



Cutting Mill SM 200

General Information

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
- defined final fineness due to bottom sieves with aperture sizes from 0.25 - 20 mm
- feed size
- 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



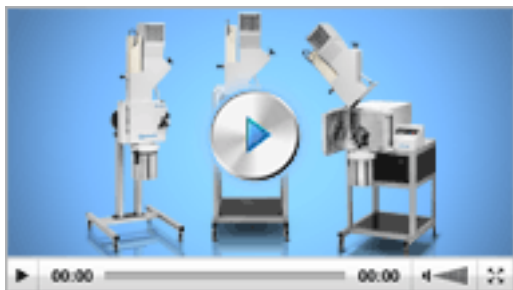
Cutting Mill SM 200

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 - 5 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

Please note:

*depending on feed material and instrument configuration/settings

Videolink



<http://www.retsch.com/sm200>

Function 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



Cutting Mill SM 200

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.

Order data

Cutting Mill SM 200

with collecting receptacle, 5 litres and base frame with wheels (please order rotor, hopper and bottom sieve separately)

20.728.0001	SM 200, 3/N~ 400 V, 50 Hz
20.728.0002	SM 200, 3/N~ 400 V, 50 Hz, , for grinding without heavy-metal contamination

other electrical versions available for the same price

Accessories SM 100 / SM 200 / SM 300

Rotors

22.608.0022	6-disc rotor, stainless steel, with reversible cutting tips of tungsten carbide
22.608.0028	6-disc rotor, steel 1.0580, with reversible cutting tips of tungsten carbide, , for grinding without heavy-metal contamination
22.608.0018	Parallel section rotor, steel 1.0580, for grinding without heavy-metal contamination
22.608.0034	V-rotor, stainless steel, for SM 300

Hoppers

22.785.0001	Universal hopper with plastic plunger, for SM 200 / SM 300
22.408.0003	Long stock hopper with wooden plunger, for SM 200 / SM 300

Additional plungers for universal hopper

22.725.0010	Plastic plunger
22.725.0011	Wooden plunger
22.725.0012	Aluminum plunger

Bottom sieves of stainless steel

03.647.0312	Trapezoid holes, 0.25 mm
03.647.0313	Trapezoid holes, 0.50 mm
03.647.0314	Trapezoid holes, 0.75 mm
03.647.0315	Trapezoid holes, 1.00 mm
03.647.0316	Trapezoid holes, 1.50 mm



Cutting Mill SM 200

03.647.0318	Square holes, 2.00 mm
03.647.0320	Square holes, 4.00 mm
03.647.0321	Square holes, 6.00 mm
03.647.0322	Square holes, 8.00 mm
03.647.0024	Square holes, 10.00 mm
03.647.0062	Square holes, 20.00 mm

Bottom sieves of steel 1.0353 for grinding without heavy-metal contamination

03.647.0326	Trapezoid holes, 0.50 mm
03.647.0327	Trapezoid holes, 0.75 mm
03.647.0328	Trapezoid holes, 1.00 mm
03.647.0333	Square holes, 4.00 mm
03.647.0335	Square holes, 8.00 mm
03.647.0359	Square holes, 10.00 mm

Cyclone-suction-combination for SM 200 / SM 300

22.020.0004	Cyclone unit incl. 1 sample bottle 500 ml (to be used with industrial vacuum cleaner)
22.748.0005	Industrial vacuum cleaner for mills, 230 V, 50/60 Hz (other electrical versions and spare filter bags available upon request)
22.523.0002	Sample bottles, 500 ml, 10 pieces
22.001.0001	Holder for sample bottles 1 / 2 / 5 litre
05.239.0011	Sample bottle, 1 litre, 1 piece, to be used with holder 22.001.0001
05.239.0010	Sample bottle, 2 litre, 1 piece, to be used with holder 22.001.0001
05.239.0009	Sample bottle, 5 litre, 1 piece, to be used with holder 22.001.0001
22.003.0014	Collecting receptacle, 5 litre, stainless steel, incl. adapter lid

Collecting receptacles

22.003.0008	Collecting unit 250 / 500 ml, incl. 2 sample bottles
22.523.0001	Sample bottles, 250 ml, 10 pieces
22.003.0007	Collecting receptacle, 5 litres, stainless steel
22.003.0010	Collecting receptacle, 30 litres, plastic, incl. adapter and filter hose
22.187.0006	Ring-type filter for collecting receptacle, 5 litres
22.748.0001	Dust filter clamping rings for ring-type filter, incl. 5 dust filters
22.524.0002	Dust filters for ring-type filter, 25 pieces
22.187.0007	Filter hose for collecting receptacle, 5 litres, incl. holder

Accessories for Rotors

22.908.0001	Reversible cutting tips, tungsten carbide, for 6-disc rotor, 10 pieces
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Cutting Mill SM 200

22.151.0004

Cutting plates, stainless steel, for parallel section rotor, 1 set (3 pieces)

22.151.0006

Cutting plates, steel 1.1740, for parallel section rotor, 1 set (3 pieces) , for grinding without heavy-metal contamination

Stationary cutting bars

22.152.0003

Double acting cutting bars, stainless steel,, 1 set (3 pieces), for SM 200 / SM 300

22.152.0005

Double acting cutting bars, steel 1.1740,, 1 set (3 pieces), for SM 200 / SM 300

Additional items

22.225.0002

Replacement extraction tool for rotor

99.200.0013

IQ/OQ Documentation for SM 200