

Cutting Mill SM 100

General Information

Cutting mills are suitable for the grinding of soft, medium-hard, elastic, fibrous, and heterogeneous mixes of products.

The SM 100 is the budget-priced basic model among the RETSCH cutting mills. With its strong 1.5 kW drive and 1,500 rpm rotor speed the mill is particularly suitable for routine applications. Cleaning is made particularly easy.

In combination with the wide choice of bottom sieves, hoppers and collecting vessels, the mill can be easily adapted to varying application requirements. The SM 100 can be bench-mounted; alternatively a convenient base frame on wheels is available.



Application Examples

animal feed, bones, cardboard, drugs, electronic scrap, food, leather, lignite, paper, plant materials, plastics, resins, rubber, spices, straw, textiles, wood, ...

Product Advantages

- for routine applications
- optimum cutting effects
- quick and easy cleaning due to smooth surfaces and push-fit rotor
- defined final fineness due to bottom sieves with aperture sizes from 0.25 - 20 mm
- wide range of accessories including various hoppers, collection systems, rotors and sieves
- highest safety standards

Features

Applications	size reduction by cutting
Field of application	agriculture, biology, chemistry / plastics, engineering / electronics, environment / recycling, food, medicine / pharmaceuticals
Feed material	soft, medium-hard, elastic, fibrous
Size reduction principle	shearing, cutting
Material feed size*	< 60 x 80 mm
Final fineness*	0.25 - 20 mm
Speed at 50 Hz (60 Hz)	1,500 min ⁻¹
Rotor peripheral speed	9.4 - 11.4 m/s
Rotor diameter	129.5 mm
Types of rotors	parallel section rotor / 6-disc rotor
Types of hoppers	standard, long stock
Material of grinding tools	stainless steel, steel for heavy-metal free grinding, tungsten carbide

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Sieve sizes	trapezoid holes 0.25 / 0.50 / 0.75 / 1.00 / 1.50 mm square holes 2.00 / 4.00 / 6.00 / 8.00 / 10.00 / 20.00 mm
Collector systems / capacities	collecting receptacle 5 l / optional: 30 l collecting unit 0.25 / 0.5 l
Drive	3-phase motor
Drive power	1,5 kW
Electrical supply data	different voltages
Power connection	3-phase
Protection code	IP 54
W x H x D closed	582 x 1675 x 700 mm (with base frame and standard hopper)
Net weight	~ 73 kg without hopper, rotor and base frame
Standards	CE

Please note:

*depending on feed material and instrument configuration/settings

Videolink

<http://www.retsch.com/sm100>

Function Principle

Size reduction in the Cutting Mill SM 100 takes place by cutting and shearing forces. The sample comes into contact with the rotor, and is comminuted between the blades and the stationary standard cutting bars inserted in the housing. In the 6-disc rotor, spirally arranged reversible hard metal plates operate by cutting in sequence. The knives of the parallel section rotor carry out comminution with a powerful cutting action. The dwelling time of the sample in the chamber is short; as soon as it is small enough to pass through the openings of the bottom sieve it is discharged and collected in the receptacle. The rotor speed of 1.500 min^{-1} ensures gentle and rapid size reduction.