

150MI Cup Vacuum Mixer With Built In Vacuum Pump For Battery Slurry Ceramic Powder Dispersion

Item Number: ZB03



Introduction

150ml cup vacuum mixer with built-in vacuum pump for battery slurry, ceramic powder, and laboratory material dispersion, bubble-free processing, adjustable speed, programmable mixing time, compact design, and dense consistent results for demanding research and pilot-scale preparation with reliable sealing

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Application	Description	Key Benefit
Battery electrode slurry preparation	Mix positive- and negative-electrode slurries for laboratory battery fabrication and process development. Variable speed and torque selection accommodate different formulation viscosities.	Reduced air inclusion and improved slurry filling consistency support more repeatable electrode preparation.
Ceramic compound development	Combine ceramic powders and binders during small-batch formulation and materials research. Vacuum agitation helps remove bubbles introduced during mixing.	Better material density and fewer voids can improve the consistency of subsequent forming or molding work.
Powder material mixing	Process laboratory powder blends that require controlled agitation and a reduced-air environment. The compact unit fits research benches with limited available space.	Flexible speed control supports formulation trials while the vacuum process promotes more uniform, denser mixtures.
Advanced materials research	Prepare experimental material systems in academic, industrial, and institutional laboratories where batch conditions must be controlled and documented.	Programmable time and adjustable operating conditions improve repeatability between experiments.
Powder metallurgy preparation	Mix powder-based compositions before pressing or other forming operations. Vacuum processing helps limit trapped air within the prepared material.	Improved filling characteristics can contribute to more consistent green-body or compact density.
Small-batch process optimization	Evaluate material behavior across different speeds, torque requirements, and mixing durations before scale-up. The unit supports controlled laboratory trials without a large installation.	Researchers can compare process conditions efficiently while conserving workspace and material.

Parameter	Specification
Product item number	ZB03
Product type	Vacuum mixing and dispersion equipment
Intended mixing materials	Positive-electrode slurry, negative-electrode slurry, powder materials, and ceramic materials
Vacuum system	Built-in vacuum pump
Power supply	AC220V
Rated power	150W
Mixing speed	0 to 320 rpm
Speed adjustment	Frequency-converter speed control
Vacuum level	≤ -80 KPa or higher
Accessory vessel	250ml stainless steel vacuum mixing tank

Parameter	Specification
Vessel customization	Available according to customer requirements
Mixing time	0 to 9999 minutes, programmable
Oscillation mode	Stepless speed adjustment
Overall dimensions	Approximately 330 mm × 310 mm × 510 mm, length × width × height
Overall weight	Approximately 20 kg
Routine cleaning	Wipe the tank and mixing head before and after every operation
Moving-part maintenance	Keep moving parts clean and apply lubricating oil to maintain smooth movement
Fastener inspection	Regularly inspect screws, nuts, pins, and other fasteners to prevent loosening
Operating safety	Do not allow two or more people to operate the equipment simultaneously, helping prevent accidental injury