

## Knife Mill GRINDOMIX GM 300

### General Information

The new knife mill GRINDOMIX GM 300 is the ideal instrument for the grinding and homogenization of foodstuffs. It allows to process sample volumes up to 4.5 liters quickly and reproducibly.

With four sharp, robust blades and a powerful motor which can reach temporary peaks of 3 kW, it is ideal for homogenizing substances with a high water, oil or fat content as well as for grinding dry, soft and medium-hard products. The GRINDOMIX GM 300 meets and exceeds all special laboratory and analytical requirements and is a professional device superior to any commercial household mixer.

### Application Examples

candy, cereal bars, cereals, cheese, coated tablets, cocoa nibs, deep-frozen products, dietary supplements, dried and fresh fruit, feed pellets, fish, ham, lettuce, meat, nuts, oil seeds, pharmaceutical materials, plant materials, sausages, soap, spices, vegetables, ...

### Product Advantages

- efficient size reduction of up to 4,500 ml feed quantity due to a powerful 1.1 kW motor (peak power input >3 kW)
- pre- and fine-grinding in one mill: cutting action in regular mode, grinding by impact in reverse mode, pre-grinding in interval mode
- all parts which come into contact with the sample material are autoclavable
- perfect adaptation to application requirements by variable speed from 500 to 4000 min<sup>-1</sup> with an increment of 100 min<sup>-1</sup>
- optional gravitation lid for automatic reduction of the grinding chamber volume
- 10 SOPs can be stored
- grinding jar in plastic and stainless steel available

### Features

Applications	size reduction, homogenization and mixing
Field of application	agriculture, biology, food, medicine / pharmaceuticals
Feed material	soft, medium-hard, elastic, containing water / fat / oil, dry, fibrous
Size reduction principle	cutting
Material feed size*	~ 130 mm
Final fineness*	< 300 µm
Batch size / feed quantity*	with standard lid 4500 ml with gravity lid 4000 ml



## Knife Mill GRINDOMIX GM 300

Grinding chamber volume	5000 ml, reduction with gravity lid
Speed setting	digital, 500 - 4000 min <sup>-1</sup>
Dry grinding	yes
Wet grinding	yes
Material of grinding tools	grinding container: autoclavable plastic PC, stainless steel 1.4435 blade: stainless steel 1.4034 holder for blade: PVDF sealings: EPDM, FKM
Setting of grinding time	digital, 5 s - 3 min
Interval operation	yes
Interval time	adjustable
Storable SOPs	10
Drive	3-phase asynchronous motor with frequency converter
Drive power	continuously 1.1 kW, short term 3 kW
Electrical supply data	different voltages
Power connection	1-phase
Protection code	IP 20
W x H x D closed	440 mm x 340 mm x 440 mm
Net weight	~ 30 kg
Documentation	Operation & Application Video
Standards	CE

\*depending on feed material and instrument configuration/settings

## Knife Mill GRINDOMIX GM 300

### Videolink



<http://www.retsch.com/gm300>

### Function Principle

Four sharp, robust blades rotate in the center of the grinding container. Depending on the rotational direction, size reduction is effected with the blunt side (preliminary size reduction) or the sharp side (fine grinding). The knives are protected with a counterblade from damages by hard sample materials.

The knife is indirectly driven by a powerful motor of 1,1 kW which can reach temporary peaks of 3 kW. A pre-selectable speed which is maintained electronically ensures reproducible grinding results.

### Order data

#### Knife Mill GRINDOMIX GM 300

**complete with grinding container 5 litre of autoclavable plastic, standard lid, knife and scraper**

20.252.0001

GM 300, 220-230 V, 50/60 Hz

**other electrical versions available for the same price**

#### Accessories GM 300

##### Grinding containers, 5 litre

02.045.0056

Grinding container, autoclavable plastic (transparent and scratch-resistant), incl. knife holder

03.045.0056

Grinding container, autoclavable plastic (transparent and scratch-resistant), without knife holder

02.045.0055

Grinding container, stainless steel, incl. knife holder

03.045.0055

Grinding container, stainless steel, without knife holder

##### Lids

02.107.0449

Standard lid, autoclavable plastic

02.107.0522

Lid, autoclavable plastic, for dry ice applications

## Knife Mill GRINDOMIX GM 300

02.107.0465

Gravity lid, autoclavable plastic

02.107.0480

Gravity lid, autoclavable plastic, with overflow channels

### Knives

02.446.0030

Knife of stainless steel, autoclavable

02.446.0052

Knife with titanium-niob coating, autoclavable, for grinding without heavy-metal contamination

### Additional items

05.723.0002

Scraper

22.111.0002

Set of gaskets for lids, 10 pieces

99.200.0011

IQ/OQ Documentation for GM 300