

Laboratory Furnaces

STANDARD FEATURES

- Max. Operating Temperature: 1600°C.
- Low thermal mass insulation for rapid response rates and maximum thermal efficiency and stability.
- Display : 7 segment LED display.
- Accuracy : $\pm 1^{\circ}\text{C}$.
- Over temperature limiter with adjustable cutout temperature for thermal protection class 2 in accordance with EN 60519-2 as temperature limiter to protect the furnace and load.
- Thermocouple breaks protection that helps preventing thermocouple failure run away.
- Power control through Solid state relay or Thyristor unit that provides low noise operation.
- Easy maintenance and operation.
- NABL certified thermocouple.

OPTIONAL FEATURES

- Programmable PID controller with RS-232/ RS-485/ Ethernet & Data Logging software.
- Provision for vacuum/ gas purging application (Ar, N₂, H₂, O₂, CO₂, etc.).
- Single zone uniform heating to multiple zone gradient heating.

SPLIT TUBE FURNACE - STF



Tempens Split Tube Furnace has a horizontal oriented chamber with a furnace body that splits into two halves. Ability to open furnace facilitates the operator to change the working tube easily and inserts vessels like reactors with flanges which is not possible in non split type furnaces. Working tubes can be easily changed to make the furnace work with variety of tube diameters. Optional features allows user to modify working environment to vacuum or particular gas surrounding (inert gas).

Tempens Split Tube Furnace comes with single heating zone to multiple heating zones that incorporate gradient heating. Tempens is ISO and CE certified Laboratory & Industrial furnace manufacturers and suppliers

TECHNICAL SPECIFICATION

CONSTRUCTION

- Powder coated Mild Steel cabinet / 304 Grade Stainless Steel (Optional).
- Furnace heating element is not wound on working tube which allows easy replacement of working tube and higher continuous working temperature.
- Low thermal mass insulation for rapid response rates and maximum thermal efficiency and stability.
- Double shell case with cooling fan to keep skin temperature low.

HEATING ELEMENTS

- Heating is provided by all surrounding free radiating elements manufactured from original Swedish FeCrAl high temperature resistance wire spirals supported on recrystallized Alumina tubes for optimum uniformity.
- Element brand – FeCrAl/SiC/MoSi₂.

TEMPERATURE CONTROL

- Electronic/ Automatic Control.
- Temperature sensing through K/R/S/B type thermocouple.
- NABL certified thermocouple.
- Equipped with thermocouples break protection that help prevent thermocouple failure run away.

ROTARY SPLIT TUBE FURNACE - RSTF

In Rotary tube furnace material is fed continuously at the one side the pipe and then passed through a Heated Zone of the work tube that is maintaining a consistent temperature profile thus heats and mixes simultaneously in a controlled atmosphere and falls out of the pipe at the lower end.

Tempens make Rotary tube furnaces comes with single heating zone to Multiple Heating Zone, adjustable rotation speed, an adjustable tilt, and a work tube (Ceramic or metal) that can easily be removed and replaced. With addition to different gas supply arrangements rotary tube furnace can be used in a protective defined gas atmosphere or in a vacuum.



VERTICAL SPLIT TUBE FURNACE - VSTF



The split tube furnaces can be used for vertical operation. Vertical Split Tube Furnaces are the most versatile laboratory testing furnaces and offer the best value for mechanical testing at different temperatures with very slow to very rapid heat-up rates. The control thermocouple is fitted in the centre of the heating zone. This Vertical Split Tube Furnace has single zone or multi zones based on application. It is mounted on a portable heavy duty stand that can be relocated as required. The split-type design allows a comfortable exchange of various working tubes and with different gas supply arrangements this can be used in a protective defined gas atmosphere or in a vacuum.

ACCESSORIES

- Vacuum pump and related accessories.
- Ceramic insulation plugs.
- Gas nozzle (inlet/outlet).
- Vacuum flange.