## GVC - Modular Vertical 3-Zone Tube Furnaces

The GVC tube furnaces use free radiating wire elements embedded within the insulation of the furnace body. The benefit of this design is its flexibility; with the use of tube adapters the same furnace can be used with a variety of tube diameters. The heated length is divided into 3-zones.

An extended uniform zone in the mid-section of the work tube is achieved with the use of end zone controllers which track the centre zone temperature and compensate for the loss of heat from the tube ends.

This range of tube furnaces does not include an integral work tube and one must be selected as an additional item. The work tube length is dependent on the application eg for use with modified atmosphere or vacuum This information can be found on pages 92-93.

The use of a separate work tube has the advantage of protecting the heating elements from damage or contamination.



- 1200 °C maximum operating temperature
- Provides a longer uniform zone than can be achieved in a single zone tube furnace
- Heated lengths of 450, 600, 750, 900, 1050, or 1200 mm
- Accepts work tubes with outer diameter up to 170 mm
- End zone control is via back to back thermocouples
- Supplied with versatile stand for vertical, wall mounted and horizontal use
- Carbolite 301 PID controller with single ramp to setpoint & process timer
- · End zones 150 mm long



GVC 12/750

## Options (specify these at time of order)

- Wide choice of tube diameters and materials is available: eg quartz, ceramic, metal. See pages 92-93 for tube materials and dimensions
- End zones 300 mm long
- Over-temperature protection recommended to protect valuable contents & for unattended operation)
- Modified atmosphere and vacuum assemblies are available (see page 95)
- A range of sophisticated digital controllers, multi-segment programmers and data loggers is available. These can be fitted with RS232, RS485 or Ethernet communications (see pages 88-91)
- Retransmission of setpoint control configuration to facilitate programmed cooling
- Available without stand (control module & furnace body only)
- Control module on longer 6 metre conduit

## Technical data

Model	Max temp (°C)	Heat- up time (mins)	Dimen- sions: Max outer diameter accessory tube (mm)	Dimensions: Heated length (mm)	Dimensions: Furnace body length (mm)	Tube length for use in air (mm)	Tube length for use with modified atmos- phere (mm)	Dimensions: External Furnace H x W x D (mm)	Dimensions: Control module H x W x D (mm)	Clear- ance under furnace H (mm)	Uniform length ±5°C (mm)	Max power (W)	Hold- ing power (W)	Ther- mo- couple type	Weight (kg)
GVC 12/450	1200	75	170	450	630	650	1050	1418 x 468 x 662	225 x 600 x 380	177 to 702	300	3100	1500	N	87
GVC 12/600	1200	80	170	600	780	800	1200	1418 x 468 x 662	225 x 600 x 380	177 to 550	440	3900	1800	N	95
GVC 12/750	1200	92	170	750	930	950	1350	1793 x 468 x 662	225 x 600 x 380	177 to 777	500	4600	2200	N	100
GVC 12/900	1200	111	170	900	1080	1100	1500	1860 x 468 x 662	225 x 600 x 380	100 to 702	640	5400	2800	N	110
GVC 12/1050	1200	122	170	1050	1230	1250	1650	1943 x 468 x 662	225 x 600 x 380	26 to 627	880	6200	2800	N	120
GVC 12/1200	1200	81	170	1200	1380	1400	1800	2018 x 468 x 662	225 x 600 x 380	26 to 551	1015	7000	3100	N	130

**(i)** 

Please note:

- Heat up time is measured to 100°C below max, using an empty tube & insulation plugs
- Maximum continuous operating temperature is 100 °C below maximum temperature
- Holding power is measured at continuous operating temperature

- Uniform length measured with insulation plugs fitted



Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.