

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

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

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

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

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