

GWDL-LBFS Electric Top-Opening Test Furnace

Technical parameters

category	Specification
Furnace size	650x750x300mm
power supply voltage	380V, 50Hz; 22kW
Number of samples per melting session	30 crucibles, each weighing 65g (bottom diameter 105mm x top diameter 165mm x height 55mm).
highest temperature	1400°C
Long-term operating temperature	1350°C
Control range	80–1400°C
thermocouple	Platinum-Rhodium Type S (0–1600°C)
heating element	U-shaped silicon carbide rods are vertically installed on the furnace wall.
Temperature accuracy	±1°C
Uniformity	±1°C (larger furnaces can be adjusted via multi-zone control)
heating rate	Adjustable: Maximum 30°C/minute (non-linear), minimum 1°C/hour
Furnace body	CNC machining, acid/heat resistant coating, aesthetically pleasing two-tone finish.
Cooling system	Dual-layer air-cooling structure, directional airflow prevents oxidation
furnace door mechanism	Electric-pneumatic top-opening type; opening height can be controlled via foot switch or touch screen.

Crucible clamps (custom-made)	Made of 304 stainless steel
Cast iron mold car	Carbon steel casing, powder-coated
Cast iron molds	Used for holding or cooling metal samples during high-temperature melting, ensuring complete shaping and facilitating subsequent separation. Analysis
Refractory furnace	High-purity alumina lightweight sheet (crack resistant, energy-saving)
lining insulation layer	Three layers: alumina fiber + aluminosilicate fiber + polycrystalline alumina
Security Protection	Dual-loop control with overvoltage/overcurrent/overtemperature protection
Display Indicators	Real-time temperature, power output, voltage, current, program segment
communication	RS485 interface (1200-meter range) for PC-based curve programming/data logging.
touchscreen	A 7-inch touchscreen allows for setting multiple heating programs, storing historical curves and data reports. Displays real-time power and alarm information.

Standard accessories and warranty

Includes : 2 silicon carbide rods, clamps, crucible tongs, and high-temperature gloves.

Warranty : Furnace body 1 year; heating element 3 months

1	Steel mold tilting vehicle		Model: C11-GMC	1	
2	Crucible cooling cart		Model: B01B with 5 crucible holders (1 unit)		
3	Crucible cooling rack		Model: B01B with 5 crucible holders (1 unit)		

4	Manual crucible placement forklift	 A manual forklift with a blue metal frame and a clear plastic enclosure on top, designed for handling crucibles.	Model: DMPL25 with fork	1	
5	Grille workbench	 A blue metal grille workbench with a lower shelf and a top surface with a grid pattern.	Model: A21-GST	1	
6	5-hole steel mold	 A set of four blue metal molds, each with five circular holes for casting crucibles.	Model: D09	6	
7	5-hole crucible tilting fork	 A blue metal tilting fork with a handle and a base, designed to hold crucibles.	Model: D01 5-position crucible tilting fork	1	