

Doppstadt

CERON

TYPE 206 . 256 . 306 . 308


SLOW SPEED SHREDDER LINE



Best Solution. Smart Recycling.

doppstadt.com





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 Doppstadt's new generation machines reflects more than 50 years of experience and our typical passion for innovative and customer-oriented solutions.

RUGGED, FLEXIBLE AND EFFICIENT

With these characteristics the new generation of CERON single-shaft shredders handles the most demanding challenges arising in the shredding of household waste, bulky waste, commercial waste, construction and demolition waste, waste

wood, roots, green waste and much more. Like all machines of our Slow Speed Shredder Line, the new family also 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.

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

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 Doppstadt 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.

THIS IS DOPPSTADT

Doppstadt, a family owned company based in Velbert (near Düsseldorf), was founded in 1965. Initially a producer of agricultural machines, Doppstadt has become a leading global supplier of solutions and services in all areas of recycling/environmental technology and resource recovery.

'Best Solutions. Smart Recycling.' True to this motto, we combine proven processes technology into individual solutions that are hallmarked by innovative concepts, maximum operational efficiency and cost-effectiveness.

With sites in Velbert, Wülfrath and Calbe, we serve customers in more than 40 countries through our own dealership network and offer a wide range of services to support the unique Doppstadt product portfolio.



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 cate-

gories. 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.

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

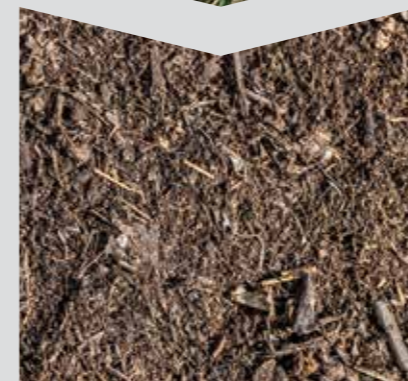
Uniform shredding is crucial for optimally preparing waste wood for further processing. The CERON breaks the material up into uniform pieces, thus ensuring good homogenization.

COMMERCIAL / RESIDENTIAL / 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.

THOROUGH SHREDDING

One series – Universally usable



GREEN WASTE



WASTE WOOD



COMMERCIAL WASTE

In-depth overview of innovations and advantages



NEW 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.

NEW OPERATION ASSISTANT

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



NEW FEED HOPPER

The optional feed hopper can be moved steplessly. 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.



NEW 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.



NEW 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.





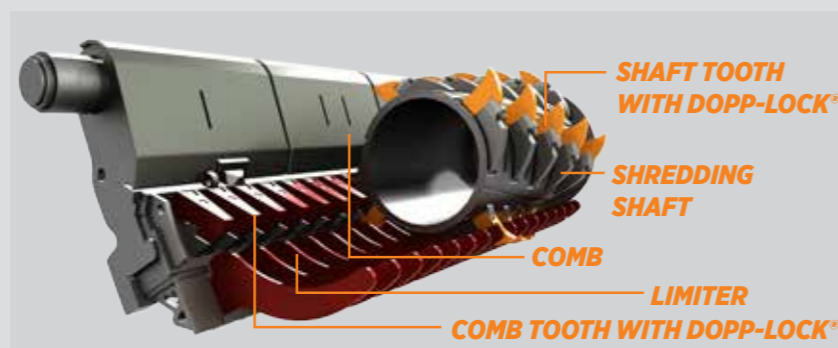
THE SHREDDING CONCEPT

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 cer-

tain 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 pro-

vide 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 oversized pieces of material from falling down onto the discharge conveyor but instead returning them back up to the comb for additional size reduction.

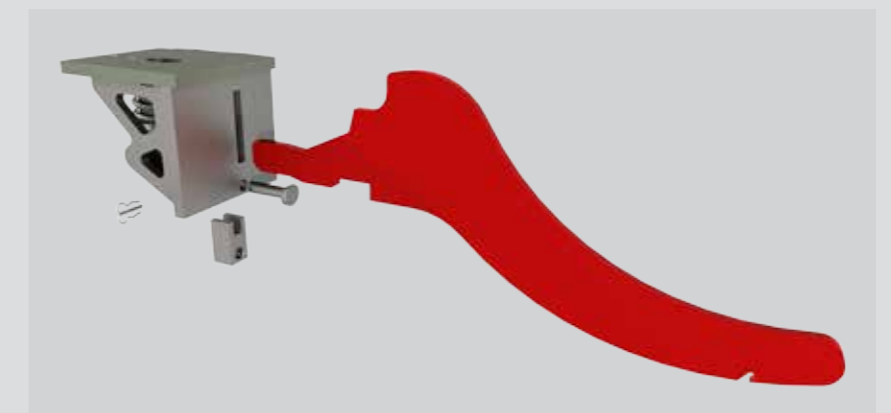
PRACTICAL AID

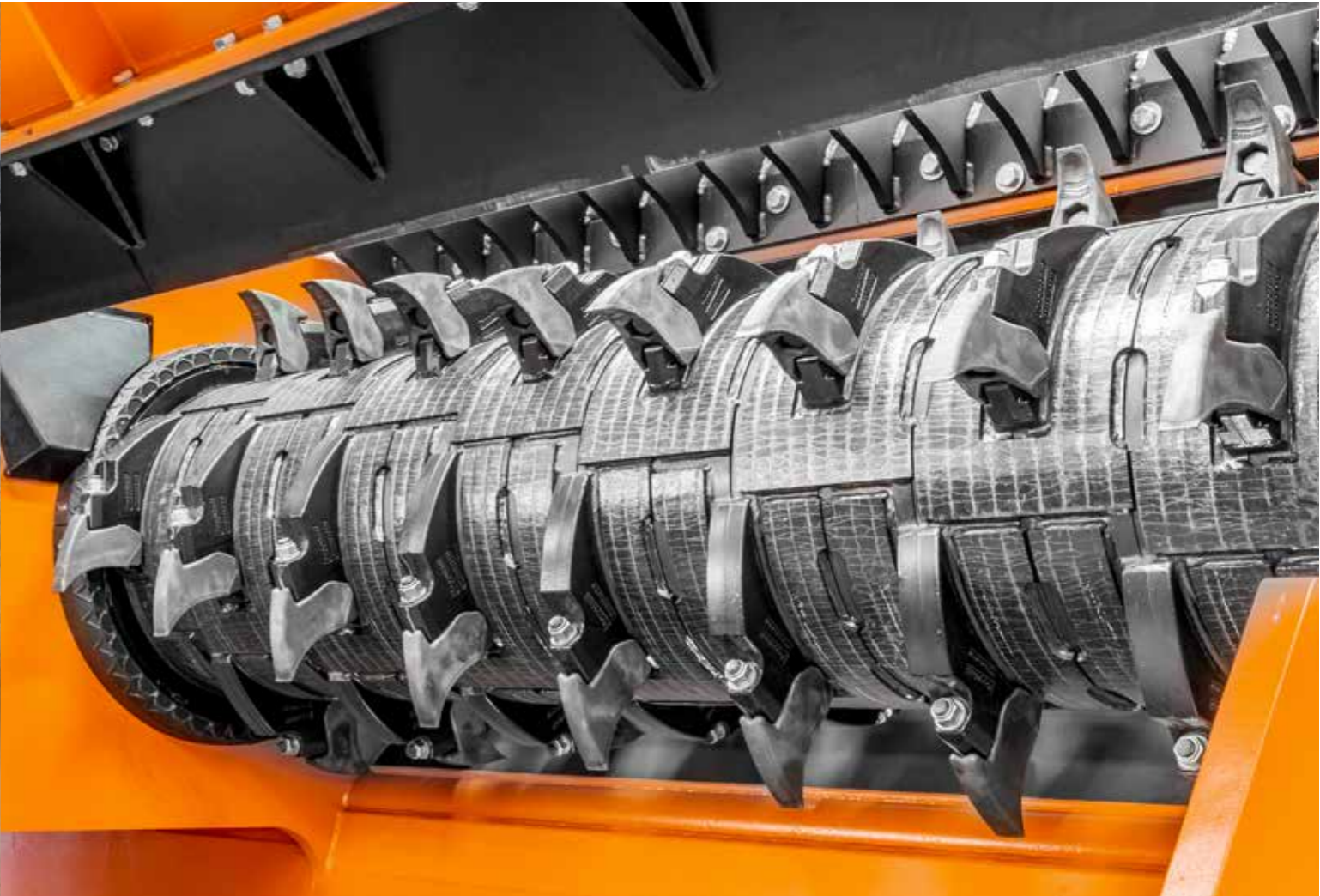
The "Limiter" elements hold back any oversized chunks, before they get to the material output and feed them back to the shredding process. The individual "Limiter" elements are gimbal-mounted below each comb tooth and are able to avoid any occurring foreign objects in all directions.

CHANGING IN NO TIME AT ALL

The elements can easily be exchanged thanks to the large comb maintenance hatch. No tools are needed for this job. After removing splint and pin 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.





CERON TYPES 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 400 kW.



OPTIMUM SHREDDING PROCESS

Flexibility thanks to different rotor sizes

CERON TYPES 206/256/306
SHAFT WITH TEETH + TOOTHED BAR

							
Shredding system	S 800/10	M 800/10	L 600/2	L 600/3	L 600/4	XL 600/2	XL 600/4
Shaft diameter	800 mm	800 mm	600 mm	600 mm	600 mm	600 mm	600 mm
Shaft length (mm)	2000/2500/3000 (Type 206/ 256/ 306)	2000/2500/3000 (Type 206/ 256/ 306)	2000/2500/3000 (Type 206/ 256/ 306)	2000/2500/3000 (Type 206/ 256/ 306)	2000/2500/3000 (Type 206/ 256/ 306)	2000/2500/3000 (Type 206/ 256/ 306)	2000/2500/3000 (Type 206/ 256/ 306)
Tooth shape	S 60 mm	M 100 mm	L 174 mm	L 174 mm	L 174 mm	XL 175 mm	XL 175 mm
Number of shaft teeth	95/115/145	68/100/125	14/17/21	14/17/21	28/34/42	9/11/14	18/22/28
Number of comb teeth & Limiter	Comb plate	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.

POWERFUL AND FLEXIBLE

The drive concept combines the 450 kW 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 throughput, a higher one to achieve more torque for tougher






material. All of that can be done by 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.



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	1000 mm	800 mm	800 mm	800 mm	800 mm
Shaft length	3000 mm	3000 mm	3000 mm	3000 mm	3000 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.

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 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.



DOPP-LOCK® SYSTEM

PRACTICAL AND SECURE

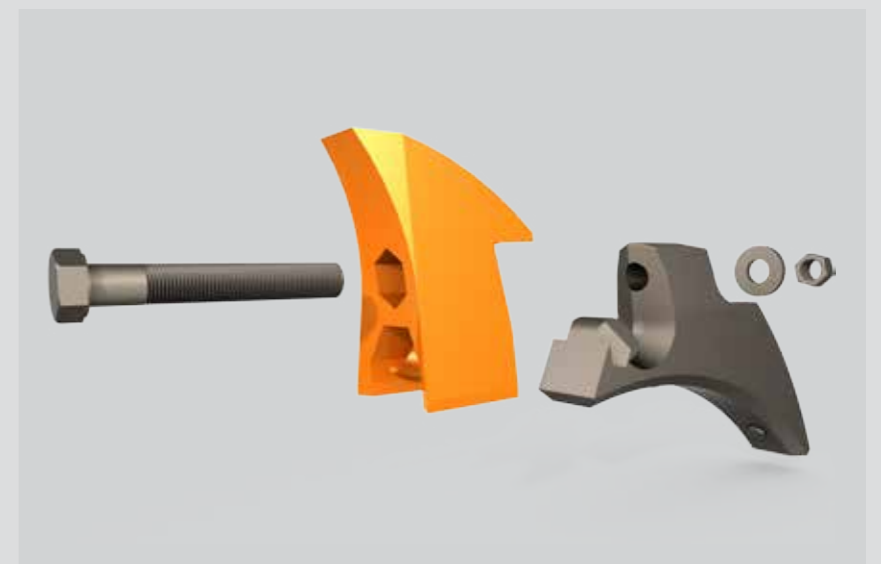
Our patented Dopp-Lock® quick-change system makes it easy to exchange teeth of shaft and comb. Just one relatively small bolt is enough to fix the tooth in place because it does not bear the load of the shredding force. That is what the patented interlocking geometry of tooth and tooth holder is designed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

ly to the shaft. This allows the tooth to withstand extremely high loads,

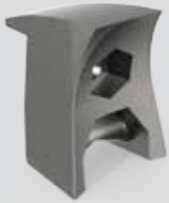
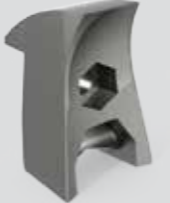
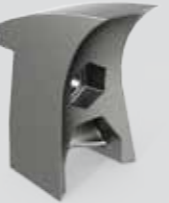
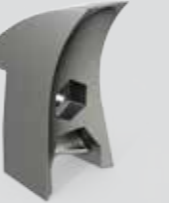
while at the same time being easily changeable.


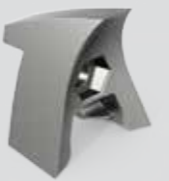





ROTOR TEETH

Broad selection for systematically perfect solutions

DOPPSTADT'S ROTOR TEETH				
				
Designation	Shaft tooth 130 Size L hard facing	Shaft tooth 150 Size L hard facing	Shaft tooth 174 Size L forged	Shaft tooth 174 Size L C3 forged, root
Item No.	99254040125	99254040145	99254040445	99254040465
Household waste	★★★★	★★★★☆	★★★★	★★
Bulky waste	★★	★★★★	★★★	★★
Commercial waste	★★★	★★★★	★★★	★★
Mixed construction waste	★★★	★★★★	*	★★
Green waste	★★	★★	★★★★	★★★★☆
Waste wood	★★★	★★★★	★★★★	★★★★
Roots	★★	★★	★★★	★★★★☆

			
Designation	Shaft tooth Size XL hard facing	Shaft tooth Size M forged	Shaft tooth Size S forged
Item No.	99255040161	99254040785	99254040875
Household waste	★★★★	★★	★★
Bulky waste	★★★★	*	*
Commercial waste	★★★★	★★	★★
Mixed construction waste	★★★★	*	★★
Green waste	★★★	*	*
Waste wood	★★★★	★★★★	★★★★
Roots	★★	*	*

★★★★ Very good ★★★ Good ★★ Limited ★ Not recommended ☆ Especially recommended by the manufacturer for use

TECHNICAL SPECIFICATIONS

CERON	TYPE 206	TYPE 256
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Total weight	22,000 kg	24,000 kg
Chassis	Stationary	Stationary
Length	6,440 mm	6,865 mm
Width	2,675 mm	2,675 mm
Height	3,185 mm	3,185 mm
Transport width	2,675 mm	2,675 mm
Transport height	3,185 mm	3,185 mm
Transport length	6,450 mm	6,865 mm
Engine type	Three-phase motor	Three-phase motor
Motor power	132 / 200 / 315 / 400 kW	132 / 200 / 315 / 400 kW
Torque	847 / 1,284 / 2,018 / 2,565 Nm	847 / 1,284 / 2,018 / 2,565 Nm
Fill width	2,660 mm	3,080 mm
Loading height	2,890 mm	2,890 mm
Shaft length	2,000 mm	2,500 mm
Shaft diameter	600 / 800 mm	600 / 800 mm
Shaft 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

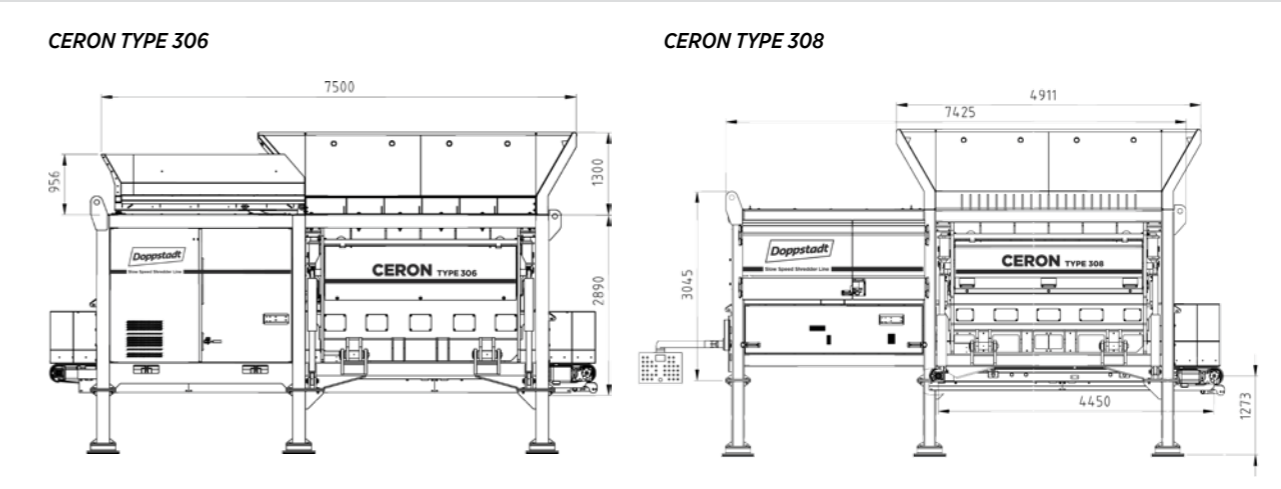
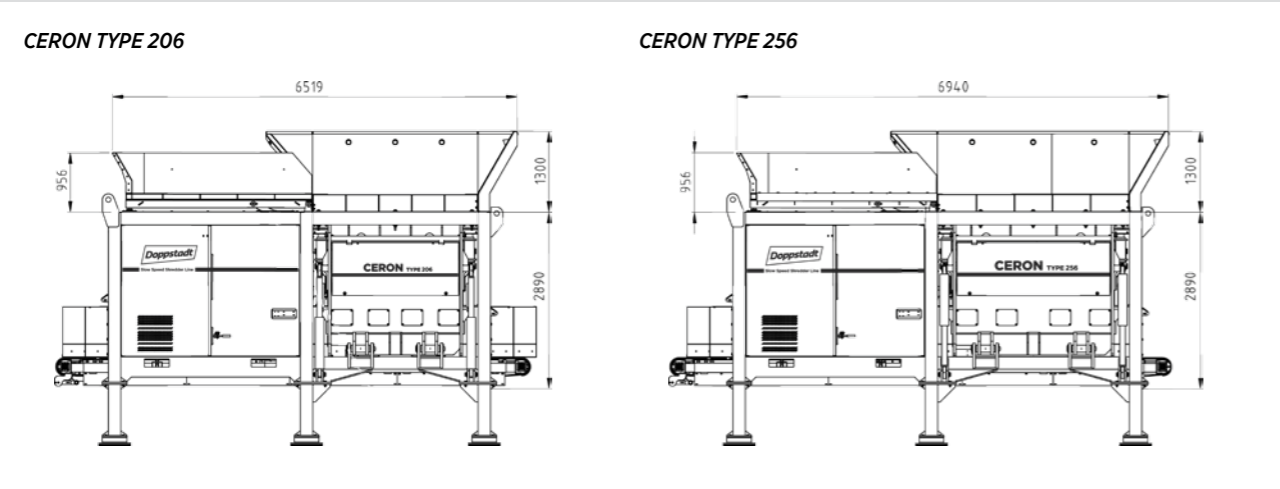
Freely selectable shredding system in the sizes S, M, L and XL
(See Figures pp. 16/17) Conversion to other tooth sizes possible.

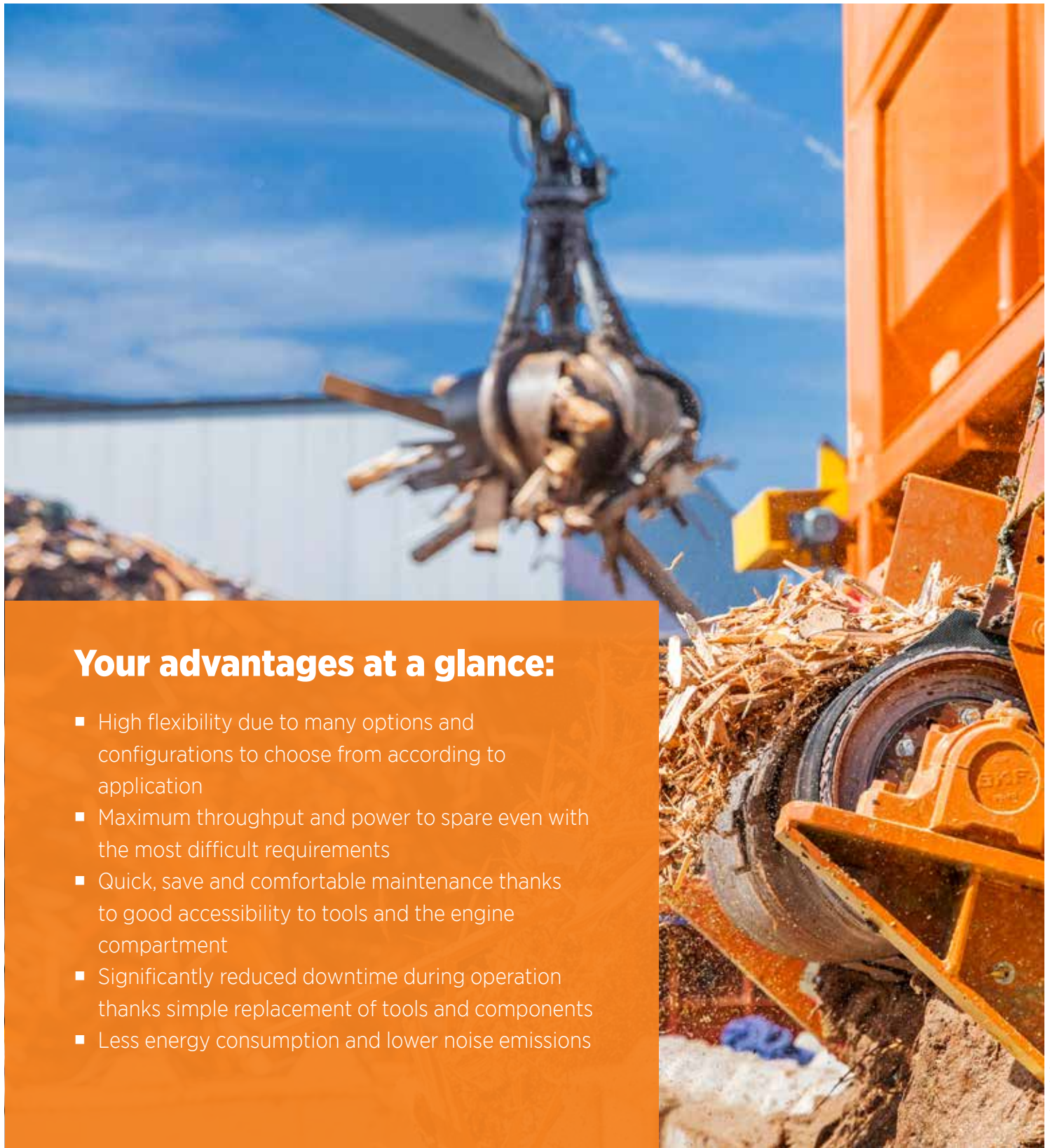
CERON	TYPE 306	TYPE 308
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Total weight	28,000 kg	38,000 - 45,000 kg
Chassis	Stationary	Stationary
Length	7,425 mm	7,330 mm
Width	2,675 mm	2,900 mm
Height	3,185 mm	3,185 mm
Transport width	2,675 mm	2,900 mm
Transport height	3,185 mm	3,185 mm
Transport length	7,425 mm	7,425 mm
Engine type	Three-phase motor	Three-phase motor
Motor power	315 / 400 kW	315 / 450 kW
Torque	2,018 / 2,565 Nm	2,018 / 2,884 Nm
Fill width	3,640 mm	3,640 mm
Loading height	2,890 mm	2,890 mm
Shaft length	3,000 mm	3,000 mm
Shaft diameter	600 / 800 mm	800 / 1,000 mm
Shaft 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
(See Figures pp. 16/17) Conversion to other tooth sizes possible.





November 2020

Your advantages at a glance:

- High flexibility due to many options and configurations to choose from according to application
- Maximum throughput and power to spare even with the most difficult requirements
- Quick, save and comfortable maintenance thanks to good accessibility to tools and the engine compartment
- Significantly reduced downtime during operation thanks simple replacement of tools and components
- Less energy consumption and lower noise emissions



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