



# TUBE FURNACE LTF-A1 SERIES

### Tube Furnace LTF-A10

Tube Furnace LTF-A10 is a standard type tube furnace comprised with 4 step heating programs, offers continuous working temperature of 1100°C with 250 mm heated zone. Features K type thermocouples for accurate measurement and temperature control with high precision and 2 preset programs. Equipped with thermal shock resistant tubes, 4 lines LCD display, and software based PID control this tube furnace has gas inlet and evacuation system option for protective atmosphere. Designed with dual shell housing and durable inside lining of light insulating bricks, it is an ideal unit for homogeneous temperature distribution and reliable protective atmosphere with lift up and sideways opening door possibilities.

### Tube Furnace LTF-A11

Tube Furnace LTF-A11 is an extended type tube furnace comprised with 8 step heating programs, offers continuous working temperature of 1100°C with 250 mm heated zone. Features K type thermocouples for accurate measurement and temperature control with high precision and 4 preset programs. Equipped with thermal shock resistant tubes, 4 lines LCD display, and software based PID control, this tube furnace has gas inlet and evacuation system option for protective atmosphere. Designed with dual shell housing and durable inside lining of light insulating bricks, it is an ideal unit for homogeneous temperature distribution and reliable protective atmosphere with lift up and sideways opening door possibilities.

### Tube Furnace LTF-A12

Tube Furnace LTF-A12 is a standard type tube furnace comprised with 4 step heating programs, offers continuous working temperature of 1100°C with 300 mm heated zone. Features K type thermocouples for accurate measurement and temperature control with high precision and 2 preset programs. Equipped with thermal shock resistant tubes, 4 lines LCD display, and software based PID control, this tube furnace has gas inlet and evacuation system option for protective atmosphere. Designed with dual shell housing and durable inside lining of light insulating bricks, it is an ideal unit for homogeneous temperature distribution and reliable protective atmosphere with lift up and sideways opening door possibilities.

## Tube Furnace LTF-A13

Tube Furnace LTF-A13 is an extended type tube furnace comprised with 8 step heating programs, offers continuous working temperature of 1100°C with 300 mm heated zone. Features K type thermocouples for accurate measurement and temperature control with high precision and 4 preset programs. Equipped with thermal shock resistant tubes, 4 lines LCD display, and software based PID control, this tube furnace has gas inlet and evacuation system option for protective atmosphere. Designed with dual shell housing and durable inside lining of light insulating bricks, it is an ideal unit for homogeneous temperature distribution and reliable protective atmosphere with lift up and sideways opening door possibilities.

### Features

- ❑ Standard type tube furnaces comprised with 4 step heating programs (LTF-A10, LTF-A12)
- ❑ Extended type tube furnaces comprised with 8 step heating programs (LTF-A11, LTF-A13)
- ❑ Continuous working temperature of 1100°C with 1 to 20°C/min of thermal rate
- ❑ K type thermocouples for accurate measurement and temperature control
- ❑ Thermal shock resistant tubes to withstand extreme and rapid changes in temperature
- ❑ 4 lines LCD display with easy-to-understand menu and Programming
- ❑ Software based PID control, ensures stability and accuracy
- ❑ Gas inlet and evacuation system option for protective atmosphere
- ❑ Dual shell housing and durable inside lining of light insulating bricks
- ❑ An ideal unit for homogeneous temperature distribution and reliable protective atmosphere
- ❑ With lift up and sideways opening door possibilities
- ❑ High-efficient, stable and reliable

### Application

Tube furnace is used for purification, coating, drying, hardening or ageing of samples, for annealing, brazing, calcination, degassing, sintering, soldering, sublimation, synthesis, and tempering, thermocouple calibration, in the testing of fuel cells, or in catalyst research.

## Specifications

Model	LTF-A10	LTF-A11	LTF-A12	LTF-A13
Type	Standard	Extended	Standard	Extended
Program memories	2	4	2	4
Heating program	4 step	8 step	4 step	8 step
Working temperature	1100°C			
Tube length	420 mm		510 mm	
Tube diameter	20 mm		50 mm	
Heated zone	250 mm		300 mm	
Thermal rate	1 to 20°C/ min			
Homogeneous Hot Zone	84 mm at ± 10°C		100 mm at ± 10°C	
Thermocouple	K-type			
Heating element	Fe-Cr-Al			
Inner insulation material	Ceramic-fibre blanket			
Housing	Steel sheet with epoxy powder coating			
Display	4 lines			
Maximum current	5 A		7 A	
Power	1100 W		1350 W	
Dimension (W×D×H)	424×315×420 mm		484×384×476 mm	
Net weight	14 kg		23 kg	
Packaging dimension (W×D×H)	470×361×579 mm		525×430×635 mm	
Gross weight	20 kg		30 kg	