

**Doppstadt**

# METHOR

**MULTIPURPOSE  
RECYCLING SYSTEM**



**BEST SOLUTION. SMART RECYCLING.**

## ***ITS VERSATILITY IS WITHOUT RIVAL.***

With the METHOR, Doppstadt rethinks the process of shredding. The versatile single-shaft shredder that is without rival was developed as a universal multitool for smaller quantities and frequently changing applications. As a result, you now have a tool at your disposal that is able to handle any previously infeasible shredding tasks.



### ***BROADEST RANGE OF APPLICATIONS IN ITS CLASS.***

The METHOR can be equipped with various tools for shredding, crushing, fractionizing, metering, cutting and opening bags. Resistant to impurities, it processes standard fractions such as commercial waste, construction and demolition waste, bio-waste, waste wood and bulky waste or challenging special batches such as mattresses, laminated safety glass, big bags, fleece, light scrap, tar paper and so much more.

### ***SMART FLEXIBILITY.***

Thanks to its modular design, the METHOR can be adapted to any application. You can equip it with S, M and L toothed rollers as well as different counter blades to adjust fracture size. In addition to that, there are also rollers available with different chisel sizes specifically for crushing building rubble. Everything else such as diesel or electric drive, hook lift or tracked chassis and diverse add-on options can be put together individually for your operation to ensure that the METHOR exactly suits your requirements.

### ***VERSATILITY IN A NEW DIMENSION.***



### ***SHREDDING, CRUSHING, LOOSEN UP, METERING, CUTTING, OPENING BAGS.***

By adapting the control parameters, the cutting gap or changing the entire shredding system, the METHOR is quickly ready for new material streams.

## ***THE MULTITool FROM THE MARKET LEADER.***

- Universal single-shaft shredder for smaller volume flows and special batches
- Flexibly adaptable and without rival in versatility
- Hydraulic direct drive for ensuring obstruction-resistant operation and performance that meets your needs
- Economical and ecological electric or diesel engines
- Rugged, durable components
- Low operating costs
- Change the entire shredding systems directly on site within just 45 minutes



## **POWER REQUIRES INTELLIGENCE.**

With METHOR, you get a shredder that makes no compromises in terms of versatility, availability and wear. The well-thought-out machine concept is impressive in all areas: starting with the perpendicularly mounted shredding roller via the material feed using an intelligent feed hopper through to the agile HydraulicDirect Drive that delivers precisely metered power without a gearbox.

### **1 GREAT MOBILITY.**

The tracked variation is ideal for high mobility on site. If you frequently have to switch between sites, the hook lift is the right choice for you.

### **2 EFFICIENT COOLING.**

The hydraulic system has a cooling that is independent of the drive and which is designed for very high levels of contamination. The fan speed is regulated in relation to the system's temperature. This allows you to operate efficiently even at ambient temperatures of up to 48 °C.

### **3 SMART HANDLING.**

The core functions of the METHOR can be operated intuitively. Other parameters such as the control mode of the feed hopper can be set and monitored using a smartphone.

### **4 EASY ACCESS.**

All drive and hydraulic components are optimally ventilated and can be easily accessed via the large door panels. This increases durability, simplifies maintenance and saves times.

### **5 INTELLIGENT MATERIAL FEED.**

Depending on the load at the roller, the METHOR automatically controls the material feed of the feed hopper. It meters the material or reverses the roller in order to clear any blockages without you actively having to do anything. This allows you to fully concentrate on the loading process.



## HIGH PROCESS RELIABILITY.

To ensure outstanding process reliability, the shredding and discharge of the material is done in conveying direction. The shredding chamber is designed in such a way that it operates with a conveyor belt without an bending point and lower conveyor. Belt damage caused by material breaking through is a thing of the past.

*"When we show and demonstrate the METHOR to our customers, there is no material that we worry about throwing into the machine for fear of damage. The arrangement and control intelligence of the shredding system make it powerful and rugged."*

*(Moritz Müller, Product manager, Doppstadt)*



### 6 QUICK ADJUSTMENT.

The special bearing system of the roller makes changing the entire shredding system possible directly on site within just 45 minutes.

### 7 HYDRAULIC DIRECT DRIVE.

Doppstadt's HydraulicDirect Drive delivers an optimal torque to the roller. The hydraulic pump is controlled intelligently, allowing the roller to react agilely to blockages.

### 8 POWERFUL ROLLER DRIVE.

Slow-speed radial piston motors with high torque power the roller. They impress with a high degree of efficiency without the use of gears.

### 9 INTELLIGENT ROLLER DESIGN.

The rollers are available in the sizes L, M and S. The shredding teeth on the roller can be changed quickly and easily thanks to the patented Dopp-Lock® quick release system. To generate different particle sizes, you can freely select the cutting gap between counter blade and teeth.

### 10 VARIABLE MAGNETIC SEPARATION.

The height of the overhead suspension magnet can be adjusted hydraulically during operation by using the remote control. This allows you to react directly to the material stream, increase the separation performance or prevent blockages. The magnet can remain on the machine during transport.

## ***THIS DRIVE IS RESISTANT TO DISRUPTIONS.***

The HydraulicDirect Drive delivers flexible, powerful and economical operation. It transfers the driving power to the shredding roller via two radial piston motors without a gearbox. As a result, the roller can be operated at up to 34 revolutions per minute and with a torque of more than 75,000 Nm. Doing so continuously optimizes the load torque at the drive, which has a positive impact on energy consumption and wear and tear.

At the same time, the HydraulicDirect Drive actively responds to blockages. If there are contaminants blocking the shredding system, the pump automatically switches to reverse. The roller reverses briefly and checks whether shredding is possible again. If there is still a blockage, the roller is reversed longer. In this manner, the drive and shredding system are protected against damage, and the machine is able to avoid blockages.





## **THE MODULAR SYSTEM FOR YOUR INDIVIDUAL MULTITOOL.**

### **TWO ENGINE VARIATIONS**

- High-torque diesel engine Stage V or IIIA with 200 kW
- High-power electric motor with 200 kW

### **TWO CHASSIS VARIATIONS**

- Hook lift with hydraulic auxiliary chassis
- Tracked chassis

### **MANY SHREDDING SYSTEMS**

- Extensive variety of combinations
- Large selection of tools and counter blades
- Quick adjustment of fracture size by adjusting the cutting gap



### **EFFICIENT ELECTRIC MOTOR.**

In addition to a high-torque EU-Stage V diesel engine from CAT, you can also choose a maintenance-free 200 kW electric motor as primary drive unit.

Your advantage:

- Perspective lower energy costs: Electricity is cheaper than diesel fuel and does not need to be stored.
- Ideal for indoor use in light of amendments to TA Luft (*Technical Instructions on Air Quality Control*): There are neither exhaust emissions nor engine noise.
- Subsidized purchase: You have the opportunity to apply for subsidies.

## A METHOR ALWAYS FITS.

The METHOR is a multitool that is highly adaptable to different operating conditions without much effort. The possibility of adapting the shredding system precisely to your requirements allows you to deliver optimal work results. A large selection of tool combinations is available for this purpose.



### SMART COMBINATION.

From various attachments and shredding systems – consisting of different tooth sizes (size S, M, L, fine chisel, coarse chisel) with corresponding counter blades (V1, V2, V3, U1), you can precisely put together the combination that best suits your requirements. If the input materials should change later, you can replace the entire shredding system within just 45 minutes.

Thanks to the rugged design of all tools, the METHOR can cope with all shredding tasks that your company faces, even under the most adverse conditions.



### SHREDDING SYSTEMS.

	SIZE S	SIZE M	SIZE L	BUILDING RUBBLE ROLLER	
<b>TYPE</b>				Chisel coarse	Chisel fine
Number of roller teeth	36	26	8	25	39
<b>DIMENSIONS</b>					
Diameter	800 mm	800 mm	600 mm	600 mm Ø Chisel head: 14.8 mm	
Teeth depth	60 mm	100 mm	174, 150, 130 mm	-	
Counter blade	Selectable for all sizes according to input materials (Note: see recommendation on pp. 12/13)			-	

## **CHANGED IN 45 MINUTES.**

The tools are fastened to the roller using the patented Dopp-Lock® quick change system.

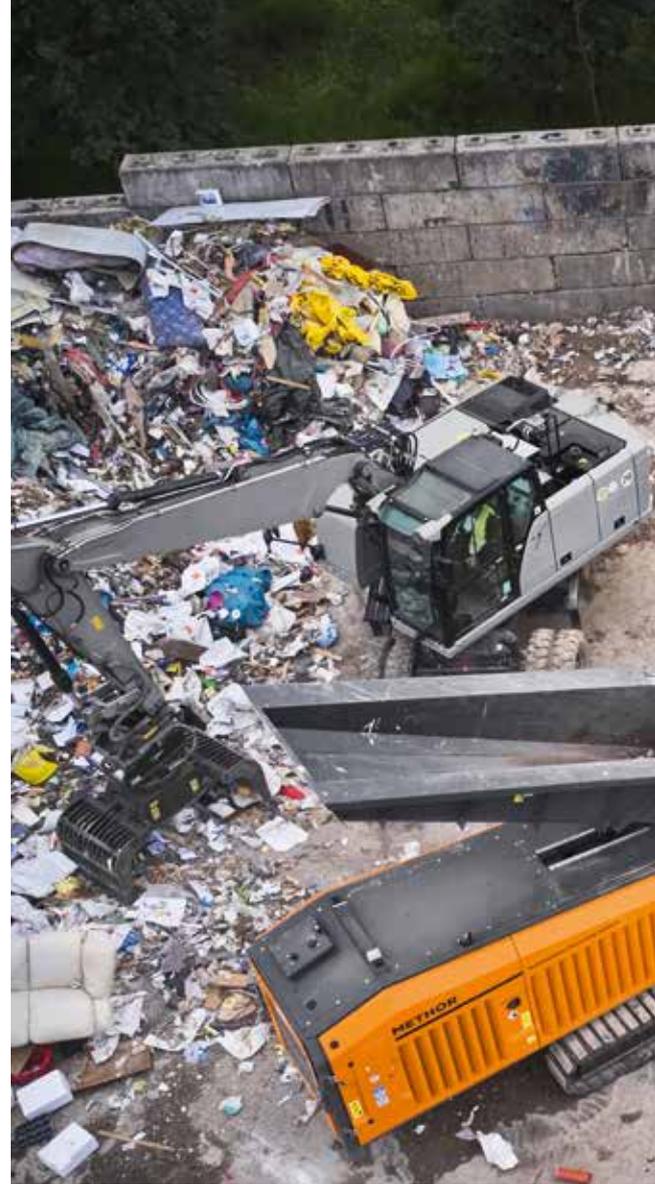
- You can replace the entire shredding system within just 45 minutes.
- The cutting gap between the counter blade and roller can be freely selected, thus adjusting the fracture size.
- The wide range of tools enables the optimal adaptation to the input material and output quality.



## **THE FUTURE IS MOBILE-MODULAR.**

Doppstadt solutions are distinguished by innovative processes, great efficiency and high economic viability. This applies in particular to our mobile-modular processing concept, in which we are able to connect standard machines in a smart and efficient manner.

The METHOR is at the heart of this concept. The flexible, powerful multitool opens up new perspectives for you in a wide variety of applications. As carrier variation, you can combine it with additional processing technologies using an attachment, thus creating a compact treatment system.



### **ATTACHMENTS FOR THE METHOR (CARRIER VARIATION).**

#### **WINDSIFTER.**

Loosen of the material by the METHOR. Removal of 2D lightweight fractions by means of windsifting.



#### **CARRIER.**

The carrier variation mounted on the tracked chassis is equipped with an adapter. This enables the METHOR to be combined with other processing technologies. The material is loosen and metered by the METHOR. In this manner, it can be configured as a compact treatment system.



#### **SPIRAL SHAFT SEPARATOR.**

Shredding and digestion of waste combined with a separation into coarse and fine fractions using the wrap free SWS technology.



Experience our mobile-modular concept for processing commercial waste.



## AN INVESTMENT THAT PAYS OFF.

- Future-proof solutions with Doppstadt's mobile-modular processing concept (MMAK)
- Flexible use of the machines in different fractions
- Ability to respond quickly to changing framework conditions through to new combinations
- Low investment volume of approx. € 700,000\*
- Reduction of disposal costs by approx. 30 – 40 %\*

\* Example of pretreatment of commercial waste.

### OVERHEAD SUSPENSION MAGNET.

The magnet arranged in the conveying direction maximizes the ferrous yield and enables the process-reliable separation even of bulky metal contents.



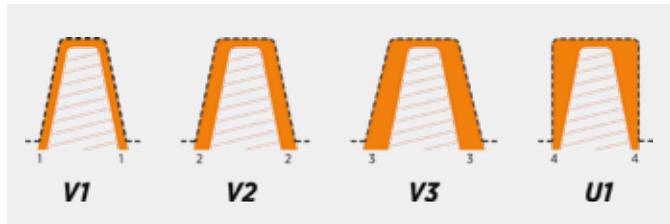
### STAR SCREEN.

Precise screening of even small separation sizes with the aid of star screen. Ideal for cohesive, difficult materials that must be loosened up before screening.



# THE ROLLERS FOR THE MULTITOOL.

Equip the METHOR with a roller that precisely matches your application.



**SIZE S**



**S - V1**



**Carpet / Fleece**

**S - V2**



**Waste wood**  
Fracture size  
150 mm



**Commercial waste**  
Fracture size  
150 mm

**SIZE M**



**M - V1**



**Mattresses**

**M - V2**



**Waste wood**  
Fracture size  
200 mm

**M - V3**



**Commercial waste**  
Fracture size  
200 mm

**SIZE L 174**



**L 174 - V1**



**Mattresses**

**L 174 - V2**



**Commercial waste**  
Fracture size  
300 mm

**L 174 - V3**



**Waste wood**  
Fracture size  
300 mm

**SIZE L 130**



**L 130 - U1**



**Lightweight packaging**



**Biowaste**

**BUILDING RUBBLE**



**CHISEL**



**Building rubble**

**Chisel coarse**  
Fracture size  
300 mm

**Chisel fine**  
Fracture size  
80 mm

	<b>METHOR HOOK LIFT</b>	<b>METHOR TRACKED CHASSIS</b>	
<b>DIMENSIONS</b>			
Overall weight	12,900 kg	15,400 kg	
Chassis	Hook lift	Tracked chassis	
<b>WORKING POSITION</b>			
Length	11,541 mm	11,293 mm	
Width	2,545 mm	2,545 mm	
Height	3,690 mm	4,184 mm	
<b>TRANSPORT DIMENSIONS</b>			
Length	8,627 mm	7,820 mm	
Width	2,545 mm	2,545 mm	
Height	2,735 mm	3,231 mm	
<b>DRIVE</b>			
Engine type	Diesel hydraulic	Electrohydraulic	Diesel hydraulic
Make	Caterpillar C7.1	ABB three phase motor	Caterpillar C7.1
Nominal output	205 kW (278 HP)	200 kW (272 HP) at 1.487 rpm	205 kW (278 HP)
Exhaust standard/ Energy-efficiency class	STAGE V	IE3	STAGE V
Tank capacity	300 L		300 L
Electrical connection		400 V / 50 Hz 351 A Soft starter (S1)	
<b>ROLLER</b>			
Diameter	600 mm (L), 800 mm (M, S)	600 mm (L), 800 mm (M, S)	
Speed	33 min <sup>-1</sup>	33 min <sup>-1</sup>	
<b>FEED HOPPER</b>			
Loading height	2,628 mm	3,124 mm	
<b>REAR CONVEYOR</b>			
Width	1,000 mm	1,000 mm	
Length	6,900 mm	6,900 mm	
Discharge height	3,690 mm	4,184 mm	
Conveying speed	adjustable, 1 m/s to 4 m/s	adjustable, 1 m/s to 4 m/s	
<b>OTHER</b>			
Optional equipment	dust suppression system, work lighting, electric hydraulic pump, auxiliary hydraulic shredder packages size L, M or S, fire extinguishers, overhead suspension magnet, drawbar, auxiliary chassis	dust suppression system, work lighting, electric hydraulic pump, shredder packages size L, M or S, fire extinguishers, overhead suspension magnet	

## **METHOR**

The multitool among shredders offers the broadest range of applications in its class.



## **BEST SOLUTION. SMART RECYCLING.**

Our innovative solutions have made us a leading supplier and manufacturer of processing technology. Customers in the waste disposal and recycling industry all over the world trust our expertise and benefit from our qualified service every day.

We are always there for you. At the Doppstadt Academy, we develop your team online and offline so that you can fully exploit the performance potential of the machines and make operations even more productive. Added to this are worldwide security of supply, fast on-site repair service and all-round carefree packages within service and maintenance contracts.

Because “every machine is only as good as the service behind it.” (Werner Doppstadt)



**Doppstadt**  
Academy