Split tube furnace up to 1700°C - HTRV-A

General Information

The HTRV-A split tube furnaces have a maximum operating temperature of 1700 °C.

The split heating module allows either easy positioning of the work tube or positioning around reactors which have fixed end flanges. The split design may also allow faster cooling of samples. The control thermocouple is fitted in the centre of the heating zone. Cooling channels are engineered into the housing to aid with convection cooling of the outer case.

The two furnace chamber halves consist of high grade insulation plates with vertically hanging MoSi2 heating elements. A safety switch protects the operator by switching off the heating elements once the furnace is opened.

The tube furnace is supplied without a stand, allowing customers to build them into their own equipment. Optional ‘L' stands are available allowing the furnaces to be self supporting.

Standard features

- 1600 and 1700 °C maximum operating temperatures
- Programmable 3216P1 controller
- Over-temperature protection
- Designed for vertical use
- Accepts work tubes with outer diameters up to 70 mm for use with modified atmosphere
- Heated lengths of 120, 250 or 500 mm
- High grade type B thermocouple
- Low thermal mass ceramic fibre insulation
- Vertically hanging high quality MoSi2 heating elements
- Rectangular housing with holes for convection cooling
- Supplied with separate control box and 3 m cable, plug and socket

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
- A range of additional work tubes is available in a variety of materials
- Insulation plugs & radiation shields to prevent heat loss & improve uniformity
- Modified atmosphere and vacuum packages are available
- Vacuum packages with a choice of rotary vane pump or turbomolecular pump are available
- Longer heated lengths
- 'L' stand for convenient usage
- Oxygen sensor for inert gas packages

Split tube furnace up to 1700°C - HTRV-A

Technical Specifications

HTRV-A __/70/120	
Max temp (°C)	1600
Max outer diameter accessory tube (mm)	70
Heated length (mm)	120
Dimensions: External H x W x D (mm)	700 x 700 x 890*
Furnace weight (kg)	65
Tube length for use in air (mm)	470
Tube length for use with modified atmosphere (mm)	910
Control module dimensions H x W x D (mm)	850 x 560 x 500
Control module weight (kg)	60
Uniform length ±5°C (mm)	50
Power (W)	4800

HTRV-A __/70/250	
Max temp (°C)	1600,1700
Max outer diameter accessory tube (mm)	70
Heated length (mm)	250
Dimensions: External H x W x D (mm)	800 x 600 x 890*
Furnace weight (kg)	75
Tube length for use in air (mm)	600
Tube length for use with modified atmosphere (mm)	1040
Control module dimensions H x W x D (mm)	850 x 560 x 500
Control module weight (kg)	90
Uniform length ±5°C (mm)	125
Power (W)	6000

Split tube furnace up to 1700°C - HTRV-A

HTRV-A __/70/500	
Max temp (°C)	1600,1700
Max outer diameter accessory tube (mm)	70
Heated length (mm)	500
Dimensions: External H x W x D (mm)	1050 x 700 x 890*
Furnace weight (kg)	120
Tube length for use in air (mm)	850
Tube length for use with modified atmosphere (mm)	1290
Control module dimensions H x W x D (mm)	850 x 560 x 500
Control module weight (kg)	90
Uniform length ±5°C (mm)	250
Power (W)	8000

Please note:

*closed with stand
- Heat up rate when using an optional ceramic work tube must be limited to 5 °C/min
- The power supply is based on 200 – 240 V for 1 phase and 380 – 415 V for 3 phase power
- Minimum uniform length in horizontal furnace with insulation plugs fitted at 100 °C below max. temperature
- Maximum continuous operating temperature is 100 °C below maximum temperature
- Further to the depth of the control module 150 mm for the power plugs and other plugs needs to be added