

Powerful Recycling

AZR-K single-shaft shredder and RSM granulator



economical - robust - powerful

The AZR-K 800 to AZR-K 2000 series of shredders and the RSM series of granulators deliver powerful, reliable performance: these solidly built machines can handle even large, bulky plastic items such as sprues, sections, and purgings, shredding them into a homogenous, dust-free end product.

In a two-stage solution, the RSM series granulators crush the previously shredded material into a final grain size of up to 3 mm.

Intelligent design in a compact unit that delivers maximum reliability guarantees cost-efficient shredding.

AZR-K 800 - AZR-K 2000 series single-shaft shredders

Applications:

- Large-volume and awkward plastic materials
- Lumps of production waste, plastic containers
- Sheeting, textiles, paper, cardboard
- Larger quantities of production waste, e.g. rods, sprues and defective parts

Benefits / characteristics:

- Extremely solid, stable build quality
- Shredding in one step down to a final grain size of approx. 12 mm
- Homogenous shredding without striation
- Quick-change screen, easy knife changes
- 3 rotor options
- Various different hoppers
- Slow running (rotor runs at 80 rpm)
- Very quiet and energy-efficient
- Many control options (auto reverse, etc.)



A ram pushes the material towards the rotor unit. The ram is fitted with a powerful hydraulic unit that can withstand heavy loads. To avoid transverse forces, the feed device is gimbaled.

The illustration shows the option with a raised pusher.



High-performance motors with a variety of power ratings

Safety package with gear limit switch and reverse counter



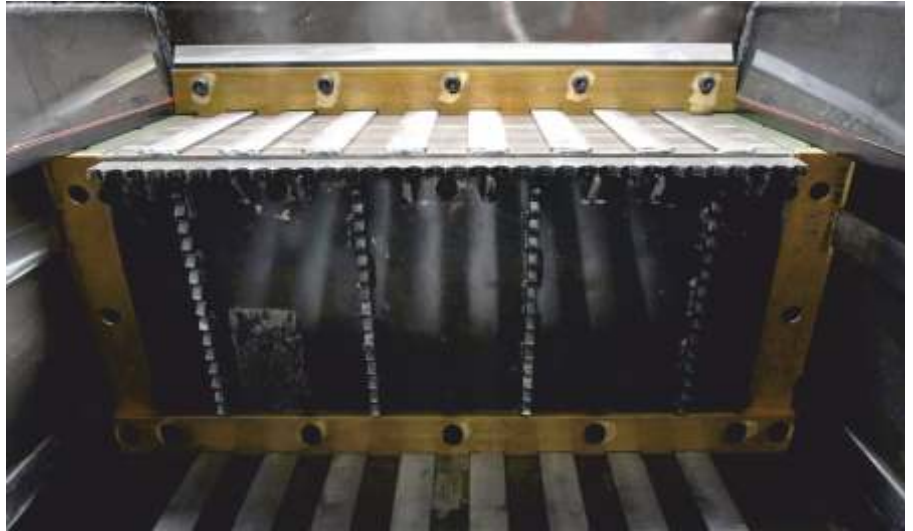
Option: motorized lifting gear for the hopper



A hydraulically pivoted screen basket with integrated screen segments enables easy access for knife changes or servicing. It also makes cleaning easier.

With a load-dependent and/or pulse mode feed, different cycle frequencies and forced reversing, the AZR-K series is under perfect control even with an overload.

Powerful Plastic shredding for processing plastic waste



The hydraulic and horizontal pressing device (pusher) operates load-dependently with controlled contact pressure. The guides are made from hard-wearing plastic or brass and are adjustable.

Options:

- Segment guides for pusher with cleaning effect and parallel feed
- Serrated plate for hollow articles and solid lumps
- Rotor version 5 with triple row of knives



Safety unit for use on the exposed screen basket



A solid, stable machine frame, axially reinforced feed devices, and recessed, enclosed rotor bearings enable a long service life even under high loads.

The required shredding factor for the feed material can be set using variably adjustable screens with the appropriate screen perforation.



Knives that reduce your operating costs!

The use of different types of knives enables task-specific adaptation to the material being shredded.



Rotor-Version 5

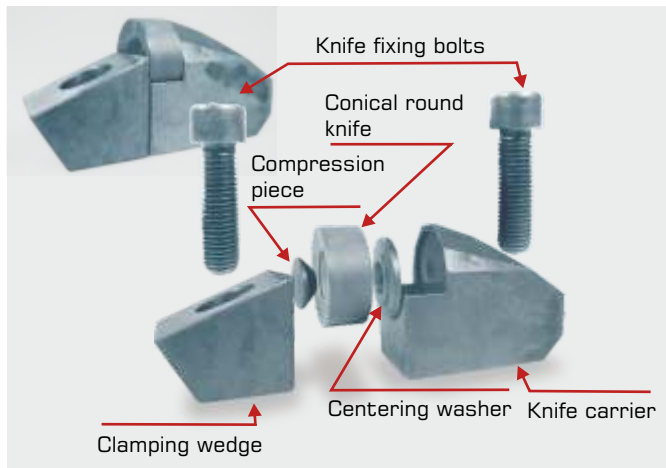


Rotor-Version 7

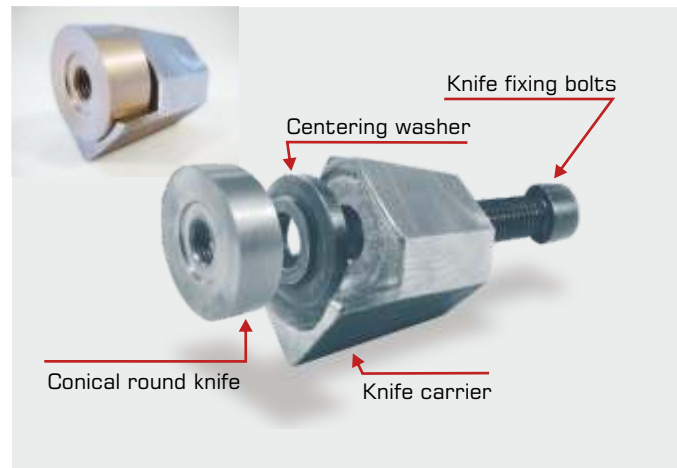
Concave cutting heads can be turned up to 4 times



The concave round cutter heads with their efficient scissor cutting enable very high throughput with little force. With just a few simple steps the round knives mounted on the rotor can be rotated and turned up to 8 times until they have to be replaced.



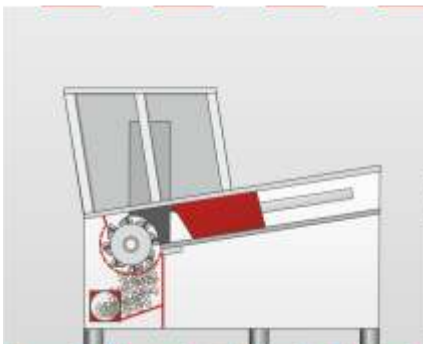
Detail of knife system version 5 –
Knife assembly with knife carrier and round knife



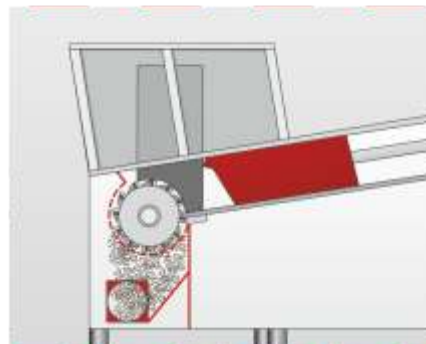
Detail of knife system version 7 –
Knife assembly with knife carrier and round knife

The different rotor diameters

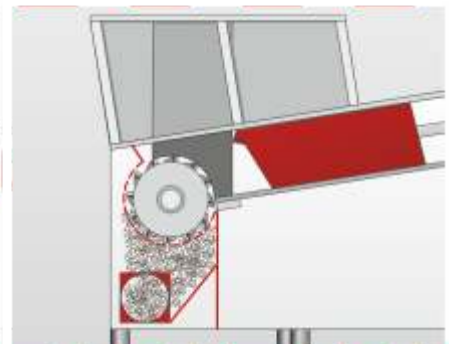
Rotor with 252 mm diameter
for smaller applications



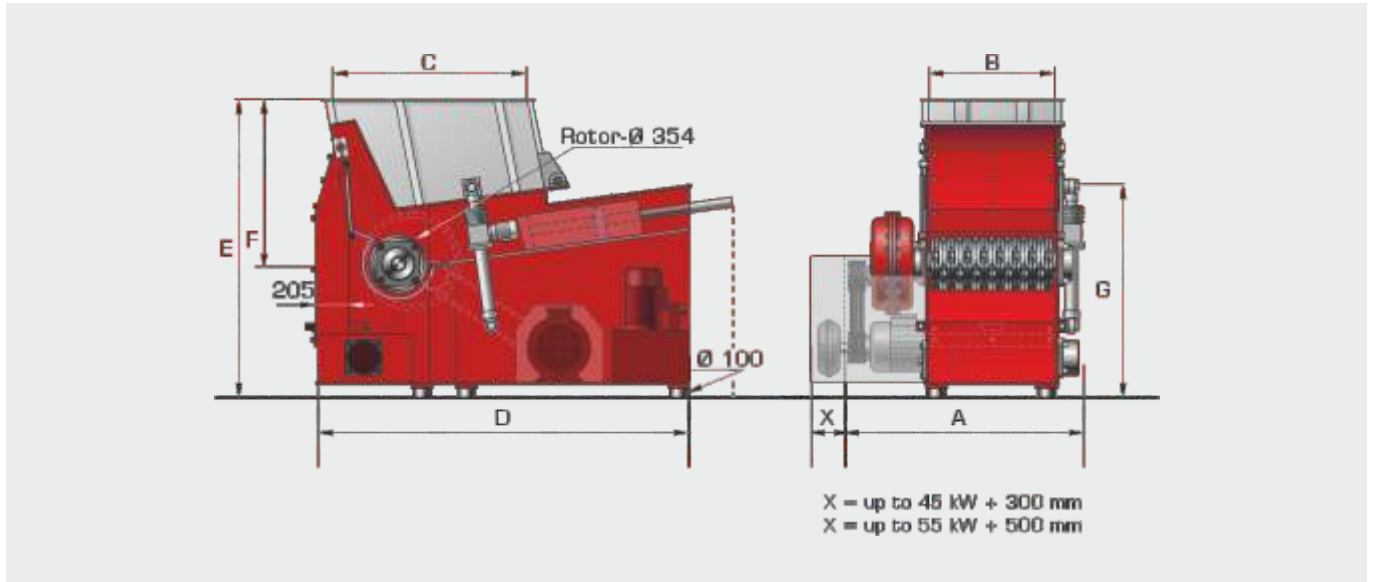
Rotor with 354 mm diameter
for higher throughput



Rotor with 482 mm diameter
for very high throughput



Technical data series AZR-K 800 - AZR-K 2000



Dimensions AZR-K		800	800 S	1000 S	1300	1500	1800	2000
Size A	(mm):	1.300	1.340	1.800	2.215	2.300	2.600	2.800
Size B	(mm):	800	800	1.000	1.300	1.500	1.800	2.000
Size C	(mm):	1.000	1.200	1.200	1.215	1.500	1.500	1.500
Size D	(mm):	2.100	2.420	2.400	2.150	3.000	3.000	3.000
Size E	(mm):	1.640	1.730	1.720	1.730	1.720	1.720	1.720
Size F	(mm):	1.090	1.020	1.030	1.030	1.030	1.030	1.030
Size G	(mm):	740	1.000	990	945	990	990	990

Type AZR-K		800	800 S	1000 S	1300	1500	1800	2000
Hopper opening	(m):	0,8 x 1	0,8 x 1.2	1 x 1.2	1.3 x 1.2	1.5 x 1.5	1.8 x 1.5	2 x 2.5
Hopper volume	(m ³):	0,9	1,2	1,25	1,65	2,3	2,8	3,0
Rotor-Ø	(mm):	252	354	354	354	354	354	354
Rotor speed	(rpm):	60-100	60-100	60-120	60-120	60-120	60-120	60-120
Power consumption (kW):		15/18,5/22	18,5/22/ 30/37	22/30/ 37/45	37/45/55	37/45/ 55/75	45/55/90 2x45/ 2x55	45/55/90 2x45/ 2x55
Tools*	(pcs):	20	20/40	25/50	35/70	37/74	45/90	49/98
Screen perforation	(mm):	10-40	10-40	10-40	10-50	10-50	10-50	10-50
Weight	(approx. kg):	1.500	2.000	2.800	3.800	4.500	5.800	6.500

* We will be pleased to assist you in choosing the right tool for your application.

The following parameters apply to all machines in the AZR-K series:

Screen perforation size:
The standard size is 15/20 mm;
also available (in millimetres)
10/12, 12/15, 20/25, 25/30, 35/40
Special sizes by arrangement.

Throughput:
This depends on the feed material (long,
short, wet, dry etc.) and the screen per-
foration size. As a rule of thumb, assume
two to four hopper loads per hour.

Chip removal:
Chips can be removed using a suction
device, screw conveyor or a conveyor belt.
The minimum air speed for vacuum
systems is 28 m/s.



Single-stage and two-stage shredding using the RSM granulator

Applications:

- Plastic product waste such as sprues, other scrap
- Injection moulded items
- Sections, plates, sheeting
- Purgings
- Blow moulded articles and waste

Benefits / characteristics:

- Delivers high quality shredded material
- Wear-resistant
- Fast and easy maintenance
- Universal, versatile applications
- Ideal for the heaviest use
- V-cut technology with double diagonal cut
- Optimum conveying of material to be cut to the rotor centre
- Solid, bolted construction method
- Intelligent machine design
- High throughput
- Opens without using tools
- Easy maintenance and cleaning



The machines can be opened in a few simple steps and without using special tools thanks to the quick-snap fasteners. Maintenance and knife changes can be completed in next to no time.



The sandwich design means that the hopper and grinding chamber are completely soundproofed. The extensive multi-layer sound insulation results in low noise emissions of just 75-80 dB(A).

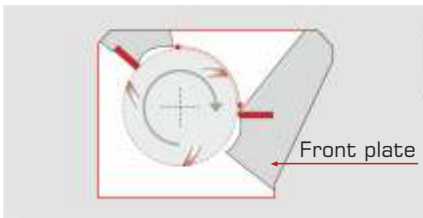


The shredded material can be removed using a vacuum conveyor, discharge screw conveyor or continuously operating suction system.

Knives and stator blades are adjusted using setting jig:

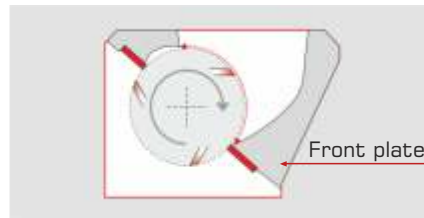


The two grinding chamber options with the RSM series specially for your material



HP series:

For standard applications, the front plate is sloped. This reduces the size of the grinding chamber and the contact surface with the rotor. For large lumps, sheet packages (or any thick-walled materials), the rotor's angle of attack is reduced. This prevents a potential rotor jam.

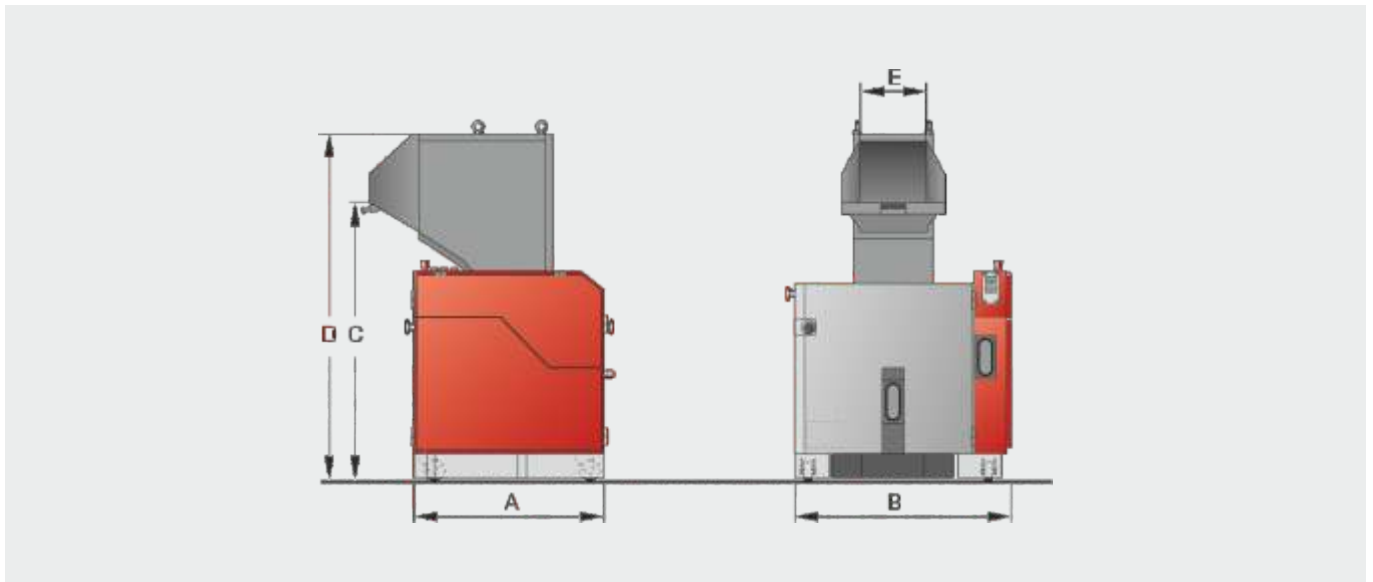


BF series:

For blow-moulding applications, the front plate has a distinct tangential area. This increases the size of the grinding chamber and the contact surface with the rotor. As a result, the granulator is suited to grinding large-volume hollow items, boxes, bulky components, etc. as it is easier for the rotor to cut at the materials.



Technical data series RSM



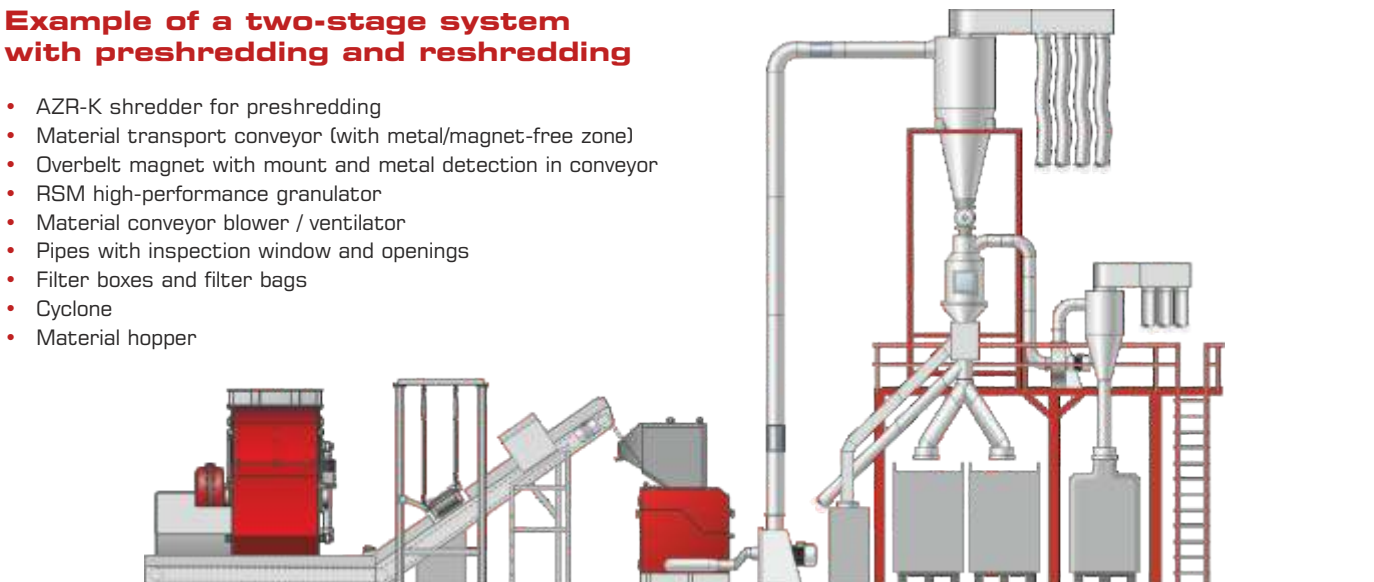
Dimensions RSM		360/ 600-BF	360/ 900-BF	500/ 740-BF	500/ 1100-BF	360/ 600-HP	360/ 900-HP	500/ 740-HP	500/ 1100-HP
Size A	(mm):	1,200	1,200	1,885	1,885	1,200	1,200	1,885	1,885
Size B	(mm):	1,210	1,510	1,590	1,590	1,510	1,590	1,990	2,500
Size C	(mm):	1,780	1,780	2,575	2,575	1,780	2,575	2,575	2,575
Size D	(mm):	2,200	2,200	3,055	3,055	2,200	3,055	3,055	3,055
Size E	(mm):	620	920	730	1,100	920	730	1,100	1,600

Type RSM		360/ 600-BF	360/ 900-BF	500/ 740-BF	500/ 1100-BF	360/ 600-HP	360/ 900-HP	500/ 740-HP	500/ 1100-HP
Feed opening	(mm):	600 x 420	900 x 420	740 x 570	1100 x 570	600 x 420	900 x 420	740 x 570	1100 x 570
Rotor-/Stator knives	(pcs):	3 + 2	3 + 2	3 + 2	3 + 2	3 (5) + 2	3 (5) + 2	3 (5) + 2	3 (5) + 2
Rotor speed	(rpm):	580	580	400	400	580	580	400	400
Rotor diameter	(mm):	360	360	500	500	360	360	500	500
Throughput (approx. kg/h)*:		400-600	600-800	800-1200	1200-1600	400-600	800-1200	1200-1600	1400-1800
Power	(kW):	22	30	45	75	37	75	75	90
Weight	(approx. kg):	1,910	2,100	4,300	5,100	1,910	2,100	4,300	5,100

* Depending on the material and screen

Example of a two-stage system with preshredding and reshredding

- AZR-K shredder for preshredding
- Material transport conveyor (with metal/magnet-free zone)
- Overbelt magnet with mount and metal detection in conveyor
- RSM high-performance granulator
- Material conveyor blower / ventilator
- Pipes with inspection window and openings
- Filter boxes and filter bags
- Cyclone
- Material hopper



Machines from the Reinbold product line:



The AZR 600 K - 2000 K Gigant series:
The single shaft shredder for effective plastics shredding



The RMZ 500 - RMZ 1000 S series:
A four-shaft shredder that is ideal for shredding long stock



The RLZ 400 - RHZ 1300 S horizontal shredder:
A horizontally fed machine



The series RB 80 - RB 300 S Flexible:
For briquetting chips



The series RB 20 SV - RB 60 SV:
The small but powerful briquetting press



The RNZ granulator series:
For two-stage shredding down to a chip size of > 3 mm

Drawing on its many years of experience, Reinbold, with its broad range of machines, is able to offer ideal solutions for different applications in material shredding and briquetting. Our testing facility is available to perform tests on your material.

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