

Digital Display Hot Plate Laboratory Electric Heating Plate

Item Number: KT-RBA



Introduction

Engineered for industrial and laboratory research, this digital display hot plate delivers uniform flameless heating up to 380°C. Featuring dual-sensor temperature control, corrosion-resistant surfaces, and rugged cold-rolled steel housing, it provides superior safety, precision, and long-term reliability for demanding analytical workflows.

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Application	Description	Key Benefit
Wet Chemical Acid Digestion	Dissolution of geological, environmental, metallurgical, and soil samples using concentrated nitric, hydrochloric, or sulfuric acids in analytical labware.	Anti-corrosion top plate treatments and enclosed flameless heating resist aggressive acid fumes and prevent explosive vapor ignition.
Biochemical Reagent Incubation	Controlled thermal maintenance of biological buffers, culture media, and enzymatic reaction solutions requiring steady, prolonged warming.	Dual-sensor precision prevents localized hot spots, ensuring delicate protein matrices and biological compounds avoid thermal degradation.
Polymer Curing & Material Testing	Planar baking and drying of thin-film coatings, structural adhesives, semiconductor photoresists, and composite specimens.	Highly uniform plate surface temperature ensures consistent polymer cross-linking and dimensional stability across broad substrate areas.
Pharmaceutical QA & Formulation	Solvent evaporation, active pharmaceutical ingredient (API) extraction, and dissolution beaker heating under controlled thermal conditions.	Digital display PID control guarantees repeatable, auditable setpoints conforming strictly to pharmaceutical testing standards.
Metallurgical Component Preheating	Thermal expansion, gentle annealing, and uniform preheating of precision metal dies, bearings, and structural weld coupons prior to processing.	High-output heating up to 380°C transfers rapid conductive heat into dense metallic parts, establishing uniform thermal equilibrium.
Gravimetric Moisture Determination	Desiccation, baking, and routine drying of chemical precipitates, solid minerals, and glassware across high-volume analytical labs.	Spacious flatbed platform accommodates dense arrays of porcelain crucibles and glass weighing bottles for simultaneous high-throughput processing.

Specification Parameter	KT-RBA-ML-1.5	KT-RBA-ML-2	KT-RBA-ML-3	KT-RBA-SKML-1.5	KT-RBA-SKML-2	KT-RBA-SKML-3
Control System Architecture	Electronic Voltage Regulation (Stepless)	Electronic Voltage Regulation (Stepless)	Electronic Voltage Regulation (Stepless)	Intelligent Digital Meter (PID Microprocessor)	Intelligent Digital Meter (PID Microprocessor)	Intelligent Digital Meter (PID Microprocessor)
Temperature Sensing Method	Internal Base Plate Regulation	Internal Base Plate Regulation	Internal Base Plate Regulation	Dual Sensor (Plate Surface & Direct Material Measurement)	Dual Sensor (Plate Surface & Direct Material Measurement)	Dual Sensor (Plate Surface & Direct Material Measurement)
Heating Plate Dimensions (mm)	400 × 280	450 × 350	600 × 400	400 × 280	450 × 350	600 × 400
Operating Temperature Range	Ambient to ≤ 380 °C	Ambient to ≤ 380 °C	Ambient to ≤ 380 °C	Ambient to ≤ 380 °C	Ambient to ≤ 380 °C	Ambient to ≤ 380 °C
Rated Heating Power (kW)	0 to 1.5 (Adjustable)	0 to 2.0 (Adjustable)	0 to 3.0 (Adjustable)	1.5	2.0	3.0
Operating Voltage	AC 220V, 50 Hz	AC 220V, 50 Hz	AC 220V, 50 Hz	AC 220V, 50 Hz	AC 220V, 50 Hz	AC 220V, 50 Hz
External Dimensions (W × D × H mm)	400 × 280 × 200	450 × 350 × 200	600 × 400 × 220	400 × 280 × 220	450 × 350 × 220	600 × 400 × 220

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Equipment Net Weight (kg)	11.8	16.6	56.2	14.0	18.0	58.4
Gross Shipping Weight (kg)	12.8	17.8	58.4	15.0	19.2	60.6
Plate Material Options	Stainless Steel / Cast Steel with Anti-Corrosion Treatment	Stainless Steel / Cast Steel with Anti-Corrosion Treatment	Stainless Steel / Cast Steel with Anti-Corrosion Treatment	Stainless Steel / Cast Steel with Anti-Corrosion Treatment	Stainless Steel / Cast Steel with Anti-Corrosion Treatment	Stainless Steel / Cast Steel with Anti-Corrosion Treatment
Housing Construction	Cold-Rolled Stamped Steel with Electrostatic Powder Coating	Cold-Rolled Stamped Steel with Electrostatic Powder Coating	Cold-Rolled Stamped Steel with Electrostatic Powder Coating	Cold-Rolled Stamped Steel with Electrostatic Powder Coating	Cold-Rolled Stamped Steel with Electrostatic Powder Coating	Cold-Rolled Stamped Steel with Electrostatic Powder Coating