OUTRIGGER PRODUCT RANGE





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Certified safety

Machine manufacturers in Europe must produce their machines in accordance with the CE Machinery Directive and, by affixing the CE mark, are making a self-declaration of compliance with these directives. The CE Machinery Directive includes, among other things, "Throwing body testing and acceptance criteria for flail mowers".

Our mulchers are tested in accordance with the DIN EN 17106-4 standard (machinery for road maintenance – safety).

We have had an independent, accredited institute - KWF Services - check and certify compliance with this guideline.

Your benefit: Maximum security

ISO certifications

Our company is certified in accordance with the ISO 9001 quality management system and the ISO 14001 environmental management system.









FVA 250 with branch and hedge cutter AWS 22



FVA 250 with clearance profile cutter LPS 20



Front loader sliding frame FVA for branch and hedge cutters

The Dücker FVA sliding frame offers an ideal solution for the effective maintenance of hedgerows and roadside greenery. This sliding frame enables the use of various branch cutters and clearance profile saws on front loaders, telescopic handlers and wheel loaders, ensuring a wide range of applications for different carrier vehicles.

Diversity and efficiency

The sliding frame is equipped with a hydraulic approach hitch and a hydraulic side shift of 1.60 metres. This function ensures that the implements can be used on both the right and left-hand sides for even more flexible handling. This means that the attachment frame can not only be mounted on different machines, but can also be used precisely in confined areas.

Gentle and efficient care

The Dücker branch and hedge cutters ensure efficient and gentle maintenance of hedges and roadside greenery. The slow-running cutter blades ensure a clean cut without fraying or splitting. This results in a smooth cut surface and creates ideal conditions for the plants to resprout. This gentle method of maintenance promotes the long-term growth of hedges and protects the plants from damage.

Safe and user-friendly

The cutters consist of a large-toothed fixed blade and a movable blade driven by a hydraulic cylinder. The relatively slow movements of the cutters (no fast rotating parts) minimise the risk of flying pieces of wood, splinters or chips. This not only ensures a safe working environment, but also protects the operating personnel and moving traffic from hazards.

In summary:

- Versatile use: Compatible with front loaders, telescopic handlers and wheel loader mounts.
- Hydraulic collision protection
- Hydraulic side shift by 1.60 m
- · Flexibility: Available for right and left-hand operation
- · Gentle cutting: Slow, clean cuts without fraying.
- Safety: No danger from rapidly rotating parts, no flying pieces of wood.
- Tools: Interchangeable tools, such as hedge cutters, branch and hedge cutters, as well as clearance profile cutter

Technical data FVA

		FVA
Working speed	till kmh	2,0
Working height (depending on carrier vehicle)	till mtr.	5,90
Working width from vehicle centre	mtr.	3,40
Displacement range	mtr.	1,60
Hydraulic drive shear and control function	min. ltr./min.	65
Hydraulic drive saw and control function	min. ltr./min.	80
Pressure	min. bar	180
Weight of mounting frame (without implement)	kg	500
Total weight (depending on implement)	kg	730

Verge mower **MGK 13**

The MGK 13 mower is the ideal solution for precise mowing of verges and delineator areas. Specially designed for attachment to municipal carrier vehicles and compact tractors with hydraulic drive, the MGK 13 offers high flexibility and outstanding performance when maintaining road verges, along delineators, traffic signs and trees. As an option, it can also be driven via the front PTO shaft or a hydraulic unit.

Diversity and precision

The MGK 13 can be equipped with a flail mower head and is available with either a practical automatic push button or manual control. With the manual control, the parallel-guided mowing head can be manoeuvred effortlessly around obstacles such as guide posts, trees and traffic signs. The automatic touch control ensures even more precise control and automatic adjustment to obstacles. Here, a touch rod in front of the mowing head takes over control so that the device is guided automatically and precisely around obstacles. This guarantees an optimised workflow and high mowing efficiency.

Technology for optimal working

The MGK 13 is equipped with an electro-hydraulic control unit that precisely controls the movements of the hydraulic cylinders. The control unit is mounted in the cab and is easy to operate during operation. An operating hours counter is integrated as standard so that the user always has an overview of the device's operating hours. In addition, the hydraulic collision protection provides additional safety if the machine encounters obstacles.

Flexibility in use

In addition to the flail mower head, the MGK 13 is also available with a delineator mower. This removes grass growth from delineators, traffic signs and other signposts. Two sensor-controlled mowing discs work precisely and guarantee a clean mowing result. The computerised control system is also used here.



MGK 13 mowing under guiding device



MGK 13 mowing verges











MGK 13 with LSM delineator mower in transport position



MGK 13 in transport position



Overview product features:

- Versatile application: Ideal for verges and delineator areas.
- Hydraulic drive: Mounted on municipal carrier vehicles with hydraulic drive.
- Mowing head with automatic or manual control: Automatic obstacle guidance or manual control possible.
- Precise control: Electro-hydraulic control and integrated computer for optimised work processes.
- Safety: Hydraulic collision protection protects the device from damage in the event of contact with obstacles.
- Simple operation: Control unit in the cab for convenient use.
- guarantee a clean and precise mowing result.

The MGK 13 mower offers you an efficient and flexible solution for demanding mowing work. Whether on verges or traffic facilities – with the MGK 13 you will always achieve the best results.

An overview of the implements can be found on page 31.

Technical data MGK 13

Ausleger	MGK 13
Working width	1,30 m
Mower head height	300 mm
Cutting height	40 mm - 60 mm
Mower head tilt from centre position	till 30°
Cutting system	Flail shaft
Rotor speed	3.600 rpm
Displacement	-
Working area	right-left
Transport width	1630 mm
Working speed	till 8 km/hh
Elektric	12 V / 24 V
Weight depending on model	500 kg
Max. forward delivery	1,90 m
Max. delivery from centre of vehicle	2,30 m

^{*)} without own drive

Verge mower RSM 13

Precision and automation

The RSM 13 verge mower is equipped with a computerised control system that enables it to precisely drive around obstacles such as delineators, traffic signs and trees and optimally align the mowing head. Thanks to the unique kinematic arrangement of the pivot points, the mowing material behind obstacles is also reached efficiently.

A parallel-guided arm ensures that the mowing head offers excellent visibility for the operator in all situations. The hydraulic displacement of the boom enables precise positioning of the mowing head, even in tight working conditions.

Another highlight is the automatic adjustment of the mowing head to the slope of the terrain when working on embankments, which makes work even more efficient and safe.

Controlling the verge mower is simple and intuitive: automated button functions allow the mowing head to be quickly positioned in the working or transport position. However, the operator can also intervene manually at any time and adjust the mower head as required.

Connection and communication

The entire control system is interconnected via a CAN-BUS system, which ensures optimum communication between the various components. This ensures stable and reliable operation, even under demanding conditions.



RSM 13 mowing under guiding device



RSM 13 when driving over delineators







The verge mower RSM 13 in transport position



RSM 13 with DAM on Unimog

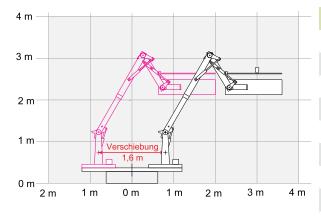
Features of the RSM 13 verge mower:

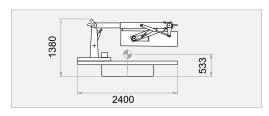
- Computer-aided control system for precise mowing around obstacles
- Excellent mowing head guidance and visibility for the operator
- Flexible drive via power hydraulics or front PTO shaft
- Automated functions and infinitely variable adjustment of the contact pressures
- Easy changeover from right-hand to left-hand operation
- · Adaptable mowing head for slopes and difficult terrain shapes
- Mowing via guide devices even on the second cut

The RSM 13 verge mower impresses with its high performance, flexibility and user-friendliness and is the ideal partner for precise mowing along roads, traffic signs and in narrow areas.

An overview of the implements can be found on page 31.

Technical data RSM 13





Range and movement sequence

Outrigger	RSM 13
Working width	1,30
Mower head height	300 mm
Cutting height	40 mm - 60 mm
Mower head tilt from centre position	till 30°
Cutting system	Wobble disc / Flail mower
Rotor speed	4000 / 3600 rpm
Displacement	-1,60 m
Working area	right-middle-left
Transport width	2400 mm
Working speed	till 8 km/h
Elektric	12 V / 24 V
Weight depending on model	800 - 950 kg
Max. forward delivery	3,20 m
Max. delivery from centre of vehicle	3,60 m

^{*)} without own drive

Outrigger KBM 350

Compact outrigger for front and rear mounting

The KBM 350 is a versatile embankment mower that has been specially developed for use on small tractors from 25 kW (34 hp). As a combined front and rear attachment, it offers maximum flexibility in daily use. Conversion from front to rear mounting and from left-hand to right-hand operation is straightforward.

Thanks to its compact design, it can also be easily mounted on smaller and compact carrier vehicles – ideal for use on narrow paths or in urban areas. It is mounted using the three–point hydraulics of category I + II.

The implements are driven via the integrated hydraulic system, which is fed by the tractor PTO as standard. Optionally, a drive via the power hydraulic system of the carrier vehicle is also possible – depending on the technical equipment and application requirements.

Compact design - clear view at all times

Despite its performance, the KBM 350 impresses with its particularly compact design, which does not obstruct visibility during transport when mounted at the front. This increases safety and comfort when travelling on the road.

Efficient work with intelligent technology

The parallel-guided outrigger arm ensures precise work directly next to the vehicle: the implement is automatically guided along when extended. An integrated hydraulic collision protection system reliably protects the implement and driver from damage caused by obstacles. The swivelling movement of the implement is controlled by a drive built into the outrigger arm. The swivelling angle is 270° at a constant speed. A hydraulic locking function fixes the implement exactly in the desired position.

Mower head with high ground tracking

The standard mowing head with flails ensures a clean cutting pattern. A continuous sensing roller enables a uniform cutting height and optimum adaptation to uneven ground. For special requirements, a rotor shaft with wobble discs can be used as an alternative.

Comfortable and intuitive operation

The control unit of the KBM 350 are designed for user-friendliness:

- · Clear control panel with clear symbols
- Indicator light for the float position
- Rotary switch for automatic transport and working position
- Ergonomic single-lever joystick with armrest for precise control
- · Electro-hydraulic control unit included

Overview product features

- · Combined front and rear mounting
- Also suitable for compact vehicles
- Drive via PTO shaft or optionally via power hydraulics
- · Parallel-guided outrigger arm for precise working
- Hydraulic collision protection protects against obstacles
- 270° swivelling angle with constant speed
- Use of various implements possible
- Compact design clear view during transport
- · Intuitive control with joystick and symbol guidance



KBM 350 in combination with USM 13



KBM 350 in rear mounting with flail mower head



KBM 350 in transport position

The technical data can be found on page 11. An overview of the implements can be found on page 31.

Control unit KBM 350





UNA 200 on a wheel loader



UNA 200 with hedge cutter HS 16



UNA 200 in split design, hydraulic unit at the

The most important features:

· Working area: left, right and in front of the vehicle

 Working in front of, underneath and behind guidance systems (especially UNA 200)

Working on embankments

 Working width from the centre of the vehicle up to 3.40 m

Can be folded in front of the vehicle for transport
 clear view during transport journeys

Swerving device for approaching obstacles

Mechanical arm pre-adjustment for flexible adaptation

 Can be driven via hydraulic system, PTO shaft or hydraulic unit

Outrigger UNA 100 and UNA 200

The UNA 100 and UNA 200 outriggers have been specially developed for mounting to multi-purpose municipal vehicles with their own hydraulic drive and a front attachment plate. These robust basic units are versatile and enable the use of different implements, making them ideal for a wide range of municipal tasks.

Maximum flexibility and range

Thanks to the hydraulic drive, the implements can be used on the left, right and in front of the vehicle. The symmetrical design of the Uni arms and implements allows them to be extended to the right or left, which offers a high degree of flexibility in the working area. The working range from the centre of the vehicle extends up to 3.40 metres, which enables a large reach for various applications.

Comfortable handling and transport

For transport, the outrigger of the UNA 100 and 200 models is simply folded in front of the vehicle, ensuring a clear view of the road. This well thought-out design facilitates use in road traffic and prevents visual obstructions when travelling.

Versatility and protection for obstacles

The uni-arms are suitable for a wide range of applications, including working in front of, underneath and behind guidance systems (especially the UNA 200) as well as working on embankments. In addition, an evasive device protects the system from damage when approaching obstacles, contributing to its durability and reliability.

Drive options

The uni-arms are driven by the hydraulic system of the carrier vehicle as standard. However, they can also be driven via the vehicle's PTO shaft or alternatively via a hydraulic unit. These flexible options offer a high degree of adaptability to the conditions of the carrier vehicle and ensure reliable performance in different areas of application.

The technical data can be found on page 11.

An overview of the control units can be found on page 28.

An overview of the implements can be found on page 31.







Outrigger DBM 400

The DBM 400 outrigger has been specially designed for front mounting on municipal carrier vehicles or tractors. It can be mounted either via a category I or II three-point linkage or via a mounting plate, which offers maximum flexibility in the choice of vehicle.

It is driven by the power hydraulics of the carrier vehicle or via the front PTO shaft, which ensures powerful, reliable performance – even in demanding applications.

An outstanding feature of the DBM 400 are the outrigger arms made of torsion-resistant hexagonal profile, which stand for particularly high stability and durability. In combination with the mechanical arm pre-adjustment, the working range can be optimised.

The basic machine serves as a carrier for a wide range of attachments and can therefore be used all year round – from green maintenance to winter service.

Overview of features:

- Working area: left, right and in front of the vehicle
- Work can be carried out in front of, underneath and behind guidance systems without any problems
- · Ideal for working on embankments
- Working width from the centre of the vehicle up to 4.45 m
- Can be folded in front of the vehicle for transport clear view when travelling on the road
- Swerving device protects the device and surroundings when approaching obstacles
- · Extremely powerful mowing head with low dead weight
- · Mechanical arm pre-adjustment for flexible working positioning



DBM 400 with flail mower head



DBM 400 in transport position







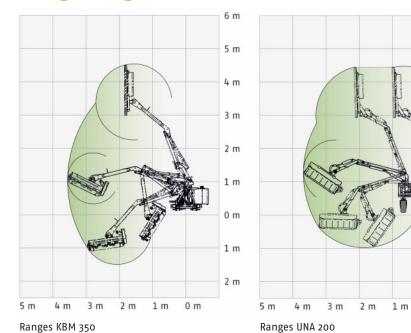
DBM 400 with hedge cutter HS 16

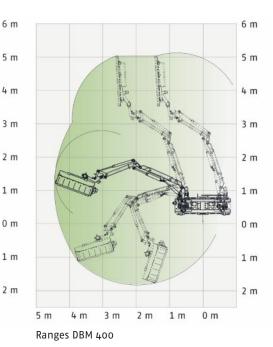
The DBM 400 impresses with its well thought-out design, versatile application options and high practical suitability – ideal for municipal services, building yards or agricultural operations that rely on robust and flexible technology.

An overview of the control units can be found on page 28.

An overview of the implements can be found on page 31.

Range diagrams





Technical data

Outrigger	KBM 350	UNA 100	UNA 200	DBM 400
Range	3,50 m	1,80 m	3,40 m	4,45 m
Transport width	1,65 m	1,65 m	1,65 m	1,70 m
Total weight (basic unit)	470 kg	225 kg	320 kg	380 kg
Displacement by	-	1,15 m	1,15 m	1,15 m
Swivel angel implement	270°	140°	140°	180°
Right- and left-working	yes	yes	yes	yes
Drive implement 60 ltr. <i>I</i> 200 bar	Front- or rear PTO shaft	Power hydraulics from the vehicle or front PTO shaft		
Control unit	Electro-hydraulic control		nydraulic control rom vehicle	
Mounting	Front- or rear mounting 3-point Cat. I + II		nounting plate nt linkage Cat. I + II	

0 m

Outrigger MBM 400

The MBM 400 front outrigger has been specially developed for front mounting on municipal implement carriers or tractors in the 80 hp class and offers a powerful and flexible solution for a wide range of applications in the municipal sector. With its robust design and excellent adaptability, the MBM 400 is the ideal choice for efficient and safe work.

Powerful drive and flexible applications

The implements are driven by an integrated hydraulic system, which is driven by the front PTO shaft of the carrier vehicle. If required, the vehicle's power hydraulics can also be utilised, making the outrigger even more versatile. The MBM 400 is equipped with a hydraulic shift of 1.40 m, which enables flexible positioning of the implements.

Thanks to the symmetrical design of the base unit and the implements, they can be used both to the right and left of the vehicle. This ensures effortless working on both sides of the carrier vehicle.

Easy operation and optimum ground tracking

The good view of the working mower and the simple operation via its own electric hydraulic control system guarantee convenient handling. Alternatively, it can also be controlled via the vehicle's hydraulics. The roller mounted across the entire mowing width ensures optimum ground tracking of the mowing head and a uniform mowing height even on uneven surfaces.



MBM 400 with flail mower head MKT



MBM 400 with flail mower head MKT







MBM 400 in transport position

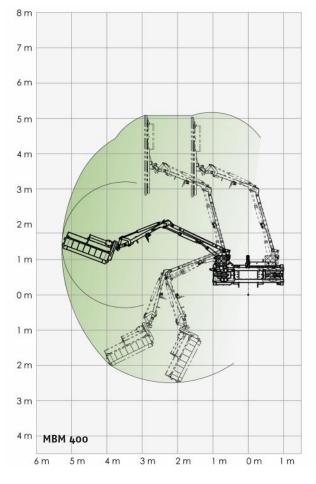
Versatile applications throughout the year

The MBM 400 is not only suitable for the summer months, but can also be used all year round thanks to the various mounting options. From road verges to embankment maintenance – the MBM 400 is your reliable partner for many municipal tasks.

The most important features of the MBM 400 front outrigger:

- Drive via front PTO shaft or optionally via the power hydraulics of the carrier vehicle
- · Hydraulic displacement of 1.40 m for flexible working
- Symmetrical design of the implements for use on both sides
- Good view of the mower and easy operation via its own electronic hydraulic control (alternatively via vehicle hydraulics)
- Versatile application options suitable for year-round use

An overview of the control units can be found on page 28. An overview of the implements can be found on page 31.



Technical data MBM 400

Outrigger	MBM 400
Range	5,3 m
Transport width	2 M
Weight basic unit	750 kg
Displacement by	1,40 m
Swivel angel implement	170°
Right- and left-working	yes
PTO speed	650 rpm
Hydraulic drive for implements	45 ltr. / 320 ba
Control unit	CAN-Bus control, optionally with outrigger relied control and Tasttronic
Mounting	Frontanbauplatte Größe 3 oder 5

Outrigger UNA 450, UNA 500 and UNA 600

Versatile extension arms for a wide range of applications

Die UNA 450, UNA 500 and UNA 600 outriggers offer universal application options and are specially designed for mounting on the front quick-release plate of carrier vehicles. With a working range of up to 15 metres (for the UNA 600), the possible applications range from left-hand work to work directly in front of the vehicle and right-hand work, making them extremely flexible and powerful solutions for various municipal tasks.

Hydraulic displacement for comfortable working

The outriggers are mounted on a sliding frame and can be moved hydraulically by up to 1.60 metres. This innovative design ensures that the implement always remains at the same, parallel height even when being moved. This means that when working on obstacles such as delineators, crash barriers, kilometre markers or traffic signs, no subsequent adjustment of the outrigger or implements is necessary. This ensures comfortable, fatigue–free and safe operation, even for complex tasks.

Protection mechanisms for maximum safety

The UNA 450, UNA 500 and UNA 600 outriggers are equipped with mechanical and hydraulic collision safety devices that provide additional protection to prevent damage to the equipment and vehicles. This ensures that the equipment remains reliable and functional even under demanding operating conditions.



UNA 500 with MKT



UNA500 with AWS



UNA 500 in use on wheel loader





UNA 500 in transport position



UNA 600 in rear mounting



UNA 600 in front mounting

Flexible impements for versatile applications

The available implements can be mechanically rotated horizontally through 360°, which further increases the versatility of the outriggers. This rotatability means that the implements can be optimally adapted to the specific requirements of the respective task, whether for green maintenance, street cleaning or embankment maintenance.

All-year use

The UNA 450, UNA 500 and UNA 600 outriggers can be used all year round thanks to the various implements, which have been specially designed for use in all seasons. The outriggers are therefore a particularly economical and practical solution for municipal and agricultural tasks.

Comfortable transport position for maximum safety

The outriggers offer a compact transport position that gives the driver a completely clear view of the road while travelling. This well thought-out design contributes to road safety and makes it easier to transport the equipment from one job site to the next.

The most important features of the UNA 450, UNA 500 and UNA 600:

- Working range up to 15 m (UNA 600)
- Hydraulic displacement of the outrigger by up to 1.60 m
- No need to readjust the outrigger and implement when working around obstacles
- Mechanical and hydraulic collision protection for additional protection
- Floating position for automatic adaptation to terrain conditions
- · 360° mechanically rotatable implements for flexible use
- · Year-round use thanks to various mountings
- Compact transport position for a clear view of the road

With their flexibility and robust design, the UNA 450, UNA 500 and UNA 600 outriggers offer an excellent solution for anyone looking for powerful, safe and easy-to-use equipment for their municipal tasks. Whether green maintenance, embankment work or street cleaning – these outriggers offer you an efficient and safe solution for a wide range of applications.

The technical data can be found on pages 20 and 21.

An overview of the control units can be found on page 28.

An overview of the implements can be found on page 31.



Outrigger DUA 700 and DUA 800

The DUA 700 and DUA 800 outriggers are universally applicable extension arms designed for front mounting on vehicle plates.

Thanks to their flexible design and high degree of adjustability, they offer outstanding performance for a wide range of requirements in agriculture, road maintenance and other municipal tasks.

Extended working area for maximum flexibility

The DUA 700 and DUA 800 outriggers offer an extensive working range. They can be used on the left, directly in front of the vehicle and on the right – the DUA 800 achieves a total working range of up to 15 metres. The hydraulic displacement of the outrigger by 1.60 metres enables the outrigger to be flexibly adapted to the respective conditions and ensures precise and efficient work even in difficult operating conditions.

Precise adjustment to obstacles

Thanks to the displacement of the outrigger, the implements always remains at the same, parallel height, which ensures additional comfort and safety. There is no need to readjust the outrigger or implements when working around obstacles such as delineators, crash barriers, kilometre markers or traffic signs. This saves time and ensures an efficient workflow.

Robust construction for heavy loads

The DUA 700 and DUA 800 are characterised by their robust construction. The attachement plate with intermediate piece, the sliding frame, the slider, the rotating column and the extension arms are made of fine-grained steel and are particularly stable thanks to their welded construction. To prevent the arms from twisting and bending, a hexagonal profile was used to ensure additional stability and guarantee a long service life for the stabilisers.



DUA 800 – The telescopic arm makes it possible to drive over



The DUA 800 with AWS 22







DUA 700 with AWS 22



DUA 700 with GMK 12

Flexible working tool with swivel head

There is a swivelling head at the end of the last outrigger arm to hold the working equipment. The swivelling range of 270° enables great flexibility during work and ensures that the outrigger can be adapted to a wide range of requirements. The swivelling mechanism is integrated into the outrigger arm, which means that no cylinders or deflection levers interfere with the working area.

The most important features of the DUA 700 & DUA 800 outriggers:

- Can be used universally for a wide range of applications
- Working range of up to 15 metres (DUA 800)
- · Hydraulic displacement of 1.60 m for flexible adjustment
- Automatic adjustment to terrain conditions thanks to floating position
- · Sturdy construction made of fine-grained steel for high loads
- · Hexagonal profile for optimum protection against twisting and bending
- Swivel head with a 270° swivelling range for maximum flexibility
- No subsequent adjustment required when working around obstacles

With their robust design, flexible handling and practical functions, the DUA 700 and DUA 800 outriggers offer an excellent solution for numerous applications. They are the ideal choice for anyone looking for high efficiency, safety and comfort when working with their carrier vehicles.

The technical data can be found on pages 20 and 21.

An overview of the control units can be found on page 28.

An overview of the implements can be found on page 31.



Mower combination MK 25

Efficiency and versatility in one work step

The MK 25 mower combination combines two tried-and-tested machines, the DUA embankment mower and the RSM verge mower, into one powerful system. Thanks to the interaction of the two machines, the first and second cut can be carried out in just one pass – a perfect solution for efficient, fast and high-quality mowing work.

Versatile functions and easy handling

The mower combination is mounted on a sliding carriage that enables a hydraulic shift of up to 1.60 metres. This function allows precise adjustment of both devices and ensures that the advantages of the shift are fully utilised. The DUA and RSM can therefore be optimally adapted to the respective working conditions.

For the operator, this not only saves an enormous amount of time, but also reduces physical strain. Both machines are equipped with Tasttronic – a microprocessor–controlled technology that enables automatic levelling of the mowing head and thus supports the operator when working at high travelling speeds. Tasttronic ensures that the mower works precisely even in demanding terrain without the operator having to constantly intervene.



Mower combination MK 25



MK mower combination consisting of DUA 700 and RSM for mowing behind and under guide rails





Hydraulic unit in rear mounting

Flexibility in use

One outstanding advantage of the MK 25 mower combination is its flexibility. The RSM verge mower can be quickly removed if necessary, allowing the DUA outrigger to continue to be used as a fully-fledged front outrigger. This means that the outrigger can be used not only for verges, but also for other applications by simply changing the appropriate implements. The RSM can also be used separately as a stand-alone unit for working on headlands, roadsides and in confined areas.

The technical data can be found on pages 20 and 21.

An overview of the control units can be found on page 28.

An overview of the implements can be found on page 31.

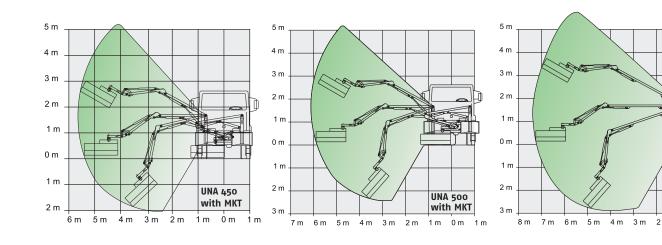


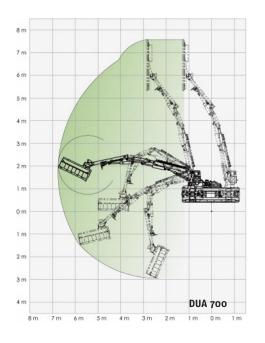
MK 25 in rear transport position with parking frame

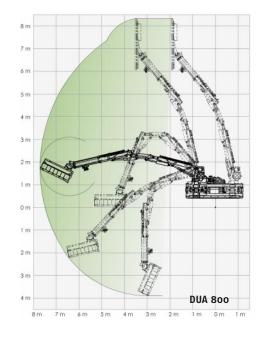




Range of the outriggers UNA, MBM, DUA







Technical data UNA, DUA and MK

Outrigger	UNA 450	UNA 500
Range	5,4 m	6 m
Transport width	2,2 m	2,4 m
Weight basic unit	850 kg	900 kg
Displacement by	1,40 m	1,60 m
Swivel angel implement	170°	170°
Right- and left-working	yes	yes
PTO speed	650 rpm	650 rpm
Hydraulic drive for implements	45 ltr. / 320 bar	45 ltr. / 320 bar

Control unit

CAN-Bus control, optionally with outrigger re

UNA 600 with MKT

0 m 1 m

Mounting

Counterweights



Counterweight (spreader version) in the Unimog mounting brackets



Counterweight in the Unimog's mounting brackets



Counterweight in the mounting brackets of narrow-gauge vehicles



Counterweight 2-point version



Counterweight in the Unimog's mounting brackets (moved upwards)

Conterweights:

Further special solutions available on

Vehicle plates and Torsion frames



Mounting plate size F2



Vehicle plate with hydraulic axle support



Hydraulic torsion frame on the Unimog

UNA 600	DUA 700	DUA 800	MK 25-700	MK 25-800		
7,3 m	6,8 m	7,8 m	6,3 m (6,8 m)	7,3 m (7,8 m)		
2,5 m	2,5 m	2,5 m	2,5 m	2,5 m		
1050 kg	1050 kg	1250 kg	2100 kg	2300 kg		
1,70 m	1,60 m	1,60 m	1,10 m (1,60 m)	1,10 m (1,60 m)		
170°	270°	270°	270°	270°		
yes	yes	yes	yes	yes		
650 rpm	710 rpm	710 rpm	710 rpm	710 rpm		
45 ltr. / 320 bar	68 ltr. / 340 bar	68 ltr. / 340 bar	68 ltr. / 340 bar	68 ltr. / 340 bar		
lied control	CAN-Bus control, optionally with outrigger relied control					

Front mounting plate size 3 or 5

Outrigger HDM 600 / HDM 700

The HDM 600 and HDM 700 outriggers have been specially developed for rear mounting on tractors and offer an ideal solution for demanding applications in agricultural and municipal technology.

The three-point linkage, which is matched to the tractor, enables quick and uncomplicated attachment and removal of the device, while at the same time ensuring a high level of stability even with a large outreach.

Main features:

- Can be used for right-hand and left-hand work flexible use on both the left and right side of the tractor.
- Swivelling from the vehicle cab incl. adjustment of the implement Convenient control of the boom and implements directly from the cab without the need for manual readjustment.
- Self-sufficient hydraulic system The powerful axial piston high-pressure hydraulics ensure that the implements are supplied with sufficient power independently.
- Forward and reverse collision protection The implement is equipped with collision protection in both directions, which increases safety during work and transport.
- Working forwards and backwards is possible The flail mower head can be hydraulically rotated through 240°, allowing it to be used in both directions of travel.



An outstanding feature of the HDM 600 and HDM 700 outriggers is the parallel arm, which allows you to work directly next to the tractor cab. This innovative design guarantees an excellent view of the implement, which ensures safe and precise handling.

High-performance hydraulics

The generously dimensioned axial piston high-pressure hydraulics ensure that the implements are always supplied with sufficient power to guarantee a constant quality of work even in difficult conditions.

Compatibility with various working devices

The HDM 600 and HDM 700 outriggers offer a high degree of flexibility thanks to the option of mounting numerous Dücker implements such as loppers, weed brushes and washing systems on the outrigger. This allows the machine to be used all year round and makes it a valuable helper in many different applications.



HDM 600 in combination with DUA 800



HDM 600 in transport position

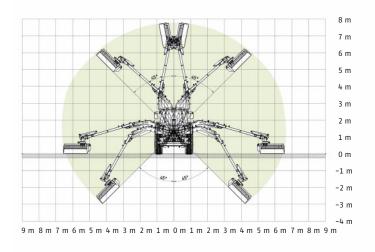


HDM 600 left- and right-hand-working

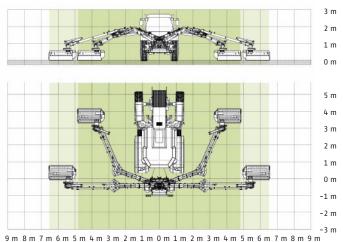


Ranges HDM

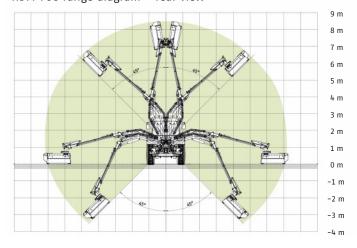
HDM 600 range diagram - rear view



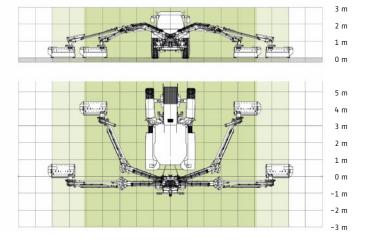
HDM 600 range diagram - top view



HDM 700 range diagram - rear view



HDM 700 range diagram - top view



Technical data

Outrigger	HDM 600	HDM 700
Rear mounting with mounting frame	Vehicle-specific	Vehicle-specific
Max. range from vehicle centre	6,50 m	7,20 m
Left- and right-working	yes	yes
Swivel range	220°	220°
Transport position	stored in the back	stored in the back
Weight with implements	ca. 2400 kg	ca. 2650 kg
Control unit	Proportional Can-Bus with Tastronic	Proportional Can-Bus with Tastronic
Drive implements	Axial piston high-pressure system 68 I/340 bar	Axial piston high-pressure system

Top mounted outrigger DAM

The Dücker DAM top mounted outrigger is a specially developed, universal working arm for system carriers with a platform body that offers a particularly long reach and flexibility. This innovative outrigger is mounted directly on the rear of the carrier vehicle and is securely fastened by a matching platform base frame.

Maximum range and flexibility:

With a maximum reach of 9.10 m for the DAM 900 and 10.30 m for the DAM 1050, the DAM outrigger is a real powerhouse. The outrigger arm can be moved hydraulically and can be swivelled continuously both forwards and backwards, allowing the implement to be positioned precisely – even in difficult terrain. The long reach and flexible handling of the outrigger make it possible to use implements directly next to the vehicle or on both sides of the vehicle.

Collision protection and high level of safety:

An important safety aspect is the sensor control integrated into the outrigger, which prevents a collision with the vehicle cab of the carrier vehicle when the outrigger is swivelled forwards and backwards. The Dücker DAM top mounted outrigger therefore ensures safe and efficient utilisation without the risk of damage.

Robust construction and precise control:

The outrigger consists of three robust outrigger arms as well as a telescopic arm (on the DAM 1050 version) and a deflection arm. The entire outrigger is made of high-quality steel, and the hexagonal profile of the arms ensures optimum stability and protection against twisting and bending. Permanently installed steel hydraulic lines ensure a safe and clean power supply.

Versatile working opportunities:

At the end of the last outrigger arm is a 2-axis rotary device that enables precise and flexible attachment of the implements. This rotary device offers a swivelling range of 180° horizontally and 250° vertically. The implement is automatically guided parallel to the vehicle when swivelling – without the need for readjustment. This means that a wide range of working positions can be easily preset. The tried-and-tested Dücker Tasttronic ensures that the implement is always optimally adapted to the terrain, guaranteeing high efficiency and precise operation.



DAM 900



The hydraulically adjustable counterweight



Transport position of DAM





Easy removal of base frame and stabiliser



Device connection with 2-axis rotating device



Axle support for the base frame

Easy operation and quick conversion:

The platform intermediate frame is mounted on the carrier vehicle with a tool-free locking system, which enables the outrigger to be assembled and dismantled quickly and easily. Hydraulic parking supports ensure stable and safe storage of the outrigger during operation and transport breaks.

Extended application possibilities:

Thanks to the outrigger being mounted at the rear of the vehicle, Dücker front outriggers and mower combinations can also be used at the front of the vehicle. This makes it possible to use up to three mower heads at the same time, which further increases the versatility and efficiency of the Dücker top mounted outrigger.

Overview of technical highlights:

- Reach: Up to 10.30 m (DAM 1050)
- · Flexibility: Hydraulically adjustable and infinitely variable swivelling
- Sensor control: Collision protection and automatic parallel guidance of the implement
- · Robustness: Robust welded steel construction with hexagonal profile
- · Ground adjustment: Optimum thanks to the Dücker Tasttronic
- · Simple assembly: Tool-free locking and hydraulic parking supports
- Versatility: Use of front outriggers and mower combinations for simultaneous use of several implements

The range diagrams can be found on page 26.

An overview of the implements can be found on page 31.

An overview of the control units can be found on page 28.



Technical data

Outrigger	DAM 900	DAM 1050			
Range	9,10 m	10,30 m			
Transport width	2,52 m	2,52 m			
Weight basic unit	4,3 – 4,6 t depending on ballast weight	4,3 – 4,6 t depending on ballast weight			
Displacement by	1,60 m	1,60 m			
Swivel-/ rotation angel implement	250° swivel- / 180° rotation angle	250° swivel- / 180° rotation angle			
Right- and left-working	yes, symmetrical	yes, symmetrical			
PTO speed	280 bar, 90 l (if necessary 300 bar)	280 bar, 90 l (if necessary 300 bar)			
Control unit	CAN-Bus-control, sensor bus with teachable sensors				
Mounting	rear mounted at the top	rear mounted at the top			

Top mounted outrigger DAM as mower combination

By mounting the DAM on the rear of the vehicle, it is possible to use Dücker front outriggers and mower combinations at the front of the carrier vehicle. This allows up to three mower heads to be used simultaneously.





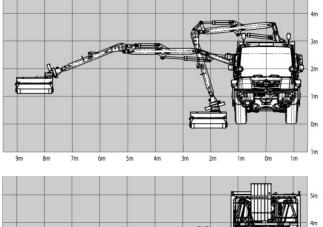
Top mounted outrigger DAM with MK 25/800

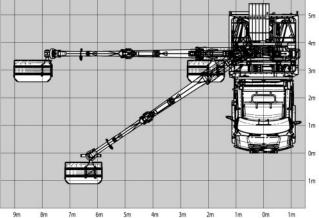


DAM as mower combination in transport position

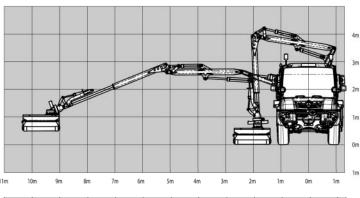
An overview of the implements can be found on page 31. An overview of the control units can be found on page 28.

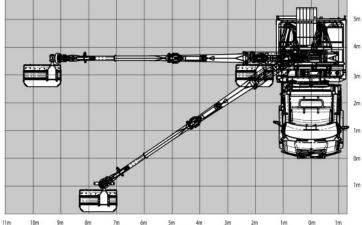
Ranges top mounted outrigger DAM 900





Ranges top mounted outrigger DAM 1050







Mower head VMS 1200 with Tasttronic

DÜCKER Tasttronic: precise and reliable level adjustment for the outrigger

The Dücker Tasttronic is an innovative special feature for a wide range of outriggers, offering microprocessor-controlled operation and combining all the functions of proportional single-lever control in a single, intuitive system.

Precise and automatic level adjustment

The Tasttronic enables fully automatic and precise level adjustment of the mower head, even at high driving speeds. Thanks to the integrated signal detection in the mower head, which is carried out via bending and torsion measurements using strain gauges, the implement is constantly adjusted to the ground conditions. This technology guarantees optimum working results and prevents damage to the boom and mower head, while protecting the turf.

Robust and maintenance-friendly

A key advantage of the Dücker Tasttronic is that it has no moving parts that are susceptible to dirt and dust. The signal detection unit is completely encapsulated, making the system particularly robust and resistant to the challenges that can arise when working in adverse conditions (e.g. dust or dirt).

Easy handling and increased safety

Thanks to Tasttronic, the operator no longer has to worry about precise height control and can concentrate fully on driving and traffic. Level adjustment is largely automatic, freeing the driver from tedious fine–tuning. Even when working on counter slopes, the system ensures reliable results, even if the driver does not always maintain exactly the same distance.

Tasttronic can be overridden or switched off at any time, depending on the driver's needs. In addition, the EMERGENCY STOP function offers increased safety and ensures that the system can be stopped quickly in an emergency.

The most important features of the DÜCKER Tasttronic:

- · Microprocessor-controlled operation for precise control
- Fully encapsulated signal detection for automatic and precise level adjustment
- Bending and torsion measurement using strain gauges for exact ground adaptation
- No moving parts that are susceptible to dirt and dust for high robustness and durability
- · Can be overridden or switched off as required by the driver
- EMERGENCY STOP function for additional safety
- Automatic level adjustment at high driving speeds and also on counter slopes

The DÜCKER Tasttronic makes work more efficient, safer and more comfortable. Automatic level adjustment keeps the mowing result consistent on any terrain, while allowing the operator to focus on driving and traffic.

Control units

Outrigger UNA 100, UNA 200, DBM 400, MBM 400, UNA 450, UNA 500 and UNA 600



Elobau-Joystick (Tasten-Joystick)



Gessmann-Joystick (Wippen-Joystick)



Danfoss-Joystick (Rollen-Joystick)



Multi-controller with keypad and Danfoss joystick (Rollen-Joystick)

Outrigger HDM



Gessmann-Joystick (Wippen-Joystick)



Danfoss-Joystick (Rollen-Joystick)



Multi-controller with keypad and Danfoss joystick (Rollen-Joystick)

The UNA to HDM outrigger are controlled via an ergonomically designed single-lever joystick system, which enables intuitive and precise operation. This joystick can be used to perform all movements on two levels, allowing complex tasks to be controlled with ease. In addition, the optional Tasttronic can be activated at the touch of a button, making operation even more convenient. For optimum operation and easy handling, all control functions are directly accessible via the joystick.

The supplied display is used not only for basic settings and operating data acquisition, but also for test settings. All control data is processed by a computer and transmitted to the hydraulic valve. The control panel is equipped with a joystick, multi-controller and a

The DUA, MK 25 and DAM outrigger control unit offers user-friendly and ergonomic control of all outrigger functions. It consists of a joystick, a multi-controller and a high-resolution 7-inch touch display, which together enable

The joystick is used to control all outrigger arm movements proportionally. This ensures precise control, both for slow movements and quick adjustments. Automatic functions such as Tasttronic can be easily activated at the touch of a button, further reducing the operator's workload and making work more efficient.

The multi-controller provides direct control of all functions important for mowing operations. The integrated rotary encoder allows easy display navigation and selection

TouchDisplay touch display. This combination ensures user-friendly operation, allowing the driver to switch between control options as desired.

All functions can be operated either via the touch display or the rotary encoder in the multi-controller. The colour display provides a clear and concise overview of all operating and diagnostic data, allowing the driver to maintain a constant overview.

The arm movements are controlled directly via the joystick, ensuring precise and efficient execution of tasks. The user-friendly design and sophisticated technology help to ensure that working with the boom remains comfortable and safe even over longer periods of time.

and adjustment of various device functions. This enables the operator to quickly and precisely adapt to the current work requirements.

The touch display shows all current operating states of the device and offers intuitive touch control for basic settings. Even under unfavourable conditions, such as strong sunlight, the display remains easy to read. For even easier navigation, the display can be controlled both via the rotary encoder in the multi-controller and directly via the touch display.

All components of the control unit are connected to each other via a CAN bus system, which ensures stable and reliable communication between the individual control elements.

precise and comfortable operation.

Outrigger DUA 700 and DUA 800



Gessmann-Joystick (Wippen-Joystick) with Multi-controller



Danfoss-Joystick (Rollen-Joystick) with Multi-controller



TouchDisplay

Mower combination MK 25 - one-hand operation



Gessmann-Joystick (Wippen-Joystick) with Multi-controller



Danfoss-Joystick (Rollen-Joystick) with Multi-controller



TouchDisplay

Mower combination MK 25 - two-hand operation



Gessmann-Joystick (Wippen-Joystick) with Multi-controller



Danfoss-Joystick (Rollen-Joystick) with Multi-controller



Elobau-Joystick (Tasten-Joystick)



TouchDisplay

Top mounted outrigger DAM



Joystick with Multi-controller and DrehEncoder



Dücker TouchDisplay

Hydraulic power unit

Our powerful hydraulic unit is easily mounted on the rear three-point linkage of the carrier vehicle and supplies the front implement with the necessary hydraulic power. Thanks to numerous equipment options, the unit can be flexibly adapted to individual requirements.

Whether it's the variable positioning of the counterweight for optimum axle load distribution, the attachment of storage boxes, the integration of an additional blower or other special solutions – the system offers maximum adaptability.

For a clean and secure connection, the hose guide from the rear to the front implement can be permanently installed in the vehicle on request.



Hydraulic unit with positioning of the counterweight behind the unit



Hydraulic unit with positioning of the counterweight under the unit

Hydraulic power unit (free trailer coupling)

Our powerful hydraulic unit is easily mounted on the rear three-point hitch of the carrier vehicle and supplies the front implement with the necessary hydraulic power. Thanks to numerous equipment options, the unit can be flexibly adapted to individual requirements.

Whether it's the variable positioning of the counterweight for optimum axle load distribution, the attachment of storage boxes, the integration of an additional blower or other special solutions – the system offers maximum adaptability.

For a clean and secure connection, the hose guide from the rear to the front implement can be permanently installed in the vehicle on request.

The advantages of the Dücker hydraulic unit:

- The rear trailer coupling of the tractor remains freely accessible.
- The hydraulic unit has coupling points to which water barrels or loading platforms, for example, can be attached.
- In addition, the hydraulic unit can be expanded with further options, such as an additional blower or toolboxes.



With the DÜCKER hydraulic unit, the rear trailer coupling remains freely accessible.



Water tank, mounted in the coupling points of the hydraulic unit.

Overview DÜCKER-Implements

						000				
= recommended= conditionally possible by arrangement						450/500/600		_		
External drives, transport widths	00	200	004	350	00	50/5		DAM / HDM		
and additional attachments must be checked.	UNA 100	UNA 20	рвм 4	КВМ 3	мвм 400	UNA 4	Α	Σ	(25	⋖
	S	5	DB	KB	Σ	5	DUA	DA	Σ	FVA
Flail mower head MKL 10	•	•	•	0						
Flail mower head TMK 10	0	0	0	•						
Flail mower head TMK 13	0	0	0		0	0	0	0	0	
Flail mower head MKT 10					•	•				
Flail mower head MKT 13					•	•				
Flail mower head VMS 1200						•	•	•	•	
Flail mower head VMS 1200 Öko						•	•	•	•	
Flail mower head VMS 1400							•	•	•	
Flail mower head TTM 13					•	•	•	•	•	
Cutting and gripping device SGG 1200							•			
Mowing disc										
Brushwood mower head GMK 12						•	•	•	•	
Double blade mower DMW 15	•	•	•	•	•	•	•	•	•	
Pavement cleaner PFP 600	•	•	•	•	•	•	•	•	•	
Pavement cleaner PFP 900	•				•	•	•	•	•	
Branch and hedge cutter AWS 13			0		•	•	•	•	•	•
Branch and hedge cutter AWS 22				•	•	•	•	•	•	
Branch and hedge cutter AWS 26						0	0	0		•
Hedge cutter HS 16	•	•	•	•	•	•	•	•	•	•
Hedge cutter HS 20	•	•	•		•	•	•	•	•	
Hedge cutter HS 30					0	0	0	0		•
Hedge cutter HSL 15	•	•	•	•	•	•	•	•	•	•
Hedge cutter HS 130 HR	•	•	•	•	•	•	•	•	•	•
Hedge cutter HS 131 HR	•	•	•		•	•	•	•	•	•
Clearance profile cutter LRS 1602	•	•	•	0	•	•	•	•	•	•
Clearance profile cutter LPS 20					•	•	•	•	•	•
Trench bottom milling machine GSF 600					•	•	•	•	•	
Radial weed brush RWB 600					•	•	•	•	•	
Tree stump cutter BSF 500					•	•	•	•	•	
Broom HDK 1300	•	•	•		•	•	•	•	•	
Tunnel washing system TWA 18					•	•	•	•	•	
Tunnel washing system TWA 21					•	•	•	•	•	
Sign washing system SWA 900		•	•		•	•	•	•	•	
Reflector-post- and sign-washer LPW 500	•	•	•		•	•	•	•	•	
High-pressure water bar HDB 20	•	•	•	•	•	•	•	•	•	
Earth drill		•	•		•	•	•	•	•	
Casting system	•	•	•	•	•	•	•	•	•	
Rotary rake DKH 2500					•	•	•	•	•	
Belt rake DBR 2000					•	•	•	•	•	
Leaf blower LG 900					•	•	•	•	•	
Blower with spraying device LG27HD		•	•	•	•	•	•	•	•	



Flail mower head MKL 10

Working width	m	1,00
Mowing head height	mm	450
Rotor speed	rpm	2700
Weight	kg	190



Flail mower head TMK 10 / 13

Working width	m	1,00 / 1,30
Mowing head height	mm	300
Rotor speed	rpm	2200
Weight	kg	165 / 210



Flail mower head MKT 10 / MKT 13

Working width	m	1,00 / 1,30
Mowing head height	mm	450
Rotor speed	rpm	2100
Weight	kg	240 / 270



Flail mower head VMS 1200 / VMS 1400

Arbeitsbreite	m	1,23 / 1,43
Mowing head height	mm	550
Rotor speed	rpm	1220 / 1440
Weight	kg	350 / 380



Eco mower head VMS 1200 ÖKO

Working width	m	1,23	
Mowing head height	mm	350	
Rotor speed	rpm	1220	
Weight	kg	380	





Flail mower head TTM 13

Working width	m	1,30	
Mowing head height	mm	300	
Rotor speed	rpm	2800	
Weight	kg	380	



Cutting and gripping device SGG 1200

Working width	m	1,25
Weight	kg	450





Mowing disc

Mowing disc mounted on the side of the mowing head for mowing out delineators and crash barrier holders.

Choice between adjustable pneumatic/hydraulic deflection or mechanical deflection.



Brushwood mower head GMK 12

Working width	m	1,20
Mowing head height	mm	760
Cutting thickness	mm	till 60
Rotor speed	rpm	2700
Weight	kg	350



Double blade mower DMW 15

Working width	m	1,50
Weight	kg	110



Pavement cleaner PFP 600

Working width	m	0,60 / 0,90
Rotor speed	rpm	1500
Weight	kg	140 / 190





Branch and hedge cutter AWS 13 / AWS 22 / AWS 26

Working width	m	1,30 / 2,20 / 2,60
Cutting thickness	mm	till 110
Weight	kg	160 / 230 / 240





Hedge cutter HS 16 / 20 / HS 30

Working width	m	1,60 / 2,00 / 3,00
Cutting thickness	mm	till 45
Weight	kg	120 / 130 / 180





Hedge cutter HSL 15

Working width	m	1,50	
Cutting thickness	mm	till 30	
Weight	kg	85	



Hedge cutter HS 130 HR

Working width	m	1,30
Cutting thickness	mm	till 20
Weight	kg	140



Hedge cutter HS 131 HR

Working width	m	1,30
Cutting thickness	mm	till 20
Weight	kg	165



Clearance profile cutter LPS 1602

Working width	m	1,60
Cutting thickness	mm	till 100
Weight	kg	150



Clearance profile cutter LPS 20

Working width	m	2,00
Cutting thickness	mm	till 150
Weight	kg	220



Trench bottom milling machine GSF 600

Diameter of milling wheel	m	0,60	
Rotor speed	rpm	800	
Weight	kg	230	





Radial weed brush RWB 600

Working width	m	0,60	
Rotor speed	rpm	150	
Weight	kg	320	



Tree stump cutter BSF 500

Milling diamete	m	0,50
Rotor speed	rpm	1000
Weight	kg	180



Sweeping broom HDK 1300

Working width	m	1,30	
Diameter of brush roller	m	0,60	
Weight	kg	240	



Tunnel washing system TWA 18 / TWA 21

Working width	m	1,80 / 2,10
Brush diameter	m	1,0
Weight	kg	320 / 350



Sign washing system SWA 900

Working width	m	0,90	
Brush diameter	m	0,99	
Weight	kg	155	





Reflector-post- and sign-washer LPW 500

Working width	m	0,50
Brush diameter	m	0,50
Weight	kg	150





High-pressure water bar HDB 20

Working width	m	2,00	
Number of nozzles	pieces	12	
Weight	kg	40	



Earth drill

equipped with drill bits and cutting teeth,
for setting guide posts, etc.

Diameter 100 mm, Length 1200 mm

Diameter 150 mm, Length 1200 mm

Diameter 300 mm, Length 1200 mm

Diameter 400 mm, Length 1200 mm



Casting system

Weight	kg	15	
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Rotary rake DKH 2500

Diameter / Clearing area	m	2,50
Rotor speed	rpm	170
Weight	kg	250



Belt rake DBR 2000

Working width	m	2,00	
Number of rows of tines	m	10	
Weight	kg	300	



Leaf blower LG 90

Volume flow	m³/min	approx. 90
Weight	kg	150



Blower with spraying device LG 27 HD

Volume flow	m³/min	27	
Weight	kg	100	









