

## Features and benefits

### Benefits

- 5 different grinding media available
- 3 different scraper materials available
- Quick and extremely easy to clean
- Variable speed setting 50-130 rpm
- Digital time setting
- Digital speed setting
- No tool required to open
- No tool required to take off pestle
- No tool required to take off mortar
- Dust tight milling chamber
- Wet grinding
- Dry grinding
- Cryo grinding
- CE certified

### Applications

- Cocoa beans / chocolate paste etc...
- Food and animal food
- Maize, beans
- Creams, emulsions,
- Soil samples
- Minerals
- Glass, ceramics
- Cement clinker, cement

## Grinding media- Available in 5 different materials

- Turbulent Blending
- Laminar Blending
- Liquid Dispersion
- Gas Liquid Dispersion



## Mortar Grinder Data

TECHNICAL DATA	
Electrical details	100-120 / 200-240 Volt 50/60 Hz
Speed	50 - 130 rpm adjustable
Motor Power	200 Watt
TRANSPORT DATA	
Gross dimensions wxdxh	app. 600 x 600 x 600 mm
Net dimensions wxdxh	app. 390 x 485 x 375 mm
Gross weight	27 Kg
Net weight	24 Kg
FEATURES / PERFORMANCE	
Working principle	friction
Feed size maximum	8-10 mm depending on sample
Quantity maximum	200 ml
Quantity minimum	10 ml
Endfineness maximum	10 - 20 µm
Grinding time setting	1 - 99 min. / cont.
Speed setting	50-130 rpm
Start / Stop button	1
Pressure setting	by scale adjustable
Pestle adjustment	by adjustment wheel
Scraper adjustment	by adjustment wheel

## Power Mortar Grinder

# MG 100

Universal, High Performance Mortar Grinder for processing of solid materials in dry, wet or cryogenic condition



- Dry Grinding / Wet Grinding / Ultra Fine Grinding / Cryogenic Grinding
- Mixing
- Cell disruption for DNA / RNA extraction
- The MG100 can handle samples from 10 up to 200 ml

## Your local contact

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Mortar Grinder with closed "EASY LOCK COVER"



Mortar Grinder with opened "EASY LOCK COVER"



### Superior Mortar Grinder engineered to reproducibly grind and mix sample volumes from 10 of up to 200ml.

#### Method of operation

The Mortar Grinder Model MG100 is used to reproducibly grind, homogenize and mix a wide range of solid materials in dry / wet or cryogenic condition. The material to be processed falls into the Pulverizing area between Mortar and Pestle by top feeding via the opening which is at the inlet cover. The material is then pulverized and mixed between the Mortar inner surface area and the bottom of the pestle. In order to match the necessary top pressure with the requested end fineness and the breaking behaviour of the sample to be prepared the MG100 is equipped with an adjustable **Top Pressure Mechanism with scale and a variable**

**speed setting 50-130 rpm and a flexible scraper setting.**

**Only due to the combination of this 3 key adjustment features a wide range of sample preparation tasks can be reached.**

No other grinding system is more easy to clean than the MG100 Mortar Grinder. When the grinding process is finished the Mortar and Pestle can be taken out with a bayonet lock in order to perform a quick cleaning of the grinding tools.

#### Grinding, homogenizing, triturating

The Mortar Grinder is the central machine in a sample prep. Laboratory of today. This system is suitable for the fine grinding of any dry substance, as well as for suspensions with different viscosities for analysis, quality control and material testing. It is perfectly suitable for the homogenization of crèmes and pastes. Typically samples with a feed size of up to 8-10mm and a total batch of up to 200 ml (volume depending on the characteristic of the samples) can be ground down to 10-20µm.

#### High operator convenience and maximum safety

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#### Selection Guide Recommended Grinding set (Mortar and Pestle)

We recommend always to use the same material composition for Mortar and Pestle. Do not mix.

Material of grinding set	Feed size	Recommendations				
		Wear behavior	Type of sample characteristic	Dry	Wet	Cryogenic
Stainless steel	10mm	good	middle hard, brittle samples	yes	yes	yes
Hardened steel	10mm	good	middle hard, brittle samples	yes	no	no
Tungsten carbide	10mm	very good	middle hard, brittle samples	yes	yes	yes
Agate	8mm	good	soft to medium hard samples	yes	yes	no
Sintered alumina	8mm	normal	soft to medium hard samples	yes	yes	no

#### Performance features MG 100

- Extremely easy cleaning
- Suitable for dry, wet & cryogenic grinding
- Possible to add and to remove sample material during the milling process via Cover inlet
- Representative results due to digital time and speed setting
- Precise and optimized results due to variable speed 50-130 rpm
- CE conform
- Meet all application tasks due to a wide selection of grinding tools for the mortar and the pestle.
- Meet all application tasks due to a wide selection of scraper materials (Vulkollan, Teflon, Beachwood)
- Positioning and removal of Mortar and pestle without tool
- Precise and reproducible pestle setting due to scale adjustment
- Solid steel housing
- Option of pre-crushing for coarser materials

## Power Mortar Grinder Applications



#### Grinding and Mixing examples Before / After



Soil samples



Different food stuff such as maize, grain etc.



Brittle materials such as glass



Different tablets and pharmaceutical raw materials