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

### For ease of observation and operation and configurable for horizontal or vertical use



## APPLICATIONS

• Annealing

Crystal growing

- Calibration
- Heat treatment

- Moldatherm LGO<sup>™</sup> 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 temperatureresistant 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

#### **Control consoles**

- Fully wired, control choices: A, B, select models with adjustable over-temperature control and/or RS485 data port
- · See page 32 for details

Cat. No.	Controller (Please order eparately)	Temperature Range	Heated Zone	Exterior L x W x H	Tube O.D.	Electrical	Shipping Weight	Plug Type	
Single Zone									
HTF55122A	Independent CC58114A	100° to 1200°C	30.5cm (12in.)	33.0 x 53.3 x 30.5cm (13 x 21 x 12in.)	1.9 to 2.54cm (0.75 to 1in.)	120V 50/60Hz 1300w; 11A	28kg (60 lb.)	no plug, no cable, requires hardwiring	
HTF55322A	Independent CC58114A	100° to 1200°C	30.5cm (12in.)	43.2 x 58.4 x 40.6cm (17 x 23 x 16in.)	2.54 to 7.62cm (1 to 3in.)	120V 50/60Hz 2670w; 23A	55kg (120 lb.)	no plug, no cable, requires hardwiring	
HTF55322C	Independent CC58114C	100° to 1200°C	30.5cm (12in.)	43.2 x 58.4 x 40.6cm (17 x 23 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz 2670w; 12A	55kg (120 lb.)	no plug, no cable, requires hardwiring	
HTF55342C	Independent CC58114C	100° to 1200°C	61.0cm (24in.)	43.2 x 88.9 x 40.6cm (17 x 35 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz 5400w; 23A	80kg 175 lb.)	no plug, no cable, requires hardwiring	
Three Zone									
HTF55347C	Independent CC58434C	100° to 1200°C	61.0cm (24in.)	43.2 x 88.9 x 40.6cm (17 x 35 x 16in.)	2.54 to 7.62cm (1 to 3in.)	208/240V 50/60Hz 5100w; 22A	89kg (195 lb.)	no plug, no cable, requires hardwiring	
HTF55667C	Independent CC58434C	100° to 1200°C	91.4cm (36in.)	53.3 x 124.5 x 50.8cm (21 x 49 x 20in.)	76.2 to 15.24cm (3 to 6in.)	208/240V 50/60Hz 11200w; 47A	141kg (310 lb.)	no plug, no cable, requires hardwiring	

#### Tube adapters prevent heat loss and improve temperature uniformity within the furnace chamber by insulating the end vestibules.

One set of (2) included with furnace:

- Model HTF55122A, (2) 1" dia. adapters; Models HTF55322A/C, (2) 2" dia. adapters;
- Model HTF55342C, (2) 3" dia. adapters
- Model HTF55347C, (2) 3" dia. adapters
- Model HTF55667C, (2) 3" dia. adapters

Required process tube not included. For information on process tubes contact your process tube supplier.

**Ordering information:** Independent digital temperature control module (ordered separately) is available in standard or programmable options (see next page).

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

#### Accessories

Cat. No.	Description	For Use with
59510	0.75in. Adapter	HTF55122 Tube Furnace
59511	1 in. Adapter	HTF55122 Tube Furnace
59521	1 in. 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 Furmace

Note: Tube adapters sold individually (not as sets).

Thermo Scientific Controllers for Lindberg/Blue M 1200°C Tube Furnaces Temperature accuracy and options for over-temperature control and multiple segment configuration



#### **Control console**

• Fully wired with advanced microprocessor based digital control, solid state power module, ON/ OFF circuit breaker and thermocouple input jacks for each zone

#### **Control options**

- A,B
- For three zone control, there is a choice of:
  - > 3 x single setpoint
  - > 3 x programmable, single program, multiple segment
  - > center zone programmable and end zones single setpoint, which mimic the programmed profile of the center zone controller but allow an offset up to 100°C (+/-50°C). Offset is digitally displayed.
- · See page 7 for details

# **Three-zone control**

Cat. No.	Description	For Use with	Electrical	
CC58114A-1	Single zone, A	HTF55122A HTF55322A	120V 50/60Hz; 30A	
CC58114C-1*	Single zone, A	HTF55122C HTF55342C	208/240V 50/60Hz; 30A	
CC58114BA-1*	Single zone, A, OTC	HTF55122A HTF55322A	120V 50/60Hz; 30A	
CC58114PA-1	Single zone, B	HTF55122A HTF55322A	120V 50/60Hz; 30A	
CC58114PBA-1	Single zone, B, OTC	HTF55122A HTF55322A	120V 50/60Hz; 30A	
CC58114BC-1*	Single zone, A, OTC	HTF55122C HTF55342C	208/240V 50/60Hz; 30A	
CC58114PBC-1	Single zone, B, OTC	HTF55122C HTF55342C	208/240V 50/60Hz; 30A	
CC58114PC-1	Single zone, B	HTF55122C HTF55342C	208/240V 50/60Hz; 30A	
CC58434C-1	Three-zone; Center zone: A, End zones: A	HTF55347C HTF55667C	208/240V 50/60Hz; 70A	
CC58434BC-1	Three-zone; Center zone: A, End zones: A; OTC	HTF55347C HTF55667C	208/240V 50/60Hz; 70A	
CC58434PC-1	Three-zone; Center zone: B, End zones: A mimic programmed profile from center zone, but allow offset of up to 100°C (+/-50°C)	HTF55347C HTF55667C	208/240V 50/60Hz; 70A	
CC58434PBC-1	Three-zone; Center zone: B, End zones: A mimic programmed profile from center zone, but allow offset of up to 100°C (+/-50°C); OTC	HTF55347C HTF55667C	208/240V 50/60Hz; 70A	
CC584343PBC-1	Three-zone; Center zone: B, End zones: B; OTC	HTF55347C HTF55667C	208/240V 50/60Hz; 70A	
CC584343PC-1	Three-zone; Center zone: B, End zones: B	HTF55347C HTF55667C	208/240V 50/60Hz; 70A	

\* Not available with RS-585 port

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

**Ordering information:** Required power cord, hardwiring and interconnecting wiring are not included. For information on process tubes contact your process tube supplier. **Warranty:** 1 year (parts and labor)