

NEW

**Retsch**<sup>®</sup>  
MILLING SIEVING ASSISTING

# The new MM 500 vario – Pulverizing 6 samples in one batch

The new Mixer Mill MM 500 vario is a versatile bench-top unit which was developed specially for dry, wet and cryogenic grinding of small sample amounts with high throughput. This powerful mill provides ultimate performance with maximum flexibility for your sample preparation process.

Powerful  
Six-Pack  
increases your  
sample  
throughput

## Benefits at a glance:

- Maximum frequency of 35 Hz reduces grinding time to 50% compared to mixer mills with only 30 Hz
- Six grinding stations instead of two, as in classic mixer mills, ensure high throughput
- Grind sizes down to 5 µm possible
- Process time up to 99 h, ideal for research and mechanochemistry
- Grinding jar volumes from 1.5 to 50 ml, available in six different materials
- Up to 50 x 1.5 or 2 ml single-use vials per batch (with adapter)
- Suitable for all grinding jars and adapter for 0.5 / 1.5 / 2 / 5 ml single-use vials of the smaller MM 400 model



## At a glance

<b>Application</b>	Size reduction, homogenization, cryogenic grinding, cell disruption, mixing, mechanochemistry, mechanical alloying
<b>Fields of application</b>	Agriculture, biology, chemistry / plastics, construction materials, engineering / electronics, environment / recycling, food, geology / metallurgy, glass / ceramics, medicine / pharmaceuticals, material science
<b>Feed material</b>	hard, medium-hard, soft, brittle, elastic, fibrous

### Performance data

<b>Size reduction principle</b>	impact, friction
<b>Material feed size*</b>	≤ 8 mm
<b>Final fineness*</b>	~ 5 µm
<b>Batch size / feed quantity*</b>	max. 6 x 20 ml
<b>No. of grinding stations</b>	max. 6
<b>Setting of vibrational frequency</b>	digital, 3 – 35 Hz (180 – 2100 min <sup>-1</sup> )
<b>Grinding modes</b>	dry, wet, cryogenic
<b>Material of grinding tools</b>	hardened steel, stainless steel, tungsten carbide, agate, zirconium oxide, PTFE
<b>Grinding jar sizes</b>	1.5 ml / 5 ml / 10 ml / 25 ml / 35 ml / 50 ml
<b>Grinding time</b>	10 s – 99 h, digital setting
<b>Storable SOPs</b>	12
<b>No. of storable program cycles</b>	4 (with 99 repeats)
<b>Control via RETSCH App</b>	optional

### Technical data

<b>Power connection</b>	1-phase
<b>Protection code</b>	IP 30
<b>Power drive</b>	750 W
<b>W x H x D closed</b>	690 x 375 x 585 mm
<b>Net weight</b>	~ 60 kg
<b>Standards</b>	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.

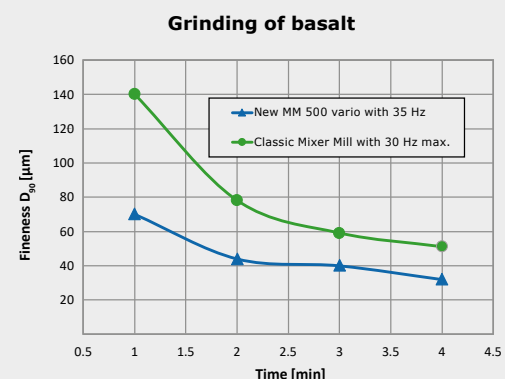


Accessories for MM 500 vario – Adapter for single-use vials



## Dry grinding of basalt

Grinding of basalt in the MM 500 vario 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).



**Retsch**<sup>®</sup>  
MILLING SIEVING ASSISTING

Retsch GmbH  
Retsch-Allee 1-5  
42781 Haan · Germany

Telephone +49(0)2104/2333-100  
Telefax +49(0)2104/2333-199

part of **VERDER**  
scientific

E-Mail [info@retsch.com](mailto:info@retsch.com)  
Internet [www.retsch.com](http://www.retsch.com)