SK 300 – Hard-to-beat Size Reduction
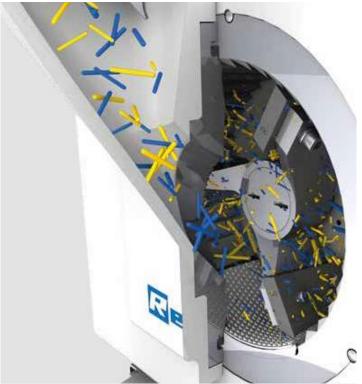
The Cross Beater Mill SK 300 just like the Rotor Beater Mill SR 300 is used for batchwise or continuous primary and fine size reduction. This robust mill can be operated in laboratories but also in production environments under rougher conditions. The maximum material feed size is 25 mm. Thanks to the powerful drive of the SK 300 and a rotor speed of up to 4,000 min^{-1} it is often possible to achieve a grind size <100 microns in one working step.

The SK 300 offers the highest possible degree of operating safety. If, for example, the off-switch is pressed or the door is opened, the motor brake ensures that the rotor will come to a standstill in less than 0.5 seconds. The feed hopper and the optimized sample outlet are equipped with an access barrier that also prevents sample splashback. The SK 300 is robust, maintenance-free and thanks to the removable push-fit rotor and grinding insert it is quickly and easily cleaned. The high-quality finish of the mill guarantees a long working life.

25 mm
▽
100 µm*

NEW

Cyclone-Suction-Combination Available

Cross Beater Mill SK 300
with optional base frame

Benefits

- Suitable for batchwise operation of large quantities
- Material feed size up to 25 mm
- Adjustable speed from 2,000 to 4,000 min^{-1}
- Defined final fineness d_{90} < 100 µm* due to bottom sieves with aperture sizes from 0.12 – 10 mm
- Quick cleaning thanks to push-fit rotor and removable grinding insert
- Ring-type filter and collecting vessel with convenient, dust-tight bayonet locking mechanism
- Quick-action door lock and motor brake
- Optional cyclone for improved material discharge and additional cooling

Video on www.retsch.com/sk300

SK 300 Technology:
Size reduction in cross beater mills is effected by **impact and shearing.** The feed material passes from the hopper directly into the center of the grinding chamber, where it is caught by the cross beater and ground between the baffle plates of the cross beater and the toothed grinding insert. As soon as the material is smaller than the aperture size of the bottom sieve, it passes into the collecting receptacle.

*depending on feed material and instrument configuration

Accessories and Options

The standard equipment supplied with the SK 100 includes a 5 liter stainless steel collecting receptacle and a textile filter hose.

A wide selection of accessories is available for optimum sample preparation:

- **Bottom sieves**
  Stainless steel with trapezoid or round holes; 15 aperture sizes from 0.12 – 10 mm.

- **Bottom sieves, steel 1.0344**
  With trapezoid holes in 9 aperture sizes; for heavy-metal-free grinding.

- **Ring-type filter, stainless steel**
  Aperture size 36 μm, with or without dust filter; facilitates cleaning when very fine particles are involved.

- **30 liter collector**
  The 5 liter collecting receptacle can be replaced by a 30 liter collector which is connected to the mill with a corresponding filter hose.
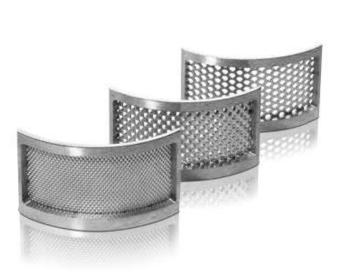
- **Cyclone-suction-combination**
  Provides additional cooling of the feed material and the grinding tools and improves discharge of the sample from the grinding chamber. For collecting vessels 5/30 liters.

- **Vibratory feeder DR 100**
  Ideally suited for uniform material feed and for processing large volumes.

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

SK 300 at a Glance

Cross Beater Mill	
Model	SK 300

Application	size reduction
Fields of application	agriculture, chemistry/plastics, construction materials, environment, geology/metallurgy, glass/ceramics
Feed material	medium-hard, brittle

Performance data

Feed size*	< 25 mm
Final fineness*	d_{90} < 100 μm
Vessel capacity	5 or 30 l
Speed	2,000 – 4,000 min⁻¹
Rotor peripheral speed	15 – 31 m/s
Aperture sizes	0.12 – 10 mm

Technical data

Drive power	1,100 W
W x H x D	500 x 400 x 510 mm
Net weight	approx. 45 kg
More information on	www.retsch.com/sk300

*depending on feed material and instrument configuration

Typical Sample Materials

RETSCH cross beater mills are typically used for processing, for example, soil, ores, glass, coke, minerals, oxide ceramics, slag, gravel, cement clinker, etc.

before

after

Application example: Mortar