

Rotacrex Series

The vertical shredder



bomatic
Umwelt- und Verfahrenstechnik GmbH

The Rotacrex principle

Strong on performance, light on maintenance!

Rotacrex Series R 750 | R 1200 | R 1600

Vertical shredder

System and function description

The Rotacrex is fed via a conveyor belt or inlet screw conveyor, a direct feed by grippers or loader is only possible with an intermediate bunker.

The material is introduced into the machine via an inlet opening in the middle on the top of the housing. The material falls onto a massive, fast turning, multi-carrier element, where impact plates **A** that are easy to replace are mounted on the moving carrier elements. The main shredding work is performed by the impact plates.

The machine's special feature is that the impact plates are flexibly mounted, so that the plates swivel away to the rear when they encounter heavy material. This helps to avoid serious damage to the machine caused by heavy material.

The work area is separated from the bearing unit by an intermediate area. This protects the bearing from the infiltration of liquid media.

Discharging takes place through the gap opening of shutter flap **B**.



Setting the grain size

The grain size can be set using a hydraulically adjustable shutter **C** (electric or manual also possible as an option). This is accomplished through the height of the gap between the floor and the discharge flap, the grain size and breaking of the material can be set depending on the gap opening. This is controlled by a hydraulic cylinder.

The interior of the grinding area can either be designed with grinding rods **D** or with smooth walls. When using grinding rods, greater breaking is achieved, while with smooth walls, the material is only coarsely broken.



Heavy material detection and emission

The machine is equipped with a large maintenance door **E**. When the machine is stopped, e.g. due to heavy material, the material can be removed manually. The large maintenance door also allows access to the machine for maintenance and repair work, there is no funnel etc. to remove.

In order to detect heavy material, an impact sensor is installed for detecting such materials or imbalances. This impact sensor monitors the operation of the Rotacrex. When an imbalance is detected, the machine can either be stopped or the discharge flap can be completely opened, so that the heavy material can be removed.



Rotacrex at work



Delivered machines
For biogas plants



Delivered machines
For electronic scrap processing

Shredding and breaking

The degree of shredding or breaking is determined by the speed of the rotor and the size of the outlet opening. Both can be adjusted and are defined for each application.

With a large outlet opening, the material is coarsely broken, the discharged parts remain large. With a

small outlet opening, in contrast, composite materials are broken.

Due to the impact process, however, only brittle materials are shredded, soft parts (e.g. stickers) remain virtually untouched and are not shredded.

Electronic waste



Solid manure



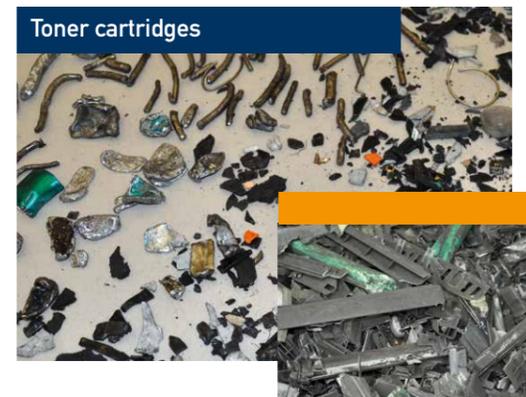
MBT scraps



Biowaste



Toner cartridges



Wood



Rotacrex R 750

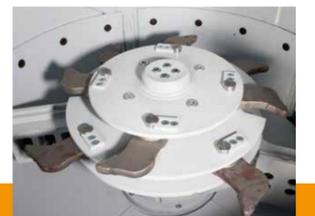
Rotacrex R 1200



Drive power	30 – 45 kW
Impact area (D x H)	750 x 500 mm
Overall dimensions (L x W x H)	2.200 x 1.350 x 1.750 mm
Total weight	1.800 kg
Rotor speed	800 rpm (adjustable via frequency converter)

Examples of throughput specifications:
Depending on the density of the input material and the height of the discharge opening

Solid manure, with a proportion consisting of straw	approx. 2-3 t/h
Organic waste, expired foodstuffs	approx. 3-4 t/h
Wood, pre-shredded	approx. 2-3 t/h
Electrical appliances	approx. 1-2 t/h
MBT scraps	approx. 2-3 t/h



Drive power	75 - 90 kW
Impact area (D x H)	1.200 x 1.200 mm
Overall dimensions (L x W x H)	2.700 x 2.600 x 2.500 mm
Total weight	5.500 kg
Rotor speed	1.000 RPM (adjustable via frequency converter)

Examples of throughput specifications:
Depending on the density of the input material and the height of the discharge opening

Solid manure, with a proportion consisting of straw	approx. 5-7 t/h
Organic waste, expired foodstuffs	approx. 8-10 t/h
Wood, pre-shredded	approx. 6-8 t/h
Electrical appliances	approx. 7-9 t/h
MBT scraps	approx. 3-4 t/h

Rotacrex R 1600



Drive power	110 – 132 kW
Impact area (D x H)	1,600 x 1,200 mm
Overall dimensions (L x W x H)	3,300 x 2,300 x 2,600 mm
Total weight	8,500 kg
Rotor speed	700 rpm (adjustable via frequency converter)

Examples of throughput specifications:

Depending on the density of the input material and the height of the discharge opening

Solid manure, with a proportion consisting of straw	approx. 10-12 t/h
Organic waste, expired foodstuffs	approx. 12-15 t/h
Wood, pre-shredded	approx. 9-12 t/h
Electrical appliances	approx. 10-13 t/h
MBT scraps	approx. 5-6 t/h