

LAARMANN

Innovators in Solids

Power Cutting Mill

CM 1000

Superior Cutting Mill
engineered for
rapid reduction
of large particles

- Rapid reduction of large particles from 100mm to 0,5 mm
- Quick and easy to clean
- Full range of bottom sieves
- The CM 1000 can handle samples of up to 60Kg/h



LAARMANN POWER CUTTING MILL CM 1000



Cutting Mill
with closed
„EASY LOCK
COVER“



Cutting Mill
with opened
„EASY LOCK
COVER“

Superior Cutting Mill engineered to reproducibly grind volumes from 30g of up to 60 kg/h.

Method of operation

The Model CM1000 Cutting Mill is used by laboratories and processing companies to granulate solid materials such as waste or wood and thermoplastics. The material to be processed falls into the cutting chamber of the CM1000 via a guide chute and is shredded by cutting between rotating and fixed knives until it passes an attached sieve as ground product. The sieve extends over the lower half of the grinding chamber and can be changed easily. Final particle size is determined by the selected sieve perforation aperture.

**Sieve dimension
(free open surface) must be
large in order to obtain:**

- a high throughput
- a low heat creation
- a homogeneous result.



No other Cutting Mill is easier to clean than the CM 1000 Cutting Mill. When the grinding process is finished the grinding chamber is fully accessible by unscrewing two hand screws and folding back of the infeed hopper. The grinding chamber is fully accessible for quick and easy cleaning in order to perform a fast and systematic cleaning of the grinding tools.



Grinding

The Cutting Mill is the first machine in a state of the art sample prep. laboratory when it comes to sample prep. of cuttable materials. This system is suitable for the coarse and fine grinding of any dry substance, typically samples with a feed size of up to 100mm and a total batch of up to 60kgs per hour (volume depending on the characteristic of the samples) can be ground down to 0,5 mm or finer depending on the product.

High operator convenience and maximum safety

Maximum Grinding performance and maximum safety is important for LAARMANN Mills. Due to the integrated safety switch the machine can only be started when the **„Easy Lock Cover“** is closed and the **grinding chamber cover** is inserted properly.

The Infeed Hopper as well as the housing of the **CM1000** is made from solid steel. The ergonomic design of the machine and the positioning of the funnel and the starter box require a minimum space in the laboratory.

Benefits and applications

- Accoustic Noise Reduction: Infeed hopper made from Bondal. Bondal is a vibration damping composite material with a sandwich structure consisting of a viscoelastic core between two outer steel sheets.
- Various infeed hopper types are available with wooden/plastic plunger
- Restrained opening of the infeed hopper due to a gas spring
- Massive grinding chamber made from vibration reducing components
- Grinding chamber with safety switch for easy access and cleaning
- Flexible solid sample collector flange for optional extraction or connection to a collection vessels
- High precision solid steel underframe
- Industrial Castor wheels lockable



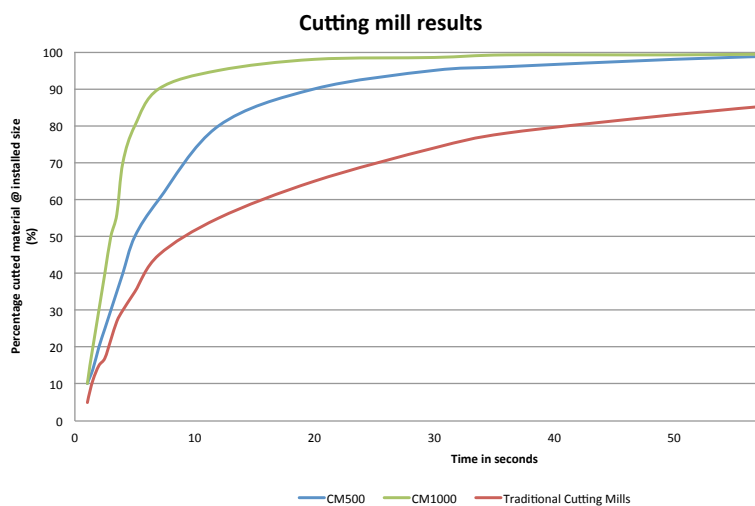
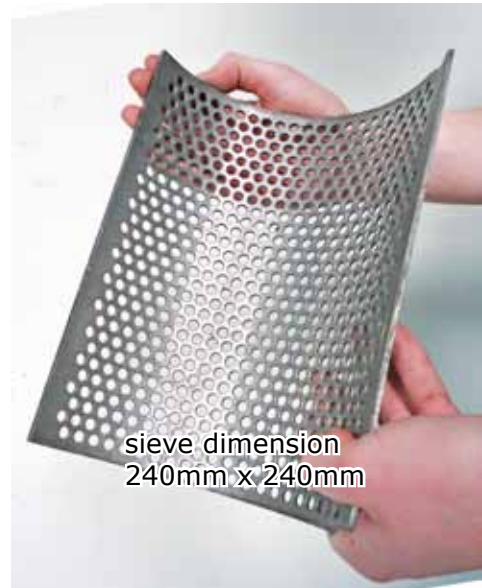
CM 1000 has a small foot print of only 50cm

Bottom sieves

The size of the bottom sieve is important in order to decrease the heat creation during the grinding and to increase the capacity.

The sieve dimension is 240mm x 240mm. This assures a large open surface which is essential for the cutting process to:

- Obtain a high throughput (see graphics)
- Have a low heat creation during the grinding process
- Receive a homogeneous result



Industrial waste before grinding



Features and benefits

Benefits

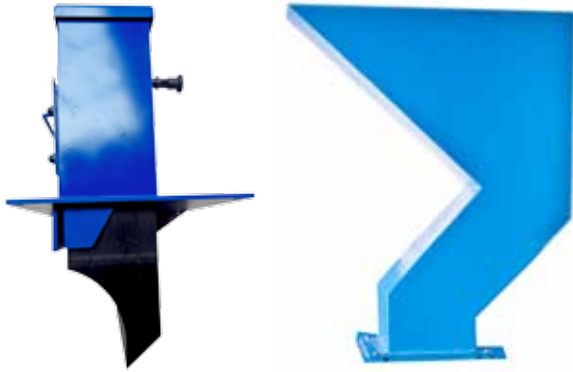
- Rapid sieve and knife changeover
- Quick and easy to clean
- Performance - enhancing diagonal cutting action
- No need to adjust the rotor knife
- Ideal granulate quality with similar grain characteristics
- No tool required to open
- Outer bearing assembly protected from dust ingress
- CE certified

Applications

- Linoleum, Carpets, Cloth
- Secondary fuels and Bio Mass
- Food and Animal food
- Wood, Paper, Carton, Cellulose
- Rubber, Shredder Light Fractions
- House Waste, Industrial Waste
- Computer Scrap and Electronic Scrap
- Plants, Twigs, Roots etc.
- Herbs, Spices, Gras, Straw
- Bones
- Technical Plastics such as ABS, PA, POM, PE etc.

Infeed Hopper / Rotor and Stator knives / Bottom sieves

Infeed Hopper of various sizes



Bottom sieves of various sizes



Rotor and Stator knives

- Hardened steel
- Heavy metal free steel
- Tungsten carbide



Cutting Mill Data

TECHNICAL DATA	
Electrical details	3x400V/50Hz
Speed	280 rpm
Motor Power	3 -4 KW
TRANSPORT DATA	
Gross dimensions wxdxh	ca. 600 x 600 x 600 mm
Net dimensions wxdxh	ca. 390 x 485 x 375 mm
Gross weight	250 kgs (incl. packing, without accessories)
Net weight	230 kg (only machine)
FEATURES / PERFORMANCE	
Working principle	Cutting
Feed size maximum	Up to 100 mm depending on sample
Quantity maximum	Up to 60 Kgs per Hour
Quantity minimum	50 g
Endfiness	500 µm
Number of Rotor knives	3
Number of stator knives	2
Start / Stop function	By on/off button
Endfiness adjustment	By interchangeable bottom sieves
Cutting Chamber	230mm
Rotor Diameter	Ø 150mm, Length 200 mm

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