

Electric Heating Blast Drying Oven Forced Air Convection Laboratory Thermal Chamber

Item Number: KT-GZ



Introduction

Engineered for dependable thermal processing, this electric heating blast drying oven delivers uniform forced air circulation, intelligent digital PID regulation, and dual door insulation across versatile chamber volumes to ensure exceptional testing accuracy and industrial drying consistency in every cycle.

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Application	Description	Key Benefit
Coal & Mineral Moisture Analysis	Quantitative moisture testing in coal, ores, and coke samples in accordance with standard analytical protocols.	Prevents localized sample overheating while delivering uniform, rapid moisture extraction for accurate gravimetric calculations.
Chemical Precipitate & Filter Paper Drying	Dehydration of analytical filtration media, filter paper, and chemical sedimentation residues following wet separation.	Gentle, balanced convective flow prevents sample spattering and media tearing while achieving absolute dryness.
Laboratory Glassware & Vessel Processing	Rapid baking, dehydration, and constant-temperature holding of volumetric flasks, beakers, pipettes, and metal tools.	High air throughput rapidly removes moisture droplets, accelerating apparatus turnaround without leaving watermarks.
Electronic Component Conditioning & Baking	Pre-assembly moisture desorption and thermal baking of circuit boards, semiconductors, and passive electronic parts.	Mitigates micro-cracking and internal steam expansion during subsequent soldering or encapsulation processes.
Industrial Polymer & Resin Curing	Controlled thermal treatment and moisture evacuation for thermoset polymers, advanced resin matrices, and plastic granules.	Uniform temperature envelope ensures consistent cross-linking density and eliminates volatile-induced air voids.
Metallurgical Powder & Specimen Preparation	Dehydration and pre-heating of metal powders, metallurgical mountings, and core specimens prior to compaction or analysis.	Guarantees complete extraction of interstitial moisture without oxidizing or prematurely altering fine metallic particles.

Model Variant	Temperature Range (°C)	Temperature Fluctuation (°C)	Power Supply	Rated Power (kW)	Working Chamber Dimensions (D × W × H mm)
KT-GZ-1A	50 - 250	±1.0	220V, 50Hz	3.0	350 × 450 × 450
KT-GZ-2A	50 - 250	±1.0	220V, 50Hz	3.5	450 × 550 × 550
KT-GZ-3A	50 - 250	±1.0	220V, 50Hz	6.6	500 × 600 × 750
KT-GZ-4A	50 - 250	±1.0	220V, 50Hz	8.0	800 × 800 × 1000

Parameter Category	Specification Profile
Base Equipment Series	KT-GZ
Operating Temperature Range	Ambient +10°C to 300°C (Standard regulation range 50°C to 250°C / 300°C)
Temperature Constancy / Fluctuation	±1.0°C
Convection Mechanism	Forced-Air Mechanical Blast Circulation
Internal Temperature Variance	≤ 0.5°C across active convective pathways
Blower Motor Operating Speed	2,800 r/min
Heating Element Configuration	Two (2) Independent Resistance Element Groups located in bottom plenum

Parameter Category	Specification Profile
Heat Radiator Interface	Perforated heavy-gauge thermal radiating distributor plate
Temperature Sensor Type	Industrial Platinum Resistance (Pt100) Sensor Element
Controller Architecture	Digital PID microprocessor regulator (XMT series or compatible intelligent digital display)
Power Switching Device	Solid-State Relay (SSR) / Silicon-Controlled Rectifier (SCR) switching circuit
Observation System	Independent inner tempered glass access door with peripheral thermal gasket
Cabinetry Insulation	Multi-layer ceramic/fiber insulation barrier within outer casing
Working Chamber Dimensions (KT-GZ Standard)	350 mm (Depth) × 450 mm (Width) × 450 mm (Height)
External Dimensions (KT-GZ Standard)	500 mm (Depth) × 810 mm (Width) × 813 mm (Height)
Rated Operating Voltage	(220 ± 22) VAC, Single Phase, 50 Hz
Total System Weight (KT-GZ Standard)	110 kg