



THE NEW MM 500 vario

PULVERIZE 6 SAMPLES IN ONE BATCH

The new Mixer Mill MM 500 vario is a versatile bench-top unit which has been developed specially for high sample throughput in dry, wet and cryogenic grinding of small sample amounts. This powerful mill brings ultimative power with maximum flexibility to your lab.



AT A GLANCE

Application	Mechanochemistry, mechanical alloying, size reduction, mixing, homogenization, cell disruption, cryogenic grinding
Fields of application	Agriculture, biology, chemistry / plastics, construction materials, engineering / electronics, environment / recycling, food, geology / metallurgy, glass / ceramics, medicine / pharmaceuticals, material science
Feed material	hard, medium-hard, soft, brittle, elastic, fibrous
PERFORMANCE DATA	
Size reduction principle	impact, friction
Material feed size*	≤ 8 mm
Final fineness*	~ 5 µm
Batch size / feed quantity*	max. 6 x 20 ml
No. of grinding stations	max. 6
Setting of vibrational frequency	digital, 3 – 35 Hz (180 – 2100 min ¹)
Grinding modes	dry, wet, cryogenic
Material of grinding tools	hardened steel, stainless steel, tungsten carbide, agate, zirconium oxide, PTFE
Grinding jar sizes	1,5 ml / 5 ml / 10 ml / 25 ml / 35 ml / 50 ml
Grinding time	10 s – 99 h, digital setting
Storable SOPs	12
No. of storable program cycles	4 (with 99 repeats)
Control via RETSCH App	optional
TECHNICAL DATA	
Power connection	1-phase

1-phase
IP 30
750 W
690 x 375 x 585 mm
~ 60 kg
CE

*depending on feed material and instrument configuration

ACCESSORIES MM 500 vario

The MM 500 vario can be equipped with screw-top grinding jars from 1.5 ml to 50 ml. Available materials include hardened steel, stainless steel, tungsten carbide, agate, zirconium oxide, PTFE.



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BENEFITS AT A GLANCE

- I High sample throughput thanks to 6 grinding stations
- Powerful grinding with up to 35 Hz leads to approx 2 x faster grinding than grinding at 30 Hz
- I The throughput is 6 x increased compared to a classic mixer mill with 2 grinding stations and max. 30 Hz
- I Fineness down to 5 µm possible
- I Grinding jars from 1.5 to 50 ml in six different materials
- Up to 50 x 1.5 or 2 ml single-use vials can be used per batch
- All grinding jars and the adapter for 0.5 / 1.5 /
 2 / 5 ml single-use vials of the smaller MM 400 model are compatibel

DRY GRINDING OF BASALT

Grinding of basalt in the MM 500 results in better fineness compared to classic Mixer Mills thanks to the increased frequency of 35 Hz instead of 30 Hz (50 ml jar + 12 x 12 mm grinding balls).

