LAARMANN®

Innovators in Solids

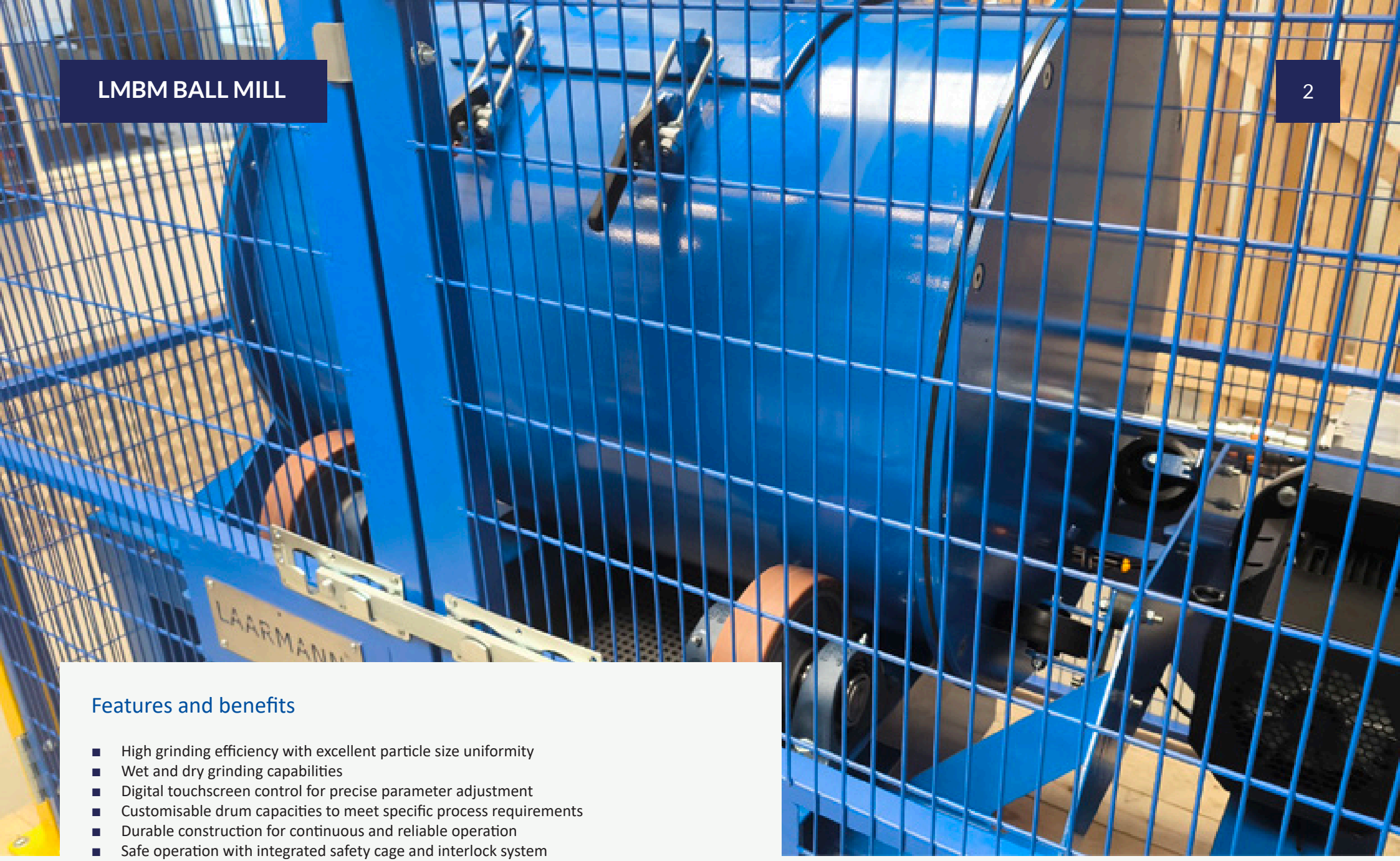
Sample Preparation

LMBM BALL MILL

Laboratory & process mill, 150-450 litre capacity



RELIABLE GRINDING PERFORMANCE FOR LABS, PILOT PLANTS & PRODUCTION



Features and benefits

- High grinding efficiency with excellent particle size uniformity
- Wet and dry grinding capabilities
- Digital touchscreen control for precise parameter adjustment
- Customisable drum capacities to meet specific process requirements
- Durable construction for continuous and reliable operation
- Safe operation with integrated safety cage and interlock system
- Easy maintenance and user-friendly design

Working Principle

The LMBM Ball Mill grinds through friction, impact, and attrition. Raw material and grinding media are loaded into the rotating drum, where centrifugal force lifts the media along the inner wall before it falls back down, crushing the sample with each rotation.

Grinding time, rotation speed, and media size are all adjustable, giving precise control over final particle size and consistency.

- Grinding by friction - speed adjustable from 7–33 rpm
- Feed size up to 25 mm, end fineness down to 1 mm*
- Digital touch-screen control for repeatable results

*depending on feed material and instrument configuration

Robust Design & Construction

Built for demanding lab, pilot, and small-scale production environments, the LMBM combines a high-strength steel drum with wear-resistant liners, capable of holding 150-450 litres of material - with custom volumes available on request.

The ball charge fills up to 30% of total volume, and the milling chamber sits inside a fully enclosed safety cabinet with a locking system.

- Drum capacity: 150-450L (customer-specific volumes on request)
- Grinding media: standard steel, chrome steel, zirconium, tungsten carbide, and others
- Compact footprint despite substantial batch capacity

Safety & Ease of Use

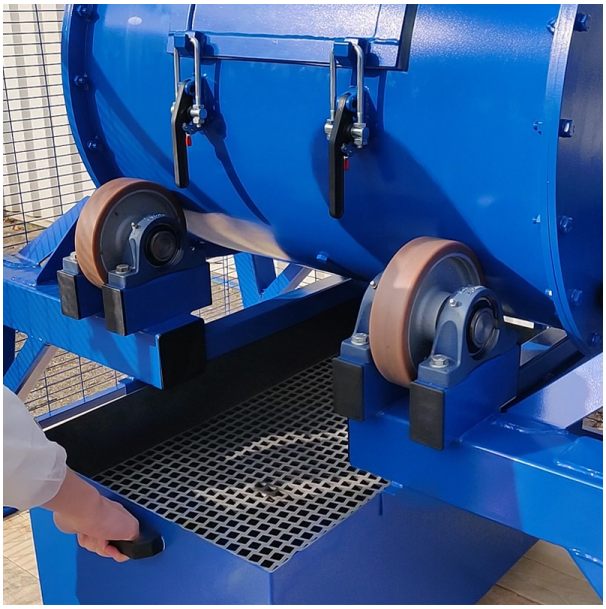
Operator safety and simplicity are built into every part of the LMBM. Safety interlocks prevent operation when the drum is open or unsecured, while overload protection guards the motor against excessive loads.

Combined with a digital control panel, the machine is straightforward to operate and maintain even during extended production runs.

- Safety locking system with interlocks
- Overload protection for motor and components
- Easy to operate and maintain, minimal training required



Removing lid of the LMBM



Moving the Collector

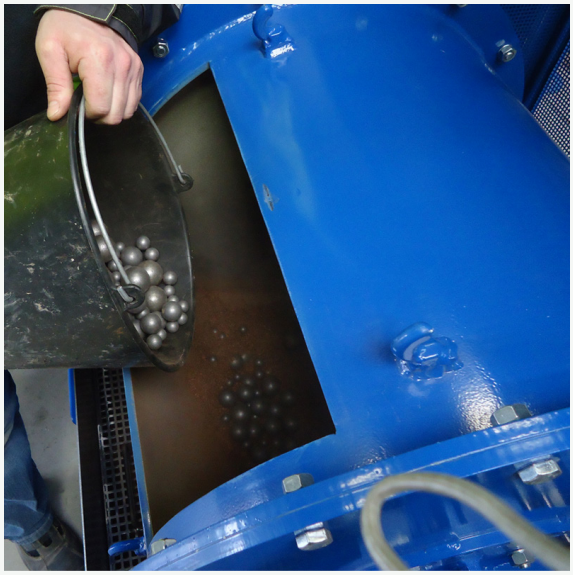


LMBM control panel

Applications

The LAARMANN® LMBM Ball Mill grinds and homogenises soft, hard, fibrous, and brittle materials through friction and impact, using a rotating drum charged with grinding media. This makes it suitable for a wide range of milling tasks across R&D, pilot-scale, and small production environments. some applications examples are:

- Mineral & Ore Processing
- Mixing & Grinding for Ceramics, Tiles & Glass
- Chemical & Pigment Powder Production
- Pharmaceutical (API) Grinding



Technical specifications

Applications	separation of different materials, particularly minerals, by agitating a pulverized mixture of solids in liquids
Working principle	Friction
Feed size	< 25 mm*
End fineness	1 mm*
Speed setting	7-33 rpm
Setting adjustment method	digital control panel
Consumeable material	standard steel, chrome steel, zirconium, tungsten carbide others on request
Max. volume of grinding barrel	150L - 450L (customer request)
Power supply	1,1 kW
Electrical requirements	3 phase
Power connection	380/400V ± 10% - 50Hz
Standard	CE
Protection code	IP30
Weight	750kg
Dimensions (width x length x height)	1968 x 1088 x 1525 mm (with safety cage)

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