



## KUTTEMØLLE SM 100

The budget-priced basic model

**Cutting mills are the first choice for the size reduction of soft, medium-hard, tough, elastic, fibrous, and heterogeneous mixes of products.**

The SM 100 is the budget-priced basic model among the RETSCH cutting mills. It is suitable for the size reduction of samples which don't require extremely high forces. The mill has been specially designed for routine applications. It is easy to operate and can be mounted on a solid table or on the optional base frame.



[Click to view video](#)

## FOR ROUTINE APPLICATIONS

- | Feed size < 60 x 80 mm
- | Defined final fineness due to bottom sieves with aperture sizes from 0.25 - 20 mm
- | Quick and easy cleaning due to smooth surfaces and push-fit rotor
- | Gravity outlet for collection vessels of different sizes
- | Wide range of accessories including various hoppers, collection systems, rotors and sieves
- | Highest safety standards



## KUTTEMØLLE SM 100

### ACCESSORIES FOR SAFE AND EFFECTIVE GRINDING PROCESSES

The SM 100 can be equipped with different rotors, hoppers and bottom sieves. The mill and accessories, including cutting bars and cutting plates, are also available in versions for heavy-metal-free size reduction.



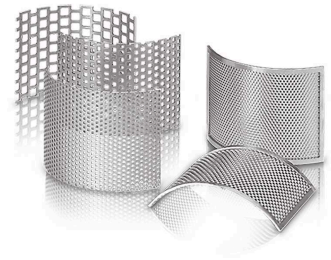
#### ROTOR TYPES

A parallel section rotor and a 6-disc rotor are available in stainless and heavy-metal-free steel for optimum adaptation to sample properties.



#### HOPPER TYPES

The SM 100 can be equipped either with the universal hopper, which is suitable for most samples, or the long-stock hopper which is specially designed for long samples.



#### BOTTOM SIEVES

The bottom sieves with trapezoid or square holes are made of stainless steel or heavy-metal-free steel.

KUTTEMØLLE SM 100

## TYPICAL SAMPLE MATERIALS

RETSCH cutting mills are suitable for a vast range of applications. Typical materials include PET preforms, aluminium slag, animal feed, bones, cables, cardboard, electronic components, feed pellets, foils, food, leather, lignite, material mixtures, non-ferrous metals, paper, pharmaceutical products, plant materials, plastic toys, plastics, polymers, refuse derived fuels, resins, rubber, spices, straw, textiles, waste, wood, etc.



fisk



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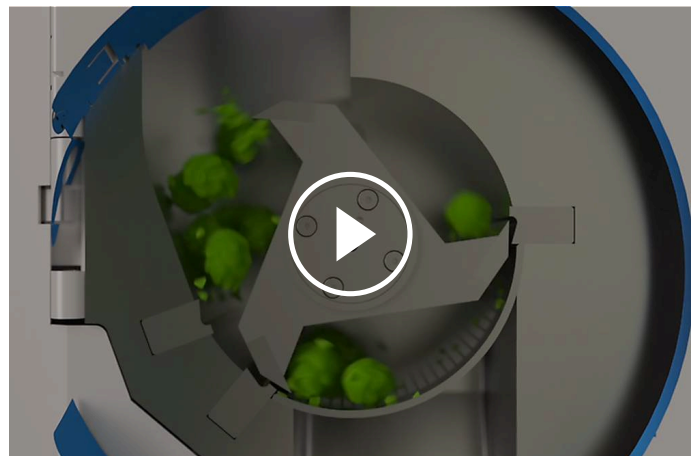


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KUTTEMØLLE SM 100

## VIRKEMÅTE

Size reduction in the Cutting Mill SM 100 takes place by cutting and shearing forces. The sample comes into contact with the rotor, and is comminuted between the blades and the stationary standard cutting bars inserted in the housing. In the 6-disc rotor, spirally arranged reversible hard metal plates operate by cutting in sequence. The knives of the parallel section rotor carry out comminution with a powerful cutting action. The dwelling time of the sample in the chamber is short; as soon as it is small enough to pass through the openings of the bottom sieve it is discharged through the gravity outlet and collected in the receptacle. The rotor speed of 1.500 min<sup>-1</sup> ensures gentle and rapid size reduction.



[Click to view video](#)

## KUTTEMØLLE SM 100

### TECHNICAL DATA

|                                      |                                                                                                                       |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>funksjon</b>                      | størrelsesreduksjon ved kutting                                                                                       |
| <b>bruksområde</b>                   | biologi, kjemi / plast, landbruk, maskinbygging / elektroteknikk, matvarer, medisin / legemidler, miljø / gjenvinning |
| <b>matemateriale</b>                 | mykt, middels hardt, elastisk, fibrøs                                                                                 |
| <b>nedmalingsprinsipp</b>            | skjæring, kutting                                                                                                     |
| <b>matestørrelse*</b>                | < 60 x 80 mm                                                                                                          |
| <b>sluttfinhet*</b>                  | 0.25 - 20 mm                                                                                                          |
| <b>turtall ved 50 Hz (60 Hz)</b>     | 1,500 min <sup>-1</sup>                                                                                               |
| <b>rotoresens perifer hastighet</b>  | 9.4 - 11.4 m/s                                                                                                        |
| <b>Rotordiameter</b>                 | 129.5 mm                                                                                                              |
| <b>rotortyper</b>                    | parallellkuttomotor / 6-platerotor                                                                                    |
| <b>Traktetyper</b>                   | standard, long stock                                                                                                  |
| <b>material i maleverktøyet</b>      | rustfritt stål, stål for tungmetallfri nedmaling, wolframkarbid                                                       |
| <b>siktestørrelser</b>               | trapesformede hull 0.25 / 0.50 / 0.75 / 1.00 / 1.50 mm<br>firkant hull 2.00 / 4.00 / 6.00 / 8.00 / 10.00 / 20.00 mm   |
| <b>Oppsamlingssystemer / innhold</b> | collecting receptacle 5 l / optional: 30 l<br>collecting unit 0.25 / 0.5 l                                            |
| <b>drift</b>                         | trefasemotor                                                                                                          |
| <b>drivkraft</b>                     | 1,5 kW                                                                                                                |
| <b>Elektriske tilkoblingsdata</b>    | ulike spenninger                                                                                                      |
| <b>Nettilkobling</b>                 | 3-fase                                                                                                                |
| <b>kapslingstype</b>                 | IP 54                                                                                                                 |
| <b>b x h x d lukket</b>              | 582 x 1675 x 700 mm (with base frame and standard hopper)                                                             |
| <b>nettovekt</b>                     | ~ 73 kg (uten trakt, rotor og stativ)                                                                                 |
| <b>Normer / standarder</b>           | CE                                                                                                                    |

\*avhengig av matemateriale og apparatkonfigurerings/apparatinnstillinger

[/sm100](#)

## BESTILLINGSINFO

### CUTTING MILL SM 100

**Cutting Mill SM 100 complete with collecting receptacle, 5 litres**  
(please order rotor, hopper, bottom sieve and optional base frame separately)

|             |                                                                                   |                                                                                          |                                                                                                  |
|-------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 20.727.0001 |  | SM 100                                                                                   | 3~ 400 V, 50 Hz                                                                                  |
| 20.727.0009 |  | SM 100                                                                                   | 220–230 V, 50/60 Hz, with frequency converter                                                    |
| 20.727.0002 |  |  SM 100 | 3~ 400 V, 50 Hz,<br>for grinding without heavy-metal contamination                               |
| 20.727.0010 |  |  SM 100 | 220–230 V, 50/60 Hz, with frequency converter,<br>for grinding without heavy-metal contamination |
| 22.824.0005 |                                                                                   | Base frame with wheels for SM 100                                                        |                                                                                                  |

#### other electrical versions available

#### ROTORS SM 100, SM 200, SM 300

|             |                                                                                     |                                                                                                                              |  |
|-------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--|
| 22.608.0022 |  | 6-disc rotor, stainless steel, with reversible cutting tips of tungsten carbide                                              |  |
| 22.608.0028 |  | 6-disc rotor, steel 1.0580, with reversible cutting tips of tungsten carbide, for grinding without heavy-metal contamination |  |
| 22.608.0021 |  | Parallel section rotor, stainless steel                                                                                      |  |
| 22.608.0018 |  | Parallel section rotor, steel 1.0580, for grinding without heavy-metal contamination                                         |  |

#### HOPPERS

|             |                                                                                     |                                                     |  |
|-------------|-------------------------------------------------------------------------------------|-----------------------------------------------------|--|
| 22.785.0007 |  | Universal hopper with plastic plunger<br>for SM 100 |  |
| 22.408.0004 |  | Long stock hopper with wooden plunger<br>for SM 100 |  |

#### ADDITIONAL PLUNGERS FOR UNIVERSAL HOPPER

|             |                                                                                   |                  |
|-------------|-----------------------------------------------------------------------------------|------------------|
| 22.725.0010 |  | Plastic plunger  |
| 22.725.0011 |  | Wooden plunger   |
| 22.725.0012 |  | Aluminum plunger |

## BOTTOM SIEVES SM 100, SM 200, SM 300

### BOTTOM SIEVES OF STAINLESS STEEL

|             |                                                                                     |                 |          |
|-------------|-------------------------------------------------------------------------------------|-----------------|----------|
| 03.647.0312 |    | Trapezoid holes | 0.25 mm  |
| 03.647.0313 |    | Trapezoid holes | 0.50 mm  |
| 03.647.0314 |   | Trapezoid holes | 0.75 mm  |
| 03.647.0315 |  | Trapezoid holes | 1.00 mm  |
| 03.647.0316 |  | Trapezoid holes | 1.50 mm  |
| 03.647.0317 |                                                                                     | Trapezoid holes | 2.00 mm  |
| 03.647.0318 |  | Square holes    | 2.00 mm  |
| 03.647.0319 |  | Square holes    | 3.00 mm  |
| 03.647.0320 |  | Square holes    | 4.00 mm  |
| 03.647.0321 |  | Square holes    | 6.00 mm  |
| 03.647.0322 |  | Square holes    | 8.00 mm  |
| 03.647.0024 |  | Square holes    | 10.00 mm |

03.647.0062



Square holes 20.00 mm

#### BOTTOM SIEVES OF STEEL 1.0353 FOR GRINDING WITHOUT HEAVY-METAL CONTAMINATION

03.647.0325



Trapezoid holes 0.25 mm

03.647.0326



Trapezoid holes 0.50 mm

03.647.0327



Trapezoid holes 0.75 mm

03.647.0328



Trapezoid holes 1.00 mm

03.647.0329

Trapezoid holes 1.50 mm

03.647.0331

Square holes 2.00 mm

03.647.0332

Square holes 3.00 mm

03.647.0333



Square holes 4.00 mm

03.647.0334

Square holes 6.00 mm

03.647.0335



Square holes 8.00 mm

03.647.0359



Square holes 10.00 mm

## ACCESSORIES SM 100, SM 200, SM 300

### COLLECTING RECEPTACLES

22.003.0008



Collecting unit 250 / 500 ml, incl. 2 sample bottles

22.523.0001



Sample bottles, 250 ml, 10 pieces

22.003.0007



Collecting receptacle, 5 litres, stainless steel



|             |                                                                                                                                                                     |                                                                       |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 05.045.0528 |                                                                                                                                                                     | Collecting receptacle, 30 litres                                      |
| 22.187.0006 |   | Ring-type filter for collecting receptacle, 5 litres                  |
| 22.748.0001 |                                                                                    | Dust filter clamping rings for ring-type filter, incl. 5 dust filters |
| 22.524.0002 |   | Dust filters for ring-type filter, 25 pcs.                            |
| 22.187.0007 |                                                                                    | Filter hose for collecting receptacle, 5 litres, incl. holder         |

#### ACCESSORIES FOR ROTORS

|             |                                                                                                                                                                         |                                                                                                                                                                             |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22.908.0001 |                                                                                        | Reversible cutting tip incl. screws, tungsten carbide, for 6-disc rotor (10 pcs.)                                                                                           |
| 22.151.0004 |                                                                                       | Cutting plates, stainless steel, for parallel section rotor, 1 set (3 pieces)                                                                                               |
| 22.151.0006 |   | Cutting plates, steel 1.1740, for parallel section rotor, 1 set (3 pieces) for grinding without heavy-metal contamination<br>for grinding without heavy-metal contamination |

#### STATIONARY CUTTING BARS

|             |                                                                                                                                                                         |                                                                                                        |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| 22.152.0007 |                                                                                      | Cutting bars, stainless steel, 1 set (3 pieces) for SM 100                                             |
| 22.152.0009 |   | Cutting bars, steel 1.1740, 1 set (3 pieces) for SM 100 for grinding without heavy-metal contamination |
| 22.608.0035 |                                                                                                                                                                         | Adjustment aid for cutting bars                                                                        |

#### ADDITIONAL ITEMS SM 100, SM 200, SM 300

|             |                                                                                     |                                                   |
|-------------|-------------------------------------------------------------------------------------|---------------------------------------------------|
| 22.225.0002 |  | Replacement extraction tool for rotor             |
| 22.111.0003 |                                                                                     | Gasket for door SM 100 / SM 200 / SM 300, 1 piece |
| 99.200.0032 |                                                                                     | IQ/OQ Documentation for SM 100                    |