Gradient Tube Furnace - HZS-2G

General Information

NEW

This split tube furnace is specifically design to provide a temperature gradient along the length of the heated zones. They 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 two independent zone HZS-2G 12/425 split tube furnace comprises a furnace body which is hinged and split into two halves along its length. This makes exchange of work tubes easier and also enables the furnace to be used with reactors or work tubes where end flanges would make insertion into a non-split furnace difficult.

The 2-zone HZS-2G furnace includes a 25 mm long unheated zone barrier between the two 200 mm heated zones. Each heated zone has its own temperature controller and thermocouple.

This range of tube furnaces does not include an integral work tube which must be selected as an additional item. The work tube length is dependent on the application, for example, for use with modified atmosphere or vacuum. The use of a separate work tube has the advantage of protecting the heating elements from damage or contamination.

Note: The temperature gradient achievable is influenced by work tube diameter. Larger gradients will be achieved with smaller diameter work tubes because heat transfer between zones will be less.

Standard features

- 1200 °C maximum operating temperature
- Each zone has a Carbolite Gero 3216CC digital PID controller with single ramp to setpoint, digital display and process timer
- Overall heated length of 425 mm divided into two 200 mm heated zones with a 25 mm unheated zone barrier
- Accepts work tubes with outer diameters up to 110 mm
- Wire elements in high quality vacuum formed insulation ensure fast heat up, excellent temperature control and short cool down times
- Furnace splits into two halves and accommodates tubes or samples fixed into a test rig
- Model HZS-2G is a split configuration horizontal furnace with a separate control module on a 2 metre conduit

Options (specify these at time of order)

- A range of sophisticated digital controllers, multi-segment programmers and data loggers is available. These can be fitted with RS232, RS485 or Ethernet communications
- Dual overtemperature protection (recommended to protect valuable contents & for unattended operation)

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- A range of additional work tubes, end seals and work tube packages is available for use with modified atmosphere and/or vacuum
- Vacuum packages with a choice of rotary vane pump or turbomolecular pump are available
- Wide choice of tube diameters and materials is available
- Insulation plugs and radiation shields to prevent heat loss
- Control module on longer 6 metre conduit

Technical Specifications

HZS-2G 12/425	
Max temp (°C)	1200
Heat-up time (mins)	45
Dimensions: Max outer diameter accessory tube (mm)	110
Overall heated length (mm)	425
Dimensions: Furnace body length (mm)	550
Tube length for use in air (mm)	600
Tube length for use with modified atmosphere (mm)	900
Dimensions: External Furnace H x W x D (mm)	350 x 550 x 410
Dimensions: Control module H x W x D (mm)	222 x 370 x 376
Max power (W)	2000
Holding power (W)	900
Thermocouple type	N
Weight (kg)	33