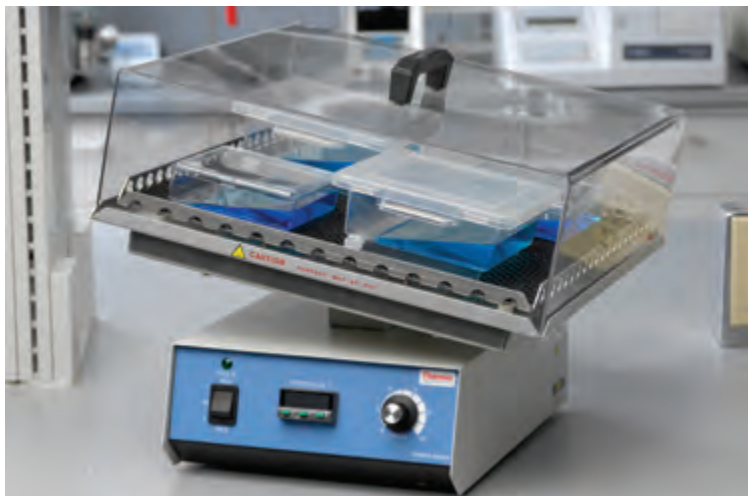
## Thermo Scientific Vari-Mix Double Tier Platform

Cat. No.	Description	Dimensions
<b>AY797X1</b>	Double-Tier Platform	32 x 26.9cm (12.6 x 10.6in.)



## Thermo Scientific Thermal Rocker Incubators

Excellent alternative to higher-priced hybridization incubators for agitation of blotting membranes under controlled temperatures



**Includes:** 3-wire line cord and plug  
**Warranty:** 90 days on labor and one year on parts  
**Certifications:** 120V model is cCSAus approved; 240V model is CE marked

- Provides smooth, gentle adjustable rocking from 0 to 100 cycles/min to meet a variety of mixing needs
- Accommodates different-size containers and heat-sealed plastic bags; operates with and without heat
- Front-mounted switch allows operation with or without heat
- LED temperature display, analog speed display with rotary dial
- Electronic proportional temperature controller maintains temperatures
- Automatic resetting thermal cutoff shuts down power to the heaters in the event of an over-temperature condition
- Platform features a nonskid rubber pad to keep samples in place
- Angle of motor is easily adjusted.

Specifications	
<b>Speed Range</b>	0 to 100 cycles/min.
<b>Rocking Angle</b>	10° to 15°
<b>Temperature Control</b>	Electronic Proportional
<b>Temperature Range</b>	Ambient $\pm 5^\circ$ to 70°C
<b>Temperature Accuracy</b>	$\pm 0.5^\circ\text{C}$
<b>Platform L x W</b>	36 x 36cm (14.19 x 14.19in.)
<b>Load Capacity</b>	4.5kg (10 lb.)
<b>Exterior L x W x H with cover</b>	41 x 42 x 34.7cm (16 x 16.5 x 13.5in.)
<b>Shipping Weight</b>	11kg (25 lb.)

Cat. No.	Electrical
<b>4637Q</b>	120V 50/60Hz (3.3A)
<b>4637-1CEQ</b>	240V 50/60Hz (1.7A)



## Thermo Scientific MaxiMix I Vortex Mixer

Ensures fast, uniform mixing in continuous operation or touch-on mode.



- Ideal for enzymatic and RIA assays, general test tube mixing, biochemical assays, viral dilutions preparations, precipitated assays, cell suspension vortexing and tissue sample mixing
- Excellent for single and multiple tubes and small flasks with closed tops
- Simultaneously mixes up to four test tubes
- Push-button top-mounted ON/OFF switch
- Vary vortex mixing by simply changing pressure of tube against foam rubber top
- Durable, white plastic case resists acids and alkalis
- Cast-aluminum base with suction-cup rubber feet provides maximum stability
- Compact design with 4in. diameter (10.2cm) foam rubber top

**Includes:** One extra foam top (PT167X2), 3-wire power cord and plug

**Warranty:** 90 days on labor and one year on parts

**Certifications:** CSA listed (120V models only) and CE listed (230V models)

Cat. No.	Speed Range	Tube Capacity	Platform, Foam Pad	Exterior L x W x H	Shipping Weight	Electrical
M16715Q	3000rpm	1 to 4	10.1cm (4in.)	13.9 x 13.9 x 10.6cm (5.5 x 5.5 4.2in.)	1.5 kg (3.5 lb.)	120V 50/60Hz, 0.5A
M16710-33Q	3000rpm	1 to 4	10.1cm (4in.)	13.9 x 13.9 x 10.6cm (5.5 x 5.5 4.2in.)	1.5 kg (3.5 lb.)	230V 50/60Hz, 0.3A

## Thermo Scientific Vari-Mix and Speci-Mix Test Tube Rockers

Compact, precision-controlled platform mixers provide smooth rocking action for uniform specimen suspension



- All models hold 10 to 30mm diameter tubes and are ideal for blood collection tubes; Choose from fixed or adjustable speeds
- Reversible pad provides one side (with lip to prevent sliding) for capped tubes 110mm (4.33in.) long; other side for longer tubes
- Autoclavable white silicone rubber pad enhances viewing
- Can be used in a noncondensing incubator or coldroom with ambient operating conditions of 4° to 40°C (39.2° to 104°F) and 20 to 80% RH noncondensing

**Includes:** A white silicon rubber friction grip pad for holding tubes in place  
**Warranty<sup>Y</sup>:** 90 days labor, one year on parts  
**Certifications:** CE listed (240V models only)

Cat. No.	Description	Tube Capacity	Speed Range	Rocking Angle	Exterior L x W x H	Shipping Weight	Electrical
<b>M71015Q</b>	Speci-Mix™ Test Tube Rocker	8 (10-20mm); 3 (22-30mm)	18rpm, fixed	Preset 48° tilt of rocker platform	13.9 x 19.1 x 10.7cm (5.5 x 7.5 x 4.3in.)	1.4kg (3 lb.)	120V 50/60Hz (0.03A)
<b>M71010-33Q</b>	Speci-Mix Test Tube Rocker	8 (10-20mm); 3 (22-30mm)	18rpm, fixed	Preset 48° tilt of rocker platform	13.9 x 19.1 x 10.7cm (5.5 x 7.5 x 4.3in.)	1.4kg (3 lb.)	240V 50Hz (0.01A)
<b>M48725Q</b>	Vari-Mix™ Test Tube Rocker	16 (10-20mm); 7 (22-30mm)	2 to 20rpm	Adjustable rocking from 1° to 48° angle	13.9 x 38.1 x 10.7cm (5.5 x 15 x 4.3in.)	2.6kg (5.8 lb.)	120V 50Hz (0.08A)
<b>M48720-33Q</b>	Vari-Mix Test Tube Rocker	16 (10-20mm); 7 (22-30mm)	2 to 20rpm	Adjustable rocking from 1° to 48° angle	13.9 x 38.1 x 10.7cm (5.5 x 15 x 4.3in.)	2.6kg (5.8 lb.)	240V 50Hz (0.02A)

## Thermo Scientific Multi-Tube Rotators

Three-dimensional rotation is ideal for hematology, blood chemistry, DNA extractions and other laboratory applications where a continuous, gentle motion is necessary



- Circular motion coupled with a rocking pattern keeps liquids and solutions mixed gently without the potential for shearing or other damage
- Fixed shaker speed of 30rpm
- Compact size makes it easy to transport and use in areas with limited space
- Angle of rotation – varies 20° from the horizontal plane
- Portable, lightweight metal body is durable and easy to clean
- Four rubber feet provide added stability
- White silicone, nonskid, dimpled platform surface and 1.8cm (0.71in.) sides hold tubes firmly in place – no need for racks or clamps
- Removable platform surface can be used to transport tubes

**Includes:** White silicone, nonskid dimpled platform surface (L x W: 8.5in. x 5in.)  
**Warranty<sup>Y</sup>:** 90 days labor, one year parts  
**Certifications:** 120V model is cCSAus approved; 240V model is CE marked

Cat. No.	Tube Capacity	Operating Temp. Range	Operating Humidity Range	Mixing Surface	Platform Load Capacity	Exterior L x W x H	Shipping Weight	Electrical
<b>4632Q</b>	14 x 7mL, 10mL or 15mL	15° to 40°C (59° to 104°F)	20 to 80% noncondensing	13 x 22cm (5.3 x 8.8in.)	1.4 kg (31 lb.)	21 x 22 x 18cm (8.5 x 8.8 x 8.1in.)	3.6kg (8 lb.)	120V 60Hz, 0.3A
<b>4632-1CEQ</b>	14 x 7mL, 10mL or 15mL	15° to 40°C (59° to 104°F)	20 to 80% noncondensing	13 x 22cm (5.3 x 8.8in.)	1.4 kg (31 lb.)	21 x 22 x 18cm (8.5 x 8.8 x 8.1in.)	3.6kg (8 lb.)	240V 50Hz, 0.2A

## Thermo Scientific MaxiMix III Vortex Mixer

Performs functions of four separate apparatus, saving valuable bench space in labs and clinics.



- Four interchangeable mixing and shaking accessories for large volume mixing, variable speed control, and continuous, trouble-free shaking
- Accessories available for different applications (foam pad, universal holder, utility tray or flask holder). Precise matching of an electronic speed control to a high torque DC type motor provides versatile speed selection ranging from 100 to 2200rpm
- Soft foam rubber top 6.3 x 5.5in. (15.8 x 13.9cm) allows vortexing multiple test tubes and small flasks
- Lighted main power switch indicates mixer is operating
- Heavy, cast-aluminum base with counterbalance system for strength and stability
- Spring-dampened feet eliminate “creeping and walking” during large volume mixing
- Continuous trouble-free shaking of loads up to 5 lb. (2.2kg)

**Includes:** One soft foam rubber pad (PT500X6A)  
**Warranty\*:** 90 days on labor and one year on parts  
**Certifications:** CSA listed (120V models only) and CE listed (230V models)

Cat. No.	Speed Range	Platform L x W (6.3 x 5.5in.)	Load Capacity	Exterior L x W x H (8.5 x 6.5 x 5.1in.)	Shipping Weight	Electrical
<b>M65825</b>	100 to 2200rpm	15.8 x 13.9cm (6.3 x 5.5in.)	2.2 kg (5 lb.)	21.5 x 16.5 x 13cm (8.5 x 6.5 x 5.1in.)	7.7 kg (17 lb.)	120V 50/60Hz, 0.4A
<b>M65820-33</b>	100 to 2200rpm	15.8 x 13.9cm (6.3 x 5.5in.)	2.2 kg (5 lb.)	21.5 x 16.5 x 13cm (8.5 x 6.5 x 5.1in.)	7.7 kg (17 lb.)	230V 50/60Hz, 0.2A

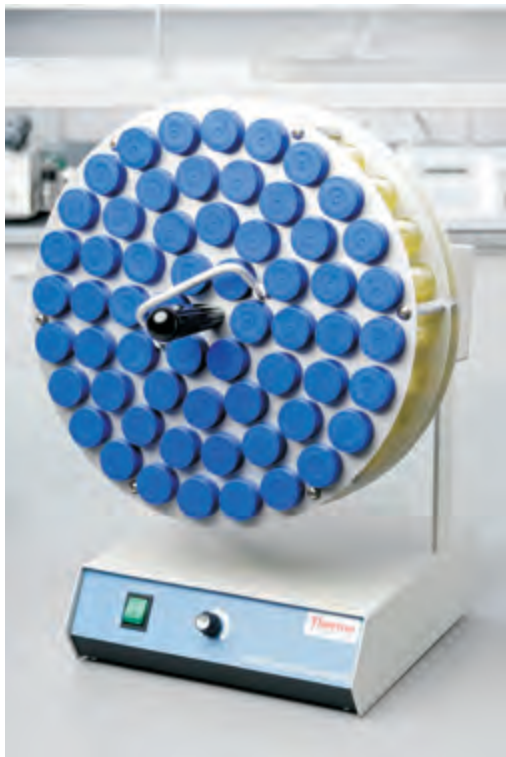


### Accessories and Replacement Parts for MaxiMix III Vortex Mixer

Cat. No.	Description
<b>PT500X6A</b>	Replacement foam rubber pad
<b>PT500X9A</b>	Universal holder for a variety of flasks, beakers, bottles, test tub racks. Two soft rubber bars hold vessels in place.
<b>PT500X7A</b>	Utility tray
<b>PT500X8A</b>	Flask holder for 4 x 250mL flasks

## Thermo Scientific Cel-Gro Tissue Culture Rotator

**No-maintenance brushless motor provides a gentle rotating motion that mixes test tube contents for optimum culture results**



- Single-drum as an adjustable rotating angle and speed, while the dual-drum has a fixed rotating angle and speed
- Rotator operates in standard incubators for cultivation under controlled temperature conditions
- Powder-coated stainless-steel outer body construction is durable and corrosion-resistant
- Drums can be lifted off the rotor without interrupting rotator operation
- Adjusting screw on the base varies elevation angle
- Pilot light indicates when unit is on

### Single-Drum Rotator

- Adjustable 5° rotating angle above horizontal to 90°
- Adjustable speed control from 12 to 70rpm

**Ordering Information:** Drums sold separately (1647Q, 1648Q, 1651Q)  
**Required Accessories:** Single-drum model requires one drum, sold separately.  
**Warranty:** 90 days labor, one year parts  
**Certifications:** 120V models are cCSAus approved

Cat. No.	Description	Speed Range	Operating Temp. Range	Operating Humidity Range	Rotating Angle	Exterior L x W x H	Shipping Weight	Electrical
<b>1640Q</b>	Single-Drum Model	12 to 70rpm	Up to 40°C (104°F)	20 to 80 % noncondensing	Adjustable 5° above horizontal to 90°	38.1 x 35.6 x 57.2cm (15 x 14 x 22.5in.)	9kg (19 lb.)	120V 60Hz, 0.5A

## Thermo Scientific Cel-Gro Tissue Culture Rotator Drums

Cat. No.	Description
<b>1647Q</b>	142 x 17mm tube diameter
<b>1648Q</b>	76 x 26mm tube diameter
<b>1651Q</b>	60 x 30mm tube diameter

## Thermo Scientific LP Vortex Mixer

Choose to continuously mix or pulse samples with our low profile vortex mixer

### Features

- Low profile design with small footprint
- Continuous or pulsing functions
- Speed Control: 0 to 3000rpm
- Built-in safety features regarding current overload
- Wide variety of optional accessories to accommodate different vessel types
- **Includes: rubber platform for tube vortexing**

### Common Applications

- Any application that requires vortex mixing in a tube, plate, or glass vessel



Cat. No.	88880017	88880018
Plug Configurations		
Speed Range	0-3000rpm	
Operating Mode	Continuous / Touch	
Max Load	0.5 kg / 1.1lbs	
Dimensions (W x D x H) without attachments	154 x 210 x 83mm 6.1 x 8.3 x 3.3in	
Weight	3.1kg / 6.8lbs	
Power	100 – 240V, 50/60Hz	
Certifications	CE	
Warranty	2 Years	

Accessories for the LP Vortex mixer	Cat. No.
Microplate Tray	88880117
Rubber Platform	88880118
Tube Holder with Insert Retainer	88880119
Tube Holder with Insert Retainer ( 10 mm )	88880120
Tube Holder with Insert Retainer ( 12 mm )	88880121
Tube Holder with Insert Retainer ( 15 mm )	88880122
Tube Holder with Insert Retainer ( 20 mm )	88880123
Tube Holder with Insert Retainer ( 25 mm )	88880124



Tube Holders



## Thermo Scientific Digital Bottle/Tube Roller

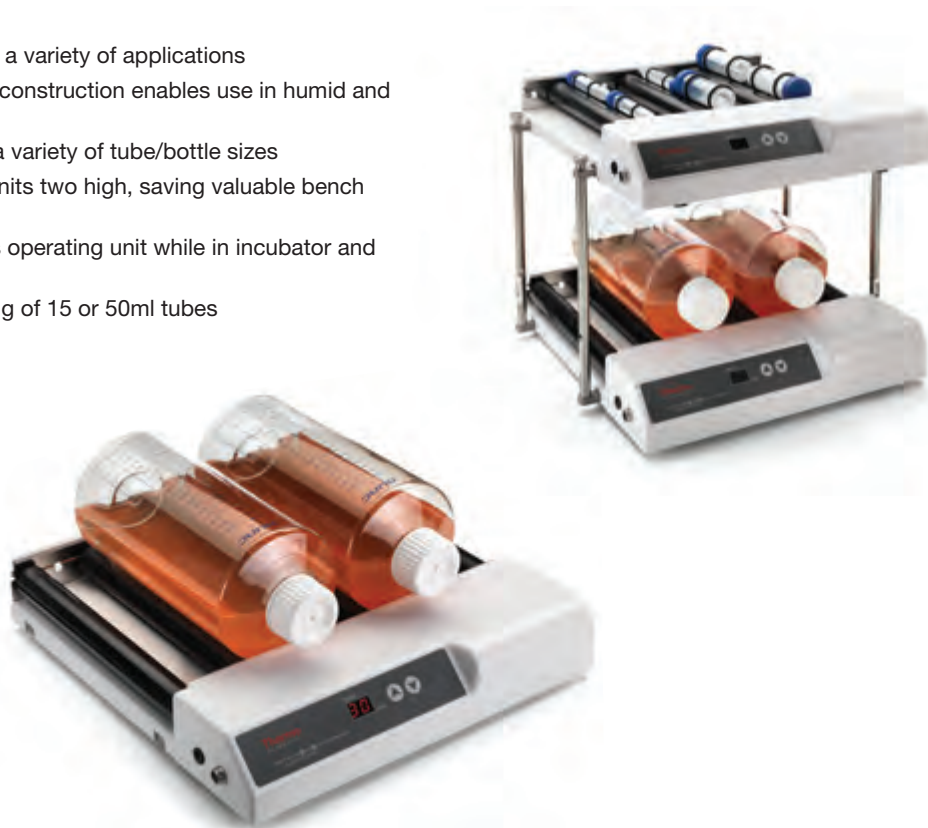
Maximize valuable bench space with our compact, adjustable speed unit, capable of rolling multiple tube and bottle sizes

### Features

- Adjustable speed accommodates a variety of applications
- Anti-corrosive and wear resistant construction enables use in humid and CO<sub>2</sub> environments
- Adjustable rollers accommodate a variety of tube/bottle sizes
- Stacking kit allows you to stack units two high, saving valuable bench space
- Optional remote control facilitates operating unit while in incubator and adds timer function
- Includes O Rings for smooth rolling of 15 or 50ml tubes

### Common Applications

- Cell Culture
- Hybridization Assays
- Liquid Mixing
- Bioproduction



Cat. No.	88881003	88881004
Plug configurations		
Roller Speed	1-80rpm	
Maximum Bottle Diameter	≤ 120mm 4.72in	
Number of Rollers	6 rollers standard, up to 11 can be added	
Roller Dimensions (D x L)	28 x 259mm / 1.1 x 10.2in	
Display	LED Roller Speed Display	
Timing Range (optional control box needed)	0-999min or continuous	
Stackable	Two high with optional kit	
Maximum Working Capacity	6.5kg / 14.3lbs	
Maximum Power	10W	
Operating Temperature	4°C – 60°C	
Relative Humidity Tolerance	≤ 95%	
Dimensions W x L x H	378 x 360 x 72mm / 14.9 x 14.2 x 2.8in	
Weight	6.5kg / 14.3lbs	
Power	AC100V-240V / 50Hz 60Hz	
Certification	CE cCSAus	
Warranty	2 year	

Accessories for Bottle/Tube Roller	Cat. No.
Additional Rollers (pack of two)	88881010
O ring for 50ml tube (pack of 20) 23.5 x 3.55mm .93 x .14in	88881011
O ring for 15ml tube (pack of 20) 13.2 x 2.65mm .52 x .1in	88881012
Bar for stacking (pack of four)	88881013
Remote Control	88881014





## Thermo Scientific Digital Tube Revolver

Increase your lab's efficiency with our variable speed tube revolver. Its small footprint, flexible design, and simple display help increase flexibility and effectiveness.

### Features

- Interchangeable rotisseries accommodate different tube sizes for maximum flexibility. Each paddle can be adjusted from 0-90 degrees.
- Achieve more effective mixing with "agitation" mode. Agitation will occur at every 40 degrees in the rotation cycle.
- Small footprint
- Plug-and-play simplicity
- Maintenance-free motor, quiet operation

### Common Applications

- Molecular Biology
- Clinical
- Biochemistry



Cat. No.	88881001	88881002
<b>Plug Configurations</b>		
<b>Rotation Speed</b>	10-40 rpm	
<b>Capacity</b>	<b>Combination of 4 paddles of:</b> 7 x 10/15ml tubes 7 x 5/7ml tubes 15 x 1.5ml/2ml tubes 21 x 0.5/0.8ml tubes One paddle of 6 x 50ml tubes	
<b>Standard Rotisserie Paddles included</b>	<b>88881005</b> – 10/15ml paddle, quantity 2 <b>88881006</b> – 5ml/7ml paddle, quantity 2 <b>88881007</b> – 1.5ml/2ml paddle, quantity 2 <b>88881008</b> – 0.5ml/0.8ml paddle, quantity 2 <b>88881009</b> – 50ml paddle, quantity 1  Paddles can also be purchased as accessories in quantities listed above	
<b>Operating Temperature</b>	4°C – 60°C	
<b>Dimensions W x L x H</b>	225 x 154 x 195mm / 8.9 x 6 x 7.7in	
<b>Max Power</b>	6W	
<b>Weight</b>	1.2kg / 2.65lbs	
<b>Power</b>	AC100V-240V / 50Hz – 60Hz	
<b>Certification</b>	cCSAus, CE	
<b>Warranty</b>	2 years	

Ordering Information and Specifications	Cat. No.
Paddles 10ml/15ml, 2 pack	<b>88881005</b>
Paddles 5ml/7ml, 2 pack	<b>88881006</b>
Paddles 1.5ml/2ml, 2 pack	<b>88881007</b>
Paddles 0.5ml/0.8ml, 2 pack	<b>88881008</b>
Paddle 50ml	<b>88881009</b>



Paddles

## Thermo Scientific Digital Heating Cooling Drybath

**Maximize lab space and flexibility with our compact programmable heating/cooling dry bath with digital display**

### Features

- PID control ensures precise temperature control
- Temperature Range from 4°C to 95°C
- Programmable:
  - > 10 programs, up to 10 steps per program
- Two types of timing modes:
  - > Start only after temperature reaches desired set point
  - > Start immediately after the timer is set
- Low profile design
- Blocks easily interchanged



### Common Applications

- DNA extractions
- Enzymatic reactions
- Reactions that need to be processed at or near room temperature
- Reagent warming/cooling

**Required Accessory:** must purchase a block with this unit

Cat. No.	88880029*	88880030*
Plug Configurations		
Control	Feedback Control PID	
Display	Digital	
Temperature	Range (°C / °F): 4 to 95 / 39.2 to 203 Variation at 37°C (°C / °F): 0.55 / 0.99	
Dimensions W x D x H	Internal: 99 x 77.5 x 36mm / 3.9 x 3.1 x 1.4in External: 276 x 334 x 165mm / 10.9 x 13.1 x 6.5in	
Weight	5kg / 11lbs	
Power	120V, 60Hz	230V, 50/60Hz
Certification	CE	
Warranty	2 years	

**\*NOTE: Unit must be ordered with a block**

Accessories for Digital Cooling Drybath	Max. Tubes	Block Dimensions W x D x H	Cat. No.
Block for microtube 0.5ml	48	98 x 76.5 x 41mm 3.9 x 3 x 1.6in	<b>88880129</b>
Block for microtube 1.5ml	30	98 x 76.5 x 41mm 3.9 x 3 x 1.6in	<b>88880130</b>
Block for centrifuge tube 15ml	15	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880131</b>

Accessories for Digital Cooling Drybath (continued)	Max. Tubes	Block Dimensions W x D x H	Cat. No.
Block for centrifuge tube 50ml (small)	6	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880132</b>
Block for centrifuge tube 50ml (large)	6	98 x 76.5 x 87mm 3.9 x 3 x 3.4in	<b>88880133</b>
Block for 10mm tube	35	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880134</b>
Block for 12mm tube	24	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880135</b>
Block for 13mm tube	24	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880136</b>
Block for 15mm tube	20	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880137</b>
Block for 16mm tube	16	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880138</b>
Block for 18mm tube	12	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880139</b>
Block for 20mm tube	12	98 x 76.5 x 51mm 3.9 x 3 x 2in	<b>88880140</b>

## Thermo Scientific Digital Heating Shaking Drybath

Increase lab versatility with the Digital Shaking Drybath, which can be used as a drybath, shaker, or both

### Features



- PID control ensures consistent shaking results and precise temperature control
- Speed range from 150 to 1500rpm (block dependent)
- Programmable:
  - > 10 programs, up to 10 steps per program
  - > Interval shaking function allows shaking and non-shaking in same program
- Two types of timing modes
  - > Start only after temperature reaches desired set point
  - > Start immediately after the timer is set
- Low-profile design
- Easily changed blocks in multiple sizes allow for maximum flexibility in vessel choice

### Common Applications

- DNA extractions
- Enzymatic reactions



**Required Accessory:** must purchase a block with this unit

Cat. No.	88880027*	88880028*
<b>Plug configurations</b>		
<b>Control</b>	Feedback Control PID	
<b>Display</b>	Digital	
<b>Temperature</b>	Range (°C / °F): Amb +5 to 100 / 41 to 212 Fluctuation at 80°C (°C / °F): 0.5 / 0.9	
<b>Speed Range rpm*</b>	#88880125: 96 well block 150- 1500rpm	
	#88880126: 0.5ml tube block 150- 1200rpm	
	#88880127: 1.5ml tube block 150- 1200rpm	
	#88880128: 50ml tube block 150- 1000rpm	
<b>Orbit Size Diameter</b>	2mm / 0.8in	
<b>Dimensions W x D x H</b>	276 x 334 x 170mm / 10.9 x 13.1 x 6.7in	
<b>Weight</b>	8.3kg / 18.3lbs	
<b>Power</b>	120V, 60Hz	230V, 50/60Hz
<b>Certification</b>	CE	
<b>Warranty</b>	2 years	

\*NOTE: Unit must be ordered with a tube block

Accessories for Digital Shaking Drybath	Max. Mountable Tubes	Cat. No.
0.2ml Microplate Block Set with Cover*	96	88880125
0.5ml Tube Block Set with Cover*	48	88880126
1.5ml Tube Block Set with Cover*	24	88880127
50ml Tube Block Set with Cover*	6	88880128

\*Cover is a plastic piece that simply sits on top of the aluminum block to protect user from burns, it's not a lid to cover tubes"



Tube Block Sets

## Thermo Scientific Compact Digital Microplate Shaker

Harness the efficiency of our microplate shaker, capable of shaking up to four microplates in one run

### Features

- PID control ensures consistent shaking results
- Digital display for easy viewing
- Compact design is ideal for placing in incubators (non-CO<sub>2</sub>), chambers, and refrigerators (up to 60°C)
- Timer Range: Continuous or 1min to 99hrs 59min
- Automatic Overload Shutdown  
> 4.4kg / 9.7lbs
- Small 3mm orbital motion, ideal mixing small volumes
- Tube rack accessories make this unit extremely versatile
- Includes 4 place microplate top standard

### Common Applications

- Any application requiring precise and accurate shaking of microplates: immunoassay, screening applications, magnetic bead applications



Micro tube racks (88880114) in the picture is not in the standard configuration, it must be ordered separately.

Cat. No.	88880023	88880024
Plug Configurations		
Max. Load	4kg / 8.8lbs	
Control	Feedback Control PID	
Display	Digital	
Speed Range	150-1,200rpm	
Accuracy at 500 rpm	+/- 15rpm	
Timer	1min to 99hrs 59min/continuous	
Orbit Size	3 mm / 0.12in diameter	
Maximum Load	4kg / 8.8lbs	
Dimensions	Tray: (W x D) 267 x 185mm / 10.5 x 7.3in	
	Overall: (W x D x H) 249 x 329 x 127mm / 9.8 x 13 x 5in	
Weight	7.7kg / 17lbs	
Power	100 – 240V, 50/60Hz	
Certifications	CE	
Warranty	2 years	

Accessories for Compact Digital Microplate Shaker	Number of Tubes	Cat. No.
1.5ml micro tube rack	80 (5 x 16)	88880114
15ml conical rack	30 (3 x 10)	88880115
50ml conical rack	12 (2 x 6)	88880116

## Thermo Scientific Compact Digital Rocker

Ensure gentle sample agitation with our compact, adjustable angle, digital display rocker



### Features

- PID control ensures consistent and smooth rocking motion
- Digital Speed Control: 5-100rpm
- Easy to adjust tilt angle: 7° to 13°
- Compact design is ideal for placing in incubators (non-CO<sub>2</sub>), chambers, and refrigerators (up to 60°C)
- Timer Range: Continuous or 1min to 99hrs 59min
- Securing bands keep tubes in place to reduce risk of rolling around
- Optional non-slip rubber sticky mat tray is great for use with plates, dishes and bags
- Efficient size trays can be used with up to 6 well-plates
- **Includes dimpled mat (tray, silicone pad, two securing bands)**

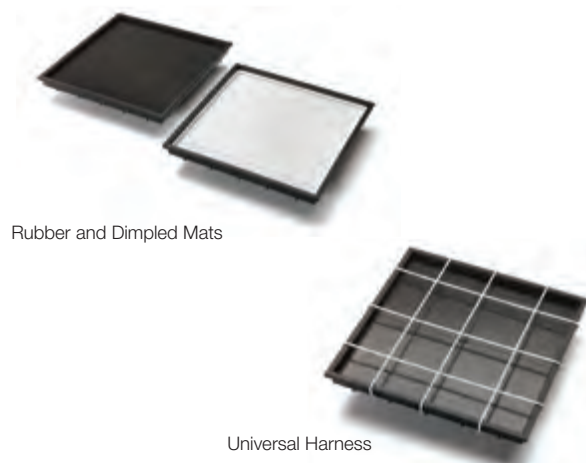


### Common Applications

- Designed for time-dependent and low-dependent sensitive applications such as ELISA, protein synthesis, staining/de-staining gels, and antibody staining

Cat. No.	88880019	88880020
Plug Configurations		
Max. Load	5kg / 11lbs	
Control	Feedback Control PID	
Display	Digital	
Speed Range	5 -100rpm	
Accuracy at 100 rpm	+/- 5 rpm	
Timer	1min to 99hrs 59min / Continuous	
Tilt Angle	7° to 13°	
Dimensions	Tray: (W x D) 276 x 276mm / 10.87 x 10.87in	
	Overall: (W x D x H) 276 x 320 x 150mm / 10.87 x 12.6 x 5.91in	
Weight	3.7kg / 8.16lbs	
Power	100 – 240V, 50/60Hz	
Certifications	CE	
Warranty	2 years	

Accessories for the Compact Digital Rocker	Description	Cat. No.
Rubber Mat	Tray, Sticky Pad	<b>88880101</b>
Dimpled Mat	Tray, Silicone Pad	<b>88880102</b>
Universal Harness	Tray, Sticky Pad, Rubber Band (6ea)	<b>88880103</b>
Securing Bands	6 Securing Cands	<b>88880105</b>





## Thermo Scientific Compact Digital Waving Rotator

Achieve maximum sample mixing efficiency with the adjustable orbital waving rotator



### Features

- PID control ensures consistent and smooth waving motion
- Digital Speed Control: 8 to 100rpm
- Easy to adjust tilt angle: 0° to 13°
- Compact design ideal for placing in incubators (non-CO<sub>2</sub>), chambers, and refrigerators (up to 60°C)
- Timer Range: Continuous or 1min to 99hrs 59min
- Securing bands keep tubes in place to reduce risk of rolling around
- When angle is set at 0°, can be used as small orbital shaker.
- Optional non-slip rubber sticky mat tray is great for use with plates, dishes and bags
- Efficient size trays can be used with up to 6 well-plates
- Includes dimpled mat (tray, silicone pad, two securing bands)

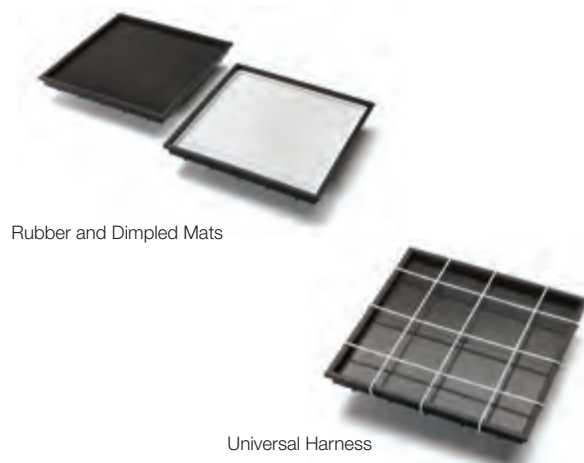


### Common Applications

- Designed for time-dependent and low-dependent sensitive applications such as ELISA, protein synthesis, staining/de-staining gels, and antibody staining

Cat. No.	88880021	88880022
Plug Configurations		
Max. Load	5kg / 11lbs	
Control	Feedback Control PID	
Display	Digital	
Speed Range	8 -100rpm	
Accuracy at 100 rpm	+/- 5 rpm	
Timer	1min to 99hrs 59min / continuous	
Tilt Angle	0° to 13°	
Dimensions	Tray: (W x D) 276 x 276mm / 10.87 x 10.87in	
	Overall: (W x D x H) 276 x 320 x 150mm / 10.87 x 12.6 x 5.91in	
Weight	3.7kg / 8.16lbs	
Power	100 – 240V, 50/60Hz	
Certifications	CE	
Warranty	2 years	

Accessories for the Compact Digital Waving Rotator	Description	Cat. No.
Rubber Mat	Tray, Sticky Pad	<b>88880101</b>
Dimpled Mat	Tray, Silicone Pad	<b>88880102</b>
Universal Harness	Tray, Sticky Pad, Rubber Band (6ea)	<b>88880103</b>
Securing Bands	6 Securing Bands	<b>88880105</b>





## Thermo Scientific Compact Digital Mini Rotator

Realize maximum flexibility and high quality with the easy-to-use Thermo Scientific™ Compact Digital Mini Rotator/Shaker, which provides smooth, quiet orbital mixing for beakers, flasks, tubes, dishes and more.

### Features

- PID control ensures consistent and smooth orbital motion
- Digital Speed Control: 50 to 300rpm
- Timer Range: Continuous or 1min to 99hrs 59min
- Compact design ideal for placing in incubators (non-CO<sub>2</sub>), chambers, and refrigerators (up to 60°C)
- Choose from 5 different platform options (purchased separately) to customize unit to meet exact application needs.
- Display both current and set RPM simultaneously.

### Common Applications

- Bacteria and fungi culturing
- Hybridization assays
- Gel staining/de-staining



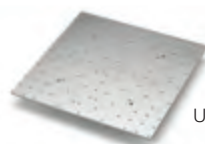
Universal platform and clamps shown in image

**Required Accessory:** must purchase a a platform with unit, and clamps if using universal platform

Cat. No.	88880025*	88880026*
Plug Configurations		
Max. Load	4kg / 8.8lbs	
Control	Feedback Control PID	
Display	Digital	
Speed Range	50-300rpm	
Accuracy at 100rpm	+/- 5rpm	
Orbit Size	13 mm / 0.51in diameter	
Maximum Load	4 kg/8.81lbs	
Dimensions	<b>Platform:</b> (W x D) 250 x 250mm / 9.8 x 9.8in <b>Overall:</b> (W x D x H) 276 x 334 x 130mm / 10.9 x 13 x 5.1in	
Weight	8kg / 17.6lbs	
Power	100 – 240V, 50/60Hz	
Certifications	CE	
Warranty	2 Years	

Accessories for the Compact Digital Mini Rotator	Max. Mountable Flask Clamps	Cat. No.
Universal Attachment	N/A	<b>88880104</b>
Universal Platform for use with clamps	N/A	<b>88880106</b>
Flask Clamp for Shakers metal 50ml**	16	<b>88880107</b>
Flask Clamp for Shakers metal 100ml**	9	<b>88880108</b>
Flask Clamp for Shakers metal 250ml**	9	<b>88880109</b>
Flask Clamp for Shakers metal 300ml**	9	<b>88880110</b>
Flask Clamp for Shakers metal 500ml**	5	<b>88880111</b>
Flask Clamp for Shakers metal 1L**	4	<b>88880112</b>
Flask Clamp for Shakers metal 2L**	1	<b>88880113</b>
Sticky Rubber Mat Tray	1 Tray	<b>88880101</b>
Silicone Dimpled Mat Tray	1 Tray	<b>88880102</b>
Sticky Mat Universal Harness Tray w/ 6 Bands	1 Tray w/ 6 Bands	<b>88880103</b>
Securing Bands (6ea) 88880105	6 Securing Bands	<b>88880105</b>

\*NOTE: Unit must be ordered with a platform



Universal Platform



Rubber and Dimpled Mats

\*\* Flask clamps sold individually

Universal Attachment



# water purification essentials

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## Thermo Scientific Barnstead Hose Nipple Cartridges

**Economical and simple way to purify water in small volumes up to 75L/hr**



- Barnstead™ Hose Nipple Cartridges may be installed in a series using simple tubing for greater capacity
- Color change indicator identifies when resin is exhausted in specific cartridges
- Designed for non-pressurized applications
- Cartridges include 0.38in. hose barb connection on each end except D8822, D8950 and D8951, which include tapered straight nipple for 0.38in. ID tubing
- Constructed of 100% virgin polypropylene cartridge with excellent quality resin

**Applications:** Softening, deionization, organic and chlorine removal

**Alert:** Alcohol-containing samples cannot be used in cartridges containing the color indicator

**System Warranty<sup>†</sup>:** One year parts, 90 days labor

**Cartridge Warranty<sup>†</sup>:** 1 year parts

Cat. No.	Description	Flowrate	Length
<b>D8900</b>	Hose Nipple Cartridge Holder	Up to 75L/hr	1/2 Size: 25.9cm (10.2in.) 2/3 Size: 33.8cm (13.3in.) Full Size: 47.5cm (18.7in.)

### Required Accessories

Cat. No.	Description	Resin Type(s)	Capacity	Color Indicator <sup>†</sup>
<b>D50220</b>	1/2 Size Mixed Bed	Ultrapure Ion Exchange	430 grains	No
<b>D8822</b>	1/2 Size Mixed Bed with Oxygen Removal	Ultrapure Mixed Bed with Strong Anion Exchange	280 grains/4.4g	No
<b>D8950</b>	2/3 Size High Capacity	Two bed Ion Exchange with Strong Cation Exchange	1100 grains	Yes
<b>D8951</b>	2/3 Size Mixed Bed and Organic Removal	Mixed Bed Ion Exchange with Activated Carbon	470 grains/ 2000 gal.	Yes
<b>D8905</b>	Full Size Cation Removal	Cation Exchange	3000 grains	Yes
<b>D8901</b>	Full Size High Capacity	Two Bed Ion Exchange	1650 grains	Yes
<b>D8908</b>	Full Size Macroreticular, Cation Removal	Macroreticular Cation Exchange	n/a	No
<b>D8904</b>	Full Size Organic Removal	Activated Carbon	5000 gal.	No
<b>D8903</b>	Full Size Oxygen Removal	Strong Anion Exchange	30g	No
<b>D8921</b>	Full Size Pretreatment and Scale Eliminator	Mixed Bed and Strong Cation Exchange, Activated Charcoal	1250 grains/1000 gal.	Yes
<b>D8911</b>	Full Size Ultrapure	Ultrapure Ion Exchange	915 grains	No
<b>D8902</b>	Full Size Ultrapure	Ultrapure Mixed Bed Ion Exchange	915 grains	Yes
<b>D8922</b>	Full Size Ultrapure with Organic Removal	Mixed Bed Ion Exchange with Activated Carbon	730 grains/2000 gal.	Yes

<sup>†</sup>Alcohol-containing samples cannot be used in cartridges containing the color indicator.

## Thermo Scientific Bantam Deionizer

**Economical way to deionize water and easily view resistivity directly from unit**



- Customizable to specific applications by selecting the appropriate cartridge
- Ideal for applications requiring up to 38L/hr of purified water
- Point-of-use polishing of pretreated water or single-stage treatment of tap water
- Integrated direct-reading purity monitor
- Inlet pressure range: 5 to 70psi (0.35 to 4.9kg/cm<sup>2</sup>)
- Mounts on benchtop or wall
- Select the cartridge best suited to meet your application needs

**Applications:** Pretreatment and deionization  
**Includes:** 3ft. (91cm) inlet tubing  
**Required Accessories:** Cartridges sold separately  
**System Warranty<sup>†</sup>:** 1 year parts, 90 days labor  
**Cartridge Warranty<sup>†</sup>:** 1 year parts  
**Notes:** Designed for nonpressurized applications. Output water must be diverted to an atmospherically vented receptacle; no back pressure can be accepted.

Cat. No.	Model	L x W x H	Resistivity	Flowrate	Max. Feed Water Pressure	Electrical
<b>D0800</b>	Bantam Deionizer	22 × 15 × 72cm (8.75 × 6 × 28.5in.)	Reads 25,000 to 18,000,000ohms-cm	Up to 38L/hr	0.35 to 4.9kg/cm <sup>2</sup> (5 to 70psi)	120V 50/60Hz
<b>D0805</b>	Bantam Deionizer	22 × 15 × 72cm (8.75 × 6 × 28.5in.)	Reads 25,000 to 18,000,000ohms-cm	Up to 38L/hr	0.35 to 4.9kg/cm <sup>2</sup> (5 to 70psi)	240V 50/60Hz

### Required Accessories

Cat. No.	Type	Characteristics	Resin	Capacity	Cartridge Size
<b>D0760</b>	Anion Removal	Effective removal of weakly ionized impurities, raises the pH of solutions, recovers precious metal complex	Strong Anion Exchange	1680 grains	Full
<b>D0815</b>	Cation Removal	Converts ionized salts to the acid form resulting in a product water that is low in pH, ideal for precious metal or isotope recovery	Strong Cation Exchange	3170 grains	Full
<b>D0803</b>	High Capacity	Removes ionized impurities, produces a larger quantity of water than that of the Ultrapure (D0809), however at a lower resistivity	Two-bed Ion Exchange	1760 grains	Full
<b>D0813</b>	Organic Removal	Removes organics and chlorine	Activated Carbon	5000 gal.	Full
<b>D0809</b>	Ultrapure	Removes ionized impurities to produce high resistivity water with a neutral pH	Mixed Bed	875 grains	Full
<b>D0832</b>	Ultrapure and Organic Removal	Commonly used as still pretreatment. Removes ionized impurities and has a layer of activated carbon to remove chlorine and organics	Mixed Bed, Activated Carbon	785 grains/ 1000 gal.	Full
<b>D0835</b>	Macrorreticular and Organic Removal	Effectively removes colloids, bacteria, organics and chlorine. Excellent for pretreatment	Macrorreticular, Activated Carbon	5000 gal.	Full
<b>D0811</b>	Oxygen Removal	Maintains low oxygen content to prevent corrosion in cooling loops, etc. The feed water should contain less than 10ppm of ionized solids	Porous Strong Anion Exchange	30 g	Full
<b>D8811</b>	Ultrapure, Oxygen and Organic Removal	Removes ions, oxygen and organics to produce water with a high resistivity	Mixed Bed Ion Exchange, Porous Strong Anion Exchange and Activated Carbon	365 gr / 2000 gal./ 12 g	Full

## Thermo Scientific Barnstead B-Pure Water Purification System

**Economical, lab-grade water system easily customized for all pretreatment or deionization needs**



- Engineered for feed water pressures up to 100 psi
- Choose from single, double or half-size holders depending on your application
- Modular design provides ability to add additional holders as needed
- Produces up to 4L/min., depending on model
- Quarter-turn quick-release canisters make cartridge changes easy
- Accepts Thermo Scientific Barnstead Pura-Lite indicator or digital purity meter to monitor water quality
- Barnstead B-Pure holders are available in full or half-size cartridge configurations supporting space constraints

### B-Pure™ Single Cartridge Holder

- Simple system without draw-off valve; optional Barnstead Pura-Lite purity indicator available

### B-Pure Double Cartridge Holder

- Complete with draw-off valve
- Choose from models with digital purity meter or Barnstead Pura-Lite “Go/No Go” resistivity indicator

### B-Pure Half-size Cartridge Holder

- Easily attaches to full-size B-Pure systems
- Small size allows flexibility in mounting location

**Applications:** Pretreatment, deionization

**Required Accessories:** Cartridges (sold separately).

**System Warranty<sup>Y</sup>:** 1 year parts, 90 days labor

**Cartridge Warranty<sup>Y</sup>:** 1 year parts

**Certifications:** CE, CSA

**Notes:** Free Thermo Scientific Barnstead H<sub>2</sub>O Select Kits are available to help select the correct B-Pure system. For details, contact your Sales Representative.

Cat. No.	Model	L x W x H	Inlet Connection NPTF	Maximum Flowrate	Feedwater Temperature	Max. Feed Water Pressure	Electrical	Requires
<b>D4505</b>	Half-size Holder	17.8 × 17.8 × 38.1cm (7 × 7 × 15in.)	1.3cm (0.5in.) NPTF	2L/min.	4° to 49°C (40° to 120°F)	100psig	N/A	Half-Size B-Pure Cartridge
<b>D4511</b>	Single Holder	17.8 × 17.8 × 61cm (7 × 7 × 24in.)	1.3cm (0.5in.) NPTF	4L/min.	4° to 49°C (40° to 120°F)	100psig	N/A	Full-Size B-Pure Cartridge
<b>D4521</b>	Double Holder with Digital Purity Meter	17.8 × 38.1 × 68.6cm (7 × 15 × 27in.)	1.3cm (0.5in.) NPTF	4L/min.	4° to 49°C (40° to 120°F)	100psig	120V	2 Full-Size B-Pure Cartridges
<b>D4522-33</b>	Double Holder with Digital Purity Meter	17.8 × 38.1 × 68.6cm (7 × 15 × 27in.)	1.3cm (0.5in.) NPTF	4L/min.	4° to 49°C (40° to 120°F)	100psig	240V	2 Full-Size B-Pure Cartridges
<b>D4524</b>	Double Holder with Pura-Lite Indicator (50 kΩ)	17.8 × 38.1 × 68.6cm (7 × 15 × 27in.)	1.3cm (0.5in.) NPTF	4L/min.	4° to 49°C (40° to 120°F)	100psig	120V	2 Full-Size B-Pure Cartridges
<b>D5831</b>	Double Holder with Pura-Lite Indicator (200 kΩ)	17.8 × 38.1 × 68.6cm (7 × 15 × 27in.)	1.3cm (0.5in.) NPTF	4L/min.	4° to 49°C (40° to 120°F)	100psig	120V	2 Full Size B-Pure Cartridges
<b>D5833</b>	Double Holder with Pura-Lite Indicator (1M Ω)	17.8 × 38.1 × 68.6cm (7 × 15 × 27in.)	1.3cm (0.5in.) NPTF	4L/min.	4° to 49°C (40° to 120°F)	100psig	120V	2 Full Size B-Pure Cartridges

## Required Accessories

Cat. No.	Cartridge Size	Type	Characteristics	Resin	Capacity
<b>D0760</b>	Full Size	Anion Removal	Effective removal of weakly ionized impurities, raises the pH of solutions, recovers precious metal complex	Strong Anion Exchange	1680 grains
<b>D0815</b>	Full Size	Cation Removal	Converts ionized salts to the acid form resulting in a product water that is low in pH, ideal for precious metal or isotope recovery	Strong Cation Exchange	3170 grains
<b>D0803</b>	Full Size	High Capacity	Removes ionized impurities, produces a larger quantity of water than that of the Ultrapure (D0809), however at a lower resistivity	Two-bed Ion Exchange	1760 grains
<b>D0835</b>	Full Size	Pretreatment	Effectively removes colloids, bacteria, chlorine and organics	Macroreticular, Activated Carbon	5000 gal.
<b>D0836</b>	Full Size	Macropure	Effectively removes colloids, bacteria, chlorine and organics, increases filter life	Macroreticular, Activated Carbon	2000 gal.
<b>D0813</b>	Full Size	Organic Removal	Removes organics and chlorine	Activated Carbon	5000 gal.
<b>D0811</b>	Full Size	Oxygen Removal	Maintains low oxygen content to prevent corrosion in cooling water. The feedwater should contain less than 10ppm of ionized solids	Porous Strong Ion Exchange	30g
<b>D0809</b>	Full Size	Ultrapure	Removes ionized impurities to produce high resistivity water with a neutral pH	Mixed Bed	875 grains
<b>D0832</b>	Full Size	Ultrapure and Organic Removal	Commonly used as still pretreatment. Removes ionized impurities and has a layer of activated carbon to remove chlorine and organics	Mixed Bed, Activated Carbon	785 grains / 1000 gal.
<b>D8809</b>	Full Size	Ultrapure and Oxygen Removal	Removes ionized impurities and oxygen to produce high purity water	Ultrapure, Oxygen Removal	455 grains/ 30g
<b>D8811</b>	Full Size	Ultrapure, Oxygen and Organic Removal	Removes ionized impurities, oxygen and organics to produce high purity water	Ultrapure, Oxygen and Organic Removal	365 grains/ 2000 gal./12g
<b>D50215</b>	Half Size	Organic Removal	Removes organics and chlorine	Activated Carbon	5000 gal.
<b>D50214</b>	Half Size	Oxygen Removal	Maintains low oxygen content to prevent corrosion in cooling water. The feed water should contain less than 10ppm of ionized solids	Porous Strong Anion Exchange	18g
<b>D50213</b>	Half Size	Ultrapure	Removes ionized impurities to produce high resistivity water with a neutral pH	Mixed Bed	550 grains
<b>D50217</b>	Half Size	Ultrapure and Organic removal	Commonly used as still pretreatment. Removes ionized impurities and has a layer of activated carbon to remove chlorine and organics	Mixed Bed, Activated Carbon	275 grains/ 2000 gal.
<b>D50216</b>	Half Size	Oxygen and demineralization	Removes oxygen and ions. Commonly used in cooling loops	Oxygen Removal Mixed	275 grains/ 9 gal.





Enhance your Productivity with  
other Thermo Scientific Essentials

**Ask about our other laboratory solutions –  
ideal for maximizing your daily work.**

From Thermo Scientific Labware, such as graduated cylinders and beakers, lab notebooks, bottles and carboys, to handheld pipettes, these essential products help you to produce consistent, optimal work...in every lab, every day – all backed by the quality, value and expertise you've come to expect from us.

Please visit [www.thermoscientific.com/everylab](http://www.thermoscientific.com/everylab)  
for additional information and resources.

## Thermo Scientific Nalgene Labware

Our plastic labware products are durable, break-resistant, lightweight, and safer for benchtop use than most glass labware products.

### Nalgene® Griffin Low-Form Beaker Flat Bottom Ensures Stability

- Flat bottom for smooth stirring
- No drip, single-spout design provides precision pouring control
- With ribs for easy stacking
- Easy-to-read graduations
- Autoclavable



### Nalgene Wash Bottles Soft and Easy-To-Squeeze

#### Economy Wash Bottles

- Leakproof
- Designed to dispense uniformly through the top
- Closure and stem molded in one piece for a straight, steady stream
- Tip can be cut back to provide increased flow
- Tight fit of draw tube and closure prevents separation when squeezing bottle

#### Vented Unitary™ Safety Wash Bottles

- Color coded
- Printed with chemical name and safety precautions
- Vented to prevent self-dispensing
- Pre-labeled with ICS name and formula, as well as NFPA symbols for chemical handling, hazard, care and storage of six commonly used chemicals



Cat. No.	Capacity	Pk/Case
<b>Nalgene Griffin Low-form Beakers - PP</b>		
1201-0050	50 ml Griffin Low-form Beakers	12/48
1201-0100	100 ml Griffin Low-form Beakers	12/48
1201-0250	250 ml Griffin Low-form Beakers	6/36
1201-0600	600 ml Griffin Low-form Beakers	4/24
1201-1000	1000 ml Griffin Low-form Beakers	3/12
1201-2000	2000 ml Griffin Low-form Beakers	1/6
1201-4000	4000 ml Griffin Low-form Beakers	1/4
1201-1234	Beaker Variety Pack	1/1
<b>Nalgene Griffin Low-form Beakers - PMP</b>		
1203-0050	50 ml Griffin Low-form Beakers	12/36
1203-0100	100 ml Griffin Low-form Beakers	12/36
1203-0250	250 ml Griffin Low-form Beakers	6/24
1203-0600	600 ml Griffin Low-form Beakers	4/12
1203-1000	1000 ml Griffin Low-form Beakers	3/12
1203-2000	2000 ml Griffin Low-form Beakers	1/4
1203-4000	4000 ml Griffin Low-form Beakers	1/4

Cat. No.	Capacity	Pk/Case
<b>Nalgene Economy Wash Bottles - LDPE</b>		
2401-0125	125 ml	6/48
2401-0250	250 ml	6/36
2401-0500	500 ml	6/24
2401-1000	1000 ml	12
<b>Nalgene Unitary Wash Bottles - LDPE</b>		
2436-0501	500 ml, Acetone, Red	4/24
2436-0502	500 ml, Ethyl Alcohol, White	4/24
2436-0503	500 ml, Methanol, Green	4/24
2436-0504	500 ml, Isopropanol, Yellow	4/24
2436-0505	500 ml, Distilled Water, Natural	4/24
2436-0506	500 ml, Sodium Hypochlorite (Bleach), White	4/24
2436-0507	500 ml, Deionized Water, Natural	4/24

## Thermo Scientific Nalgene Labware

### Nalgene Narrow-Mouth Bottles When Sample Integrity is Critical

- Leakproof, guaranteed
- Available in a wide range of resins and volumes to meet your demanding needs
- Excellent chemical resistance make these bottles versatile and indispensable in your lab
- Made from high purity resins in our ISO 13485-2003 manufacturing facility



Cat. No.	Capacity	Pk/Case
<b>1600-0004</b>	125 ml Narrow-Mouth Bottle - FEP - 24 mm Closure	1/6
<b>1600-0008</b>	250 ml Narrow-Mouth Bottle - FEP - 24 mm Closure	1/4
<b>1600-0016</b>	500 ml Narrow-Mouth Bottle - FEP - 28 mm Closure	1/4
<b>1600-0032</b>	1000 ml Narrow-Mouth Bottle - FEP - 38 mm Closure	1/4
<b>1600-0064</b>	2000 ml Narrow-Mouth Bottle - FEP - 38-430 mm Closure	1/2
<b>2002-0004</b>	125 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/72
<b>2002-0006</b>	175 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/72
<b>2002-0008</b>	250 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/72
<b>2002-0016</b>	500 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/48
<b>2002-9016</b>	500 ml Narrow-Mouth Bottle - HDPE - 38-430 mm Closure	12/48
<b>2002-0032</b>	1000 ml Narrow-Mouth Bottle - HDPE - 38-430 mm Closure	6/24
<b>2006-0004</b>	125 ml Narrow-Mouth Bottle - PP - 24 mm Closure	12/72
<b>2006-0008</b>	250 ml Narrow-Mouth Bottle - PP - 24 mm Closure	12/72
<b>2006-0016</b>	500 ml Narrow-Mouth Bottle - PP - 24 mm Closure	12/48
<b>2006-0032</b>	1000 ml Narrow-Mouth Bottle - PP - 38-430 mm Closure	6/24

### Nalgene PC Clearboys™ Easy Dispensing

- Leakproof, guaranteed
- Molded in graduations in 1 gal and 5 L increments for ease in dispensing
- Polycarbonate is glass-clear for easy visual inspection and volume measurements
- Clearboys are suitable for mixing, storing and freezing aqueous-based reagents and biologicals
- Graduated
- Autoclavable



Cat. No.	Capacity	Pk/Case
<b>2317-0020</b>	10 L Transparent Carboy with Spigot, PC	1/4
<b>2317-0050</b>	20 L Transparent Carboy with Spigot, PC	1/4

## Nalgene UnWire™ Half-Racks

### Will Not Float

- Space-efficient
- Autoclavable
- Excellent chemical resistance
- Higher specific gravity than water so stays submerged in a water bath — won't float
- Withstands most lab chemicals and temperatures up to 121°C for a variety of lab procedures
- Available in six bright colors to help keep samples organized
- 15 ml conical tubes fit 20 mm racks; 50 ml conical tubes fit 30 mm racks

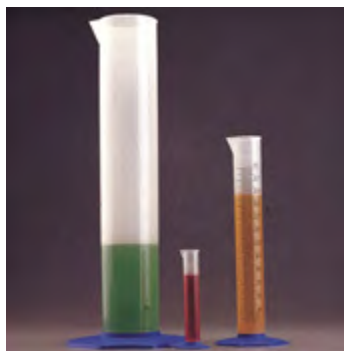


Cat. No.	Tube Size	Color	L x W x H, mm	Array	Pk/Case
5972-0013	13 mm	White	102 x 102 x 56	6 x 6	1/8
5972-0016	16 mm	White	126 x 126 x 68	6 x 6	1/8
5972-0020	20 mm	White	128 x 103 x 83	4 x 5	1/8
5972-0025	25 mm	White	122 x 122 x 75	4 x 4	1/8
5972-0030	30 mm	White	109 x 109 x 84	3 x 3	1/8
5972-0313	13 mm	Blue	102 x 102 x 56	6 x 6	1/8
5972-0316	16 mm	Blue	126 x 126 x 68	6 x 6	1/8
5972-0320	20 mm	Blue	128 x 103 x 83	4 x 5	1/8
5972-0325	25 mm	Blue	122 x 122 x 75	4 x 4	1/8
5972-0330	30 mm	Blue	109 x 109 x 84	3 x 3	1/8
5972-0513	13 mm	Red	102 x 102 x 56	6 x 6	1/8
5972-0516	16 mm	Red	126 x 126 x 68	6 x 6	1/8
5972-0520	20 mm	Red	128 x 103 x 83	4 x 5	1/8
5972-0530	30 mm	Red	109 x 109 x 84	3 x 3	1/8

## Nalgene Polypropylene Graduated Cylinders

### Won't break or chip like glass!

- No meniscus to confuse reading – eliminates guesswork
- Generous pour spout provides ease in dispensing liquids
- Large blue octagonal base prevents rolling and tipping
- Excellent chemical resistance for a wide variety of solutions



Cat. No.	Capacity, ml	Graduations, ml	Limit of Error, ml	No. per Case
3662-0010	10	0.2	±0.20	24
3662-0025	25	0.5	±0.34	18
3662-0050	50	1	±0.50	18
3662-0100	100	1	±1.00	12
3662-0250	250	2	±2.00	12
3662-0500	500	5	±4.00	8
3662-1000	1000	10	±6.00	6
3662-2000	2000	20	±12.00	4
3662-4000	4000	50	±29.00	2
3662-1234	Graduated Cylinder Variety Pack: 10ml, 25ml, 50ml, 100ml, 250ml, 500ml, and 1000ml			1

## You Can Handle Anything with Thermo Scientific Liquid Handling Solutions

Maximize research efficiency with consistent, reproducible results.



Our complete range of manual and electronic pipetting systems, automated liquid handlers and dispensers, as well as tips for any instrument you have in the lab, provide the confidence you need to accelerate discoveries. So you can handle anything.

### Thermo Scientific Finnpiquette F1 Pipettes

- Integrated antimicrobial surface protection prevents contamination
- Light pipetting forces significantly reduced RSI (Repetitive Stress Injury) risks
- Set-and-forget pipetting button securely locks volume adjustment
- Adjustable finger rest

Cat. No.	Finnpiquette F1 Adjustable-Volume Pipettes
4641010	Finnpiquette F1 0.2-2 µl, Micro
4641020	Finnpiquette F1 0.5-5 µl, Micro
4641030	Finnpiquette F1 1-10 µl, Micro
4641040	Finnpiquette F1 1-10 µl
4641050	Finnpiquette F1 2-20 µl, Micro
4641060	Finnpiquette F1 2-20 µl
4641130	Finnpiquette F1 5-50 µl, Micro
4641140	Finnpiquette F1 5-50 µl
4641070	Finnpiquette F1 10-100 µl
4641080	Finnpiquette F1 20-200 µl
4641090	Finnpiquette F1 30-300 µl
4641100	Finnpiquette F1 100-1000 µl
4641110	Finnpiquette F1 0.5-5 ml
4641120	Finnpiquette F1 1-10 ml

Cat. No.	Finnpiquette F1 Fixed-Volume Pipettes
4651000	Finnpiquette F1 1 µl, Micro
4651010	Finnpiquette F1 5 µl, Micro
4651020	Finnpiquette F1 10 µl
4651130	Finnpiquette F1 20 µl
4651030	Finnpiquette F1 25 µl
4651040	Finnpiquette F1 50 µl
4651050	Finnpiquette F1 100 µl
4651140	Finnpiquette F1 200 µl
4651060	Finnpiquette F1 250 µl
4651070	Finnpiquette F1 500 µl
4651080	Finnpiquette F1 1000 µl
4651090	Finnpiquette F1 2000 µl
4651100	Finnpiquette F1 3000 µl
4651110	Finnpiquette F1 5000 µl
4651120	Finnpiquette F1 10000 µl

Cat. No.	Finnpiquette F1 Multichannel Pipettes
4661000	Finnpiquette F1 8-channel 1-10 µl, Micro
4661010	Finnpiquette F1 8-channel 5-50 µl
4661020	Finnpiquette F1 8-channel 10-100 µl
4661030	Finnpiquette F1 8-channel 30-300 µl
4661040	Finnpiquette F1 12-channel 1-10 µl, Micro
4661050	Finnpiquette F1 12-channel 5-50 µl
4661060	Finnpiquette F1 12-channel 10-100 µl
4661070	Finnpiquette F1 12-channel 30-300 µl
4661080	Finnpiquette F1 16-channel 1-10 µl, Micro
4661090	Finnpiquette F1 16-channel 5-50 µl, Micro





## Breakthrough ClipTip Technology

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## Thermo Scientific Finn timer F2 Pipettes

- Advanced Volume Gearing mechanism (AVG) improves accuracy and precision
- Double-action pipetting button for easy and light volume setting
- Easy to open for piston cleaning and service
- Fully autoclavable

Cat. No.	Finn timer F2 Adjustable-Volume Pipettes
4642010	Finn timer F2 0.2-2 µl, Micro
4642020	Finn timer F2 0.5-5 µl, Micro
4642030	Finn timer F2 1-10 µl, Micro
4642040	Finn timer F2 1-10 µl
4642050	Finn timer F2 2-20 µl, Micro
4642060	Finn timer F2 2-20 µl
4642120	Finn timer F2 5-50 µl, Micro
4642130	Finn timer F2 5-50 µl
4642070	Finn timer F2 10-100 µl
4642080	Finn timer F2 20-200 µl
4642090	Finn timer F2 100-1000 µl
4642100	Finn timer F2 0.5-5 ml
4642110	Finn timer F2 1-10 ml

Cat. No.	Finn timer F2 Fixed-Volume Pipettes
4652000	Finn timer F2 1 µl, Micro
4652010	Finn timer F2 5 µl, Micro
4652020	Finn timer F2 10 µl
4652130	Finn timer F2 20 µl
4652030	Finn timer F2 25 µl
4652040	Finn timer F2 50 µl
4652050	Finn timer F2 100 µl
4652140	Finn timer F2 200 µl
4652060	Finn timer F2 250 µl
4652070	Finn timer F2 500 µl
4652080	Finn timer F2 1000 µl
4652090	Finn timer F2 2000 µl
4652100	Finn timer F2 3000 µl
4652110	Finn timer F2 5000 µl
4652120	Finn timer F2 Volume 10000 µl

Cat. No.	Finn timer F2 Multichannel Pipettes
4662000	Finn timer F2 8-channel 1-10 µl, Micro
4662010	Finn timer F2 8-channel 5-50 µl
4662020	Finn timer F2 8-channel 10-100 µl
4662030	Finn timer F2 8-channel 30-300 µl
4662040	Finn timer F2 12-channel 1-10 µl, Micro
4662050	Finn timer F2 12-channel 5-50 µl
4662060	Finn timer F2 12-channel 10-100 µl
4662070	Finn timer F2 12-channel 30-300 µl
4662080	Finn timer F2 16-channel 1-10 µl, Micro
4662090	Finn timer F2 16-channel 5-50 µl, Micro

Our broad selection of pipette tips perform with high precision and accuracy by providing optimal liquid handling results. For more information visit [www.thermoscientific.com/handleanything](http://www.thermoscientific.com/handleanything).





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