

weim

SHREDDING + COMPRESSING



**ZM SERIES
FOUR-SHAFT SHREDDERS**

TECHNICAL HIGHLIGHTS



High drive power with double motor, planetary gear drive and frequency converter

Two powerful electric motors with up to 30 kW drive power each drive the four shafts. In the machines of this series, WEIMA relies on robust planetary gears to generate high torques. Optionally, the ZM series can be equipped with a frequency converter. This allows the speed to be continuously regulated and power spikes can be avoided.



Low speed, maximum power for a wide range of applications

Thanks to the low shaft speed of approx. 25 rpm, noise pollution is in a very low range. An extremely high torque results from this slow speed. This enables high throughput with low power consumption. For light materials (e.g. peat), a speed of up to 50 rpm can also be set by selecting special motors.

Simple operation via Siemens PLC control

The multi-shaft shredders can be operated in a user-friendly manner via a high-quality Siemens PLC control system. A touch display is also available as an option. For a particularly small footprint, the control cabinet is mounted on the side of the hopper. It is also available as a free-standing unit on request.



Heavy duty anti-wear package for particularly abrasive materials

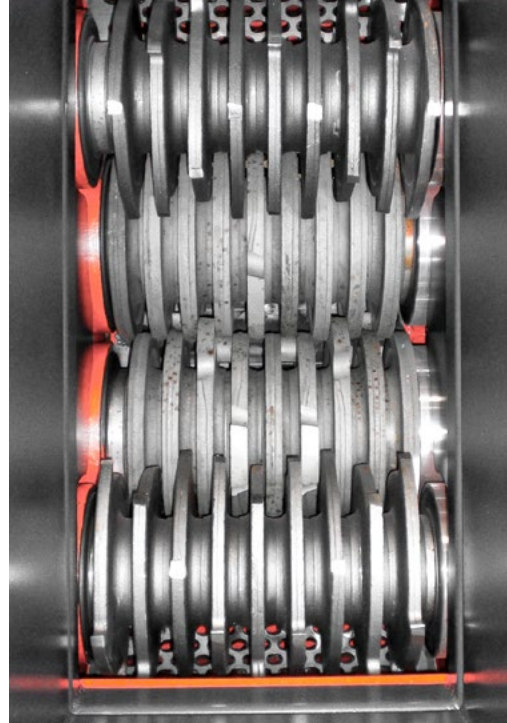
For shredding particularly abrasive materials, such as fibrous or heavily contaminated material, we recommend our anti-wear package. Along with a double-walled machine design, wear protection plates can be selected in the cutting chamber on the fixed bearing side and on the gearbox side to ensure a particularly long bearing life. In addition, cutting shafts and cutting discs can be made of hardened tool steel.



Individual cutting configuration for optimum shredding results

The cutting configuration of the ZM shredders comes standard with two cutting shafts and two clearing shafts.

The cutting shafts can be configured according to the desired throughput and particle size. The width and number of cutting discs can be variably adapted to your application. For higher throughput, the broaching discs can optionally be replaced by cutting discs. In addition, special cutting discs with stronger cutting capacity are also available – for even more aggressive cuts.



LOW-MAINTENANCE SHREDDING

without ram system,
with four-shaft technology

The material is gripped and shredded by the cutting teeth of the cutting discs, and then pressed through the cutting gaps between the cutting discs by the broaching discs. In addition, the broaching discs ensure optimized material discharge through the screen. Thanks to the self-feeding system, the machines do not require a hydraulic pusher system. This reduces the need for maintenance.

Homogeneous particle size thanks to exchangeable screen insert

The screen placed under the cutting and clearing discs determines the particle size. An optional secondary breaker system integrated in the screen prevents long pieces from passing through the perforated screen and causing malfunctions in downstream machines. Depending on the application, round holes with diameters of 10 - 150 mm can be selected. Special designs with slots or without screen insert are also possible. This ensures that the optimum particle size is produced for each individual case.



TECHNICAL HIGHLIGHTS



Versatile feeding via large hopper
by conveyor belt, forklift, lifting and tipping device or by hand

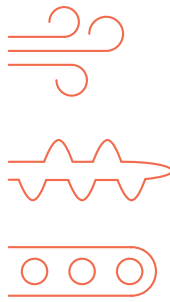
The large feed hopper can be individually adapted to customer requirements. For extremely flexible operation, the shredder can be fed in a user-friendly manner by conveyor belt, forklift, lifting and tipping device or by hand. The low loading edge is helpful here. A pressing system is also available as an option. When shredding very dusty material, we recommend a lid with safety limit switch for dust and splash protection.



Integration into your production line
thanks to compact machine design

The robust yet space-saving machine design ensures easy integration into your existing plant. The ZM series can be used, for example, as a pre-shredder upstream of a granulator or shred materials for subsequent briquetting.





Flexible material discharge by suction, screw or conveyor belt

The shredded material can be discharged flexibly. For optimum connection to your extraction system, an extraction tray can be optionally selected. A quick and clean discharge by conveyor belt is possible by means of an elevated frame. Alternatively, a discharge screw is also available.



Quick access to the screen with optional quick-change screen

For a particularly quick and easy screen change, we recommend the optional quick-change screen. The manually removable screen insert allows the screen to be optimally adapted to your changing material streams.

AUTOMATIC OVERLOAD PROTECTION

with reversing switch

In the event of an overload, the cutting and clearing discs on the left and the cutting and clearing discs on the right reverse independently of each other, depending on which pair of shafts is subjected to the greater load. This removes the load from the shafts and repositions the material to be shredded for optimum shredding.





TECHNICAL DATA AND MACHINE CONFIGURATION

● Technical data multi-shaft shredders

	ZM 30	ZM 40	ZM 50	ZM 60
Hopper opening length [mm]	1,000	1,300	1,540	1,740
Feed opening width [mm]	1,240	1,380	1,380	1,380
Cutting unit width [mm]	460	760	990	1,200
Cutting unit length [mm]	560	600	700	690
Disc diameter [mm]	235	280	280	280
Power [kW]	2×7,5 2×11	2×15 2×18 2×22	2×15 2×18,5 2×22 2×30	2×18,5 2×22 2×30
Suction port diameter [mm]	200	200	200	200
Length [mm]	1,490	1,980	2,180	2,450
Width [mm]	1,290	1,430	1,430	1,430
Height [mm]	1,970	1,970	1,970	1,970
Weight [approx. kg]	1,300	2,500	3,000	3,300

Machine configuration for multi-shaft shredders

● Standard ○ Optional – Not available

	ZM 30	ZM 40	ZM 50	ZM 60
DRIVE				
Double drive power through 2 electric motors	●	●	●	●
Automatic reverse	●	●	●	●
CUTTING CHAMBER				
Cutting unit with 2 cutting shafts and 2 clearing shafts	●	●	●	●
Cutting unit with 4 cutting shafts	○	○	○	○
Wear package cutting chamber	–	○	○	○
Double wall design	–	○	○	○
MATERIAL FEED				
Large volume feed hopper	●	●	●	●
Hopper lid with gas pressure spring and safety limit switch	○	○	○	○
MATERIAL DISCHARGE				
Exchangeable screen	○	○	○	○
Quick change screen	○	○	○	○
Secondary breaker bars	○	○	○	○
Extraction hood	○	○	○	○
ELECTRONICS				
Control cabinet with Siemens PLC control	●	●	●	●
Automated overload protection	●	●	●	●
Additional emergency stop switch	○	○	○	○
Stop and go control	○	○	○	○

Other variants, special equipment and technical modifications available on request.



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