Retsch®
a VERDER company

KNIFE MILL · PROFESSIONAL FOOD SAMPLE PREPARATION

GRINDOMIX GM 200

retsch.com/products/milling/knife-mills/gm-200/

GRINDOMIX GM 200

KNIFE MILL

The knife mill GRINDOMIX GM 200 is the ideal instrument for grinding and homogenizing foods and feeds. With two sharp, robust blades and a powerful 1000 W motor, it allows to process sample volumes up to 0.7 liters quickly and effectively.

The GM 200 is not only ideal for homogenizing substances with a high water, oil or fat content but is also perfectly suited for grinding dry, soft and medium-hard products. The quick homogenization process without noteworthy temperature rise ensures preservation of volatile sample components.

Thanks to reproducible setting of parameters, programs and sequences, this mill ensures analytical results with minimum standard deviation. These features plus the wide selection of lids and containers, allowing for adaptation of the mill to individual application requirements, make the GRINDOMIX GM 200 a professional device superior to any commercial household mixer.

PRODUCT VIDEO

Professional food sample preparation with the GRINDOMIX GM 200.

GM 200 Knife Mill – Introduction Video

GRINDOMIX GM 200

THE STANDARD IN THE FOOD INDUSTRY

- Thorough size reduction and homogenization of the entire sample material in seconds
- Variable speed up to 10,000 min^{-1} including Boost function with 14,000 min^{-1} for improved homogenization of tough and sticky samples
- Cryokit for cold grinding with dry ice available
- Optional gravity lids or volume reduction lids for automatic reduction of the grinding chamber volume
- Pre- and fine grinding in one mill
- Suitable for sample volumes up to 700 ml
- 8 SOPs and 4 program cycles can be stored
- All parts in contact with the sample material are autoclavable

GRINDOMIX GM 200

CRYOGENIC GRINDING WITH DRY ICE

To process tough or elastic materials which cannot be homogenized at room temperature, a Cryokit is available to ensure safe and efficient grinding with dry ice. It consists of three components:

Cryo lid: The lower part is made of stainless steel, the side openings allow for evaporation of CO_2 during cryogenic grinding; the upper part is the standard PP lid.

Stainless steel container with baffles: The baffles contribute to a thorough mixing of the sample.

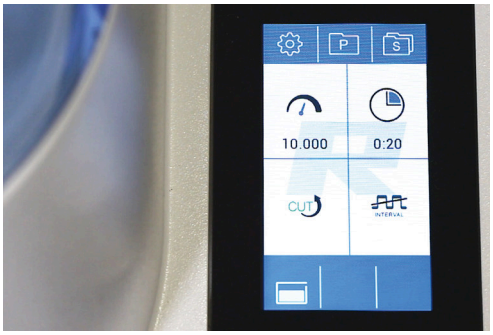
Full metal knife: This knife has 2 blades and is a must for cryogenic grinding. It is also well-suited for cutting hard samples.

GM 200 – cryogenic grinding

GRINDOMIX GM 200

EASY AND SAFE OPERATION

The GM 200 is equipped with a 4.3'' touch display offering easy parameter setting, SOP storage and direct access to the MyRETSCH web portal via QR code. 8 Standard Operating Procedures and 4 program cycles can be stored for routine operations. Before and after the grinding process, the container with its lid, inserted knife and sample, can be installed and removed as a complete unit.



Convenient 4.3'' touch display · Access to MyRETSCH web portal

GRINDOMIX GM 200

GRAVITY LID ENABLES VARIABLE VOLUME

RETSCH has developed a gravity lid for the GRINDOMIX knife mills which reduces the volume of the grinding container, preventing the sample from escaping the homogenization process by clinging to the container walls. The lid drops under its own weight during grinding and always rests directly on the sample. The result is thorough homogenization of the complete sample material.

The gravity lid is also available with overflow channels. It ensures that the cell liquid released by the sample during grinding is returned through these channels to the center of the container, allowing for perfect homogenization.

GRINDOMIX GM 200

ACCESSORIES & OPTIONS

A range of different containers, lids and knives makes the GRINDOMIX GM 200 a truly universal device, suitable not only for processing food and feed samples but a wide range of materials.

PATENTED GRAVITY LID

Automatically adjusts the grinding chamber volume to the changing sample volume.

GRAVITY LID WITH OVERFLOW CHANNELS

Ideally suited to homogenize samples with a high water content.

STAINLESS STEEL CONTAINER

Minimum wear when hard sample materials are processed.

STAINLESS STEEL CONTAINER WITH BAFFLES

The baffles contribute to a thorough mixing of the sample.

REDUCTION LID

Reduces the chamber volume to 0.5 or 0.3 liter for optimum homogenization of small sample volumes.

REDUCTION LID

Used for particularly tough samples such as fatty, streaky meat.

FULL METAL KNIFE

With 2 blades, it is suitable for cold grinding and cutting hard samples.

CRYOKIT

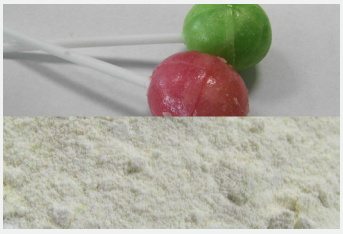
For homogenizing sticky samples with dry ice.

GRINDOMIX GM 200

TYPICAL SAMPLE MATERIALS

RETSCH knife mills are suitable for a vast range of applications. Typical materials include candy, cereals, cheese, coated tablets, cocoa nibs, dietary supplements, dried and fresh fruit, feed pellets, fish, frozen products, ham, lettuce, meat, nuts, oil seeds, pharmaceutical products, plant materials, sausages, soap, spices, vegetables etc.

bacon



candy

tomatoes

raisins

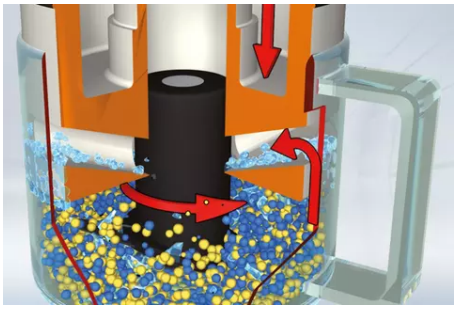
To find the best solution for your sample preparation task, visit our application database. **APPLICATION DATABASE →** retsch.com/applications/application-database-retsch/

GRINDOMIX GM 200

FUNCTIONAL PRINCIPLE

Two 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 knife is directly driven by a powerful motor of 1000 W. A pre-selectable speed which is maintained electronically ensures optimum adaptation to individual application requirements as well as reproducible grinding results.



GRINDOMIX GM 200

TECHNICAL DATA

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
Max. feed size	40 mm
Final fineness	300 µm
Batch size / feed quantity	with standard lid 700 ml with reduction lid 150-300 ml with gravity lid 300 - 600 ml
Grinding chamber volume	with standard lid 1000 ml with reduction lid 250 ml/500 ml with gravity lid 400 - 800 ml
Speed setting	digital, 2,000 - 10,000 min-1 (14,000 min-1 BOOST)
Material of grinding tools	blade: stainless steel / titanium fixation of blade: PVDF / stainless steel container: autoclavable plastic / plastic PP / stainless steel
Setting of grinding time	digital, 1 s - 3 min
Interval operation	yes
Storable SOPs	8 programms / 4 sequences
Drive	series-characteristic motor
Drive power	~ 1000 W
Electrical supply data	different voltages
Power connection	1-phase
Protection code	grinding chamber and keypad IP 42
W x H x D closed	350 x 275 x 392 mm (opened: 350 x 410 x 553)
Net weight	~ 10 kg
Standards	CE

GRINDOMIX GM 200

ORDERING INFORMATION

KNIFE MILL GRINDOMIX GM 200

Complete with 1 litre grinding container of autoclavable plastic, standard lid and knife of stainless steel.

20.254.0001	GM 200 · 220–240 V, 50/60 Hz
20.254.0002	GM 200 · 100–120 V, 50/60 Hz

ACCESSORIES GM 200

GRINDING CONTAINERS, 1 LITRE

The maximum usable volume of the 1 liter grinding container is 700 ml.

03.045.0057	Grinding container · autoclavable plastic (transparent and scratch-resistant)
03.045.0047	Grinding container · PP
03.045.0050	Grinding container · stainless steel
03.045.0072	Grinding container stainless steel with baffles for cryogenic grinding

LIDS FOR GRINDING CONTAINERS OF AUTOCLAVABLE PLASTIC OR PP

03.107.0562	Standard lid · PP
22.107.0022	Standard lid · PP · 100 pieces
03.107.0606	Reduction lid · PP · for chamber reduction to 0.25 litres
03.107.0310	Reduction lid · PP · for chamber reduction to 0.5 litres
02.107.0327	Gravity lid · PP
02.107.0323	Gravity lid · PP · with overflow channels

LIDS FOR GRINDING CONTAINERS OF GLASS OR STAINLESS STEEL

03.107.0562	Standard lid · PP
22.107.0022	Standard lid · PP · 100 pieces

GRINDOMIX GM 200

ORDERING INFORMATION

ACCESSORIES GM 200 · CONTINUED

LIDS FOR GRINDING CONTAINERS OF GLASS OR STAINLESS STEEL

02.107.0328	Gravity lid · PP
02.107.0308	Gravity lid · PP · with overflow channels
02.107.0743	Cryo lid · stainless steel/PP

KNIVES

02.446.0047	Knife of stainless steel
02.446.0057	Knife of stainless steel with serrated blades
02.446.0048	Knife of pure titanium for grinding without heavy-metal contamination
22.446.0004	Full metal knife, for cryogenic grinding, 2 blades

CRYO KIT FOR CRYOGENIC GRINDING WITH DRY ICE

22.354.0005	Cryo kit (incl. grinding container, stainless steel with beads, full metal knifewith 2 blades, cryo lid)

ADDITIONAL ITEMS GM 200

05.723.0001	Scraper
05.114.0117	O-ring 23 x 2
05.111.0239	Gasket V-ring
03.018.0038	Holder for grinding container
99.200.0031	IQ/OQ Documentation for GM 200

GRINDOMIX GM 200

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