

100 X 200 Mm Heated Laboratory Rolling Mill Battery Electrode Dual Roller Machine Independently Adjustable Temperatures To 200 C

Item Number: DG13



Introduction

100 x 200 mm heated laboratory rolling mill with independently adjustable dual roller temperatures to 200 C, 5 T pressure, 0-3 mm gap, and variable speed for lithium battery electrode densification and precision materials research applications worldwide.

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Application	Description	Key Benefit
Lithium-ion battery electrode calendaring	Rolls coated lithium battery electrode sheets to reduce thickness and increase density during laboratory development.	Supports controlled electrode densification for research and pilot-line process studies.
Clean-energy material development	Processes lithium battery plates used in clean-energy materials research after coating and drying stages.	Combines adjustable gap, pressure, speed, and heat for parameter-focused development work.
University battery research	Provides a practical rolling platform for academic laboratories studying electrode processing and cell fabrication workflows.	Uses single-phase 220V power and a compact 200 mm working width suited to experimental-scale samples.
Enterprise pilot-line trials	Supports small-scale validation of electrode rolling conditions before broader manufacturing decisions are made.	Enables repeatable trials with independently adjustable roller temperatures and variable line speed.
Copper foil and strip rolling	Performs manual rolling of limited quantities of copper and other non-ferrous materials in research environments.	Offers a 0-3 mm adjustable gap and hardened rollers for flexible sheet-thickness processing.
Aluminum material trials	Supports laboratory rolling of aluminum material samples where controlled reduction is required.	Horizontal roller placement provides a direct, observable manual feed path.
Precious-metal sample processing	Rolls small batches of gold, silver, and related precious-metal research materials.	Delivers controlled mechanical reduction with up to 5 T maximum pressure.
Advanced materials densification	Evaluates heat-assisted rolling conditions for material sheets requiring controlled compression.	Independently controlled roller temperatures allow the process temperature to be adjusted for each roller.

Parameter	Specification
Site-facing identifier	DG13
Equipment type	Heated laboratory rolling mill for small lithium battery electrode sheet rolling
Power supply and power	220V, 4.5KW
Roller temperature	~200°C
Dual-roller temperature control	The temperatures of the two rollers can be controlled independently and adjusted arbitrarily
Roller dimensions	Φ100mm x 200mm
Roller arrangement	Horizontal roller arrangement
Weight	110KG

Parameter	Specification
Roller surface hardness	HRC62
Roller cylindricity	$\leq \pm 2\mu\text{m}$
Roller material	Imported 9CR2MO steel
Supplied roller temperature tolerance notation	200°C $\pm$ 10 μm
Effective gap	0-3mm adjustable; visual dial indicator
Working speed	Continuously variable speed; line speed adjustable from 0-4.0 m/min
Roller surface finish	Not specified in the supplied reference materials
Maximum working width	200mm
Roller surface hardening depth	5mm
Maximum pressure	5T