



Thermo Scientific Laboratory Products
for Every Lab, Every Day

essential solutions for
maximizing productivity

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optimize your productivity

Welcome to the **Thermo Scientific Laboratory Products Every Lab, Every Day** catalog featuring a wide range of essential solutions ideal for maximizing your daily work.

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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for additional information and resources.

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Thermo Scientific Precision General-Purpose Water Baths

Eight models, capacities from 1.5-43L, including dual chamber and shallow form, with analog or digital control



- Easy-to-maintain, seamless-stainless steel interior chamber and epoxy powder-coated exterior are resistant to corrosion and chemical damage
- Maintain water temperature from ambient to 95°C or 99.9°C (depending on model)
- Front-mounted controls simplify operation
- Over-temperature safety circuitry prevents thermal runaway
- Dual-chamber models have independent controls for operating at different temperatures

Cat. No.	Model	Temp. Uniformity (37°C)/Control Resolution	Maximum Temp. †	Capacity‡	Interior L x W x D	Exterior L x W x H	Shipping Weight	Electrical
Analog Control, Thermometer Temperature Display								
2823	180 Shallow Chamber	±0.2°C/±0.1°C†	95.0°C	1.5L (0.4 gal.)	15.2 × 29.2 × 5.1cm (6 × 11.5 × 2in.)	22.3 × 35.6 × 17.1cm (8.9 × 14 × 6.7in.)	5.4kg (12 lb.)	120V 50/60Hz/225w
2824	180 Shallow Chamber	±0.2°C/±0.1°C†	95.0°C	1.5L (0.4 gal.)	15.2 × 29.2 × 5.1cm (6 × 11.5 × 2in.)	22.3 × 35.6 × 17.1cm (8.9 × 14 × 6.7in.)	5.4kg (12 lb.)	230V 50/60Hz/225w
2827	181	±0.2°C/±0.1°C†	99.9°C	2.5L (0.70 gal.)	15.2 × 12.7 × 16.2cm (6 × 5 × 6in.)	27.1 × 20.3 × 24.8cm (9.75 × 8 × 9.7in.)	5.4kg (12 lb.)	120V 50/60Hz/225w
2828	181	±0.2°C/±0.1°C†	99.9°C	2.5L (0.70 gal.)	15.2 × 12.7 × 16.2cm (6 × 5 × 6in.)	27.1 × 20.3 × 24.8cm (9.75 × 8 × 9.7in.)	5.4kg (12 lb.)	230V 50/60Hz/225w
2831	182	±0.2°C/±0.1°C†	99.9°C	5.5L (1.5 gal.)	29.2 × 15.2 × 15.2cm (11.5 × 6 × 6in.)	41 × 20.3 × 24.8cm (16.2 × 8 × 9.75in.)	7.3kg (16 lb.)	120V 50/60Hz/300w
2832	182	±0.2°C/±0.1°C†	99.9°C	5.5L (1.5 gal.)	29.2 × 15.2 × 15.2cm (11.5 × 6 × 6in.)	41 × 20.3 × 24.8cm (16.2 × 8 × 9.75in.)	7.3kg (16 lb.)	230V 50/60Hz/300w
2835	183	±0.2°C/±0.1°C†	99.9°C	12L (3.2 gal.)	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	41 × 37.5 × 24.8cm (16.2 × 14.75 × 9.75in.)	9.1kg (20 lb.)	120V 50/60Hz/400w
2836	183	±0.2°C/±0.1°C†	99.9°C	12L (3.2 gal.)	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	41 × 37.5 × 24.8cm (16.2 × 14.75 × 9.75in.)	9.1kg (20 lb.)	230V 50/60Hz/400w
2851	188 Dual Chamber	±0.2°C/±0.1°C†	99.9°C	12L (3.2 gal.)††	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	41 × 73.7 × 24.8cm (16.1 × 29 × 9.75in.)	18.1kg (40 lb.)	120V 50/60Hz/800w
2852	188 Dual Chamber	±0.2°C/±0.1°C†	99.9°C	12L (3.2 gal.)††	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	41 × 73.7 × 24.8cm (16.1 × 29 × 9.75in.)	18.1kg (40 lb.)	230V 50/60Hz/800w
2843	185	±0.2°C/±0.1°C†	99.9°C	18L (4.9 gal.)	49.5 × 29.2 × 15.2cm (19.5 × 11.5 × 6in.)	60.7 × 34.9 × 24.8cm (23.9 × 13.75 × 9.75in.)	13.6kg (30 lb.)	120V 50/60Hz/600w
2844	185	±0.2°C/±0.1°C†	99.9°C	18L (4.9 gal.)	49.5 × 29.2 × 15.2cm (19.5 × 11.5 × 6in.)	60.7 × 34.9 × 24.8cm (23.9 × 13.75 × 9.75in.)	13.6kg (30 lb.)	230V 50/60Hz/600w
2839	184	±0.2°C/±0.1°C†	99.9°C	19.5L (5.2 gal.)	35.6 × 30.5 × 20.3cm (14 × 12 × 8in.)	49.9 × 40 × 24.8cm (19.7 × 15.75 × 9.75in.)	11.3kg (25 lb.)	120V 50/60Hz/600w
2840	184	±0.2°C/±0.1°C†	99.9°C	19.5L (5.2 gal.)	35.6 × 30.5 × 20.3cm (14 × 12 × 8in.)	49.9 × 40 × 24.8cm (19.7 × 15.75 × 9.75in.)	11.3kg (25 lb.)	230V 50/60Hz/600w
2847	186	±0.2°C/±0.1°C†	99.9°C	43L (11.4 gal.)	40.6 × 71.1 × 16.5cm (16 × 28 × 6.5in.)	55 × 80 × 24.8cm (21.6 × 31.5 × 9.75in.)	25.4kg (56 lb.)	120V 50/60Hz/1200w
2848	186	±0.2°C/±0.1°C†	99.9°C	43L (11.4 gal.)	40.6 × 71.1 × 16.5cm (16 × 28 × 6.5in.)	55 × 80 × 24.8cm (21.6 × 31.5 × 9.75in.)	25.4kg (56 lb.)	230V 50/60Hz/1200w

Analog Baths

- Easy-to-use analog controls, hydraulic thermostat ideal for applications in which temperature setpoints seldom change
- Backup high-limit safety thermostat

Includes: Gable cover (stainless steel for all except polypropylene Models 181 and 281), Diffuser shelf, Spirit-filled thermometer (analog baths only)

Warranty[†]: 1 year, parts and labor

Certifications: UL listed

Digital Baths

- Allow temperature setpoint with $\pm 0.1^\circ\text{C}$ precision at the push of a button
- Microprocessor control with bright three-digit LED temperature readout
- Automatic over-temperature protection

Cat. No.	Model	Temp. Uniformity (37°C)/Control Resolution	Maximum Temp. [†]	Capacity [‡]	Interior L x W x D	Exterior L x W x H	Shipping Weight	Electrical
Digital Control, Digital Temperature Display								
2825	280 Shallow Chamber	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	95°C	1.5L (0.4 gal.)	15.2 × 29.2 × 5.1cm (6 × 11.5 × 2in.)	20.3 × 35.6 × 17.1cm (8 × 14 × 6.7in.)	5.4kg (12 lb.)	120V 50/60Hz/225w
2826	280 Shallow Chamber	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	95°C	1.5L (0.4 gal.)	15.2 × 29.2 × 5.1cm (6 × 11.5 × 2in.)	20.3 × 35.6 × 17.1cm (8 × 14 × 6.7in.)	5.4kg (12 lb.)	230V 50/60Hz/225w
2829	281	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	2.5L (0.70 gal.)	15.2 × 12.7 × 16.2cm (6 × 5 × 6in.)	24.8 × 20.3 × 24.8cm (9.75 × 8 × 9.7in.)	5.4kg (12 lb.)	120V 50/60Hz/225w
2830	281	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	2.5L (0.7 gal.)	15.2 × 12.7 × 16.2cm (6 × 5 × 6in.)	24.8 × 20.3 × 24.8cm (9.75 × 8 × 9.7in.)	5.4kg (12 lb.)	230V 50/60Hz/225w
2833	282	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	5.5L (1.5 gal.)	29.2 × 15.2 × 15.2cm (11.5 × 6 × 6in.)	38.7 × 20.3 × 24.8cm (15.25 × 8 × 9.75in.)	7.3kg (16 lb.)	120V 50/60Hz/300w
2834	282	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	5.5L (1.5 gal.)	29.2 × 15.2 × 15.2cm (11.5 × 6 × 6in.)	38.7 × 20.3 × 24.8cm (15.25 × 8 × 9.75in.)	7.3kg (16 lb.)	230V 50/60Hz/300w
2837	283	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	12L (3.2 gal.)	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	38.7 × 37.5 × 24.8cm (15.25 × 14.75 × 9.75in.)	9.1kg (20 lb.)	120V 50/60Hz/400w
2838	283	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	12L (3.2 gal.)	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	38.7 × 37.5 × 24.8cm (15.25 × 14.75 × 9.75in.)	9.1kg (20 lb.)	230V 50/60Hz/400w
2853	288 Dual Chamber	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	12L (3.2 gal.) ^{††}	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	38.7 × 73.7 × 24.8cm (15.2 × 29 × 9.75in.)	18.1kg (40 lb.)	120V 50/60Hz/800w
2854	288 Dual Chamber	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	12L (3.2 gal.) ^{††}	29.2 × 31.7 × 15.2cm (11.5 × 12.5 × 6in.)	38.7 × 73.7 × 24.8cm (15.2 × 29 × 9.75in.)	18.1kg (40 lb.)	230V 50/60Hz/800w
2845	285	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	18L (4.9 gal.)	49.5 × 29.2 × 15.2cm (19.5 × 11.5 × 6in.)	58.4 × 34.9 × 24.8cm (23.9 × 13.75 × 9.75in.)	13.6kg (30 lb.)	120V 50/60Hz/600w
2846	285	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	18L (4.9 gal.)	49.5 × 29.2 × 15.2cm (19.5 × 11.5 × 6in.)	58.4 × 34.9 × 24.8cm (23.9 × 13.75 × 9.75in.)	13.6kg (30 lb.)	230V 50/60Hz/600w
2841	284	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	19.5L (5.2 gal.)	35.6 × 30.5 × 20.3cm (14 × 12 × 8in.)	47.6 × 40 × 24.8cm (18.75 × 15.75 × 9.75in.)	11.3kg (25 lb.)	120V 50/60Hz/600w
2842	284	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	19.5L (5.2 gal.)	35.6 × 30.5 × 20.3cm (14 × 12 × 8in.)	47.6 × 40 × 24.8cm (18.75 × 15.75 × 9.75in.)	11.3kg (25 lb.)	230V 50/60Hz/600w
2849	286	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	43L (11.4 gal.)	40.6 × 71.1 × 16.5cm (16 × 28 × 6.5in.)	52.7 × 80 × 24.8cm (20.7 × 31.5 × 9.75in.)	25.4kg (56 lb.)	120V 50/60Hz/1200w
2850	286	$\pm 0.2^\circ\text{C}/\pm 0.1^\circ\text{C}\dagger$	99.9°C	43L (11.4 gal.)	40.6 × 71.1 × 16.5cm (16 × 28 × 6.5in.)	52.7 × 80 × 24.8cm (20.7 × 31.5 × 9.75in.)	25.4kg (56 lb.)	230V 50/60Hz/1200w

For all Analog Control and Digital Control units –

[†] With stainless-steel gable cover in place. Maximum temperature with chamber uncovered is approximately 65°C. [‡] Chamber capacity measured with bath filled to 1in. (2.5cm) from top. ^{††} Each chamber.

Thermo Scientific Precision Water Baths Accessories

Thermo Scientific Gable Covers

Cat. No.	For use with
3161572	2.5L Precision® General Purpose Water Bath Models 181, 281
3166202	1.5L and 5.5L Precision General Purpose Water Bath Models 180, 280, 182, 282
3166203	12L Precision General Purpose Water Bath Models 183, 283, 188, 288
3166206	19.5L Precision General Purpose Water Bath Models 184, 284
3166217	8L Precision General Purpose Water Baths Models 185, 285
3166218	43L Precision General Purpose Water Bath Models 186, 286



Thermo Scientific Sample Racks

Cat. No.	Description	Holds	Dimensions	Openings
3166183	Petri dish rack, stainless steel	80 x 50mm or 30 x 90mm Petri dishes	9.75 × 8.75 × 6.25in. (24.8 × 22.2 × 15.9cm)	1 in. (2.5cm) square
3161601	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)	1 in. (2.5cm) square

Thermo Scientific Spirit-Filled Glass Thermometers

Cat. No.	Temp. Range (1.0°C increments)	Thermometer Length
3175998	0° to 105°C	165mm (6.5in.)
3166220	0° to 100°C	305mm (12in.)

Thermo Scientific Concentric Ring Cover

Cat. No.	Description	Openings	Material
3161593	Concentric ring cover converts the Model 184 or 284 bath for use as a steaming bath	Five, accommodate glassware ranging in diameter from 2 to 10cm (0.8 to 4in.) in 2.5cm (1in.) increments. Openings enlarge as rings are removed (3 small, 2 large)	Stainless steel

Thermo Scientific Lab-Line AquaBath Water Baths

Precise temperature control available in analog or digital operating systems



- Available in a variety of sizes from 2 to 28L, including a shallow form to meet specific application needs and budgets
- 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 clear acrylic gable cover (included) protect hands from hot vapors
- Exterior remains cool to the touch even after extended use to prevent accidental burns
- Temperature-resistant plastic rim fits over the seamless stainless-steel reservoir for a leak-free seal
- Stainless-steel exterior with easy-to-clean enamel coating resists corrosion
- Rounded, seamless stainless-steel reservoir and diffuser tray resist rust and contamination
- Movable temperature controllers on the 20 and 28L digital models can be used on the bath long or short side to best utilize bench space
- Heating elements will not burn out if the bath accidentally runs dry
- Drain pump is included with 10, 20, 28 and 5/10L models

Digital Operating System

- Field-calibratable
- PID control provides $\pm 0.24^{\circ}\text{C}$ uniformity, $\pm 0.5^{\circ}\text{C}$ stability and $\pm 0.1^{\circ}\text{C}$ control resolution at 37°C
- Digital temperature set and readout selectable display with 0.1° resolution

Analog Operating System

- Easy-to-use analog control and hydraulic thermostat — ideal for fixed-setpoint applications
- Temperature uniformity $\pm 0.2^{\circ}\text{C}$ at 37°C
- Diffuser tray, thermometer clip and nonhazardous liquid, partial immersion (76mm) thermometer (-10° to $+110^{\circ}\text{C}$) included (230V models do not include a thermometer)

Ordering Information: Stainless-steel covers available separately.
Warranty[†]: 1 year, parts; 90 days, labor
Certifications: CSA and CE certified

Thermo Scientific Lab-Line AquaBath Covers

Cat. No.	Material	For use with
19000-11Q	Stainless Steel	2L Baths
19000-13Q	Stainless Steel	2L Shallow-form and 5L Baths
19000-15Q	Stainless Steel	10L Baths
19000-17Q	Stainless Steel	20L and 28L Baths

Thermo Scientific Lab-Line AquaBath Water Baths (continued)

Cat. No.	Capacity	Temp. Range	Temp. Uniformity	Interior L x W x D	Exterior L x W x H	Shipping Weight	Electrical
Analog Control							
18050AQ	2L (0.5 gal.)	Ambient to 100°C	±0.2°C at 37°C	13 × 15 × 15cm (5.3 × 5.9 × 6in.)	25 × 27 × 19cm (9.9 × 10.8 × 7.6in.)	3.3kg (7 lb.)	120V 50/60Hz
18050A-1CEQ	2L (0.5 gal.)	Ambient to 100°C	±0.2°C at 37°C	13 × 15 × 15cm (5.3 × 5.9 × 6in.)	25 × 27 × 19cm (9.9 × 10.8 × 7.6in.)	3.3kg (7 lb.)	230V 50/60Hz
18020AQ	2L (0.5 gal.) Shallow Chamber	Ambient to 100°C	±0.5°C at 37°C	15 × 30 × 6cm (5.9 × 11.8 × 2.5in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.5in.)	4kg (9 lb.)	120V 50/60Hz
18020A-1CEQ	2L (0.5 gal.) Shallow Chamber	Ambient to 100°C	±0.5°C at 37°C	15 × 30 × 6cm (5.9 × 11.8 × 2.5in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.5in.)	4kg (9 lb.)	230V 50/60Hz
18000AQ	5L (1.3 gal.)	Ambient to 100°C	±0.2°C at 37°C	15 × 30 × 15cm (6 × 11.8 × 6in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.6in.)	4.5kg (10 lb.)	120V 50/60Hz
18000A-1CEQ	5L (1.3 gal.)	Ambient to 100°C	±0.2°C at 37°C	15 × 30 × 15cm (6 × 11.8 × 6in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.6in.)	4.5kg (10 lb.)	230V 50/60Hz
18800AQ	5/10L (1.3/2.6 gal.)	Ambient to 100°C	±0.2°C at 37°C	30 × 15 × 15cm/30 × 33 × 15cm (11.8 × 5.9 × 6in./11.8 × 12.9 × 6in.)	42 × 62 × 23cm (16.4 × 24.2 × 8.9in.)	11.1kg (24.5 lb.)	120V 50/60Hz
18800A-1CEQ	5/10L (1.3/2.6 gal.)	Ambient to 100°C	±0.2°C at 37°C	30 × 15 × 15cm/30 × 33 × 15cm (11.8 × 5.9 × 6in./11.8 × 12.9 × 6in.)	42 × 62 × 23cm (16.4 × 24.2 × 8.9in.)	11.1kg (24.5 lb.)	230V 50/60Hz
Digital Control							
18052AQ	2L (0.5 gal.)	Ambient to 100°C	±0.24°C at 37°C	13 × 15 × 15cm (5.3 × 5.9 × 6in.)	25 × 27 × 19cm (9.9 × 10.8 × 7.6in.)	3.3kg (7 lb.)	120V 50/60Hz
18052A-1CEQ	2L (0.5 gal.)	Ambient to 100°C	±0.24°C at 37°C	13 × 15 × 15cm (5.3 × 5.9 × 6in.)	25 × 27 × 19cm (9.9 × 10.8 × 7.6in.)	3.3kg (7 lb.)	230V 50/60Hz
18022AQ	2L (0.5 gal.) Shallow Chamber	Ambient to 100°C	±0.5°C at 37°C	15 × 30 × 6cm (5.9 × 11.8 × 2.5in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.5in.)	4kg (9 lb.)	120V 50/60Hz
18022A-1CEQ	2L (0.5 gal.) Shallow Chamber	Ambient to 100°C	±0.5°C at 37°C	15 × 30 × 6cm (5.9 × 11.8 × 2.5in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.5in.)	4kg (9 lb.)	230V 50/60Hz
18002AQ	5L (1.3 gal.)	Ambient to 100°C	±0.24°C at 37°C	15 × 30 × 15cm (6 × 11.8 × 6in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.6in.)	4.5kg (10 lb.)	120V 50/60Hz
18002A-1CEQ	5L (1.3 gal.)	Ambient to 100°C	±0.24°C at 37°C	15 × 30 × 15cm (6 × 11.8 × 6in.)	27 × 37 × 19cm (10.5 × 14.5 × 7.6in.)	4.5kg (10 lb.)	230V 50/60Hz
18802AQ	5/10L (1.3/2.6 gal.)	Ambient to 100°C	±0.24°C at 37°C	30 × 15 × 15cm/30 × 33 × 15cm (11.8 × 5.9 × 6in./11.8 × 12.9 × 6in.)	42 × 62 × 23cm (16.4 × 24.2 × 8.9in.)	11.1kg (24.5 lb.)	120V 50/60Hz
18802A-1CEQ	5/10L (1.3/2.6 gal.)	Ambient to 100°C	±0.24°C at 37°C	30 × 15 × 15cm/30 × 33 × 15cm (11.8 × 5.9 × 6in./11.8 × 12.9 × 6in.)	42 × 62 × 23cm (16.4 × 24.2 × 8.9in.)	11.1kg (24.5 lb.)	230V 50/60Hz
18007AQ	10L (2.6 gal.)	Ambient to 100°C	±0.24°C at 37°C	33 × 30 × 15cm (12.9 × 11.8 × 6in.)	42 × 39 × 23cm (16.4 × 15.4 × 8.9in.)	7.5kg (16.5 lb.)	120V 50/60Hz
18007A-1CEQ	10L (2.6 gal.)	Ambient to 100°C	±0.24°C at 37°C	33 × 30 × 15cm (12.9 × 11.8 × 6in.)	42 × 39 × 23cm (16.4 × 15.4 × 8.9in.)	7.5kg (16.5 lb.)	230V 50/60Hz
18102AQ	20L (5.3 gal.)	Ambient to 100°C	±0.24°C at 37°C	30 × 50 × 15cm (11.8 × 19.8 × 6in.)	42 × 62 × 23cm (16.4 × 24.4 × 8.9in.)	10.1kg (22.3 lb.)	120V 50/60Hz
18102A-1CEQ	20L (5.3 gal.)	Ambient to 100°C	±0.24°C at 37°C	30 × 50 × 15cm (11.8 × 19.8 × 6in.)	42 × 62 × 23cm (16.4 × 24.4 × 8.9in.)	10.1kg (22.3 lb.)	230V 50/60Hz
18902AQ	28L (7.4 gal.)	Ambient to 100°C	±0.24°C at 37°C	30 × 50 × 20cm (11.7 × 19.7 × 8in.)	42 × 62 × 28cm (16.4 × 24.4 × 10.9in.)	12kg (26 lb.)	120V 50/60Hz
18902A-1CEQ	28L (7.4 gal.)	Ambient to 100°C	±0.24°C at 37°C	30 × 50 × 20cm (11.7 × 19.7 × 8in.)	42 × 62 × 28cm (16.4 × 24.4 × 10.9in.)	12kg (26 lb.)	230V 50/60Hz

Thermo Scientific Precision Digital Circulating Water Baths

Available in three different models, these high performance baths are ideal for applications where temperature uniformity and control are critical, such as enzymes and serology



- Available in three models that combine simplicity with excellent temperature uniformity
- Ideal for applications where temperature uniformity and control are critical, such as enzymes and serology
- Microprocessor control with digital LED display
- Water flow directed around bath perimeter
- Elevated sample platform for more thorough circulation
- Over-temperature protection capability
- Single switch control for heater and circulator pump
- Stainless-steel construction; exterior finished with baked-on epoxy-polyester

Includes: Stainless-steel gable cover; Diffuser shelf; and 3-wire cord and plug
Warranty*: 1 year, parts and labor
Compliance: ASTM* E715 Class IIA standards for uniformity
Certifications: UL listed, CE certified

Cat. No.	Model	Capacity	Temp. Range (0.1°C increments)	Temp. Uniformity (@37°C)/ Control Resolution	Interior D x W x H	Exterior L x W x H	Shipping Weight	Electrical
2864	260	19L (5.1 gal.)	Ambient +5°C to 99.9°C†	±0.5°C /±0.05°C	30.5 × 38.1 × 19cm (12 × 15 × 7.5in.)	35.6 × 62.2 × 24.1cm (14 × 24.5 × 9.5in.)	20.4kg (45 lb.)	120V 50/60Hz, 8.3A
2865	260	19L (5.1 gal.)	Ambient +5°C to 99.9°C†	±0.5°C /±0.05°C	30.5 × 38.1 × 19cm (12 × 15 × 7.5in.)	35.6 × 62.2 × 24.1cm (14 × 24.5 × 9.5in.)	20.4kg (45 lb.)	230V 50/60Hz, 4.3A
2866	265	34.5L (9.1 gal.)	Ambient +5°C to 99.9°C†	±0.5°C /±0.05°C	30.5 × 68.6 × 19cm (12 × 27 × 7.5in.)	35.6 × 92.7 × 24.1cm (14 × 36.5 × 9.5in.)	30.8 kg (68 lb.)	120V 50/60Hz, 12.9A
2867	265	34.5L (9.1 gal.)	Ambient +5°C to 99.9°C†	±0.5°C /±0.05°C	30.5 × 68.6 × 19cm (12 × 27 × 7.5in.)	35.6 × 92.7 × 24.1cm (14 × 36.5 × 9.5in.)	30.8 kg (68 lb.)	230V 50/60Hz, 6.7A
2868	270	89L (23.8 gal.)	Ambient +5°C to 99.9°C†	±0.5°C /±0.05°C	46 × 91 × 24cm (18 × 36 × 9.5in.)	51 × 114 × 30cm (20 × 45 × 12in.)	38.5kg (85 lb.)	120V 50/60Hz, 12.9A
2869	270	89L (23.8 gal.)	Ambient +5°C to 99.9°C†	±0.5°C /±0.05°C	46 × 91 × 24cm (18 × 36 × 9.5in.)	51 × 114 × 30cm (20 × 45 × 12in.)	38.5kg (85 lb.)	230V 50/60Hz, 6.7A

† With stainless-steel gable cover

Thermo Scientific Precision Digital Circulating Water Baths Accessories

Thermo Scientific Gable Covers for Precision Baths

Cat. No.	For Use with
3166208	34.5L Precision Model 265 Circulating Water Bath
3166230	89L Precision Model 270 Circulating Water Bath
3166565	19L Precision Model 260 Circulating Water Bath



Thermo Scientific Sample Racks

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

Thermo Scientific Water Level Regulator Kit

- Adjustable float value automatically opens when the water level in the bath falls below preset limits to keep the bath full
- Valve and float are mounted on a removable bonnet for easy maintenance and service

Cat. No.	Description	Includes
3166223	Water Level Regulator Kit	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
3166220	0° to 100°C	305mm (12in.)

Thermo Scientific Precision Digital Coliform Water Baths

Designed specifically for fecal coliform determination



- Feature factory-preset (35°C, 41.5°C, 44.5°C, 45.5°C†) temperatures for easy use, even by untrained operators (presets are not adjustable)
- Temperature controller provides $\pm 0.05^\circ\text{C}$ uniformity and $\pm 0.05^\circ\text{C}$ control resolution with stainless-steel gable cover
- Microprocessor control with digital LED display
- Water pump gently directs water flow around bath perimeter for nonturbulent agitation
- Over-temperature protection capability
- Rugged stainless-steel chamber with easy-to-clean epoxy powder-coated exterior

Includes: Stainless-steel gable cover, diffuser shelf
Warranty^Y: 1 year, parts and labor
Certifications: UL listed

Cat. No.	Model	Capacity	Temp. Range	Temp. Uniformity/ Control Resolution	Interior D x W x H	Exterior L x W x H	Shipping Weight	Electrical
2860	251	17.5L (4.8 gal.)	35° to 45.5°C†	$\pm 0.05^\circ\text{C}/$ $\pm 0.05^\circ\text{C}$	35.6 × 30.5 × 20.3cm (14 × 12 × 8in.)	47 × 39.4 × 24.1cm (18.5 × 15.5 × 9.5in.)	15.8kg (35 lb.)	115V 50/60Hz
2861	251	17.5L (4.8 gal.)	35° to 45.5°C†	$\pm 0.05^\circ\text{C}/$ $\pm 0.05^\circ\text{C}$	35.6 × 30.5 × 20.3cm (14 × 12 × 8in.)	47 × 39.4 × 24.1cm (18.5 × 15.5 × 9.5in.)	15.8kg (35 lb.)	230V 50/60Hz
2862	253	34.5L (9.1 gal.)	35° to 45.5°C†	$\pm 0.05^\circ\text{C}/$ $\pm 0.05^\circ\text{C}$	30.5 × 68.6 × 19cm (12 × 27 × 7.5in.)	35.6 × 91.4 × 24.1cm (14 × 36 × 9.5in.)	27.2kg (60 lb.)	115V 50/60Hz
2863	253	34.5L (9.1 gal.)	35° to 45.5°C†	$\pm 0.05^\circ\text{C}/$ $\pm 0.05^\circ\text{C}$	30.5 × 68.6 × 19cm (12 × 27 × 7.5in.)	35.6 × 91.4 × 24.1cm (14 × 36 × 9.5in.)	27.2kg (60 lb.)	230V 50/60Hz

Thermo Scientific Precision Digital Coliform Water Baths Accessories

Thermo Scientific Gable Covers for Precision Baths

Cat. No.	For Use with
3166208	34.5L Large Precision Model 253 Coliform Waterbath
3166219	17.5L Small Precision Model 251 Coliform Waterbath



Thermo Scientific Sample Racks

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

Thermo Scientific Water Level Regulator Kit

- Adjustable float valve automatically opens when the water level in the bath falls below preset limits to keep the bath full
- Valve and float are mounted on a removable bonnet for easy maintenance and service

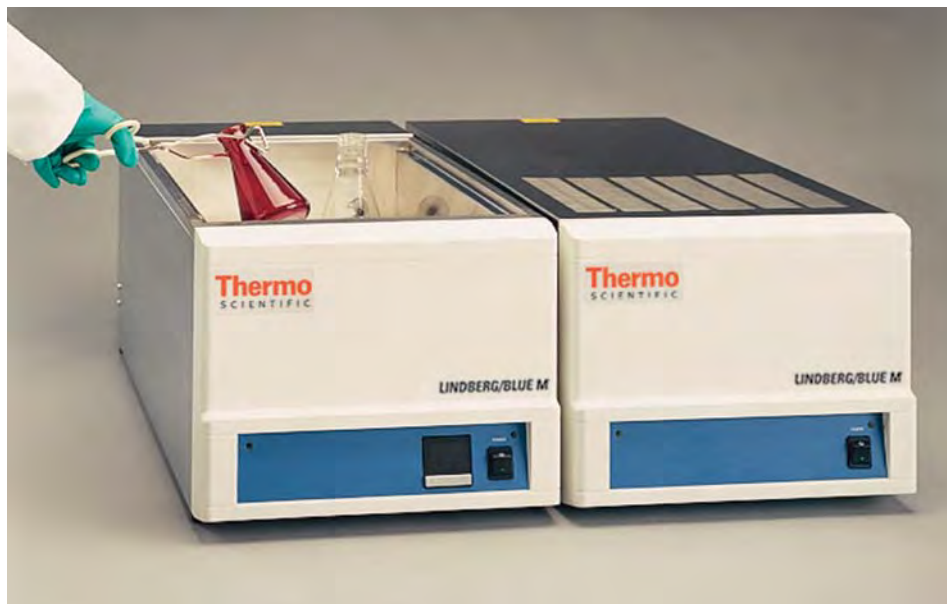
Cat. No.	Description	Includes
3166223	Water Level Regulator Kit	6ft. (1.8m) 0.25in. Tygon tubing, nylon fittings, clamps and adjustable mounting bracket

Thermo Scientific Spirit-Filled Glass Thermometers

Cat. No.	Temp. Range (1.0°C increments)	Thermometer Length
3166220	0° to 100°C	305mm (12in.)

Thermo Scientific Lindberg/Blue M Refrigerated Circulating Baths

Combines contemporary cabinet design, advanced microprocessor control and a range of accessories to suit a variety of laboratory or process applications



- High-strength cabinet construction with 304 stainless-steel interior tanks withstand the most critical applications in demanding laboratory environments
- Comprised of two independent units: a bath chamber and a refrigeration system module with identical dimensions
- Microprocessor with RTD probe provides simple, accurate and repeatable temperature control while optimizing control parameters during operation
- Digital temperature display, simultaneously reads setpoint and water temperature
- Recessed control module protects against dirt and moisture
- Single-stage, centrifugal pump with independent supply/return ports for maximum circulation
- Reversible stainless-steel rack allows for optional reduction of working depth by 2in. (5cm)

Specifications	
Heatup Time	100 min.
Heat Removal	3000 BTU/hr. at 27°C (nominal)
Cooling Capacity	1095w
Power Consumption	2535w (including cooling)

Thermo Scientific Lindberg/Blue M Refrigerated Circulating Baths (continued)



Adjustable High-Limit Control

- Prevents critical process over-temperature conditions at any point over the bath operating range
- Protects bath and its load
- Interrupts heat and flashes visual warning
- Automatically resets when temperature returns to normal
- Fixed over-temperature safety, factory set 105°C, shuts off bath power; push-button manual reset
- Protects bath and load

Construction

- Integrated industrial-strength pump for internal circulation maintains precise temperature uniformity throughout the liquid medium
- Rounded corners for better water circulation, improved uniformity and easier cleaning
- With built-in drain with ON/OFF valve
- Moisture-proof blanketed fiberglass insulation surrounding water chamber improves temperature stability and energy efficiency
- Long-life heating elements for quick response to controller
- Protective nonskid rubber feet protect the lab bench
- Attractive front panel bezel for easy cleaning
- Mounting clip for immersion glass thermometer (thermometer sold separately)

Refrigeration System

- Allows accurate control at temperatures near or below ambient conditions
- Quiet-running, hermetically sealed refrigeration system
- High volume heat removal capacity rated at 3000 BTU/hr. at 27°C (nominal)
- Ideal for use with 60%/40% ethylene glycol/water mixture to prevent icing at temperatures below 10°C
- Independent ON/OFF switch – system can be switched OFF for operation above ambient temperatures

Includes: Two 10ft. (8m) power cords with plugs; independent power cords for bath and refrigeration system (chiller). Two 5ft. hoses with worm gear clamps are included for connection of bath to chiller.

Warranty*: 1 year, parts; 90 days, labor

Certifications: UL, cUL

Cat. No.	Capacity	Heatup Time	Temp. Range	Temp. Uniformity/Resolution	Reservoir L x W x D	Exterior L x W x H	Shipping Weight	Electrical
RWB3220A-1	26.5L (7.0 gal.)	100 min.	0°C to +100°C	±0.1°C/ 0.1°C	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.)	73kg (160 lb.)	120V 60Hz, 21.2A
RWB3220CY-1	26.5L (7.0 gal.)	100 min.	0°C to +100°C	±0.1°C/ 0.1°C	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.)	73kg (160 lb.)	240V 50Hz, 10.6A
RWB3220NY-1	26.5L (7.0 gal.)	100 min.	0°C to +100°C	±0.1°C/ 0.1°C	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.)	73kg (160 lb.)	220V 50Hz, 10.6A

Thermo Scientific Lindberg/Blue M General-Purpose Circulating Water Baths

Combines contemporary cabinet design with advanced microprocessor control



- High-strength cabinet construction with 304 stainless-steel interior tanks withstand the most critical applications in demanding laboratory environments
- A range of accessories are available to suit a variety of laboratory or process applications
- Microprocessor with RTD probe provides simple, accurate and repeatable temperature control while optimizing control parameters during operation
- Digital temperature display simultaneously reads setpoint and water temperature
- Recessed control module protects against dirt and moisture
- Single-stage centrifugal pump with independent supply/return ports for maximum circulation
- Reversible stainless-steel rack allows for optional reduction of working depth by 2in. (5cm)

Adjustable High-Limit Control

- Prevents critical process over-temperature conditions at any point over the operating range
- Interrupts heat and flashes visual warning
- Automatically resets when temperature returns to normal
- Fixed over-temperature safety, factory set 105°C, shuts off bath power; push-button manual reset
- Protects bath and loads

Construction

- Integrated industrial-strength pump for internal circulation maintains precise temperature uniformity throughout the liquid medium
- Rounded corners for better water circulation, improved uniformity and easier cleaning
- Built-in drain with ON/OFF valve
- Moisture-proof blanketed fiberglass insulation surrounds water chamber—improves temperature stability and energy efficiency
- Long-life heating elements for quick response to controller
- Nonskid rubber feet protect the lab bench
- Attractive front panel bezel for easy cleaning

Includes: Reversible stainless-steel rack, temperature probe, 10ft. (3m) power cord with plug, and mounting clip for immersion glass thermometer (thermometer sold separately).

Warranty¹: 1 year, parts; 90 days, labor

Certifications: UL, cUL

Cat. No.	Capacity	Heatup Time	Temp. Range	Temp. Uniformity/Resolution	Pump	Interior L x W x D	Exterior L x W x H	Power Consumption	Shipping Weight	Electrical
WB1110A-1	11L (2.9 gal.)	78 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	30 × 19 × 19cm (12 × 7.5 × 7.5in.)	46 × 36 × 32cm (18 × 14 × 12.5in.)	840w (2729 BTU/hr.)	17kg (39 lb.)	120V 50/60Hz, 7A
WB1110C-1	11L (2.8 gal.)	78 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	30 × 19 × 19cm (12 × 7.5 × 7.5in.)	46 × 36 × 32cm (18 × 14 × 12.5in.)	840w (2729 BTU/hr.)	17kg (39 lb.)	208/240V 50/60Hz, 3.5A
WB1120A-1	26.5L (7 gal.)	100 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	46 × 30 × 19cm (18 × 12 × 7.5in.)	74 × 36 × 32cm (29 × 14 × 12.5in.)	1440w (4776 BTU/hr.)	23kg (50 lb.)	120V 50/60Hz, 12A
WB1120C-1	26.5L (7 gal.)	100 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	46 × 30 × 19cm (18 × 12 × 7.5in.)	74 × 36 × 32cm (29 × 14 × 12.5in.)	1440w (4776 BTU/hr.)	23kg (50 lb.)	208/240V 50/60Hz, 6A
WB1130A-1	56L (14.8 gal.)	132 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	51 × 46 × 24cm (20 × 18 × 9.5in.)	76 × 51 × 37cm (30 × 20 × 14.5in.)	2490w (8188 BTU/hr.)	36kg (79 lb.)	120V 50/60Hz, 21A
WB1130C-1	56L (14.8 gal.)	132 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	51 × 46 × 24cm (20 × 18 × 9.5in.)	76 × 51 × 37cm (30 × 20 × 14.5in.)	2490w (8188 BTU/hr.)	36kg (79 lb.)	208/240V 50/60Hz, 10.5A
WB1140A-1	100.7L (26.6 gal.)	234 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	91 × 46 × 24cm (36 × 18 × 9.5in.)	117 × 51 × 37cm (46 × 20 × 14.5in.)	2490w (8188 BTU/hr.)	48kg (105 lb.)	120V 50/60Hz, 21A
WB1140C-1	100.7L (26.6 gal.)	234 min.	5°C above ambient to 100°C	±0.1°C/ 0.1°C	Centrifugal	91 × 46 × 24cm (36 × 18 × 9.5in.)	117 × 51 × 37cm (46 × 20 × 14.5in.)	2490w (8188 BTU/hr.)	48kg (105 lb.)	208/240V 50/60Hz, 10.5A

Thermo Scientific Lindberg/Blue M General-Purpose Circulating Water Baths Accessories



Thermo Scientific Gable Covers

- Prevents cross-contamination by diverting condensation to sides for return to bath medium
- Reduce moisture loss and water accumulation on the bench
- Stainless steel or semi-transparent polycarbonate
- Can be attached to side of bath
- With handle

Cat. No.	For Base Bath Model(s)	Type
118107	WB1110	Polycarbonate
118108	WB1120	Polycarbonate
118109	WB1130	Polycarbonate
118110	WB1140	Polycarbonate
38576G01	WB1110	Stainless steel
38576G02	WB1120	Stainless steel
38576G03	WB1130	Stainless steel
38576G04	WB1140	Stainless steel

Thermo Scientific Flat Stainless-Steel Bath Covers

- Flat stainless-steel covers minimize heat loss and maintain bath temperature until ready for next application.
- Protect the medium when bath is not in use
- Covers include handles

Cat. No.	For Base Bath Model
118081	WB1110
118082	WB1120
118083	WB1130
118084	WB1140



Thermo Scientific Concentric Ring Covers

Cat. No	Description	For Base Bath Model
118091	2 rings	WB1110
118092	6 rings	WB1120, RWB3220
118093	8 rings	WB1130
118094	8 rings	WB1140

Thermo Scientific Water Level Regulator Kit

- Low water level safety cut-off turns bath off if level falls below setpoint
- Adjustable electric float switch maintains level at preset depth setpoint
- Factory installed

Cat. No.	For Base Bath Model
WB1110WLFA-1	WB1110A-1
WB1110WLFC-1	WB1110C-1
WB1120WLFA-1	WB1120A-1
WB1120WLFC-1	WB1120C-1
WB1130WLFA-1	WB1130A-1
WB1130WLFC-1	WB1130C-1
WB1140WLFA-1	WB1140A-1
WB1140WLFC-1	WB1140C-1

Thermo Scientific Glass Thermometer

Cat. No.	Temperature Range (1°C graduations)	Description
C01C-6	-10°C to +110°C	33cm (13in.) long

Thermo Scientific Lindberg/Blue M Shaker Baths

Designed for industrial research, environmental, biotech and general laboratory applications requiring close temperature control with a reciprocating motion



- Two baths in one for operation with or without the shaker function
- Choose from heated only or heated and refrigerated models

Microprocessor controller

- With RTD probe for simple, accurate and repeatable operation
- Digital temperature display, simultaneously reads setpoint and water temperatures
- Recessed control module protects against dirt and moisture
- Long-life, low-watt density heating elements for quick response to controller

Dual independent over-temperature safety system

- Adjustable high-limit control prevents over-temperature conditions, protecting both bath and load; interrupts heat, flashes visual warning and automatically resets when temperature returns to normal
- Fixed over-temperature safety (factory-set 105°C) shuts off bath power; push-button manual reset

Shaker control

- Independent ON/OFF switch for shaker operation
- Reciprocating action, adjustable over a range up to 200 strokes/min.
- Speed control dial with illuminated power switch for variable motion adjustment
- Adjustable stroke from 0.875 to 1.5in.

Cabinet and tank Construction

- Integrated industrial-strength pump for internal circulation; maintains precise temperature uniformity throughout the medium
- Single-stage, centrifugal pump with independent supply/return ports for maximum circulation
- Rounded corners for better water circulation, improved uniformity and easier cleaning; includes a built-in drain
- Corrosion-resistant 304 stainless-steel interior tank withstands demanding laboratory environments
- Independent removable shaker carriage, welded 304 stainless steel on high impact nylon rollers
- Insulated chamber walls improve temperature stability and energy efficiency
- Protective nonskid rubber feet to protect the lab bench
- Mounting clip for immersion glass thermometer (thermometer sold separately)

Heated baths

- Temperature range from 5°C above ambient to +100°C
- Temperature uniformity $\pm 0.1^\circ\text{C}$

Refrigerated baths

- Two independent units: bath chamber and refrigeration system module with identical dimensions
- Refrigeration system allows accurate control at temperatures near or below ambient conditions
- Quiet-running, hermetically sealed refrigeration system
- High-volume heat removal capacity rated at 3000BTU/hr. at 27°C (nominal)
- Independent ON/OFF switch for refrigeration system; system can be switched OFF for operation at above ambient temperatures

Includes: 10ft. power cord with plug. Refrigerated model includes independent power cords for bath and refrigeration system (chiller). Two 5ft. hoses with worm gear clamps are provided for customer connection of bath to chiller unit.

Warranty*: 1 year, parts; 90 days, labor

Cat. No.	Type	Capacity	Temp. Range and Uniformity	Interior L x W x D†	Exterior L x W x H		Electrical
SWB1122A-1	Heated	26.5L (7 gal.)	5°C above ambient to +100°C / $\pm 0.1^\circ\text{C}$	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.);-	28kg (60 lb.)	1460w 120V 50/60Hz, 12.2A
SWB1122C-1	Heated	26.5L (7 gal.)	5°C above ambient to +100°C / $\pm 0.1^\circ\text{C}$	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.)	28kg (60 lb.)	1460w 208/240V 50/60Hz, 6.1A
RSWB3222A-1	Refrigerated	26.5L (7 gal.)	0°C to +100°C / $\pm 0.1^\circ\text{C}$	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.)	73kg (160 lb.)	2575w 120V 60Hz, 21.5A
RSWB3222CY-1	Refrigerated	26.5L (7 gal.)	0°C to +100°C / $\pm 0.1^\circ\text{C}$	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.)	73kg (160 lb.)	2575w 240V 50Hz, 10.7A
RSWB3222NY-1	Refrigerated	26.5L (7 gal.)	0°C to +100°C / $\pm 0.1^\circ\text{C}$	45.7 × 30.5 × 19.1cm (18 × 12 × 7.5in.)	73.7 × 35.6 × 31.75cm (29 × 14 × 12.5in.)	73kg (160 lb.)	2575w 220V 50Hz, 10.7A

†Reversible rack will reduce depth 5cm (2in.).

Thermo Scientific Lindberg/Blue M Shaking Circulating Baths Accessories



Thermo Scientific Flask Holders

Cat. No.	Holds	Material	For Use with
M20-C1	200 x 10mL flasks	Stainless Steel	Tray No: 118077
M20-C2	35 x 25mL flasks	Stainless Steel	Tray No: 118077
M20-C3	22 x 50mL flasks	Stainless Steel	Tray No: 118077
M20-C4	11 x 125mL flasks	Stainless Steel	Tray No: 118078
M20-C5	8 x 250mL flasks	Stainless Steel	Tray No: 118078
M20-C6	6 x 500mL flasks	Stainless Steel	Tray No: 118078
M20-C7	3 x 1000mL flasks	Stainless Steel	Tray No: 118078



Thermo Scientific Sample Racks

Cat. No.	Description	Holds
118077	Flask tray	35 x 25mL or 23 x 50mL flasks
118078	Flask tray	11 x 125mL, 8 x 250mL, 6 x 500mL, 3 x 1000mL flasks
118465	Plastic test tube rack	90 x 13mm tubes
118466	Plastic test tube rack	24 x 95mm tubes

Thermo Scientific Water Level Regulator Kit

- Low-water safety cut-off turns bath off if level falls below setpoint
- Adjustable electric float switch maintains level at preset depth setpoint
- Factory Installed

Cat. No.	For Base Bath Model
SWB1122WLFA-1	SWB1122A-1
SWB1122WLFC-1	SWB1122C-1
RSWB3222WLFA-1	RSWB3222A-1
RSWB3222WLFCY-1	RSWB3222CY-1
RSWB3222WLFNY-1	RSWB3222NY-1

Thermo Scientific Covers

- Prevents cross-contamination by diverting condensation to sides for return to bath medium
- Reduce moisture loss and water accumulation on the bench
- Stainless steel or semi-transparent polycarbonate
- Can be attached to side of bath
- With handle

Cat. No.	Type	For Base Bath Model(s)
118111	Polycarbonate Gable Cover	SWB1122, RSWB3222
38576G05	Stainless Steel Gable Cover	SWB1122, RSWB3222
118085	Flat Stainless-Steel Cover	SWB1122, RSWB3222

Thermo Scientific Glass Thermometer

Cat. No.	Temperature Range (1°C graduations)	Description
C01C-6	-10°C to +110°C	33cm (13in.) long

Thermo Scientific Precision Reciprocating Shaker Baths

Designed for life science and QA/QC applications



- Push-button control of temperature and shaking speed make the baths easy to use
- Meets stringent standards for laboratory testing
- Microprocessor control with digital LED display and shaker control
- Set temperature (in increments of 0.1°C) and oscillation speed via control-panel touchpad for entry of temperature and shaking speed
- Shaking motion is reciprocating: back and forth linear motion
- Shaking frequency: 30 to 200 oscillations/min.
- Stroke length adjustable at 0.5, 1.0 or 1.5in. (13, 25 or 38mm)
- Microprocessor-controlled proportional integral temperature control and solid-state sensing probe provide excellent temperature sensitivity
- Over-temperature protection capability
- Automatic motor shutdown capability
- With adjustable high-limit thermostat and indicator light
- Rugged stainless-steel interior with easy-to-clean epoxy powder-coated exterior

Includes: Platform
Warranty*: 1 year, parts and labor
Compliance: Meet ASTM* Method E 715 Class IIA standards
Certifications: UL listed

Cat. No.	Model	Capacity†	Tempe. Range	Temperature Uniformity/Resolution	Interior L x W x D	Exterior L x W x H	Shipping Weight	Electrical
2870	25	14.5L (3.9 gal.)	Ambient to +99.9°C†	±0.05°C at 37°C/ ±0.05	30 × 38 × 19cm (12 × 15 × 7.5in.)	36 × 62 × 24cm (14 × 24.5 × 9.5in.)	22.2kg (48 lb.)	120V 50/60Hz, 1000W, 8.8A
2871	25	14.5L (3.9 gal.)	Ambient to +99.9°C†	±0.05°C at 37°C/ ±0.05	30 × 38 × 19cm (12 × 15 × 7.5in.)	36 × 62 × 24cm (14 × 24.5 × 9.5in.)	22.2kg (48 lb.)	230V 50/60Hz, 1000W, 4.4A
2872	50	26.5L (7.1 gal.)	Ambient to +99.9°C†	±0.05°C at 37°C/ ±0.05	30 × 69 × 19cm (12 × 27 × 7.5in.)	36 × 93 × 24cm (14 × 36.5 × 9.5in.)	27.2kg (62 lb.)	120V 50/60Hz, 1550W, 12.9A
2873	50	26.5L (7.1 gal.)	Ambient to +99.9°C†	±0.05°C at 37°C/ ±0.05	30 × 69 × 19cm (12 × 27 × 7.5in.)	36 × 93 × 24cm (14 × 36.5 × 9.5in.)	27.2kg (62 lb.)	230V 50/60Hz, 1550W, 6.5A

† Filled to 3.5in. (89mm) from top of bath. † With cover.

Thermo Scientific Gable Covers for Precision Baths

Cat. No.	For Use with
3166208	26.5L Precision Model 50 shaking baths ^a
3166565	14.5L Precision Model 25 shaking baths

Thermo Scientific Precision Water Baths Accessories



Thermo Scientific Sample Racks

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

Thermo Scientific Water Level Regulator Kit

- Low-water safety cut-off turns bath off if level falls below setpoint
- Adjustable electric float switch maintains level at preset depth setpoint
- Factory Installed

Cat. No.	Description	Includes
3166223	Water Level Regulator Kit	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
3166220	0° to 100°C	305mm (12in.)



Thermo Scientific Test Tube and Flask Trays

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



Thermo Scientific Test Tube Clips

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

Thermo Scientific Flask Clips and Fasteners

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

Thermo Scientific Precision Shallow-Form Reciprocal Shaking Baths

Excellent performance and reliability for a variety of laboratory applications



- Push-button convenience for entry of temperature and shaking speed
- Microprocessor temperature and shaker control with digital LED display
- Reciprocating shaking motion; adjustable speed from 30 to 200 oscillations per minute
- Stroke length: 1.3 to 3.8cm (0.5 to 1.5in.)
- Over-temperature protection capability
- Automatic motor shutdown capability
- One-piece, easy-to-remove tray for easy use and maintenance
- Corrosion-resistant, stainless-steel interior and exterior

Ordering Information: Optional accessories include flowmeter and gassing hoods.

Includes: Stainless-steel gable cover; 230V model includes European-style 50Hz power cord; standard 220V 60Hz power cord (3176836) available separately

Warranty[†]: 1 year, parts and labor

Compliance: ASTM* Method E 715 Class IIA standards

Certifications: UL listed

Cat. No.	Capacity [†]	Temp. Range	Temp. Uniformity/Resolution	Removable Tray L x W x D	Interior L x W x D	Exterior L x W x H	Shipping Weight	Electrical
2874	14.5L (3.9 gal.)	Ambient to +99.9°C [†]	0.05°C at 37°C/ ±0.05°C	29.2 × 27.9 × 8.9cm (11.5 × 11 × 3.5in.)	30.5 × 38 × 19cm (12 × 15 × 7.5in.)	36 × 62 × 24cm (14 × 24.5 × 9.5in.)	24.9kg (55 lb.)	120V 50/60Hz, 8.3A
2875	14.5L (3.9 gal.)	Ambient to +99.9°C [†]	0.05°C at 37°C/ ±0.05°C	29.2 × 27.9 × 8.9cm (11.5 × 11 × 3.5in.)	30.5 × 38 × 19cm (12 × 15 × 7.5in.)	36 × 62 × 24cm (14 × 24.5 × 9.5in.)	24.9kg (55 lb.)	230V 50/60Hz, 4.3A

[†] Filled 80mm (3.5in.) from top of chamber. [‡] With gable cover.

Thermo Scientific Precision Shallow-Form Reciprocal Shaking Baths Accessories

Thermo Scientific Water Level Regulator Kit

- Adjustable float valve automatically opens when the water level of the bath falls below preset limits to keep the bath full
- Valve and float are mounted on a removable bonnet for easy maintenance and service

Cat. No.	Description	Includes
3166223	Water Level Regulator Kit	6ft. (1.8m) 0.25in. Tygon tubing, nylon fittings, clamps and adjustable mounting bracket

Thermo Scientific Spirit-Filled Glass Thermometers

Cat. No.	Temperature Range (1.0°C increments)	Thermometer Length
3166220	0° to 100°C	305mm (12in.)

Thermo Scientific Oxygen/Nitrogen/CO₂ Flowmeter

- Independent controls regulate flow of gas to sample environment

Cat. No.	Description	Flowrate	For
3166181	Oxygen/Nitrogen/CO ₂ Flowmeter	From 0 to 10CFH (0 to 4719 cc/min.)	Precision Dubnoff and Shallow Form Shaking Baths

Thermo Scientific Gassing Hoods

- Permit control over the atmosphere surrounding the sample
- Improves temperature uniformity and energy efficiency
- Each bath will accommodate 1 large hood or 2 small hoods



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



Thermo Scientific Microcentrifuge Test Tube Racks

Cat. No.	Measures	Requires	Holds
3166184	127 × 101 × 39mm (5 × 4 × 1.5in.)	Clip Fastener	63 × 0.5mL tubes
3166185	127 × 101 × 39mm (5 × 4 × 1.5in.)	Clip Fastener	30 × 1.5mL tubes
3166189	Clip fastner, Stainless Steel	n/a	n/a

Thermo Scientific Test Tube and Flask Trays



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



Thermo Scientific Test Tube Clips

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

Thermo Scientific Flask Clips and Fasteners

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



Thermo Scientific High-Wall Tray

Cat. No.	Dimensions
3164716	286 × 318 × 191mm (11.25 × 12.5 × 7.5in.)

Thermo Scientific Gable Cover

Cat. No.	Description
3166238	Stainless Steel Gable Cover

Thermo Scientific Precision Dubnoff Reciprocal Shaking Baths

Designed specifically for applications that require samples to be incubated in a controlled atmosphere



- Provides excellent performance and reliability for a variety of laboratory applications
- Equipped with one large and two small gassing hoods
- Microprocessor temperature and shaker control with digital LED display
- Reciprocating shaking motion; adjustable speed from 30 to 200 (OPM) oscillations/min.
- Stroke length: 1.3 to 3.8cm (0.5 to 1.5in.)
- Push-button convenience for entry of temperature and shaking speed
- Over-temperature protection capability
- Automatic motor shutdown capability
- One-piece, easy-to-remove tray for easy use and maintenance
- BTU output is 3415

Ordering Information: Optional O₂/N₂/CO₂ flowmeter available
Includes: One large and two small gassing hoods; Stainless-steel gable cover
Warranty*: 1 year, parts and labor
Compliance: ASTM* Method E 715 Class IIA standards
Certifications: UL listed.

Cat. No.	Capacity†	Temp. Range	Temp. Uniformity/Resolution	Removable Tray L x W x D	Interior L x W x D	Exterior L x W x H	Shipping Weight	Electrical
2876	14.5L (3.9 gal.)	Ambient to +99.9°C†	±0.05°C at 37°C/ ±0.05	29.2 × 27.9 × 16.5cm (11.5 × 11 × 6.5in.)	30.5 × 38.1 × 19cm (12 × 15 × 7.5in.)	35.6 × 62.2 × 24.1cm (14 × 24.5 × 9.5in.)	24.9kg (55 lb.)	120V 50/60Hz, 8.2A 1000w
2877	14.5L (3.9 gal.)	Ambient to +99.9°C†	±0.05°C at 37°C/ ±0.05	29.2 × 27.9 × 16.5cm (11.5 × 11 × 6.5in.)	30.5 × 38.1 × 19cm (12 × 15 × 7.5in.)	35.6 × 62.2 × 24.1cm (14 × 24.5 × 9.5in.)	24.9kg (55 lb.)	230V 50/60Hz, 4.3A 1000w

† Filled 80mm (3.5in.) from top of chamber. ‡ With gable cover.

Thermo Scientific Precision Dubnoff Reciprocal Shaking Baths Accessories

Thermo Scientific Oxygen/Nitrogen/CO₂ Flowmeters

- Independent controls regulate flow of gas to sample environment

Cat. No.	Description	Flowrate	For Use With
3166181	Oxygen/Nitrogen/CO ₂ Flowmeter	from 0 to 10CFH (0 to 4719 cc/min.)	Precision Dubnoff and Shallow Form Shaking Baths

Thermo Scientific Gassing Hoods



- Permit control over the atmosphere surrounding the sample
- Improves temperature uniformity and energy efficiency
- Each bath will accommodate 1 large hood or 2 small hoods

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



Thermo Scientific Microcentrifuge Test Tube Racks

Cat. No.	Measures	Requires	Holds
3166184	127 × 101 × 39mm (5 × 4 × 1.5in.)	Clip Fastener	63 × 0.5mL tubes
3166185	127 × 101 × 39mm (5 × 4 × 1.5in.)	Clip Fastener	30 × 1.5mL tubes
3166189	Stainless Steel, Clip fastener		



Thermo Scientific Test Tube and Flask Trays

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



Thermo Scientific Test Tube Clips

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

Thermo Scientific Flask Clips and Fasteners

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

Thermo Scientific Spirit-Filled Glass Thermometer

Cat. No.	Temp. Range (1.0°C increments)	Thermometer Length
3166220	0° to 100°C	305mm (12in.)



Thermo Scientific High-Wall Tray

Cat. No.	Dimensions
3164716	286 × 318 × 191mm (11.25 × 12.5 × 7.5in.)

Thermo Scientific Gable Cover

Cat. No.	Description
3166238	Stainless Steel Gable Cover

Thermo Scientific Precision Concentric Ring Electrical Steaming Baths

Designed to gently warm samples, make concentrates, and melt solids such as agar



- Accommodate various sizes of glassware and evaporating dishes, including round-bottom flasks
- Flange-formed stainless-steel rings nest smoothly and become progressively larger as each concentric ring is removed
- 4- and 8-hole models enlarge from 0.88in. (2.2cm) to maximum opening diameters of 5 and 6in. (12.7 and 15.2cm), respectively
- Copper-clad immersion heaters provide bath temperature up to 100°C
- Center ring cover is 1in.(2.5cm) in diameter
- Easy to operate with a four-position switch and three different heat settings
- Adjustable water level regulator maintains bath depth at the desired level
- Stainless-steel cabinets with flanged cabinet top for tabletop installations
- Rugged epoxy-coated, corrosion-resistant stand
- Accommodates most laboratory glassware

Ordering Information: Baths may also be flush-mounted in benchtop. Wiring of switch must be completed onsite.

Includes: Precision ring sets, constant water level device (with 0.5in. inlet for water supply), adjustable drain tube, and welded angle-iron support frame with hot-rolled steel legs, fasteners and lockwashers

Required Accessories: Hardwire installation by a qualified electrician and hook-up to a continuous water source

Warranty[†]: 1 year, parts and labor

Cat. No.	No. of Holes	Time to 100°C	Heater Settings (Low, Medium, High)	Minimum Opening Diameter (All Rings Removed)	Exterior L x W x H (Without Support)	Exterior L x W x H (With Support)	Shipping Weight	Electrical
2896	4-Hole	63 min.	275W, 550W, 1100W	4 at 125mm (5in.)	38 × 38 × 10.2cm (15 × 15 × 4in.)	38 × 38 × 33cm (15 × 15 × 13in.)	8kg (18lb.)	120V 50/60Hz, 9.2A
2897	4-Hole	63 min.	275W, 550W, 1100W	4 at 125mm (5in.)	38 × 38 × 10.2cm (15 × 15 × 4in.)	38 × 38 × 33cm (15 × 15 × 13in.)	8kg (18lb.)	230V 50/60Hz, 4.6A
2898	8-Hole	65 min.	500W, 1000W, 2000W	2 at 100mm (4in.); 4 at 125mm (5in.); 2 at 150mm (6in.)	39.4 × 73.7 × 11.4cm (15 × 29 × 4.5in.)	39.4 × 73.7 × 34.3cm (15.5 × 29 × 13.5in.)	13kg (29lb.)	120V 50/60Hz, 16.7A
2899	8-Hole	65 min.	500W, 1000W, 2000W	2 at 100mm (4in.); 4 at 125mm (5in.); 2 at 150mm (6in.)	39.4 × 73.7 × 11.4cm (15 × 29 × 4.5in.)	39.4 × 73.7 × 34.3cm (15.5 × 29 × 13.5in.)	13kg (29lb.)	230V 50/60Hz, 8.3A



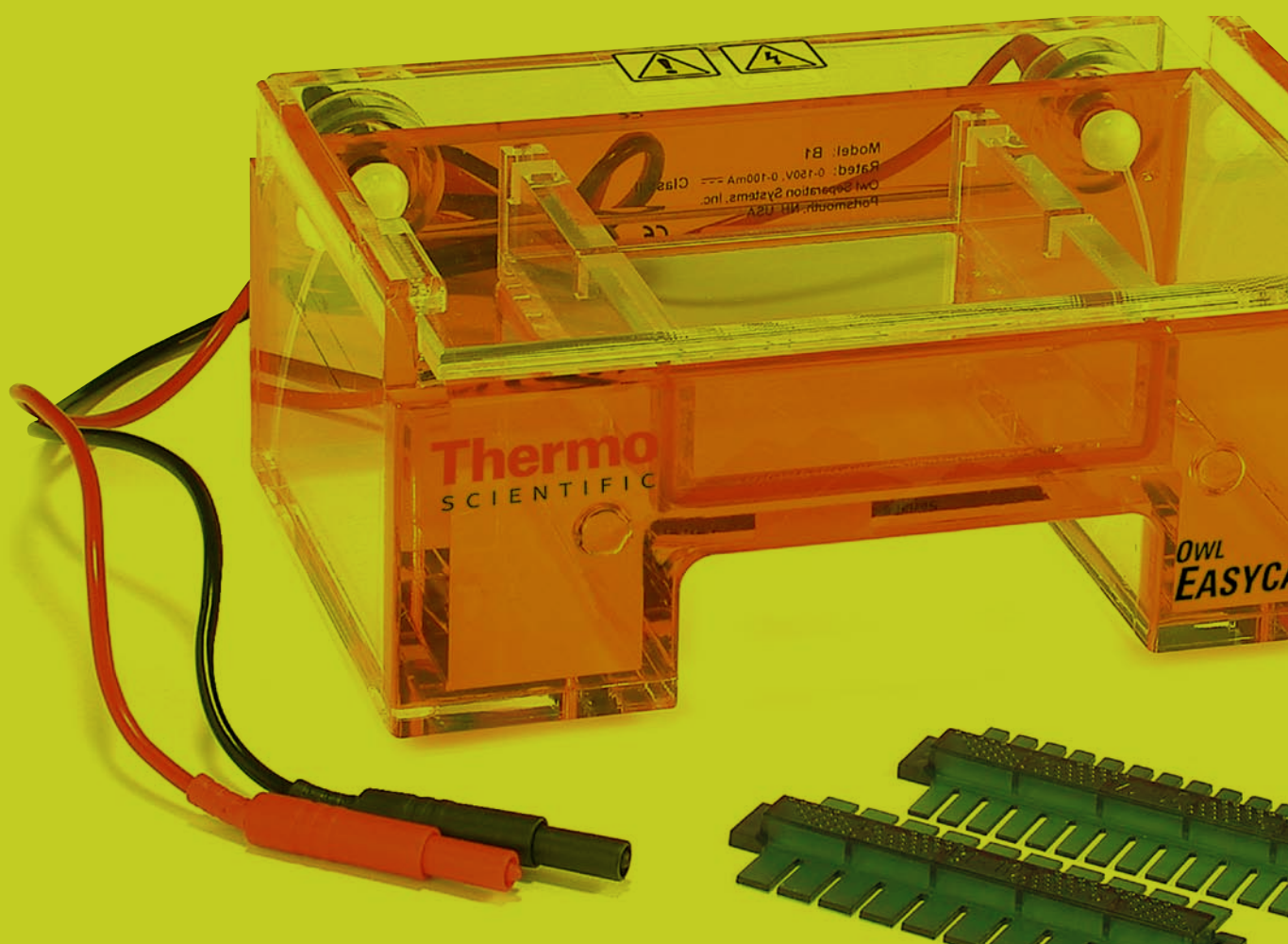
Thermo Scientific Ring Sets for Precision Steaming Baths

- Nest smoothly and become progressively larger as rings are removed
- Three ring sizes available

Cat. No.	Material	Diameter
3166186	Stainless steel	10cm (4in.)
3166187	Stainless steel	12.5cm (5in.)
3166215	Stainless steel	15cm (6in.)

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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 florescent 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 heavy-duty, one-piece, 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
B1A	EasyCast	Mini	8 x 7cm	16 x 10.5 x 9.5cm (6.31 x 4.13 x 3.75in.)	400mL	5 to 24
B1A-BP	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
PSL-5	Power supply leads, 3 ft. (includes One black and one red lead)
B1A-UVT	One black and one red lead EasyCast gasketed UVT gel tray
B1A-GK	Replacement gaskets (1 pair)
B1A-CST	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
BBL-1	Bubble Level	N/A
B-LP	Leveling Platform	36 x 46cm

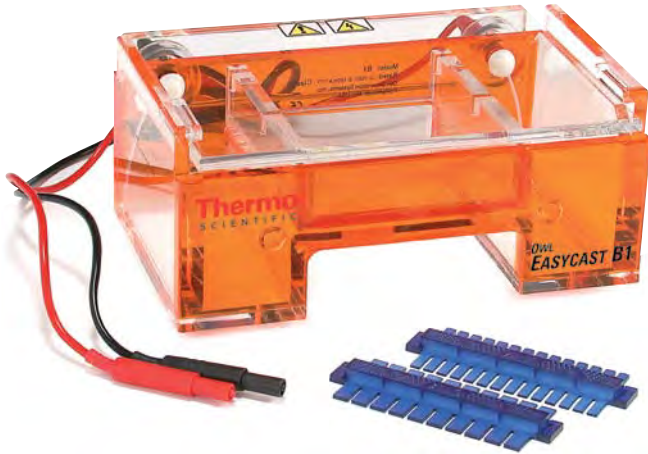
Thermo Scientific Owl EasyCast B1A Mini Gel Electrophoresis System Combs

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
B1A-5C	Standard comb; 5 teeth	1.0mm / 11.3mm	8µL	30µL	51µL	72µL
B1A-5D	Standard comb; 5 teeth	1.5mm / 11.3mm	13µL	44µL	76µL	108µL
B1A-6	Double-sided comb; 6 teeth	1.0 / 1.5mm / 9.1 / 9.1mm	7 / 10µL	24 / 36µL	41 / 61µL	58 / 87µL
B1A-8	Double-sided comb; 8 teeth	1.0 / 1.5mm / 6.4 / 6.4mm	5 / 7µL	17 / 25µL	29 / 43µL	41 / 61µL
B1A-10	Double-sided comb; 10 teeth	1.0 / 1.5mm / 4.8 / 4.8mm	4 / 5 µL	13 / 19µL	21 / 32µL	30 / 46µL
B1A-12	Double-sided comb; 12 teeth	1.0 / 1.5mm / 3.7 / 3.7mm	3 / 4µL	10 / 14µL	16 / 25µL	23 / 35µL
B1A-PREP	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 florescent 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[†]: 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
B1	EasyCast	Mini	11 x 9cm	22 x 15 x 9.5cm (8.63 x 5.88 x 3.75in.)	600mL	5 to 34
B1-BP	EasyCast w/buffer exchange ports	Mini	11 x 9cm	22 x 15 x 9.5cm (8.63 x 5.88 x 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
PSL-5	Power supply leads, 3 ft. (includes one black and one red lead)
B1-UVT	Gasketed UVT Gel Tray
B1-GK	GK Replacement Gaskets (1 pair)
B1-CST	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
BBL-1	Bubble Level	N/A
B-LP	Leveling Platform	36 x 46cm

Thermo Scientific Owl EasyCast B1 Mini Gel Electrophoresis System Combs

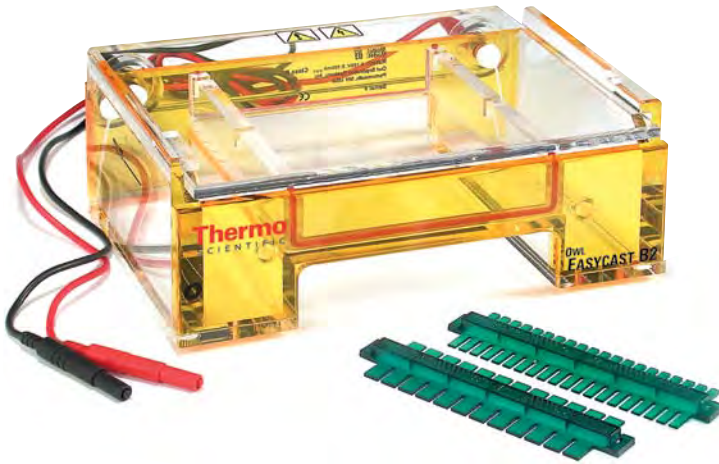
Cat. No.†	Description	Thickness /Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
B1-5C	Standard 5-tooth comb	1.0mm / 15.4mm	12µL	40µL	69µL	98µL
B1-5D	Standard 5-tooth comb	1.5mm / 15.4mm	17µL	61µL	104µL	147µL
B1-8C	Standard 8-tooth comb	1.0mm / 9.0mm	7µL	24µL	40µL	57µL
B1-8D	Standard 8-tooth comb	1.5mm / 9.0mm	10µL	35µL	61µL	86µL
B1-10	Double-sided 10 tooth comb	1.0 / 1.5mm / 6.8 / 6.8mm	5 / 8µL	18 / 27µL	31 / 46µL	43 / 65µL
B1-12C	Standard 12 tooth comb	1.0mm / 5.4mm	4µL	14µL	24µL	34µL
B1-12D	Standard 12 tooth comb	1.5mm / 5.4mm	6µL	21µL	36µL	51µL
B1-14	Double-sided 14 tooth comb	1.0 / 1.5mm / 4.4 / 4.4mm	3 / 5µL	11 / 17µL	20 / 29µL	28 / 42µL
B1-RL-9C‡	Rapid-load 9 tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
B1-RL-9D‡	Rapid-load 9 tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
B1-RL-17C‡	Rapid-load 17 tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
B1-RL-17D‡	Rapid-load 17 tooth (2X) comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
B1-PREP	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 multi 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 florescent 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
B2	EasyCast	Mini	14 × 12cm	24.5 × 18 × 9.5cm (9.63 × 7.06 × 3.75in.)	800mL	8 to 48
B2-BP	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
PSL-5	Power supply leads, 3 ft. (includes one black and one red lead)
B2-UVT	EasyCast gasketed UVT gel tray
B2-GK	Replacement gaskets (1 pair)

Thermo Scientific Owl EasyCast B2 Mini Gel System Accessories

Cat. No.	Description
B2-RL-UVT	EasyCast gasketed rapid load UVT gel tray with 12 slots
B2-RL	EasyCast gasketed rapid load UVT gel tray with 12 slots and 12 rapid load combs
B2-CST	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
BBL-1	Bubble Level	N/A
B-LP	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
B2-8C	Standard 8-tooth comb	1.0mm / 12.5mm	9µL	33µL	56µL	80µL
B2-8D	Standard 8-tooth comb	1.5mm / 12.5mm	14µL	49µL	84µL	120µL
B2-12	Double-sided 12 tooth comb	1.0 & 1.5mm / 7.2mm	5 / 8 µL	18 / 28µL	32 / 49µL	46 / 69µL
B2-16	Double-sided 16 tooth comb	1.0 & 1.5mm / 5.4mm	4 / 6µL	14 / 21µL	24 / 36µL	34 / 52µL
B2-20	Double-sided 20 tooth comb	1.0 & 1.5mm / 3.9mm	3 / 4µL	10 / 15µL	18 / 26µL	25 / 37µL
B2-24	Double-sided 24 tooth comb	1.0 & 1.5mm / 3.0mm	2 / 3µL	8 / 12µL	14 / 20µL	19 / 29µL
B2-RL-9C‡	Rapid-load 9 tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
B2-RL-9D‡	Rapid-load 9 tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
B2-RL-25C‡	Rapid-load 25 tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
B2-RL-25D‡	Rapid-load 25 tooth (2X) comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
B2-PREP	Prep comb w/2 teeth	1.5mm / 106 / 5	120 / 5.5µL	415 / 20µL	710 / 34µL	1000 / 48µL
B2-WALL	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
- 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: 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^{*}: Three years

Certifications: CE marked

Cat. No.	Description	Horizontal System	Gel Size (L × W)	Footprint (L × W × H)	Running Buffer Volume	Sample Range
B3	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
PSL-5	Power supply leads, 3 ft. (includes one black and one red lead)
B2-UVT	EasyCast gasketed UVT gel tray
B2-GK	Replacement gaskets (1 pair)

Thermo Scientific Owl EasyCast Mini Gel System Accessories

Cat. No.	Description
B2-RL-UVT	EasyCast gasketed rapid load UVT gel tray with 12 slots
B2-RL	EasyCast gasketed rapid load UVT gel tray with 12 slots and 12 rapid load combs
B2-CST	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
BBL-1	Bubble Level	N/A
B-LP	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
B2-8C	Standard 8-tooth comb	1.0mm / 12.5mm	9µL	33µL	56µL	80µL
B2-8D	Standard 8-tooth comb	1.5mm / 12.5mm	14µL	49µL	84µL	120µL
B2-12	Double-sided 12 tooth comb	1.0 & 1.5mm / 7.2mm	5 / 8 µL	18 / 28µL	32 / 49µL	46 / 69µL
B2-16	Double-sided 16 tooth comb	1.0 & 1.5mm / 5.4mm	4 / 6µL	14 / 21µL	24 / 36µL	34 / 52µL
B2-20	Double-sided 20 tooth comb	1.0 & 1.5mm / 3.9mm	3 / 4µL	10 / 15µL	18 / 26µL	25 / 37µL
B2-24	Double-sided 24 tooth comb	1.0 & 1.5mm / 3.0mm	2 / 3µL	8 / 12µL	14 / 20µL	19 / 29µL
B2-RL-9C‡	Rapid-load 9 tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
B2-RL-9D‡	Rapid-load 9 tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
B2-RL-25C‡	Rapid-load 25 tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
B2-RL-25D‡	Rapid-load 25 tooth (2X) comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
B2-PREP	Prep comb w/2 teeth	1.5mm / 106 / 5	120 / 5.5µL	415 / 20µL	710 / 34µL	1000 / 48µL
B2-WALL	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
D2	Wide	14.4 × 10.2cm	19 × 20 × 10cm (7.38 × 7.75 × 4in.)	600mL	10 to 80
D2-BP	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
D2-UVT	EasyCast gasketed UVT gel tray
D2-GK	Replacement gaskets (1 pair)
D2-CST	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
BBL-1	Bubble Level	N/A
B-LP	Leveling Platform	36 x 46cm

Thermo Scientific Owl D2 Wide-Gel Electrophoresis System Combs

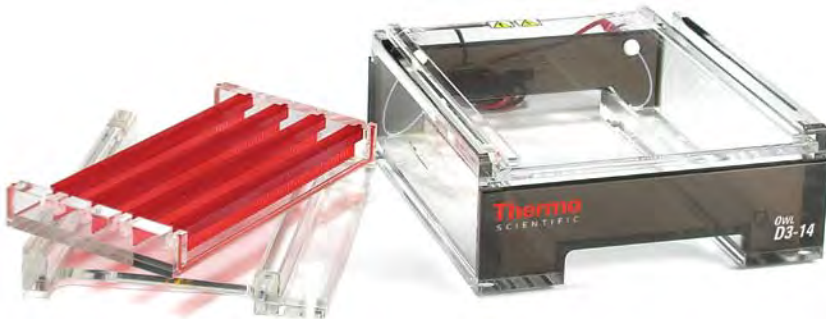
Cat. No.†	Description	Thickness / Width of Teeth	RECOMMENDED LOADING VOLUMES Calculated at 75% of total well volume			
			0.25cm gel thickness	0.5cm gel thickness	0.75cm gel thickness	1.0cm gel thickness
D1-10C	Standard 10-tooth comb	1.0mm / 12.2mm	9µL	32µL	55µL	78µL
D1-10D	Standard 10-tooth comb	1.5mm / 12.2mm	14µL	48µL	82µL	117µL
D1-20C	Standard 20-tooth comb	1.0mm / 5.2mm	4µL	14µL	23µL	33µL
D1-20D	Standard 20-tooth comb	1.5mm / 5.2mm	6µL	20µL	35µL	50µL
D1-30C‡	Micro well 30-tooth (2X) comb	1.0mm / 2.7mm	5µL	19µL	32µL	46µL
D1-30D‡	Micro well 30-tooth (2X) comb	1.5mm / 2.7mm	8µL	28µL	49µL	69µL
D1-40C	Standard 40-tooth comb	1.0mm / 1.7mm	1µL	4µL	8µL	11µL
D1-40D	Standard 40-tooth comb	1.5mm / 1.7mm	2µL	7µL	11µL	16µL
D1-MTC‡	Micro well 15-tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
D1-MTD‡	Micro well 15-tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
D2-RL-9C‡	Rapid load 9-tooth (1X) comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
D2-RL-9D‡	Rapid load 9-tooth (1X) comb	1.5mm / 7.2mm	8µL	28µL	48µL	69µL
D2-RL-25C‡	Rapid load 25-tooth (2X) comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
D2-RL-25D‡	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
D3-14	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
D3-UVT-14	EasyCast* gasketed UVT Gel Tray
D3-GK	Replacement gaskets (1 pair)
D3-CST-14	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
BBL-1	Bubble Level	N/A
B-LP	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
DAM-23	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
D3-MTC‡	Micro well 25 (1X)-tooth comb	1.0mm / 7.5mm	6µL	20µL	34µL	48µL
D3-MTD‡	Micro well 25 (1X)-tooth comb	1.5mm / 7.5mm	8µL	30µL	51µL	72µL
D3-MT2C‡	Micro well 50 (2X)-tooth comb	1.0mm / 3mm	2µL	8µL	14µL	19µL
D3-MT2D‡	Micro well 50 (2X)-tooth comb	1.5mm / 3mm	3µL	12µL	20µL	29µL
D3-WALL	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: Three years

Certifications: CE marked

Cat. No.	Horizontal System Description	Gel Size (L x W)	Footprint (L x W x H)	Running Buffer Volume	Sample Range
A6	Wide	25 x 23cm	35 x 38 x 11cm (13.75x 14.94 x 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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
A6-UVT	UVT gel tray with gasketed end gates
A3-GK-1	Replacement gaskets (1 pair)
A3-1-EG	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
BBL-1	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
DAM-23	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
D3-MTC‡	Microwell 25 (1X)-tooth comb	1.0mm / 7.5mm	6µL	20µL	34µL	48µL
D3-MTD‡	Microwell 25 (1X)-tooth comb	1.5mm / 7.5mm	8µL	30µL	51µL	72µL
D3-MT2C‡	Microwell 50 (2X)-tooth comb	1.0mm / 3mm	2µL	8µL	14µL	19µL
D3-MT2D‡	Microwell 50 (2X)-tooth comb	1.5mm / 3mm	3µL	12µL	20µL	29µL
D3-WALL	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
A3-1	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
A3-UVT-1	UVT gel tray with gasketed end gates
A3-1-EG	Replacement end gates (1 pair)
A3-GK-1	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
BBL-1	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
DAM-23	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
D3-MTC‡	Microwell 25 (1X)-tooth comb	1.0mm / 7.5mm	6µL	20µL	34µL	48µL
D3-MTD‡	Microwell 25 (1X)-tooth comb	1.5mm / 7.5mm	8µL	30µL	51µL	72µL
D3-MT2C‡	Microwell 50 (2X)-tooth comb	1.0mm / 3mm	2µL	8µL	14µL	19µL
D3-MT2D‡	Microwell 50 (2X)-tooth comb	1.5mm / 3mm	3µL	12µL	20µL	29µL
D3-WALL	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^Y: 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
A1	Large	25 x 13cm	37.5 x 21.5 x 11cm (14.8 x 8.5 x 4.3in.)	1.6L	8 to 150
A1-BP	Large, w/buffer exchange ports	25 x 13cm	37.5 x 21.5 x 11cm (14.8 x 8.5 x 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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
A1-UVT	UVT gel tray with gasketed end gates
A1-GK	Replacement gaskets (1 pair)
A1-EG	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
BBL-1	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
DAM-13	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
A1-8C	Standard 8-tooth comb	1.0mm / 13.9mm	10µL	36µL	63µL	89µL
A1-8D	Standard 8-tooth comb	1.5mm / 13.9mm	16µL	55µL	95µL	133µL
A1-12C	Standard 12-tooth comb	1.0mm / 8.7mm	7µL	23µL	39µL	55µL
A1-12D	Standard 12-tooth comb	1.5mm / 8.7mm	10µL	34µL	59µL	83µL
A1-16C	Standard 16-tooth comb	1.0mm / 6.1mm	5µL	16µL	27µL	39µL
A1-16D	Standard 16-tooth comb	1.5mm / 6.1mm	7µL	24µL	41µL	58µL
A1-20C	Standard 20-tooth comb	1.0mm / 4.5mm	3µL	12µL	20µL	29µL
A1-20D	Standard 20-tooth comb	1.5mm / 4.5mm	5µL	18µL	30µL	43µL
A1-24C	Standard 24-tooth comb	1.0mm / 3.5mm	3µL	9µL	16µL	22µL
A1-24D	Standard 24-tooth comb	1.5mm / 3.5mm	4µL	14µL	24µL	33µL
A1-MTC‡	Micro well 14 (1X) tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
A1-MTD‡	Micro well 14 (1X) tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
A1-RL-9C‡	Rapid load 9 (1X) tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
A1-RL-9D‡	Rapid load 9 (1X) tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
A1-RL-25C‡	Rapid load 25 (2X) tooth comb	1.0mm / 2.5mm	2µL	7µL	12µL	17µL
A1-RL-25D‡	Rapid load 25 (2X) tooth comb	1.5mm / 2.5mm	3µL	11µL	18µL	26µL
A1-PREP	Prep 2-tooth comb	1.5mm / 117 / 5mm	130 / 6µL	455 / 20µL	775 / 34µL	1100 / 48µL
A1-WALL	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[†]: 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
A2	Large	25 x 20cm	37.5 x 32.5 x 10.5cm (14.8 x 12.8 x 4.1in.)	2.3L	8 to 432
A2-BP	Large, w/buffer exchange ports	25 x 20cm	37.5 x 32.5 x 10.5cm (14.8 x 12.8 x 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
PSL-5	Power supply leads, 3 ft. (includes one black and one red lead)
A2-UVT	UVT gel tray with gasketed end gates
A2-GK	Replacement gaskets (1 pair)
A2-EG	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
BBL-1	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
DAM-20	Chameleon casting dam; 20cmW

Thermo Scientific Owl 24-slot Rapid Load UVT Gel Trays

- Enable multiple sample loading

Cat. No.	Description
A2-RL-UVT	24-slot rapid load UVT gel tray with gasketed end gates
A2-RL-12	24-slot rapid load UVT gel tray with (12) 18-well combs
A2-RL-24	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
A2-8C	Standard 8-tooth comb	1.0mm / 22.7mm	17µL	59µL	102µL	144µL
A2-8D	Standard 8-tooth comb	1.5mm / 22.7mm	25µL	89µL	153µL	217µL
A2-12C	Standard 12-tooth comb	1.0mm / 14.5mm	11µL	38µL	65µL	92µL
A2-12D	Standard 12-tooth comb	1.5mm / 14.5mm	16µL	57µL	98µL	138µL
A2-16C	Standard 16-tooth comb	1.0mm / 10.5mm	8µL	27µL	47µL	67µL
A2-16D	Standard 16-tooth comb	1.5mm / 10.5mm	12µL	41µL	70µL	100µL
A2-20C	Standard 20-tooth comb	1.0mm / 8.0mm	6µL	21µL	36µL	51µL
A2-20D	Standard 20-tooth comb	1.5mm / 8.0mm	9µL	32µL	54µL	77µL
A2-24C	Standard 24-tooth comb	1.0mm / 6.5mm	5µL	17µL	29µL	41µL
A2-24D	Standard 24-tooth comb	1.5mm / 6.5mm	7µL	25µL	43µL	61µL
A2-28C	Standard 28-tooth comb	1.0mm / 5.0mm	4µL	14µL	23µL	33µL
A2-28D	Standard 28-tooth comb	1.5mm / 5.0mm	6µL	20µL	35µL	50µL
A2-32C	Standard 32-tooth comb	1.0mm / 4.0mm	3µL	11µL	19µL	27µL
A2-32D	Standard 32-tooth comb	1.5mm / 4.0mm	5µL	17µL	29µL	41µL
A2-36C	Standard 36-tooth comb	1.0mm / 3.5mm	3µL	10µL	17µL	24µL
A2-36D	Standard 36-tooth comb	1.5mm / 3.5mm	4µL	15µL	25µL	35µL
A2-MTC‡	Micro well 21 (1X)-tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
A2-MTD‡	Micro well 21 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
A2-MT2C‡	Micro well 42 (2X)-tooth comb	1.0mm / 2.7mm	2µL	7µL	12µL	17µL
A2-MT2D‡	Micro well 42 (2X)-tooth comb	1.5mm / 2.7mm	3µL	11µL	18µL	26µL
A2-RL-18D‡	Rapid Load 18 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
A2-PREP	Prep comb with 2 teeth	1.5mm / 187 / 5mm	211 / 5.5µL	736 / 20µL	1263 / 34µL	1789 / 48µL
A2-WALL	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
A5	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
PSL-5	Power supply leads, 3 ft. (includes one black and one red lead)
A2-UVT	UVT gel tray with gasketed end gates
A2-GK	Replacement gaskets (1 pair)
A2-EG	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
BBL-1	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
DAM-20	Chameleon casting dam; 20cmW

Thermo Scientific Owl 24-slot Rapid Load UVT Gel Trays

- Enable multiple sample loading

Cat. No.	Description
A2-RL-UVT	24-slot rapid load UVT gel tray with gasketed end gates
A2-RL-12	24-slot rapid load UVT gel tray with (12) 18-well combs
A2-RL-24	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
A2-8C	Standard 8-tooth comb	1.0mm / 22.7mm	17µL	59µL	102µL	144µL
A2-8D	Standard 8-tooth comb	1.5mm / 22.7mm	25µL	89µL	153µL	217µL
A2-12C	Standard 12-tooth comb	1.0mm / 14.5mm	11µL	38µL	65µL	92µL
A2-12D	Standard 12-tooth comb	1.5mm / 14.5mm	16µL	57µL	98µL	138µL
A2-16C	Standard 16-tooth comb	1.0mm / 10.5mm	8µL	27µL	47µL	67µL
A2-16D	Standard 16-tooth comb	1.5mm / 10.5mm	12µL	41µL	70µL	100µL
A2-20C	Standard 20-tooth comb	1.0mm / 8.0mm	6µL	21µL	36µL	51µL
A2-20D	Standard 20-tooth comb	1.5mm / 8.0mm	9µL	32µL	54µL	77µL
A2-24C	Standard 24-tooth comb	1.0mm / 6.5mm	5µL	17µL	29µL	41µL
A2-24D	Standard 24-tooth comb	1.5mm / 6.5mm	7µL	25µL	43µL	61µL
A2-28C	Standard 28-tooth comb	1.0mm / 5.0mm	4µL	14µL	23µL	33µL
A2-28D	Standard 28-tooth comb	1.5mm / 5.0mm	6µL	20µL	35µL	50µL
A2-32C	Standard 32-tooth comb	1.0mm / 4.0mm	3µL	11µL	19µL	27µL
A2-32D	Standard 32-tooth comb	1.5mm / 4.0mm	5µL	17µL	29µL	41µL
A2-36C	Standard 36-tooth comb	1.0mm / 3.5mm	3µL	10µL	17µL	24µL
A2-36D	Standard 36-tooth comb	1.5mm / 3.5mm	4µL	15µL	25µL	35µL
A2-MTC‡	Micro well 21 (1X)-tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
A2-MTD‡	Micro well 21 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
A2-MT2C‡	Micro well 42 (2X)-tooth comb	1.0mm / 2.7mm	2µL	7µL	12µL	17µL
A2-MT2D‡	Micro well 42 (2X)-tooth comb	1.5mm / 2.7mm	3µL	11µL	18µL	26µL
A2-RL-18D‡	Rapid Load 18 (1X)-tooth comb	1.5mm / 7.2mm	8µL	28µL	49µL	69µL
A2-PREP	Prep comb with 2 teeth	1.5mm / 187 / 5mm	211 / 5.5µL	736 / 20µL	1263 / 34µL	1789 / 48µL
A2-WALL	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
A2-OK	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
B1A-UVT	EasyCast gasketed UVT gel tray
B1A-GK	Replacement gaskets (1 pair)
B1A-CST	External caster (trays & combs not included)
A2-OT	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
BBL-1	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
B1A-5C	Standard comb; 5 teeth	1.0mm / 11.3mm	8µL	30µL	51µL	72µL
B1A-5D	Standard comb; 5 teeth	1.5mm / 11.3mm	13µL	44µL	76µL	108µL
B1A-6	Double-sided comb; 6 teeth	1.0 / 1.5mm / 9.1 / 9.1mm	7 / 10µL	24 / 36µL	41 / 61µL	58 / 87µL
B1A-8	Double-sided comb; 8 teeth	1.0 / 1.5mm / 6.4 / 6.4mm	5 / 7µL	17 / 25µL	29 / 43µL	41 / 61µL
B1A-10	Double-sided comb; 10 teeth	1.0 / 1.5mm / 4.8 / 4.8mm	4 / 5 µL	13 / 19µL	21 / 32µL	30 / 46µL
B1A-12	Double-sided comb; 12 teeth	1.0 / 1.5mm / 3.7 / 3.7mm	3 / 4µL	10 / 14µL	16 / 25µL	23 / 35µL
B1A-PREP	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[†]: 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
D4	Space saving	17 x 16cm	23 x 27 x 14cm (9.1 x 10.6 x 5.5in.)	1.8L	17 to 102
D4-BP	Space saving, w/buffer exchange ports	17 x 16cm	23 x 27 x 14cm (9.1 x 10.6 x 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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
D4-UVT	EasyCast* gasketed UVT gel tray
D4-GK	Replacement gaskets (1 pair)
D4-CST	External caster

Thermo Scientific Owl Leveling Platform

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



Cat. No.	Type	Dimensions
BBL-1	Bubble Level	N/A
B-LP	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
D4-17C‡	Micro well 17-tooth comb	1.0mm / 7.2mm	5µL	19µL	32µL	46µL
D4-17D‡	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[†]: 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	Lower Buffer	Total Buffer
P81	Single Sided	10 x 10cm	18 x 8 x 13cm (7.1 x 3.1 x 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
PSL-5	Power supply leads, 3 ft. (one black and one red lead)	—
P81-009	Supersafe* lid with attached power supply leads	—
P81-001	Upper and lower buffer chambers	—
P8-GK	Orange replacement gaskets (1 pair)	—
P8-CL	Side clamps (1 pair)	—
R10446	Wing knob	—
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)
JGC-4	Gel Casting System; Compatible with P8DS	10 × 10cm	13 × 13 × 11cm
P7-CST	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
MP-6A	Standard 6-tooth comb	0.5mm	11.1mm	89µL
MP-6C	Standard 6-tooth comb	0.8mm	11.1mm	142µL
MP-6D	Standard 6-tooth comb	1.5mm	11.1mm	266µL
MP-8A	Standard 8-tooth comb	0.5mm	7.7mm	62µL
MP-8C	Standard 8-tooth comb	0.8mm	7.7mm	99µL
MP-8D	Standard 8-tooth comb	1.5mm	7.7mm	185µL
MP-10A	Standard 10-tooth comb	0.5mm	5.7mm	46µL
MP-10C	Standard 10-tooth comb	0.8mm	5.7mm	73µL
MP-10D	Standard 10-tooth comb	1.5mm	5.7mm	134µL
MP-12A	Standard 12-tooth comb	0.5mm	4.3mm	34µL
MP-12C	Standard 12-tooth comb	0.8mm	4.3mm	55µL
MP-12D	Standard 12-tooth comb	1.5mm	4.3mm	103µL
MP-15A	Standard 15-tooth comb	0.5mm	2.9mm	23µL
MP-20A	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) (5.88 x 4.75 x 6.69")	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)
JGC-4	Gel Casting System; Compatible with P8DS	10 × 10cm	13 × 13 × 11cm
P7-CST	Gradient Gel Caster	10 × 10cm	13 × 15 × 13cm

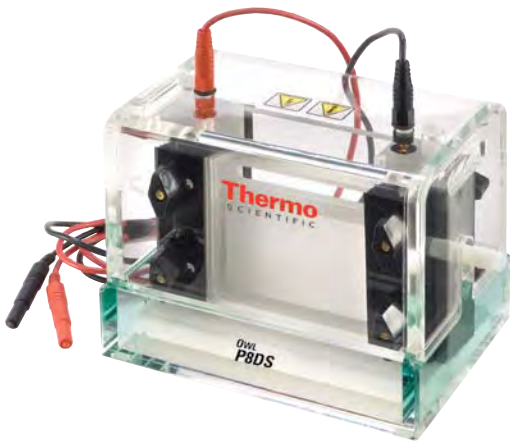
Thermo Scientific Owl P8-Series System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
MP-6A	Standard 6-tooth comb	0.5mm	11.1mm	89µL
MP-6C	Standard 6-tooth comb	0.8mm	11.1mm	142µL
MP-6D	Standard 6-tooth comb	1.5mm	11.1mm	266µL
MP-8A	Standard 8-tooth comb	0.5mm	7.7mm	62µL
MP-8C	Standard 8-tooth comb	0.8mm	7.7mm	99µL
MP-8D	Standard 8-tooth comb	1.5mm	7.7mm	185µL
MP-10A	Standard 10-tooth comb	0.5mm	5.7mm	46µL
MP-10C	Standard 10-tooth comb	0.8mm	5.7mm	73µL
MP-10D	Standard 10-tooth comb	1.5mm	5.7mm	134µL
MP-12A	Standard 12-tooth comb	0.5mm	4.3mm	34µL
MP-12C	Standard 12-tooth comb	0.8mm	4.3mm	55µL
MP-12D	Standard 12-tooth comb	1.5mm	4.3mm	103µL
MP-15A	Standard 15-tooth comb	0.5mm	2.9mm	23µL
MP-20A	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^Y: 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
P8DS-1	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
P8DS-2	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
P8DS-3	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)	—
P8DS-016	Blocking Plate	—
P8DS-008	Lower Buffer Chamber	—
P8DS-001	Upper Buffer Chamber Assembly	—
P8DS-012	Super Safe Lid with Attached Power Supply Leads	—
R12009	Replacement gaskets (1 pair)	—
P8-CL	Side clamps (1 pair)	—
R10446	Wing knob	—
ST-10	Sponge Tips (Pack of 10)	—
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 3/32" thickness
P7-10G	Blank Glass	10cmL x 10cmW x 3/32" thickness
P7-10FR	Frosted notched glass	10cmL x 10cmW x 3/32" thickness
P7-10FG	Frosted blank glass	10cmL x 10cmW x 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)
JGC-4	Gel Casting System; Compatible with P8DS	10 × 10cm	13 × 13 × 11cm
P7-CST	Gradient Gel Caster	10 × 10cm	13 × 15 × 13cm

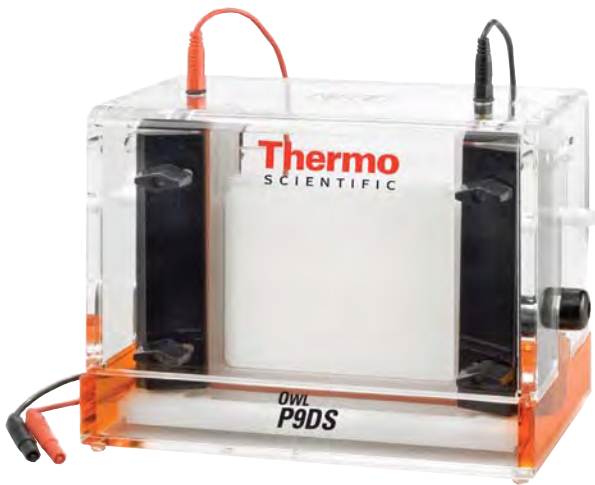
Thermo Scientific Owl P8-Series System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
MP-6A	Standard 6-tooth comb	0.5mm	11.1mm	89µL
MP-6C	Standard 6-tooth comb	0.8mm	11.1mm	142µL
MP-6D	Standard 6-tooth comb	1.5mm	11.1mm	266µL
MP-8A	Standard 8-tooth comb	0.5mm	7.7mm	62µL
MP-8C	Standard 8-tooth comb	0.8mm	7.7mm	99µL
MP-8D	Standard 8-tooth comb	1.5mm	7.7mm	185µL
MP-10A	Standard 10-tooth comb	0.5mm	5.7mm	46µL
MP-10C	Standard 10-tooth comb	0.8mm	5.7mm	73µL
MP-10D	Standard 10-tooth comb	1.5mm	5.7mm	134µL
MP-12A	Standard 12-tooth comb	0.5mm	4.3mm	34µL
MP-12C	Standard 12-tooth comb	0.8mm	4.3mm	55µL
MP-12D	Standard 12-tooth comb	1.5mm	4.3mm	103µL
MP-15A	Standard 15-tooth comb	0.5mm	2.9mm	23µL
MP-20A	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: 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
P9DS-1	P9DS Complete System plus Caster	Double-sided	14–16 × 16cm	25 × 13 × 19.5cm (9.8 × 5.1 × 7.7in.)	350mL	200mL	550mL
P9DS-2	P9DS Complete System	Double-sided	14–16 × 16cm	25 × 13 × 19.5cm (9.8 × 5.1 × 7.7in.)	350mL	200mL	550mL
P9DS-3	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)	
P9DS-006	Blocking Plate	—
P9DS-008	Lower Buffer Chamber	—
P9DS-001	Upper Buffer Chamber Assembly	—
P9DS-012	Super Safe Lid with Attached Power Supply Leads	—
P9-GK	Orange replacement gaskets (1 pair)	—
P9-CL	Side clamps; pack of 2	—
R10446	Wing knob	—
ST-10	Sponge Tips (Pack of 10)	—
P1-SC	Spacer set (2 sides, 1 bottom)	1.0cmW x 0.8mm thickness
P1-SD	Spacer set (2 sides, 1 bottom)	1.0cmW x 1.5mm thickness
P1-14R	Notched glass	14cmL x 16cmW x 1/8" thickness
P1-14G	Blank glass	14cmL x 16cmW x 1/8" thickness
P1-14FR	Frosted notched glass	14cmL x 16cmW x 1/8" thickness
P1-14FG	Frosted blank glass	14cmL x 16cmW x 1/8" thickness
P1-12G	Offset glass	12cmL x 16cmW x 1/8" thickness



Thermo Scientific Owl P9-Series Vertical Electrophoresis System Accessories

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

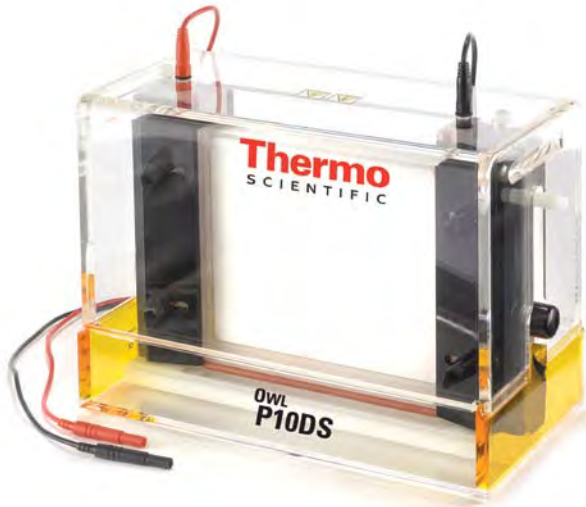
Thermo Scientific Owl P9DS System Combs

Cat. No.†	Description	Thickness of teeth	Width of teeth	EST Well Volume
P1-10C	Standard 10-tooth comb	0.8mm	10.4mm	138µL
P1-10D	Standard 10-tooth comb	1.5mm	10.4mm	343µL
P1-15C	Standard 15-tooth comb	0.8mm	6.1mm	107µL
P1-15D	Standard 15-tooth comb	1.5mm	6.1mm	201µL
P1-20C	Standard 20-tooth comb	0.8mm	3.9mm	69µL
P1-20D	Standard 20-tooth comb	1.5mm	3.9mm	129µL
P1-24C	Standard 24-tooth comb	0.8mm	2.9mm	51µL
P1-24D	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^Y: 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
P10DS-1	P10DS Complete System plus Caster	Double-sided	20 × 20cm	30.5 × 16.5 × 23cm (12 × 6.5 × 9in.)	600mL	650mL	1250mL
P10DS-2	P10DS Complete System	Double-sided	20 × 20cm	30.5 × 16.5 × 23cm (12 × 6.5 × 9in.)	600mL	650mL	1250mL
P10DS-3	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)	—
P10DS-006	Blocking Plate	—
P10DS-008	Lower Buffer Chamber	—
P10DS-001	Upper Buffer Chamber Assembly	—
P10DS-012	Super Safe Lid with Attached Power Supply Leads	—
P10-GK	Orange replacement gaskets (1 pair)	—
P10-CL	Side Clamps (1 pair)	—
R10446	Wing knob	—
ST-10	Sponge Tips (Pack of 10)	—
P2-SC	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.8mm thickness
P2-SD	Spacer Set (2 sides, 1 bottom)	1.0cmW × 1.5mm thickness
P2-20R	Notched glass	20cmL × 20cmW × 3/16" thickness
P2-20G	Blank glass	20cmL × 20cmW × 3/16" thickness
P2-20FR	Frosted notched glass	20cmL × 20cmW × 3/16" thickness
P2-20FG	Frosted blank glass	20cmL × 20cmW × 3/16" thickness
P2-18G	Offset glass	18cmL × 20cmW × 3/16" thickness
P10-20R	Notched glass	20cmL × 20cmW × 1/8" thickness
P10-20G	Blank glass	20cmL × 20cmW × 1/8" thickness
P10-18G	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)
JGC-3	Gel Casting System	20 × 20cm	23 × 17 × 17cm
P2-CST	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
P2-10C	Standard 10-tooth comb	0.8mm	13.6mm	239µL
P2-10D	Standard 10-tooth comb	1.5mm	13.6mm	449µL
P2-15C	Standard 15-tooth comb	0.8mm	8.2mm	144µL
P2-15D	Standard 15-tooth comb	1.5mm	8.2mm	271µL
P2-20C	Standard 20-tooth comb	0.8mm	5.5mm	97µL
P2-20D	Standard 20-tooth comb	1.5mm	5.5mm	182µL
P2-25C	Standard 25-tooth comb	0.8mm	3.9mm	69µL
P2-25D	Standard 25-tooth comb	1.5mm	3.9mm	129µL
P2-PREP	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), adhesive temperature indicator

Warranty*: 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
S4S	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
S3S-CL	Side Clamp (1 pair)
R10384	Buffer Drain Bottle
S4S-GK	Replacement Gasket
ST-10	Sponge Tips (Pack of 10)
TEMP-5	Adhesive Temperature Indicator (Pack of 5)
STK-10	Stopcocks (1 pair)
S3S-KNOB	Replacement Knob (Pack of 6)

Thermo Scientific Owl Sequencing System Spacer Sets and Glass Plates

Cat. No.	Description	Dimensions
S2S-SA4	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.4mm thickness
S2S-SA2	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.2mm thickness
S2S-SAW	Wedge (Pack of 2)	1.0cmW × 0.4 - 0.8mm thickness
S1S-45R	Notched Glass	45cmL × 20cmW × 3/16" thickness
S1S-45G	Blank Glass	45cmL × 20cmW × 3/16" thickness
S1S-43G	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 × W × H)
SGC-1	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
S1S-20A	20-tooth Well Comb	0.4mm	6.8mm	15µL
S1S-30A	30-tooth Well comb	0.4mm	4.1mm	9µL
S1S-SHARK4	39-tooth Sharktooth Comb	0.4mm	—	9µL
S1S-SHARK2	39-tooth Sharktooth Comb	0.2mm	—	5µL
S1S-MT2	36 (2X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	10µL
S1S-MT3	55 (3X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	5.5µL
S1S-MT44	73 (4X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	3.7µL
S1S-MT42	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 plates 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: 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
S3S	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
PSL-5	Power supply leads, 3 ft. (Includes one black and one red lead)
S3S-CL	Side Clamp (1 pair)
R10383	Buffer drain bottle
S3S-GK	Replacement Gasket
ST-10	Sponge Tips (Pack of 10)
TEMP-5	Adhesive Temperature Indicator (Pack of 5)
STK-10	Stopcocks (1 pair)
S3S-KNOB	Replacement Knob (Pack of 6)

Thermo Scientific Owl Sequencing System Spacer Sets and Glass Plates

Cat. No.	Description	Dimensions
S2S-SA4	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.4mm thickness
S2S-SA2	Spacer Set (2 sides, 1 bottom)	1.0cmW × 0.2mm thickness
S2S-SAW	Wedge (Pack of 2)	1.0cmW × 0.4 - 0.8mm thickness
S2S-45R	Notched Glass	45cmL × 35cmW × 3/16" thickness
S2S-45G	Blank Glass	45cmL × 35cmW × 3/16" thickness
S2S-43G	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)
SGC-1	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
S2S-20A	40-tooth Well Comb	0.4mm	6.8mm	15µL
S2S-30A	60-tooth Well Comb	0.4mm	4.1mm	9µL
S2S-SHARK4	78-tooth Sharktooth Comb	0.4mm	—	9µL
S2S-SHARK2	78-tooth Sharktooth Comb	0.2mm	—	5µL
S2S-MT2	72 (2X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	10µL
S2S-MT3	110 (3X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	5.5µL
S2S-MT44	146 (4X)-tooth Sharktooth Micro-Well Comb	0.4mm	—	3.7µL
S2S-MT42	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
JGC-4	Owl P8DS, P82, P81	10 × 10cm	13 × 13 × 11cm
JGC-3	Owl P10DS	20 × 20cm	23 × 17 × 17cm
JGC-2	Owl P9DS	14 × 16cm	17 × 18 × 15cm

Thermo Scientific Owl JGC Gel Casting System Replacement Parts

Cat. No.	Description	Dimensions	For Use With
GP4-100	Gel Pouches; Pack of 100	10 × 10cm	JGC-4 Systems
GP4-25	Gel Pouches; Pack of 25	10 × 10cm	JGC-4 Systems
JG4-PL	Spacer Placer; Pack of 3	—	JGC-4 Systems
JGC4-006	Blocking Plate; Each	10 × 10cm	JGC-4 Systems
GP3-100	Gel Pouches; Pack of 100	20 × 20cm	JGC-3 Systems
GP3-25	Gel Pouches; Pack of 25	20 × 20cm	JGC-3 Systems
JG3-PL	Spacer Placer; Pack of 3	—	JGC-3 Systems
JGC-003	Blocking plate; Each	20 × 20cm	JGC-3 Systems
GP2-100	Gel Pouches; Pack of 100	14 × 16cm	JGC-2 Systems
GP2-25	Gel Pouches; Pack of 25	14 × 16cm	JGC-2 Systems
JG2-PL	Spacer Placer; Pack of 3	—	JGC-2 Systems
JGC2-003	Blocking Plate; Each	14 × 16cm	JGC-2 Systems
R10013	Leveling screws	1"L	JGC-4, JGC-3, JGC-2 Systems
R10014	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 placer, 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
P7-CST	Gradient Gel Caster	10 × 10cm	15 × 13 × 13cm (5.8 × 5.1 × 5.1in.)	P81, P82, P8DS
P1-CST	Gel Caster	14 × 16cm	20 × 13 × 18cm (7.9 × 5.1 × 7in.)	P9DS
P2-CST	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 × W × H	Compatible Owl Units
SGC-1	48 × 20-42cm	71 × 21 × 12.2cm (28 × 8.25 × 4.75in.)	S4S, S3S
SGC-2	65.5 × 20-42cm	102 × 21 × 12.2cm (40 × 8.25 × 4.75in.)	S4S, S3S

Thermo Scientific Owl Accessories for CST Multiple Gradient Gel Casters

Cat. No.	Description
CL-12	Binder clamps (pk. of 12)
CL-125	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
GDF-10	Gel-Drying Kit, Minigel Format	14 × 14cm
GDF-20	Gel-Drying Kit, Large Format	24 × 24cm

Thermo Scientific Owl Gel Drying Kit Accessories

Cat. No.	Description	L x W
GDF-3	Gel drying frame, Minigel	14 × 14cm
GDF-1	Gel drying frame, Large	24 × 24cm
CM10	Precut Cellophane; 50 sheets	14 × 14cm
CM20	Precut Cellophane; 50 sheets	24 × 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 × W × H	Capacity
GSB-3	11 × 11 × 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
FP-1	20 × 20cm	HEP-1	100% cotton fiber	183g/m ²	0.83mm	35mL/min.
FP-2	35 × 45cm	HEP-3				
FP-3	46 × 57cm	—				
FP-4	10 × 10cm	HEP-1, VEP-2				
FP-5	18 × 20cm	HEP-1, VEP-3				
FP-6	9 × 9cm	HEP-1, VEP-3				
FP-7	12 × 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
TM151-1	Roll, 26.5cm × 3.75m	26.5cm × 3.75m
TM151-4	Sheets (Pack of 10)	15 × 15cm
TM151-5	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
RF-3	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
PCH-1	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 ²)	Active Window (cm ²)
SM-1	Thin-end beta detector with meter	xβ-	1.7±0.3 (mica)	approx. 6.4
SM-1-DET	Thin-end beta detector only	xβ-	1.7±0.3 (mica)	approx. 6.4
SM-2	Pancake beta detector with meter	xβ-	1.7±0.3 (mica)	approx. 15.5
SM-2-DET	Pancake beta detector only	xβ-	1.7±0.3 (mica)	approx. 15.5
SM-3	Gamma scintillator with meter	low energy γ	14	5.0
SM-3-DET	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^Y: 1 year
Certifications: CE marked

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

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L x W x H	Electrical
EC300XL	300V	400mA	3	Voltage or current	0-999 min.	26 x 14 x 13.3cm (10.25 x 5.5 x 5.25in.)	120V 50/60Hz
EC300XL2	300V	400mA	3	Voltage or current	0-999 min.	26 x 14 x 13.3cm (10.25 x 5.5 x 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[†]: 1 year
Certifications: CE marked

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L × W × H	Electrical
EC200XL	200V	2000mA	4	Voltage or current	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	120V 50/60Hz
EC200XL2	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[†]: 1 year
Certifications: CE marked

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L × W × H	Electrical
EC1000XL	1000V	500mA	4	Voltage, current, or power	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	120V 50/60Hz
EC1000XL2	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: 1 year

Certifications: CE marked

Cat. No.	Output Voltage	Max. Current	No. of Jacks	Display Modes	Timer	L × W × H	Electrical
EC3000XL	3000V	400mA	4	Voltage, current, or power	0-99 hr. 59 min.	31 × 27 × 13.3cm (12 × 10.75 × 5.25in.)	120V 50/60Hz
EC3000XL2	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
PSL-5	Power supply leads, 3 ft. (includes one black and one red lead)

Thermo Scientific Owl PSA-2 Adapter

- Allows Owl gel boxes to fit Bio-Rad Laboratories power supplies

Cat. No.	Description
PSA-2	Bio-Rad Laboratories Adaptor; extends Owl power supply leads to fit in the Bio-Rad power supplies.

furnaces

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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.) dia. 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*: 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
FB1315M	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 × 10.3 × 9.8cm (5 × 4 × 3.8in.)	33 × 23 × 36cm (13 × 9 × 14in.)	120V 50/60Hz 1060w	9kg (20 lb.)
FB1318M	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 × 10.3 × 9.8cm (5 × 4 × 3.8in.)	33 × 23 × 36cm (13 × 9 × 14in.)	208V 50/60Hz 1060w	9kg (20 lb.)
FB1310M	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 × 10.3 × 9.8cm (5 × 4 × 3.8in.)	33 × 23 × 36cm (13 × 9 × 14in.)	240V 50/60Hz 1060w	9kg (20 lb.)
FB1314M	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 × 10.3 × 9.8cm (5 × 4 × 3.8in.)	33 × 23 × 36cm (13 × 9 × 14in.)	100V 50/60Hz 1060w	9kg (20 lb.)
FB1310M-33	1.3L (0.04 cu. ft.)	100° to 1100°C	±0.3°C at 1000°C (±7.8°C at 1000°C)	13 × 10.3 × 9.8cm (5 × 4 × 3.8in.)	33 × 23 × 36cm (13 × 9 × 14in.)	240V 50/60Hz 1060w	9kg (20 lb.)
FB1415M	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 × 12.7 × 10.8cm (6 × 5 × 4.25in.)	40 × 25 × 37cm (15.8 × 10 × 14.5in.)	120V 50/60Hz 1450w	12.7kg (28 lb.)
FB1418M	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 × 12.7 × 10.8cm (6 × 5 × 4.25in.)	40 × 25 × 37cm (15.8 × 10 × 14.5in.)	208V 50/60Hz 1520w	12.7kg (28 lb.)
FB1410M	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 × 12.7 × 10.8cm (6 × 5 × 4.25in.)	40 × 25 × 37cm (15.8 × 10 × 14.5in.)	240V 50/60Hz 1520w	12.7kg (28 lb.)
FB1410M-33	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 × 12.7 × 10.8cm (6 × 5 × 4.25in.)	40 × 25 × 37cm (15.8 × 10 × 14.5in.)	240V 50/60Hz 1520w	12.7kg (28 lb.)
FB1414M	2.1L (0.07 cu. ft.)	100° to 1100°C	±0.5°C at 1000°C (±5.0°C at 1000°C)	15.2 × 12.7 × 10.8cm (6 × 5 × 4.25in.)	40 × 25 × 37cm (15.8 × 10 × 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
PH44X1	FB1300 Furnace
PH48X1	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: Oven, Platinel® II thermocouple and a ceramic hearth plate to protect the bottom heating element
Warranty*: 1 year (parts and labor)
Certifications: All units cUL, UL listed; -33 units also CE marked
Notes: 120V models require fixed wiring and are not supplied with a power cord

Cat. No.	Capacity	Temp. Range	Control	Interior D x W x H	Exterior L x W x H	Electrical	Shipping Weight
FD1535M	2.2L (0.08 cu. ft.)	100° to1200°C	B1	22.8 × 10.1 × 9.5cm (9 × 4 × 3.75in.)	45.7 × 27.9 × 41.9cm (18 × 11 × 16.5in.)	120V 50/60Hz, 18.6A 2230w	23.5kg (52 lb.)
FD1530M*	2.2L (0.08 cu. ft.)	100° to1200°C	B1	22.8 × 10.1 × 9.5cm (9 × 4 × 3.75in.)	45.7 × 27.9 × 41.9cm (18 × 11 × 16.5in.)	240V 50/60Hz, 9.3A 2230w	23.5kg (52 lb.)
FD1545M	2.2L (0.08 cu. ft.)	100° to1200°C	C1	22.8 × 10.1 × 9.5cm (9 × 4 × 3.75in.)	45.7 × 27.9 × 41.9cm (18 × 11 × 16.5in.)	120V 50/60Hz, 18.6A 2230w	23.5kg (52 lb.)
FD1540M*	2.2L (0.08 cu. ft.)	100° to1200°C	C1	22.8 × 10.1 × 9.5cm (9 × 4 × 3.75in.)	45.7 × 27.9 × 41.9cm (18 × 11 × 16.5in.)	240V 50/60Hz, 9.3A 2230w	23.5kg (52 lb.)
FD1530M-33	2.2L (0.08 cu. ft.)	100° to1200°C	B1	22.8 × 10.1 × 9.5cm (9 × 4 × 3.75in.)	45.7 × 27.9 × 41.9cm (18 × 11 × 16.5in.)	240V 50/60Hz, 6.5A 1560w	23.5kg (52 lb.)
FD1540M-33	2.2L (0.08 cu. ft.)	100° to1200°C	C1	15.2 × 12.7 × 10.8cm (6 × 5 × 4.25in.)	40 × 25 × 37cm (15.8 × 10 × 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
PHX1	8.2 x 10.1 x 1.27cm (3.25 x 4 x 0.5in.)
PHX2	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
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
- 0.95cm (0.38in.) dia. port for monitoring chamber temperatures with independent measuring device at rear of chamber

F47900, F48000 Models

- F47900 models provide 2L of heating area, F48000 models provide 5L of heating area
- Includes one hearth tray, F48000 models also include a ceramic shelf (SH480X1) that doubles furnace load 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	Exhaust Tubing Kit	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
F47910‡	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	A1	240V 50/60Hz 1000w 4.2 A	18.5kg (41 lb.)
F47910-33†	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	A1	240V 50/60Hz 1000w 4.2 A	18.5kg (41 lb.)
F47914	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	A1	100V 50/60Hz 750W 7.5A	18.5kg (41 lb.)
F47915‡	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	A1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
F48010‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	A1	240V 50/60Hz 1800w 7.5A	27.2kg (60 lb.)
F48010-33†	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	A1	240V 50/60Hz 1560w 6.5A	27.2kg (60 lb.)
F48015-60‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	A1	120V 50/60Hz 1800w 15A	27.2kg (60 lb.)
F48018‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	A1	208V 50/60Hz 1560w 7.5A	27.2kg (60 lb.)
F47920‡	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	B1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
F47920-33†	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	B1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
F47924	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	B1	100V 50/60Hz 750w 7.5A	18.5kg (41 lb.)
F47925	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	B1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
F48020 -DB‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	B1	240V 50/60Hz 1800w 7.5A	18.5kg (41 lb.)
F48020-33†	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	B1	240V 50/60Hz 1560w 6.5A	27.2kg (60 lb.)
F48028‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	B1	208V 50/60Hz 1560W 7.5A	27.2kg (60 lb.)
F48025-60‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	B1	120V 50/60Hz 1800w 15.0A	27.2kg (60 lb.)
F47920-80	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	C1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
F47920-33-80†	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	C1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
F47924-80	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	C1	100V 50/60Hz 750w 7.5A	18.5kg (41 lb.)
F47925-80	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	C1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
F48020-80	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	C1	240V 50/60Hz 1800w 7.5A	27.2kg (60 lb.)
F48020-33-80†	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	C1	240V 50/60Hz 1800w 6.5A	27.2kg (60 lb.)
F48025-60-80‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	C1	120V 50/60Hz 1800w 15.0A	27.2kg (60 lb.)
F48028-80	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	C1	208V 50/60Hz 1560w 7.5A	27.2kg (60 lb.)
F47950‡	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	D1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
F47950-33†	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	D1	240V 50/60Hz 1000w 4.2A	18.5kg (41 lb.)
F47954	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	D1	100V 50/60Hz 750w 7.5A	18.5kg (41 lb.)
F47955	2L (0.07 cu. ft.)	100° to 1200°C (212° to 2192°F)	15 × 13.7 × 10cm (6 × 5 × 4in.)	39 × 28.5 × 47cm (15.5 × 11.3 × 18.5in.)	D1	120V 50/60Hz 1000w 8.3A	18.5kg (41 lb.)
F48050-33†	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	D1	240V 50/60Hz 1800w 6.5A	27.2kg (60 lb.)
F48050‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	D1	240V 50/60Hz 1800w 7.5A	27.2kg (60 lb.)
F48055-60‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 19in.)	D1	120V 50/60Hz 1800w 15.0A	27.2kg (60 lb.)
F48058‡	5.8L (0.2 cu. ft.)	100° to 1200°C (212° to 2192°F)	25 × 18 × 13cm (10 × 7 × 5in.)	50 × 34 × 19cm (19.5 × 13.3 × 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.

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



- 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 0.95cm (0.38in.) dia. 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

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

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
F6018	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.)
F6010*	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.)
F6028C	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.)
F6020C	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.)
F6020C-33	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.)
F6028C-80	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.)
F6020C-80	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.)
F6020C-33-80	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.)
F6038CM	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.)
F6030CM	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.)
F6030CM-33	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
JSX16	Shelf Pegs (4 required)
PH177X1	Hearth Tray, 22.9 x 27.3 x 1.9cm
PHX1	Hearth Tray, 8.2 x 10.1 x 1.27cm
SH408X1	Stainless-steel Shelf

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 with two supplied accessory refractory shelves
- 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
- Adjustable power output from 1 to 100%

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 0.95cm (0.38in.) 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[†]: 1 year (parts and labor)
Certifications: All units CSA approved; -33 units also CE marked

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
F30428C	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	B1	208V 50/60Hz 26.4A 5500w	117.9kg (260 lb.)
F30420C	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	B1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
F30420C-33	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	B1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
F30428C-80	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	C1	208V 50/60Hz 26.4A 5500w	117.9kg (260 lb.)
F30420C-80	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	C1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
F30420C-33-80	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	C1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
F30438CM	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	D1	208V 50/60Hz 26.4A 5500w	117.9kg (260 lb.)
F30430CM	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	D1	240V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)
F30430CM-33	45L (1.6 cu. ft.)	100° to 1093°C	±1.2°C at 1000°C ±3.45°C	36 × 36 × 36cm (14 × 14 × 14in.)	64.7 × 54.6 × 74.9cm (25.5 × 21.5 × 29.5in.)	D1	208V 50/60Hz 22.9A 5500w	117.9kg (260 lb.)

Accessories

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

Thermo Scientific Thermolyne Atmosphere Controlled Ashing Furnaces

Ideal for coal and coke ashing procedures



Warranty: 1 year (parts and labor)
Certifications: CSA certified, CE marked as indicated

- 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 0.95cm (0.38in.) dia. port for monitoring chamber temperatures with independent measuring devices
- Includes 0.64cm (0.25in.) I.D. or 0.96cm (0.375in.) O.D. hose barb (in back of chamber) for inert gas line

Type F6000

- With two dual-purpose stainless-steel trays and handle to accommodate 24 (30mL) porcelain crucibles or 38 (10mL) quartz crucibles

Type F6000-60 programmable models

- Meet ASTM[®] 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"

Cat. No.	Capacity	Maximum Temp.	Holds	Interior D x W x H	Exterior L x W x H	Control	Electrical
F6020C-33-60†‡	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
F6028C-60†	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
F6020C-33-60-80†‡	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
F6028C-60-80	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
F6030CM-33-60†‡	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
F30420C-60-80†	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
F30420-33-60-80‡	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
F30428C-60-80†	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
F30430CM-60†	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
F30430CM-33-60†‡	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
F30438CM-60†	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
TY408X2A	Crucible Trays	Atmosphere Controlled Ashing Furnace
SH408X1	Stainless-steel Shelf	F6000-60 Atmosphere Controlled Ashing Furnace; Premium Large Muffle Furnaces
HN408X2A	Shelf Handle	Atmosphere Controlled Ashing Furnaces
SH304X1	Refractory Shelf for F30400-60	F30400-60 Atmosphere Controlled Ashing Furnaces
AY408X1	Inconel Manifold	F6000 Furnace
AY408X1A	Exhaust Tubing Kit	Atmosphere Controlled Ashing and Muffle Furnaces
AY718X1	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



- 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

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
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

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 × 10.2 × 10.2cm (4 × 8 × 4in.)	50.8 × 38.1 × 44.4cm (20 × 15 × 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 × 10.2 × 10.2cm (4 × 8 × 4in.)	50.8 × 38.1 × 44.4cm (20 × 15 × 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 × 10.2 × 10.2cm (4 × 8 × 4in.)	50.8 × 38.1 × 44.4cm (20 × 15 × 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 × 10.2 × 10.2cm (4 × 8 × 4in.)	50.8 × 38.1 × 44.4cm (20 × 15 × 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 × 15.2 × 15.2cm (9 × 6 × 6in.)	53.3 × 43.1 × 54.6cm (21 × 17 × 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 × 15.2 × 15.2cm (9 × 6 × 6in.)	53.3 × 43.1 × 54.6cm (21 × 17 × 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 × 15.2 × 15.2cm (9 × 6 × 6in.)	53.3 × 43.1 × 54.6cm (21 × 17 × 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 × 15.2 × 15.2cm (9 × 6 × 6in.)	53.3 × 43.1 × 54.6cm (21 × 17 × 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 × 22.9 × 22.9cm (14 × 9 × 9in.)	65.4 × 53.3 × 66cm (25.75 × 21 × 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 × 22.9 × 22.9cm (14 × 9 × 9in.)	65.4 × 53.3 × 66cm (25.75 × 21 × 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 × 30.5 × 30.5cm (18 × 12 × 12in.)	76.2 × 60.9 × 71.1cm (30 × 24 × 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 × 30.5 × 30.5cm (18 × 12 × 12in.)	76.2 × 60.9 × 71.1cm (30 × 24 × 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 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. 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

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)

Cat. No.	Capacity	Temp. Range	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Control	Electrical	Shipping Weight
BF51731C-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	A	208/240V 50/60Hz 4500w	75kg
BF51731BC-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	A/OTC	208/240V 50/60Hz 4500w	75kg
BF51732C-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	B	208/240V 50/60Hz 4500w	75kg
BF51732BC-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	B/OTC	208/240V 50/60Hz 4500w	75kg
BF51732PC-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	C	208/240V 50/60Hz 4500w	75kg
BF51732PBC-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	C/OTC	208/240V 50/60Hz 4500w	75kg
BF51732PFMC-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	C/FM	208/240V 50/60Hz 4500w	75kg
BF51732PBFMC-1	16.4L (0.6 cu. ft.)	100° to 1200°C	27.9 × 33.0 × 17.8cm (11 × 12 × 11in.)	58.4 × 61 × 68.6cm (23 × 24 × 27in.)	C/OTC/FM	208/240V 50/60Hz 4500w	75kg
BF51841C-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 33in.)	A	208/240V 50/60Hz 5800w	127kg
BF51841BC-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 33in.)	A/OTC	208/240V 50/60Hz 5800w	127kg
BF51842C-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 33in.)	B	208/240V 50/60Hz 5800w	127kg
BF51842BC-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 33in.)	B/OTC	208/240V 50/60Hz 5800w	127kg
BF51842PC-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 33in.)	C	208/240V 50/60Hz 5800w	127kg
BF51842PBC-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 33in.)	C/OTC	208/240V 50/60Hz 5800w	127kg
BF51842PFMC-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 33in.)	C/FM	5800w	127kg
BF51842PBFMC-1	55.3L (2.0 cu. ft.)	100° to 1200°C	38.1 × 38.1 × 38.1cm (15 × 15 × 15in.)	71.1 × 73.7 × 83.8cm (28 × 29 × 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., BF51731COMC-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

Warranty¹: 1 year (parts and labor)

Cat. No.	Capacity	Temp. Range	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Description	Electrical	Shipping Weight
BF51442C	9L (0.32 cu. ft.)	100° to 1200°C	35.6 × 19.5 × 13.3cm (14 × 7.5 × 5.25in.)	50.8 × 50.8 × 62.2cm (20 × 20 × 24.5in.)	With refractory plate heating element	208/240V 50/60 Hz 4800w	66kg (145 lb.)
BF51542C	23L (0.81 cu. ft.)	100° to 1200°C	36.8 × 26.7 × 24.1cm (14.5 × 10.5 × 9.5in.)	78.7 × 71.1 × 72.4cm (31 × 28 × 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 120, 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: 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

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

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

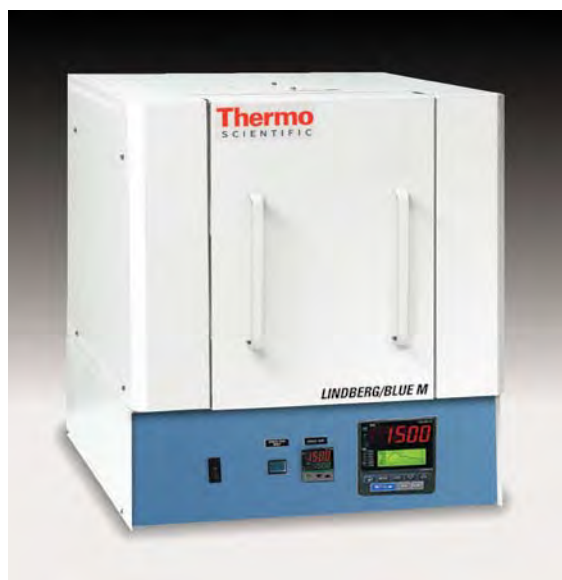
Ordering Information: Required power cord and hardwiring not included
Required Accessories: Power cord, hardwiring
Warranty*: 1 year (parts and labor)

Cat. No.	Capacity	Maximum Temp.	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Controller	Electrical	Shipping Weight
BF51634C-1	17L (0.6 cu. ft.)	1700°C	26.7 × 27.9 × 22.9cm (10.5 × 11 × 9in.)	61 × 71.1 × 78.7cm (24 × 28 × 31in.)	Digital/1 setpoint	208/240V 50/60Hz 5900w	159kg (350 lb.)
BF51634PC-1	17L (0.6 cu. ft.)	1700°C	26.7 × 27.9 × 22.9cm (10.5 × 11 × 9in.)	61 × 71.1 × 78.7cm (24 × 28 × 31in.)	Multisegment/multiprogram	208/240V 50/60Hz 5900w	159kg (350 lb.)
BF51634PCOMC-1	17L (0.6 cu. ft.)	1700°C	26.7 × 27.9 × 22.9cm (10.5 × 11 × 9in.)	61 × 71.1 × 78.7cm (24 × 28 × 31in.)	Multisegment/multiprogram/ communications	208/240V 50/60Hz 5900w	159kg (350 lb.)
BF51664C-1	25.5L (0.9 cu. ft.)	1700°C	39.4 × 27.9 × 22.9cm (15.5 × 11 × 9in.)	76.2 × 71.1 × 78.7cm (30 × 28 × 31in.)	Digital/1 setpoint	208/240V 50/60Hz 7100w	168kg (370 lb.)
BF51664PC-1	25.5L (0.9 cu. ft.)	1700°C	39.4 × 27.9 × 22.9cm (15.5 × 11 × 9in.)	76.2 × 71.1 × 78.7cm (30 × 28 × 31in.)	Multisegment/multiprogram	208/240V 50/60Hz 7100w	168kg (370 lb.)
BF51664PCOMC-1	25.5L (0.9 cu. ft.)	1700°C	39.4 × 27.9 × 22.9cm (15.5 × 11 × 9in.)	76.2 × 71.1 × 78.7cm (30 × 28 × 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

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

Multipurpose furnaces feature integral control to 1500°C



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

Warranty: 1 year (parts and labor)

- 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

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

Thermo Scientific M104 Muffle Furnaces

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



Ordering Alerts: Not available in North America
Certifications: CE
Warranty[†]: 2 years (parts and labor)

- 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

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
M104 Muffle Furnace									
50040485	With electronic controller and upper limit cut-out	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50049820	With adjustable fresh air supply for incinerating processes	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50040903	With electronic controller	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
M104G Muffle Furnace									
50047438	With electronic controller, upper limit cut-out and 24-hour timer	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50047439	With electronic controller, 24-hour timer and exhaust fan	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50051429	With electronic controller and adjustable fresh air supply	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50047440	With digital programmable controller	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	2.5kW	230V 50/60Hz, 1040W	51kg (112.4 lb.)
50047441	With digital programmable controller and exhaust fan	3.5L (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.12355 cu. ft.)	1000°C	± 10°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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

Warranty¹: 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 (0.12355 cu. ft.)	1100°C	± 6°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.12355 cu. ft.)	1100°C	± 6°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.12355 cu. ft.)	1100°C	± 6°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50049812	With adjustable fresh air supply for incinerating purposes	3.5L (0.12355 cu. ft.)	1100°C	± 6°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50040902	With electronic controller	3.5L (0.12355 cu. ft.)	1100°C	± 6°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50047063	With electronic controller and exhaust fan	3.5L (0.12355 cu. ft.)	1100°C	± 6°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 25.4in)	1.7kW	230V 50/60Hz, 690W	79.4kg (36 lb.)
50051059	With digital programmable controller and exhaust fan	3.5L (0.12355 cu. ft.)	1100°C	± 6°K	16 × 17 × 13cm (6.3 × 6.7 × 5.1in)	57 × 45.6 × 64.6cm (22.4 × 18 × 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 (0.31783 cu. ft.)	1100°C	±7°K	30 × 20 × 15cm (11.8 × 7.9 × 5.9in)	72 × 57.6 × 75.2cm (28.4 × 22.7 × 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)
50057440	With electronic controller, upper limit cut-out and 24-hr. timer	9L (0.31783 cu. ft.)	1100°C	±7°K	30 × 20 × 15cm (11.8 × 7.9 × 5.9in)	72 × 57.6 × 75.2cm (28.4 × 22.7 × 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 (0.31783 cu. ft.)	1100°C	±7°K	30 × 20 × 15cm (11.8 × 7.9 × 5.9in)	72 × 57.6 × 75.2cm (28.4 × 22.7 × 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 (0.31783 cu. ft.)	1100°C	±7°K	30 × 20 × 15cm (11.8 × 7.9 × 5.9in)	72 × 57.6 × 75.2cm (28.4 × 22.7 × 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)
51000802	With digital program controller and upper limit cut-out	9L (0.31783 cu. ft.)	1100°C	±7°K	30 × 20 × 15cm (11.8 × 7.9 × 5.9in)	72 × 57.6 × 75.2cm (28.4 × 22.7 × 29.6in)	2.9kW	230V 50/60Hz 1400W	78kg (172 lb.)

Accessories M104, K114, M110 Muffle Furnaces

Cat. No.	Description	For Use With
Accessories		
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
Factory-Installed Options		
50044447	Calibration Certificate for 900°C at center of work space	
50044188	Calibration, Additional Measuring Point	

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

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
Includes: 9ft. (3m) power cord
Warranty¹: 1 year (parts and labor)

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 × 41 × 38cm (11 × 16 × 15in.)	Digital, Single Segment	120V 50/60Hz 800w	16kg (35 lb.)
TF55030C-1	100° to 1100°C	30.5cm (12in.)	30.5cm (12in.)	28 × 41 × 38cm (11 × 16 × 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 × 41 × 38cm (11 × 16 × 15in.)	Digital, Multisegment Programmable	120V 50/60Hz 800w	16kg (35 lb.)
TF55035C-1	100° to 1100°C	30.5cm (12in.)	30.5cm (12in.)	28 × 41 × 38cm (11 × 16 × 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., TF55030**COM**A-1

208-240V units are available with cord and plug for China: please add "K" before last letter in cat.no. - e.g., TF55030**K**C-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; one set of (2) tube adapters included
- 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
Includes: One set of two tube adapters (59545)
Required Accessories: Power cord and hardwiring
Warranty: 1 year (parts and labor)

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 × 88.9 × 53.3cm (17 × 35 × 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 × 137.2 × 66cm (22 × 54 × 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., STF55346**COM**C-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



Includes: Independent digital temperature control module (ordered separately) are available in standard or programmable options
Warranty: 1 year (parts and labor)

- 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

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

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

Accessories

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



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
Warranty*: 1 year (parts and labor)

- 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

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

Includes: 1 set of two 2" tube adapters

Warranty¹: 1 year (parts and labor)

Cat. No.	Type	Temperature Range	Heated Zone	Exterior L x W x H	Tube O.D.	Electrical	Shipping Weight
STF55433C-1	Multisegment/single program	500° to 1500°C	30.5cm (12in.)	33.0 × 53.3 × 30.5cm (13 × 21 × 12in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	123kg (270 lb.)
STF55433PC-1	Multisegment/multiprogram	500° to 1500°C	30.5cm (12in.)	43.2 × 58.4 × 40.6cm (17 × 23 × 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz	123kg (270 lb.)
STF55433PBC-1	Multisegment/multiprogram/OTC	500° to 1500°C	30.5cm (12in.)	43.2 × 58.4 × 40.6cm (17 × 23 × 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
7100-2444-070	2.5cm (1in.)	STF55433C-1, STF55433PC-1, STF55433PBC-1
7100-2444-068	5cm (2in.)	STF55433C-1, STF55433PC-1, STF55433PBC-1
7100-2444-069	7.6cm (3in.)	STF55433C-1, STF55433PC-1, STF55433PBC-1

Thermo Scientific Lindberg/Blue M 1700°C Tube Furnaces

Rapid heatup, recovery and cooldown



- 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

Includes: 1 set of two 3" vestibules and sleeves.
Required Accessories: Independent digital temperature control module, available separately
Warranty^Y: 1 year (parts and labor)

Cat. No.	Temp. Range and Control	Heated Zone	Exterior L x W x H	Tube O.D.	Electrical	Shipping Weight
STF54434C	500° to 1700°C Independent	30.5cm (12in.)	40.6 × 55.9 × 48.3cm (16 × 22 × 19in.)	7.6cm (3in.)	208/240V, 50/60Hz 5000w	43kg (95 lb.)
STF54454C	500° to 1700°C Independent	61.0cm (24in.)	40.6 × 86.4 × 48.3cm (16 × 34 × 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
7219-2134-001	1in. Sleeve	STF54434C Tube Furnace
7219-2134-002	2in. Sleeve	STF54434C Tube Furnace
7219-2134-003	3in. Sleeve	STF54434C Tube Furnace
7219-2134-011	3in. Sleeve	STF54454C Tube Furnace
7219-2134-012	2in. Sleeve	STF54454C Tube Furnace
7219-2134-013	1in. Sleeve	STF54454C Tube Furnace
7219-2147-001	1in. Vestibule	STF54434C Tube Furnace
7219-2147-002	2in. Vestibule	STF54434C Tube Furnace
7219-2147-011	3in. Vestibule	STF54454C Tube Furnace
7219-2147-003	3in. Vestibule	STF54434C Tube Furnace
7219-2147-012	2in. Vestibule	STF54454C Tube Furnace
7219-2147-013	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)

Warranty^x: 1 year (parts and labor)

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

Includes: Detachable line cord and plug

Warranty: Three years

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

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

Thermo Scientific Cimarec Hotplates

Cat. No.	Heating Surface Area	Material (Surface)	Temp. Range	Overall L x W x H	Electrical
HP130914Q	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	5° to 540°C (41° to 1004°F)	25 × 13 × 10cm (10 × 5 × 3in.)	100V 50/60hz
HP130915Q	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	5° to 540°C (41° to 1004°F)	25 × 13 × 10cm (10 × 5 × 3.63in.)	120V 60Hz, 385w, 3.8A
HP130910-33Q	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	5° to 540°C (41° to 1004°F)	25 × 13 × 10cm (10 × 5 × 3in.)	220-240V, 50/60, 420w, 1.7A
HP131224Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	5° to 540°C (41° to 1004°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	100V 50/60hz
HP131225Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	5° to 540°C (41° to 1004°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	120V 60Hz, 1060w, 8.8A
HP131220-33Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	5° to 540°C (41° to 1004°F)	33 × 21 × 10cm (13 × 8 × 3in.)	240V, 50/60, 1150w, 4.8A
HP141924Q	18.4 × 18.4cm (7.25 × 7.25in.)	Aluminum	5° to 300°C (41° to 572°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	100V 50/60hz
HP141925Q	18.4 × 18.4cm (7.25 × 7.25in.)	Aluminum	5° to 300°C (41° to 572°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	120V 60Hz, 660w, 5.5A
HP141920-33Q	18.4 × 18.4cm (7.25 × 7.25in.)	Aluminum	5° to 300°C (41° to 572°F)	33 × 21 × 10cm (13 × 8 × 3in.)	220-240V, 50/60Hz, 690w, 2.9A
HP131534Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	5° to 400°C (41° to 752°F)	41 × 29 × 10cm (16.25 × 11.38 × 4in.)	100V 50/60hz
HP131535Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	5° to 400°C (41° to 752°F)	41 × 29 × 10cm (16.25 × 11.38 × 4in.)	120V 60Hz, 1410w, 11.7A
HP131530-33Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	5° to 400°C (41° to 752°F)	41 × 29 × 10cm (16.25 × 11.38 × 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 × 10.8cm (4.25 × 4.25in.)	Ceramic	60 to 1200rpm	5° to 540°C (41° to 1004°F)	25 × 13 × 10cm (10 × 5 × 3.63in.)	100V 50/60hz
SP131015Q	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	60 to 1200rpm	5° to 540°C (41° to 1004°F)	25 × 13 × 10cm (10 × 5 × 3.63in.)	120V 60Hz
SP131010-33Q	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	60 to 1200rpm	5° to 540°C (41° to 1004°F)	25 × 13 × 10cm (10 × 5 × 3.63in.)	220-240V 50/60Hz
SP131324Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	60 to 1200rpm	5° to 540°C (41° to 1004°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	100V 50/60hz
SP131325Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	60 to 1200rpm	5° to 540°C (41° to 1004°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	120V 60Hz
SP131320-33Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	60 to 1200rpm	5° to 540°C (41° to 1004°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	220-240V 50/60Hz
SP142025Q	18.4 × 18.4cm (7.25 × 7.25in.)	Aluminum	60 to 1200rpm	5° to 300°C (41° to 572°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	120V 60Hz
SP142020-33Q	18.4 × 18.4cm (7.25 × 7.25in.)	Aluminum	60 to 1200rpm	5° to 300°C (41° to 572°F)	33 × 21 × 10cm (13 × 8.25 × 3.88in.)	220-240V 50/60Hz
SP131634Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	60 to 1200rpm	5° to 400°C (41° to 752°F)	41 × 29 × 10cm (16.25 × 11.38 × 4in.)	100V 50/60Hz
SP131635Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	60 to 1200rpm	5° to 400°C (41° to 752°F)	41 × 29 × 10cm (16.25 × 11.38 × 4in.)	120V 60Hz
SP131630-33Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	60 to 1200rpm	5° to 400°C (41° to 1004°F)	41 × 29 × 10cm (16.25 × 11.38 × 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 × 10.8cm (4.25 × 4.25in.)	Ceramic	60 to 1200rpm	25.4 × 12.7 × 9.1cm (10 × 5 × 3.6in.)	100V 50/60hz
S130815Q	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	60 to 1200rpm	25.4 × 12.7 × 9.1cm (10 × 5 × 3.6in.)	120V 60Hz
S130810-33Q	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	60 to 1200rpm	25.4 × 12.7 × 9.1cm (10 × 5 × 3.6in.)	220-240V 50/60Hz
S131124Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	60 to 1200rpm	33 × 20.8 × 9.7cm (13 × 8.2 × 3.8in.)	100V 50/60hz
S131125Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	60 to 1200rpm	33 × 20.8 × 9.7cm (13 × 8.2 × 3.8in.)	120V 60Hz
S131120-33Q	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	60 to 1200rpm	33 × 20.8 × 9.7cm (13 × 8.2 × 3.8in.)	220-240V 50/60Hz
S142125Q	18.4 × 18.4cm (7.25 × 7.25in.)	Aluminum	60 to 1200rpm	33 × 20.8 × 9.7cm (13 × 8.2 × 3.8in.)	120V 60Hz
S142120-33Q	18.4 × 18.4cm (7.25 × 7.25in.)	Aluminum	60 to 1200rpm	33 × 20.8 × 9.7cm (13 × 8.2 × 3.8in.)	220-240V 50/60Hz
S131434Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	60 to 1200rpm	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	100V 50/60hz
S131435Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	60 to 1200rpm	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	120V 60Hz
S131430-33Q	26 × 26cm (10.25 × 10.25in.)	Ceramic	60 to 1200rpm	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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 RT Hotplates, Stirring Hotplates & Stirrers with Heating Segments

Dependable performance, outstanding safety and exceptional flexibility



Dependable Performance

- Built-in temperature controller and external probe
 - > Easy accurate temperature control
 - > Monitoring the temperature of your sample, bath or heating block
- Braking feature prevents decoupling and brings stir bar to immediate stop for quick flask removal
- StirTrac system with strong magnetic coupling
 - > Excellent low-speed stirring
 - > Consistent speed control
- Microprocessor feedback control provides constant speed despite changes in viscosity
- Super-fast heating blocks save time by reaching 225°C in 15 minutes!*
- Walk-away timer shuts off heating, stirring or both

Outstanding Safety

- Prevent runaway temperatures with independent over-temperature control with user-defined setpoint
- HOT TOP warning system prevents accidental burns
- Low-profile, aluminum base with six nonskid feet provide excellent stability
- Innovative Cool Touch heating block holder for safe and efficient removal of heating blocks
- Design protects internal components from spills

Modular, Flexible...Your Choice.

- Choose from a number of different probe types and sizes
- New versatile RT Elite remote display – use with or without a probe
- RT models available as hotplate only, stirrer only or stirring hotplate – Select only for the features you need
- Choose RT Elite stirring hotplate for advanced features

New! Innovative Heating Blocks

- Safer and cleaner than silicon oil baths, NEW! heating blocks have a fast heat-up rate with a maximum temperature of 350 °C
- NEW! Unique Cool Touch heating block holder stays below 70°C even when blocks are heated up to 225°C
 - > Allows safe removal of blocks from the hotplate by handling only the cool touch heating block holder!

Flexible Options

- Cool Touch holder accommodates any 5 vial segment blocks – or one hemisphere block
- Choose segment blocks for use with vials and hemisphere heating blocks for use with round bottom flasks
- All blocks share temperature probe inlet (0.38mm) for use with remote temperature probe

Features	RT	RT Elite
Built in Timer 1-999 minutes		X
Temperature Display	X	X
Stir Display		X
Timer display		X
Hotplate Only Model	X	
Stirrer Only Model	X	
Hotplate Stirrer Model	X	X
RS232 Port		X
Remote Probe Included	X	X
Use with Heating Blocks	X	X
Use with Remote Display		X
Variable temperature control in 2°C increments up to 150°C; 5°C increments above 150°C up to maximum	X	
Variable temperature control in 1°C increments without probe and 0.1°C increments for temperatures below 100°C when using remote temperature probe.		X

Includes: Detachable power cord and 6 in. (15.2cm) PTFE-coated temperature probe

Warranty[†]: Three years

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

* with temperature setting at 250°C and ambient temperature 23°C

Cat. Number	Description	Top Plate Material	Stir Range	Heat Range	Overall L x W x H	Electrical
Thermo Scientific RT						
SP136324Q	RT Stirring Hotplate	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
SP136325Q	RT Stirring Hotplate	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
SP136320-33Q	RT Stirring Hotplate	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
SP138724Q	RT Stirring Hotplate	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
SP138725Q	RT Stirring Hotplate	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
SP138720-33Q	RT Stirring Hotplate	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
HP139924Q	RT Hotplate	Aluminum	–	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
HP139925Q	RT Hotplate	Aluminum	–	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
HP139920-33Q	RT Hotplate	Aluminum	–	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
S138924Q	RT Stirrer	Stainless Steel	50-1200 rpm	–	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
S138925Q	RT Stirrer	Stainless Steel	50-1200 rpm	–	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
S138920-33Q	RT Stirrer	Stainless Steel	50-1200 rpm	–	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
Thermo Scientific RT Elite						
TF40000063	RT Elite Stirring Hotplate	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
TF40000064	RT Elite Stirring Hotplate	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
TF40000065	RT Elite Stirring Hotplate	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
TF40000066	RT Elite Stirring Hotplate	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
TF40000067	RT Elite Stirring Hotplate	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
TF40000068	RT Elite Stirring Hotplate	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
TF40000096	RT Elite Stirring Hotplate with external temperature display	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
TF40000069	RT Elite Stirring Hotplate with external temperature display	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
TF40000070	RT Elite Stirring Hotplate with external temperature display	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
TF40000071	RT Elite Stirring Hotplate with external temperature display	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
TF40000072	RT Elite Stirring Hotplate with external temperature display	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
TF40000073	RT Elite Stirring Hotplate with external temperature display	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
Thermo Scientific RT Elite Kits (All kits include: RT Elite stirring hotplate, external display, segment holder and 1 each of segments 4ml, 8ml, 16ml, 20ml and 40ml)						
TF40000074	RT Elite Stirring Hotplate Kit	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
TF40000075	RT Elite Stirring Hotplate Kit	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
TF40000076	RT Elite Stirring Hotplate Kit	Aluminum	50-1200 rpm	4° to 350°C (39° to 662°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz
TF40000077	RT Elite Stirring Hotplate Kit	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	100V 50/60Hz
TF40000078	RT Elite Stirring Hotplate Kit	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	120V 60Hz
TF40000079	RT Elite Stirring Hotplate Kit	Stainless Steel	50-1200 rpm	4° to 450°C (38° to 842°F)	28.4 × 16.5 × 9.9cm (11.2 × 6.5 × 3.9in.)	220/240V 50/60Hz

Thermo Scientific RT Heating Blocks and Accessories

Cat. Number	Description	Vial Diameter (mm)	Vial Height (mm)	Hole Depth (mm)	Segment Height (mm)	Number of vials per segment
Heating Blocks						
TF40000019	Segment 4ml	15	45	28	30	9
TF40000020	Segment 8ml	17	60	38	40	8
TF40000021	Segment 16ml	21	70	38	40	5
TF40000022	Segment 20ml	28	57	38	40	3
TF40000023	Segment 40ml	28	95	48	50	3
Cat. Number	Description	Height (mm)	Outer Cylinder Diameter (mm)	Inner Sphere Radius (mm)		
TF40000024	Hemisphere 1000ml	60	156	66.5		
TF40000025	Hemisphere 500ml	50	156	53		
TF40000026	Hemisphere 250ml	40	156	43		
Other Accessories						
TF40000028	Cool Touch segment holder					
TF40000027	Segment kit includes segment holder and 1 each of heating block segments 4 ml, 8ml, 16ml, 20ml and 40ml					
TF40000044	External temperature display for RT Elite					
TC732X1	Remote probe, 6-inch, 316ss (Max. Temp: 1100°C)					
TC732X2	Remote probe, 10-inch, 316ss (Max. Temp: 1100°C)					
TC727X2	Remote probe, 7-inch, PTFE					

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^Y: 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[†]: 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
HP194515	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
HP194825	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
SP194715	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	100 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
SP195025	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	100 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
S194615	10.8 × 10.8cm (4.25 × 4.25in.)	Ceramic	100 to 2500rpm	20 × 14.5 × 12.7cm (7.9 × 5.7 × 5in.)	120V 60Hz, 0.45A, 21w
S194925	18.4 × 18.4cm (7.25 × 7.25in.)	Ceramic	100 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

Warranty^Y: Three years

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



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

Includes: TFE-coated stir bar
Warranty^Y: Three years

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



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

Includes: TFE-coated stir bar
Warranty^Y: Three years
Certifications: cCSAus

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

* 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
SP135935Q	4	50 to 1200rpm	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
SP135930-33Q	4	50 to 1200rpm	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 × W × H	Shipping Weight	Electrical
S136035Q	4	50 to 1200rpm	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	9.3kg (20.5 lb.)	120V 60Hz
S136030-33Q	4	50 to 1200rpm	41.1 × 28.7 × 10.2cm (16.2 × 11.3 × 4in.)	9.3kg (20.5 lb.)	220-240V 50/60Hz

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.

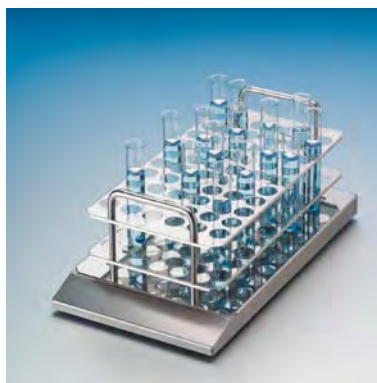
Cimarec i Magnetic Stirrers – Maintenance-free, inductive-drive stirrers

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 50088139 Micro stirrers without controller.

Warranty^Y: 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
50088139	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 50088137 Compact stirrer or 50088127 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*: Five years
Certifications: CE

Cat. No.	Model	Stirring Speed	Power Settings	Material	Protection Class (stirrer only)	L x W x H	Weight	Electrial
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^Y: Five years
Certifications: CE

Cat. No.	Model	No. of Stirring Positions	Power Settings	Overall L x W x H (16.5 × 9.4 × 1.4in.)	Stirring Speed	Protection Class	Weight	Electrical
50094596	Poly 15	15	10w	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	130 to 990rpm	IP32	6kg	100-240V
50093557	Multipoint 6	6	5/10/15/20w	420 × 240 × 35mm (16.5 × 9.4 × 1.4in.)	80 to 2000rpm	IP64	7.5kg	100-240V
50093538	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
50087876	Thermostat 60°C	115V	Circulation pump and digital temperature display	Telesytem Cimarec i Stirrers
50087884	Thermostat 60°C	230V	Circulation pump and digital temperature display	Telesytem Cimarec i Stirrers
50087867	Thermostat 95°C	115V	Circulation pump and digital temperature display	Telesytem Cimarec i Stirrers
50087875	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
50087880	Transparent Acrylic	610 × 330 × 185mm (24 × 13 × 7.3in.)	15L (3.9 gal.)	0° to 60°C	Telesytem Cimarec i Stirrers
50087882	Stainless Steel	520 × 315 × 160mm (20.4 × 12.4 × 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
50087957	Stainless Steel	20mm tubes in Telesytem Cimarec i Stirrers
50087955	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
50091720	4-Place Distributor
50091721	8-Place Distributor

Thermo Scientific Cimarec Extension Cables

Cat. No.	Model	Length	Compatibility
50088016	4-Pin Extension Cable	3m (9.8ft.)	Cimarec i Telemodul 20C, 40C and Cimarec Telemodul 10M Controllers
50088021	6-Pin Extension Cable	3m (9.8ft.)	Cimarec Telemodul Biosystem 40B Controller
50088102	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 Variomag 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 Variomag 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 CO₂ incubator



- Hermetically sealed housing resists microorganisms — separate external controller ensures only the hermetically sealed stirrer is exposed to the CO₂ 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:

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

Cat. No.	Model	Dimensions (L x W x H)	Weight	Stir Speed	Protection Class	Power Setting
50119113	Biosystem w/o Controller	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP68	0.4 to 4w
50119114	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 CO₂ 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*: Five years
Certifications: CE marked

Cat. No.	Model	Dimensions (L x W x H)	Weight	Stir Speed	Protection Class	Electrical	Power Setting
50088071	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	230V Euro	1w
50088058	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	115V USA	1w
50088057	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	230V UK	1w
50088064	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	230V Australia	1w
50101524	Biosystem 1-Position Direct	180 × 180 × 60mm (7 × 7 × 2.4in.)	3.4kg (7.5 lb.)	5 to 120rpm	IP64	100V Japan	1w
50088061	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^Y: 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
500119120	100 to 1000 rpm	10L	230V	Mobil 10 and Mobil 25
500119121	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^Y: 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
Cimarec 40M Controllers (40w)		
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
Cimarec 80M Controllers (80w)		
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 × 0.38 in. (5 × 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 228°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



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

Warranty¹: 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
HPA1915BQ	15.9cm ² (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
HPA1910MQ	15.9cm ² (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, ideal for range of applications with acidic or basic aqueous solutions.



- 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

Warranty¹: Three years

Includes: 5ft. (1.5m) 3-wire cord and plug

Cat. No.	Heating Surface	Temp. Range	Temp. Stability	Temperature Uniformity	Electrical Requirements
RC2235Q	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
RC2240Q	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[†]: 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

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

Warranty¹: 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
Bacterial research	Bacteria	Temperatures between 30 °C and 70 °C	General Protocol; Advanced Protocol for highest temperature accuracy, and time control
Microbiology	Microorganisms, cells	Temperatures between 30 °C and 50 °C	
Coliform determination	Bacteria	Temperature around 37 °C	
Histology	Tissue	Temperature around 37 °C	
Paraffin embedding	Paraffin	Temperatures of 37 °C to around 50 °C	
Egg incubation	Eggs	Temperature around 37 °C	General Protocol; Advanced Protocol for highest temperature accuracy, and time control
Heated storage	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
Gene cloning	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
Pharmaceutical stability testing	Various	Temperatures of 37 °C up to 105 °C	
Food and beverage testing	Various	Temperatures of 37 °C up to 105 °C	
BOD / water pollution testing	Water	Temperature around 20 °C	Compact
Yeast growth	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
Hatching of insects, fish	Insects	Temperature near or below ambient	

For lower temperatures: check the Thermo Scientific refrigerated models at: www.thermoscientific.com/incubators

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

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
50125590	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
50125882	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
50129111	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

Ordering Alerts: Availability may vary by country

Warranty¹: 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
51028063	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
51028130	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
51028064	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
51028131	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
51028065	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
51028132	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: 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

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: 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

Thermo Scientific Heratherm Microbiological Incubators Accessories

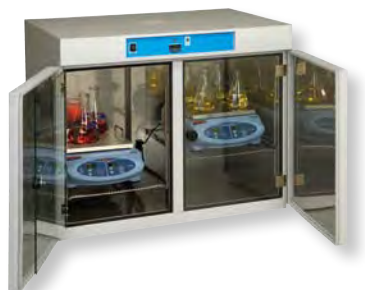
Cat. No.	Description	Details
50125605	SS shelf compact incubator	Stainless steel perforated shelf for Compact incubator
50127770	SS shelf IGS60	Stainless steel perforated shelf for General Protocol 60L unit; includes 2 shelf supports
50127771	SS shelf IGS100	Stainless steel perforated shelf for General 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
Additional Shelving & Drip Trays		
50128816	Petri Dish Holder (90 mm) 60L units	Shelf with holders for Petri dishes; 90 mm diameter; stainless steel; 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; stainless steel; 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; stainless steel; 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; stainless steel; 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; stainless steel; 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; stainless steel; 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
Support Stands		
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
Sample Sensor		
50127768	Sample sensor for IMH60-S / IMH100-S / IMH180-S	All Heratherm Advanced Protocol Security incubators
Stacking Kits		
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
Special Sealing		
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
Fresh Air Filter		
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
Factory-Installed Options — Please order in conjunction with desired incubator		
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; 850L unit offers choice of solid door or glass door for viewing
- 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
- Interior chamber is easy-to-clean stainless steel / aluminum (849.6L units)
- Low-watt density heater elements are designed for long life
- Internal electrical outlet allows operation of a shaker, stirrer or other lab apparatus (849.6L unit has two outlets)
- 317L units with double-door design

Warranty^Y: 1 year (parts and labor)

Certifications: 317L units are UL/cUL listed

Cat. No.	Capacity	Interior Dimensions (D x W x H)	Exterior Dimensions (L x W x H)	Control	Temp. Range	No. of Shelves	Electrical
Gravity Convection							
PR205075G	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)
PR205070G	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.	240V 50/60Hz (450w/1.9A)
Mechanical Convection							
PR205075M	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)
PR205070M	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.	240V 50/60Hz (520w/2.2A)
3971	849.6L (30 cu.ft.)	61.6 x 72.2 x 182.9cm (24.25 x 30 x 72in.)	74.3 x 91.4 x 224.5cm (31.5 x 36 x 88.5in.)	Hydraulic Thermostat	Ambient +5° to 70°C	6 supplied/ 30 max.	120V 50/60Hz (1450w/12.1A)
3973	849.6L (30 cu.ft.)	61.6 x 72.2 x 182.9cm (24.25 x 30 x 72in.)	74.3 x 91.4 x 224.5cm (31.5 x 36 x 88.5in.)	Hydraulic Thermostat	Ambient +5° to 70°C	6 supplied/ 30 max.	120V 50/60Hz (1450w/12.1A)

Accessories

Cat. No.	Description	For Use with
AY2076X1	Shelf Kit	High-Performance Incubator; Double-door 11.2 cu. ft. units
3166190	Shelf Kit	30 cu. ft. units

Thermo Scientific Series 6000 Microbiological Incubators

Optimal, homogeneous and stable environment for your samples



- Temperature uniformity and stability ensures reproducible protocols
- Safety features protect operator, samples and equipment
- Stainless-steel interiors with rounded edges and corners for easy cleaning
- Removable shelves and supports
- Kelvitron® Microprocessor temperature controller
 - > Accurate digital display of the setpoint or actual reading
 - > PD/PID control response for rapid heating, minimum overshoot and low control deviation
 - > Simple to operate
 - > Soft touch keypad for easy operation and cleaning
- Free standing with casters for easy moving
- Large choice of options and accessories

Mechanical Convection Models UB6420 and UB6760

- Forced-air circulation for outstanding temperature homogeneity
- Fan ensures consistent interior temperature distribution and short recovery times
- Atmosphere inside incubator regenerates rapidly, even when door is opened frequently

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

Cat. No.	Model	Chamber Volume	Technology	Temp. Uniformity/ Stability (@37°C)	Chamber Dimensions (D x W x H)	Exterior Dimensions (D x W x H)	Shelves Supplied (Max)	Electrical	Shipping Weight
51015281	B 6420	409L	Gravity Convection	≤±1.4 / ≤±0.5	55 x 54.4 x 136.6 cm	71.5 x 74.4 x 71.5cm	2 supplied/ 39 max.	230V 50/60Hz	157kg/ 346 lb.
51015294	B 6760	376L	Gravity Convection	≤±1.5 / ≤±0.5	52.2 x 54.4 x 131.9 cm	71.5 x 120 x 71.5cm	2 supplied/ 39 max.	230V 50/60Hz	239kg/ 527 lb.
51015282	UB 6420	751L	Mechanical Convection	≤±0.6 / ≤±0.5	55 x 100 x 136.6 cm	71.5 x 120 x 170.7cm	2 supplied/ 39 max.	230V 50/60Hz	346kg/ 763 lb.
51015295	UB 6760	689L	Mechanical Convection	≤±1.0 / ≤±0.5	52.2 x 100 x 131.9 cm	71.5 x 120 x 170.7cm	2 supplied/ 39 max.	230V 50/60Hz	527kg/ 1162 lb.

Thermo Scientific Series 6000 Microbiological Incubators Options & Accessories

Factory Installed Options	Cat. No.	Description
Please order in conjunction with main unit		
Temperature controllers¹		
Thermicon® P	51900208	Programmable controller: <ul style="list-style-type: none"> • Temperature program with max. 9 segments • Integral timer for switching the drying oven on or off, up to maximum 99h 59 min. • Sensor breakage indicator
Digicon® S with analog interface	51900053	Controller with analog interface: Accurate digital display of the setpoints or actual readings <ul style="list-style-type: none"> • PD/PID control response for rapid heating, minimum overshoot and low control deviation • External settings 0 ... 20 mA • External temperature recording 0 ... 10 V • Connection via DIN 41524 connector
Eurotherm 2404/P4 with RS 232 interface	51900297	Programmable controller with Microprocessor-controlled programs; PID control response <ul style="list-style-type: none"> • Accurate process control using four freely stored temperature programs of 16 segments each • RS232 interface
Eurotherm 2404/P4 with RS 422/485 interface	51900298	Programmable controller with Microprocessor-controlled programs; PID control response <ul style="list-style-type: none"> • Accurate process control using four freely stored temperature programs of 16 segments each • RS422/485 interface
Adjustable upper/lower temp. limit controller	51900220	Adjustable upper and lower temperature limit controller Protective Class 3.3 (upper/lower temperature limit protection), independent of the temperature controller <ul style="list-style-type: none"> • Automatically takes over the temperature control as soon as the temperature range set by the operator is exceeded in either direction. • No interruption to operation caused by a temperature rise or fall due to a control system malfunction independent of the temperature controller • Automatically takes over the temperature control if the upper temperature limit set by the operator is exceeded • No interruption to operation caused by a temperature rise or decrease due to a control system malfunction
Temperature sensor Pt 100 – connection for external temperature recorder	51900230	Connection facility for an external temperature recorder for measuring with Pt 100 or NiCr-Ni temperature sensor, connection via DIN 41524 plug connection <ul style="list-style-type: none"> • Documentation of oven temperature • Sensor permanently installed
Timers¹		
Daily program timer	51900159	Daily program timer (24 h) for automatic repetition of an on-off cycle over a period of one day <ul style="list-style-type: none"> • Shortest switching interval 15 min. • 90 hour power reserve in the event of a power failure
Weekly program timer	51900007	Weekly program timer (168 h) for automatic repetition of an on-off cycle over a period of seven days <ul style="list-style-type: none"> • Shortest switching interval 2 hours • 90 hour power reserve in the event of a power failure
Digital weekly program timer	51900161	Digital weekly program timer with digital display for free programming or for basic program, e.g., "On" at 06.00 hrs and "Off" at 22.00 hrs. <ul style="list-style-type: none"> • Shortest switching interval 10 min. • 16 hour power reserve in the event of a power failure
Door Version		
Left-hinged door 6420 models	50027652	Door with left hinge, for B6420 and UB6420
Lockable door	51900060	Door with door lock
Connection for Central Monitoring	51900063	Connection for central monitoring
Access Ports (Standard access port in the middle of the appropriate inner casing wall)		
Right-hand side wall3) ø18mm (0.7inch)	50049349	Access port 18 mm on right-hand side wall (in the middle of the inner casing)
Left-hand side wall ø18mm (0.7inch)	50049350	Access port 18 mm on left-hand side wall (in the middle of the inner casing)
Right-hand side wall3) ø53mm (2.1inch)	50049352	Access port 53 mm on right-hand side wall (in the middle of the inner casing)
Left-hand side wall ø53mm (2.1inch)	50049353	Access port 53 mm on left-hand side wall (in the middle of the inner casing)
Power access ports with 10 measuring terminals (Terminals located at the side)	50027659	Power access ports with 10 measuring terminals(Terminals located at the side)
Accessories		
Stainless steel perforated shelf B6420	50029491	with 2 shelf supports for B6420
Stainless steel perforated shelf B6760	50029492	with 2 shelf supports for B6760
Stainless steel perforated shelf UB6420	50044617	with 2 shelf supports for UB6420
Stainless steel perforated shelf UB6760	50044618	with 2 shelf supports for UB6760
Fine fresh-air filter	50030850	for all models

¹ Only one option out of this group possible

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
Warranty¹: 2 years (parts and labor)
Certifications: CE

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

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

Model	Features	Cat. No.
BK 6160 Kelvitron® K	Microprocessor controller	51007617
BK 6160 Kelvitron® KP	Microprocessor controller for programming of temperature profiles	51008404
BK 6160 Kelvitron® KL	Microprocessor controller for day/night simulation	51008667

Specifications		
Temperature	Range	0 – 50°C
	Deviation, temporal	± 0.1°C
	Deviation, spatial	± 0.8°C
	Relative humidity at T = 5 °C	> 75%
	at T = 37 °C	> 90%
Volume		166L
Number of Shelves		2 supplied, max. 7
External (W x H x D)		744 x 920 x 725 mm / 29.3 x 36.2 x 28.5 in.
Internal (W x H x D)		607 x 470 x 585 mm / 23.9 x 18.5 x 23.0 in.
Electrical Data		
Electrical Data	Air circulation rate (fan option)	150l/h
	Voltage/Frequency	230V, 50Hz
	Rated power	1.0kw
	Power consumption	0.5 kWh/h
	Excluding lighting	100 kg (222.5 lb.)
	Including lighting	120 kg (264.6 lb.)
Refrigerant: Type/Capacity		R134a/220g
Lighting²	Lamps/Intensity/Output	4 lamps/4000 lux/70w
	Color rendering	Daylight in acc. with DIN 5035

¹ Other voltages on request

² Included in model Kelvitron KL

Options & Accessories

Options	Cat. No.	Accessories	Cat. No.
Internal fan for air circulation	51900146	Manufacturer's calibration certificate	50044444
RS 232 interface incl. Kelvilog® documentation software	51900283	Access port, 19mm/0.7in.	50029825
Connection for central monitoring	51900083	Pt 100 sensor for temperature recording (requires access port)	50034314
Temperature limit controller class 3.3 (DIN 12880) for over/undertemperature protection	51900084	Additional stainless steel shelf	50029945

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

Warranty: 1 year (parts and labor)
Certifications: 115V units are cCSAus listed

Cat. No.	Capacity	Interior Dimensions (D × W × H)	Exterior Dimensions (L × W × H)	Uniformity @37°C	Temp. Range	Electrical
PR205745R	173L (6.1 cu. ft.)	50.8 × 67.3 × 144.8cm (20 × 26.5 × 57in.)	62 × 61 × 88cm (24.5 × 24 × 34.5in.)	±1.0°C	-10° to +60°C	115V 60Hz (9.5A)
PR205740R	173L (6.1 cu. ft.)	70 × 52 × 53cm (20.5 × 20.5 × 28in.)	62 × 61 × 88cm (24.5 × 24 × 34.5in.)	±1.0°C	-10° to +60°C	230V 50Hz (5.8A)
3721	566L (20.0 cu. ft.)	70 × 52 × 53cm (20.5 × 20.5 × 28in.)	74 × 82 × 191cm (29 × 32 × 75in.)	±0.5°C	-10° to +50°C	115V 60Hz (7.0A)
3722	566L (20.0 cu. ft.)	50.8 × 67.3 × 144.8cm (20 × 26.5 × 57in.)	80 × 91.4 × 237.5cm (31.5 × 36 × 93.5in.)	±0.5°C	-10° to +50°C	230V (2.3A)

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 shows actual temperature within 0.1°C
- 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[†]: 1 year (parts and labor)
Certifications: 115V unit is cCSAus listed

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
3759	504L (17.8 cu.ft.)	67.3 x 144.8 x 50.8cm (26.5 x 57 x 20in.)	82 x 191 x 74cm (32 x 75 x 29in.)	-10° to +50°C/ +10° to 50°C (illuminated)	±1.5°C at 20°C ±0.2°C	6 supplied; 6 max.	115V 60Hz
3758	504L (17.8 cu.ft.)	67.3 x 144.8 x 50.8cm (26.5 x 57 x 20in.)	82 x 191 x 74cm (32 x 75 x 29in.)	-10° to +50°C/ +10° to 50°C (illuminated)	±1.5°C at 20°C ±0.2°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

Cat. No.	Chamber Volume	Temp.	Shelf Area	Chamber Dimensions (W x D x H)	Exterior Dimensions (W x D x H)	Shipping Weight	Electrical
845	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

Warranty[†]:
1 year (parts); 90 days (labor)

Assessories

Cat. No.	Descriptions
844-6	Extra Shelf
019-168-00	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^Y: 1 year (parts);
90 days (labor)

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
849-6	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^Y: 1 year (parts);
90 days (labor)

Cat. No.	Chamber Volume	Shelf Area	Chamber Dimensions (W x D x H)	Exterior Dimensions (W x D x H)	Shipping Weight	Electrical
846	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
846-3	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
846-8	Chamber shelf (H x D) 16.5 x 125.7cm (6.5 x 49.5in.)
846-12	Mobile chamber stand 134.6 x 81.3 x 59.7cm (53 x 32 x 23.5in.)
846-13	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

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^Y: 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
6243	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
6242	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
6241	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
6240	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
Rotisseries		
222032	Delrin [®] Plastic Rotisserie	Shake 'n' Stack ovens
222033	Stainless-steel Rotisserie	Shake 'n' Stack ovens
222041	Stainless-steel Rotisserie	Shake 'n' Stack ovens
222042	Delrin Plastic Rotisserie	Shake 'n' Stack, Maxi 14 ovens
222043	Delrin Plastic Rotisserie	Shake 'n' Stack, Maxi 14 ovens
222044	Delrin Plastic Rotisserie	Shake 'n' Stack, Maxi 14 ovens
Other Accessories		
222051	Drip Tray	Shake 'n' Stack ovens
222000	Shaking Platform	Shake 'n' Stack ovens

Thermo Scientific Maxi 14 Hybridization Ovens

Ideal hybridization workstation features excellent temperature uniformity for reproducible results with low backgrounds



- High capacity for increased volume of hybridization; dual-action shaker for optimization of washing/staining protocols; and simultaneous operation of shaking platform and rotisserie for performing fast, efficient washing protocols
- Capacity of 6 or 14 bottles, a rotisserie and a dual-action (linear or orbital) shaking platform (max. load 4kg/8.8 lb.)
- Additional space allows hybridization to be performed in the bottles while simultaneously performing washing steps on the shaking platform
- Digital temperature LED display, settable in 0.1°C increments
- Over-temperature control protects samples by pulsing power as temperature approaches setpoint
- Slipping clutch mechanism allows rotisserie to be stopped by hand, so bottles can be removed and inserted without switching off rotisserie
- Variable-axis motion for additional end-to-end fluid movement

Models 6246, 6247 include: Standard 35ml rotisserie, 1 pack of mesh, 4 medium bottles, 4 bottle and cap seal, 1 large bottle gripper
Model 6249 includes: Large 70ml rotisserie, 1 pack of mesh, 4 large bottles, 4 bottle and cap seal, 1 large bottle gripper
Warranty*: 1 year (parts and labor)

Cat. No.	Capacity	Speed	Temp. Range	Temp. Uniformity	Interior D x W x H	Platform L x W	Exterior L x W x H	Electrical
6246	14 × 35mm bottles	Variable 5 to 15rpm	35° to 85°C	±0.25°C within bottle	32 × 35 × 51cm (13 × 14 × 12in.)	33 × 30cm (13 × 11.8in.)	45.6 × 45 × 69cm (27.6 × 18 × 18.1in.)	110V 250w
6247	14 × 35mm bottles	Variable 5 to 15rpm	35° to 85°C	±0.25°C within bottle	32 × 35 × 51cm (13 × 14 × 12in.)	33 × 30cm (13 × 11.8in.)	45.6 × 45 × 69cm (27.6 × 18 × 18.1in.)	220V 250w
6249	6 × 70mm bottles	Variable 5 to 15rpm	35° to 85°C	±0.25°C within bottle	32 × 35 × 51cm (13 × 14 × 12in.)	33 × 30cm (13 × 11.8in.)	45.6 × 45 × 69cm (27.6 × 18 × 18.1in.)	220V 250w

Maxi 14 Hybridization Ovens Accessories

Cat. No.	Description	For Use With
222034	Rotisserie; 35mm clips, 14 positions	Maxi 14 ovens
222035	Rotisserie; 70mm clips, 6 positions	Maxi 14 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
Bottles and Rack		
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
Bottle Caps and O-Rings		
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
Bottle Grippers		
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
Oven Mesh		
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
Accessory Pack		
222060	Includes two medium bottles, one bottle gripper, one mesh and hybridization guide	250 × 35mm

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
Digital Models						
2000Q	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
2000-1CEQ	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
2001Q	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
2001-1CEQ	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
2002Q	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
2002-1CEQ	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
2003Q	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
2003-1CEQ	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
2004Q	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
2004-1CEQ	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
Analog Models						
2050Q	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
2050-1CEQ	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
2052Q	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
2052-1CEQ	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
2053Q	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
2053-1CEQ	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
2054Q	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
2054-1CEQ	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
2056Q	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
2056-1CEQ	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
Blocks					
2070Q	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
2071Q	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
2072Q	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
2073Q	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
2081Q	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
2074Q	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
2075Q	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
2076Q	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
BKX40LLQ	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
BKX43LLQ	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
2059Q	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
2068Q	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
2069Q	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
2058Q	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
2078Q	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
2083Q	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
Titer Plates					
2064Q	Titer Plate; Direct contact; Size of two blocks	1		n/a	Digital 2000 series; Analog 2050 series
2065Q	Titer Plate; Size of two blocks	1		n/a	Digital 2000 series; Analog 2050 series
2085	Titer Plate; Stainless-steel cover	n/a		n/a	Models 2064Q and 2065Q
Cuvette					
2066Q	Cuvette; 12.5mm	12		n/a	Digital 2000 series; Analog 2050 series

Thermo Scientific Thermal Rocker Incubators

Excellent alternative to higher-priced hybridization incubators for agitation of blotting membranes under controlled temperatures



- 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

Includes: 3-wire line cord and plug

Warranty[†]: 1 year (parts); 90 days (labor)

Certifications: 120V model is cCSAus approved; 240V model is CE marked

Specifications	
Speed Range	0 to 100 cycles/min.
Rocking Angle	10° to 15°
Temperature Control	Electronic Proportional
Temperature Range	Ambient $\pm 5^\circ$ to 70°C
Temperature Accuracy	$\pm 0.5^\circ\text{C}$
Platform L x W	36 x 36cm (14.19 x 14.19in.)
Load Capacity	4.5kg (10 lb.)
Exterior L x W x H with cover	41 x 42 x 34.7cm (16 x 16.5 x 13.5in.)
Shipping Weight	11kg (25 lb.)

Cat. No.	Electrical
4637Q	120V 50/60Hz (3.3A)
4637-1CEQ	240V 50/60Hz (1.7A)

mixers

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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 MaxiMix II Vortex Mixer

Excellent for mixing media in test tubes, mixing cytogenetic suspensions in centrifuge tubes, vortexing cell suspensions and vortexing drug extractions.



- Ideal for enzymatic and RIA assay applications, atomic absorption sample preparation and Nelson's assay for reducing sugars
- Continuous operation and touch-on modes for gentle to vigorous mixing
- Simultaneously mixes contents of up to four test tubes or small flasks with closed tops
- White, durable plastic housing resists acids and alkalines
- Heavy-duty cast metal base with rubber feet assures stability and eliminates creep during use
- With two mixing devices: Rubber single-cup tube holder and foam pad for mixing flasks or multiple tubes simultaneously

Includes: Single-tube cup, foam pad, power cord
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, Foam Pad	Exterior L x W x H	Shipping Weight	Electrical
M37615Q	100-3000rpm	8.8cm (3.5in.)	17.7 × 11.4 × 15.2cm (7 × 4.5 × 6in.)	3.6 kg (8 lb.)	120V 50/60Hz, 0.75A
M37610-33Q	100-3000rpm	8.8cm (3.5in.)	17.7 × 11.4 × 15.2cm (7 × 4.5 × 6in.)	3.6 kg (8 lb.)	230V 50Hz, 0.30A

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 × 5.5in. (15.8 × 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	Load Capacity	Exterior L x W x H	Shipping Weight	Electrical
M65825	100 to 2200rpm	15.8 × 13.9cm (6.3 × 5.5in.)	2.2 kg (5 lb.)	21.5 × 16.5 × 13cm (8.5 × 6.5 × 5.1in.)	7.7 kg (17 lb.)	120V 50/60Hz, 0.4A
M65820-33	100 to 2200rpm	15.8 × 13.9cm (6.3 × 5.5in.)	2.2 kg (5 lb.)	21.5 × 16.5 × 13cm (8.5 × 6.5 × 5.1in.)	7.7 kg (17 lb.)	230V 50/60Hz, 0.2A



Accessories and Replacement Parts for MaxiMix III Vortex Mixer

Cat. No.	Description
PT500X6A	Replacement foam rubber pad
PT500X9A	Universal holder for a variety of flasks, beakers, bottles, test tub racks. Two soft rubber bars hold vessels in place.
PT500X7A	Utility tray
PT500X8A	Flask holder for 4 × 250mL flasks

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
Temperature range	50°C - 250°C	50°C - 330°C	50°C - 330°C
Interior material (120V models)	galvanized steel	stainless steel AISI 304	stainless steel AISI 304
Interior material (230V models)	1.4016	1.4301	1.4301
Rounded corners	✓	✓	✓
Microprocessor control	✓	✓	✓
Automatic over-temperature alarm	✓	✓	✓
Stackable with optional stacking kit	✓	✓	✓
Easy calibration routine	✓	✓	✓
Convection technology	gravity or mechanical	gravity or mechanical	gravity or mechanical
Time functions	on / off	choice of weekly / daily / real time	choice of weekly / daily / real time
Fresh air damper	manually controlled	electronically controlled	electronically controlled
Access port for independent data monitoring	Use exhaust vent	✓	✓
RS232 interface	✓	✓	✓
Adjustable fan speed		✓	✓
Programmable (ramps / dwells)		✓	✓
Boost function for accelerated heat-up		✓	✓
Dry alarm contact for connection of alarm device		✓	✓
Automatic undertemperature alarm			✓
Door alarm			✓
Lockable door			✓
Connection for optional sample temperature sensor			✓
Optional stainless steel exterior			✓

Application	Material/Sample*	Temp. Requirements	Recommended Heratherm Oven
Drying	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	
Material testing	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	
Curing	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	
Heated Storage	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.
Vulcanization	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 galvanized steel chambers with rounded corners for easy cleaning (120V models)
- Corrosion-resistant stainless-steel chambers with rounded corners for easy cleaning (230v and 208/240V models)
- 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: 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
Gravity Convection									
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
Mechanical Convection									
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

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[†]: 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
Gravity Convection									
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
Mechanical Convection									
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

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
Gravity Convection									
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
Mechanical Convection									
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

Thermo Scientific Heratherm Ovens Accessories

Cat. No.	Description	Details
Additional Shelving		
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 kitf, 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 kitf, 180L model, mechanical convection	Additional wire mesh shelf for 180L mechanical convection models, including 2 shelf supports
Stacking kits		
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
Support Stands		
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
Sample Sensor		
50127767	Sample sensor Advanced Protocol Security	Sample sensor to measure and display exact sample temperature - for Heratherm Advanced Protocol Security ovens
Underbench installation kit		
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
Special Sealing		
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
Fresh Air Filter		
50127566	Fresh air particle filter	Fresh air particle filter for connection to the fresh air vent (intake), for all ovens models.

* other voltages available on request

Thermo Scientific Heratherm Ovens Options

Cat. No.	Description	Details
Factory-Installed Options — Please order in conjunction with desired oven.		
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.
Ovens with View Package (ask for other voltages)		
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 Series 6000 Heating and Drying Ovens

Modular design concept that easily adapts to individual applications



- Temperatures up to 300°C*
- Standard with an independent, adjustable over-temperature controller
- Excellent temperature uniformity and state-of-the-art microprocessor control provide highest reproducibility
- Mechanical convection units feature speed setting for the air-circulation fan, ideal for optimum temperature control accuracy and high work loads with fast rates
- Short heat-up and recovery times; low level of heat emission
- Kelvitron® microprocessor temperature controller with RS232 interface standard
- Accurate digital display of the setpoint or actual reading
 - PD/PID control response for rapid heating, minimum overshoot and low control deviation
 - Simple to operate
 - Soft touch keypad for easy operation and cleaning
- Throttle valve process control for smooth adjustment of air changes
- Independent, adjustable upper-limit cutout – safety class 2
- 24-hour timer for switching on and off
- Long-lasting reliability: Made from high-quality materials and components in an ISO-certified production plant
- Free standing with casters for easy moving
- Large choice of options and accessories

Mechanical Convection Models UT6420 and UT6760

- Forced-air circulation for excellent temperature homogeneity and fast drying processes
- Fan ensures consistent interior temperature distribution and short recovery times
- Atmosphere inside incubator regenerates rapidly, even when door is opened frequently
- Speed setting for air-circulation fan (can not be switched off completely)
- Control range T: electronic controller from ambient +10°C to 300°C; control range UT: electronic controller from ambient +20°C to 300°C

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

Cat. No.	Model	Chamber Volume	Technology	Temp. Uniformity*/ Stability (@150°C)*	Chamber Dimensions (D x W x H)	Exterior Dimensions (D x W x H)	Shelves Supplied (Max)	Electrical/ Plug Type	Shipping Weight
51013301	T 6420	409	Gravity Convection	+/-3°C / ≤ 0.5°C	55 x 54.4 x 136.6cm	71.5 x 74.4 x 170.7cm	2 (39)	400.3V 50/60Hz	153kg
51015267	T 6760	751	Gravity Convection	+/-°C / ≤ 0.5°C	52.2 x 54.4 x 131.9cm	71.5 x 120 x 170.7cm	2 (39)	400.3V 50/60Hz	223kg
51015272	UT 6420	375	Mechanical Convection	+/-1.5°C / ≤ 0.5°C	55 x 100 x 136.6cm	71.5 x 74.4 x 170.7cm	2 (39)	400.3V 50/60Hz	163kg
51015273	UT 6760	689	Mechanical Convection	+/-1.5°C / ≤ 0.5°C	52.2 x 100 x 131.9cm	71.5 x 120 x 170.7cm	2 (39)	400.3V 50/60Hz	241kg

*Values stated apply to the unloaded oven in conjunction with wire mesh trays (measurement according to DIN 12880, Part 2), air flap closed.

Factory Installed Options Please order in conjunction with main unit	Cat. No. T-models (gravity convection)	Cat. No. UT models (mechanical convection)	Description
Temperature controllers¹			
Thermicon® P programmable controller	51900004	51900004	Microprocessor-controlled; PID control; Temperature program with max. 9 segments; Integral timer for switching on/off, up to max. 99h 59 min – no digital interface
Eurotherm 2404/P4 programmable controller with RS 232 interface	51900297	51900297	Microprocessor-controlled; PID control response; four freely stored temperature programs of 16 segments each; RS232 interface
Eurotherm 2404/P4 programmable controller with RS 422/485 interface	51900298	51900298	Microprocessor-controlled; PID control response; four freely stored temperature programs of 16 segments each; RS 422/485 interface
Digicon® S controller with analog interface	51900050	51900050	Controller with analog interface – detailed information on request
Temperature regulation¹			
Adjustable upper temp. limit controller	51900167	51900167	Adjustable upper temperature limit controller Protective Class 3.3
Adjustable upper and lower temp. limit controller	51900163	51900163	Adjustable upper and lower temperature limit controller Protective Class 3.3
Temperature sensor¹			
Temperature sensor Pt 100 – connection for external temperature recorder	51900009	51900009	Connection facility for an external temperature recorder for measuring with Pt 100
NiCri - connection for external temperature recorder	51900046	51900046	NiCri - connection for external temperature recorder
Digital recording of sample temperature with display	51900054	51900054	Connection for independent Pt 100 temperature sensor - to measure sample temperature, with display - please select sensor as accessory
Timers¹			
Daily program timer	51900159	51900159	Daily program timer (24 h) for automatic repetition of an on-off cycle over a period of one day; Shortest switching interval 15 min
Weekly program timer	51900007	51900007	Weekly program timer (168 h) for on-off cycles; shortest interval is 2h
Digital weekly program timer	51900161	51900161	Digital weekly program timer for on-off cycles; shortest interval is 10min; digital display
Fresh air fan – for UT models	–	51900285	Fresh air fan with speed setting only for UT models - mechanical convection (not available for 100-127 V)
Door Version			
	T-models (gravity convection)	UT-models (mechanical convection)	
Left-hinged door 6420 models	50027652	50027652	Door with left hinge, for B6420 and UB6420
Lockable door	51900060	51900060	Door with door lock
Door window 6420 models	51900014	51900019	Door with viewing window
Door window 6760 models	51900015	51900020	Door with viewing window
Connection for central monitoring	51900063	51900063	Connection for central monitoring
Access Ports (Standard access port in the middle of the appropriate inner casing wall)			
Top ø23mm (0.9inch)	50049336	50049342	Access port in center of the corresponding wall of inner casing top: ø23 mm
Right-hand side wall3) ø18mm (0.7inch)	50049337	50049343	Access port 18 mm on right-hand side wall (in the middle of the inner casing)
Left-hand side wall ø18mm (0.7inch)	50049338	50049344	Access port 18 mm on left-hand side wall (in the middle of the inner casing)
Top ø58mm (2.3inch)	50049336	50049342	Access port in center of the corresponding wall of inner casing top: ø58 mm
Right-hand side wall3) ø53mm (2.1inch)	50049340	50049346	Access port 53 mm on right-hand side wall (in the middle of the inner casing)
Left-hand side wall ø53mm (2.1inch)	50049341	50049347	Access port 53 mm on left-hand side wall (in the middle of the inner casing)
Power access ports with 10 measuring terminals	50027659	50027659	Power access ports with 10 measuring terminals (Terminals located at the side)
Accessories			
	Cat. No.	Cat. No.	Description
	T-models (gravity convection)	UT-models (mechanical convection)	
Wire mesh shelf 6420 models	50029405	50029416	with 2 shelf supports for 6420 models
Wire mesh shelf 6760 models	50029406	50029417	with 2 shelf supports for 6760 models
Stainless steel perforated shelf 6420 models	50029491	50044617	with 2 shelf supports for 6420 models
Stainless steel perforated shelf 6760 models	50029492	50044618	with 2 shelf supports for 6760 models
VITON® door seal 6420 models	50027789	50027789	VITON® door seal 6420 models - silicone-free
VITON® door seal 6760 models	50028180	50028180	VITON® door seal 6760 models - silicone-free
Fine Fresh-air Filter			
for connection to fresh-air connectors	50030850	50030850	for all models
for fresh-air fan	-	50027662	for all UT models with fresh air fan (mechanical convection)
Temperature Sensor PT100 for recording of sample temperature			
Max. temperature 220°C	50034314	50034314	PT100 temperature sensor - max temp 220°C; flexible cable
Max. temperature 300°C	50034316	50034316	PT100 temperature sensor - max temp 300°C; rigid cable

¹ Only one option out of this group possible

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^Y: 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^Y: 1 year (parts and labor)

Certifications: all models are UL listed

*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
6050	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.
6051	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.
6052	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.
6053	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.
6054	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.
6055	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.
6056	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
3166188	Precision High-Performance Ovens Models 605/605P	7
3166179	Precision High-Performance Ovens Models 625/625S	11
3166180	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 ensures over-temperature protection

Mechanical-Convection Models

- Uniform heating, precise temperature control and fast drying
- Hydraulic thermostat
- LED display
- Stainless-steel chamber

Applications: Drying and baking
Ordering Information: Additional shelves are sold separately
Includes: One fixed and two adjustable shelves.
Warranty¹: 1 year (parts and labor)
Certifications: UL/cUL listed

Cat. No.	Capacity	Interior D x W x H	Exterior L x W x H	Temp. Range	Chamber Material	Shipping Weight	Electrical
Gravity Convection							
PR305225G	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
PR305220G	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
Mechanical Convection							
PR305225M	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
PR305220M	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)

Cat. No.	Capacity	Display	Interior D x W x H	Exterior L x W x H	Temp. Resolution	Temp. Uniformity	Shipping Weight	Electrical
3606	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
3606-1CE	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
3608	19.8L (0.7 cu. ft.)	Bimetallic thermometer with 5°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16 × 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
3608-1CE	19.8L (0.7 cu. ft.)	Bimetallic thermometer with 5°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16 × 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
3608-5	19.8L (0.7 cu. ft.)	LED with 1°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16 × 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
3608-6CE	19.8L (0.7 cu. ft.)	LED with 1°C increments	30 × 25 × 25cm (12 x 10 x 10in.)	40 × 50 × 41cm (16 × 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
3618	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
3618-1CE	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
3618-5	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
3618-6CE	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

- 1in. (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

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
V0914A	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.)
V0914C	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.)
V0914SA	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.)
V01218A	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.)
V01218C	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.)
V01218SA	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.)
V01824A	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.)
V01824C	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.)
V01824SA	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.)
V01824HPC	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
6718	White Floor Stand	All Lindberg/Blue M vacuum ovens
6723	Stainless-steel Floor Stand	All Lindberg/Blue M vacuum ovens
118961	Connection Kit – includes NW fittings, centering rings, connectors, vacuum clamps and hose to connect vacuum pump to oven.	All Lindberg/Blue M vacuum ovens
305994H01	Silicone replacement gasket (red)	V0914 Series
305992H01	Silicone replacement gasket (red)	V01218 Series
305993H01	Silicone replacement gasket (red)	V01824 Series
118974	Buna-N silicone-free gasket, for temperatures up to 150°C only	V0914 Series
118977	Buna-N silicone-free gasket, for temperatures up to 150°C only	V01218 Series
34637H01	Buna-N silicone-free gasket, for temperatures up to 150°C only	V01824 Series
6826	Vacuum Pump	For V0914 Series
6827	Vacuum Pump	For V01218 and 1824 Series
6831	Vacuum Pump Oil	All Vacuum pumps
6832	Mist Filter Element	All Vacuum pumps
6834	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
- Double-paned safety-glass front window 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 Kelvitrone* 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

Ordering Alerts: Not available in some countries
Certifications: CE
Warranty^y: 2 years (parts and labor)

Cat. No.	Model	Type	Capacity	Internal Dimensions	External Dimensions ¹	Rated Temp. ^{2,3}	Spatial temp. deviation ^{2,4}	Heat Output	Electrical ⁵	Weight
51014550	VT 6025	Jacket-Heating no inert gas connection	25L	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
51014552	VT 6025	Jacket-Heating	25L	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
51014553	VT 6025	Jacket-Heating*	25L	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
51014554	VT 6025	Jacket-Heating with Digicon S**	25L	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
51014539	VT 6060 M	Jacket-Heating	53L	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
51014542	VT 6060 P	Shelf-Heating***	53L	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
51014541	VT 6130 M	Jacket-Heating	128L	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	±6 (@200°C)	870 Wh/h	230V 50/60Hz, 2.2kW	153kg
51014543	VT 6130 P	Shelf-Heating***	128L	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

* With digital pressure display and recorder output

** Digicon S: Analog temperature controller

*** Come standard with Digicon multi-channel controller and rated temperature of 300 C; for 400 C: order option in addition, see next page

¹ Depth without handle and wall distance. Dimensions: handle 70 mm, wall distance 80 mm

² The values stated apply to the empty oven and vacuum operation in acc. with DIN 12880, part 2

³ Control range M: electronic controller from TA + 15 °C; control range P: electronic controller from TA + 10 °C; TA = Ambient temperature

⁴ Measured on the shelves

⁵ Other voltages on request

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	Stainless steel 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
Rated pumping capacity (Pneurop)	m ³ /h	9.6	3.0	1.7	8.6
Total final pressure without gas ballast	mbar	2	2	10	0.1
Total final pressure with gas ballast	mbar	<10	<10	<20	6 x 10 ⁻¹
Water vapor compatibility	mbar	–	–	–	40
Capacity of trap	ml	725	500	500	500
Weight	kg	24	18	14	21.6
Dimensions with trap (w/h/d)	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
Voltage	V3N~, 50/60 Hz	400	400	–	400
Max. rated power	kW	3.37	3.20	–	3.37
External dimensions (w/h/d)	mm	895/650/900	895/650/900	–	895/650/900
Total weight	kg	88	80	–	86
Protection class		I	I	–	I
Protection type		IP 20	IP 20	–	IP 20

*iin combination with VT 6060 or VT 6130

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)
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
51900081	Central monitoring connection
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 no. 51014550)
51900284	RS232 computer interface

Thermo Scientific Hi-Temp Vacuum Ovens

Over-temperature protection for peace of mind at temperatures up to 280°C



- 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

Warranty¹: 1 year (parts and

Cat. No.	Capacity	Interior D x W x H	Exterior L x W x H	Temp. Range	Temp. Uniformity	Shipping Weight	Electrical
3625A	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
3625A-1	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
3628A	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
3628A-1	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

pumps

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Thermo Scientific FH10, FH15 and FH30 Peristaltic Tubing Pumps

Ideal where space is limited for a wide range of fluid handling needs



Thermo Scientific FH10

- Quality design in a small, compact package
- Complete systems with pump, motor, and control in a stackable steel housing

Wide Range of Performance

- Flowrates less than 3µL/min. to 43mL/min.
- Accurate and repeatable flow delivery

Easy-to-Use Controls

- Separate single-turn speed control
- Flow direction switch with center OFF position
- Green LED power ON indicator
- PRIME button runs pump at maximum speed to rapidly prime or flush tubing
- Reversible pump direction to purge tubing

Easy to Maintain

- Simple, fast tubing changes
- Fixed occlusion eliminates adjustment after tubing changes and assures operation against pressure up to 2 bar (30psig)

High Purity Assured

- Most tubing materials exceed USP Class VI and EP (European Pharmacopeia) standards
- For the highest purity requirements use BioPharm silicone tubing



Thermo Scientific FH15



Thermo Scientific FH30

Warranty^Y: 1 year
Certifications: UL, cUL (Power Supply) CE, RoHS, ISO9001:2008

FH10, FH15 and FH30 Flowrate by tubing size

Catalog Number	rpm	Microbore pump tubing size (ID)							
		0.19 mm	0.25 mm	0.51 mm	0.89 mm	1.14 mm	1.42 mm	2.06 mm	2.79 mm
FH10 (72-310-010)	1.7 to 10	0.002 to 0.013	0.004 to 0.022	0.015 to 0.087	0.041 to 0.25	0.064 to 0.39	0.09 to 0.57	0.18 to 1.05	0.25 to 1.65
FH10 (72-310-080)	13 to 80	0.017 to 0.10	0.03 to 0.18	0.12 to 0.70	0.33 to 2.0	0.52 to 3.1	0.75 to 4.5	1.4 to 8.5	1.8 to 11.0
FH10 (72-310-300)	50 to 300	0.06 to 0.38	0.11 to 0.67	0.43 to 2.6	1.2 to 7.4	1.9 to 11.5	2.8 to 17.0	5.3 to 32	7.2 to 43

Catalog Number	rpm	Thermo Scientific Precision pump tubing			
		Size 13	Size 14	Size 16	Size 25
FH15 (72-315-100)	20 to 100	0.8 to 4.0	2.8 to 14	11 to 54	21 to 105
FH30 (72-330-100)	20 to 100	0.8 to 4.0	2.8 to 14	Not recommended	Not recommended

Thermo Scientific FH10, FH15 and FH30 Peristaltic Pump Tubing

Pump tubing formulation	Silicone (platinum)	Tygon® R-3603	Tygon® LFL	Bio-Pharm (silicone)	PharMed® BPT	FDA Viton®
Advantages	Excellent biocompatibility. No leachable additives, DOP, or plasticizers; phthalate and latex-free; odorless and nontoxic, fungus-resistant. Weather, ozone, corona, and radiation resistant. Minimal tendency to take a set.	Inexpensive tubing for general laboratory applications. Nonaging, nonoxidizing. Low gas permeability. Good for viscous fluids.	Longest life of all Tygon peristaltic tubing (up to 1000 hrs). Broad chemical resistance. Nonaging, nonoxidizing. Low gas permeability. Smooth bore. Good for viscous fluids.	Ultra-smooth inner surface minimizes particle entrapment. Lower absorption; excellent biocompatibility; no leachable additive, DOP, or plasticizers. Very low extractables. Fungus-resistant. Weather, ozone, corona, and radiation resistant.	Great for tissue and cell work—nontoxic and nonhemolytic. Long service life minimizes risk of fluid exposure. Opaque to UV and visible light to protect light-sensitive fluids. Low gas permeability.	Similar to Viton (06412) but with FDA compliance. Excellent chemical resistance. Resistant to corrosives, solvents, and oils at elevated temperatures. Low gas permeability.
Physical characteristics and composition	Thermal set rubber. Siloxane polymers and amorphous silica. Soft material; flexible. Translucent, clear to light amber.	Thermoplastic. PVC-based material with plasticizer. Firm (stiff) material. Transparent, clear.	Thermoplastic. PVC-based material with plasticizer. Firm (stiff) material. Transparent, clear.	Thermal set rubber. Siloxane polymers and amorphous silica. Soft material; flexible. Translucent, clear to light amber.	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil. Firm (stiff) material. Opaque, beige.	Thermal set rubber. Viton B (67% fluorine). Firm (stiff) material. Opaque, black.
Temperature Range	-50 to 230°C (-58 to 446°F)	-50 to 74°C (-58 to 165°F)	-50 to 74°C (-58 to 165°F)	-60 to 232°C (-76 to 450°F)	-51 to 132°C (-60 to 270°F)	-32 to 205°C (-25 to 400°F)
Meets classifications	USP Class V Extractables; exceeds Class VI Implant; FDA 21 CFR 177.2600; Exceeds 3A Sanitary cGMPs (FDA 21 CFR 210 and 211). European Pharmacopoeia (EP)	FDA 21 CFR 175.300	USP Class VI FDA 21 CFR 175.300	USP Class VI FDA 21 CFR 177.2600 Exceeds 3A sanitary standards European Pharmacopoeia (EP)	USP Class VI FDA 21 CFR 177.2600 European Pharmacopoeia (EP)	FDA 21 CFR 177.2600
Cleaning and sterilization	Clean with hot water soap solution; use a non-oily soap such as Ivory®. Rinse well with distilled water. Ethylene oxide (ETO) sterilization is not recommended—sufficient data is not available about complete outgassing of residual ETO and other ETO products.	Sterilize with ETO or autoclave. To autoclave: Coil tubing loosely in nonlinting cloth or paper, autoclave at 121°C (250°F), 1 kg/cm ² (15 psi) for 30 minutes (tubing will appear milky); air dry at max 66°C (150°F) for 2 to 2 1/2 hours until clear.	Sterilize with ETO or autoclave. To autoclave: Coil tubing loosely in nonlinting cloth or paper, autoclave at 121°C (250°F), 1 kg/cm ² (15 psi) for 30 minutes (tubing will appear milky); air dry at max 66°C (150°F) for 2 to 2 1/2 hours until clear.	Sterilize by ETO, autoclave, or gamma radiation up to 2.5 Mrad. To autoclave: coil loosely in nonlinting cloth or paper; autoclave at 121°C (250°F), 1 bar (15 psi) for 30 minutes.	Sterilize by ETO, autoclave, or gamma radiation up to 2.5 Mrad. Repeated autoclaving will not affect overall life.	Sterilize by using a circulating hot air oven at 249°C (480°F) for 16 hours.

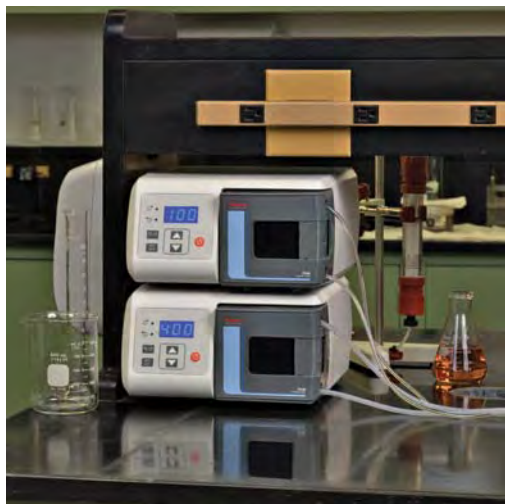
Size ID (mm)	Silicone Platinum	Tygon R-3603	Tygon LFL	PharMed BPT	FDA Viton
FH10 Tubing					
0.19	X	95609-10	X	X	X
0.25	X	95609-12	X	95809-12	X
0.51	95590-18	95609-18	96429-18	95809-18	X
0.89	95590-26	95609-26	96429-26	95809-26	97632-26
1.14	95590-30	95609-30	96429-30	95809-30	97632-30
1.42	95590-34	95609-34	96429-34	95809-34	97632-34
2.06	95590-42	95609-42	96429-42	95809-42	97632-42
2.79	95590-48	95609-48	96429-48	95809-48	97632-48
Qty/Pk	50 ft (15.2 m)	50 ft (15.2 m)	100 ft (30.4 m)	100 ft (30.4 m)	50 ft (15.2 m)

Size ID (mm)	Silicone Platinum	Tygon R-3603	BioPharm Plus Silicone	PharMed BPT
FH15 and FH30 Tubing Links				
13	6421-13	6416-13	96116-13	96114-13
14	6421-14	6416-14	96116-14	96114-14
16	6421-16	6416-16	96116-16	96114-16
25	6421-25	6416-25	96116-25	96114-25
Qty/Pk	8 ft	8 ft	8 ft	8 ft
FH15 and FH30 Connection Tubing				
13	X	*	**	72-303-013
14	72-300-014	72-310-014	72-300-014	72-303-014
16	72-300-016	72-310-016	72-300-016	72-303-016
25	72-300-025	72-310-025	72-300-025	72-303-025
Qty/Pk	25 ft (7.6 m)	50 ft (15.2M)	25 ft (7.6 m)	25 ft (7.6 m)

* We recommend using 72-310-014 as connection tubing.
 ** We recommend using 72-300-014 as connection tubing.

Thermo Scientific FH100 and FH100X General-Purpose Peristaltic Pumps

Outstanding durability, pump performance and ease of use for a wide range of fluids from the highest purity to extremely caustic solutions



Easy to maintain

- Easy-to-use fluid handling system — simple control keypad with integrated pumphead
- Low maintenance with minimum downtime — new rapid loading pumphead allows tubing change in less than 30 sec.
- Space efficient — low-profile, stackable design with a small footprint
- Accurate, reliable control of flow and dosing — digital display of rpm for accurate control

Easy to use controls

- Stop and start from the front panel
- Increase/decrease flow
- Select internal or external remote signal control

Warranty¹: 1 year
Certifications: ETL, cETL, CE, RoHS

	FH100 (Thin Wall)	FH100 (Thck Wall)
Cat. No.	72-320-000	72-320-100
Performance		
Flow Capacity (mL/min.)	0.5 to 3,000	14 to 4,000
RPM	4 to 400	
Reversible	Yes	
External Control - Input	4-20 mA; 0-10V; Remote/Local; Dir (CW/CCW); Start/Stop	
Pump Open Lockout or door Sensor	Yes	
Electrical		
Voltage (AC) 60/50 (Hz)	90 to 130V AC or 200 to 260V AC; Single phase, auto-selected	
Current	1.6 A @ 115V; 1.9A @ 230V	
Motor Type	PMDC	
Motor Size	1/10 (75w)	
Phase Control	Phased Controlled	
Display (rpm)	Seven-segment, 3-digit, Blue LED, 1 RPM resolution	
Speed regulation (accuracy)	± 0.25% (full scale)	
Physical Specifications		
Housing and pump head construction	Housing: ABS; Pump head: GF Nylon, Delrin®, Stainless steel, Cold-rolled steel, Buna N, Polycarbonate	
IP rating	IP31	
Agency approvals	ETL, cETL, CE, RoHS	
Storage temperature	-25 to 65°C (-13 to 149°F)	
Operating Temp	0°C to 40°C	
Dimensions	31.7 x 27.9 x 15.2 (cm) 12.5 x 11 x 6 (in.)	
Shipping Weight	7 (kgs) 15 lbs	

Thermo Scientific FH100D and FH100DX Dispensing Pumps

Specifically designed for critical metering and dispensing applications — you can pump, dispense and fill — all with one unit



Warranty¹: 1 year
Certifications: ETL, cETL, CE, RoHS

Easy to maintain

- New rapid loading pump head allows tubing change in less than 30 seconds
- Robust motor and drive system provides low maintenance long-term operation
- Contamination free pumping — the fluid contacts only the tubing material

Easy to use

- Programmable in seven languages — provides easy set-up in almost any global location
- Universal voltage and frequency capability allows operation world-wide — IEC320 socket provided

Diverse performance range

- Programmable dispensing by volume, time, or copy modes with a programmable delay between cycles for convenient, automated dispensing

Ergonomic design

- Optimizes system accuracy by calibrating the pump system in process — the calibration is stored in memory — one calibration value per tubing size
- Safety interlock powers down unit when changing tubing

	FH100 (Thin Wall)	FH100 (Thck Wall)
Cat. No.	72-320-200	72-320-250
Performance		
Flow Capacity (mL/min.)	0.5 to 3000	14 to 4000
RPM	4 to 400	
Reversible	Yes	
Pump Open Lockout or door Sensor	Yes	
Electrical		
External control – input	0 to 20 mA, 4 to 20 mA, or 0 to 10V; Scalable START/STOP, DIR. (CW/CC), PRIME via contact closure	
	Remote / Local Indication	
External control – output	4 to 20 mA, or 0 to 10V	
Motor running logic	N.O. or N.C. (1A @ 24V)	
Tachometer output	5V, TTL pulse	
Voltage (50/60 Hz)	115/230V AC (auto selected)	
Motor type	1/10 HP, (75 w) PMDC	
Control type	Phase-Controlled	
Speed resolution (repeatability)	±0.1 rpm @ 4 to 400 RPM	
Speed regulation	±0.25% (full scale)	
Physical Specifications		
Operating temperature	0 to 40°C (32 to 104°F)	
Storage temperature	-25 to 65°C (-13 to 149°F)	
Housing materials	Housing: ABS; Pump head: GF Nylon, Delrin®, Stainless steel, Cold-rolled steel, Buna N, Polycarbonate	
IP rating	IP31	
Agency approvals	ETL, cETL, CE, ROHS	
Controller dimensions (L x W x H)	31.7 x 27.9 x 15.2 (cm) 12.5 x 11 x 6 (in.)	
Shipping weight	7 (kgs) 15 lbs	

Thermo Scientific FH100, FH100X, FH100D and FH100DX Pump Tubing & Links

Pump tubing formulation	BioPharm® Silicone Tubing (platinum-cured)	PharMed® BPT	Norprene® Food (A 60 F)	Tygon® Lab (R-3603)
Series number	72-300-XXX	72-303-XXX	72-305-XXX	72-310-XXX
Advantages	Ultra-smooth inner surface minimizes particle entrapment. Lower absorption; excellent biocompatibility; no leachable additive, DOP, or Very low extractables. Odorless and nontoxic, fungus-resistant. No taste imparted to transported fluids. Weather, ozone, corona, and radiation resistant.	Great for tissue and cell work – nontoxic and nonhemolytic. Long service life minimizes risk of fluid exposure. Opaque to UV and visible light to protect light-sensitive fluids. Low gas permeability.	Similar to Norprene (06404) but with FDA approval. Longest life, good flow consistency. Heat and ozone resistant. Good resistance to acids/alkalies. Heat sealable, nonaging, and nonoxidizing.	Inexpensive tubing for general laboratory applications. Nonaging, nonoxidizing. Low gas permeability. Good for viscous fluids.
Physical characteristics and composition	Thermal set rubber. Siloxane polymers and amorphous silica. Soft material; flexible. Translucent, clear to light amber.	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil. Firm (stiff) material. Opaque, beige.	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil. Firm (stiff) material. Opaque, beige.	Thermoplastic. PVC-based material with plasticizer. Firm (stiff) material. Transparent, clear.
Temp. Range	–60 to 232°C (–76 to 450°F)	–51 to 132°C (–60 to 270°F)	–51 to 135°C (–60 to 270°F)	–50 to 74°C (–58 to 165°F)
Meets classifications	USP Class VI FDA 21 CFR 177.2600 Exceeds 3A sanitary standards European Pharmacopoeia (EP)	USP Class VI FDA 21 CFR 177.2600 NSF-listed (Standard 51). European Pharmacopoeia (EP)	FDA 21 CFR 177.2600 NSF-listed (Standard 51)	FDA 21 CFR 175.300

Flow rate by Tubing Size	FH100 and FH100D Flow Rates						FH100X and FH100DX Flow Rates			
	13	14	16	25	17	18	15	24	35	36
mL/min	0.50 – 40	2.0 – 150	6.5 – 550	16 – 1200	24 – 2000	368 – 3000	14 to 1200	24 to 2000	36 to 3000	48 to 4000
Tubing I.D.	1/32 in. 0.08 mm	1/16 in. 1.6 mm	1/8 in. 3.2 mm	3/16 in. 4.8 mm	1/4 in. 6.4 mm	5/16 in. 8.0 mm	3/16 in. 4.8 mm	1/4 in. 6.4 mm	5/16 in. 8.0 mm	3/8 in. 9.5 mm

General Purpose	1.6 mm Wall - Use in FH100 and FH100D						2.4 mm wall- Use in FH100X and FH100DX			
	0.08 mm	1.6 mm	3.2 mm	4.8 mm	6.4 mm	8.0 mm	4.8 mm	6.4 mm	8.0 mm	9.5 mm
BioPharm Silicone	X	72-300-014	72-300-016	72-300-025	72-300-017	72-300-018	72-300-015	72-300-024	72-300-035	72-300-036
PharMed BPT	72-303-013	72-303-014	72-303-016	72-303-025	72-303-017	72-303-018	X	X	X	X
Norprene Food	X	72-305-014	72-305-016	72-305-025	72-305-017	72-305-018	X	X	X	X
Tygon	X	72-310-014	72-310-016	72-310-025	72-310-017	72-310-018	X	72-310-024	72-310-035	72-310-036

Precision Tube Links	1.6 mm Wall - Use in FH100 and FH100D						2.4 mm wall- Use in FH100X and FH100DX			
	Size 13	Size 14	Size 15	Size 25	Size 17	Size 18	Size 15	Size 24	Size 35	Size 36
BioPharm Silicone	X	75-300-014	75-300-016	75-300-025	75-300-017	75-300-018	X	X	X	X
Norprene Food	75-305-130	75-305-140	75-305-160	75-305-025	75-305-170	75-305-180	75-305-155	75-305-245	75-305-355	75-305-365
BioPharm Silicone	75-300-130	75-300-140	75-300-160	75-300-252	75-300-170	75-300-180	75-300-155	75-300-245	75-300-355	75-300-365
PharMed BPT	75-303-130	75-303-140	75-303-160	75-303-250	75-303-170	75-303-180	75-301-155	75-301-245	75-301-355	75-303-365
Tygon	75-310-130	75-310-140	75-310-160	75-310-250	75-310-170	75-310-180	75-310-155	75-310-245	75-310-355	75-310-365

Thermo Scientific FH100, FH100X, FH100D and FH100DX Pump Elements

Pump tubing formulation	INDUSTRIAL GRADE		
	GORE® Style 500	GORE® Style 100SC	GORE® Style 400
Series number	96210-XX	96200-XX	6439-XX
Advantages	Similar to Style 500 tubing but with enhanced chemical resistance. Resistant to many organic and inorganic fluids. Long life at pressure up to 60 psi (4 bar). Spallation-free. Excellent biocompatibility. Low gas permeability.	No leachable additives, DOP, or plasticizers; phthalate and latex-free; odorless and nontoxic, fungus-resistant. No taste imparted to transported fluids. Weather and ozone resistant. Spallation-free. Minimal tendency to take a set.	Excellent chemical resistance. Resistant to corrosives, solvents, and oils at elevated temperatures. Low gas permeability.
Physical characteristics and composition	ePTFE (expanded PTFE) and per-fluoroelastomer (FFKM). Excellent tensile strength. Firm (stiff) material. Opaque, off-white.	Platinum-cured silicone and expanded PTFE Excellent tensile strength. Firm (stiff) material. Opaque, white.	Viton® fluoroelastomer (FKM) and expanded PTFE Firm (stiff) material. Opaque, beige.
Temperature Range	-80 to 200°C (-112 to 392°F)	-44 to 200°C (-47 to 392°F)	(0°C to 200°C (32°F to 392°F))
Meets classifications	RoHS and ADF compliant	RoHS and ADF compliant	RoHS and ADF compliant
Gas permeability cc x mm (cm² x sec x cm Hg) x10⁻¹⁰	C02: 76 to 79 H2: — O2: — N2: 4.3	C02: 20,132 H2: 6579 O2: 7961 N2: 2763	C02: 76 to 79 H2: — O2: 13 to 15 N2: 4.3

Flow rate by Tubing Size	FH100 and FH100D Flow Rates						FH100X and FH100DX Flow Rates			
	13	14	16	25	17	18	15	24	35	36
mL/min	0.50 – 40	2.0 – 150	6.5 – 550	16 – 1200	24 – 2000	368 – 3000	14 to 1200	24 to 2000	36 to 3000	48 to 4000
Tubing I.D.	1/32 in. 0.08 mm	1/16 in. 1.6 mm	1/8 in. 3.2 mm	3/16 in. 4.8 mm	1/4 6.4 mm	5/16 in. 8.0 mm	3/16 in. 4.8 mm	1/4 in. 6.4 mm	5/16 in. 8.0 mm	3/8 in. 9.5 mm

High Resilience	1.6 mm Wall - Use in FH100 and FH100D						24mm wall - Use in FH100X and FH100DX			
	Size 13	Size 14	Size 16	Size 25	Size 17	Size 18	Size 15	Size 24	Size 35	Size 36
Style 100 SC	X	96200-14	96200-16	96200-25	96200-17	96200-18	96200-15	96200-24	96200-35	96200-36
Style 500	X	96210-14	96210-16	96210-25	96210-17	96210-18	96210-15	96210-24	96210-35	96210-36
Style 400 FKM	X	X	6439-16	X	6439-17	X	6439-15	6439-24	6439-35	6439-36

Thermo Scientific FH100M Multichannel Pumps

Multichannel pumping with the accuracy of flow control and broad flow range to efficiently service most pumping applications including bioassays, electrophoresis, chromatography, and pH control



Warranty^Y: 1 year
Certifications: ETL, cETL, CE, RoHS

Catalog Number	72-320-046	72-320-048	72-320-083	72-320-084	72-320-126	72-320-128
Model Description	FH100M 4/6	FH100M 4/8	FH100M 8/3	FH100M 8/4	FH100M 12/6	FH100M 12/8
Maximum Number of Channels	4	4	8	8	12	12
Number of Rollers	6	8	3	4	6	8
Cartridges included:						
Small	–	4	–	8	–	12
Large	2	–	4	–	6	–
Performance						
Flow Capacity (mL/min)	0.21 to 360	0.013 to 67.0	0.22 to 760	0.02 to 100	0.002 to 14.0	0.033 to 128.0
RPM	2-200			0.8 to 80		
Reversible	Yes					
Electrical						
External Control - Input	0 to 20 mA, 4 to 20 mA, or 0 to 10V; Scalable START/STOP, DIR. (CW/CC), PRIME via contact closure Remote / Local Indication					
External Control - Output						
Motor running logic	N.O. or N.C. (1A @ 24V)					
Tachometer output	5V, TTL pulse					
Voltage (50/60 Hz)	115/230V AC (auto selected)					
Motor Type	1/10 HP, (75 w) PMDC					
Control Type	Phased Controlled					
Speed resolution (repeatability)	±0.1 rpm @ 4 to 400 RPM					
Speed regulation	± 0.25% (full scale)					
Physical Specifications						
Operating temperature	0 to 40°C (32 to 104°F)					
Storage temperature	–25 to 65°C (–13 to 149°F)					
Housing materials	Housing: ABS; Pump head: Polysulfone, Stainless steel, Anodized aluminum, Rulon, Buna-N; Cartridge: Polycarbonate, GF Nylon, Anodized aluminum knob.					
IP rating	IP31					
Agency approvals	IETL, cETL, CE, RoHS					
Controller dimensions (L x W x H)	31.7 x 27.9 x 15.2 (cm) 12.5 x 11 x 6 (in)					
Shipping weight	7 (kgs) 15 lbs					

FH100M Peristaltic Pump Tubing and Links

Pump tubing formulation	PharMed® BPT Santoprene	Silicone Platinum Cured	Tygon® R-3603 PVC	Viton® Fluoroelastomer
Series number	72-47X-XXX	72-46X-XXX	72-45X-XXX	72-48X-XXX
Advantages	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil Excellent tensile strength. Firm stiff material. Opaque, beige	Thermal set rubber Siloxanes polymers and amorphous silica Excellent compression strength Soft material Translucent, clear to light amber	Thermoplastic PVC based material with plasticizer Firm stiff material. Transparent, clear	Thermal set rubber. Viton B (67% Fluorine) Firm stiff material Opaque, black
Temp. Range	–59 to 135°C (–75 to 275°F)	–51 to 232°C (–60 to 460°F)	–50 to 74°C (–58 to 165°F)	–32 to 205°C (–25 to 400°F)
Meets classifications	USP Class VI FDA 21 CFR 177.2600 NSF Listed (Standard 51)	USP Class VI FDA 21 CFR 177.2600 NSF-listed (Standard 51).	FDA 21 CFR 175.300	None

FH100M Peristaltic Pump Tubing and Links

Flow Rates in ml/min with Microbore Tubing (Use with Small Cartridges)							
Model Number	Number of Rollers	Microbore 2-stop tubing links					
		0.19 mm id	0.25 mm id	0.89 mm id	1.42 mm id	2.06 mm id	2.79 mm id
FH100 4/8	8	0.013 to 0.60	0.018 to 0.91	0.18 to 9.1	0.04 to 20.0	0.88 to 44.0	1.38 to 67.0
FH100 8/4	4	0.02 to 0.04	0.03 to 1.0	0.26 to 13.0	0.53 to 26.0	1.14 to 57.0	2.06 to 100.0
FH100 12/8	8	0.002 to 0.11	0.004 to 0.20	0.03 to 1.9	0.07 to 4.3	0.14 to 8.6	0.25 to 14.0

Flow Rates in ml/min with Microbore Tubing (Use with Large Cartridges)							
Model Number	Number of Rollers	FH100M precision tubing links					
		-013	-114	-016	-025	-017	-018
FH100 4/6	6	0.21 to 10.0	0.60 to 30.0	2.2 to 110.0	4.0 to 200.0	5.6 to 280.0	7.2 to 360.0
FH100 8/3	3	0.22 to 11.0	0.84 to 42.0	3.2 to 160.0	6.8 to 340.0	10.6 to 530.0	14.8 to 760.0
FH100 12/6	6	0.033 to 1.9	0.012 to 6.6	0.35 to 20.0	0.70 to 40.0	0.98 to 56.0	1.3 to 128.0

Microbore Tubing Links and Transfer Tubing Ordering Information				
Tubing ID (mm) Links	PVC 12/pk	Silicone 6/pk	Santoprene 12/pk	Viton 12/pk
0.19	72-450-019	–	–	–
0.25	72-450-025	–	72-470-025	–
0.89	72-450-089	72-460-089	72-470-089	72-480-089
1.42	72-450-142	72-460-142	72-470-142	72-480-142
2.06	72-450-206	72-460-206	72-470-206	72-480-206
2.79	72-450-279	72-460-279	72-470-279	72-480-279
Tubing	100 ft	50 ft	100 ft	50 ft
0.19	72-451-019	–	–	–
0.25	72-451-025	72-461-025	72-471-025	–
0.89	72-451-089	72-461-089	72-471-089	72-481-089
1.42	72-451-142	72-461-142	72-471-142	72-481-142
2.06	72-451-206	72-461-206	72-471-206	72-481-206
2.79	72-451-279	72-451-279	72-471-279	72-481-279

Precision Pump Tubing and Transfer Tubing Ordering Information					
Tubing Size (mm) Links	Inside Dia.	Hose Barb	Tygon 12/pk	Silicone 6/pk	PharMed BPT 12/pk
13	.08	1/16	72-580-135	72-570-135	72-573-135
14	1.6	1/16	72-580-145	72-570-145	72-573-145
16	3.2	1/8	72-580-165	72-570-165	72-573-165
25	4.8	3/16	72-580-255	72-570-255	72-573-255
17	6.4	1/4	72-580-175	72-570-175	72-573-175
18	8.0	3/8	–	72-570-185	–
Tubing			50 ft/pk	25 ft/pk	25 ft/pk
13	.08	1/16	–	–	72-303-013
14	1.6	1/16	72-310-014	72-300-014	72-303-014
15	3.2	1/8	72-310-016	72-300-016	72-303-016
16	4.8	3/16	72-310-025	72-300-025	72-303-025
17	6.4	1/4	72-310-017	72-300-017	–
18	8.0	3/8	–	72-300-018	–

Thermo Scientific Peristaltic Pump Accessories



Cat. No.	Description
7523-92	Foot Switch, 25-Pin (FH100D and FH100DX)
7595-40	Foot Switch, 9-pin (FH100 and FH100X)
73-055-595	Dispensing Handle, 9-pin (FH100 and FH100X)
73-060-595	Dispensing Handle, 25-pin (FH100D and FH100DX)
72-648-020	Autoclavable Dispensing Tips, Polypropylene with Luer Lock, 1.6 to 3.2 mm ID tubing
72-648-000	Autoclavable Dispensing Tips, Glass dispensing tip with Luer Lock, 4.8 to 6.4 mm ID tubing
91-015-220	Autoclavable Stainless Steel Cannulae, Cannulae 16 gauge, 1.65 mm (0.065 in)
91-015-210	Autoclavable Stainless Steel Cannulae, Cannulae 13 gauge, 2.4 mm (0.095 in)
7595-45	DB9 Connector
75-250-100	Sinker; Set of 2
75-250-102	Sinker, Small 1.57 and 3.17mm (0.0625 in. and 0.125in.)
75-250-104	Sinker, Large 4.57 and 6.35mm (0.1875 and 0.25in.)



Modular Power Cords

- Permits direct connection of Thermo Scientific FH series peristaltic pumps to local electric power systems around the world.
- FH Series peristaltic pumps are provided with an IEC320 electric socket to accommodate modular power cords.

Cat. No.	Description
50001-60	Australia/New Zealand Male Plug
50001-62	Denmark Male Plug
50001-64	India Male Plug
50001-68	US Standard Male Plug
50001-69	China Male Plug (CCC approved)
50001-70	Europe Male Plug
50001-72	England (UK) Male Plug
50001-74	Switzerland Male Plug
50001-76	Italy Male Plug
50001-78	US (NEMA 230V)
50001-67	Israel Male Plug

Thermo Scientific Gilmont Direct-Reading Laboratory Flowmeters

Excellent chemical compatibility with glass and PTFE construction



- Flowmeter measurements can be read directly off the flowmeter
- Take air and water readings directly with these compact meters
- Flowtube: borosilicate glass
- Floats: glass or 316 stainless steel (ruby-micro size only)
- End blocks/stops PTFE
- Inlet/outlet PTFE
- Shield: acrylic
- Shield ends: polypropylene
- Valve: PTFE, PCTFE, glass
- O-rings: Viton®

Shielded Flowmeters

- For higher pressure applications
- Clear polycarbonate shield adds strength and protects tube from damage
- Fluid contacts only borosilicate glass tube, PTFE body, and Viton fluoroelastomer O-rings, not the polycarbonate shield
- End bushings are polypropylene with PTFE inserts, order coupling adapters to prevent fluid from contacting the end bushings

Shielded Flowmeters with Valves

- Choose these flowmeters for greater control; micrometer capillary valves ensure precise, reproducible measurement and flow control
- Shields are clear polycarbonate, valve consists of a precision-bore glass tube for the fluid and a precision-ground rod of PCTFE (PTFE for sizes 4, 5, 14, and 15) controlled by a micrometer
- 20-turn micrometer valve can be adjusted from 0.1 to 100% of maximum — flow-control is semilogarithmic
- Precise regulation can be obtained through 19.5 turns (0.3 to 60% of maximum flow)
- Interchange flowtubes among valve assemblies of the same size

Warranty*: 1 year

	Specifications
Accuracy (Direct Reading)	±5% of reading or 2mm of scale length, whichever is greater
Repeatability	±1% of reading or ±0.5 scale division, whichever is greater
Turndown Ratio	Better than 25:1
Operating Temperatures	-26°C to +65°C (-15°F to +150°F) at full pressure rating. Above 65°C (150°F), max. pressure is 40psig
Connections (Unshielded)	Use taper joint adapters
Connections (Shielded)	3/8in. I.D. tubing on sizes 0 to 3 and micro to 13 5/8in. I.D. tubing on sizes 4 to 5, and 14 to 15
Connections (Shielded w/ Valve)	1/8 in. NPT(M) Sizes 0 to 3, micro to 13 1/4 in. NPT (M) sizes 4 to 5 and 14 to 15
Shipping Weight (Unshielded)	0.3kg (0.5 lb.)
Shipping Weight (Shielded)	1.0 lb. (0.5kg)
Shipping Weight (Shielded w/Value)	1.0 lb. (0.5kg)

Thermo Scientific Gilmont Correlated Laboratory Flowmeters

Excellent chemical compatibility, with glass and PTFE construction.



High-accuracy correlated flowmeters are available in a wide selection of flow ranges.

- Extremely accurate $\pm 2\%$ of reading or ± 1 scale division, whichever is greater
- Determine flow values for air and water from the computerized calibration table enclosed with each flowmeter
- Tables are included for floats used with both air and water at STP

Shielded Flowmeters

- For higher pressure applications
- Clear polycarbonate shield adds strength and protects tube from damage
- Fluid contacts only borosilicate glass tube, PTFE body, and Viton® fluoroelastomer O-rings, not the polycarbonate shield
- End bushings are polypropylene with PTFE inserts; order coupling adapters to prevent fluid from contacting the end bushings

Shielded Flowmeters with Valves

- Choose these flowmeters for greater control; micrometer capillary valves ensure precise, reproducible measurement and flow control
- Shields are clear polycarbonate, valve consists of a precision-bore glass tube for the fluid and a precision-ground rod of PCTFE (PTFE for sizes 4, 5, 14, and 15) controlled by a micrometer
- 20-turn micrometer valve can be adjusted from 0.1 to 100% of maximum flow — control is semilogarithmic
- Precise regulation can be obtained through 19.5 turns (0.3 to 60% of maximum flow)
- Interchange flowtubes among valve assemblies of the same size

Warranty^Y: 1 year

	Specifications
Accuracy (Correlated)	$\pm 2\%$ of reading or ± 1 scale division, whichever is greater For micro: $\pm 5\%$ of reading or ± 2 scale division (Air) $\pm 10\%$ of reading or ± 3 scale division (Water)
Repeatability	$\pm 1\%$ of reading or ± 0.5 scale division, whichever is greater
Turndown Ratio	Better than 25:1
Operating Temperatures	-26° to $+65^{\circ}\text{C}$ (-15° to $+150^{\circ}\text{F}$) at full pressure rating. Above 65°C (150°F), max. pressure is 40psig
Connection (Shielded)	0.375 in. I.D. tubing on sizes 0 to 3 and micro to 13 0.625 in. I.D. tubing on sizes 4 to 5, and 14 to 15
Connection (Shielded w/Valve)	0.125 in. NPT(M) Sizes 0 to 3, micro to 13 0.25 in. NPT (M) sizes 4 to 5 and 14 to 15
Shipping Weight (Shielded)	0.5kg (1.0 lb.)
Shipping Weight (Shielded w/Valve)	0.6kg (1.2 lb.)

Thermo Scientific Gilmont Direct-Reading Laboratory Flowmeter

Tube size	Float included	Flowrate*		Unshielded flowmeters		Shielded flowmeters			Shielded flowmeters with valves		
		Air (ml/min.)	Water (ml/min.)	Catalog number	Max psi	Catalog numbers	Ports NPT(M)	Max psi	Catalog numbers	Ports NPT(M)	Max psi
10	Glass 316 SS	0.2-90 0.36-160	0.002-1.1 0.004-2.3	GF-2000	15	GF-2060	1/4"	125	GF-9060	1/8"	125
11	Glass 316 SS	1-280 2-500	0.01-4.0 0.02-8.6	GF-2100	15	GF-2160	1/4"	125	GF-9160	1/8"	125
12	Glass 316 SS	20-2100 36-3700	0.4-40 0.86-86	GF-2200	15	GF-2260	1/4"	100	GF-9260	1/8"	100
13	Glass 316 SS	200-14,000 360-25,000	2-300 4-640	GF-2300	15	GF-2360	1/4"	75	GF-9360	1/8"	75
14	Glass 316 SS	1000-36,000 1800-64,000	10-850 21-1820	GF-2400	15	GF-2460	1/2"	60	GF-9460	1/4"	60
15	Glass 316 SS	3000-77,000 5300-137,000	30-1900 64-4100	GF-2500	15	GF-2560	1/2"	50	GF-9560	1/4"	50

NOTE: For pressure drop of each flowmeter, please call our Application Specialists. *When using stainless steel float, refer to included correlation table for proper reading.

Thermo Scientific Gilmont Correlated Laboratory Flowmeters

Tube size	Float included	Flowrate*		Unshielded flowmeters		Shielded flowmeters			Shielded flowmeters with valves		
		Air (ml/min.)	Water (ml/min.)	Catalog number	Max psi	Catalog numbers	Ports NPT(M)	Max psi	Catalog numbers	Ports NPT(M)	Max psi
Micro	Ruby	0.02-15	0.0002-0.12	GF-3000	15	GF-3060	1/4 (M)	125	GF-9760	1/8 (M)	125
0	Glass 316 SS	0.2-100 0.36-180	0.002-1.1 0.004-2.3	GF-1000	15	GF-1060	1/4 (M)	125	GF-7060	1/8 (M)	125
1	Glass 316 SS	1-280 2-500	0.01-4.0 0.02-8.6	GF-1100	15	GF-1160	1/4 (M)	125	GF-7160	1/8 (M)	125
2	Glass 316 SS	10-1900 20-3400	0.2-36 0.43-77	GF-1200	15	GF-1260	1/4 (M)	100	GF-7260	1/8 (M)	100
3	Glass 316 SS	200-14,000 360-25,000	3-300 6-640	GF-1300	15	GF-1360	1/4 (M)	75	GF-7360	1/8 (M)	75
4	Glass 316 SS	1000-36,000 1800-64,000	10-850 21-1820	GF-1400	15	GF-1460	1/2 (M)	60	GF-7460	1/4 (M)	60
5	Glass 316 SS	3000-77,000 5300-137,000	30-1900 64-4100	GF-1500	15	GF-1560	1/2 (M)	50	GF-7560	1/4 (M)	50
6	Glass 316 SS	25,000-330,000 50,000-675,000	500-8000 1500-20,000	—	—	GF-1660	1/2 (F)	50	—	—	—

Thermo Scientific Gilmont Accucal 150mm and 65 mm Flowmeters

Correlated and direct reading all in one easy-to-read meter



- Accuracy up to $\pm 2\%$ of reading and very low pressure drops make Thermo Scientific Gilmont® Accucal® flowmeters ideal for procedures with critical pressure values.
- Each meter includes correlation charts for air and water and two direct-reading scales — an air scale and a water scale. Easily change between correlated and direct-reading scales depending on the application.
- Available in 65 and 150mm (2.55 and 6.0in.) scale lengths
- Each direct-reading scale indicates flowrates in metric and English units, for both glass and stainless steel under standard operating conditions
- Use the new GF-4000 software to create custom scales
- Quality industrial design ensures use in most tough applications
- Advanced metering valves available with Gilmont flowmeters
- GF-4001 flowmeter base is made of rugged aluminum
- Flowmeter type: Variable-area rotameter
- Flowtube: borosilicate glass
- Floats: glass float and 316 float stainless steel included
- End blocks: 303 stainless steel
- Inlet/outlet: 303 stainless steel
- Valve: PCTTFE/PTFE (303 SS PCTFE/PTFE for tube sizes 240 and 250)
- O-rings: Viton®
- Maximum performance shown below is with glass float and stainless-steel float

Warranty¹: 1 year

Specifications

Accuracy (Correlated)	Greater of $\pm 2\%$ of reading or ± 1 division (correlated use); greater of $\pm 5\%$ of reading $2 \pm$ division of scale (direct reading use)
Repeatability	$\pm 1\%$ of reading or ± 0.5 scale division, whichever is greater
Turndown Ratio	Better than 25:1
Operating Pressure and Temperature	200 PSIG at 250°F
Connection (Shielded)	121°C (250°F)
Connection (Shielded w/Valve)	0.6cm (0.25in.) NPT(F) for 240 and 250 tube sizes; 0.3cm (0.12in.) NPT(F) for all others
Shipping Weight (Shielded)	1.0kg (2 lb.)

	Dimensions-inches (mm)							
	A	B	C	D	E	F	G	H
65 mm scale (all tube sizes)	5.65 (143.5)	0.60 (15.2)	4.50 (114.3)	1/8-27 (NPT)	0.78 (19.8)	1.00 (25.4)	1.75 (44.4)	1.25 (31.7)
150 mm scale (200-235 tubes)	10.02 (254.5)	0.60 (15.2)	8.81 (223.8)	1/8-27 (NPT)	0.78 (19.8)	1.00 (25.4)	213 (54.1)	1.25 (31.7)
150 mm scale (240-250 tubes)	12.64 (321.1)	0.79 (20.1)	11.00 (279.4)	1/4-27 (NPT)	0.95 (24.1)	1.50 (38.1)	–	1.75 (44.4)

Float included	Max Flowrate (ml/min)		Tube size	65-mm, 303 stainless steel flowmeters		Tube size	150-mm, 303 stainless steel flowmeters	
	Air	Water (ml/min)		Without valves Cat. No.	With precision valves Cat. No.		Without valves Cat. No.	With precision valves Cat. No.
Glass SS	95 230	1.1 4.9	100	GF-6340-1100	GF-6341-1100	200	GF-6540-1200	GF-6541-1200
Glass SS	280 620	3.9 15	110	GF-6340-1110	GF-6341-1110	210	GF-6540-1210	GF-6541-1210
Glass SS	1000 2000	17 55	115	GF-6340-1115	GF-6341-1115	215	GF-6540-1215	GF-6541-1215
Glass SS	2200 4200	43 120	120	GF-6340-1120	GF-6341-1120	220	GF-6540-1220	GF-6541-1220
Glass SS	6500 12,000	140 360	125	GF-6340-1125	GF-6341-1125	225	GF-6540-1225	GF-6541-1225
Glass SS	14,000 25,000	320 800	130	GF-6340-1130	GF-6341-1130	230	GF-6540-1230	GF-6541-1230
Glass SS	25,000 46,000	590 1400	135	GF-6340-1135	GF-6341-1135	235	GF-6540-1235	GF-6541-1235
Glass SS	40,000 73,000	960 2200	–	–	–	240	GF-6540-1240	GF-6541-1240
Glass SS	85,000 150,000	2000 4700	–	–	–	250	GF-6540-1250	GF-6541-1250

Thermo Scientific Air Cadet Vacuum/Pressure Pumps

Ideal for portable applications with compact size and choice of single-head, dual-head, vacuum/pressure station, or hazardous-duty pump

- All-plastic, convoluted diaphragm design handles many vacuum/pressure applications and reduces stress, wear, and heat build-up
- Unique cavity configuration minimizes dead space and air entrapment
- Pumps are available with standard 115 or 230 VAC motor; or a hazardous-duty, 115 VAC motor. Standard AC motors are service-free, brushless type with sealed ball bearings and thermal overload protection



Single-Head Pump

- Economical and can handle many tough vacuum/pressure applications; Choose from two models to accommodate your electrical requirements.
- Includes: thread tape made of PTFE resin, two polyethylene 3/8" NPT(M) x 3/8" hose barb adapters, and a 6-ft, three-wire cord.

Dual-Head Pump

- Offers increased capacity over the single-head Air Cadet pump; Use the two pump heads independently or connect them in series with 3/8" ID Tygon vacuum tubing for up to 23" Hg vacuum.
- Includes: thread tape made of Teflon PTFE resin, four polyethylene 3/8" NPT(M) x 3/8" hose barb adapters, and a 6-ft, three-wire cord with plug.

Vacuum/Pressure Station

- Features a built-in bronze and brass vacuum/pressure gauge and stainless steel (SS) regulator; Use the auxiliary port to evacuate or pressurize two systems simultaneously. Station includes a 9" piece of vinyl tubing to connect pump to the regulator.
- Includes: thread tape of Teflon PTFE resin, two polyethylene (PE) 3/8" NPT(M) x 3/8" hose barb adapters, one PE 1/4" NPT(M) x 3/8" hose barb adapter (for auxiliary port), and a 6-ft, three-wire cord.

Warranty[†]: 1 year

Certifications: Single-Head Pump and Vacuum/Pressure Station are UL, cUL, and CE (230V only); Dual-Head Pump is UL, CSA, CE (230V only)

Notes: Do not use metal fittings with any Air Cadet pump

Wetted Parts

Models 420-1901, 420-1902, 420-2901, and 420-2902: Valox® pump head, FKM diaphragm, valves of PTFE resin, and polyethylene (PE) adapters

Models 420-3901 and 420-3902: Valox pump head, FKM diaphragm, valves of PTFE resin, vinyl tubing, stainless steel regulator, bronze/brass gauge, and PE adapters

Port size: 3/8" hose barb **Maximum temperature:** 95°F (35°C) **Duty cycle:** 6-hour cycle for diaphragms; motors are continuous duty

Cat. No	Free-air capacity	Max vacuum	Max pressure	Motor type	Power	Amps	Noise rating	Dimensions (LxWxH)	Shipping wt lb (kg)
A-Single-head pump									
420-1901 420-1902	0.6 cfm (17.0 L/min) 0.5 cfm (14.1 L/min)*	20" Hg	18 psi	1/45 hp, TEFC	115 VAC, 60 Hz 230 VAC, 50 Hz	1.2 0.8	72 dB(A)	7 1/4" x 4" x 5 1/2"	7 (3.2)
B-Dual-head pump									
420-2901 420-2902	0.6 cfm (17.0 L/min) 0.5 cfm (14.1 L/min)*	20" Hg	18 psi	1/45 hp, TEFC	115 VAC, 60 Hz 230 VAC, 50 Hz	1.7 6.0	72 dB(A)	10 1/2" x 4" x 5 1/2"	8 (3.7)
C-Vacuum/pressure station									
420-3901 420-3902	0.6 cfm (17.0 L/min) 0.5 cfm (14.1 L/min)*	20" Hg	18 psi	1/45 hp, TEFC	115 VAC, 60 Hz 230 VAC, 50 Hz	1.5 0.75	72 dB(A)	7 1/2" x 8" x 8 3/4"	12 (5.5)

¹ Total free-air capacity. Single-channel capacity is half this value.

² Split-phase

* The 230 VAC, 50 Hz models have ⁵/₆ the flow of the 115 VAC, 60 Hz models.

Dacron, Delrin, Teflon® E. I. DuPont de Nemours & Co.

Valox® General Electric Co.

Ryton® Phillips Petroleum Co.

Air Cadet®

Viton® DuPont Dow Elastomers, L.L.C.

Thermo Scientific Air Cadet Portable Vacuum/Pressure Station

Designed for portability and versatility, long-wearing motor delivers performance characteristics suitable for a wide range of applications



- Lightweight, plastic housing, and an integral handle for easy transport
- Vacuum to 54.1cm (21.3in.) Hg
- Pressure to 35psi intermittent, 10psi continuous
- Free-air capacity 0.39cfm
- Quiet operation
- ON/OFF switch operation
- No vacuum oil required
- Low-friction piston service-free motor
- Convenient power cord compartment

Ordering Information: 115V model features a U.S. standard plug; 230V model features a European-style plug.

Includes: Supplied with a 6ft. power cord.

Warranty[†]: 1 year

Certifications: UL and CSA listed for 115VAC, 60Hz model; CE approved for 230VAC, 50Hz model

Alert: Do not pump liquids or immerse pump. Avoid organic, basic and acidic vapors.

Cat. No.	Air Displacement	Wetted Parts	Port Size	Motor	Overall L x W x H	Max. Temp.	Shipping Weight	Electrical
4003910	11L/min. (0.39cfm)	Glass-filled polyester piston cup retainer and head, Ryton [®] cylindersleeve, Viton [®] valves, PTFE piston cup, silicone tubing, and Delrin [®] fittings	54.1cm (0.25in.) Hose Barb	1/25 hp, Shaded-Pole	11.4 x 19.3 x 19cm (4.5 x 7.62 x 7.5in.)	40°C (104°F)	2.3kg (5 lb.)	115V 60Hz, 1.6A
4003912	9.2L/min. (0.32cfm)	Glass-filled polyester piston cup retainer and head, Ryton [®] cylindersleeve, Viton [®] valves, PTFE piston cup, silicone tubing, and Delrin [®] fittings	54.1cm (0.25in.) Hose Barb	1/25 hp, Shaded-Pole	11.4 x 19.3 x 19cm (4.5 x 7.62 x 7.5in.)	40°C (104°F)	2.3kg (5 lb.)	230V 50Hz, 0.8A

rockers & rotators

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Thermo Scientific Lab Rotators

Ideal for rotation of flasks, test tube racks, beakers, vials, Petri dishes, microwell plates, culture plates, plastic/glass trays, and slides in microbiological, immunological and general clinical applications



- For use in incubators, warm rooms, environmental chambers and refrigerators
- Improved drive eccentrics and an upgraded motor ensures stability, enhanced long-term performance and quiet, dependable operation
- Two platform sizes available
- Continuous-duty motor provides smooth, quiet orbit
- Timer makes it easy to perform time studies; set for continuous or timed
- Autoclavable white silicone nonslip platform mat cleans easily
- Variable speed control for gentle or vigorous agitation

Includes: White silicone nonslip platform
Warranty*: 90 days labor, one year parts
Certifications: CE listed (240V models only) and UL listed (120V models only)

Specifications

Speed Range	40 to 220rpm
Orbit	1.9cm (0.75in.)
Timer	1 to 60 min. or continuous
Operating Humidity Range	20 to 80% noncondensing
Operating Temperature Range	4° to 40°C (39.2° to 104°F)
Platform Load Capacity	4.5kg (10 lb.)
Shipping Weight	7.3kg (16 lb.)

Cat. No.	Platform L x W	Exterior L x W x H	Electrical
2309Q	23 × 23cm (9 × 9in.)	31 × 27 × 11cm (12.38 × 10.62 × 4.4in.)	120V 50/60Hz, 50w, 0.4A
2309-1CEQ	23 × 23cm (9 × 9in.)	31 × 27 × 11cm (12.38 × 10.62 × 4.4in.)	240V 50/60Hz, 50w, 0.2A
2314Q	30 × 30cm (12 × 12in.)	35 × 32 × 11cm (13.62 × 12.5 × 4.38in.)	120V 50/60Hz, 50w, 0.4A
2314-1CEQ	30 × 30cm (12 × 12in.)	35 × 32 × 11cm (13.62 × 12.5 × 4.38in.)	240V 50/60Hz, 50w, 0.2A

Thermo Scientific Low-Cost Orbital Benchtop Shakers

Dependable, quiet operation and long-term performance, while conserving valuable benchtop space



- Adjustable speed control provides gentle to vigorous agitation, and the built-in timer is ideal for time dependent studies
- Available in two Erlenmeyer flask sizes and complete with platform and clamps
- Model 2345Q holds 13 x 125ml flasks and Model 2346Q holds 9 x 250ml flasks
- Rotary dial controls the variable speed for gentle to vigorous agitation
- Continuous-duty motor provides smooth, quiet rotation
- Built-in timer can be set for continuous or timed shaking up to 60 min.
- Shaker body is made of durable, powder-coated cold-rolled steel
- Can be used in incubators, warm rooms, environmental chambers and refrigerators

Applications: Ideal for growth of bacteria and yeast.
Includes: Platform and clamps which are permanently attached.
Warranty[†]: 90 days on labor and one year on parts
Certifications: UL, cUL, CE

Specifications

Speed Range	40 to 220rpm
Orbit	1.9cm (0.75in.)
Timer	1 to 60 min. or continuous
Operating Humidity Range	20 to 80% noncondensing
Operating Temperature Range	0° to 40°C (32° to 104°F)
Platform Load Capacity	5kg (10 lb.)
Exterior L x W x H	35 × 31 × 16cm (13.61 × 12.28 × 6.25in.)
Shipping Weight	8kg (18 lb.)

Cat. No.	Holds No. of Containers	Electrical
2346Q	9 (250mL) Flasks	120V 50/60Hz, 50w, 0.4A
2346-1CEQ	9 (250mL) Flasks	240V 50/60Hz, 50w, 0.2A
2345Q	13 (125mL) Flasks	120V 50/60Hz, 50w, 0.4A
2345-1CEQ	13 (125mL) Flasks	240V 50/60Hz, 50w, 0.2A

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

Speed Range	5 to 30rpm variable
Rocking Angle	1° to 48°
Timer	Up to 2 hr. automatic at 60Hz; Up to 3 hr. automatic at 50Hz; Continuous
Platform L x W	32 × 26.9cm (12.6 × 10.6in.)
Load Bearing Capacity	6.8kg (15 lb.)
Exterior L x W x H	30.4 × 39.6 × 18.5cm (12 × 15.6 × 7.3in.)
Operating Temperature Range	4° to 40°C (39.2° to 104°F)
Operating Humidity Range	20 to 80% noncondensing
Shipping Weight	2.7kg (6 lb.)

Cat. No.	Electrical
M79735Q	120V 50/60Hz, 0.10A, 12W
M79730-33	240V 50/60Hz, 0.05A, 12W



Thermo Scientific Vari-Mix Replacement Platform

Cat. No.	Description	Dimensions
AY797X1	Double-Tier Platform	32 × 26.9cm (12.6 × 10.6in.)

Thermo Scientific Thermal Rocker Incubators

Excellent alternative to higher-priced hybridization incubators for agitation of blotting membranes under controlled temperatures



- 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.

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

Specifications

Speed Range	0 to 100 cycles/min.
Rocking Angle	10° to 15°
Temperature Control	Electronic Proportional
Temperature Range	Ambient $\pm 5^\circ$ to 70°C
Temperature Accuracy	$\pm 0.5^\circ\text{C}$
Platform L x W	36 x 36cm (14.19 x 14.19in.)
Load Capacity	4.5kg (10 lb.)
Exterior L x W x H with cover	41 x 42 x 34.7cm (16 x 16.5 x 13.5in.)
Shipping Weight	11kg (25 lb.)

Cat. No.	Electrical
4637Q	120V 50/60Hz (3.3A)
4637-1CEQ	240V 50/60Hz (1.7A)

Thermo Scientific Sealed Mini Orbital Shaker

Three-dimensional shakers with adjustable tilt platform and smooth operation are ideal for applications such as gel staining, Western blotting, rinsing membranes or mixing small tubes, vials or blood samples



- Perfect for cell culture incubators, biosafety cabinets and lab refrigerators due to its cool operating motor which does not cause temperature deviations
- 3-Dimensional platform orbital motion: 2cm (0.8in.) with adjustable tilt via a brass wheel
- Clear acrylic platform with nonskid rubber mat.
- Rubber feet eliminate unwanted movement and vibration
- Adjustable tilt platform (via a brass wheel)
- Rubber feet eliminate unwanted movement and vibration

Warranty*: 1 year, parts and labor
Certifications: CE

Specifications	
Cat. No.	194134
Speed Range	0 to 60rpm
Operating Temperature Range	0° to 60°C (32° to 140°F)
Platform L x W	17.8 × 17.8cm (7 × 7in.)
Exterior L x W x H	20.3 × 20.3 × 12.2cm (8 × 8 × 4.8in.)
Exterior L x W x H	20.3 × 20.3 × 12.2cm (8 × 8 × 4.8in.)
Net Weight	2.3kg (5lb.)/
Shipping Weight	3kg (6.5 lb.)
Electrical	90/240V 50/60Hz, 0.1FLA or less on 115V and 0.05FLA or less on 230V

Mat for Thermo Scientific Mini Orbital Shaker

Cat. No.	Description
194135	Mat

Thermo Scientific Small Bidirectional Rotator

Compact, lightweight small bi-directional rotator conserves valuable bench space



- Ideal for staining and destaining gels, hybridizations, Western blotting, and mixing of small tubes, blood samples and microwell plates
- Bidirectional rocking angle from 10° through a 360° rotation
- White nonslip rubber mat platform holds two microwell plates, Vacutainer® containers, slides, Petri dishes or tissue culture flasks
- Timer up to 60 min. or continuous
- Powder-coated steel body with four nonskid rubber feet
- Small footprint conserves bench space

Includes: 3-wire cord and plug
Warranty^Y: 90 days labor, one year parts
Certifications: CE marked, CSA, CUS

Cat. No.	Speed	Operating Temp. Range	Operating Humidity Range	Platform L x W	Platform Load Capacity	Exterior L x W x H	Shipping Weight	Electrical
4630Q	30rpm	4° to 40°C (39.2° to 104°F)	20 to 80% noncondensing	17 x 13cm (6.75 x 5in.)	1.4kg (3 lb.)	21 x 17 x 14cm (8.3 x 6.9 x 5.5in.)	11kg (25 lb.)	120V 50/60Hz, 60w, 0.3A
4630-1CEQ	30rpm	4° to 40°C (39.2° to 104°F)	20 to 80% noncondensing	17 x 13cm (6.75 x 5in.)	1.4kg (3 lb.)	21 x 17 x 14cm (8.3 x 6.9 x 5.5in.)	11kg (25 lb.)	240V 50/60Hz, 50w, 0.3A

Thermo Scientific Large Bidirectional Rotators

Perform gentle horizontal and vertical orbital rotation that allows more rapid exchange of solvents such as in staining and destaining gels, and provide lower backgrounds in blotting techniques.



- Low-maintenance rotator has a continuous-duty motor and direct drive assembly without belts or pulleys to replace
- Stainless-steel platform accommodates two Pyrex* dishes
- Variable rotation solid-state speed control
- Bidirectional horizontal and vertical orbit rotation from 6° angle through a 360° rotation
- Lightweight for easy mobility
- Durable cold-rolled steel body with baked enamel finish
- White, neoprene rubber mat provides a non-skid surface and easy sample viewing

Includes: 3-wire line cord and plug
Warranty^Y: 90 days labor, one year parts
Certifications: CE listed (240V model)

Cat. No.	Operating Temp. Range	Operating Humidity Range	Speed Range	Platform L x W	Platform Load Capacity	Exterior L x W x H	Shipping Weight	Electrical
4631Q	4° to 40°C (39.2° to 104°F)	20 to 80% noncondensing	0 to 25 rpm	35.6 x 40.6cm (14 x 16in.)	1.8kg (4 lb.)	36 x 41 x 19cm (14 x 16 x 7.5in.)	11kg (25 lb.)	120V 50/60Hz, 0.4A
4631-1CEQ	4° to 40°C (39.2° to 104°F)	20 to 80% noncondensing	0 to 25 rpm	35.6 x 40.6cm (14 x 16in.)	1.8kg (4 lb.)	36 x 41 x 19cm (14 x 16 x 7.5in.)	11kg (25 lb.)	240V 50/60Hz, 0.2A

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^Y: 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
M71015Q	Speci-Mix™ Test Tube Rocker	8 (10-20mm); 3 (22-30mm)	18rpm, fixed	Preset 48° tilt of rocker platform	13.9 × 19.1 × 10.7cm (5.5 × 7.5 × 4.3in.)	1.4kg (3 lb.)	120V 50/60Hz (0.03A)
M71010-33Q	Speci-Mix Test Tube Rocker	8 (10-20mm); 3 (22-30mm)	18rpm, fixed	Preset 48° tilt of rocker platform	13.9 × 19.1 × 10.7cm (5.5 × 7.5 × 4.3in.)	1.4kg (3 lb.)	240V 50Hz (0.01A)
M48725Q	Vari-Mix™ Test Tube Rocker	16 (10-20mm); 7 (22-30mm)	2 to 20rpm	Adjustable rocking from 1° to 48° angle	13.9 × 38.1 × 10.7cm (5.5 × 15 × 4.3in.)	2.6kg (5.8 lb.)	120V 50Hz (0.08A)
M48720-33Q	Vari-Mix Test Tube Rocker	16 (10-20mm); 7 (22-30mm)	2 to 20rpm	Adjustable rocking from 1° to 48° angle	13.9 × 38.1 × 10.7cm (5.5 × 15 × 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^Y: 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
4632Q	14 x 7mL, 10mL or 15mL	15° to 40°C (59° to 104°F)	20 to 80% noncondensing	13 × 22cm (5.3 × 8.8in.)	1.4 kg (31 lb.)	21 × 22 × 18cm (8.5 × 8.8 × 8.1in.)	3.6kg (8 lb.)	120V 60Hz, 0.3A
4632-1CEQ	14 x 7mL, 10mL or 15mL	15° to 40°C (59° to 104°F)	20 to 80% noncondensing	13 × 22cm (5.3 × 8.8in.)	1.4 kg (31 lb.)	21 × 22 × 18cm (8.5 × 8.8 × 8.1in.)	3.6kg (8 lb.)	240V 50Hz, 0.2A

Thermo Scientific Labquake Tube Shaker/Rotators

Offers ultimate versatility at an affordable price



- Provides thorough mixing of blood samples, preparation of homogenous dispersions, dialysis under agitation, and liquid-liquid extractions
- Accommodates many tube sizes 10 to 30mm (0.3 to 1.18in.), including Vacutainer® tubes and 1.5mL microcentrifuge tubes

Choice of clip bar, double deck or combination models:

- **Clip Bar Models:** Continuous rotation at 8rpm, or oscillating action at 22 to 70 reversals/min. (depending on angle)
- **Double Deck Tray Models:** Oscillating action at 22 to 70 reversals/min. (depending on angle)
- **Combination Models:** Interchangeable removable double deck trays with clip bar

Includes: Clip bar, double deck tray or combination of clip bar and double deck trays.

Warranty*: 90 days on labor, one year on parts

Certifications: CSA (120V models); CE (220/240V models)

Cat. No.	Description	Tube Capacity	Rotation	Oscillation	Exterior L x W x H	Shipping Weight	Electrical
4002110Q	Clip Bar	8 × 17 to 30mm	360°	Up to 300°	27.9 × 10.2 × 15.2cm (11 × 4 × 6in.)	2.3kg (5 lb.)	120V, 50/60Hz
4002220Q	Clip Bar	8 × 17 to 30mm	360°	Up to 300°	27.9 × 10.2 × 15.2cm (11 × 4 × 6in.)	2.3kg (5 lb.)	220/240V, 50/60Hz
400110Q	Clip Bar	14 × 10 to 19mm*	360°	Up to 300°	27.9 × 10.2 × 15.2cm (11 × 4 × 6in.)	2.3kg (5 lb.)	120V, 50/60Hz
400220Q	Clip Bar	14 × 10 to 19mm*	360°	Up to 300°	27.9 × 10.2 × 15.2cm (11 × 4 × 6in.)	2.3kg (5 lb.)	220/240V, 50/60Hz
T400110Q	Double-Deck Tray	22 × 10mL Vacutainer tubes	----	Up to 90°	27.9 × 16.5 × 15.2cm (11 × 6.5 × 6in.)	2.3kg (5 lb.)	120V, 50/60Hz
T400220Q	Double-Deck Tray	22 × 10mL Vacutainer tubes	----	Up to 90°	27.9 × 16.5 × 15.2cm (11 × 6.5 × 6in.)	2.3kg (5 lb.)	220/240V, 50/60Hz
C4002110Q	Clip Bar and Double-Deck Tray	8 × 17 to 30mm or 12 × 10mL Vacutainer tubes	360°	Up to 300°	27.9 × 16.5 × 15.2cm (11 × 6.5 × 6in.)	2.3kg (5 lb.)	120V, 50/60Hz
C4002220Q	Clip Bar and Double-Deck Tray	8 × 17 to 30mm or 22 × 10mL Vacutainer tubes	360°	Up to 300°	27.9 × 16.5 × 15.2cm (11 × 6.5 × 6in.)	2.7kg (6 lb.)	220/240V, 50/60Hz
C400110Q	Clip Bar and Double-Deck Tray	14 × 10 to 19mm and 22 × 10mL Vacutainer tubes*	360°	Up to 300°	27.9 × 16.5 × 15.2cm (11 × 6.5 × 6in.)	2.3kg (5 lb.)	120V, 50/60Hz
C400220Q	Clip Bar and Double-Deck Tray	14 × 10 to 19mm or 22 × 10mL Vacutainer tubes*	360°	Up to 300°	27.9 × 16.5 × 15.2cm (11 × 6.5 × 6in.)	2.7kg (6 lb.)	220/240V, 50/60Hz
4152110Q	Clip Bar	14 × 17 to 30mm	360°	Up to 300°	46.9 × 10.2 × 15.2cm (18.5 × 4 × 6in.)	2.3kg (5 lb.)	120V, 50/60Hz
4152220Q	Clip Bar	14 × 17 to 30mm	360°	Up to 300°	46.9 × 10.2 × 15.2cm (18.5 × 4 × 6in.)	2.3kg (5 lb.)	220/240V, 50/60Hz
415110Q	Clip Bar	32 × 10 to 19mm*	360°	Up to 300°	46.9 × 10.2 × 15.2cm (18.5 × 4 × 6in.)	2.3kg (5 lb.)	120V, 50/60Hz
415220Q	Clip Bar	32 × 10 to 19mm*	360°	Up to 300°	46.9 × 10.2 × 15.2cm (18.5 × 4 × 6in.)	2.3kg (5 lb.)	220/240V, 50/60Hz
T415110Q	Double-Deck Tray	46 × 10mL Vacutainer tubes	----	Up to 90°	46.9 × 11.4 × 15.2cm (18.5 × 4.5 × 6in.)	3.2kg (7 lb.)	120V, 50/60Hz
T415220Q	Double-Deck Tray	46 × 10mL Vacutainer tubes	----	Up to 90°	46.9 × 11.4 × 15.2cm (18.5 × 4.5 × 6in.)	3.2kg (7 lb.)	220/240V, 50/60Hz
C4152110Q	Clip Bar and Double-Deck Tray	14 × 17 to 30mm or 45 × 10mL Vacutainer tubes	360°	Up to 300°	46.9 × 11.4 × 15.2cm (18.5 × 4.5 × 6in.)	3.2kg (7 lb.)	120V, 50/60Hz
C4152220Q	Clip Bar and Double-Deck Tray	14 × 17 to 30mm or 46 × 10mL Vacutainer tubes	360°	Up to 300°	46.9 × 11.4 × 15.2cm (18.5 × 4.5 × 6in.)	3.6kg (8 lb.)	220/240V, 50/60Hz
C415110Q	Clip Bar and Double-Deck Tray	32 × 10 to 19mm and 46 × 10mL Vacutainer tubes*	360°	Up to 300°	46.9 × 11.4 × 15.2cm (18.5 × 4.5 × 6in.)	3.2kg (7 lb.)	120V, 50/60Hz
C415220Q	Clip Bar and Double-Deck Tray	14 × 17 to 30mm or 46 × 10mL Vacutainer tubes*	360°	Up to 300°	46.9 × 11.4 × 15.2cm (18.5 × 4.5 × 6in.)	3.6kg (8 lb.)	220/240V, 50/60Hz

*10 to 19 mm tubes sizes can also hold 1.5 ml microcentrifuge tubes

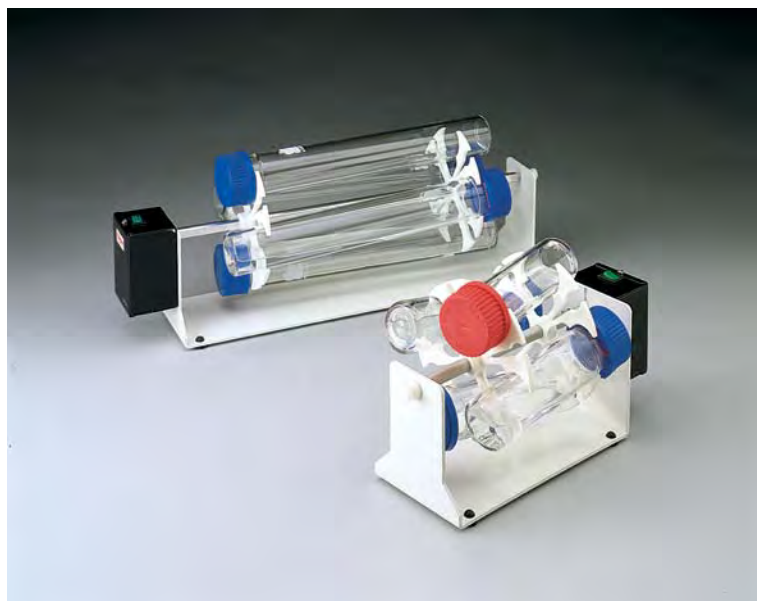
Accessories - Clips

Cat. No.	Description	For use with
4-1019	10 to 19mm replacement clips, 2 each	All Small Labquake Tube Rotators/Shakers
2439	Retainer clip, 1 each	4-1019, 10 to 19mm replacement clips
FCX78*	17 to 30mm replacement clips, 2 each	All Large Labquake Tube Rotators/Shakers

*Note: No retainer clip required

Thermo Scientific Labquake Rotisserie Hybridization Rotators

Ensure optimal distribution of hybridization materials as it rotates conical tubes or hybridization bottles at a constant speed of 8rpm



- Economical way to convert an existing incubator with outlets into a rotisserie hybridization incubator
- Ideal for labs that do infrequent blots, do not require a hybridization oven or for labs that need an additional vehicle for washes
- Tridirectional rotation assures optimal distribution of a minimal amount of probe solution
- Compact, portable rotisseries hold 50mL conical tubes or 38 x 150mm (1.4 x 5.9in.) or 38 x 300mm (1.4 x 11.8in.) hybridization bottles, depending on model
- Bottles are easy to place and remove
- Motor can run when loading or removing
- Fixed speed of 8rpm

Applications: Hybridizations; Western, Southern and Northern blots; Incubation of cells adhered to beads; Room-temperature hybridizations

Ordering Information: Bottles and tubes must be purchased separately.

Warranty: 90 days on labor, one year on parts

Certifications: 120V model is CSA approved; 240V model is CE marked

Cat. No.	Capacity	Operating Temp. Range	Fixed Speed	Operating Humidity Range	Exterior L x W x H	Shipping Weight	Electrical
M90615Q	Four 38 x 150mm bottles/ 4x 50mL conical tubes	0° to 65°C (32° to 149°F)	8 rpm	20 to 80% noncondensing	11.4 x 26.7 x 16.5cm (4.5 x 10.5 x 6.5in.)	0.9kg (2 lb.)	120V 50/60Hz
M90610-33Q	Four 38 x 150mm bottles/ 4x 50mL conical tubes	0° to 65°C (32° to 149°F)	8 rpm	20 to 80% noncondensing	11.4 x 26.7 x 16.5cm (4.5 x 10.5 x 6.5in.)	0.9kg (2 lb.)	220/240V 50/60Hz
M107625Q	Four 38 x 300mm bottles/ 8x 50mL conical tubes	0° to 65°C (32° to 149°F)	8 rpm	20 to 80% noncondensing	11.4 x 47 x 16.8cm (4.5 x 18.5 x 6.6in.)	2.0kg (4.5 lb.)	120V 50/60Hz
M107620-33Q	Four 38 x 300mm bottles/ 8x 50mL conical tubes	0° to 65°C (32° to 149°F)	8 rpm	20 to 80% noncondensing	11.4 x 47 x 16.8cm (4.5 x 18.5 x 6.6in.)	2.0kg (4.5 lb.)	220/240V 50/60Hz

Thermo Scientific Titer Plate Shakers

Provides shaking motion from gentle rotation to vigorous vortexing for **ELISA, enzyme immunoassays, protein synthesis, pharmaceutical profiling** among other applications



- Vortexing motion thoroughly mixes each well. Solid-state, variable speed control from 40 to 1100rpm with a 0.3cm (0.12in.) circular orbit.
- Electronic timer can be set for continuous operation or timed shaking up to 5 min. (adjustable in 30-second increments)
- Independent start switch activates shaker for preset speed and time for repeatability in tests
- Automatic shutoff
- Platform has 0.9cm (0.38in.) sides and holds from one to four 96-well standard or deep well plates
- Two retaining springs and nonslip rubber mat hold plates securely
- Four platform finger slots for easy plate removal
- Rugged, enameled steel shaker body with four nonskid rubber feet

Warranty[†]: 90 days labor, one year parts
Certifications: UL and CE listed

Cat. No.	Operating Temp. Range	Operating Humidity Range	Speed Range	Platform Load Capacity	Exterior L x W x H	Shipping Weight	Electrical
4625Q	0° to 40°C (32° to 104°F)	20 to 80% noncondensing	40 to 1100rpm	1kg (2 lb.)	28 × 28 × 18cm (11 × 11 × 7in.)	11kg (25 lb.)	120V 60Hz, 1A
4625-1CEQ	0° to 40°C (32° to 104°F)	20 to 80% noncondensing	40 to 1100rpm	1kg (2 lb.)	28 × 28 × 18cm (11 × 11 × 7in.)	11kg (25 lb.)	240V 50Hz, 0.5A

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

Dual-Drum Rotator

- Fixed rotating angle
- Fixed speed of 0.2rpm

Ordering Information: Drums sold separately (1647Q, 1648Q, 1651Q)

Required Accessories: Single-drum model requires one drum, dual-drum model requires two drums, 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
1640Q	Single-Drum Model	12 to 70rpm	Up to 40°C (104°F)	20 to 80 % noncondensing	Adjustable 5° above horizontal to 90°	38.1 × 35.6 × 57.2cm (15 × 14 × 22.5in.)	9kg (19 lb.)	120V 60Hz, 0.5A
1645Q	Dual-Drum Model	Fixed 0.2rpm	Up to 40°C (104°F)	20 to 80 % noncondensing	Nonadjustable	46 × 39 × 46cm (18 × 15.5 × 18in.)	13kg (28 lb.)	120V 60Hz, 0.8A

Thermo Scientific Cel-Gro Tissue Culture Rotator Drums

Cat. No.	Description
1647Q	142 x 17mm tube diameter
1648Q	76 x 26mm tube diameter
1651Q	60 x 30mm tube diameter

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[†]: One year parts, 90 days labor
Cartridge Warranty[†]: 1 year parts

Cat. No.	Description	Flowrate	Length
D8900	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 [†]
D50220	1/2 Size Mixed Bed	Ultrapure Ion Exchange	430 grains	No
D8822	1/2 Size Mixed Bed with Oxygen Removal	Ultrapure Mixed Bed with Strong Anion Exchange	280 grains/4.4g	No
D8950	2/3 Size High Capacity	Two bed Ion Exchange with Strong Cation Exchange	1100 grains	Yes
D8951	2/3 Size Mixed Bed and Organic Removal	Mixed Bed Ion Exchange with Activated Carbon	470 grains/ 2000 gal.	Yes
D8905	Full Size Cation Removal	Cation Exchange	3000 grains	Yes
D8901	Full Size High Capacity	Two Bed Ion Exchange	1650 grains	Yes
D8908	Full Size Macroreticular, Cation Removal	Macroreticular Cation Exchange	n/a	No
D8904	Full Size Organic Removal	Activated Carbon	5000 gal.	No
D8903	Full Size Oxygen Removal	Strong Anion Exchange	30g	No
D8921	Full Size Pretreatment and Scale Eliminator	Mixed Bed and Strong Cation Exchange, Activated Charcoal	1250 grains/1000 gal.	Yes
D8911	Full Size Ultrapure	Ultrapure Ion Exchange	915 grains	No
D8902	Full Size Ultrapure	Ultrapure Mixed Bed Ion Exchange	915 grains	Yes
D8922	Full Size Ultrapure with Organic Removal	Mixed Bed Ion Exchange with Activated Carbon	730 grains/2000 gal.	Yes

[†]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/cm²)
- 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^Y: 1 year parts, 90 days labor

Cartridge Warranty^Y: 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
D0800	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 ² (5 to 70psi)	120V 50/60Hz
D0805	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 ² (5 to 70psi)	240V 50/60Hz

Required Accessories

Cat. No.	Type	Characteristics	Resin	Capacity	Cartridge Size
D0760	Anion Removal	Effective removal of weakly ionized impurities, raises the pH of solutions, recovers precious metal complex	Strong Anion Exchange	1680 grains	Full
D0815	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
D0803	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
D0813	Organic Removal	Removes organics and chlorine	Activated Carbon	5000 gal.	Full
D0809	Ultrapure	Removes ionized impurities to produce high resistivity water with a neutral pH	Mixed Bed	875 grains	Full
D0832	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
D0835	Macroreticular and Organic Removal	Effectively removes colloids, bacteria, organics and chlorine. Excellent for pretreatment	Macroreticular, Activated Carbon	5000 gal.	Full
D0811	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
D8811	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^Y: 1 year parts, 90 days labor

Cartridge Warranty^Y: 1 year parts

Certifications: CE, CSA

Notes: Free Thermo Scientific Barnstead H₂O 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
D4505	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
D4511	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
D4521	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
D4522-33	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
D4524	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
D5831	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
D5833	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
D0760	Full Size	Anion Removal	Effective removal of weakly ionized impurities, raises the pH of solutions, recovers precious metal complex	Strong Anion Exchange	1680 grains
D0815	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
D0803	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
D0835	Full Size	Pretreatment	Effectively removes colloids, bacteria, chlorine and organics	Macroreticular, Activated Carbon	5000 gal.
D0836	Full Size	Macropure	Effectively removes colloids, bacteria, chlorine and organics, increases filter life	Macroreticular, Activated Carbon	2000 gal.
D0813	Full Size	Organic Removal	Removes organics and chlorine	Activated Carbon	5000 gal.
D0811	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
D0809	Full Size	Ultrapure	Removes ionized impurities to produce high resistivity water with a neutral pH	Mixed Bed	875 grains
D0832	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.
D8809	Full Size	Ultrapure and Oxygen Removal	Removes ionized impurities and oxygen to produce high purity water	Ultrapure, Oxygen Removal	455 grains/ 30g
D8811	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
D50215	Half Size	Organic Removal	Removes organics and chlorine	Activated Carbon	5000 gal.
D50214	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
D50213	Half Size	Ultrapure	Removes ionized impurities to produce high resistivity water with a neutral pH	Mixed Bed	550 grains
D50217	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.
D50216	Half Size	Oxygen and demineralization	Removes oxygen and ions. Commonly used in cooling loops	Oxygen Removal Mixed	275 grains/ 9 gal.

Thermo Scientific Smart-Vue Wireless Monitoring Solution

Safeguard the integrity of precious samples by continuous integrated monitoring.

The Smart-Vue™ wireless monitoring solution for laboratory equipment safeguards the integrity of precious samples by continuously monitoring critical parameters and securely logging data to give you unprecedented peace of mind. This wireless solution features audit trail traceability to assist with conformance to FDA 21 CFR part 11, and other strenuous regulatory requirements.



smart.

- Continuous real-time monitoring of critical parameters
- Immediate notification by means of your preferred alert method. Options include Smart-Vue audible/visual siren, fax, telephone, email or text messaging
- Easy-to-read display of monitored setpoints directly on module

scalable.

- Single solution that can grow with you to save time and money
- Easily add new equipment to the existing system
- Compatible with multiple brands and types of laboratory equipment

simple.

- Easy to install, use and maintain
- Relocate equipment, maintaining network configurations without the inconvenience and cost associated with rewiring
- Accessible via the Internet – anytime, anywhere



Smart-Vue solutions are designed to monitor ultra-low temperature freezers, refrigerators, incubators, cryopreservation systems, ovens, CO₂ incubators, environmental chambers, water baths and other equipment. Smart-Vue modules and sensors are available for temperature, relative humidity, CO₂ concentration, differential pressure, 4-20mA output, ambient conditions, and alarm/relay dry contacts. Smart-Vue is compatible with multiple brands and types of laboratory equipment. Please ask your local sales representative to configure a Smart-Vue solution that best meets your specific requirements.

For more product information, go to:
www.thermoscientific.com/smart-vue

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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
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



Cat. No.	Capacity	Pk/Case
Nalgene Griffin Low-form Beakers - PP		
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
Nalgene Griffin Low-form Beakers - PMP		
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

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
Nalgene Economy Wash Bottles - LDPE		
2401-0125	125 ml	6/48
2401-0250	250 ml	6/36
2401-0500	500 ml	6/24
2401-1000	1000 ml	12
Nalgene Unitary Wash Bottles - LDPE		
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
1600-0004	125 ml Narrow-Mouth Bottle - FEP - 24 mm Closure	1/6
1600-0008	250 ml Narrow-Mouth Bottle - FEP - 24 mm Closure	1/4
1600-0016	500 ml Narrow-Mouth Bottle - FEP - 28 mm Closure	1/4
1600-0032	1000 ml Narrow-Mouth Bottle - FEP - 38 mm Closure	1/4
1600-0064	2000 ml Narrow-Mouth Bottle - FEP - 38-430 mm Closure	1/2
2002-0004	125 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/72
2002-0006	175 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/72
2002-0008	250 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/72
2002-0016	500 ml Narrow-Mouth Bottle - HDPE - 24 mm Closure	12/48
2002-9016	500 ml Narrow-Mouth Bottle - HDPE - 38-430 mm Closure	12/48
2002-0032	1000 ml Narrow-Mouth Bottle - HDPE - 38-430 mm Closure	6/24
2006-0004	125 ml Narrow-Mouth Bottle - PP - 24 mm Closure	12/72
2006-0008	250 ml Narrow-Mouth Bottle - PP - 24 mm Closure	12/72
2006-0016	500 ml Narrow-Mouth Bottle - PP - 24 mm Closure	12/48
2006-0032	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
2317-0020	10 L Transparent Carboy with Spigot, PC	1/4
2317-0050	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 PMP 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
- Guaranteed to meet requirements of ASTM Class B, E1271 for accuracy



Cat. No.	Capacity, ml	Graduations, ml	Limit of Error, ml	No. per Case
3663-0010	10	0.2	±0.20	24
3663-0025	25	0.5	±0.34	18
3663-0050	50	1	±0.50	18
3663-0100	100	1	±1.00	12
3663-0250	250	2	±2.00	12
3663-0500	500	5	±4.00	8
3663-1000	1000	10	±6.00	6
3663-2000	2000	20	±12.00	4
3663-4000	4000	50	±29.00	2

Thermo Scientific Single and Multichannel Finnpiettes

Outstanding Ergonomics with State-of-the-Art Innovations

The advanced ergonomic design of the Finnpiette® reduces user stress and delivers dependable accuracy and precision, so you can focus on your work.



Thermo Scientific Finnpiette 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.	Finnpiette F1 Adjustable-Volume Pipettes
4641010	Finnpiette F1 0.2-2 µl, Micro
4641020	Finnpiette F1 0.5-5 µl, Micro
4641030	Finnpiette F1 1-10 µl, Micro
4641040	Finnpiette F1 1-10 µl
4641050	Finnpiette F1 2-20 µl, Micro
4641060	Finnpiette F1 2-20 µl
4641130	Finnpiette F1 5-50 µl, Micro
4641140	Finnpiette F1 5-50 µl
4641070	Finnpiette F1 10-100 µl
4641080	Finnpiette F1 20-200 µl
4641090	Finnpiette F1 30-300 µl
4641100	Finnpiette F1 100-1000 µl
4641110	Finnpiette F1 0.5-5 ml
4641120	Finnpiette F1 1-10 ml

Cat. No.	Finnpiette F1 Fixed-Volume Pipettes
4651000	Finnpiette F1 1 µl, Micro
4651010	Finnpiette F1 5 µl, Micro
4651020	Finnpiette F1 10 µl
4651130	Finnpiette F1 20 µl
4651030	Finnpiette F1 25 µl
4651040	Finnpiette F1 50 µl
4651050	Finnpiette F1 100 µl
4651140	Finnpiette F1 200 µl
4651060	Finnpiette F1 250 µl
4651070	Finnpiette F1 500 µl
4651080	Finnpiette F1 1000 µl
4651090	Finnpiette F1 2000 µl
4651100	Finnpiette F1 3000 µl
4651110	Finnpiette F1 5000 µl
4651120	Finnpiette F1 10000 µl

Cat. No.	Finnpiette F1 Multichannel Pipettes
4661000	Finnpiette F1 8-channel 1-10 µl, Micro
4661010	Finnpiette F1 8-channel 5-50 µl
4661020	Finnpiette F1 8-channel 10-100 µl
4661030	Finnpiette F1 8-channel 30-300 µl
4661040	Finnpiette F1 12-channel 1-10 µl, Micro
4661050	Finnpiette F1 12-channel 5-50 µl
4661060	Finnpiette F1 12-channel 10-100 µl
4661070	Finnpiette F1 12-channel 30-300 µl
4661080	Finnpiette F1 16-channel 1-10 µl, Micro
4661090	Finnpiette F1 16-channel 5-50 µl, Micro



Pipette tips with an exceptional fit!



Thermo Scientific Finnpipette F2 Pipetters

- 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

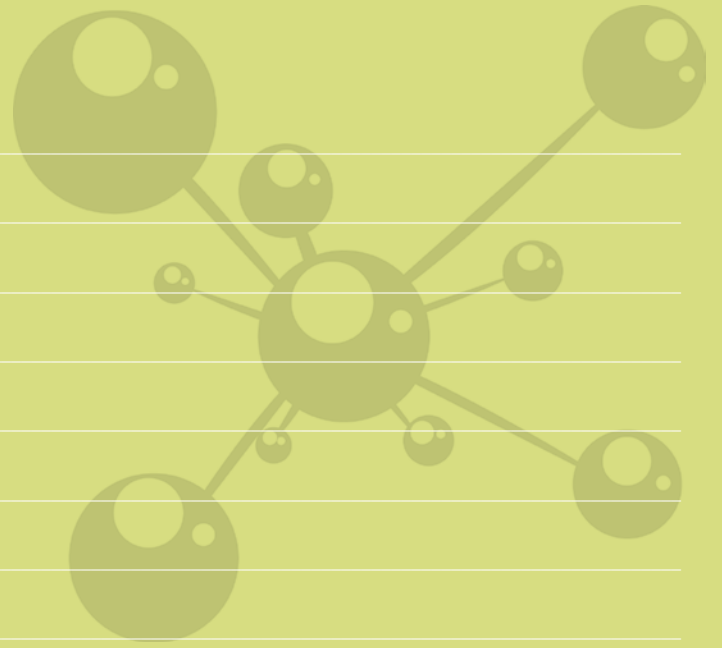
Cat. No.	Finnpipette F2 Adjustable-Volume Pipettes
4642010	Finnpipette F2 0.2-2 µl, Micro
4642020	Finnpipette F2 0.5-5 µl, Micro
4642030	Finnpipette F2 1-10 µl, Micro
4642040	Finnpipette F2 1-10 µl
4642050	Finnpipette F2 2-20 µl, Micro
4642060	Finnpipette F2 2-20 µl
4642120	Finnpipette F2 5-50 µl, Micro
4642130	Finnpipette F2 5-50 µl
4642070	Finnpipette F2 10-100 µl
4642080	Finnpipette F2 20-200 µl
4642090	Finnpipette F2 100-1000 µl
4642100	Finnpipette F2 0.5-5 ml
4642110	Finnpipette F2 1-10 ml

Cat. No.	Finnpipette F2 Fixed-Volume Pipettes
4652000	Finnpipette F2 1 µl, Micro
4652010	Finnpipette F2 5 µl, Micro
4652020	Finnpipette F2 10 µl
4652130	Finnpipette F2 20 µl
4652030	Finnpipette F2 25 µl
4652040	Finnpipette F2 50 µl
4652050	Finnpipette F2 100 µl
4652140	Finnpipette F2 200 µl
4652060	Finnpipette F2 250 µl
4652070	Finnpipette F2 500 µl
4652080	Finnpipette F2 1000 µl
4652090	Finnpipette F2 2000 µl
4652100	Finnpipette F2 3000 µl
4652110	Finnpipette F2 5000 µl
4652120	Finnpipette F2 Volume 10000 µl

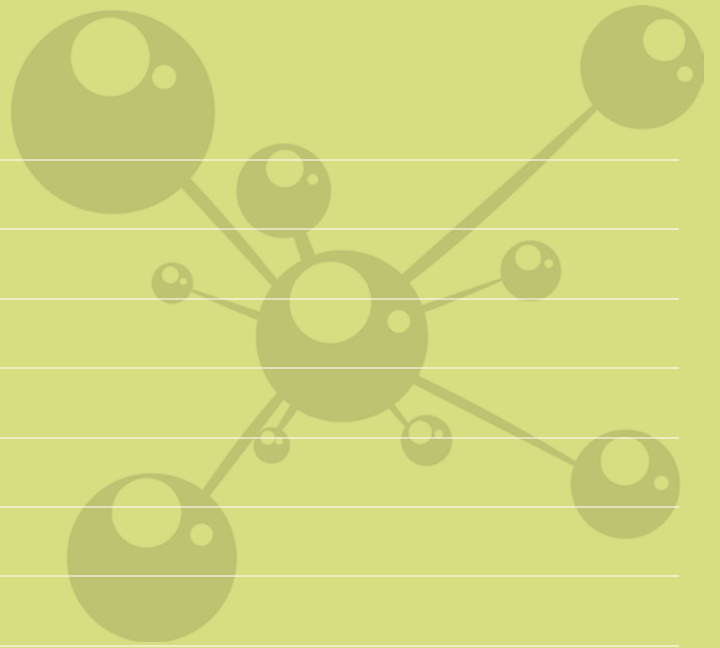
Cat. No.	Finnpipette F2 Multichannel Pipettes
4662000	Finnpipette F2 8-channel 1-10 µl, Micro
4662010	Finnpipette F2 8-channel 5-50 µl
4662020	Finnpipette F2 8-channel 10-100 µl
4662030	Finnpipette F2 8-channel 30-300 µl
4662040	Finnpipette F2 12-channel 1-10 µl, Micro
4662050	Finnpipette F2 12-channel 5-50 µl
4662060	Finnpipette F2 12-channel 10-100 µl
4662070	Finnpipette F2 12-channel 30-300 µl
4662080	Finnpipette F2 16-channel 1-10 µl, Micro
4662090	Finnpipette 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/pipettetips.

Notes



Notes





Lab Equipment Services

Leverage our expert-level services to maximize your productivity.

Start faster and go farther with services from the expert in serving science. Keep equipment at peak performance with support plans scheduled at your convenience and at a controlled cost.

- **Extended Warranty** — upgrade or extend your original equipment warranty to ensure priority service and support at fixed costs. Warranty covers equipment replacement, depot repair, as well as on site repair.
- **Installation** — coordinate equipment installation with product shipment to ensure precise functionality, and practical hands-on user training.
- **Support Plans** — an affordable range of service offerings to maintain equipment, proactively control service costs and maximize productivity.
- **Equipment Qualification** — IQ, OQ, PQ protocols and field qualification services provided by the equipment manufacturer to support compliance needs.
- **Calibration** — assurance of consistent and accurate equipment performance.
- **Field and Depot Service** — certified manufacturer services and qualified OEM parts.

Service offerings may vary by regions, please ask your sales representative about the best option for your lab!



Learn more about our everyday lab essentials at www.thermoscientific.com/everylab

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