

HOLDER

NO COMPROMISES

UNIQUE MOWING SOLUTION: HOLDER S 990 WITH MULAG REFLEXION POST AND VERGE MOWER



The unique mowing solution system powered by Holder and MULAG.

PERFECT COMBINATION

HOLDER and MULAG present a premium-quality combination of a multifunctional carrier vehicle with perfect matching attachments for optimum results for close-roadside mowing work.

The complete process of maintaining guard rails, cable barriers and reflexion posts can be done in one step. It is a one-operator solution and eliminates the need for hand trimming, spraying or manual cutting to safely and economically complete the job.

YOUR BENEFITS



Cost saving



Time saving



Safety



Comfort



Work result

MADE IN GERMANY

HOLDER

Since 1888, Holder has been standing for highly innovative engineering work and the construction of high-performance products for the use in municipal and agricultural applications. Each of the tractors incorporates passionate German engineering, more than 125 years of experience and the fascination of a traditional high-premium brand.

MULAG

MULAG is one of the leading German manufacturers of high-tech products and special solutions for roadside maintenance and airport ground support. In 1953, MULAG started to manufacture vehicles for agricultural applications. In the 1960s and 70s, the company defined the business sectors it is still working today and successfully producing high-end solutions. For further informationen visit www.mulag.com.

There are many benefits to articulated steering. There is even more to a Holder S 990.

COMFORT & SAFETY

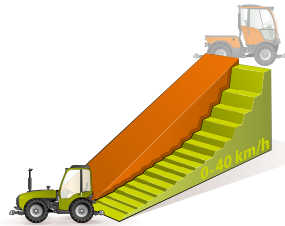
CABIN AND OPERATING CONSOLE

- Very spacious and comfortable cabine with air conditioning and 360° visibility
- Excellent view of attachments and working comfort
- Side windows and pop-up roof can be opened
- Heated, adjustable seat with air-suspension system
- 1-hand operation and programmable joystick
- Film protected control panel



STEPLESS DRIVING

- No traction interruptions
- Transport mode: foot pedal variable speed control
- Working mode: speed control via dial on panel
- Alternatively, speed control via foot pedal at constant PTO shaft speed = SDS traction drive
- Transport speed up to 40 km/h



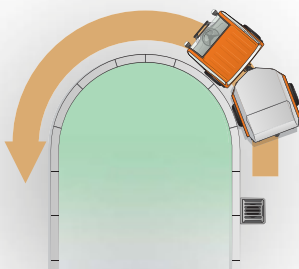
SERVICE ACCESSABILITY

- Over-engine deck is hydraulically actuated for easy access to the engine
- Removable fenders
- Battery is accessible from the outside
- Daily maintenance is possible without disassembling the attachments



ARTICULATED STEERING

- Ensures maneuverability, precision, track retention, very tight turning circles and optimum power transmission
- Your benefits: less shunting, less manual rework, precise work close to edges, ground protection and minimum tire wear



DUAL DRIVE

- Combination of the benefits of hydrostatic and mechanical drive
- Uses the hydrostatic drive system for work and the direct drive system for high speed road travel saving fuel when traveling
- Automatically switches from hydrostatic to mechanical drive from approx. 26 km/h for fuel consumption optimisation
- There is less wear and tear on these systems and less heat generated, because the hydrostatic pumps and motors are not driving the tractor

MORE BENEFITS

- Real four-wheel drive
- Four wheels of equal size
- Wheel load compensation
- 100% mechanical differential lock from front to rear axle synchronizes rotation of all wheels
- Hydraulically actuated wet disc brake acting on all four wheels
- Corrosion protection: all steel components are coated using an electro coating process (EPD-coated) ensuring all corners and cavities are protected, plug-in couplings in ZINi coating, vehicle is waxed
- Approved for street use

Maximum efficiency for your demanding tasks.

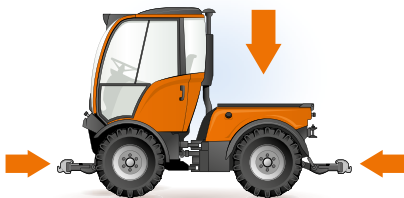
ATTACHMENT AREAS

3 ATTACHMENT AREAS

- Front and rear lifts as well as a 3rd attachment area above the engine
- Thanks to thoughtful design with standardised interfaces, Holder permits quick and simple interchange of attachments

AREA ABOVE THE ENGINE

- Up to 2710 kg payload
- Compact dimensions also with mounted attachment
- Constant driving in full-loaded and empty condition because attachments are above the rear axle



FRONT ATTACHMENT AREA

- Heavy-duty 3-point hitch moves 3-dimensionally with double-acting cylinders
- Arrester hooks are adjustable from CAT I to CAT II
- Maximum lifting capacity up to 2700 kg
- Up to 4 double-acting control valves (flat face couplers are drip-free), with floating position, simultaneous attachment control possible
- Option of up to 120 l/min hydraulic flow
- Standard mechanical PTO shaft, operates from 540 rpm to 1000 rpm with the flip of a switch



REAR ATTACHMENT AREA

- Double-acting 3-point hitch with vibration dampening
- Arrester hooks are adjustable from CAT I to CAT II
- Maximum lifting capacity up to 1570 kg
- Up to 2 double-acting control valves (flat face couplers are drip-free)
- Up to 80 l/min hydraulic flow
- PTO shaft, 1000 rpm



HIGH PERFORMANCE

PAYLOAD AND AREA OUTPUT

- High hydraulic output up to 120 l/min, PTO shafts, large fuel tank
- Your benefits: attachment of heavy and large units possible, several applications can be executed at the same time, long work intervals



ELECTRO-HYDRAULIC ATTACHMENT RELIEF OPTION

- Weight of the attachment is automatically distributed throughout the entire vehicle
- The electro-hydraulic control eliminates wheel spinning
- More traction on slopes and slippery ground, increases stability when turning on a slope



The combination of reflexion post and verge mower.

FRONT VIEW



REAR VIEW



MLM 200 REFLEXION POST MOWER

The Reflexion Post Mower cuts around stationary objects such as guard rails, posts and traffic signs. The ground pressure as well as the movement around the post is automatically controlled. All functions of the mower can be manually controlled by the operator.

TECHNICAL DATA MLM 200

Application	Mowing of guard rails, reflexion posts and traffic signs
Reach	Up to 2.5 m
Undercutting	Approx. 180 mm
Type of fitting	Attachable to MRM 300 verge mowers (can be refitted to existing equipment)
Drive	- Integrated into the hydraulic system of the verge mower - No additional hydraulic supply by the carrier vehicle necessary
Control	- Electro-hydraulic - Automatic touch control system to adapt to the contour of the terrain - Continuous distance control to the guard rail
Attachments	Rotating cutter heads

MRM 300 VERGE MOWER

The Verge Mower, in either right- or left-hand side operation is perfect for close roadside mowing work. Because of its low profile, just 300 mm, this mower is suitable for use under guardrails and cable barriers. The movement of the mowing head around stationary obstacles is automatically triggered by integrated sensors and computerized control. The speed for evasive movements around obstacles can be adjusted continuously at the control panel. An automatic relief system minimizes the ground pressure of the mowing head for less wear and longer life of the mower parts.

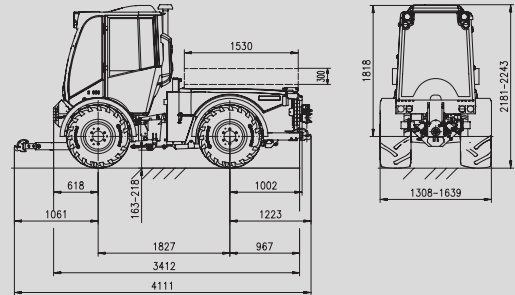
TECHNICAL DATA MRM 300

Type of fitting	Front mounting plate size 1/3/5
Range	3.0 m in right-hand and left-hand side operation
Drive	- Power hydraulic system of the vehicle - Front PTO-shaft
Safety-stop of the cutter shaft	All our working attachments can be stopped by means of a brake valve within 4 sec.
Control	- Electro-hydraulic control with mowing head relief - Road speed related automatic obstacle detector - Automatic parking system

TECHNICAL DATA HOLDER S 990

ENGINE	Deutz 4-cylinder 4-stroke turbo diesel
Displacement	3619 cm ³
Power	68 kW (92 HP)
Torque	280 Nm
Cooling	Water cooled
Air filter	Dry air filter with acoustic warning signal
Fuel tank capacity	82 l
WEIGHT	Including driver at 75 kg, depending on tires and equipment
Empty weight	2638 - 2790 kg
Gross vehicle weight	5500 kg
Gross axle weight rating	Front 3200 kg Rear 3200 kg
Coupling load	Max. 800 kg
Towing capacity	Unbraked 2500 kg Overrun braked 4500 kg
Maximum payload	1862 kg

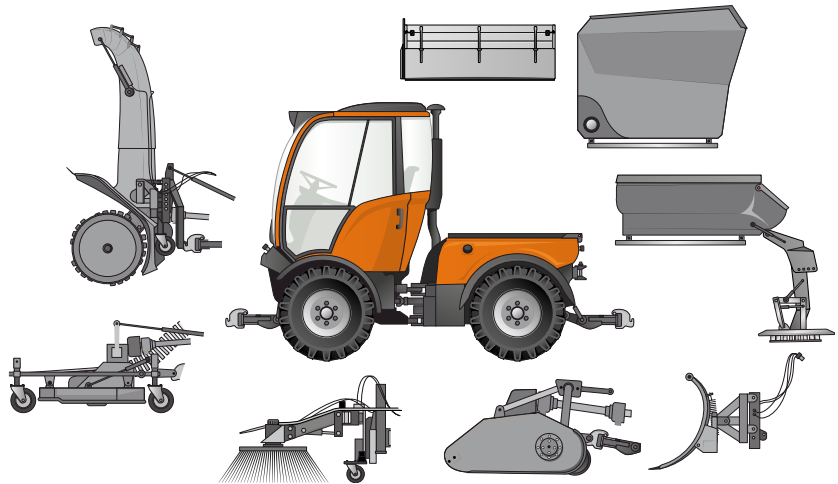
DIMENSIONS	Depending on tires
Wheel base	1827 mm
Total length	3412 - 4111 mm
Total height	2181 - 2243 mm
Total outer width	1308 - 1639 mm
Turning circle	Inside 2130 mm
Inner flatbed dimensions	1530 x 1200 x 300 mm



FURTHER APPLICATIONS WITH THE HOLDER S 990

WIDE RANGE OF APPLICATION

- Mowing and grass-collecting
- Cylinder mowing and large area mowing
- Rotary and flail mulching
- Weed removal
- Watering and high-pressure cleaning
- Sweeping and suction cleaning
- Lawn sweeping and synthetic turf cleaning
- Snow ploughing and snow blowing
- Snow sweeping and snow loading
- Salt spreading (with attachment, box or funnel spreader)



FIELDS OF APPLICATION

- Green areas and synthetic turf
- Sports grounds and golf courses
- Sidewalks, roads and public open spaces
- Underground car parks and rails
- Cross-country ski tracks

SECTORS

- Municipalities and service providers
- Facility Management
- Horticulture and landscaping
- Airports, mining and military

SEE HOLDER IN ACTION:

www.youtube.com/user/maxholdergmbh

Optimum guidance, sales and service from your Holder partner:

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