

Mikro-Dismembrators

Laboratory ball mills for fine grinding

Homogenization of brittle, frozen or hard material

Fine grinding of pigments

Action is reproducible thanks due to digital controller

Rapidly disintegrates even very sensitive samples

The Mikro-Dismembrators U and S from B. Braun Biotech have proven their worth in many laboratories. In **Botany** or **Environmental Analysis** they serve to grind needles, seeds and other hard plant materials. **Chemists** can grind pigments. **Physicians, pathologists** and **toxicologists** use these units to disrupt frozen tissue samples, hair, bone samples or teeth.

Microbiologists can disintegrate frozen cell sediments; **biologists** can homogenize tissues samples taken out of the liquid nitrogen tank in the Mikro-Dismembrator. With the different shaking flasks, grinding balls and glass beads the units can be adapted to the individual application. Thanks to the high efficiency of the process samples are rapidly disintegrated – result-

ing in a much faster isolation of DNA, RNA and proteins than with protocols involving the use of hand homogenizers. In addition the use of enzymes, which are often used for lysing cells, can be reduced. Thus you avoid the introduction of foreign proteins, which would interfere with your sample. This is very advantageous, for instance in **proteome research**.



Ordering information

Cat.-No. 8531722 Mikro-Dismembrator U, 230 V/50–60 Hz
 Cat.-No. 8531730 Mikro-Dismembrator U, 115 V/50–60 Hz
 Cat.-No. 8531528 Mikro-Dismembrator S, 230 V/50–60 Hz
 Cat.-No. 8531536 Mikro-Dismembrator S, 115 V/50–60 Hz

Accessories

Shaking flasks and grinding balls or glass beads are required for the grinding process. We offer flasks with sizes of 3 ml, 5 ml, 7 ml and 20 ml. Choose from grinding balls made of agate, steel or Tungsten carbide.

Glass beads can only be used for wet or liquid samples.

Grinding balls have to be used for frozen or brittle material. The choice of suitable flasks and grinding balls depends on the intended application but the following table provides a general guide for sensible combinations.

Shaking flasks	Stainless steel	PTFE
Grinding balls		
PTFE/steel core	■	□
Agate		■
Stainless steel	■	□
Tungsten carbide	■	□

■ = very suitable, □ = suitable

Technical Data

Shaking amplitude:	approx. 16 mm
Shaking frequency Mikro-D. U:	50 to 2.000 min ⁻¹
Shaking frequency Mikro-D. S:	50 to 3.000 min ⁻¹
Accuracy of frequency:	± 3 %
Drive:	brushless drive motor
Power consumption:	120 W
Setting the timer:	membrane key pad
Setting the frequency:	membrane key pad
Programmable timer:	To 98,59 min, continuous
Display:	LCD, alphanumeric
Admissible temperature range:	+ 10 °C to + 60 °C
Admissible humidity:	10 to 90 % non condensing
Power supply:	230 V/50–60 Hz 115 V/50–60 Hz
Dimensions: W x H x D	297 x 259 x 205 mm
Weight (net):	19 kg

All units are delivered without shaking flasks and other accessories.

Shaking flasks made of stainless steel 1.4301

Cat.-No.	Description
8531803	Shaking flask, stainless steel 1.4301, volume approx. 3 ml, two piece, with PTFE gasket
8531811	Shaking flask, stainless steel 1.4301, volume approx. 5 ml, two piece, with PTFE gasket
8531820	Shaking flask, stainless steel 1.4301, volume approx. 7 ml, two piece, with PTFE gasket



Shaking flasks made of PTFE

Cat.-No.	Description
8531943	Shaking flask, PTFE, volume approx. 3 ml, two-piece, with screw cap
8531935	Shaking flask, PTFE, volume approx. 5 ml, two-piece, with screw cap
8531927	Shaking flask, PTFE, volume approx. 7 ml, two-piece, with screw cap
8531951	Shaking flask, PTFE, volume approx. 20 ml, two-piece, with screw cap Holder 8531897 is required for using this shaking flask!



Container for disposable tubes, holder

Cat.-No.	Description
8531889	Container for 3 disposable test tubes 2,2 ml ϕ 10,8 x 37 mm, for instance Sarstedt no. 72.608 Holder 8531897 is required for using this shaking flask!
8531960	Container for 4 cryotubes Holder 8531897 is required for using this shaking flask!
8531897	Holder for shaking flask 20 ml (8531951) and for the containers for disposable tubes (8531889 and 8531960)



Special accessories

Cat.-No.	Description
8531900	Tray for micro well plates, capacity of 2 micro well plates with 96 borings, for using the Mikro-Dismembrator as a small shaker



Grinding balls

Cat.-No.	Description
8547505	Made of Brazilian agate Grinding ball made of Brazilian agate, ϕ 10 mm, weight 1,4 g, package with 10 pieces



8547602	Made of PTFE, with steel core Grinding ball made of PTFE with steel core, ϕ 10 mm, weight 2 g, package of 2 pieces
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8546606	Made of chromium steel Grinding ball made of chromium steel, specific weight 7,85 g/ml, ϕ 3 mm, package of 100 pieces
8546703	Grinding ball made of chromium steel, specific weight 7,85 g/ml, ϕ 5 mm, package of 100 pieces
8546800	Grinding ball made of chromium steel, specific weight 7,85 g/ml, ϕ 10 mm, package of 10 pieces

8547009	Made of Tungsten carbide Grinding ball made of Tungsten carbide, specific weight 14,5 g/ml, ϕ 1 mm, 1 piece
8547106	Grinding ball made of Tungsten carbide, specific weight 14,5 g/ml, ϕ 3 mm, 1 piece
8547203	Grinding ball made of Tungsten carbide, specific weight 14,5 g/ml, ϕ 5 mm, 1 piece
8547408	Grinding ball made of Tungsten carbide, specific weight 14,5 g/ml, ϕ 7 mm, 1 piece
8547300	Grinding ball made of Tungsten carbide, specific weight 14,5 g/ml, ϕ 10 mm, 1 piece

Glass beads

Cat.-No.	Description
8541400	Glass beads ϕ 0,10–0,11 mm, bottle, approx. 570 ml
8541507	Glass beads ϕ 0,17–0,18 mm, bottle, approx. 570 ml
8541604	Glass beads ϕ 0,25–0,30 mm, bottle, approx. 570 ml
8541701	Glass beads ϕ 0,45–0,50 mm, bottle, approx. 570 ml
8541809	Glass beads ϕ ca. 1 mm, bottle, approx. 570 ml

Adapter sets for customers having the old model Mikro-Dismembrator II

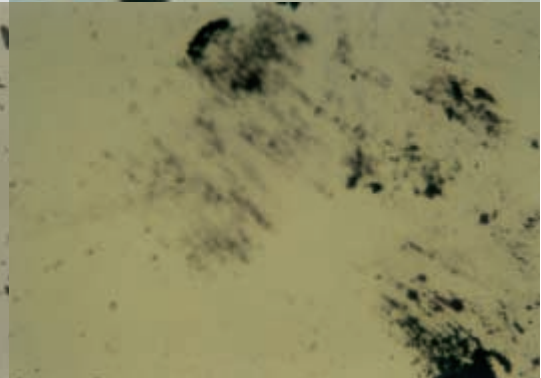
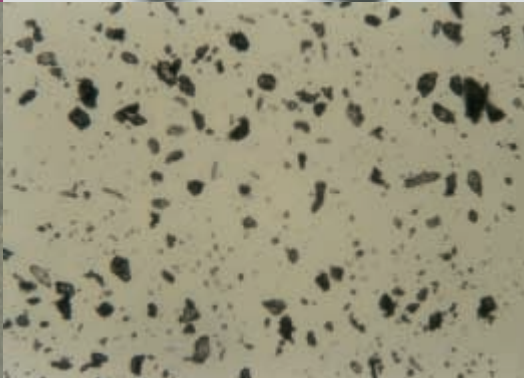
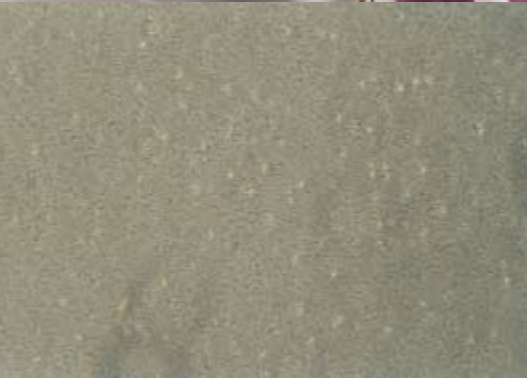
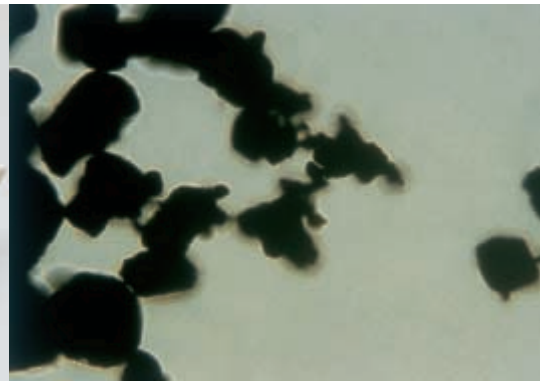
Cat.-No.	Description
8531986	Adapter set for using Mikro-Dismembrator U/S-flasks with the Mikro-Dismembrator II, for shaking flasks 3 ml, 5 ml, 7 ml
8531994	Adapter set for using Mikro-Dismembrator U/S-flasks with the Mikro-Dismembrator II, for shaking flask 20 ml and for containers for disposable tubes

- controlled shaking frequency
- Safety lid protects the user
- Shaking flasks made from stainless steel and PTFE
- highly efficient
- Homogenization times can be preset
- Large selection of grinding balls

Geranium spec, approx. 2fold

Pig teeth, approx. 2fold

KMnO₄-crystals, approx. 10fold



Geranium spec, homogenized, approx. 100fold

Pig teeth, homogenized, approx. 100fold

KMnO₄, homogenized, approx. 100fold

Homogenization of samples has never been easier than with the Mikro-Dismembrator U and S. Even the most difficult materials can be reliably disintegrated.

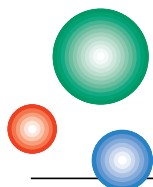
Thus, for instance in food analysis, hair samples are pulverized to check whether animals have been treated with illegal feed additives. Such assays are possible with our existing range of shaking

flasks of stainless steel or PTFE as well as our wide programme of grinding balls. If you have other homogenization tasks, Potter S, MSK cell homogenizer, LABSONIC ultrasonic disintegrators and

hand homogenizers can help you.

We will be pleased to discuss your applications with you to determine which instrument is best suited to your needs.

Your partner:



- FERMENTORS
- BIOREACTORS
- SHAKERS
- HOMOGENIZERS
- CENTRIFUGES
- FOAM BREAKERS
- PROCESS AUTOMATION
- CUSTOM PROCESS SKIDS
- THERMOREGULATORS
- COOLING UNITS

QUALITY • TECHNOLOGY • SUPPORT



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