

### Innovative Technologies for Roadside Maintenance



# Product Range Mowing Unimog



In the context of the new partnership model for

Mercedes-Benz Unimog ExpertPartner

equipment body manufacturers, MULAG Fahrzeugwerk was one of the first to be awarded by Daimler AG with the highest partnership level Mercedes-Benz Unimog ExpertPartner.

In this closer cooperation which is exemplary for the joint development of equipment, drive concepts and interfaces in the best quality, **MULAG has fulfilled the requirements to the highest level in the areas of quality, sales, service and technology,** which Mercedes-Benz Special Trucks sets for body manufacturers in the field of individual body solutions.

# The MULAG Fahrzeugwerk – decades of experience with innovations

MULAG develops and produces special-purpose vehicles and accessories in the two business divisions Roadside Maintenance Equipment and Airport Ground Support Vehicles.



The company name is an acronym for **Motor Universal Lasten Arbeits Gerät** and refers to the company's origins in the field of agricultural equipment manufacturing. Today, some of these first MULAGs are still in use after over 60 years thanks to MULAG quality.

### Professional equipment engineering for roadside maintenance

As a leading manufacturer of mowers with an extensive product range for Unimog and other carrier vehicles, MULAG offers not only verge mowers and embankment mowers with a maximum reach of 8.7 m – with and without grass collection - but also combinations for simultaneous use of up to 3 mowers on a single vehicle. All power arms can be used with a variety of working attachments for roadside maintenance all year round.

Our broad-based sales team provides professional advice in all questions relating to roadside maintenance. We are also supported by competent distribution partners in many parts of Europe and worldwide. In addition, the excellent MULAG customer service ranging from instruction and training on the equipment through to the fast supply of spare parts for a service issue is a key positive aspect of our products.

### Innovations made by MULAG

In addition to our continuous innovation processes, high adaptability to the wishes and specifications of our customers give us a decisive competitive edge. Long-standing experience in the design of high-quality mower systems ensure high profitability thanks to a great utilisation capacity and the long service life of the equipment and low maintenance and repair costs.

### **Innovative vehicles for Airport Ground Support**

Our airport vehicles division manufactures reliable state-ofthe-art products for the airport ramp. MULAG has more than 50 years of experience and competence in the construction of towing tractors, luggage conveyor belts, container pallet transporters and special vehicles.



# Contents

MULAG offers you a complete range of professional roadside maintenance technology. You will find an overview of our extensive range of products on the following pages:

### Verge mowers / Reflexion post mowers Front-mounted mowers



Our verge mowers/reflexion post mowers are used for near roadside mowing work.



Our front-mounted mowers give you flexible use with reaches up to 7.4 m.

### **Combination mowers**



Our combination mowers are designed perfectly for simultaneously cutting with two mowing heads in one-man operation.

### **Rear-mounted mowers**



The rear-mounted mowers make efficiently use of the rear mounting areas of the Unimog and have a reach of up to 8.7 m.

### **Rail special mowers**



Even off-road you can rely on specialized professional MULAGtechnology.

### Accessories and working attachments



We offer you a variety of working attachments and accessories for individual and year-round use.







# MULAG reflexion post mower MLM 200

- Easy to operate
- Different fields of application
- Automatic parking system

### System of safety

Regular and continuous care of roadside vegetation is an important factor for the safety of all road users. The reflexion post mower MLM 200, which is specially designed for use around posts, crash barrier supports and traffic posts, reduces the potential risk to road maintenance workers because no manual finishing is necessary. The grass can now be mown controlled by the driver – a real improvement in work safety. The MULAG MLM 200 offers a professional application in difficult areas. The combination of a verge mower MRM 300 and a reflexion post mower MLM 200 together with a rear-mounted MHU 800 power arm results in a highly professional mowing solution suited for one-man operation. Embankments can be mown in one pass without any manual finishing work.



Designed for use under crash barriers



<b>MLM 200</b>	
Reach	up to 2.5 m
Control	electro-hydraulic
Special features	<ul> <li>Drive integrated into the hydraulic system of the verge mower</li> <li>Automatic touch control system for the terrain contour</li> <li>Continuous distance control</li> </ul>

The application of the MLM 200 and the MRM 300 at the same time ensures safe, economic and efficient work around crash barriers, reflexion posts and traffic signs. Thanks to the innovative technology, a manually finishing in trouble spots near reflexion posts and crash barriers is not necessary anymore.

# MULAG verge mower MRM 300



<b>MRM 300</b>	
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Range	up to 3.0 m right-hand and left-hand side
Drive	front PTO-shaft or vehicle power hydraulic system
Special features	<ul> <li>Electro-hydraulic control with mowing head relief system</li> <li>Road speed-related automatic obstacle detector</li> <li>Automatic parking system</li> <li>Mowing head with safety or flail shaft</li> </ul>

The verge mower MRM 300 is perfect for near roadside mowing work, right-hand and left-hand operation. Due to its low height, this mowing device is suitable for use underneath crash barriers. The speed of evasive movements when approaching an obstacle can be adjusted continuously at the control unit. An automatic pressure relief system minimizes the ground pressure of the mowing head. The mowing head can be equipped either with a safety shaft or with a flail shaft depending on the application.



Safety shaft



Flail shaft





**Front-mounted mowers** 

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# **MULAG** front-mounted mowers

- Comfortable one-man operation
- Flexible range of applications
- Large selection of working attachments

### Easy and flexible roadside maintenance

Our front-mounted mowing equipment is fixed to the front attachment plate of the Unimog and well suited for one-man operation. The front-axle locking device (torsion frame) prevents chassis distortion – this allows the equipment to be used even in rough terrain with safe standing.

Our range of power arms has a reach of up to 7.4 m. All types of equipment can be used either for right-hand or left-hand operation. The drive is provided either via the vehicle power hydraulics or via front PTO-shaft. With a large selection of working attachments, MULAG front-mounted mowers have a variety of applications and can be used all year round.

## Tunnel washer



# MFK 500-T Reach Right and left up to up to 6.5 m Lateral shift 1800 mm Special features • Tunnel washer for cleaning walls and ceilings • Automatic obstacle detector with ultrasound sensors • Hydraulically adjustable telescopic arm

The MFK 500-T is ideal for the cleaning of walls, ceilings and lighting panels in tunnels and subways. An automatic detector with ultrasound sensors ensures that the brush adjusts automatically to the profile of the surface. A water tank and water pump complete this compact washing unit. Additional applications can be obtained by attaching other working implements to the power arm.

# Overview of the front-mounted mowers



MFK 400	
Reach	Right and left up to 5.1 m
Lateral shift	1500 mm
Special features	<ul> <li>Transport position in front of the vehicle</li> <li>Width of mower in transport position only 2.1 m</li> <li>Universal use with quick-change-device</li> </ul>

Especially developed for the Unimog U20 the MFK 400 is the perfect equipment for municipal roadside maintenance. Thanks to its ability to be easily detached and attached to the front attachment plate of the Unimog, this power arm is well suited to use in alternating operation with other equipment throughout the whole year.



The MFK 500 with a reach of up to 7.0 m and a lateral side shift as basic configuration is very practical on narrow roads. In transport position the power arm is parked in front of the vehicle and leaves the platform available for other implements.

FME 500	
Reach	Right and left up to 6.5 m
Special features	<ul> <li>Transport position above the vehicle cab</li> <li>Low front axle load in transport position</li> <li>Width of mower in transport position only 1.5 m</li> </ul>

The power arm of the FME series with a reach of 6.5 m on the FME 500 and up to 7.4 m on the FME 600 is parked for transport purposes at the rear above the cab or on a parking frame. This transport position ensures balanced weight distribution, reduces the front axle load and protects the vehicle.

	FME 600	
	Reach	Right and left up to 7.2 m (7.4 m)*
	Lateral shift	1300 mm
	Special features	<ul> <li>Balanced weight distribution in transport position</li> </ul>
		<ul> <li>Generous clearance to pass over obstacles easily</li> </ul>
		<ul> <li>Width of mower in transport position only 2.1 m</li> </ul>
1100.100		*with optional overhead offset cylinder

Especially with the FME 600 thanks to the special power arm geometry, working at a long range and the mowing ditches on both sides is easy, simultaneously, there is no interruption of the work process thanks to the large clearance over obstacles. The lateral shift of the FME 600 makes the power arm even more flexible in all operating ranges.



# **Combination mowers**



# **MULAG combination mowers**

- High working speed
- Optimum vehicle carrier use
- High clearance of arm system

### Maximum performance with one-man operation

The combination of front-mounted mower and verge mower produces an efficient and compact mowing unit. The advantages of front-mounted mowers are supplemented by the functionality of a verge mower. In this configuration, two belts of grass can be mown in one working cycle by one operator. However, both mowing units can also be used independently of each other. The CAN-bus control with electronically controlled automatic obstacle detector on the verge mower as well as the MULAG m|tronic power arm relief control system on the front-mounted mower assist the operator enormously when used in combination.



Reflexion post mower mounted on a combination mower

at the	MKF 600	
	Reach	Verge mower 3.0 m / Front-mounted mower 5.5 m (6.0 m*) with optional telescopic front-mounted mower 6.5 m (7.0 m*)
	Lateral shift	hydraulically 1300 mm (1800 mm*), Verge mower 1000 mm
	Special features	<ul> <li>Power arm relief control system type m tronic</li> </ul>
and the second second		<ul> <li>Mowing units can be used independently of each other.</li> </ul>
A CARACTER STORE		*after removing the verge mower

The independent lateral shift of the power arm and verge mower increases the working performance considerably when avoiding obstacles, in particular, when mowing in alleys and around crash-barriers. With its telescopic arm, the front-mounted mower combination MKF 600 offers an even larger reach and can be used very effectively for mowing large embankments and cutting hedges.

	MKM 700	
	Reach	Front-mounted mower 6.7 m (7.2 m*) / Verge mower 3.0 m with optional overhead offset cylinder 6.9 m (7.4 m*)
	Lateral shift	850 mm (1300 mm*)
	Special features	<ul> <li>Proportional control with CAN-Bus, m tronic</li> <li>Automatic parking/extending of the verge mower</li> </ul>
and the second second		*after removing the verge mower

The combination of front-mounted mower and verge mower produces a compact mowing unit. The advantages of the FME series are supplemented by the functionality of the verge mower. In this configuration, two belts of grass can be mown in one working cycle in one-man operation. Both mowing units can also be used independently of each other.

The CAN bus control with automatic obstacle detector on the verge mower as well as the m|tronic on the power arm mower assist the operator enormously. Thanks to the integrated lateral shift, the MKM 700 is able to go round obstacles like trees efficiently – and with a large clearance of up to 3.2 m, the optimised power arm geometry makes working easy by passing over small obstacles such as traffic signs. It is possible to operate both mowers ergonomically and simply thanks to the perfect interplay of the sophisticated electronic control components – even in difficult terrain.



With the combination of the MKM 700 and the rear-mounted mower MHU 800 you get an extremely powerful mowing unit. In two-man operation all the grass in a belt 3 metres wide is cut completely in one pass. With this concept you can get the most out of your Unimog. The different mowing heads can be operated individually, as a double combination or all three together. Three cuts in one pass reduces running costs and traffic congestions.









# MULAG rear-mounted mowers

- High level of operating comfort
- Automatic terrain sensing
- Wide working range

### Taking advantage of the payloads and remaining flexible!

Our rear-mounted mowing equipment is fitted on the vehicle platform or subframe and is designed to be used in combination with a



verge mower. Such a combination achieves an ideal load distribution onto both vehicle axles. Thus the available payloads are efficiently used without losing the dynamics of vehicle movement.

The MULAG product range includes mowing equipment with or

without automatic grass collection system. With it the maximum reach is up to 7.0 m. Without the grass collection system a maximum reach of up to 8.7 m can be achieved. All implements can be used for right-hand or left-hand operation.

### The adaptable MULAG power arm concept

The drive is provided either via the vehicle power hydraulics or via rear-PTO-shaft. Besides mowing the MULAG-power arm is able to carry out many other tasks. This ensures a year-round utilization with the quick-change-device the different working implements can be exchanged within a short time.

### **MULAG Parallelogram power arm**

By means of the parallelogram power arm the working implement can be moved forward easily up to 1000 mm into the operator's field of view.

- Continuously adjustable from the control panel
- Easy left- and right-hand operation
- Easy to move around obstacles



# Rear-mounted mower MHU 800

With our rear-mounted models we can offer the best working implements for a wide range of operational situations. Adding a telescopic or parallelogram arm, increases the possible uses of the MHU 800 even more.

The MHU 800 together with a verge mower or even with a frontmounted combination mower is a very efficient way to cut more grass in one pass.

### **MULAG Telescopic power arm**

The hydraulically adjustable design provides a long reach as well as high clearance although the power arm remains its low transport height.





MHU 800	
Reach	7.3 m, with hydraulic telescopic arm up to 8.7 m
Lateral shift	1600 mm
Special features	<ul> <li>Optimised arm design with high clearance</li> <li>Left- and right-hand operation</li> <li>To be mounted onto vehicle platform or subframe</li> </ul>

The MHU 800 is quickly ready for operation without any preparatory work because the mowing head remains in the same orientation in working and transport position. The lateral shift of the power arm offers additional flexibility when going round obstacles, because the optimised power arm geometry enables a clearance to pass over obstacles of up to 3.0 m.

# Rear-mounted mower SB with grass collection



SB 500 / SB 600		
Reach	up to 6.1 m (SB 500) / 7.0 m (SB 600), right-hand and left-hand side	
Lateral shift	800 mm (optional equipment for SB 500)	
Special features	<ul> <li>Grass collection into trailer</li> <li>Heavy duty radial fan with powerful air flow</li> <li>Hydraulically adjustable telescopic power arm</li> </ul>	

The SB series combines the advantage of the telescopic power arm with the optional m|tronic proportional-control system into a powerful mowing unit with grass collection. A solid double arm construction protects the suction hose making the SB 500/SB 600 extremely reliable. One of the remarkable features of the grass collecting trailer is its large loading capacity with a hydraulically-driven scraper floor. Without trailer the SB can be used for mulching.

The SB series can work with a full spectrum of implements, in particular with mowing heads up to 1.6 m working width. With the Hedge cutting head HSK 1200 for example it is possible to cut the vegetation above the crash barrier along the motorway central reservation. Thanks to the integrated grass collection, a further working step is no longer necessary to collect the cuttings – it saves time, reduces traffic congestion and increases the safety.



# **Railway special mowers**

# MULAG railway mowers

Even for the high safety demands in railway use, MULAG provides the ideal solution for a year-round maintenance of embankments and clearances. To achieve that our mowing units can be either mounted to the front attachment plate of the Unimog or mounted on the rear subframe.



FME 500 DB	
Reach	up to 6.5 m, right-hand and left-hand side
Flail arm radius	210°
Special features	<ul> <li>Drive by power hydraulics or front PTO-shaft</li> <li>Hydraulic collision protection</li> <li>Digital height limitation, proportional control</li> </ul>

The FME 500 DB is the ideal solution in railway applications, where the rear-mounting area of the Unimog has to be reserved for other implements like e.g. working platforms. With a considerable reach and a range of quickly exchangeable working attachments the complete vegetation control can be done.

	ME 700 DB	
Sharp Man I	Reach	up to 7.2 m, right-hand and left-hand side (with telescopic arm)
	Lateral shift	1600 mm
	Special features	<ul> <li>Hydraulically adjustable counterweight</li> <li>Hydraulic telescopic arm (750 mm)</li> <li>Digital height limitation, proportional control</li> </ul>
All and a state of the state of		

With its many working implements the MULAG mowing concept is ideal for the extensive maintenance of railway embankments. It also complies to the safety regulations of the Federal Railway of Germany in all aspects. Due to its rear-mounted position the ME 700 DB has an enormous reach well suited for the mowing of embankments and free-cutting zone.



# Equipment control system m|control

- Professional control
- Ergonomic shape
- Intuitive operation

With the new MULAG equipment control system m|control, a completely new control concept for power arms and verge mowers has been developed: Up to six proportional functions can be called up on one level; by simple switching over, two power arm mowers can be steered comfortably with one joystick. The complete operating concept has been greatly improved ergonomically; important information and operating functions are displayed clearly in the new colour display and ready for activation depending on operating statuses.

### A good control is of central importance

The systematic integration of CAN bus technology and innovative control concepts is opening up new ways for ergonomic equipment operation of MULAG embankment mowers with a proportional control – a clear advantage in all application situations which extend over long time periods.



The modular design of individual control components for the **onehand operating panel, combination operating panel** or **comfort seat operating panel** offers operators maximum flexibility. The control elements can be individually selected and attached for each vehicle and product. This gives you optimal solutions for professional one and two-man operation.

# Recording and evaluation of the distance mown

- Precise handling
- Exact recording of work distance
- Elaborate evaluation possible

Through the speed signals of the carrier vehicle and in correlation with the on/off signals of the cutting shaft control, the MULAG system records the effective mowing distance and gives **information on the distance mown each day, week or on the total distance mown**.



After transmitting these data to a computer it is possible to evaluate them for a precise cost controlling and reckoning of the mowing operation.



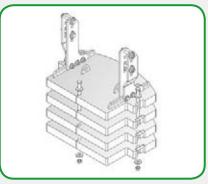
Basic functions of the MULAG recording system of the distance mown

# Accessories for MULAG power arms

Thanks to a variety of well-conceived and optimised accessories, the MULAG basic equipment can be added in a useful way and adapted individually to the respective needs and conditions. Many of the details, like our modular counterweight, demonstrate our innovation capacity and decades of experience.

Hydraulic accessories like the torsion frame, wheel support or rotating device ensure that the driver does not have to leave his cab and step out into the traffic.

An optimised control of the power arm and the fully automatic relief system of the mowing head increases the mowing speed and thus the economy of the application.



modular counterweight

### m|tronic



Fully automatic ground pressure regulation of the mowing head. Sensors transmit the terrain contour to the central control unit which adjusts the boom functions automatically.

### Hydraulic wheel support



The operator can lock the suspension of the rear axle from the control panel in the cab. The operator does not have to get out the vehicle, which increases safety and operating comfort.

### High pressure blower



This blowing system is mounted in the rear brackets D50 and makes it easy to clean the road while mowing.

### Implement drive via N05



Rear mounted mowers can be driven via auxiliary drive (Code NO5). Consequently, the hydraulic system of the mower is completely independent from the vehicle.



Front axle locking device for the Unimog to prevent chassis distortion (one-sided deflection) when the arm is in mowing position, activated via a toggle switch in the driver's cab.



The fit of this joystick is ergonomically designed to mould with the driver's hand optimally. Up to 4 proportional functions can be controlled at one level.

### Hydraulic rotating device



The rotational range is 230°, continuously controlled by the operating panel. The rotational range can be adapted during operation.

### Counterweight



Thanks to this modular system placed in the rear mounting brackets D50 it is possible to obtain up to 1800 kg counterweight by adding different weight plates.

### Speed of flail shaft



Thanks to a sensor directly at the bearing, the speed of the cutter shaft can be measured and indicated on the display. Should the maximum speed be exceeded, there is a warning signal flashing on the display.





# **MULAG Working attachments**

The versatility of our working attachments allows you to use your MULAG power arm all year round. From classic roadside maintenance through to special tasks in wood and water management, and when cleaning and clearing the street safety area, we have a wide range of working attachments ready for you and would like to advise you in detail.

All working attachments can be changed in the shortest time using the quick-change device – this saves time which you can turn into working capacity. We also back up our products with attractive service and maintenance offers. MULAG attachment quality is the result of years of experience and state-of-the-art technology.

### **Mowing heads**

Universal mowing head	For cutting grass and brushwood		
UMK 1200	Type of cutters	MS	GB-RM
	Working width	1200 mm	1200 mm
	Cutting length	up to 40 mm	up to 40 mm
A .	Cutter shaft rpm	2000 rpm	2900 rpm
	No. of cutters	12 pieces	30 pieces
A REAL PROPERTY OF THE REAL PR	Weight	approx. 350 kg	approx. 340 kg
A CARE AND A CARE	Working speed	up to 10 km/h	up to 10 km/h

Flail cutting heads	For cutting grass and brushwood		
MK 1200/1600		MK 1200	MK 1600
	Working width	1200 mm	1600 mm
	Cutting length	up to 20 mm	up to 20 mm
	Cutter shaft rpm	2000 rpm	2900 rpm
	Cutter type	MS (12 p.)	GB-RM* (42 p.)
ALC: NOT ALC	Weight	approx. 320 kg	approx. 385 kg
and a service of	Working speed	up to 10 km/h	up to 10 km/h
	*Cutter type MS (16 p.) also possible		

ail cutting head	For cutting grass and brushwood		
AK 1200 plus	Type of cutters	MS	GB-RM
	Working width	1200 mm	1200 mm
	Cutting length	up to 20 mm	up to 20 mm
	Cutter shaft rpm	1900 rpm	2800 rpm
TITLE AND	No. of cutters	12 pieces	30 pieces
and the state	Weight	approx. 320 kg	approx. 305 kg
	Working speed	up to 10 km/h	up to 10 km/h

Brushw. shredding head	for chaffing shrubbery, small bushes etc.	
BRK 1200	Working width Cutting length Cutter shaft rpm Cutter type Weight Working speed	1200 mm up to 80 mm 2000 rpm WS (11 p.) approx. 320 kg up to 5 km/h

Scrub cutting head	for mowing of grass and undergrowth/scrub	
GMK 1200		
	Working width	1200 mm
医药生物 化化学	Cutting length	up to 60 mm
Street Blog - A	Cutter shaft rpm	2300 rpm
	Cutter type	HS (20 p.)
	Weight	approx. 345 kg
Road Barbart M	Working speed	up to 10 km/h

We supply the right mowing head for every application - so you can cut grass and brushwood reliably in a wide variety of situations.

### Flail cutting heads

### AMK 1200/1600



for mowing of grass and undergrowth/scrub			
	AMK 1200	AMK 1600	
Working width	1200 mm	1600 mm	
Cutting length	up to 20 mm	up to 20 mm	
Cutter shaft rpm	2800 rpm	2800 rpm	
Cutter type	GV-RM (60 p.)	GV-RM (84 p.)	
Weight	approx. 320 kg	approx. 350 kg	
Working speed	up to 10 km/h	up to 10 km/h	

### **Overview of MULAG cutters**



### **Brush systems**

Surface brush
FWB 1600

Cleaning of large areas (e.g. road signs)		
Washing width	1600 mm	
Ø Brushes	1000 mm	
Brush speed	320 rpm	
Weight	approx. 190 kg	
Hydraulic drive		

### **Double washing brush** *Cleaning of sign posts, reflexion post etc.*

Hydraulic drive



Washing width	800 mm
Ø Brushes	600 mm
Brush speed	300 rpm
Weight	approx. 200 kg

### Attachments for water management



	For turning and cle	aring cut grass	
1			
10	Working width	2500 mm	
	Weight	approx. 225 kg	
	Working speed	up to 5 km/h	
2	Hydraulic drive		
+			

### **Clearing attachments and earth auger**



Clearing of overgrown verges		
Working width	1000 mm	
Clearance height	up to 80 mm	
Speed	500 rpm	
Weight	approx. 415 kg	
Working speed	up to 3 km/h	

### **Attachments for wood maintenance**

# Branch/Hedge Cutter For shortening branches, twigs, brushwood AWS 2200 Working width 2200 mm Cutting length up to 110 mm



	For snortening branches, tw	igs, brushwood
	Working width	2200 mm
20	Cutting length	up to 110 mm
ř.	Strokes	60/min
2	Weight	approx. 210 kg
	Working speed	up to 2 km/h
Į.		

### Hedge cutting head



For chopping hedges and bushes		
Working width	1200 mm	
Cutting length	up to 20 mm	
Cutter shaft rpm	2900 rpm	
Cutter type	GB-RM (30 p.)	
Weight	approx. 325 kg	
Working speed	up to 4 km/h	

In addition to mowing and maintaining verges and ditches, the MULAG power arm mowers can also be used for the professional wood management.

Our product range in this field offers you efficient and attractive solutions.

### Weed brush

### For removing grass and wild herbs



Working width	750 mm
Brush speed	300 rpm
Weight	approx . 140 kg
Working speed	up to 10 km/h
Hydraulic drive	

### **Gutter/Surface Brush**



### For removing grass and wild herbs

Working width	650 mm
Brush speed	300 rpm
Weight	approx. 160 kg
Working speed	up to 10 km/h
Hydraulic drive	

### For mowing embankments of grass and brushwood **Double blade cutter** Weed bucket For mowing plants in ditches **DSW 1900 MKB 2450** Working width Working width 1900 mm 2450 mm Cutting length up to 10 mm Strokes approx. 600/min Strokes max. 1200 rpm Weight approx. 235 kg Hydraulic drive Weight approx. 130 kg Working speed up to 10 km/h

### **Rotary ditch clean** Earth auger For drilling holes, for example, for sign posts GRG 650 EBG Drill length 900 mm Ø drill 250 mm Drill speed approx. 120 rpm Weight approx. 165kg Hydraulic drive

ner	Cleaning the bottom of ditches
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Ø Milling wheel	650 mm
Wheel speed	500 U/min
Weight	approx. 245 kg
Working speed	up to 4 km/h
Hydraulic drive	

Free zone cutter	For cutting clear paths and roads	
FSG 2000	Working width Cutting length Speed of saw blades Weight Working speed	2000 mm up to 150 mm up to 2600 rpm approx. 220 kg up to 4 km/h
Stump grinder For removing tree stumps		
BSF 500	Ø Milling wheel	500 mm

	Ø Milling wheel	500 mm
	No. of milling bits	20
ŝ	Depth of cut	max. 40 mm
	Speed	up to 1250 rpm
	Weight	approx. 170 kg





### **Certified Operating Security**

Our flail heads are tested and examined in compliance with EN 13524. This ensures the safety of the attachment during operation. The successful results are

documented with the GS certificate by recognised inspection agencies and accredited test institutes.

# **MULAG in detail**

### **Company history of MULAG**

- 1953 MULAG was founded in Bad Peterstal-Griesbach.
- 1958/59 Development in the export of agricultural vehicles to other European countries.
- 1964 Creation of the new division for construction and production of airport vehicles. At first conveyor belt vehicles were produced, later container pallet transporters and towing tractors were produced.
- **1972** Development of grass-collecting embankment mowers for roadside maintenance.
- **1980** To expand the production capabilities, **Plant II in Oppenau/ Germany** was built.
- 2000 Structural expansion of plant II with a new assembly hall, extensive central storehouse and modern office and administrative building for the optimisation of capacities.
- **2004** Introduction of the continuous flow production for towing tractors.
- **2007** Further investments, e.g. into welding robots, fully automatic small parts storage system and office extension.
- 2011 Expansion of the business premises of plant II in Löcherberg.
- 2013 Construction of the new MULAG training centre in Bad Peterstal for providing optimal vocational training to our junior staff in a central location with the most modern educational resources.



Aerial View of Plant II





# MULAG quality – more than just a concept

LAG QUal

with DIN EN

Plant II

For MULAG, quality is the key to our company's success and is of great importance to our products. Due to our extensive experience in the fields of airport vehicles and roadside

maintenance equipment, the standard of quality has been developed to a level reflecting our position as a market leader.

In order to maintain this high standard, we employ an comprehensive quality management system that is looked after centrally by an independent division. This ensures that our products meet the high expectations that our customers have regarding quality and safety from the beginning. To also have this confirmed by the expertise of third parties, our QM system is constantly checked by independent companies and by customer audits, such as:

Plant I

DIN EN ISO 9001:2008 by TÜV Süd

- EN 729-2 and DIN 18800-7 routine surveillance visit by the SLV-Mannheim
- VDA8 audits by Daimler AG
- AQAP 130/151 audits by the Quality Control Department of the German Federal Armed Forces

The positive results of these independent bodies confirm the successful application of our measures.





High-tech production – premise for high quality



Fast and reliable - our service team on location





Front-mounted mowing equipment with a flexible range of applications



Rear-mounted mowing equipment with grass collection system



Mower combinations for maximum performance and efficiency

### Manufacturer



# MULAG – the answer to all questions relating to roadside maintenance

The well-conceived design of the MULAG power arm mowers with their extensive range of versatile working attachments make their use extremely economic and efficient: They can be used to complete all roadside maintenance tasks fast and flexibly.

Long periods of downtime and repair time are avoided thanks to the high quality of the workmanship. We offer you convincing roadside maintenance solutions:

### Long working times generate profitability

- High-quality workmanship of the mowers based on the state-of-the-art design concepts.
- Low wear thanks to the use of specially hardened materials at critical points.
- Fast and worldwide availability of spare parts and service providers, long-term availability of spare parts for older products.

### Flexible use for many different applications

- An extensive assortment of working attachments provides a wide range of applications for every season.
- Quick-change-devices help you save time when changing working attachments.
- Perfect operating ergonomics with a good view of the working attachments make the work effort easier.

### Distributor