



# BIG SONIC-SKI

## LEVELING SYSTEM IN ROAD CONSTRUCTION

Combined, MOBA-matic and the Big Sonic-Ski sensor solution with up to four ultrasonic sensors provide exceptional accuracy and efficiency.

# 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 asphaltting cause considerable time and additional costs.



## DISTURBANCE VARIABLES

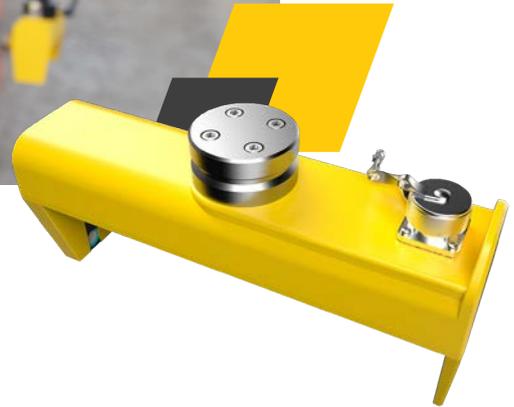
The use of short sensor elements with a small measuring range is more susceptible to disturbance variables.



## PAVEMENT TRANSITIONS

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





# FLATNESS PERFECTED SONIC-SKI PLUS

The Sonic-Ski PLUS has been in constant development for 20 years and has firmly established itself as a flexible sensor technology in road construction. Thus, the sensor can be changed from ground to rope sensing in just one action and is therefore a real time miracle with changing references. As an ultrasonic sensor that scans the height reference without contact, it is completely wear-free and therefore far superior to other technologies in terms of durability. Disturbing influences such as rain, stones or edges are immediately detected and faded out to guarantee the installation of an absolutely even surface.



**Wear-free sensor**  
thanks to non-contact  
sensing



**Absolute robustness of  
measured value**  
owing to suppression of  
interference factors



**Flexible, time-efficient  
adaptation**  
to different references



## QUICKLY ASSEMBLED – THE BEST RESULTS

# BIG SONIC-SKI



With up to four variably positionable sensors, the Big Sonic-Ski is a sensor solution in a class of its own. The combination of four sensors is the only technology on the market that detects long-wave unevenness and thus achieves the most precise flatness.



**High precision**  
through constant averaging  
of measurements from four  
independent sensors



**Time-saving**  
owing to user-friendly  
assembly and flexible  
handling



**Increased uniformity**  
by sensing large  
surfaces

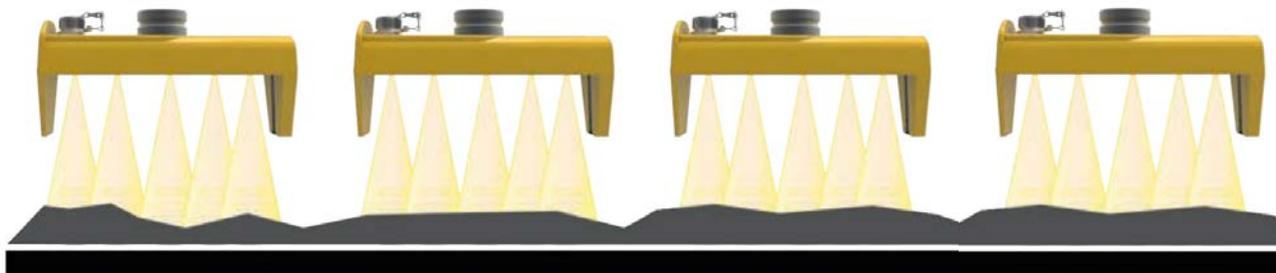
# THE TECHNOLOGY

## BEHIND THE BIG SONIC-SKI

Thanks to quick mounting on the robust aluminium frame, the sensors can be placed individually for each application to measure the height at the right place. Thus, the Big Sonic-Ski is the right solution for every project – whether road, car park, racetrack, airport or roundabout, whether straight road or winding track. Adjustments in the installation are implemented on site in the shortest possible time.

Thanks to non-contact ground sensing of the acoustic ultrasonic sensors, this technology is considered wear-free. The system's longevity is particularly impressive in harsh environments. Its resistance to heat, vibration, dust and water is an absolute must on the construction site.

**LONG DISTANCE AVERAGING VIA =  $\frac{SKI1+SKI2+SKI3+SKI4}{4}$**



## BENEFITS

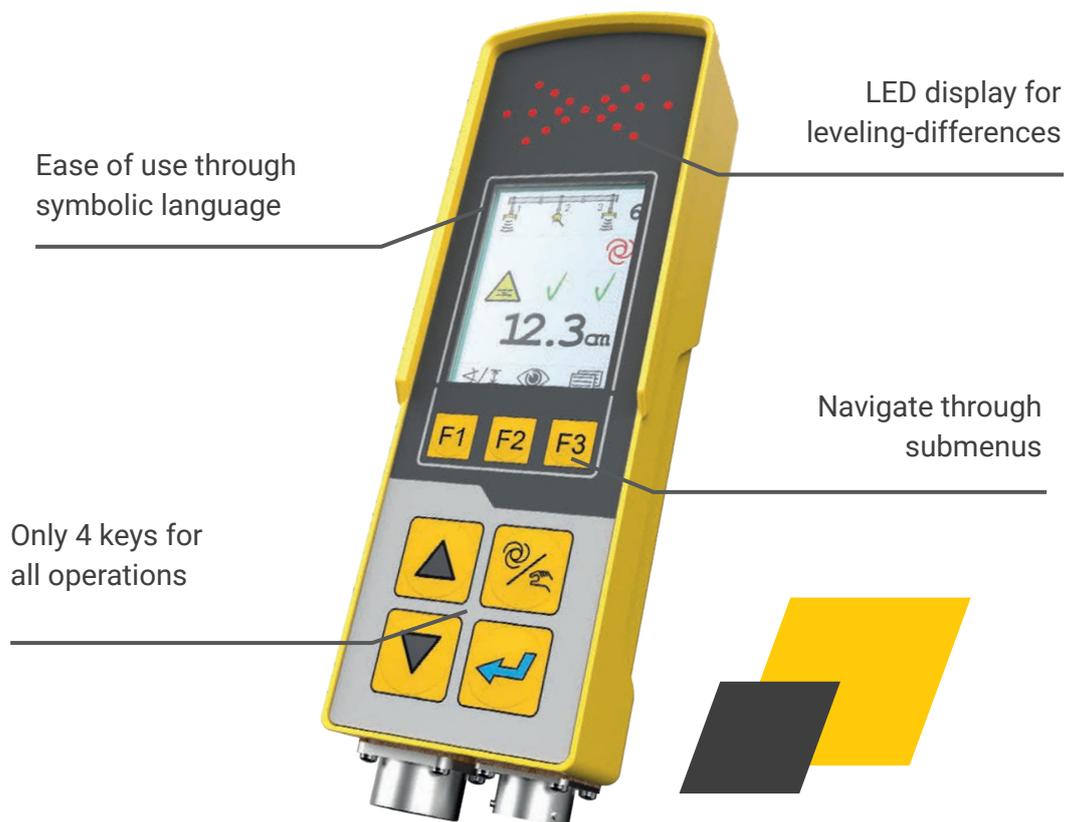
- Combination of 4 Sonic-Ski Plus sensors
- Sensing of several, widely spaced points
- Averaging and derivation of a virtual reference level
- Even elongated irregularities are levelled out



# 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. Even more precise in combination with the SUPER-SKI.

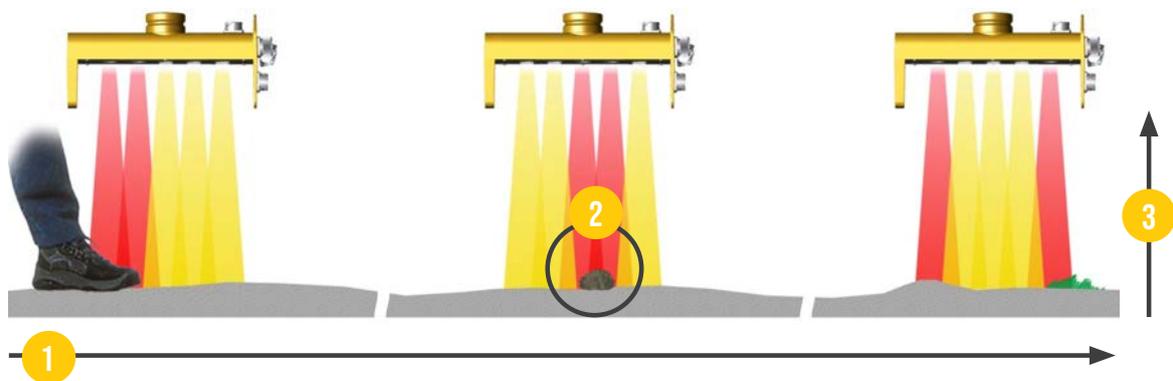


After a single set-up, the system immediately controls the screed – fully automated. Combined with the appropriate CAN-based sensors, even the most complex construction project can be accomplished. In more than 45 years on the market, the MOBA control unit and sensors have been perfectly matched to each 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



Measurement of

- 1 Road Surface
- 2 Automatic measurement error
- 3 Height

## BENEFITS

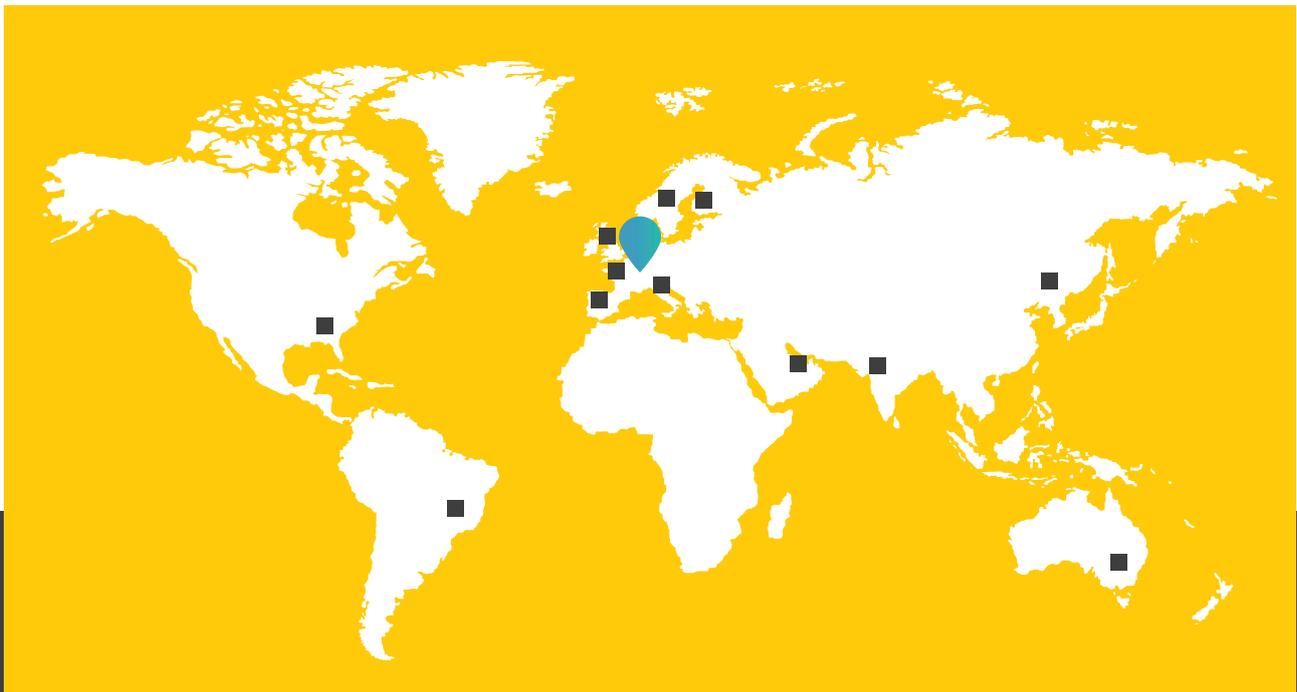
- Rugged and weather resistant
- 3.5" color display with backlighting
- Modularity allows individual adaptations
- Displays grade and slope on the display
- Shows live unevenness of the road
- Time-saving through 3D capability



# MOBA GROUP

The MOBA Group has been an established name in mobile automation for more than 50 years. Our know-how and many years of experience in automation technology distinguish us as globally recognized experts. We develop and produce innovative machine control systems, identification and mobile weighing technologies as well as flexible software solutions. But MOBA components and systems are also used in other areas where robust and reliable sensors, controllers and operating units are required.

**First Choice In Mobile Automation** - that's what MOBA has stood for for more than 50 years!



## CONTACT



**MOBA Mobile Automation AG**  
Kapellenstraße 15  
65555 Limburg | Germany  
[moba-automation.de](http://moba-automation.de)