

SR 200/SR 300 ROTOR BEATER MILLS



CRUSHING, DESAGGLOMERATION

RETSCH rotor beater mills are suitable for the coarse, fine and ultra-fine crushing in batches or continuously, as well as the desagglomeration of dry, soft, medium-hard, organic and inorganic substances. The mills can be used in the laboratory to prepare samples, and in technical training facilities and operational plants for large sample quantities. Rotor beater mills offer many different possible uses, specifically in the areas of chemicals, pharmaceuticals, food, spices and animal feed, and they can also be used to prepare soft minerals, pigments and dyes.

Easy-to-replace grinding and sieve inserts are further features of the rotor beater mills, and they are also available in stainless steel.

ADVANTAGES

- large throughput
- high final fineness
- versatile in use
- simple to clean
- easy to replace grinding and sieve inserts
- quick-acting door lock and brake motor
- safe design to CE standard
- 2-year warranty

PERFORMANCE FEATURES

Application	Impact and shear crushing, Desagglomeration
Feed material	Soft to medium-hard
Feed size	< 15 mm
Final fineness	Down to < 0.08 mm
Vessel capacity/throughput	5 and 30 litres resp./up to 120 and 360 kg/h resp.

SR 200/SR 300 ROTOR BEATER MILLS



SR 300 rotor beater mill with vibratory feeder and 30-litre collecting vessel

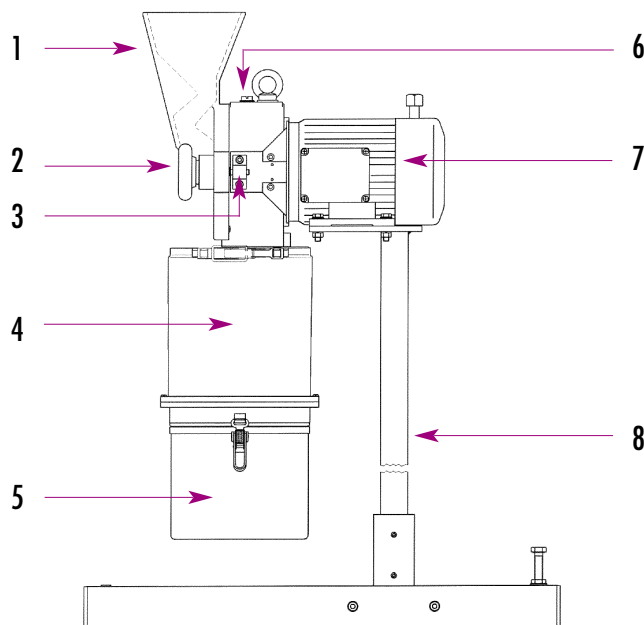
RETSCH rotor beater mills crush bentonite, chemicals, drugs, fertilizer, minerals (e.g. bauxite, dolomite, gypsum, burnt lime, clay, kaolin), flue ash, fruit, vegetables, corn, spices, resins, coal, synthetic resins, food-stuffs, animal feed, pellets, plants, plutonium and uranium oxide, seeds, salts, tobacco, tablets, peat, cellulose and many other materials.

Because of the high rotor speed (8100 min^{-1} at 50 Hz) and drive power, the SR 300 achieves greater throughputs with a mostly higher fine material fraction; it is supplied complete with underframe.

The SR 200, with a speed of 2850 min^{-1} , can be fastened to a table or wall bracket, but it is more beneficial to mount it on an underframe (Art. No. 01.824.0028).

Both models are supplied as standard with rotor and 5-litre collecting vessel of stainless steel incl. filter hose. Instead of the filter hose, a ring filter of stainless Conidur plate (hole width $63 \mu\text{m}$) can be used with or without dust filter insert to simplify cleaning. With larger quantities, it is advisable to use the DR 100/75 electromagnetic vibratory feeder and the 30 l collecting vessel with appropriate filter hose to ensure even material feed.

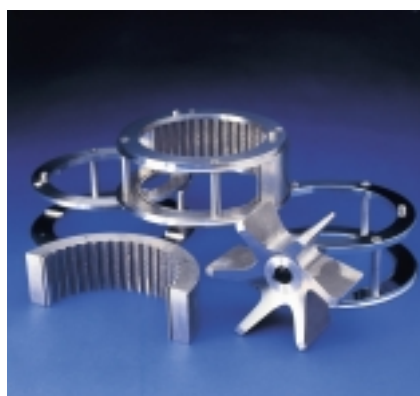
IDEAL FOR THE LABORATORY AND SMALL-SCALE PRODUCTION



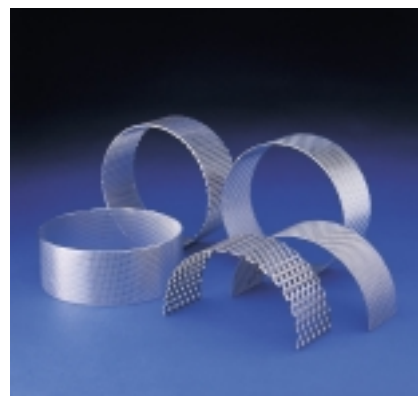
1. Filling hopper
2. Quick-acting door lock
3. ON, OFF and motor protection switch
4. Filter hose
5. Collecting vessel
6. Fastening for vibratory feeder
7. Brake motor
8. Underframe

SELECTION OF ACCESSORIES

For soft materials it is advisable to use the sieve frame with 360° ring sieve. With hard, brittle materials, the 180° grinding insert with the corresponding sieve is a proven option. The final fineness depends on the hole width of the sieve, the fracture behaviour of the feed material and the rotor speed. With many materials, 70% of the end product is smaller than half the hole width.



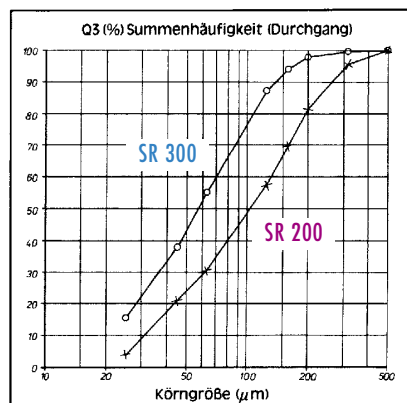
Sieve frame, grinding insert, rotor



360° and 180° sieves



Ring filter



Dolomite <4 mm, ring sieve 0.5 mm

The throughput depends on the hole width of the sieve, the fracture behaviour of the material and the rotor speed.

Example:	Maize approx. 7 mm
Speed:	8100 min ⁻¹ (SR300)
Ring sieve:	0.25 mm – 30 kg/h
	0.75 mm – 55 kg/h
	4.00 mm – 150 kg/h
	10.00 mm – 270 kg/h

BESTELLDATEN

ROTOR BEATER MILLS, TYPE SR 200*	ARTICLE NO.
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(*with rotor beater, but without sieve, sieve frame or grinding insert)

Type SR 200 for 3 x 400 V, 50 Hz, of cast iron	20.732.0001
Type SR 200 for 3 x 400 V, 50 Hz, of stainless steel	20.732.0005
Type SR 200 for 230 V, 50 Hz, of cast iron	20.732.0003
Type SR 200 for 230 V, 50 Hz, of stainless steel	20.732.0008
Type SR 200 for 100 V, 60 Hz,	on request

ROTOR BEATER MILLS, TYPE SR 300*	ARTICLE NO.
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(*with rotor beater and underframe, but without sieve, sieve frame or grinding insert)

Type SR 300 for 3 x 400 V, 50 Hz, of grey cast iron	20.733.0001
Type SR 300 for 3 x 400 V, 50 Hz, of stainless steel	20.733.0002

ACCESSORIES FOR SR 200, SR 300

Sieve frame 360° of stainless steel	22.642.0001	Chromium-plated	22.642.0002
Grinding insert 180° of stainless steel	02.143.0014		
Ring filter (Conidur plate) for 5-l vessel	22.187.0001		
Dust filter with clamp. rings f. ring filter	22.748.0001	Replacement dust filter (25)	22.524.0002
Collecting vessel 30 l	22.003.0001	Filter hose for 30-l vessel	01.186.0008
DR 100/75 feed device for 230 V, 50 Hz	70.937.0033	Stand for feed device	22.742.0003
Underframe for SR 200	01.824.0028		
Dirt trap of plastic	22.704.0001		

Sieves of stainless steel for 360° sieve frame, or 180° grinding insert

Conidur perforation	360° sieve	180° sieve	360° sieve	180° sieve	
0.08 mm	02.407.0057	03.647.0081	2.00 mm	02.407.0034	03.647.0047
0.12 mm	02.407.0026	03.647.0039			
0.20 mm	02.407.0028	03.647.0040	Round hole	360° sieve	180° sieve
0.25 mm	02.407.0029	03.647.0041	3.00 mm	02.407.0035	03.647.0048
0.50 mm	02.407.0030	03.647.0042	4.00 mm	02.407.0036	03.647.0049
0.75 mm	02.407.0031	03.647.0043	5.00 mm	02.407.0037	03.647.0050
1.00 mm	02.407.0032	03.647.0044	6.00 mm	02.407.0043	03.647.0051
1.25 mm	02.407.0058	03.647.0045	8.00 mm	02.407.0039	03.647.0052
1.50 mm	02.407.0033	03.647.0046	10.00 mm	02.407.0040	03.647.0053

NOISE CHARACTERISTICS (Noise measurement to DIN 45635-31-01 Class 3)

Workplace-related emission value	SR 200	L pA eq = 83 dB (A)	SR 300	L pA eq = 86 dB (A)
Sound power level		L WA = 87 dB (A)		L WA = 95 dB (A)
Feed material		feed pellets		compound fertilizer

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SR 200/SR 300 TECHNOLOGY

Crushing and disagglomeration are achieved in rotor beater mills by a combined impact, rebound and shearing action. The feed material passes through the hopper into the centre of the grinding chamber. There it is crushed between the rotor, the sieve insert and the grinding insert. As soon as the material being ground is smaller than the hole width of the sieve, it passes into the collecting vessel.

The motor of the SR 200 has a power rating of 1.1 KW at 2850 min⁻¹ (50 Hz). The rotor of the SR 300 turns at 8100 min⁻¹ at 50 Hz and is driven by a 2.2 KW brake motor via a V-belt.

The quick-acting door lock ensures fast access to the grinding chamber. With the brake motor (braking time < 0.5 sec), safety switch, splash-back and reach-in guard in the inlet and discharge zones, the rotor beater mills offer maximum operational safety.

DIMENSIONS AND WEIGHTS

Type	SR 200
W x H x D	approx. 560 x 1147 x 700 mm (with underframe)
Weight	63 kg
Type	SR 300
W x H x D	approx. 560 x 1120 x 700 mm (with underframe)
Weight	approx. 95 kg

RETSCH offers a comprehensive programme of equipment for sample preparation of solids. Just ask for information on our crushers, mills, sample dividers, sieve shakers, feeders and cleaning and drying units. You will receive complete literature free of charge and without obligation.

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