

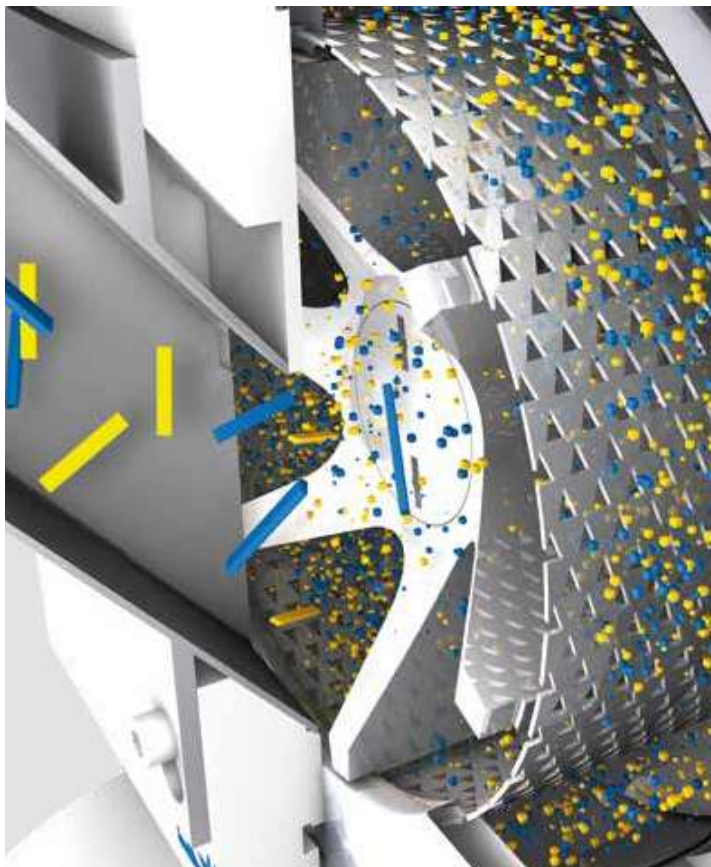
SR 300 – Rapid Grinding of Large Volumes

Thanks to the robust design and the possibility to process large sample volumes the rotor beater mill SR 300 can be used for sample preparation in the lab as well as for small scale production. Another field of application is continuous grinding and desagglomeration in the process line. Grinding chamber, feed hopper as well as material inlet and outlet are completely made of high-quality stainless steel. Thanks to the extensive free surface of the 360 °C ring sieves the SR 300 processes samples very rapidly. The wide range of accessories for this mill matches the wide range of applications.

The adjustable speed from 3,000 to 10,000 min⁻¹ allows for adaptation to different application requirements. The powerful drive capacity ensures high throughput with grind sizes down to <50 microns. The mill provides results which are comparable to those achieved with the ultra centrifugal mill ZM 200 but accepts larger batches. The feed hopper can be easily removed for cleaning



Rotor Beater Mill SR 300 with base frame (option)



Benefits

- Suitable for batchwise operation of larger quantities
- Increased rotor speed of 3,000–10,000 min⁻¹
- Accepts feed sizes up to 25 mm
- Final fineness $d_{90} < 50 \mu\text{m}^*$
- Optional grinding inserts 180° for grinding of hard-brittle materials
- Defined final fineness due to bottom sieves with aperture sizes from 0.08–10 mm
- Quick cleaning thanks to removable sieve cassette, push-fit rotor and removable hopper
- Distance rotor for grinding temperature-sensitive samples
- Ring filter and collecting receptacle with convenient, dust-tight bayonet locking mechanism
- Quick-action door lock and safety lock
- Optional cyclone for improved material discharge and additional cooling

Video on www.retsch.com/sr300

SR 300 Technology:

Size reduction and desagglomeration in rotor mills are achieved by **impact and shearing effects**. The feed material passes from the hopper into the center of the grinding chamber where it is crushed between the rotor, sieve and grinding insert. As soon as the material is smaller than the aperture size of the sieve, it passes into the collecting receptacle.

Accessories and Options

The SR 300 is supplied with a 5 liter stainless steel collecting receptacle and a textile filter hose. A wide selection of accessories is available for optimum sample preparation:

- Sieve frame with ring sieve 360°**
 Recommended for grinding soft to medium-hard, fibrous samples. Available aperture sizes: 0.08 mm – 10.00 mm.
- Grinding insert 180° with ring sieve 180°**
 Recommended for grinding hard and brittle materials. Available aperture sizes: 0.08 mm – 10.00 mm.
- Distance rotor**
 Recommended for grinding slightly oily and fatty or very soft substances.
- Ring-type filter**
 Instead of the textile tube a ring-type filter made of stainless steel (aperture size 36 µm) can be installed to avoid cross contamination.
- Cyclone-suction-combination**
 Provides additional cooling of the feed material and the grinding tools and improves discharge of the sample from the grinding chamber. For collecting vessels 5/30 liters.
- Vibratory feeder DR 100 and 30 l collecting vessel**
 Ideally suited for uniform material feed and for processing large volumes.



The SR 300 can be bench-mounted or installed on the optional base frame.



SR 300 at a Glance

Rotor Beater Mill



Model

SR 300

Application	size reduction, desagglomeration
Fields of application	agriculture, chemistry/plastics, construction materials, environment, food, medicine/ pharmaceuticals
Feed material	soft to medium-hard

Performance data

Feed size*	< 25 mm
Final fineness*	$d_{90} < 50 \mu\text{m}$
Vessel capacity	5 or 30 l
Speed	3,000 – 10,000 min ⁻¹
Rotor peripheral speed	21 – 71 m/s
Aperture sizes	0.08 – 10 mm

Technical data

Drive power	2,200 W
W x H x D	500 x 400 x 510 mm
Net weight	approx. 50 kg
More information on	www.retsch.com/sr300

*depending on feed material and instrument configuration

Typical Sample Materials

RETSCH rotor beater mills are used for rapid size reduction of large volumes of materials such as construction materials, soil, chemicals, drugs, fertilizer, feed pellets, grain, spices, coal, pharmaceutical products, seeds etc.



Application example:
Animal feed pellets