RPM Rotor Impact Mill

The
VSI Sandmaker

selective . reliable . powerful

BHS
SONTHOFEN

BHS Rotor Impact Mill RPM

With the BHS Rotor Impact Mill RPM
you achieve a high reduction ratio and an excellent particle shape. The mill is suitable for crushing of all types of moderately abrasive minerals.

Unique crushing principle
The impeller rotor of the BHS Rotor Impact Mill is a unique design. Owing to the high circumferential speed of the rotor an almost constant gap is formed between the tips of the horseshoe shaped impellers and the anvil ring. This slight gap and the high energy input due to the circumferential speed result in a targeted, very high size reduction ratio. If the feed material is made of a conglomerate type of product, a selective size reduction takes place. Any brittle component will be crushed to a greater extent than the rest.

Cubical particle shape
When crushing rock in the BHS Rotor Impact Mill you obtain a superior cubical shaped crushed sand, which is excellently suitable for use in many applications e.g. dry mortar process.

Plug and play
Machine and drive of the BHS Rotor Impact Mill are mounted together on single base frame, ready for installation. A large, hydraulically liftable cover, slewable by 360 degrees, gives easy access to the wearing parts.

Lubrication
The BHS Rotor Impact Mill comes with an automatic oil lubrication system with incorporated monitoring unit. This ensures safe and trouble-free operation.

Anti-vibration mounting
The rubber buffer elements installed between base frame and machine absorb all vibrations of the crusher generated during operation, thus isolating them from the supporting steel structure. An electronic vibration detector will shut off the crusher in case of any excessive vibrations.

Servicing
All major wearing parts of the BHS Rotor Impact Mill can be replaced without the need for any special tools or lifting equipment. Replacement can be accomplished in a very short time, thus reducing downtimes to a minimum.

RPM feed material

www.bhs-sonthofen.de

RPM crushed material

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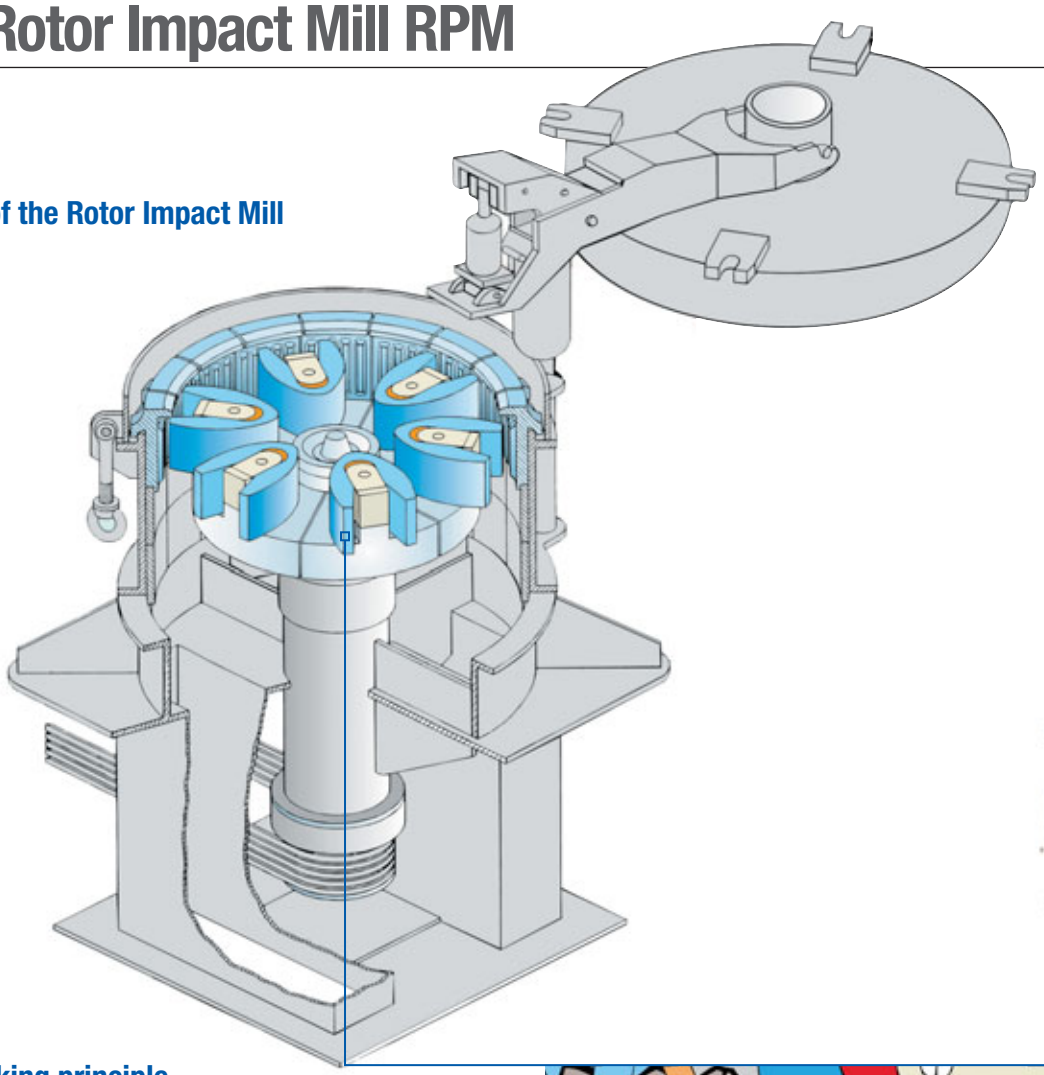
Inside view of the Rotor Impact Mill

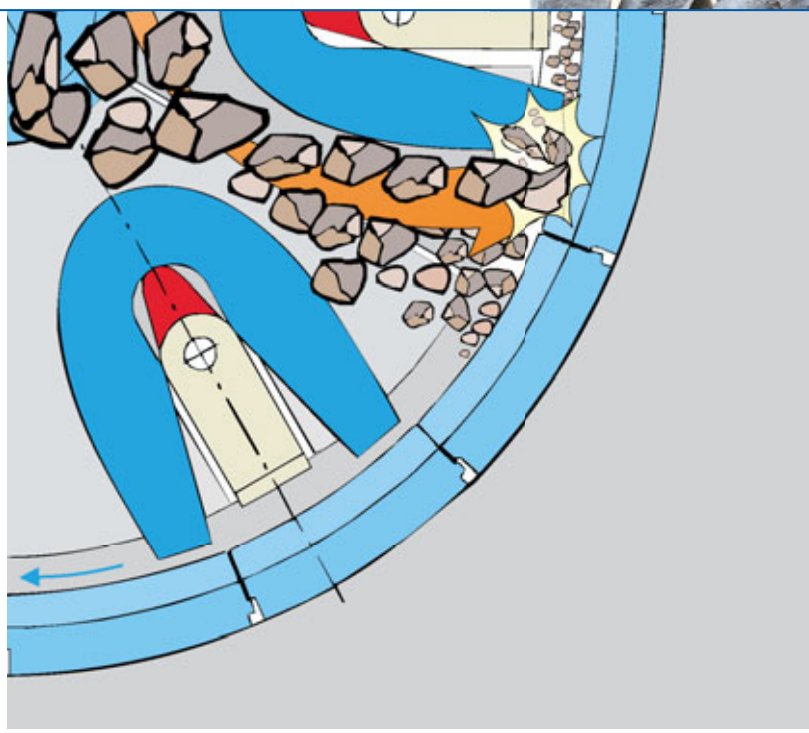


Working principle

The material to be crushed is fed from the top into the central duct. On contact with the fast spinning rotor it is highly accelerated, strikes the horseshoe shaped impellers and is then, through centrifugal force, hurled against the anvil ring. There, size reduction starts by the impact effect.

The material rebounding from the anvil ring again strikes the impellers, where it is reduced in size by another stroke and hurled back against the anvil ring. This action is repeated several times applying an intense stress to the feed material. As soon as the material has been sufficiently reduced in size to fit through the gap, it leaves the rotor falling downward through two discharge chutes.

The crushing result is determined by the quality of the feed material, the circumferential rotor speed and the adjustable gap width. Thus, the machine can be optimized for all job requirements.



Working principle (view from above)

Applications

Production of sand for
- building industry in form of concrete and mortar sand
- asphalt industry in form of high quality crushed sand
- making factory-mixed dry mortar
- making sports ground surfaces
- fireproof building materials

Suitable for all moderately abrasive rock types, such as
- limestone
- dolomite
- gypsum
- anhydrite
- andesite
- basalt
- diabase
- bricks
- refractory bricks

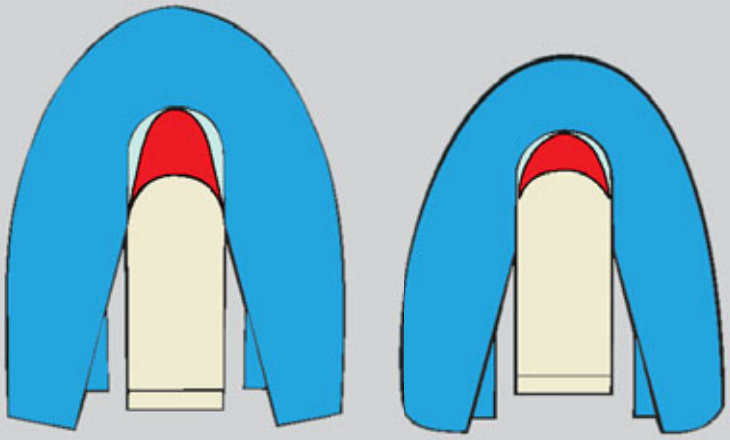
Grinding of fertilizers from:
- limestone
- dolomite
- burnt lime
- synthetic fertilizers

RPM 1113 for the production of concrete sand from limestone

Wearing parts

The anvil ring is just suspended into the mill housing and can easily be replaced by hand. The horseshoe shaped impellers rest on the rotor and are kept in position by centrifugal force. The shoes can be simply replaced by hand.

A set of replaceable spacers is used to adjust the annular gap. With increasing wear of the shoes the gap width can be adjusted in steps of 4 and 8 mm by simply replacing the spacers (marked in red). The rotor is reversible thus enabling optimal utilization of all wearing parts on both sides.



Replacement of wear parts

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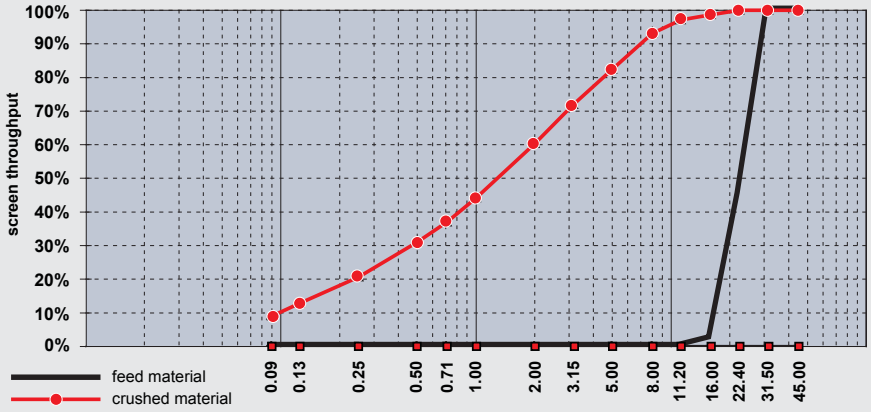
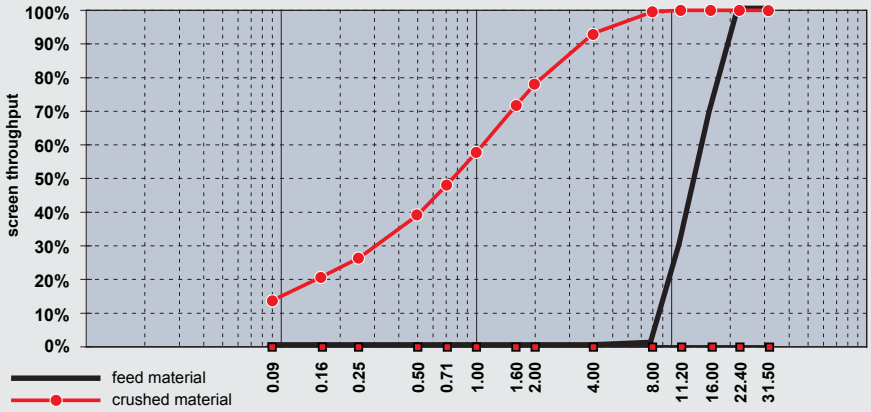
Practical applications of RPM

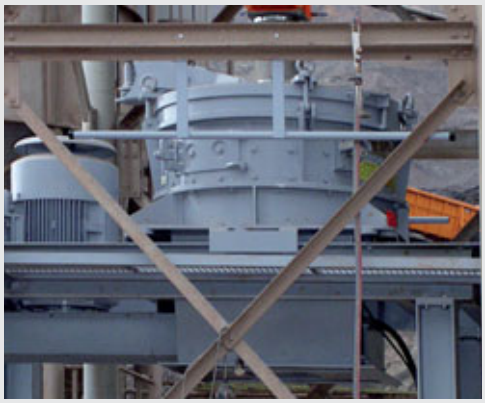
RPM 1113 for the production of concrete sand (0-2 mm) from gravel (16-32 mm)

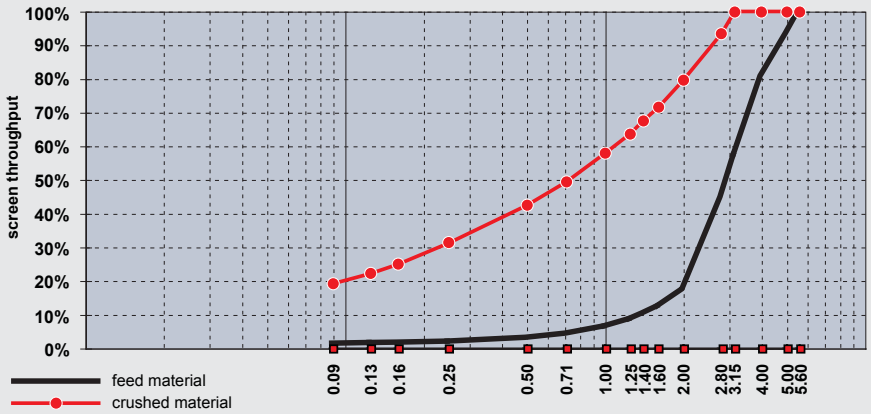


Two RPM 1513 for the production of dry mortar sand (0-1.6 mm) from limestone (8-20 mm)

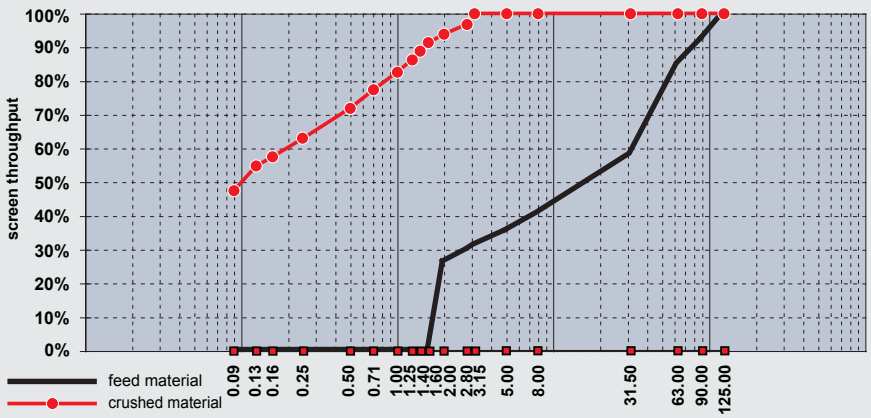


RPM 1113 for the production of high-quality crushed sand (0-2 mm) from andesite gravel (2-5 mm)





RPM 1113 for grinding of burnt lime



Technical data

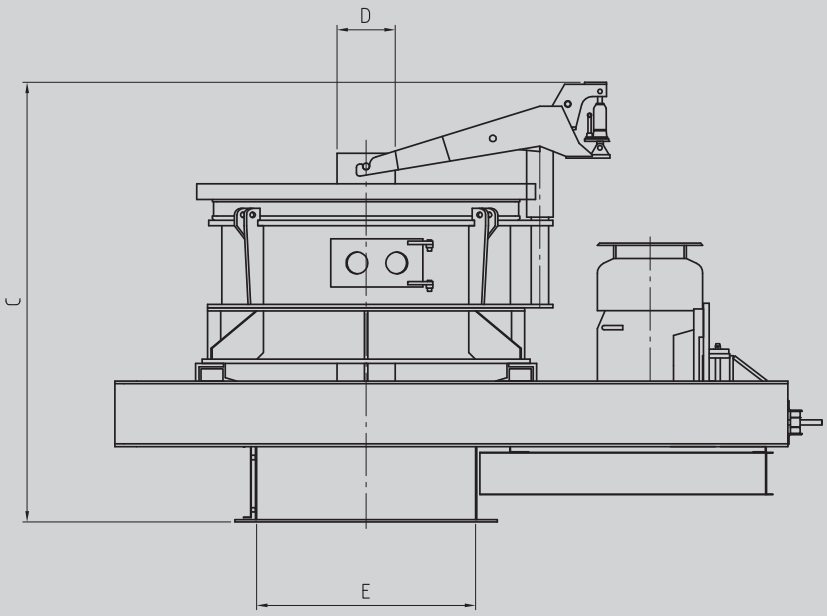
Type	Rotor diameter x height	Number of impellers	Circumferential speed	Drive power	Throughput range [1]	Feed size [2]
	mm	Unit	m/s (max.)	kW (max.)	t/h (max.)	mm (max.)
RPM 0813	850 x 135	6	65	55	30	45
RPM 1113	1150 x 135	8	70	110	50	56
RPM 1513	1500 x 135	12	70	160	75	56

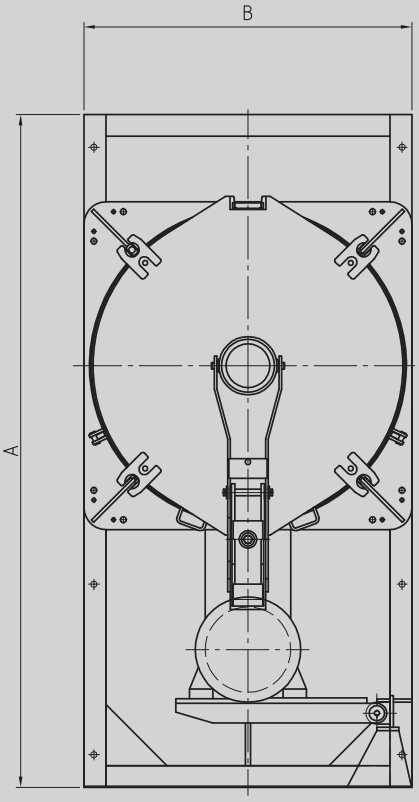
1) depending on rotor circumferential speed and grading curve of feed material
2) depending on type of rock, rotor circumferential speed and percentage of maximum particle size (screened through square mesh) in the grading curve.

Dimensions and weights

Type	Rotor diameter x height	A	B	C	D	E	Weight [3]
	mm	mm	mm	mm	mm	mm	kg
RPM 0813	850 x 135	2800	1270	1975	219	770	3700
RPM 1113	1150 x 135	3080	1500	2012	267	990	5100
RPM 1513	1500 x 135	4500	1900	2125	267	940	9000

3) without motor





Technical data may change due to technical progress. Subject to modification without notice.

Rotor Impact Mill RPM in the BHS Crushing Test Centre in Sonthofen

BHS Product Range:

Mixer
- Twin-Shaft Batch Mixer
- Twin-Shaft Continuous Mixer
- Single-Shaft Continuous Mixer

Mixing Plants
- Mobile Concrete Plants
- Stationary Concrete Plants
- Special Mixing Plants
- Plant Modifications / Retrofit

Crushing Technology
- VSI Rotor Impact Mill
- VSI Rotor Centrifugal Crusher
- Impact Crusher/Mill
- Rotorshredder

Processing Plants
- Aggregate Industry
- Recycling Industry

Service
- Mixing and Crushing Tests in our Factory
- Spare Parts/After Sales Service

How to find us:

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