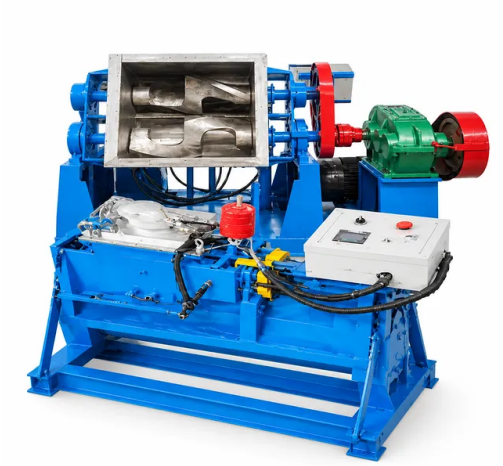
Laboratory Carbon Kneader Mixer High Temperature Pitch Kneading Machine

Item Number: KT-TXH



Introduction

Discover high performance laboratory carbon kneader mixers engineered for uniform pitch and carbon blending up to 400°C. Featuring dual sigma blades, jacketed heating, and automated discharge for advanced materials research.

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Application	Description	Key Benefit
Anode & Cathode Formulation	Kneading synthetic graphite, petroleum coke, and coal tar pitch for aluminum smelting electrodes and lithium-ion battery anodes.	Delivers homogeneous pitch penetration, lower electrical resistivity, and reduced void defects in baked carbon blocks.
Nuclear Graphite Development	Blending ultra-fine isotropic carbonaceous powders with thermosetting binders for reactor-grade structural materials.	Ensures high microstructural isotropy, uniform density gradients, and high mechanical integrity post-carbonization.
Refractory & Carbon Bricks	Compounding coarse refractory aggregates, carbon black, and liquid resin binders for blast furnace lining bricks.	Provides superior green strength, exceptional particle packing density, and enhanced thermal shock resistance.
Carbon Brush & Tribo-Materials	Formulating metal-graphite composite pastes using copper, natural graphite, and phenolic or pitch binders.	Prevents phase segregation between dense metallic powders and carbon, improving electrical conductivity and wear life.
Specialty Carbon Composites	Hot-mixing carbon fibers, short-cut filaments, and carbonaceous pitch precursors for high-performance friction components.	Minimizes fiber damage while ensuring complete binder wet-out across complex carbon fiber bundles.
Academic Material Research	Rheological characterization and formulation optimization of innovative polymer-derived ceramics and pitch matrix precursors.	Offers exact batch-to-batch repeatability with accurate thermal regulation up to 400°C.

Parameter	KT-TXH-5L	KT-TXH-10L
Product Identifier	KT-TXH-5L	KT-TXH-10L
Effective Working Capacity	5 L	10 L
Maximum Working Temperature	400°C	400°C
Blade Geometry	Z-Shape / Sigma (Σ) Differential Blades	Z-Shape / Sigma (Σ) Differential Blades
Agitator Rotational Speed	Fast Blade: 44 r/min Slow Blade: 27 r/min	Fast Blade: 44 r/min Slow Blade: 27 r/min
Agitation Drive Direction	Forward & Reverse Switchable	Forward & Reverse Switchable
Motor Power	1.5 kW	1.5 kW
Heating Method	Jacketed Thermal Oil / Electric Heating	Jacketed Thermal Oil / Electric Heating
Heating Power Configuration	0.8 kW × 3 (Total: 2.4 kW)	0.8 kW × 3 (Total: 2.4 kW)
Input Voltage	380V, 3-Phase	380V, 3-Phase
Material Contact Surfaces	High-Grade Stainless Steel	High-Grade Stainless Steel
Discharge Method	Automated Tilting Discharge	Automated Tilting Discharge

Parameter	KT-TXH-5L	KT-TXH-10L
Total Machine Weight	320 kg	320 kg
External Dimensions (L × W × H)	1125 × 580 × 1010 mm	1125 × 580 × 1010 mm