

3D MATIC



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MOBA 3D MATIC / PAVING & MILLING
MOBA-AUTOMATION.COM

With the expertise of more than **45 years of experience** in developing and manufacturing road construction technologies, MOBA has repeatedly set new standards in the market. With the adaption of its **3D technology** to asphalt paving, it once again proves outstanding flexibility and adaptability in its solutions.



DID YOU KNOW?

Combined with the proven and well-known MOBA road construction technologies **MOBA-matic** and **PAVE-IR**, the **3D-matic** provides a cost-efficient and similarly user-friendly system to upgrade your machine control to a future-oriented **3D system for high accuracy.**



3D-MATIC THE INTUITIVE 3D PAVING AND MILLING SOLUTION

Increasing quality standards in road construction demand new technologies to achieve even better paving results. Especially during complex projects that require many slope changes without any reference or absolute smoothness of the road over the entire surface, contractors are faced with new challenges.

As such, the **3D-matic** adaption for pavers is the perfect assistant in building lasting roads with an extra smooth surface. Focused on a high-quality paving or milling, the system controls the screed or milling drum outstandingly precisely according to a previous uploaded 3D design file. On the 7" touchscreen display MOBA Operand, the operator gets direct feedback on the target and actual values of the height and slope. Thanks to the comprehensive and easy-to-understand visualization, the crew is then able to quickly react to changes. Using open data formats to upload design files to the industry-proven hardware, the 3D-matic integrates flawlessly into your surveying and design workflow.

With the use of a total station as a virtual reference, there is no need to setup an easily damageable string line. This enhances process security while saving considerable time. Equally beneficial for a fast project completion is the easy sensor swap between total stations. Don't interrupt the construction process during operation!

Even at the end of the work day, the **3D-matic** is easy to handle and safe to use. When powering off your machine, you don't have to shut it down separately - this means no risk of losing or damaging data.

SYSTEM FEATURES

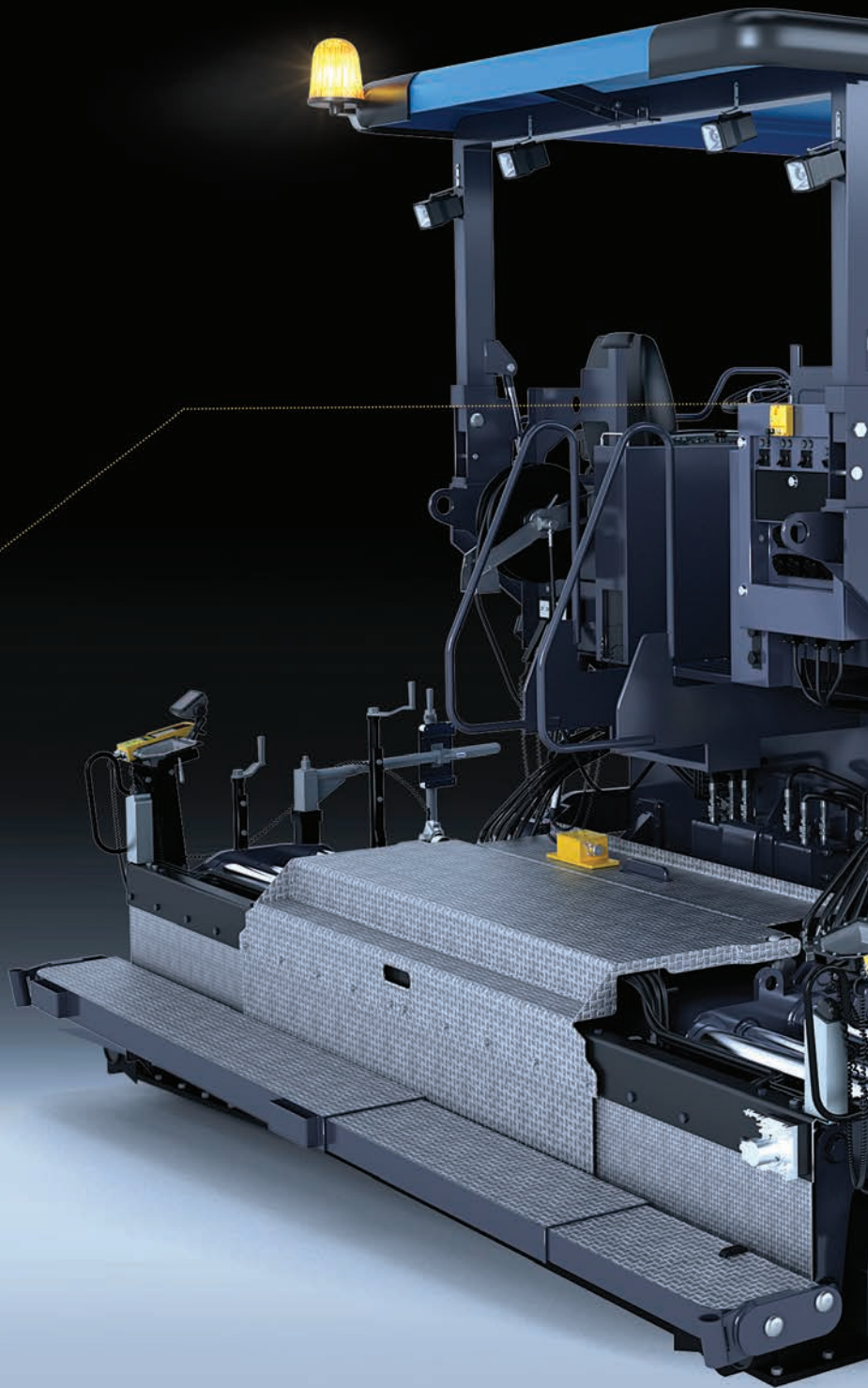
- » Precise 3D sensor technology
- » 3D design file upload for target height and slope
- » Total station as a virtual reference to reduce long road waves in milling and paving
- » Intuitive and easy-to-learn user interface
- » Robust hardware and industry-proven components

SYSTEM BENEFITS:

- » Precise milling with minimum destruction
- » Material savings thanks to accurate milling and paving profile
- » Increased smoothness of the road
- » Creation of complex designs in short periods
- » Time and cost savings through the elimination of string lines and wires



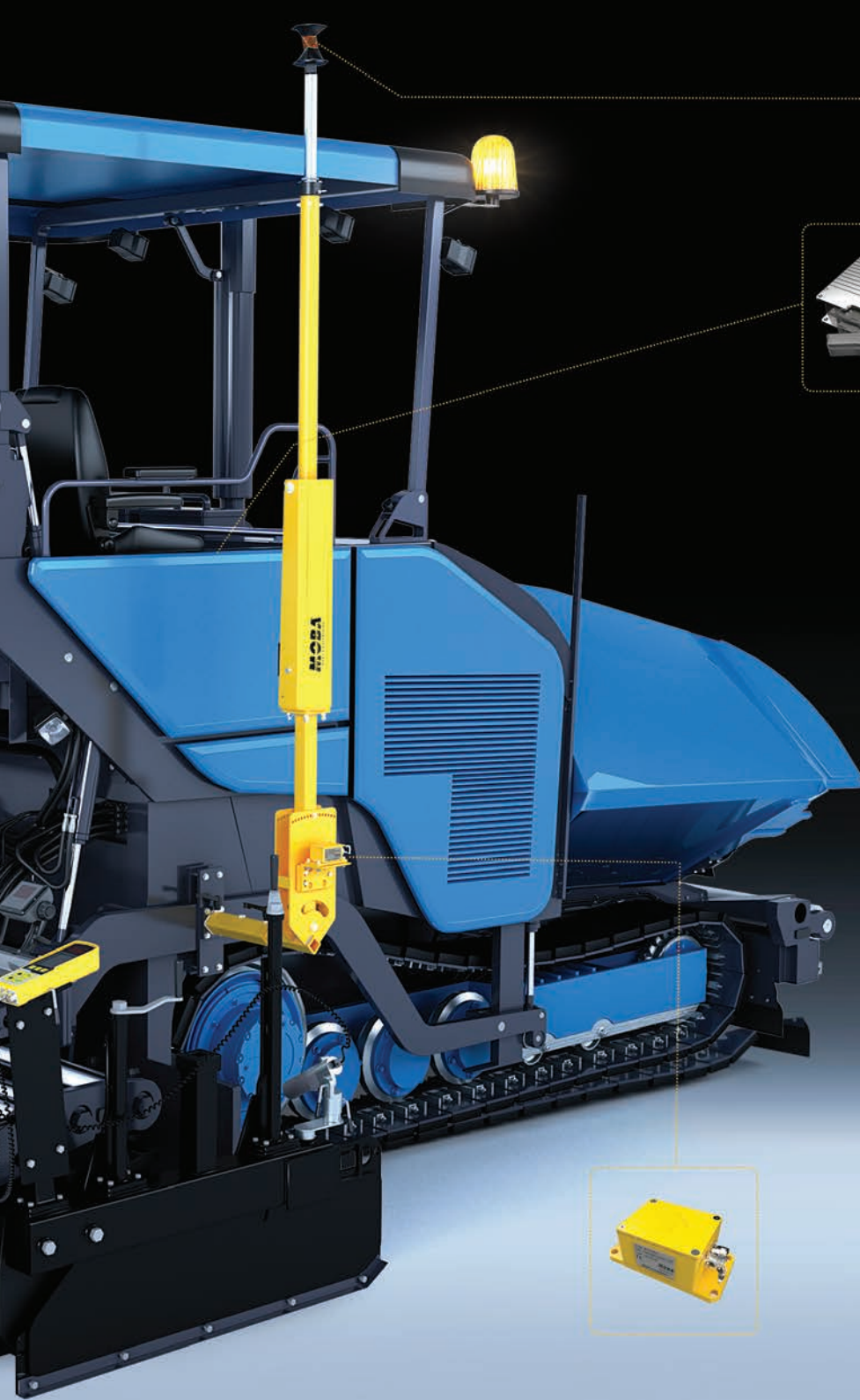
YOUR FUTURE **UPGRADE**



UPGRADE FROM 2D

Since the well-known leveling system MOBA-matic II is already integrated in the majority of pavers, your machine is perfectly prepared for the next level of road construction. Thanks to the 100% compatibility with the MOBA 2D leveling system, you will profit from a time and cost efficient upgrade to a 3D machine control!

1. **OPERAND** to upload 3D design files and show height and slope values
2. **CONTROLLER** calculates the deviation to the 3D design
3. **MAST SLOPE SENSOR** measures the slope of the mast
4. **MACHINE RADIO** communication to the total station
5. **TOTAL STATION** measures 3-dimensional position of the paver
6. **PRISM** to reflect the beam of the total station



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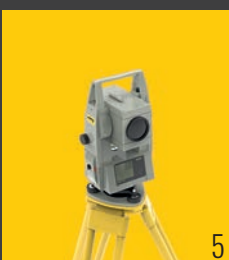
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3D-MATIC HEADING TO THE FUTURE

The unbeatable combination of robust hardware and easy-to-use software makes it easy for the operator to get used to the new technology. While the ruggedized 7" touchscreen color display is optimized for a use in harsh conditions, the software was specialized for a particularly user-friendly handling.

As such, the split screen mode for example allows the operator to have different values in just one overview. Simply upload design files from a USB drive or profit from a remote support function, which is already rolled out in selected markets. Get in touch with us for more information on its availability in your country!



MOBA OPERAND THE INTUITIVE WAY TO HANDLE 3D DESIGN FILES



SPLIT SCREEN VIEW

1. ACTUAL AND TARGET SLOPE
2. STATIONING
3. ACTUAL AND TARGET HEIGHT
4. FREELY CONFIGURABLE QUICK ACCESS KEYS

ONE **SYSTEM** TO PAVE THEM ALL

CONTROLLER

- » Calculates the deviation to the 3D design
- » Interface to the 2D system and hydraulic controls
- » Connection for radio communication with the 3D sensor



01

MAST SLOPE SENSOR

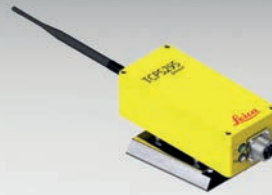
- » Measures the slope of the mast to calculate the correct height deviation to the design
- » Measuring range: X/Y-Axis, $\pm 60^\circ$



02

MACHINE RADIO

- » Radio communication with the total station



03

TOTAL STATION

- » Automatic search for the prism
- » 2 CANopen interfaces
- » Measures the 3-dimensional position of the paver



04

PRISM

- » 360° reflector
- » 2mm centering precision
- » Robust metal mount



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ONE GROUP - ONE RESPONSIBILITY



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MOBA GROUP

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.

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