CUTTING MILL SM 200

Cutting mills are suitable for the **grinding of soft, medium-hard, elastic, fibrous, and heterogeneous mixes of products.** The new cutting mill SM 200 is a powerful and easy-to-operate instrument for efficient primary and fine size reduction. Cleaning is made particularly easy.
Within the group of the RETSCH cutting mills, it is the **universal standard model** which **covers a vast range of applications** with its strong 2.2 kW drive and 1,500 rpm rotor speed. When operated with the **optional cyclone-suction-combination**, the SM 200 is also suitable for grinding light sample materials or smaller quantities. In combination with the wide choice of bottom sieves, hoppers and collecting vessels, the mill can be easily adapted to varying application requirements.

APPLICATION EXAMPLES

aluminium slag, animal feed, bones, cables, cardboard, electronic components, feed pellets, foils, food, leather, lignite, material mixtures, non-ferrous metals, paper, pharmaceutical products, plant materials, plastic toys, plastics, polymers, refuse derived fuels, resins, rubber, spices, straw, textiles, waste, wood, ...

PRODUCT ADVANTAGES

- powerful size reduction with 2.2 kW drive
- optimum cutting effects thanks to double acting cutting bars
- quick and easy cleaning due to fold-back hopper, smooth surfaces and push-fit rotor
- maximum peripheral rotor speed 9.4 m/s
- defined final fineness due to bottom sieves with aperture sizes from 0.25 - 20 mm
- feed size < 60 x 80 mm
- wide range of accessories including various hoppers, collection systems, rotors and sieves
- highest safety standards due to engine brake, central locking device, electronic safety check and safety base frame
- 18 cutting events per rotation with parallel section rotor

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, tough, 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
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 cyclone-suction combination (0.25 l - 30 l)
Drive	3-phase motor
Drive power	2.2 kW
Electrical supply data	different voltages
Power connection	3-phase
Engine brake	yes
Protection code	IP54
W x H x D closed	576 (1090 opened) x 1675 x 760 mm (with base frame and standard hopper)
Net weight	~ 90 kg without hopper
Standards	CE

*depending on feed material and instrument configuration/settings

FUNCTIONAL PRINCIPLE

Size reduction in the Cutting Mill SM 200 takes place by **cutting and shearing forces**. The sample comes into contact with the rotor, and is comminuted between the blades and the stationary double acting 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 rotorspeed of 1.500 min^{-1} ensures gentle and rapid size reduction. The optional cyclone-suction-combination not only has a cooling effect on the sample but also improves the discharge of material from the grinding chamber.

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