



Innovative Technologies for Roadside Maintenance



Product Range

Working Attachments



MULAG working attachments – the perfect solution for every application

- Varied fields of application
- Quick-change device
- Best quality
- High efficiency

All working attachments are easily changed with the MULAG quick-change device – this saves working time. Our spare parts service is second to none with dispatch on the same day (subject to receiving your order before 12 noon). 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.

MULAG working attachments for year-round operation

The wide range of working attachments combined with the large diversity of the MULAG booms gives you the most professional implement for all-year-round use. Besides roadside maintenance attachments we also have equipment for specialised applications like wood maintenance, water management or clearing safe areas of roadsides. Our products are optimally configured and certified systems being highly economical through a long life-cycle and low wear costs.

Certified Operating Security



A stone-chipping check increases the security at work

The MULAG flail heads are tested and examined in compliance with EN 13524. This ensures the safety of the attachment during operation. The respective certificate for tested safety is awarded by the DPLF in Kassel, Germany.

Overview of the fields of application

Mowing



Mowing and Collecting



Wood Maintenance



Clearing Attachments and Earth Auger



Washing Systems



Attachments for Water Management



Accessories and more



A wide range of working attachments with *ideally adapted products* is the determining plus for *efficiency and flexibility* in each single use.



Mowing

- High-performance cutting shaft bearings
- Quick-change device
- High mulching efficiency
- Low wear costs

Flail Cutting Head MK 1000



Technical Data	MS-Cutters	GB-RM
Mowing width	1000 mm	1000 mm
Total width (outside width)	1360 mm	1360 mm
Max. speed of flail shaft	2000 rpm	2900 rpm
Cutters	10 pieces	24 pieces
Weight	approx. 255 kg	approx. 245 kg
Max. permissible power consumption	approx. 35 kW	approx. 48 kW
Hydraulic oil pressure	max. 340 bar	max. 340 bar
Flow rate hydraulic oil	62 l/min	88 l/min
Working speed depending on growth	up to 10 km/h	up to 10 km/h

Flail Cutting Head MK 1200



Technical Data	MS-Cutters	GB-RM
Mowing width	1200 mm	1200 mm
Total width (outside width)	1500 mm	1500 mm
Max. speed of flail shaft	2000 rpm	2900 rpm
Cutters	12 pieces	30 pieces
Weight	approx. 320 kg	approx. 305 kg
Max. permissible power consumption	approx. 35 kW	approx. 48 kW
Hydraulic oil pressure	max. 340 bar	max. 340 bar
Flow rate hydraulic oil	62 l/min	88 l/min
Working speed depending on growth	up to 10 km/h	up to 10 km/h

Flail Cutting Head MK 1600



Technical Data	MS-Cutters	GB-RM
Mowing width	1600 mm	1600 mm
Total width (outside width)	1900 mm	1900 mm
Max. speed of flail shaft	2000 rpm	2900 rpm
Cutters	16 pieces	42 pieces
Weight	approx. 385 kg	approx. 385 kg
Max. permissible power consumption	approx. 35 kW	approx. 48 kW
Hydraulic oil pressure	max. 340 bar	max. 340 bar
Flow rate hydraulic oil	62/88 l/min	88 l/min
Working speed depending on growth	up to 10 km/h	up to 10 km/h

The MULAG flail cutting heads are suitable **for operating in areas with grass and shrub up to 20 mm** and applicable as universal working attachments for mowing embankments and verges. For every application you can take the best choice between **various working widths** from 1100 mm up to 1600 mm.

- Directly driven by a hydraulic motor with axial pistons (can be mounted on the right- or left-hand side) (*see info box page 6*)
- Adjustment of the cutting thickness through vertically adjustable roller
- MULAG-quick change device incl. hydraulic hoses with quick couplings
- Protection against projection with chain (*see info box page 7*)
- GS approved

Flail Cutting Head MK 1200 plus

- Flow optimisation
- Wear reduction
- Reinforced cutting shaft bearings
- Variable driving motor concepts
- Improved grass flow

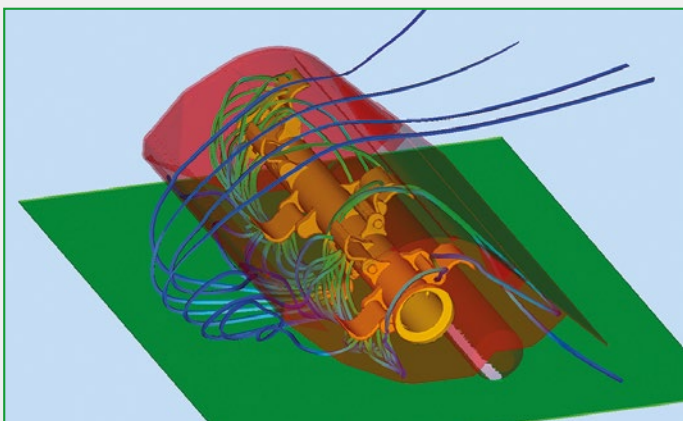


The MULAG flail cutting head MK 1200 plus is suitable **for operating in areas with grass and shrub up to 20 mm.**

- Directly driven by a hydraulic motor with axial pistons (can be mounted on the right- or left-hand side) *(see info box page 6)*
- Adjustment of the cutting thickness through vertically adjustable roller
- MULAG-quick change device incl. hydraulic hoses with quick couplings
- Protection against projection with chain *(see info box page 7)*

High-Tech for roadside maintenance

Based on scientific studies, the flail cutting head MK 1200 plus is designed for **maximum mowing performance.**



All advantages at a glance

Our flail cutting head MK 1200 plus reaches with innovative new details a higher level of efficiency in its application at mowing out roadside vegetation.

Through flow optimisation, reinforced cutting shaft bearings and variable driving motor concepts as well as improved wear reduction it is possible to work more efficiently and with considerable higher mowing speed – a real plus!

Technical Data	MS-Cutters	GB-RM
Mowing width	1200 mm	1200 mm
Total width (outside width)	1580 mm	1580 mm
Max. speed of flail shaft	1900 rpm	2800 rpm
Cutters	12 pieces	30 pieces
Weight	approx. 320 kg	approx. 305 kg
Max. permissible power consumption	approx. 35/48 kW	approx. 48 kW
Hydraulic oil pressure	max. 340 bar	max. 340 bar
Flow rate hydraulic oil	62/88 l/min	88 l/min
Working speed depending on growth	up to 10 km/h	up to 10 km/h



Direct drive via axial piston motor

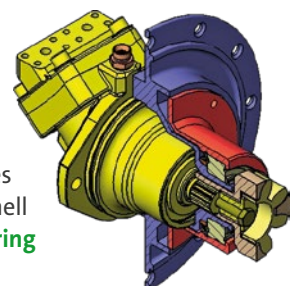


Driving motor

The motor is installed as a **space-saving** plug in motor with direct drive.

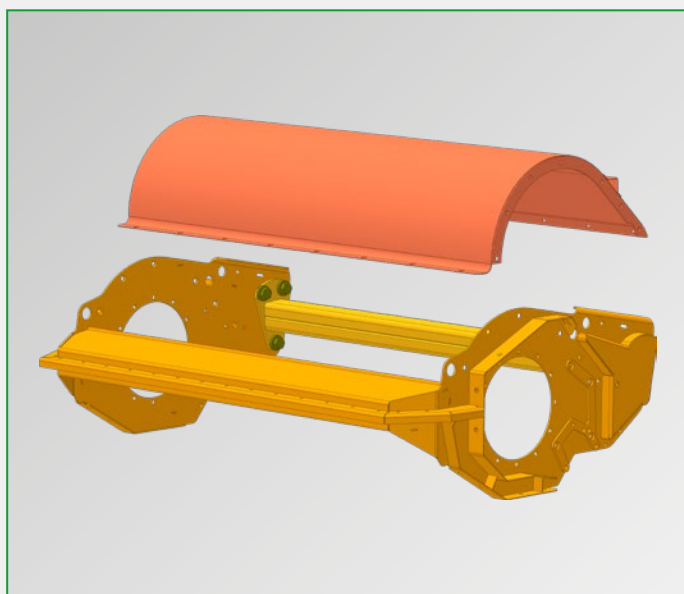
Bearing support

The bearing support (red component) with bearings and driving disk is located in the cutter shaft. The radial forces are absorbed by the bearing shell (blue component). **No bearing load** acts on the motor.



Heavy-duty housing panel

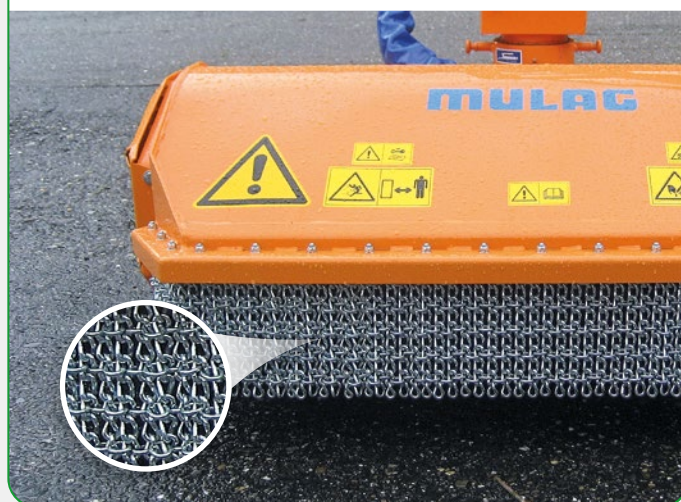
The highly wear resistant **Hardox metal sheet covering** is bolted into the body for easy replacement.



Protective chain



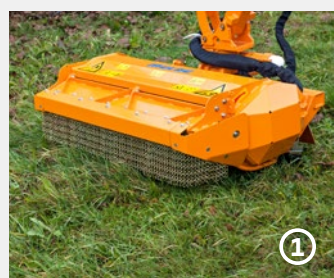
Made of **high-strengthened steel**, the **standard built-in** chain ensures maximum protection against objects flying out of the housing. The specificity of the protective chain used by MULAG is **the horizontal multiple connection** between the single chain strands, which provides cohesive and effective protection.



Universal Mowing Head UMK 1200

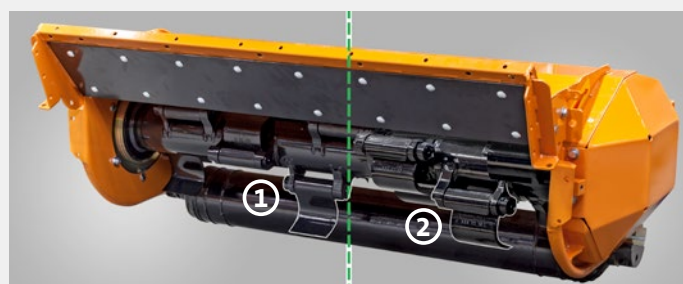
The Universal Mowing Head UMK 1200 is suitable **for mowing grass and shrub up to 40 mm**.

- Direct drive by axial piston motor (to be fitted right or left) *(see info box page 6)*
- The cutting height can be selected by adjusting the roller
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Chain protection against flying objects *(see info box page 7)*



Two mowing systems in one mowing head

It is possible to adapt the UMK 1200 to different applications thanks to its design. By adapting the protective fixture and modifying the direction of movement of the blades, material can be cut to a thickness of 40 mm.



Cutting shaft in grass

Cutting shaft in scrub

Technical Data	MS-Cutters	GB-RM
Mowing width	1200 mm	1200 mm
Total width (outside width)	1500 mm	1500 mm
Max. speed of flail shaft	2000 rpm	2900 rpm
Cutters	12 pieces	30 pieces
Weight	approx. 350 kg	approx. 340 kg
Max. permissible power consumption	approx. 35 kW	approx. 48 kW
Hydraulic oil pressure	max. 340 bar	max. 340 bar
Flow rate hydraulic oil	62 l/min	88 l/min
Working speed depending on growth	up to 10 km/h	up to 10 km/h

Scrub Cutting Head GMK 1200

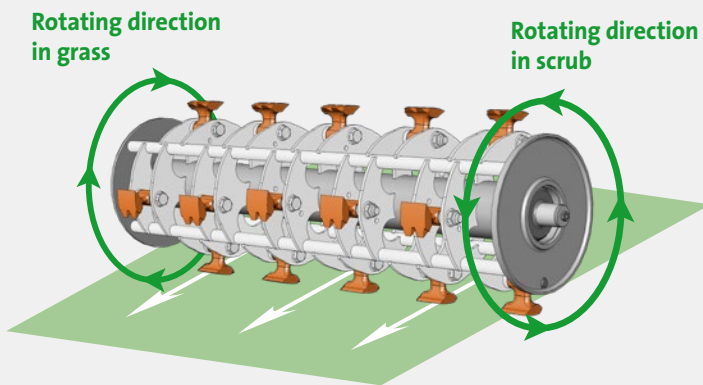
- Rotates in both directions
- Quick-change device
- Additional protection device

For mowing grass and scrub up to 60 mm. Equipped with adjustable protection and automatic change of rotating direction of the cutting shaft.



Ball valve for rotation inversion

- Belt drive by axial piston motor
- Ball valve for rotation inversion
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Protection against flying objects through double rubber apron



Technical Data

Mowing width	1200 mm
Total width (outside width)	1520 mm
Max. speed of flail shaft	2300 rpm
Cutters	HS (20 pieces)
Weight	approx. 345 kg
Maximum permissible power consumption	max. 35/48 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62/88 l/min
Working speed depending on growth	up to 10 km/h

Special equipment



More protection for the central reservation of motorways

To fulfil the increased safety requirements for mowing the central reservation of motorways you can equip the GMK 1200 with an additional protection device.

Technical Data GMK 1200 with additional protection device

Weight	approx. 395 kg
Working speed depending on growth	up to 4 km/h

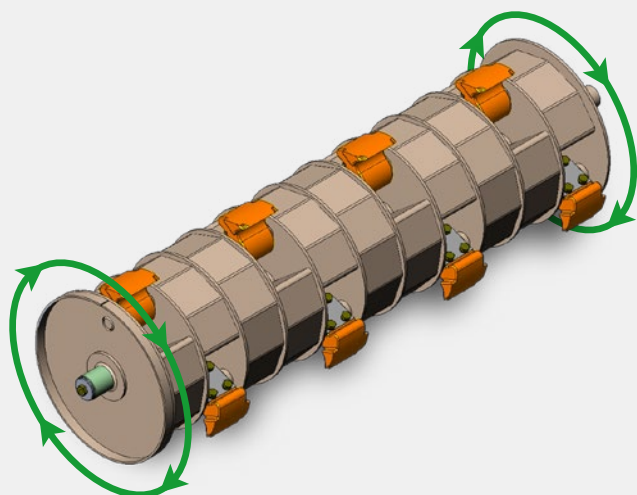
Brushwood Shredding Rotor Head BRK 1200

Mowing

- Scrub up to 80 mm
- Quick-change device
- Equipped with skids

For shredding of brushwood and thin twigs – particularly useful **for forestry work and on railway embankments for chopping up branches up to 80 mm.**

- Belt drive by axial piston motor
- The cutting height of the device can be modified by adjusting the skid *(optional for railway version)*
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Solid design for toughest operations



The cutting shaft of the brushwood shredding rotor head BRK 1200 has an extremely solid and closed design. The 11 forged BS blades can turn fully through 360° on the bearing bolts and can be exchanged very easily.

Technical Data	
Mowing width	1200 mm
Total width (outside width)	1520 mm
Max. speed of flail shaft	2000 rpm
Cutters	BS (11 pieces)
Weight	approx. 330 kg
Maximum permissible power consumption	max. 35/48 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62/88 l/min
Working speed depending on growth	up to 5 km/h



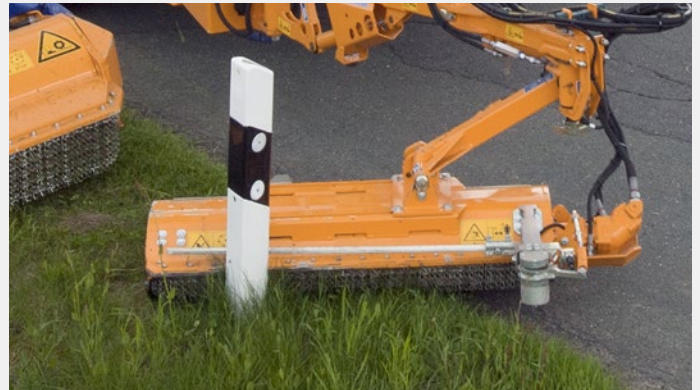
Verge Mowing Head RMK 1200

Technical Data	MS-R	Safety
Mowing width	1200 mm	1200 mm
Height of the mowing head	300 mm	300 mm
Max. speed of flail shaft	3000 rpm	4800 rpm
Weight	approx. 170 kg	approx. 170 kg
Max. permissible power consumption	max. 25 kW	max. 25 kW
Hydraulic oil pressure	max. 280 bar	max. 280 bar
Flow rate hydraulic oil	50 l/min	50 l/min
Working speed depending on growth	up to 10 km/h	up to 10 km/h

- High performance due to a cutting concept with solid flails



- Danger of stone projection reduced to a minimum thanks to the safety shaft



The MULAG verge mowing head RMK 1200 is suitable for operating under crash barriers in **areas with grass and shrub up to 10 mm**.

- Optimal operation under crash-barriers thanks to the low construction
- Road speed-related automatic obstacle detector
- Protection against projection with chain (*see info box page 7*)
- Very good stone projection safety through a new cutting concept

Automatic Sensor Mowing Head TMK 1200



Technical Data	MS-R	Safety
Mowing width	1200 mm	1200 mm
Max. speed of flail shaft	3000 rpm	4800 rpm
Weight	approx. 205 kg	approx. 205 kg
Max. permissible power consumption	max. 27 kW	max. 27 kW
Hydraulic oil pressure	max. 340 bar	max. 340 bar
Flow rate hydraulic oil	62 l/min	62 l/min
Working speed depending on growth	up to 6 km/h	up to 10 km/h

Mowing head equipped with a road speed-related automatic obstacle detector for **mowing grass and shrub up to 10 mm near road posts and crash barriers**.

- Hydraulic drive
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Automatic evasive movement when detecting an obstacle
- Automatic adaptation to the ground surface
- Protection against projection with chain (*see info box page 7*)
- Can be delivered either with flail-shaft or with safety-shaft
- m|tronic possible
- Can also be used in extensive areas

Overview Cutters

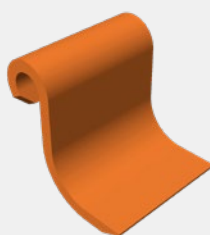
Mowing

MS-R Cutters



- solid flail cutters
- leaves a perfect cut
- operating in areas with grass up to 10 mm
- rotation speed 3000 rpm

MS Cutters



- solid flail cutters
- high piercing force
- operating in areas with grass and shrub up to 40 mm
- intensive and extensive areas
- rotation speed 2000 rpm

GB-RM Cutters



- solid flail cutters
- operating in areas with grass and shrub up to 20 mm
- intensive and extensive areas
- rotation speed 2900 rpm

Safety Shaft



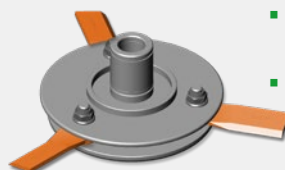
- minimised stone projection
- very smooth mulching results
- high cutting velocity
- operating in intensive areas
- rotation speed 4800 rpm

GV-RM Cutters



- solid flail cutters
- operating in areas with grass and shrub up to 20 mm
- intensive and extensive areas
- rotation speed 2900 rpm

MLM Cutting Knife



- extremely low requirement of energy
- operating in areas with grass near road posts and crash barriers
- rotation speed 4600 rpm

BS Cutters



- high piercing force
- optimised shape of cutting for wood maintenance
- operating in areas with shrub up to 80 mm
- simple change
- rotation speed 2000 rpm

Hammer Flail HS



- high piercing force
- both-sided usable
- operating in areas with shrub up to 60 mm
- reduced power requirement
- rotation speed 2300 rpm

- Standard equipment
- optional equipment

	MK 1000	MK 1200	MK 1200 plus	MK 1600	UMK 1200	BRK 1200	GМК 1200	RMK 1200	TMK 1200	HSK 1200	AMK
MS-R								●	●		
MS	●	●	●	●	●						
GB-RM	○	○	○	○	○					●	○
GV-RM	○	○	○	○	○					○	●
Safety								○	○		
BS						●					
HS							●				



Collecting

- High performance
- Flexible application
- Huge collecting capacity

Flail Cutting Head AMK 500 / 1200 / 1600

Collecting

- Adjustable roller for different working heights
- Cutting and collecting in one step
- Mulching operation possible



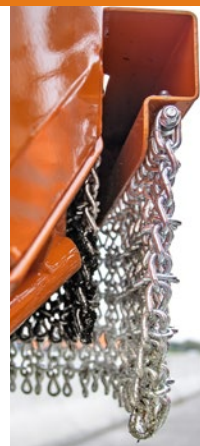
The MULAG flail cutting head AMK 1200 is suitable for mowing **grass and shrub up to 20 mm**. The cuttings are shredded and collected.

- Direct drive via axial piston motor (*see infobox page 6*)
- The cutting height of the device can be modified by adjusting the roller
- MULAG-quick change fixture including hydraulic hoses with quick couplings
- Protection against projection with chain (*see infobox page 7*)

Technical Data

Mowing width	500 / 1200 / 1600 mm
Total width (outside width)	800 / 1500 / 1900 mm
Max. speed of flail shaft	2900 rpm
Cutters	GV-RM 32 / 60 / 84 pieces
Weight with m tronic parts	approx. 190 / 320 / 350 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 240 bar
Flow rate hydraulic oil	88 l/min
Working speed depending on growth	up to 10 km/h

Additional chain protection for mowing on concrete barriers



Benefits of upgrading

- Easy installation for retrofitting
- Fortifications of the chain guard are protected against damage
- Greater safety through longer chains
- Mowing on highway median strip and in the outer areas of the roadside vegetation possible without having to remove the additional chain protection
- No impairment of the mowing process
- Movable chain links flexibly adapt to ground contour



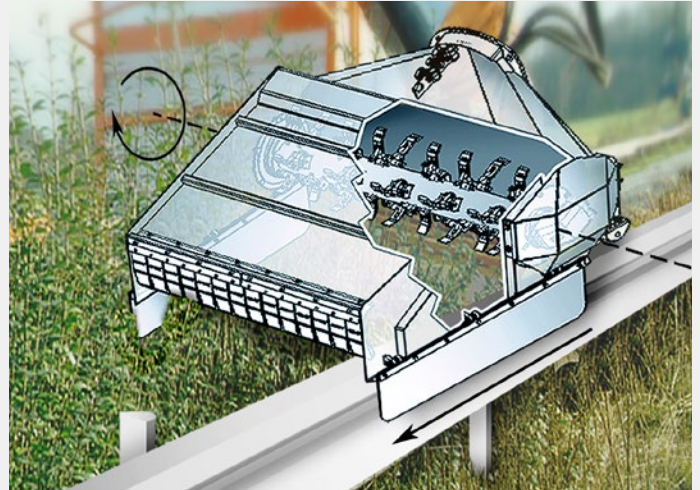
Hedge-Cutting Head HSK 1200

- Optimised for operation on the central reservation of motorways
- Cutting and collecting in one pass
- Adapted protection device



The MULAG hedge-cutting head HSK 1200 is suitable **for clearing and collecting branches and shrubs up to 20 mm on the central reservation of motorways.**

- Direct drive via axial piston motor (*see infobox page 6*)
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Plastic trap and lateral rubber apron
- Optimised body shape for operating on the central reservation of motorways



Technical Data

Mowing width	1200 mm
Total width (outside width)	1500 mm
Max. speed of flail shaft	2900 rpm
Blades	GB-RM (30 pieces)
Weight	approx. 325 kg
Maximum permissible power consumption	max. 42 kW
Hydraulic oil pressure	max. 300 bar
Flow rate hydraulic oil	88 l/min
Working speed depending on growth	up to 4 km/h





Litter Picking Head USK 1200



The MULAG litter picking head USK 1200 is suitable **for picking up rubbish of every type** (bottles, paper, cans etc.) by means of tooth shaft and suction head.

- Hydraulic drive
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Slowly rotating shaft with spring teeth

Technical Data

Working width	1200 mm
Max. speed of tooth shaft	50 - 200 rpm
Weight	approx. 235 kg
Maximum permissible power consumption	max. 14 kW
Hydraulic oil pressure	max. 170 bar
Flow rate hydraulic oil	50 l/min
Working speed depending on growth	up to 4 km/h





Wood Maintenance

- Wide field of application
- Quick-change device
- Low wear costs
- Highly economical

Free Zone Cutter FSG 2000

Wood Maintenance

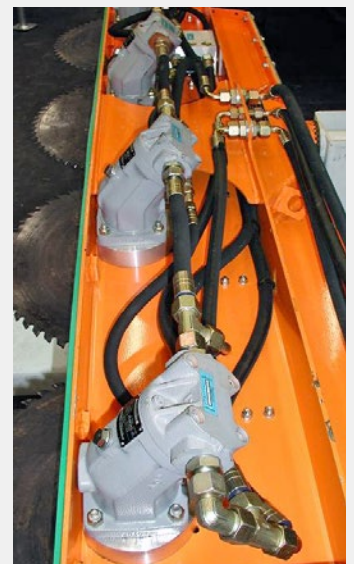
- Direct drive for each saw blade
- High working comfort
- Clean cutaway
- High working speed

The MULAG free zone cutter FSG 2000 is suitable **for clearing branches and twigs up to 150 mm** on ways and roads with an optimum cutting pattern.

- Direct drive via 4 axial piston motors
- Pressure relief valves and feeding device for each hydraulic motor (saw blade)
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings



Technical Data	
Working width	2000 mm
Saw blade speed	2600 rpm
Weight	approx. 220 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min
Working speed depending on growth	up to 4 km/h



Branch and Hedge Cutter AWS 2200

The MULAG branch and hedge cutter AWS 2200 is suitable **for clearing branches and twigs up to 110 mm** on ways and roads.

- Hydraulic drive
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Simple shearing principle
- Adjustable admission with chopper disc

Technical Data	
Working width	2200 mm
Number of strokes	60 / min
Weight	approx. 210 kg
Maximum permissible power consumption	max. 12 kW
Hydraulic oil pressure	max. 170 bar
Flow rate hydraulic oil	45 l/min
Working speed depending on growth	up to 2 km/h



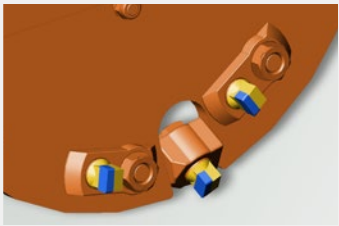
Stump Grinder BSF 500



The MULAG stump grinder BSF 500 is suitable **for grinding every kind of stumps** along road sides, between crash barriers and for other similar applications.

- Hydraulic drive
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Solid design

Technical Data	
Diameter of grinding wheel	500 mm
Number of grinding teeth	20
Rotation speed	1250 rpm
Weight	approx. 170 kg
Rate of cut	max. 40 mm
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 - 90 l/min







Clearing verges and marginal strips

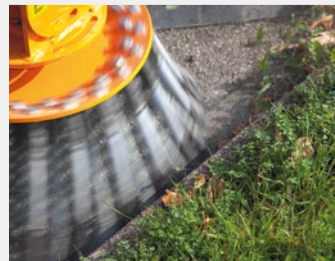
- Wide field of application
- Quick-change device
- Highly economical
- Huge material removal

Weed Brush WKB 750

Clearing

The MULAG weed brush WKB 750 is suitable **for clearing weed from paved surfaces such as cobblestones, gutlets, etc.** The very tough and highly wear resistant trimming removes outgrowth very efficiently.

- Hydraulic drive
- When using the adequate parts, can be modified to Gutter/ Surface Brush RB 650
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Brush made of braid wire and steel wire
- Adjustable protection device



Technical Data	
Working Width	750 mm
Brush speed	300 rpm
Weight	approx. 140 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min
Working speed depending on growth	up to 10 km/h

Gutter / Surface Brush RB 650



The MULAG gutter/surface brush RB 650 **clears grass and weed from concrete surfaces, ways, roads and cleans gutters.**

- Direct drive via axial piston motor
- When using the adequate parts, can be modified to a weed brush WKB 750
- MULAG quick-change device incl. hydraulic hoses with quick couplings

Technical Data	
Diameter	650 mm
Brush width	500 mm
Brush speed	300 rpm
Weight	approx. 160 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	340 bar
Flow rate hydraulic oil	62 l/min

Verge Cleaning Implement BRG 1000

BRG 1000 for rear-mounted arms

The MULAG verge cleaning implement BRG 1000 enables you **to clear verges up to 80 mm**, to enable the flowing of excess water from the roadway.

- Direct drive by axial piston motor with additional bearing
- Available for rear-mounted and front-mounted arms
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Including hydraulically adjustable front broom *(only rear-mounted arms)*

Technical Data (rear-/front-mounted)	
Working width	1000 mm
Speed	500 rpm
Weight	approx. 415 / 290 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min
Working speed depending on growth	up to 3 km/h



BRG 1000 for front-mounted arms

Without the hydraulically adjustable front broom, the BRG 1000 can also be used efficiently with front-mounted arms.

The rear weed brush properly removes the material from the verge.



Ditch Cleaning Implement GRG 650

Clearing



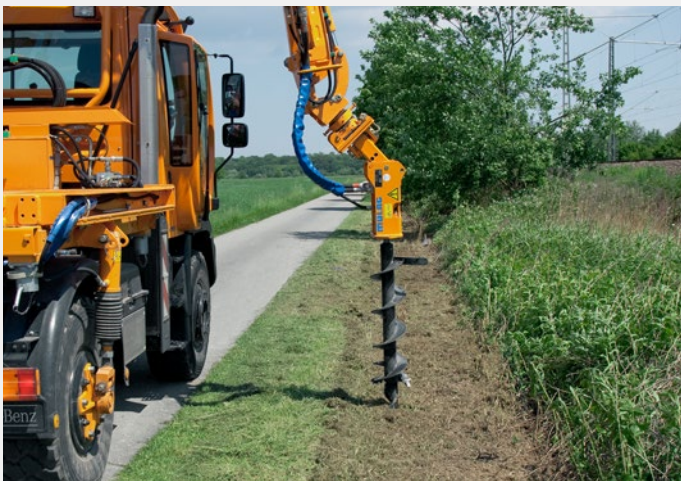
The MULAG ditch cleaning implement GRG 650 is suitable **for the cleaning of mud-clogged and foliage filled ditches** close to the road.

- Directly driven through axial piston hydraulic system with supplementary bearing
- Available for right or left operation
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Hydraulically adjustable ejection flap *(option)*

Technical Data

Diameter	650 mm
Speed	500 rpm
Weight	approx. 245 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min
Working speed depending on growth	up to 4 km/h

Earth Auger EBG



The MULAG earth auger EBG is suitable **to drill holes for post and road signs, plants and hedges.**

- Hydraulic drive
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Gimballed system
- Various driller lengths and diameters

Technical Data

Driller length *	900 mm
Diameter *	250 mm
Driller speed	approx. 120 rpm
Weight	approx. 165 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min

* other on request





Washing Systems

- Efficient cleaning
- Quick-change device
- Innovative brush technology
- Wide field of application

Double Washing Brush DWB

Washing Systems



The MULAG double washing brush DWB is suitable for cleaning posts, road signs and crash barriers.

- Hydraulic drive
- Water spraying device with adjustable nozzles
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Spray protection and water hose

Hydraulically Shift Device



The hydraulic shift device enables the adjustment of the DWB to clean signs and barriers.



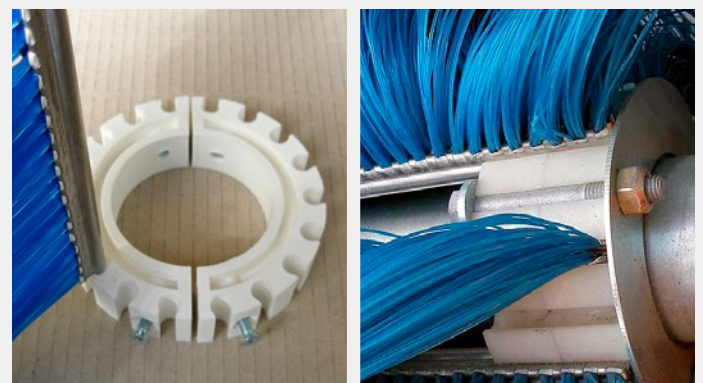
Technical Data

Washing width	800 mm
Brush diameter	600 mm
Brush speed	300 rpm
Weight	approx. 200 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min

Surface Washing Brush FWB 1600

The MULAG surface washing brush FWB 1600 is suitable for washing road signs, tunnel walls or noise protection walls.

- Hydraulic direct drive
- Water spraying device with adjustable nozzles
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Spray protection and water hoses set
- Various widths available



Holding device for the strip brushes

Assembly of the strip brushes

Technical Data

Washing width*	1600 mm
Brush diameter	1000 mm
Brush speed	320 rpm
Weight	approx. 190 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min

* more washing widths on request

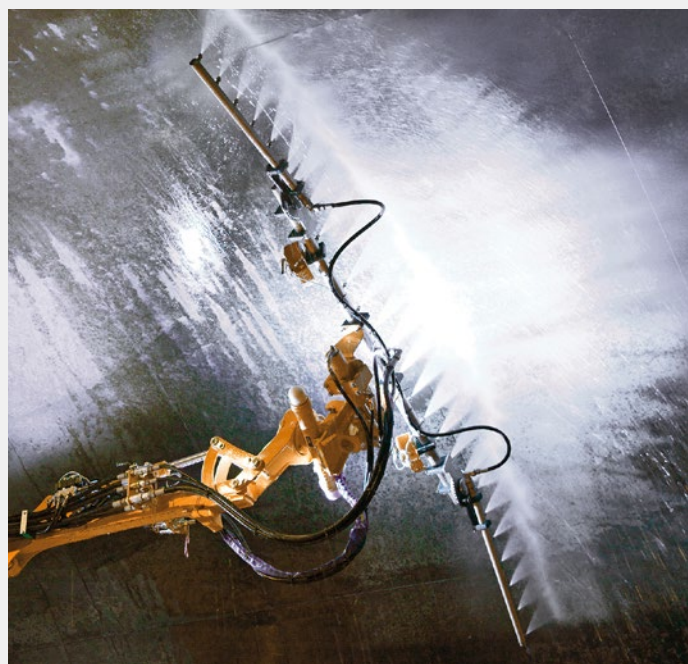
High-Pressure Spraying Bar HDS

One piece high-pressure spraying bar for cleaning walls, roadways and larger areas. The spraying angle of the flat jet nozzles is 25°. The two outer nozzles are inclined and have a beam angle of 65° in order to ensure a bigger cleaning width and clean edge areas and corners effectively.

- Different working widths possible
- MULAG-quick-change device
- Cleaning of border areas and corners
- Effective high-pressure cleaning



Technical Data	
Total width	900 – 2400 mm
Type of nozzles	flat jet nozzles
Water pressure	max. 200 bar



Three-section high-pressure spray bar in use on a tunnel wall



The three-section high-pressure spraying bar is specially designed for cleaning convex walls and surfaces. It has a basic width of 2 m and two lateral spray tubes each with a width of 0.8 m. The position of the two lateral spray tubes can be adjusted along the entire high-pressure spray bar to adapt to the shape of the surface to be cleaned.

The high-pressure spraying bar is equipped with flat fan nozzles and replaceable nozzle tips.

- Specially designed for convex walls (e.g. tunnel walls)
- 3 adjustable lateral parts
- Working width of up to 3.6 m



- Rapid working speed
- High cleaning performance
- Innovative features
- Various working widths

High performance in all operational situations

The efficiency of a tunnel washer depends also highly on the brush used. The TWB 2100 is convincing with its 2.1 m working width and the hydraulic drive integrated in the drive shaft: Apart from the excellent cleaning performance the reduction of the lateral overhang enables trouble-free operation even in difficult spots. The compact splash guard of the washing brush can be adjusted.



Technical Data	
Washing width	2100 mm
Total width (outside width)	2300 mm
Brush diameter	1000 mm
Brush speed	300 rpm
Weight	approx. 350 kg
Maximum permissible power consumption	max. 35 kW
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	62 l/min

The MULAG tunnel washing brush TWB 2100 is designed **for washing tunnel walls and lighting**.

- Touch automatic for the automatic adjustment of the brush to the wall
- Hydraulic direct drive
- Water spraying device with adjustable nozzles
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Spray protection and water hoses set

Brush segments

The bristles of the tunnel washing brush can be replaced very easily.

A well designed system allows easy replacement of the segments.



High-pressure cleaning system

The optional high pressure cleaning system can be used in combination with the tunnel washing brush or alone with a washing bar. A high-pressure water pump **with a flow rate of up to 120 l/min at a maximum pressure of 160 bars** ensures meticulous cleaning of difficult spots. The system is mounted on the frame of the water tank.



Watering Device



MULAG watering system is ideal for watering and irrigating flower beds, flower islands, trees and similar vegetation on the roadside.

- MULAG-quick-change device
- The high mobility and flexibility of the MULAG arms enable the treatment of plants situated on the top of slopes or far away from the roadside



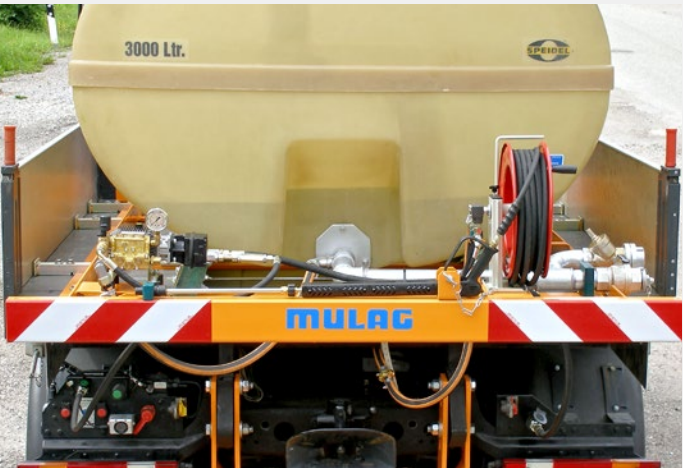
Technical Data	
Diameter	55 mm
Weight	approx. 20 kg
Water pressure	up to 4 bar

High-Pressure Hand Spray Gun

The hydraulically driven cleaning device consists of the following components: three-piston high-pressure pump with hydraulic motor, pressure relief valve , pressure gauge , quick coupling , hose reel with 15 m high-pressure hose, high pressure lance with 0.8 m length and adjustable nozzle.

In addition to the high-pressure hand spray gun a rotating washing brush can be delivered as option.

- Hydraulic direct drive
- Water spraying device with adjustable nozzles



Technical Data	
Water pressure	up to 130 bar
Water flow	approx. 12 l/min
Hose length	15 m
Hydraulic System	
Required hydraulic drive power	4 kW
Hydraulic flow	approx. 42 l/min
Hydraulic pressure	approx. 100 bar





Hydraulically driven

The **electrically driven water pump** supplies water either for the double washing brush DWB or the surface washing brush FWB.

- Driven via the electrics of the carrier vehicle
- 2 versions available: 12 V or 24 V
- With volume regulator



Electrically driven

Technical Data (hydraulically driven)	
Hydraulic engine for the drive	4 cm ³ /rotation
Flow rate hydraulic oil	approx. 17 l/min
Pressure limit in the pump	3 - 3,5 bar water pressure
Feed capacity	up to approx. 80 l/min

The **hydraulically driven water pump** is ideal for the water supply of the tunnel washing brush TWB.

- Hydraulic drive via hydraulics of the carrier vehicle
- Mounted onto the parking frame at the side of the water tank

Technical Data (electrically driven)	
Pressure limit in the pump	max. 3 bar water pressure
Feed capacity	up to approx. 14 l/min

Water Tanks



Water Tank 2000 - 5000 Litre

- Installation at the rear on the parking frame
- 4 parking stabilizers for parking frame with water tank (*option*)



Water Tank 500 Litre

- Rear installation in mounting brackets D50
- Front installation on front mounting plate size 3 or 5
 - Pickup claws for fork lift and parking legs



Water Management

- Smooth operation
- Wide field of application
- Ensuring a proper water drain
- Quick-change device

Double Blade Cutter DSW 1900



The MULAG double blade cutter DSW 1900 is suitable **for mowing grass and bush on embankments and waysides up to 10 mm.**

- Hydraulic drive
- Available for right and left-hand operation
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Cutting tool according to Bidux system

Technical Data	
Mowing width	1900 mm
Number of strokes	max. 1200/min
Weight	approx. 130 kg
Maximum permissible power consumption	max. 6 kW
Hydraulic oil pressure	max. 140 bar
Flow rate hydraulic oil	50 l/min
Working speed depending on growth	up to 10 km/h



Mowing Bucket MKB 2450



The MULAG mowing bucket MKB 2450 is suitable **for clearing the roadside ditch from grass and plants.** The basket is used to cut, collect and set aside the cuttings in one operation.

- Hydraulic drive
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Half cutting tool equipped with forged underpinning device

Technical Data	
Mowing width	2450 mm
Number of strokes	max. 600/min
Weight	approx. 235 kg
Maximum permissible power consumption	max. 12 kW
Hydraulic oil pressure	max. 140 bar
Flow rate hydraulic oil	50 l/min

Rotary Rake KH 2500

Technical Data	
Working Width	2500 mm
Weight	approx. 225 kg
Maximum permissible power consumption	max. 12 kW
Hydraulic oil pressure	max. 140 bar
Flow rate hydraulic oil	50 l/min
Working speed depending on growth	up to 5 km/h

The MULAG rotary rake KH 2500 is suitable **for collecting cuttings along the edge of slopes and waysides.**

- Hydraulic drive
- Available for right and left operation
- MULAG-quick change fixture incl. hydraulic hoses with quick couplings
- Clean work through the controlled prongs
- Removable dovetailing arm





Accessories

- Supplements for attachments
- Completing the area of application
- Optimal configuration

High-pressure Blower HDG

Accessories



Technical Data

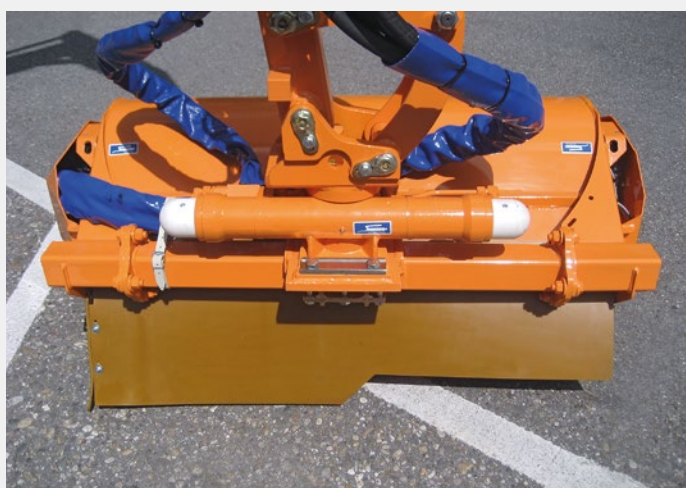
Weight	approx. 45 kg
Rotation speed of the fan wheel blower	approx. 5000 rpm
Hydraulic oil pressure	max. 340 bar
Flow rate hydraulic oil	max. 50 l/min



The High-pressure Blower HDG is used to clean the road or motorway.

- Hydraulic drive
- To be mounted on the front frame of the mowers MRM 300, MKF 600 or MKM 700
- Fitting in the rear mounting brackets D50 of the carrier vehicle
- Height adjustable and swivelling outlet hose for the air flow

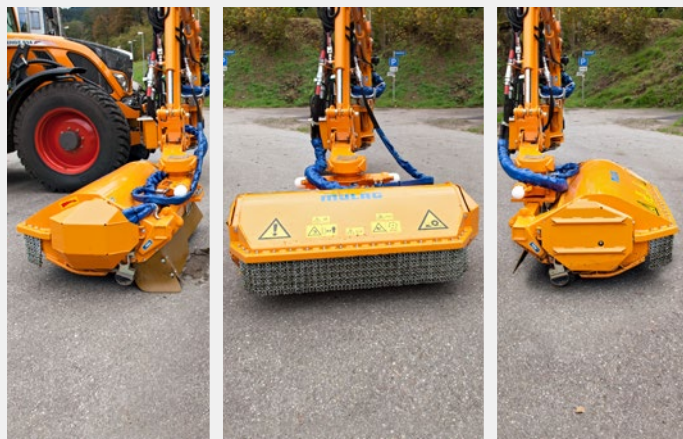
Hydraulic Rotating Device



With the optional **hydraulic rotating device** working attachment can be rotated up to 230°.

This equipment enables the adjustment of the working attachment from the operating panel in the cab to carry out such jobs as mowing around the road signs and free zone cutting amongst others.

- Rotatable up to 230°
- Easy to use
- Optional equipment



Technical Data

Weight	approx. 55 kg
Pivoting angle	230°
Hydraulic oil pressure	max. 320 bar



Overview Power Arms

Information

This overview helps you to select quickly and easily your working attachments

- This working attachment can be operated with this flail arm
- This working attachment can only be used with this flail arm under specific conditions

	MRM 300	MFK 400	MFK 500	FME 500/600	MKF 600	MKM700	MHU 800	SB 500/600
MK 1000		●	●	●	●	●	●	●
MK 1200			●	●	●	●	●	●
MK 1600				●		●	●	
MK 1200 plus			●	●	●	●	●	●
UMK 1200			●	●	●	●	●	●
MK-MSL		●	●	●	●	●	●	
BRK 1200			●	○	○	○	●	
GMK 1200			●	●	○	●	●	
GMK 1200 with add. protection device			○	●	○	●	○	
RMK 1200	●				●	●		
TMK 1200			○	○			○	
HSK 1200								●
AMK 500								●
AMK 1200								●
AMK 1600								●
USK 1200								●
FSG 2000		●	●	○	○	○	●	●
AWS 2200		●	●	○	○	○	●	●
BSF 500			●	○	●	○	●	
BRG 1000 (Rear)							○	
BRG 1000 (Front)			●	○	○	○	●	
WKB 750		●	●	○	○	○	●	●
RB 650		●	●	○	○	○	●	●
GRG 650			●	○	○	○	○	
EBG			●	○	○	○	●	
DWB		●	●	○	○	○	●	●
FWB 1600				○		○	●	
HDS		●	●	○	○	○	○	
TWB 2100			●	○	○	○		
DSW 1900			○	○	○	○	●	
MKB 2450				○		○	○	
KH 2500				○		○	○	

Reliable Working Attachments for All-Year-Round Operation

Our versatile range of working attachments allows an economical and efficient all-year-round use of your MULAG booms in different applications from mowing and wood maintenance up to clearing and washing:

Mowing

- slope mowing
- verge mowing
- mowing underneath crash barriers

Mowing & Collecting

- centre reservation on motorways
- collecting grass
- collecting waste

Wood Maintenance

- cutting hedges
- removing tree stumps
- free zone cutting

Clearing

- clearing verges
- clearing ditches
- drilling holes

Washing Systems

- cleaning signs
- tunnel washing
- street cleaning

Water Management

- clearing water ditches
- collecting cut grass



The weed brush WKB 750 is clearing outgrowth at road kerbs.



The tunnel washing brush TWB 2100 also cleans tunnel ceilings effectively.



The flail cutting head MK 1200 in use – reliable quality.

Distributor



Manufacturer

MULAG

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