

weima

SHREDDING + COMPRESSING



● WL(K) 6 S | WL 10-20 |
WLK 10-20 | WLK 1000-2000
SINGLE-SHAFT SHREDDERS

TECHNICAL HIGHLIGHTS

Flexible control for changing material flows

WEIMA only requires one control panel to precisely control one or more machines including the conveyor system. The built-in Siemens PLC control is optimally adapted to the shredding process. Various slide controls and rotor settings can be conveniently adjusted to the desired application. All control cabinets are designed in-house and built in our German production facilities.



Perfect cutting gap thanks to adjustable counter knives

The interaction between the cutting knife and the counter knife has a significant influence on the material throughput and the shredding result. To maintain a perfect cutting gap even with natural wear, counter-knives of this series are manually adjustable as well as reversible. Optimum cutting geometry keeps shredding energy-efficient, minimizes wear costs, and significantly extends the service life of the knife.



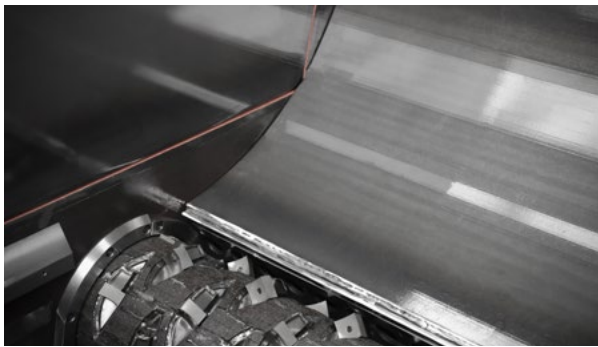
Precise cut with F rotor for flexible materials

The F rotor impresses with its controlled infeed behavior and its precise cutting geometry - especially with flexible materials such as films, filaments or veneer. It can be equipped with either bolted-on or welded knife holders. In addition, a robust wear protection made of Vautid is possible for more abrasive materials.



Universally applicable V rotor for demanding applications

Many of our customers describe the profiled V rotor as a best in class for shredding. The material intake is optimally designed with two rows of knives. The V rotor stands for high throughput rates, low energy consumption, reduced thermal stress and low wear costs.



Better material absorption for particularly large pieces

Instead of classic angled hoppers, WEIMA has relied on a design that is rounded along the front side for many years. This has two decisive advantages: the feed volume is increased. In addition, disruptive material bridges are effectively avoided - these occur especially with large material pieces. In this case, the shredder cuts itself free.



CONTROLLED MATERIAL FEEDING

by ram with serrated plate and
segmented floor

The ram feed can be controlled manually, cyclically, or load-dependently. Depending on the application, it makes sense to supplement the classic material ram with more technical options. To prevent possible jamming and improve its guidance, the ram can be guided on rollers. In addition, WEIMA recommends the use of a segmented floor - especially for very thin materials.



Offset rotor bearings

Protect against dust and foreign matter

The shredding of particularly resistant materials requires correspondingly robust bearings that are easy to maintain. WEIMA uses long-life, spherical roller bearings, whose stable design and offset mounting from the machine frame protects against impacts and uncontrolled power transmission. Their additional shaft seal ring effectively helps against the intrusion of contaminants or dust.

TECHNICAL HIGHLIGHTS



Three screen configurations for optimum accessibility

Single-shaft shredders come standard with a fixed screw screen. In addition, there are hydraulically downward-swiveling screens as well as upward-opening screen baskets. The ideal design depends on the application. In general, movable screens provide better access to the rotor and thus facilitate maintenance.

Easy integration of conveyor technology thanks to generous belt cutout

Machines with a conveyor belt cutout make material discharge clean and efficient – ideal for production lines. For example, conveyor belts up to 600 mm wide can be seamlessly integrated. Alternatively, material can be discharged via suction or screw conveyors.



MORE SPACE FOR MATERIAL DISCHARGE

by raising the machine frame

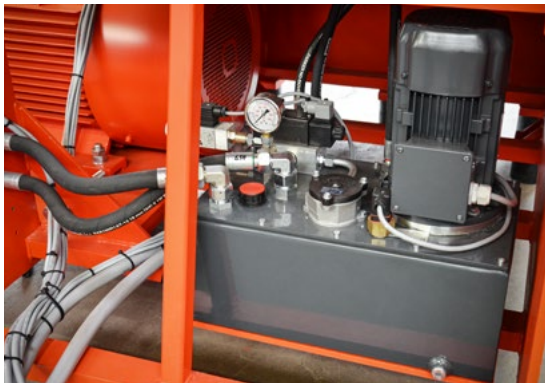
If you need more space for discharge, we recommend the optional increase of the machine frame by up to 200 mm. This makes your production even more flexible.

Robust electromechanical drive

with in-house built WAP gearbox

For most applications, electromechanical drives are the classic choice because they are easy to maintain and robust. WEIMA's special feature: we manufacture our own gearboxes that are specially designed for shredding operations. Torque monitoring and shock-absorbing vibration dampers round off the package. A hydrodynamic start-up clutch is available as an option for further protection of the machine. For even higher requirements, we recommend the use of a hydraulic drive (WLK 1000, WLK 1500, WLK 2000).





**Even higher throughputs
with turbo hydraulics**

The ram of a shredder is moved back and forth hydraulically. With turbo hydraulics, this happens even faster. For continuous operation, additional oil cooling and a length measuring systems are available upon request.

**Vibration damping
machine feet
for less vibration in the building**

Thanks to compact feet made of hard rubber, there is no need to anchor the machine to the plant floor. The installation remains flexible. More importantly, disruptive vibrations that negatively affect the surrounding area are effectively avoided.

SINGLE-SHAFT SHREDDERS IN ACTION



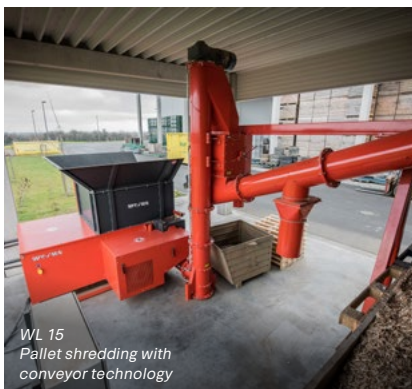
*WLK 15
Automotive Interior Recycling*



*WLK 6 S
Plastic waste*



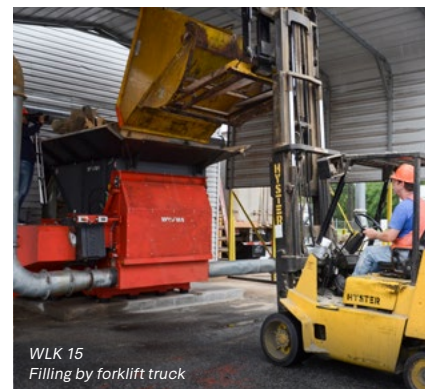
*WLK 10
Paper recycling*



*WL 15
Pallet shredding with
conveyor technology*



*WLK 1500
Two-stage shredding with granulator*



*WLK 15
Filling by forklift truck*



TECHNICAL DATA AND MACHINE CONFIGURATION

Technical data single-shaft shredder

	WL 6 S	WLK 6 S	WL 10	WLK 10	WLK 1000	WL 15	WLK 15	WLK 1500	WL 20	WLK 20	WLK 2000
Rotor diameter [mm] ¹⁾	370	370	370	370	370	370	370	370	370	370	370
Rotor length [mm]	800	800	1.000	1.000	1.000	1.500	1.500	1.500	2.000	2.000	2.000
Rotor speed [rpm] ²⁾	80 - 125	80 - 125	80 - 125	80 - 125	80 - 125	80 - 125	80 - 125	80 - 125	80 - 125	80 - 125	80 - 125
Drive power [kW] ³⁾	22 - 37	30 - 55	30 - 45	30 - 75	37 - 75	37 - 75	55 - 90	75 - 90	55 - 110	110	90 - 110
Max. number of knives [pcs] ⁴⁾	42	42	52	52	78	82	82	123	110	110	170
Available knife sizes [mm]	40	40 60	40 60	40 60	40 60	40 60	40 60	40 60	40 60	40 60	40 60
Particle size [mm]	15 - 100	15 - 100	15 - 100	15 - 100	15 - 100	15 - 100	15 - 100	15 - 100	15 - 100	15 - 100	15 - 100
Exhaust connection [mm]	200	-	200	-	-	250	-	-	250	-	-
Hopper opening [mm]	800 x 1.200	800 x 1.200	1.000 x 1.200	1.000 x 1.200	1.000 x 1.640	1.500 x 1.530	1.500 x 1.500	1.500 x 1.890	2.000 x 1.500	2.000 x 1.500	2.000 x 1.890
Length [mm]	2.100	2.680	2.100	2.535	2.905	2.700	3.290	3.400	2.700	3.250	4.350
Width [mm] ⁵⁾	1.700	1.750	1.890	2.185	2.200	2.420	2.645	2.800	3.100	3.290	3.335
Height [mm]	1.730	2.080	1.730	2.100	2.130	1.730	2.100	2.130	1.930	2.080	2.130
Weight [approx. kg]	2.600	2.800	3.000	4.100	3.800	4.800	6.800	6.400	5.800	9.000	9.000

1) dependent on cutting circle

2) dependent on specific drive configuration

3) dependent on drive technology

4) dependent on machine configuration

5) in standard configuration

Machine configuration single-shaft shredder

● Standard ○ Optional – Not available

	WL6 S	WLK 6 S	WL 10	WLK 10	WLK 1000	WL 15	WLK 15	WLK 1500	WL 20	WLK 20	WLK 2000
Control cabinet with PLC control	●	●	●	●	●	●	●	●	●	●	●
MATERIAL FEED											
Horizontal ram	●	●	●	●	●	●	●	●	●	●	●
Segmented floor	○	○	○	○	●	○	○	●	○	○	●
Serrated ram	○	○ ¹⁾	○	○ ¹⁾	○ ¹⁾	○	○ ¹⁾	○ ¹⁾	○	○ ¹⁾	○ ¹⁾
Hold-down device	–	–	–	○	○	○	○	○	○	○	○
Ram extension	–	–	–	–	–	–	○	–	–	○	–
Fast hydraulics	○	●	○	●	●	○	●	●	○	●	●
Free-cutting hopper	–	–	–	○	●	–	○	●	–	○	●
DRIVE											
Electromechanical drive	●	●	●	●	●	●	●	●	●	●	●
Hydraulic drive	–	–	–	–	○	–	○	○	–	○	○
High-torque drive	–	–	–	–	–	–	–	○	○	–	○
WEIMA WAP gearbox	●	●	●	●	●	●	●	●	●	●	●
Transmission oil cooling	○	○	○	○	○	○	○	○	○	○	○
Hydraulic oil cooling	○	○	○	○	○	○	○	○	○	○	○
Hydrodynamic start-up clutch	●	●	●	●	●	●	●	●	●	●	●
CUTTING GEOMETRY											
V rotor	●	●	●	●	●	●	●	●	●	●	●
F rotor	–	○	–	○	○	–	○	○	–	–	○
Special rotor	–	–	–	–	○	–	–	○	–	–	○
Additional rotor knife row	○	○	○	○	○	○	○	○	○	○	○
Adjustable counter knife	–	●	–	●	●	–	●	●	–	●	●
Vautid rotor wear protection	–	○	–	○	○	–	○	○	–	○	○
Rotor cooling	–	○	–	○	○	○	○	–	○	○	–
Detached bearings	○	●	○	●	●	○	●	●	○	●	●
MATERIAL DISCHARGE											
Screw screen	●	–	●	–	–	●	–	–	●	–	–
Lift-up screen	–	●	–	●	–	–	●	–	–	●	–
Swivel down screen	–	–	–	–	●	–	–	●	–	–	●
Conveyor belt cutout	○	●	○	●	●	○	●	●	○	●	●
Exhaust connection	●	–	●	–	–	●	–	–	●	–	–
Vibration damping machine feet	●	●	●	●	●	●	●	●	●	●	●

1) Serrated plate

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



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