

LAARMANN[®]

Innovators in Solids

PULVERISER RING MILLS

High Performance Ring Mills

For rapid fine grinding down to analytical fineness of hard, brittle and fibrous materials



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Ring Mills for the fine grinding of hard to brittle and fibrous material

The LAARMANN ring mills are essential for all applications which demand the grinding of hard, brittle and fibrous material down to analytical end fineness.

Method of operation

With a LAARMANN Ring Mill you put the sample together with a disc or a set of rings and roller in a bowl to bring it all together into 3-dimensional vibrations. Inside the bowls the sample will be ground and homogenized by high pressure, impact and friction rapidly down to analytical end fineness. Typically samples are ground to 90-95% <math><75\mu\text{m}</math> in app. 3 minutes. Exact time and end fineness depends on the sample characteristics

LAARMANN Ring Mills are appropriate for bowls up to a volume of 5000cc

According to the desired maximum volume of the bowls you can select between LAARMANN Ring Mills

LM 250: Bowl 20cc to 300cc

LM 1000: Bowl 20cc to 1000cc

LM 2000: Bowl 50cc to 2000cc

LM 5000: Bowl 5000cc

The optional Liftboy makes the handling of the larger grinding sets more easy.

By a digital display all parameters can be programmed and controlled very easily (time, interval, right-left rotation...)

The cabinet has a drawer to collect dust and any excessive material. Additionally the cabinet can be separated from the vibrating unit very easily for service

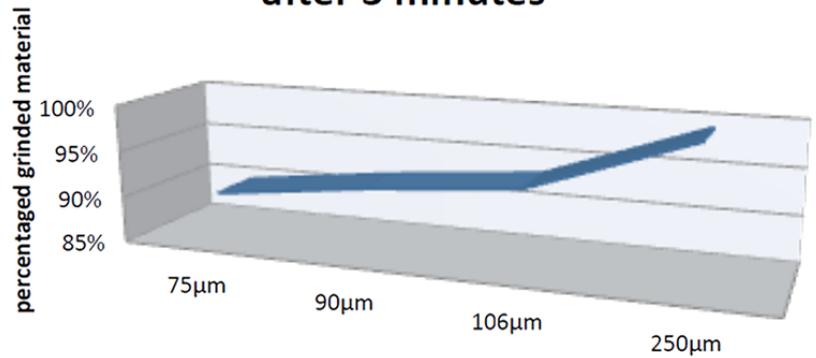


Features and benefits

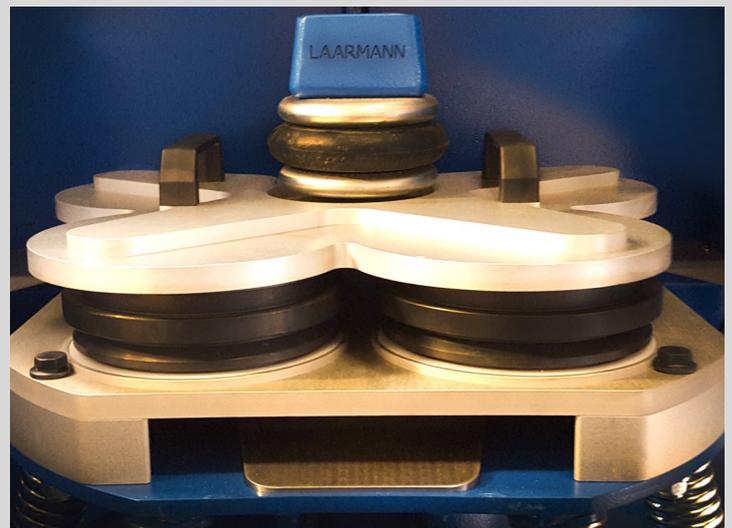
- High power (3-phase) motors
- Pneumatic bowl lid clamping
- Safety switch at the cabinet lid
- Integrated emergency Stop-button
- CE - certified
- Programmable control (Time, interval parameter etc.)
- Motor overload protection
- Programmable right- / left rotation
- Contamination free grinding because of different grinding set from various materials
- Endfinessness < 45µm

Typically samples can be ground to 90 to 95% < 75 µm, in app. 3 minutes.

Testsample: Percentaged grinding after 3 minutes



Bowls and disks standard and chrome steel



LM2000 with 4 x 100ml adaptorplates



LM2000 with 3 x adaptor plates



Bowls , spacer rings and rollers

Pulveriser ring mill test results



printed computer board



result



Hard material test results with sieve results



Glass - Ceramics



dishwasher blocks

Applications

- Minerals / ores / slags
- Cement / cement clinker / concrete
- Glass / ceramics / corundum
- Coal / coke / drill core



Accessories

LAARMANN bowls, rings and rings are available in various materials as follows:

- Chrome steel
- Hardened steel
- Tungsten carbide
- Silicon nitride
- Zirconium oxide
- Agate
- Pu coated



Chrome steel



Zirconium 100cc



Tungsten carbide 800cc

Model	LM250	LM1000	LM2000	LM5000
Feed size*	<25 mm	<25 mm	<25 mm	<25 mm
End-fineness*	<75 µm	<75 µm	<75 µm	<75 µm
Throughput*	20cc - 300cc	20cc - 1000cc	20cc - 2000cc	5000cc
Dust extraction point	1	1	1	1
Motor power (3-phase)	1,5 KW	1,5 KW	2,2 KW	4,0 KW
Speed	progr. Up to 1450 rpm			
Dimensions (w x d x h)	550 x 602 x 1032 mm	550 x 602 x 1032 mm	1087 x 741 x 1378 mm	1400 x 730 x 1460 mm
Weight	210 kg	230 kg	475 kg	585 kg

*depending on feed material and instrument configuration/settings