

Thermo Scientific™ Lindberg™ Blue M™ Three-Zone Tube Furnaces

Control each zone independently

- Temperature uniformity $\pm 1.0^{\circ}\text{C}$ over 24 inches
- Accept multiple tube sizes for versatility

These three-zone tube furnaces feature three 16-segment programmable controllers—one for each zone. Microprocessor-based self-tuning PID control provides excellent control without over-shooting of set temperature. Protect your samples with the adjustable high limit overtemperature protection feature.

What's included: Type K thermocouple (one per zone) set of tube adapters for the largest size tube the furnace will accept. Order adapters for different sizes of process tubes directly below; order process tubes below.†

Note: Cord is not included.

Specifications

Temperature uniformity: $\pm 1.0^{\circ}\text{C}$ over 24" Temperature control accuracy: $\pm 3^{\circ}\text{C}$ over $3\frac{5}{16}$ " segment

Temperature range	Chamber size	Zone lengths	Process tube OD	Overall dimensions (W x H x D)	Power		Shpg wt		Catalog number	Price
					VAC, Hz	Watts	lb	kg		
392 to 2012°F (200 to 1100°C)	1465 cu in. (24 L)	6", 12", 6" (15.2, 30.5, 15.2 cm)	1 to 3"	35" x 21" x 17" (89 x 53.3 x 43.2 cm)	208/240, 50/60	3800	225	102	GH-33851-25	
	2197 cu in. (36 L)		3 to 6"		208/240, 50/60					11,000

†Single, long process tube recommended over multiple short tubes.



Tube Furnaces

Moldatherm® Tube Adapters

Tube adapters allow furnaces to be used with different-sized process tubes.

Tube OD	Catalog number	Price/ea*
For model 33851-25		
1"	GH-33851-50	
2"	GH-33851-52	
For model 33851-35		
4"	GH-33851-62	

*Two adapters are required per tube.

CoorsTek Process Tubes

Choose from Mullite and 99.8% pure alumina

Furnace process tubes are offered in two formulations. Mullite is lower in thermal expansion and better in thermal shock than alumina. It withstands temperatures up to 1700°C (3092°F) and offers a lower cost option when the application is less demanding.

Alumina is a hard, chemical-resistant material that withstands temperatures up to 1750°C (3182°F) in aggressive environments. Both mullite and alumina tubes are available with both ends open for general applications or with one end closed for vacuum applications.

Specifications

Compressive strength

Mullite: 550 MPa (80 kpsi)
Alumina: 2500 MPa (363 kpsi)

Maximum temp with no load

Mullite: 1700°C (3092°F)
Alumina: 1750°C (3182°F)

Diameter tolerances: greater of $\pm 5\%$ or ± 0.030 "
(± 0.76 mm)

Straightness tolerances: ≤ 0.006 "/1.000"
(0.15/25.4 mm) cumulative



OD	Length	Open both ends				Closed one end					
		Mullite		Alumina		Mullite		Alumina			
		Cat no.	Price	Cat no.	Price	Cat no.	Price	Cat no.	Price		
1	2.5	12	30.5	GH-33910-01		GH-33910-41		GH-33910-21		GH-33910-61	
		18	45.7	GH-33910-03		GH-33910-43		GH-33910-23		GH-33910-63	
		24	61	GH-33910-05		GH-33910-45		GH-33910-25		GH-33910-65	
		36	91.4	GH-33910-07		GH-33910-47		GH-33910-27		GH-33910-67	
2	5.1	12	30.5	GH-33910-09		GH-33910-49		GH-33910-29		GH-33910-69	
		18	45.7	GH-33910-11		GH-33910-51		GH-33910-31		GH-33910-71	
		24	61	GH-33910-13		GH-33910-53		GH-33910-33		GH-33910-73	
		36	91.4	GH-33910-15		GH-33910-55		GH-33910-35		GH-33910-75	
3	7.6	24	61	GH-33910-17		GH-33910-57		GH-33910-37		GH-33910-77	
		36	91.4	GH-33910-19		GH-33910-59		GH-33910-39		GH-33910-79	

†kpsi = thousands of pounds per square inch.



Questions?

Trust our **expert**
Application Specialists
to help you find
the right product.

Bob, 7 years of experience

Call: **800-323-4340** E-mail: sales@coleparmer.com