

# **GRADE & SLOPE CONTROL FOR ASPHALT PAVERS**

The MOBA-Matic II system is the most versatile asphalt paver grade control system available. It's built to withstand the harshest environments with rugged manufacturing and is easy-to-use while on the jobsite. Most importantly, it delivers optional smoothness for grade and slope, ensuring paving operations are streamlined for maximum profitability.

# CHALLENGES IN ROAD CONSTRUCTION

In the demanding environment of road construction, quality, cost control and precise material use are critical. Contractors often face challenges that seem almost insurmountable without the right tools.



#### **UNEVENNESS**

Manual height and slope measurements or the installation of a guidewire, in preparation for asphalting cause considerable time and additional costs.



# DISTURBANCE VARIABLES

The use of short sensor elements with a small measuring range is more susceptible to disturbance variables.



# PAVEMENT TRANSITIONS

Roadway transition structures cannot be traversed with conventional technologies. This leads to additional manual work.



# LEVELING SYSTEM MOBA MATIC II

# THE WORLD'S MOST FLEXIBLE LEVELLING SYSTEM FOR ROAD CONSTRUCTION

The world-renowned MOBA-matic is the best-selling levelling system in road construction. Its simple operation, exceptional robustness and absolute precision have ensured its strong market positioning. The technology, which was introduced in 1991, is now the leading levelling system in road construction and is installed as standard on asphalt pavers of all major machine manufacturers.

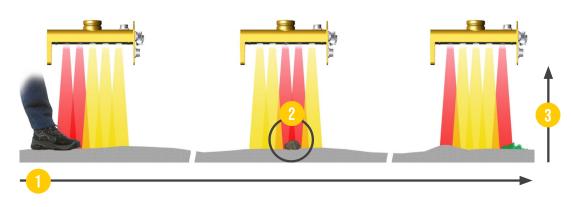


After a single set-up, the system immediately controls the screed – fully automated. Combined with the appropriate CAN-based sensors, even the most complex construction project can be accomplished. In more than 45 years on the market, the MOBA control unit and sensors have been perfectly matched to each other to form a single unit. The right solution has been developed specifically for every application in asphalt paving.

#### THE HEART OF THE SYSTEM

The controller of the MOBA-matic is characterised by its exceptionally ergonomic handling. The practical 4-button design for quick and easy operation has been integrated into every further development and has been further optimised. Specially developed features such as the easy-to-read design for night operation and the practical illuminated display as a height indicator complement the intuitive operation of the panel. The particularly robust technology convinces first and foremost in terms of durability. Some of them have already been in use for more than 20 years.

### INTELLIGENT MEASUREMENT ALGORITHM



- Road Surface
- 2 Automatic measurement error
- Height

#### **BENEFITS**

- Rugged and weather resistant
- 3.5" color display with backlighting
- Modularity allows individual adaptations
- Displays grade and slope on the display
- 3D capable





# SENSOR RANGE

# **SONIC-SKI PLUS**

Five separate ultrasonic measurements are made 11 times per second. The three best measurements are averaged by the sensor to calculate an average elevation. By averaging and filtering, small irregularities are taken out of the resulting measurement.



#### **FEATURES**

- Multi-sensor averaging and filtering produces optimal grade measurement
- No temperature bail
- Temperature compensation
- Ultra-reliable ceramic sensor elements
- Effective as a string line following sensor
- Eliminates string line deflection

- Signals the screed operator when it is about the move off string line
- Allows for ± 5 inches of steering deviation without grade errors
- Works as a joint match shoe without hanging up
- Joint match not as affected by small debris in the path

# **ROTARY SENSOR**

#### **FEATURES**

- Works in all weather conditions
- CAN interface
- Favorable for stringline sensing
- Measuring accuracy of greater than 0.01 inches



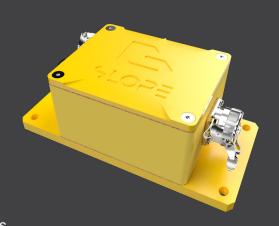
# **G-SLOPE SENSOR**

The MOBA MGS-0150 G slope sensor was developed specifically for asphalt pavers. The use of integrated high-precision gyroscope reduces errors and minimizes measurement deviations.

The robust, field-tested housing has been thoroughly updated, offering even greater stability and a modern look. The MGS-0150 is setting new standards in the industry.

Horizontal forces can be highly disruptive, causing strong deviations from the measured values. The harsh everyday life of a construction site, this often includes the screed extensions

being moved in and out, trucks backing into the paver and the tractor unit's steering. This is where the MGS-0150, combined with proven LSTA slope measurement and state-of-the-art gyro engineering, shows its strength and defines what is technically feasible today.



## **MINI COMPACT**

### **FEATURES**

- Cost-effective for commercial paving applications
- Ultra-reliable ceramic transducers
- Constant temperature compensation
- Built-in temperature compensation



# **BIG SONIC-SKI**

The Big Sonic Ski non-contact averaging ski saves time on setup and is easier to use while delivering optimal smoothness. Each ski takes non-contact averages from multiple sensors to account for irregularities on the paving path. This is simply not possible with a single-grade sensor without a long mechanical drag ski. When irregularities are detected, smaller objects are filtered out and larger ones are averaged with fifteen individual sensors along the beam. This allows the paver to properly produce a smooth asphalt mat even when the reference is less than perfect with the extensive amount of measurements each ski is reading. The Big Ski+ is a more flexible option that saves time and money and yields the quality smoothness crews need to get the job done right.

#### **LONG DISTANCE AVERAGING VIA SKI1+SKI2+SKI3**



#### BENEFITS

- Combination of 3 Sonic-Ski Plus sensors
- Sensing of several, widely spaced points
- Averaging and derivation of a virtual reference level
- Even elongated irregularities are levelled out
- Three sensors adaptable to four



## **MOBA CORPORATION**

MOBA Corporation has been a major player in mobile automation for more than 50 years. Our know-how and experience make us a globally recognized expert. We develop and produce innovative machine control systems, identification and mobile weighing technologies, as well as flexible software solutions. MOBA components and systems are also used in areas where robust and reliable sensors, controllers and control units are needed.

First Choice In Mobile Automation - our vision since 1972









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