

The TVS 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.

These furnaces comprise 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. This design is particularly suitable for incorporation into extension test and creep test apparatus.

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 and 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. The 'near-hinge' format is standard, an alternative option that can be specified at the time of purchase is the 'far-hinge' format, where the pivot of hinges is further from the centre line of the furnace to enable a wider opening action.



TVS 12/600

Standard features

- 1200°C maximum operating temperature
- Accepts work tubes with outer diameters up to 110 mm
- Heated lengths of 600, 900 mm
- Furnace splits into two halves and accommodates work tubes or samples fixed into a test rig
- Wire elements in high quality vacuum formed insulation ensure fast heat up, excellent temperature uniformity and short cool down times
- Supplied in 'near-hinge' configuration complete with stand
- Vertical furnace with a separate control module on a 2 metre conduit (for vertical use only)
- Carbolite 301 digital PID controller with single ramp to setpoint, digital display and process timer
- End zone control is via back to back thermocouples
- End zones of 150 mm

Options (specify these at time of order)

- Three equal length zones
- Insulation plugs, gas tight end seals and vacuum connections available
- 'Far-hinge' configuration providing wider opening of furnace body
- Wide choice of tube diameters and materials is available: eg quartz, ceramic, metal. See pages 92-93 for tube materials and dimensions.
- Over temperature control; recommended for unattended operation and to protect a valuable load
- Control module on longer 6 metre conduit
- 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)

Technical data

Model	Max temp (°C)	Heat-up time (mins)	Dimensions: Max outer diameter accessory tube (mm)	Dimensions: Heated length (mm)	Dimensions: Furnace body length (mm)	Recommended tube length for use in air (mm)	Recommended tube length for use with modified atmosphere (mm)	Dimensions: External Furnace H x W x D (mm)	Dimensions: Control module H x W x D (mm)	Uniform length $\pm 5^{\circ}\text{C}$ (mm)	Max power (W)	Holding power (W)	Thermocouple type	Weight (kg)
TVS 12/600	1200	45	110	600	750	950	1050	1040 x 500 x 495	225 x 570 x 380	500	3000	1100	N	34
TVS 12/900	1200	45	110	900	1050	1250	1350	1340 x 500 x 675	225 x 570 x 380	750	4500	1450	N	44

Please note:

- Heat up time is measured to 100°C below max, using an empty tube & insulation plugs
- Uniform length measured with insulation plugs fitted
- Maximum continuous operating temperature is 100°C below maximum temperature



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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.

