

LASER MATIC & DUAL LASER MATIC



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MOBA LASER MATIC / LEVELLING SYSTEM

MOBA-AUTOMATION.COM

SYSTEM **FEATURES**

- » Intuitive 4-button design
- » Visual support through LEDs
- » Flexible sensor combination for different applications
- » More than 10 different hydraulic configurations can be stored
- » Flexible and quick to use on various machines

SYSTEM **ADVANTAGES**

- » Higher quality levelling
- » Increased productivity
- » Fewer wear and operating costs
- » Shorter project times
- » Flexible sensor selection thanks to modularity



LEVELLING FOR MORE PROFIT

LASER-MATIC AND DUAL LASER-MATIC

With **more than 45 years of experience** in levelling technology, MOBA is no stranger to any market today. Whether agriculture, gardening or road construction, their flexible systems are particularly convincing in harsh environments. Today, the technology leader is known worldwide for quality – made in Germany.

High-precision levelling work is a vital part of today's construction site requirements. A flat, even surface determines the quality of the overall project. Especially in agriculture, a level cultivation area determines the subsequent water and fertiliser requirements of the plants. Thus, the farmer eventually benefits from a yield increase of up to 25%! Short operating times due to weather conditions require fast cultivation of the field. But how do you combine quality and speed?

The MOBA **Laser-matic** and **Dual Laser-matic** levelling systems solve this problem by upgrading your levelling blade and assisting the driver in his work. The height and inclination of the levelling blade are shown on the intuitive display at all times. The system then automatically carries out uniform levelling after the target value has been set. Not only do you level to the highest quality, but you also save time, fuel and wear on the machine without reworking.

And this is how it works:

The **laser receiver LS-3000 or CLS-3000**, which is located on the variable **electronic mast ETM-900**, receives the height reference from a stationary laser transmitter. The **Laser-matic Controller** then takes over the precise hydraulic control. The height of the kilver, scraper or grader is automatically adjusted – in real time! Owing to the considerable length of the laser receiver of 30 cm, it is always in optimal contact with the laser. The large clearance makes it possible to drive through uneven terrain without losing contact between the two. The search for the laser beam is additionally optimised by automatic control of the mast from the cabin. This saves the operator considerable time as he does not have to constantly adjust the height of the laser receiver manually.

An extended version of the Laser-matic is the **Dual Laser-matic**. It consists of two laser receivers and an inclination or ultrasonic sensor. The height reference of the stationary laser is thus transmitted simultaneously to two laser receivers, which leads to a more precise positioning of the levelling blade. With the inclination sensor, a given inclination can be adhered to exactly. The ultrasonic sensor allows the perfect matching of the processing to a given profile. This makes the **Dual Laser-matic** even more precise. The inclination or ultrasonic sensor can also be used to keep the inclination of the machine constant in order to precisely maintain a specified profile.

RUGGEDISED EXTREME ROBUSTNESS PERFECTED



LASER-MATIC PROVEN 4-BUTTON DESIGN

Particularly during grading work, brisk weather conditions can make work considerably more difficult. That is why we not only focus on the processing of exceptionally resistant individual parts, but also protect the electronics from wind, water, dust and vibration with a special encapsulation technology developed by MOBA. Both panels have been designed to be extremely heat-resistant to meet the special requirements of different markets and applications. The displays feel at home, even in tropical temperatures.

With the Dual Laser-matic, up to three sensors can be connected simultaneously and two hydraulic circuits can be controlled independently of each other. The Sonic Ski is the first sensor of its kind and has been continuously developed over 25 years with feedback from the field. Non-contact ground sensing has a significant advantage over mechanical sensors: no wear! The special longevity of the sensor is thus one of its absolute strengths.

CONTROLLER

- » State-of-the-art microprocessor technology
- » Control and connection of all components
- » Up to 10 different hydraulic configurations programmable



01

LASER RECEIVER LS-3000

- » Linear detection of the laser beam
- » Exceptionally high precision
- » Proportional valve control



02

LASER RECEIVER CLS-3000

- » Linear detection of the laser beam
- » Exceptionally large working area of 800 mm
- » Proportional valve control



03

DUAL LASER-MATIC

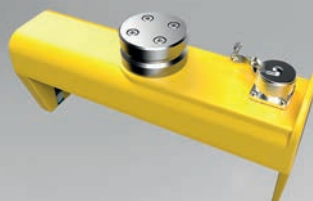
- » Intuitive operation with ergonomic push-buttons
- » Individual parameter settings
- » Visual support with LEDs
- » Laser search at the touch of a button



04

SONIC-SKI

- » 5-fold non-contact height sensing
- » Rope or ground sensing
- » Temperature-compensated



05

ELECTRIC MAST

- » Electronic beam search
- » 900 mm mast extension
- » Shock-absorbent mounting



06

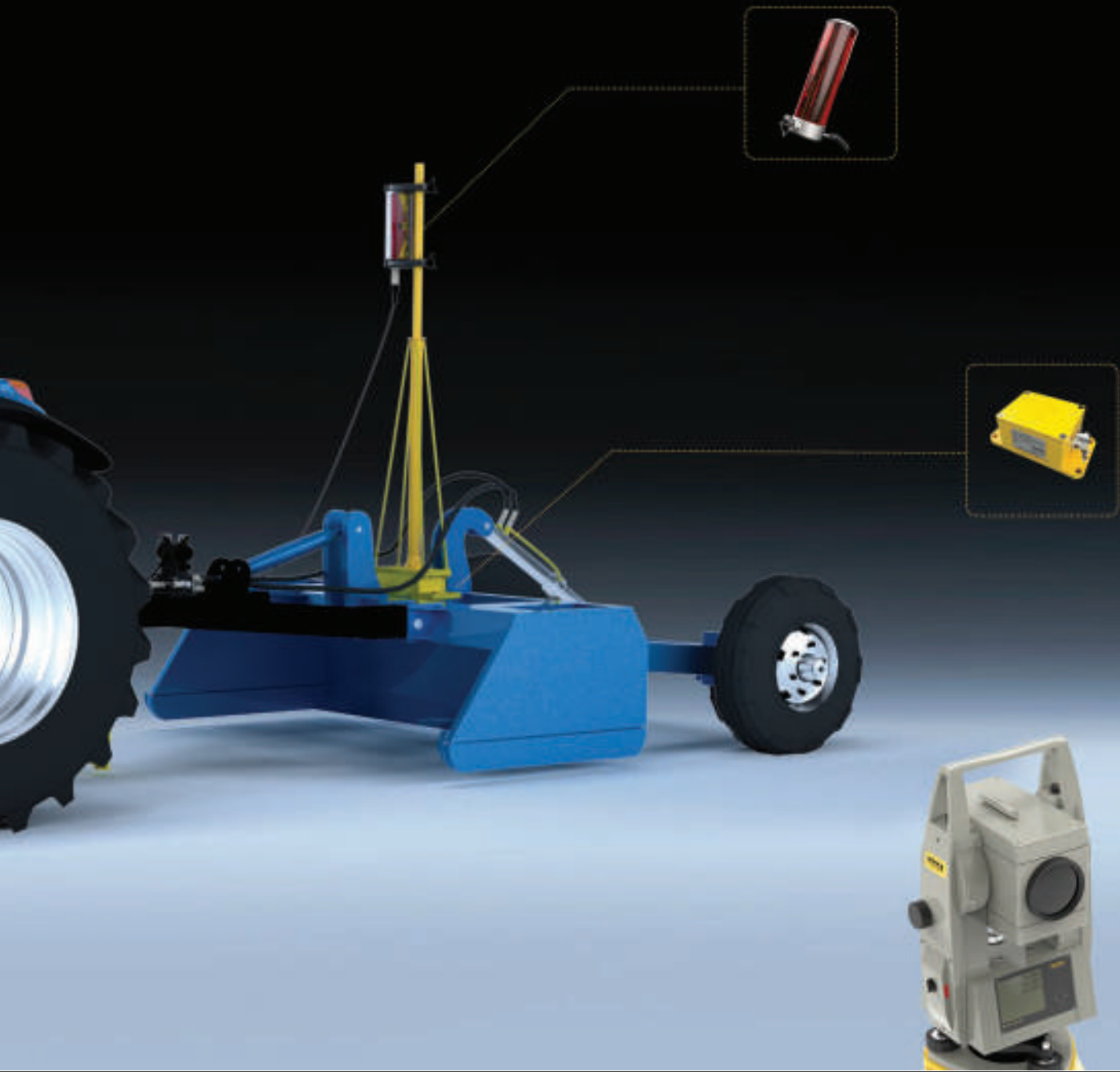
YOUR UPGRADE FOR MORE **PROFIT**



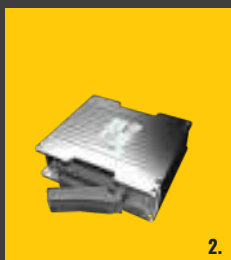
THE FLEXIBLE ALL-ROUNDER

Thanks to MOBA's largest sensor selection in the world, the system is the right choice for all types of levelling. Thanks to mutual compatibility, all sensors can be exchanged quickly and easily, and your machine can be upgraded at any time. A wide range of pre-programmable hydraulic configurations also ensures a high degree of flexibility, enabling rapid changeover between different machines – without significant time expenditure.

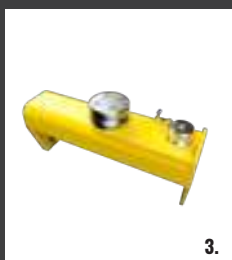
1. **Laser-matic** control panel for levelling
2. **Controller** processes all measured values of the sensors
3. **Sonic-Ski** sensor for the detection of the reference height
4. **Laser receiver LS-3000** for altitude reference
5. **Dual Laser-matic** control panel for two sensors
6. **Electronic mast** moves the laser receiver into the laser beam



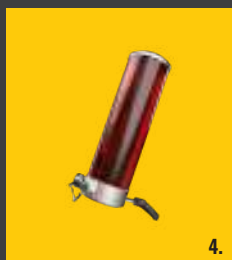
1.



2.



3.



4.



5.



6.

LASER-MATIC APPLICATIONS



IN AGRICULTURE

- » Grading work in the agricultural sector
- » Irrigation areas
- » Greenhouses
- » Row alignment
- » Gardens and parks

IN ROAD CONSTRUCTION

- » Unpaved roads and paths
- » Local roads and access roads
- » Forest and agricultural roads
- » Footpaths and cycle paths
- » Pedestrian paths in parks
- » Development projects

IN THE CONSTRUCTION INDUSTRY


















- » Sports facilities
- » Industrial plants
- » Factory halls
- » Parking areas
- » Courtyard and storage areas
- » Airfields
- » Stadiums
- » Golf and tennis facilities
- » Development projects

DID YOU KNOW?

Thanks to the special modularity of the system and the flexible use of different sensors, the Laser-matic can be upgraded to a **3D** system at any time. More information can be found in our 3D-matic brochure.



LASER-MATIC APPLICATION COMPARISON

			
ANWENDUNG		LASER-MATIC	DUAL LASER-MATIC
	Leveling and grading for agriculture	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Irrigation cultivation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Other agricultural land	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Greenhouses and row alignments	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Forestry and agricultural road construction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Gardens and parks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Coastal reinforcements and beaches	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Trench cutting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Industrial plants and factory halls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	parking lots, storage and yard areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	road construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	airfields	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Stadiums and sport fields	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Golf courses and tennis courts	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Development projects	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Best results

Applicable

not suitable



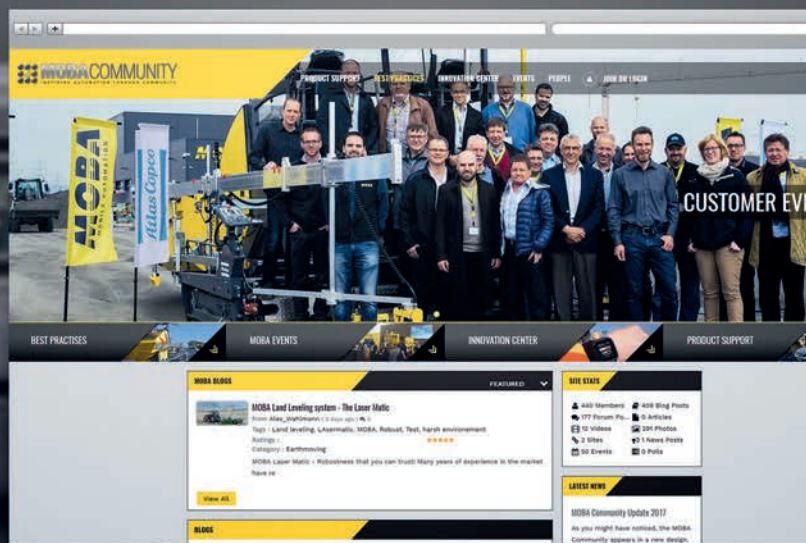
THE EXPERT NETWORK - INSPIRING MOBILE AUTOMATION

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In addition to blog contributions on the automation solutions of MOBA Mobile Automation AG, the community offers numerous forums, discussions, event announcements and expert contributions on a wide variety of automation topics for construction machinery. As an interactive, international platform for the exchange of industry news, the MOBA Community is the point of contact for all those who wish to actively participate in the development of this industry.

Contribute your own expertise and perspective in interesting dialogues, ask important questions about the (r)evolution of the industry and exchange opinions and experiences with other experts.

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The **MOBA GROUP** is a leading global player in the world of mobile automation. Close collaborations between the headquarter in Limburg an der Lahn and subsidiaries all over Europe, Asia, North and South America create new perspectives for recent and future developments.

Superior technical know-how and more than 40 years of experience combined with an international dealer network guarantee a premium support - **worldwide. INSPIRING MOBILE AUTOMATION** - this is what the **MOBA GROUP** stands for since more than **40 years**.

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