



TORONTECH



HIGH TEMPERATURE SPLIT-TYPE TENSILE TEST FURNACE TORONTF™ 1100

High Temperature Split-Type Tensile Test Furnace ToronTF 1100 features a cylindrical split design, consisting of the test furnace and a temperature controller. The controller utilizes PID fuzzy control for minimal temperature overshoot and precise regulation. This advanced material testing system is ideal for universities, research institutions, and industrial laboratories.

It can be seamlessly integrated with testing machines to accommodate various environmental conditions. Designed for high-temperature tensile testing of metals and non-metals, it also supports specialized industries such as plastics and rubber. For room-temperature testing, the high-temperature furnace can be easily removed.

This system ensures accurate strength testing for round bars, rectangular samples, pipes, and other materials under specific temperature conditions.

APPLICATIONS

Standards

1. Metallic materials-Tensile testing- Part 2:Method of test at elevated temperature.
2. Metallic materials high temperature tensile test method.

FEATURES

Key Features

1. The high-temperature furnace features a barrel-type split structure with resistance wire heating. By adjusting the heating time percentage, the upper, middle, and lower sections heat independently, ensuring precise temperature

control.

2. The temperature controller uses PID control, displaying both the set and measured temperatures digitally. This ensures stable testing conditions with minimal fluctuation and no temperature overshoot.
3. The furnace is equipped with a crank-arm support that allows elevation angle adjustments for proper leveling. During testing, the furnace is positioned within the test space, and for room-temperature tests, it can be easily removed.
4. A built-in water-cooling system safeguards the electronic universal testing machine.
5. The furnace includes a high-temperature extensometer port and an extraction access point, providing two options for deformation measurement.

TECHNICAL SPECIFICATIONS

Control temperature range	200°C~1100°C			
Length of average heat segment	Axial center 150mm			
Temperature parameters	Temperature setting T °C	Temperature deviation °C	Temperature gradient °C	Temperature control accuracy °C
	200<T≤600	≤±3	≤3	≤±3
	600<T≤900	≤±4	≤4	≤±3
	T>900	≤±5	≤5	≤±3
Temperature control mode	Upper, middle, lower three sections PID control			
Inner diameter of furnace	Φ90 × 300 mm			
Furnace outline dimension	Φ300 × 420 mm, detailed dimension refer to dimension image			
Temperature measuring instrument accuracy	0.3 class			
Voltage	3 phase, AC380V, 50HZ			

Power	3 kW
Work environment	5°C~30°C

Configuration

1. **Split-Type Atmospheric Furnace** – Stainless steel shell. **(1 set)**
2. **High-Temperature Tensile Fixtures for Bar Materials** – Includes upper and lower sets with high-temperature and water-cooled tie rods. The high-temperature tie rod supports $\phi 10$ standard samples with an M16 joint. **(1 set)**
3. **Temperature Controller** – High-precision digital PID regulator. Equipped with three temperature control meters for managing three heating wire groups, along with three ammeters for real-time monitoring of heating wire operation. **(1 set)**
4. **Lifting and Mobile System** – Includes an electric furnace with a rotatable straight-arm system. **(1 set)**
5. **Water-Cooling Circulation System** – Includes a water tank, pump, and related components. **(1 set)**

Dimensions

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