

ALLRECO



CERON

TYPE 206 · 256 · 306 · 308



Komplett. Durchdacht.

allreco.de





The new generation: The perfect combination of high quality technology, high efficiency and long service life.

THE CERON-SERIES

Proven principle meets state-of-the-art technology

When it comes to pre-shredders, we are setting new standards with the CERON series. Every detail of ALLRECO's CERON machine generation reflects more than 50 years of experience and our typical passion for innovative and customer-oriented solutions.

Line operates on the basis of our proven single-shaft principle. In combination with the hydraulically controlled shredding comb and the flexibly mounted limiter elements, the system is impervious to many obstructions, while ensuring at the same time the usual excellent output quality.

frequency converter technology not only enables the machine to start-up under full load but also to set the rotary speed of the shaft in order to optimally suit every individual process requirement.

RUGGED, FLEXIBLE AND EFFICIENT

With these characteristics the generation of CERON single-shaft shredders handles the most demanding challenges arising in the shredding of residual waste, bulky waste, commercial waste, construction and demolition waste, waste wood, roots, green waste and many more. The CERON-series of our Slow Speed Shredder

POWERFUL AND IN LINE WITH DEMAND

Thanks to an unmatched range of model variations and equipment options, the CERON series offers ideal solutions for almost every material requirement. The series impresses with its innovative technology and intelligent drive concept. The AC motor in combination with the latest

ALLRECO. KOMPLETT. DURCHDACHT.

It all started in Niederberg in the "Bergisches Land" region. Hedwig, Werner, and Josef Doppstadt established the "Doppstadt" agricultural contractor company. Today the passion for technical innovations, inventiveness, and the perception of market requirements are still the fundamental motive forces for the successful creativeness of the Langenberger Innovation

Group (LIG) with the 2nd generation of shareholders. ALLRECO, with a long Doppstadt history, is directly owned by the LIG since 2021.

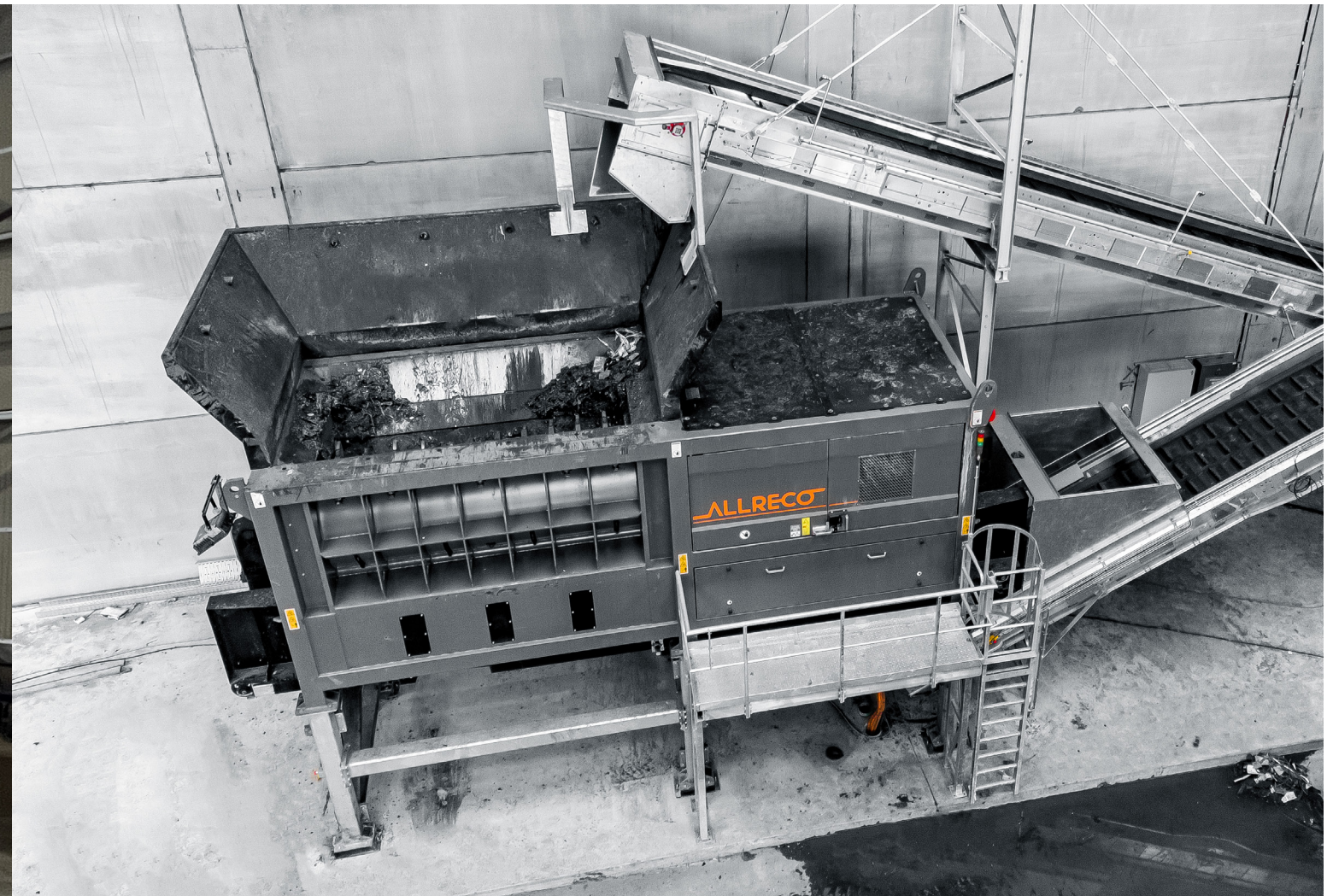
Our core business includes machines and plants for the processing and separation of waste wood, MSW, commercial and industrial waste, biomass processing, and refuse-derived fuel production.

We are a team of highly qualified and experienced employees, and we can offer our customers tailor-made high-quality machines and completely thought-out plant solutions to meet their requirements.

With a lot of flexibility and inventiveness, we are ready to move great things with you!

CONVENIENT AND EASY TO MAINTAIN

For us, ease of use and a high level of user comfort is not optional but rather a mandatory integral element of all our solutions. Proven construction methods such as the modular design of our machine components, the patented Dopp-Lock® system or our new Easy Access Concept make ALLRECO machines the unmatched front runners in terms of ease of maintenance and service. This is especially the case for CERON machines, which are tailored for durability.



HIGH VERSATILITY

Optimum results in many areas of application

The powerful drive system, the wear-resistant shaft and comb teeth as well as the diverse equipment variations and a wide range of tooth shapes, machine frames and discharge conveyor belts provide you with the necessary flexibility for all typical pre-shredding tasks to satisfy a broad spectrum of recycling requirements.

Material density, surface properties, hardness and moisture content are very different for green waste, waste wood, or commercial waste. The CERON concept is designed for the entire spectrum allowing you to get the best results in all three categories. The machines are especially flexible due to the different combination options with system components

for feeding the CERON or for discharge of product material.

OPTIMALLY ADAPTABLE TO ALL PROCESSES

C & I / MUNICIPAL SOLID WASTE / BULKY WASTE

These types of waste contain a wide variety of materials that have to be separated with the greatest possible precision for further processing. When pre-treating with the CERON, the material is fragmented in such a way that it is optimally suited for the subsequent separation process.

BIO WASTE / GREEN WASTE

The CERON - series ensures a homogeneous material structure

when pre-treating green waste to produce compost. Plant material is uniformly disintegrated to allow best conditions for further processing.

WASTE WOOD

Uniform shredding is crucial for optimally preparing waste wood for further processing. The CERON breaks the material up into uniform pieces, thus ensuring good homogenization.

THOROUGH SHREDDING

One series – Universally usable



COMMERCIAL AND INDUSTRIAL WASTE (C&I)

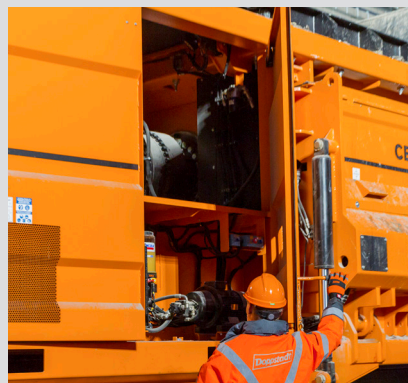


GREEN WASTE



WASTE WOOD

ADVANTAGES IN DETAIL



MACHINE HOUSING

A central wing door ensures convenient access to the drive, gearbox, cooling and central lubrication systems. Maintenance work can thus be carried out more efficiently. The safety interlock system prevents doors from being opened during ongoing operation.

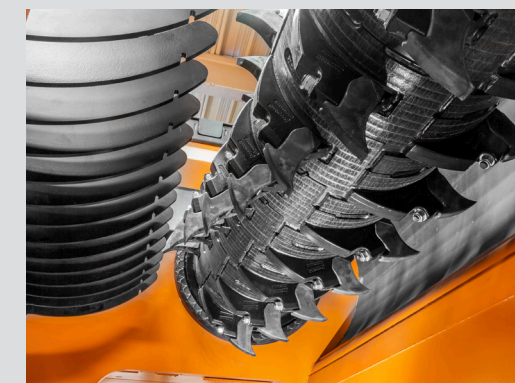
OPERATION ASSISTANT

An integrated assistant supports the operator in controlling with preprogrammed standard processes. With the aid of the touch screen, operation is even more intuitive and easier.



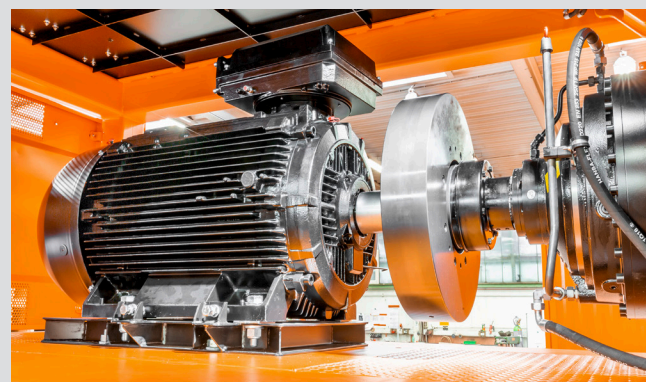
FEED HOPPER

Optionally, the CERON can be equipped with a 3- or 4-sided hopper or with a steplessly movable hopper. In the case of the smallest model Ceron type 206 the feeding width is increased from 2.7 m without hopper to over 6.5 meters.



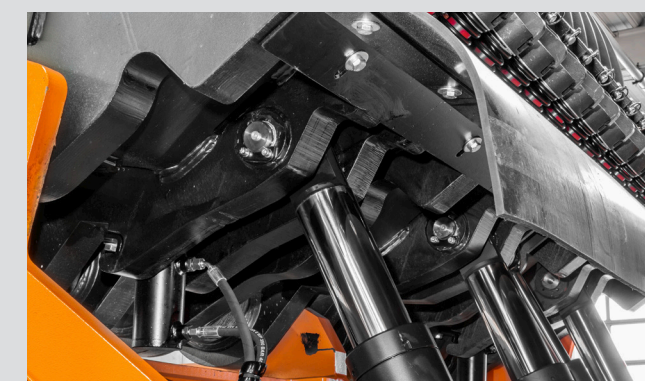
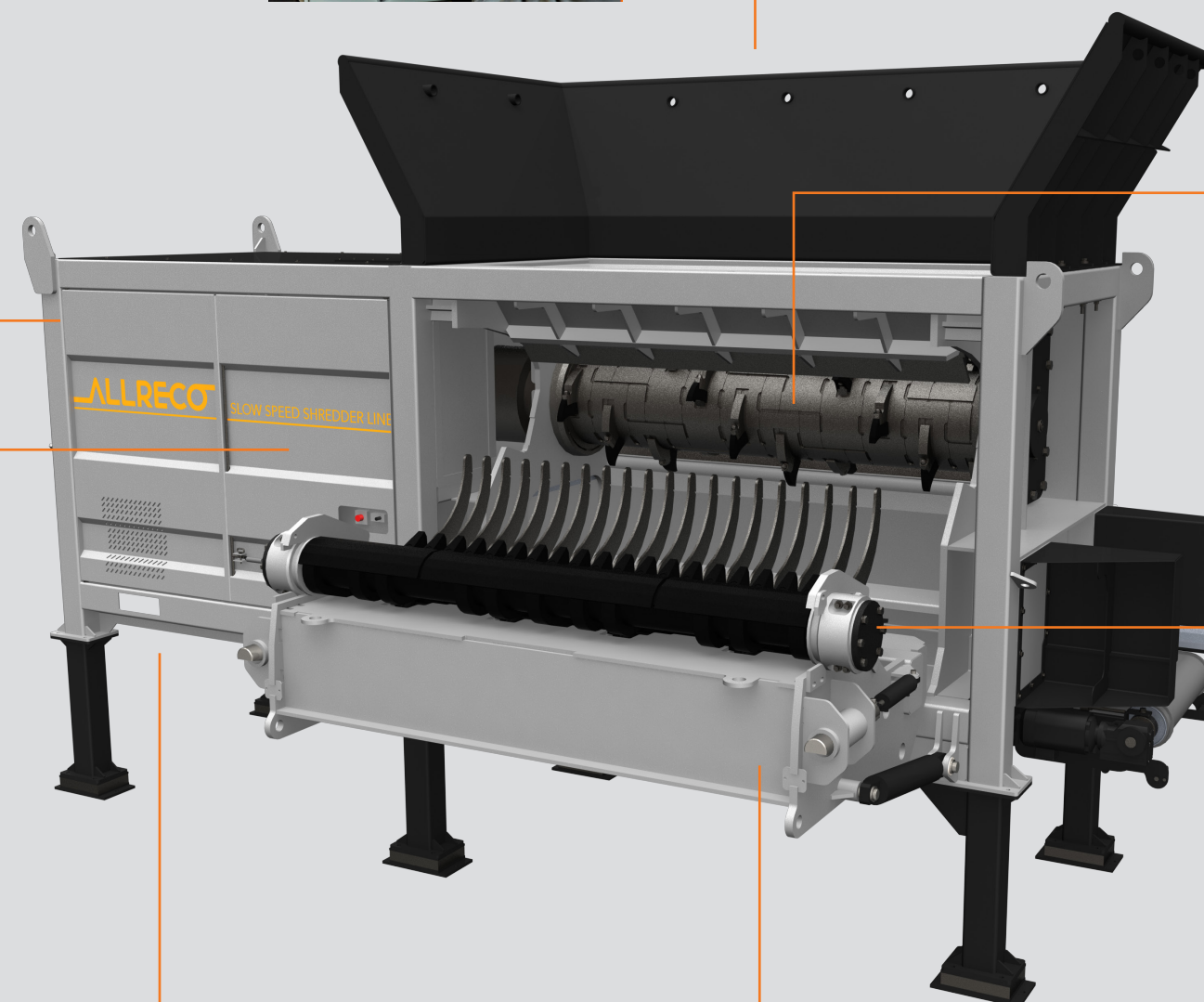
MATERIAL FEED AND SHREDDING CHAMBER

The walls of the feed hopper have a steeper angle, thus ensuring a maximum throughput thanks to optimum intake characteristics. As a result of the flexible shredding concept and the selection of different sizes and options, the CERON can be optimally adapted to the different material requirements.



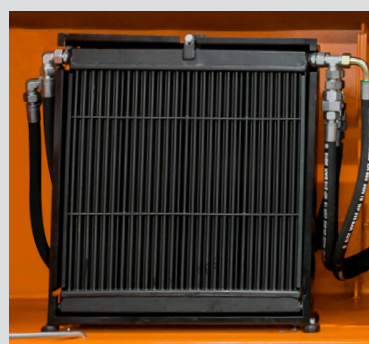
DRIVE CONCEPT

The AC motor delivers maximum performance and has enough power reserves to start under load. It is protected from damage by a large disk flywheel and a safety coupling that disconnects power transmission to the gearbox in case of a major contamination.



HYDRAULIC COMB

The hydraulically actuated shredding comb controls the distance between comb and shaft thus is able to clean the shaft when it is wrapped in film or wire. It also opens up the comb to allow massive solid objects through without damage, in which case the discharge belt can reverse direction to remove the contamination from the process.

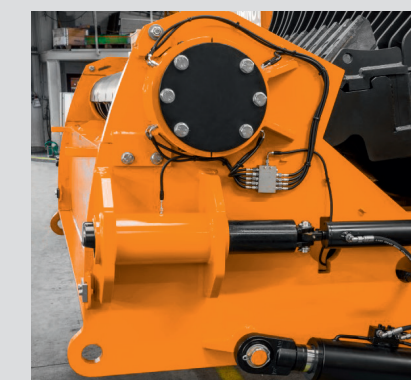


COOLING SYSTEM

The cooling system is controlled according to demand. The fan is only switched on at a higher operating temperature, which in turn optimizes the energy efficiency of the machine and ensures that the hydraulic oil quickly reaches operating temperature.

COMB MAINTENANCE HATCH

The maintenance flap allows easy access to wear parts on comb and shaft. When the flap is fully open, an anti-slip platform on the inside is perfectly straight and allows for a comfortable working position. To reach all teeth on the shaft, the latter can be rotated in inching mode. Teeth on comb and shaft are both fixed via the interlocking Dopp-Lock® system.





THE SHREDDING CONCEPT

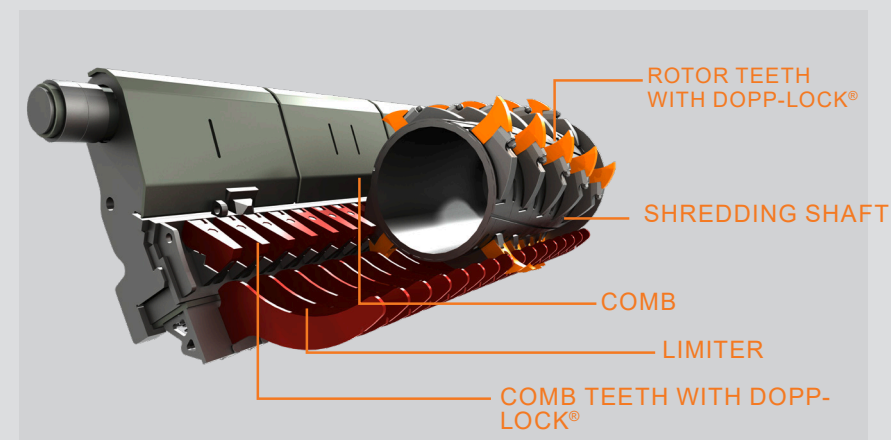
Proven system - Consistently further developed

During the shredding process, the material is torn and ripped apart between the rotating shaft teeth and the stationary toothed counter comb. The working pressure of the comb and therefore the maximum counterforce can be set as well as the distance between comb and shaft, according to input material and processing aim.

A lower set pressure leads to earlier opening of the comb and removal of more potential contamination. The counter comb gives way as a result of a pressure load peak due to hard solid bodies. Not just preventing damage to the machine but also reducing unnecessary size reduction of certain objects like for example metal fittings of furniture in waste wood.

A wide variety of shredding systems are available to provide the right solution for every input material. The shredding tools are made of highly wear resistant cast iron with hard facing or forged steel to provide you with the benefit of a long service life.

Another advantage: As with individual elements, the entire shredding system can quickly and easily be changed. The shredding tools are changeable in no time at all thanks to the patented Dopp-Lock® system.



CHANGING LIMITER ELEMENTS

Tool-free, simple, cost-saving

The CERON is optionally equipped with "Limiter" elements which prevent oversize pieces of material from falling down onto the discharge conveyor but instead returning them back up to the comb for additional size reduction.

comb maintenance hatch. No tools are needed for this job. After removing splint and the limiter can be pulled out. In case of worn "Limiter" elements, the holder does not have to be replaced,

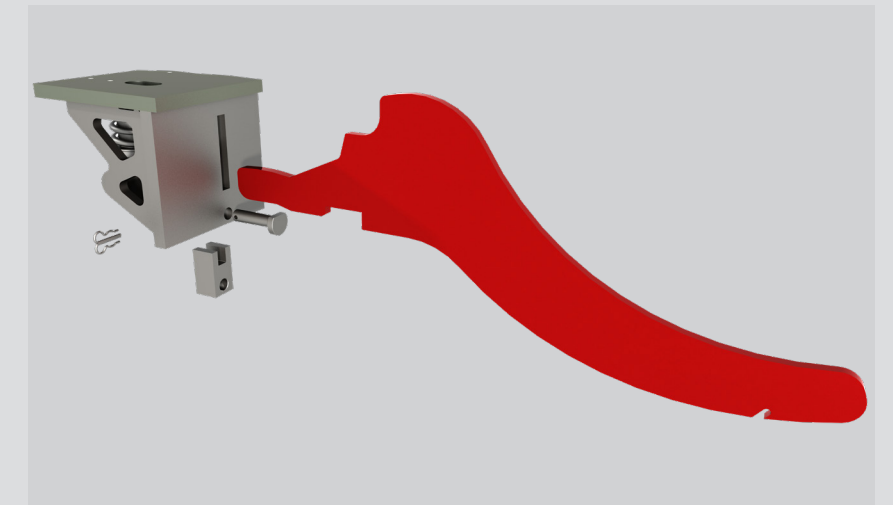
which reduces significantly the costs of spare parts for this area.

PRACTICAL AID

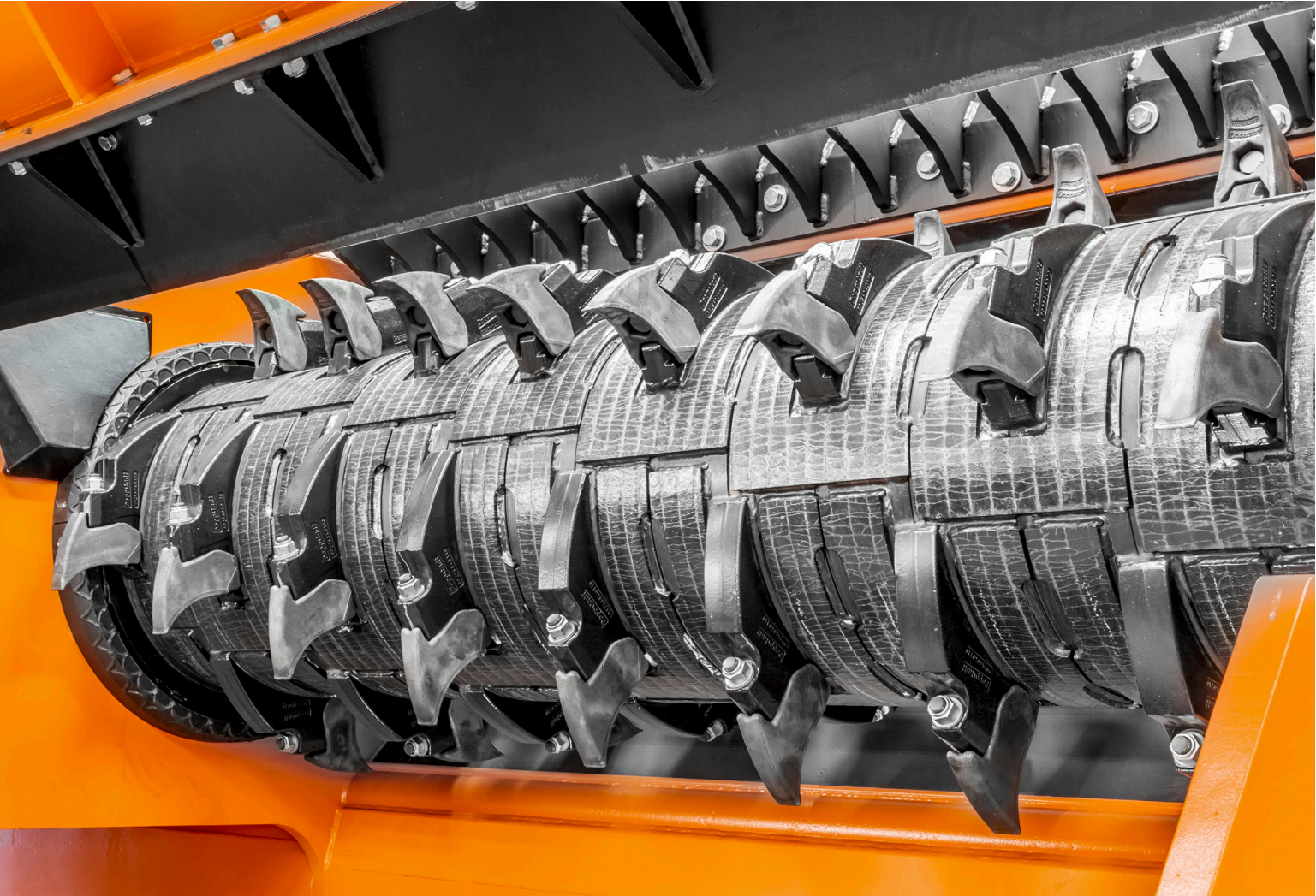
The individual "Limiter" elements are gimbal-mounted below the comb teeth. They are able to avoid any occurring foreign objects in all directions and discharge them to protect the machine.

CHANGING IN NO TIME AT ALL

The elements can easily be exchanged thanks to the large







CERON TYPE 206/256/306

More energy efficiency, lower maintenance

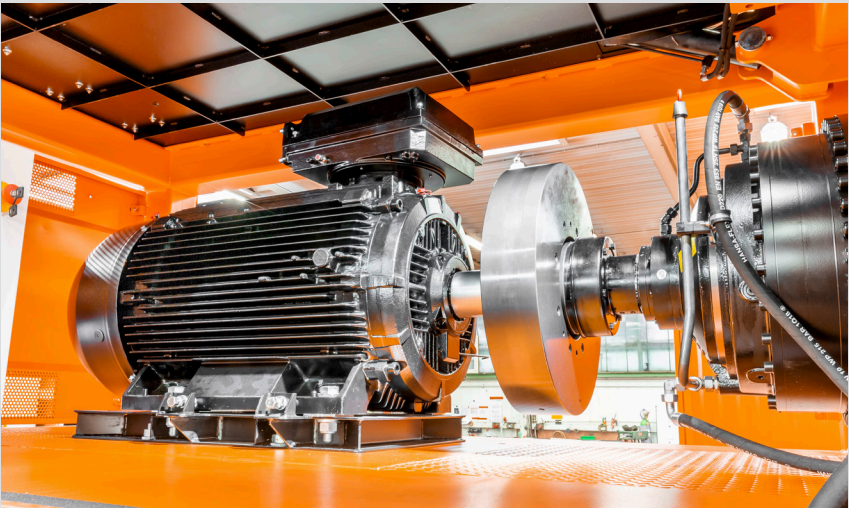
30% LESS ENERGY CONSUMPTION

The pre-shredders of the CERON series are equipped with a state-of-the-art three-phase drive and intelligent frequency converter technology. The direct drive transfers power to the shredding rotor with maximum efficiency. For that reason 30% less energy is required, compared to a hydraulic power train. The motor is dimensioned to apply enough torque in order to start the machine even when fully loaded with material.

Time-consuming maintenance work in the drive area is not needed, since the three-phase motor does not require any forced ventilation and fresh air supply. In addition to that, filter mats and

carbon brushes no longer have to be replaced. The CERON TYPE 206/256/306 models can be equipped with different sizes of motors. Depending on material toughness, required size reduction

and chosen machine size the installed power can vary between 132 and 400kW.



OPTIMUM SHREDDING PROCESS

Flexibility thanks to different rotor sizes

CERON TYPE 206/256/306 SHAFT WITH TEETH + TOOTHED BAR						
Shredding system	M 800/10	L 600/2	L 600/3	L 600/4	XL 600/2	XL 600/4
Shaft diameter	800 mm	600 mm	600 mm	600 mm	600 mm	600 mm
Shaft length (je TYPE 206/256/306)	2.000 mm 2.500 mm 3.000 mm	2.000 mm 2.500 mm 3.000 mm	2.000 mm 2.500 mm 3.000 mm	2.000 mm 2.500 mm 3.000 mm	2.000 mm 2.500 mm 3.000 mm	2.000 mm 2.500 mm 3.000 mm
Tooth shape	M 100 mm	L 174 mm	L 174 mm	L 174 mm	XL 175 mm	XL 175 mm
Number of shaft teeth (je TYPE 206/256/306)	68 100 125	14 17 21	14 17 21	28 34 42	9 11 14	18 22 28
Number of comb teeth & Limiter (je TYPE 206/256/306)	Comb plate	13 16 20	13 16 20	13 16 20	8 12 15	8 12 15



CERON TYPE 308

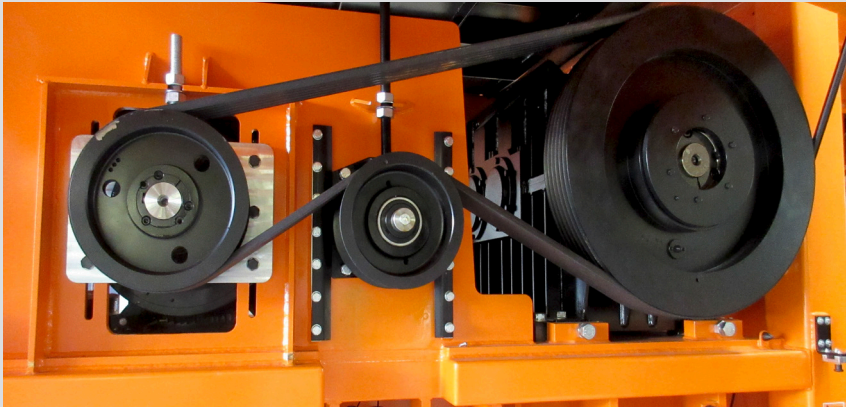
Reliable technology for optimum performance

The CERON 308 is the largest machine of the CERON family, combining high-quality technology, high efficiency and long service life. The machine frame and the drive system have been dimensioned to optimally suit the highest requirements and workloads.

means of a mechanical change. The motor meanwhile stays at nominal speed. Nevertheless the frequency converter allows for fine adjustment of the shredding speed to adapt to throughput requirements of the subsequent process chain. Large safety doors and flaps facilitate the efficient and safe maintenance of the machine.

POWERFUL AND FLEXIBLE

The drive concept combines the 450kW of motor power with the flexibility offered by the combination of a belt drive and a robust bevel helical gearbox. The gear reduction of the belt drive can be chosen according to demand, a smaller one for more speed and thus through-put, a higher one to achieve more torque for tougher material. All of that can be done by



OPTIMUM SHREDDING PROCESS

Flexibility thanks to different rotor sizes

CERON TYPE 308 SHAFT WITH TEETH + TOOTHED BAR					
					
Shredding system	M 1000/12	L 800/3	L 800/4	XL 800/2	XL 800/4
Shaft diameter	1.000 mm	800 mm	800 mm	800 mm	800 mm
Shaft length	3.000 mm	3.000 mm	3.000 mm	3.000 mm	3.000 mm
Tooth shape	M 100 mm	L 174 mm	L 174 mm	XL 175 mm	XL 175 mm
Number of shaft teeth	150	21	42	14	28
Number of comb teeth & Limiter	Comb plate	20	20	15	15



OPTIMALLY EQUIPPED

Material-specific processing for every requirement

INDIVIDUAL SHREDDING SYSTEMS

In order to meet process requirements in regard to material toughness, throughput as well as input and output sizes, machines of the CERON series can be equipped with multiple options while at the same time keeping energy requirements at a minimum.

an exchangeable bar. As a result, the comb teeth can be easily replaced outside of the machine by removing the entire bar. The shaft teeth can be changed via bolt connections on individual tooth holders fixed to the rotor and by inching

the shaft forward to reach every tooth comfortably and safely.



RUGGED AND MAINTENANCE-FRIENDLY

Long operating periods without any interruption are ensured by the system, since the teeth on shaft and comb are made of highly wear resistant cast iron with hard facing or forged steel. The comb teeth are mounted on

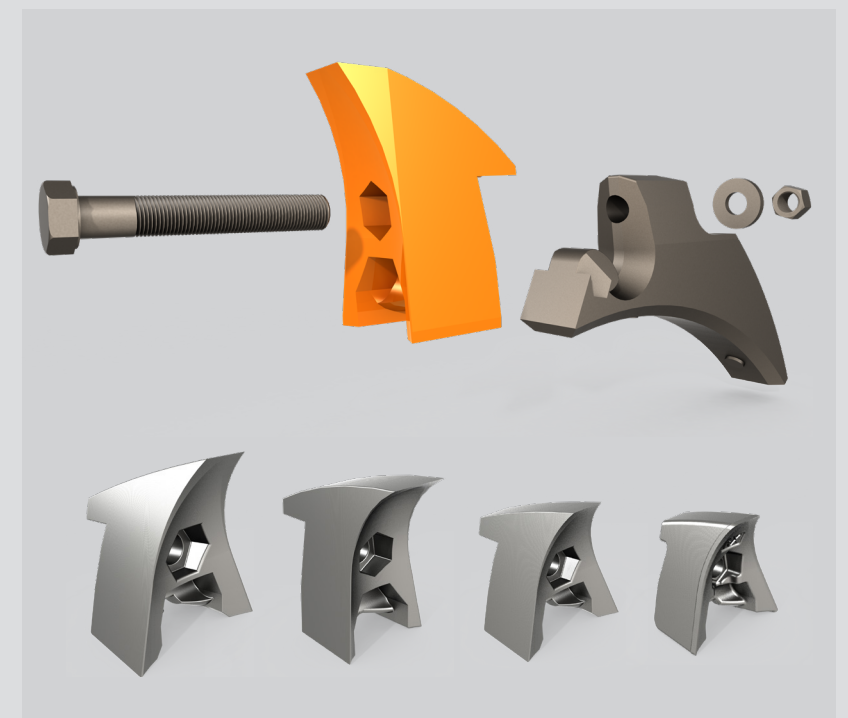
DOPP-LOCK® CLOSURE SYSTEM

PRACTICAL AND SECURE

Our patented Dopp-Lock® quick-change system makes it easy to exchange teeth of shaft and comb. Just one relatively small bolt is enough to fix the tooth in place because it does not bear the load of the shredding force. That is what the patented interlocking geometry of tooth and tooth holder is designed for.

RUGGED AND SUSTAINABLE

The Dopp-Lock® quick change system is especially durable, because the tooth is primarily held in place by interlocking into the tooth holder which in turn is welded solidly to the shaft. This allows the tooth to withstand extremely high loads, while at the same time being easily changeable.



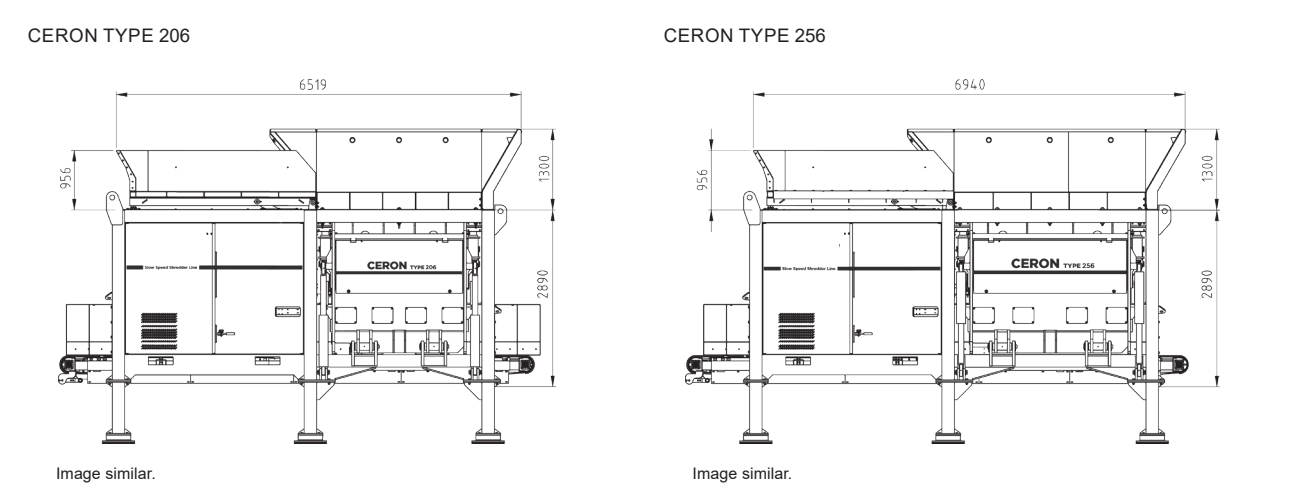
Shaft teeth size XL, L, M, S (from right to left)

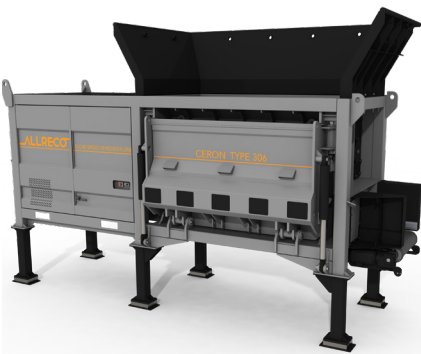
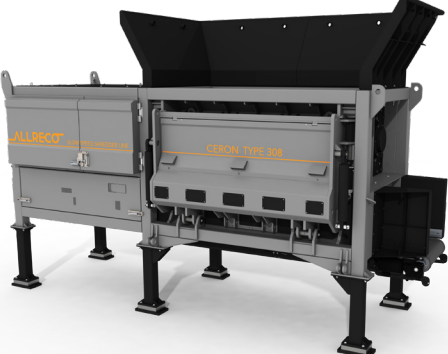
TECHNICAL DATA

CERON	TYPE 206	TYPE 256
 		
Weight	29.400 kg	30.600 kg
Length (Basic machine)	6.470 mm	6.890 mm
Width (Basic machine)	2.780 mm	2.780 mm
Height (Basic machine)	3.190 mm	3.190 mm
Motor type	Three-phase motor with frequency converter	
Motor power	132 / 200 / 315 / 400 kW	132 / 200 / 315 / 400 kW
Fill width (minimum)	2.640 mm	2.760 mm
Loading height (minimum)	2.890 mm	2.890 mm
Shaft		
Length	2.080 mm	2.500 mm
Diameter	600 / 800 mm	600 / 800 mm
Rotation speed	14-31 min ⁻¹ depending on equipment configuration	14-31 min ⁻¹ depending on equipment configuration
Number of shaft teeth	Depending on equipment configuration	Depending on equipment configuration

Freely selectable shredding system in the sizes S, M, L and XL.
Conversion to other tooth sizes possible.

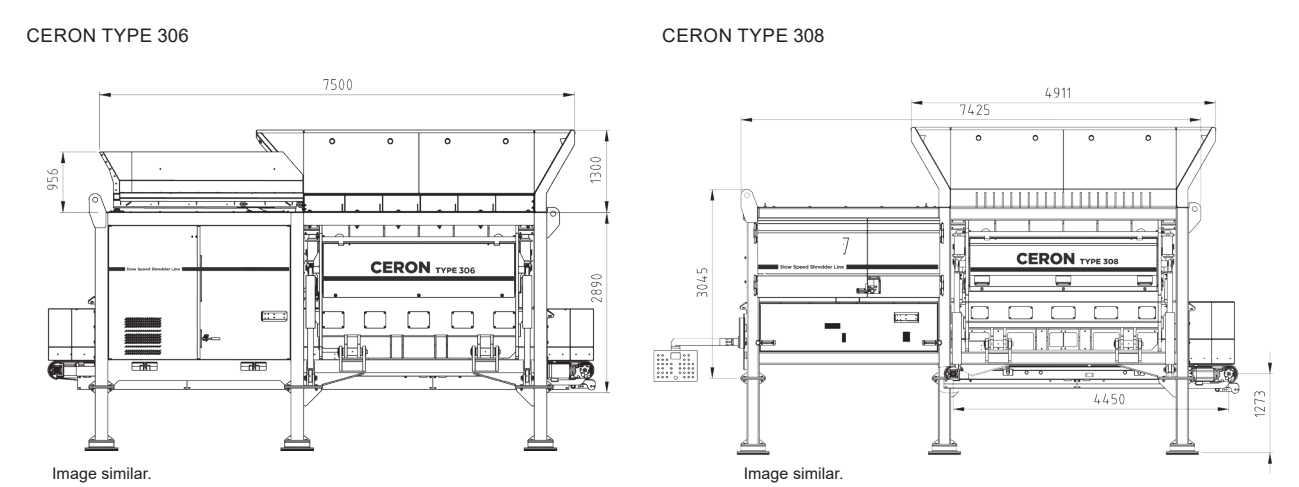
The technical data are approximate and depends on the machine equipment
(Subject to change without notice).



CERON	TYPE 306	TYPE 308
 		
Weight	34.400 kg	38.500 kg
Length (Basic machine)	7.425 mm	7.450 mm
Width (Basic machine)	2.780 mm	2.900 mm
Height (Basic machine)	3.190 mm	3.190 mm
Motor type	Three-phase motor with frequency converter	
Motor power	315 / 400 kW	315 / 450 kW
Fill width (minimum)	3.620 mm	3.620 mm
Loading height (minimum)	2.890 mm	2.890 mm
Shaft		
Length	3.060 mm	3.060 mm
Diameter	600 / 800 mm	800 / 1.000 mm
Speed	18-31 min ⁻¹ depending on equipment configuration	13-35 min ⁻¹ depending on equipment configuration
Number of shaft teeth	Depending on equipment configuration	Depending on equipment configuration

Freely selectable shredding system in the sizes S, M, L and XL.
Conversion to other tooth sizes possible.

The technical data are approximate and depends on the machine equipment
(Subject to change without notice).





The advantages of recycling with ALLRECO thought-out solutions:

- Powerful and impurity resistant
- Maximum throughput for difficult shredding tasks
- Highly efficient, speed adjustable drive
- Robust solid steel construction
- Coarse shredding (prevention of fines)
- User-friendly access and low maintenance
- Low operating costs
- Low dust and noise emission
- Automatic detection of contaminants and discharge
- Quick-change system for wear parts



Rev. 01- 04.2024

ALLRECO GmbH
Steinbrink 4
42555 Velbert
Germany

+49 2052 6039 0
info@allreco.de

allreco.de

ALLRECO
KOMPLETT. DURCHDACHT.