

Ultra Centrifugal Mill ZM 200

General Information

The Ultra Centrifugal Mill ZM 200 is a high speed rotor mill with unmatched performance. It is used for the rapid size reduction of soft to medium-hard and fibrous materials.

Because of the efficient size reduction technique the ZM 200 ensures the gentle preparation of analytical samples in a very short time. The comprehensive range of accessories including a large variety of ring sieves and rotors as well as collection systems makes the Ultra Centrifugal Mill a versatile instrument that can be easily adapted to varying applications. The optional Vibratory Feeder is load-controlled via an interface and ensures a uniform grind at maximum output rate. With thousands of installations, the ZM 200 has become a standard for food and feeds, for the chemical industry as well as for agricultural testing.



Application Examples

bones, chemical products, coal, coke, drugs, electronic scrap, feed pellets, fertilizers, food, leather, paper, pharmaceutical materials, plant materials, plastics, powder coating, refuse derived fuels, resins, rubber, spices, textiles, wood, ...

Product Advantages

- Powerdrive with optimally matched frequency converter and 3-phase motor
- comfortable parameter setting via display and ergonomic 1-button operation
- wide range of accessories including various collection and feeding systems, rotors and sieves
- gentle and very rapid size reduction by pre- and fine grinding in one run
- wide speed range
- maximum peripheral rotor speed 92.8 m/s
- patented cassette system for maximum sample recovery and easy cleaning
- easily exchangeable grinding and sieve inserts
- defined final fineness due to ring sieves sieves with aperture sizes from 0.08 10 mm
- comfortable safety housing with automatic cover closure
- motor compartment and electronics protected against dust and material penetration



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Features

Applications	fine grinding
Field of application	agriculture, biology, chemistry / plastics, construction materials, engineering / electronics, environment, food, geology / metallurgy, medicine / pharmaceuticals
Feed material	soft, medium-hard, brittle, fibrous
Size reduction principle	impact, shearing
Material feed size*	< 10 mm
Final fineness*	< 40 μm
Batch size / feed quantity*	300 ml with standard cassette 20 ml with mini-cassette 1000 ml with paper filter bag 2500 ml with cyclone 4500 ml with cyclone
Speed at 50 Hz (60 Hz)	6000 - 18000 min-1, free selectable
Rotor peripheral speed	31 - 93 m/s
Types of rotors	6-tooth rotor / 12-tooth rotor / 24-tooth rotor / 8-tooth mini-rotor
Material of grinding tools	stainless steel, titanium, steel 1.4404, stainless steel with wear-resistant coating
Sieve sizes	trapezoid holes 0.08 / 0.12 / 0.20 / 0.25 / 0.50 / 0.75 / 1.00 / 1.50 / 2.00 mm round holes 3.00 / 4.00 / 5.00 / 6.00 / 10.00 mm
Collector capacity	900 ml with standard cassette 50 ml with mini-cassette 3000 ml with paper filter bag 3000 ml with cyclone 5000 ml with cyclone
Drive	asynchron motor with frequency converter
Protection code	IP 20
Power consumption	1300 W
W x H x D closed	410 x 515 x 365 mm
Net weight	~ 38 kg
Workplace related emission value	LpAeq 77.5 dB(A)
Documentation	Operation & Application Video
Standards	CE

*depending on feed material and instrument configuration/settings



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Function Principle

In the Ultra Centrifugal Mill ZM 200 size reduction takes place by impact and shearing effects between the rotor and the fixed ring sieve. The feed material passes through the hopper (with splash-back protection) onto the rotor. Centrifugal acceleration throws it outward with great energy and it is precrushed on impact with the wedge-shaped rotor teeth moving at a high speed. It is then finely ground between the rotor and the ring sieve. This 2-step grinding ensures particularly gentle but fast processing. The feed material only remains in the grinding chamber for a very short time, which means that the characteristic features of the sample to be determined are not altered. The ground sample is collected in the collecting cassette surrounding the grinding chamber or in the downstream cyclone or paper filter bag.





Pricing on any accessories shown can be found by keying the part number into the search box on our website. The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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