



**MCA**

## COMPACTOR GUIDANCE SYSTEM

Optimizing compaction efficiency with precise monitoring for durable, consistent surface quality results.

# COMPACTION CONTROL MADE EASY

## MCA-500

### EASY SYSTEM FOR OPTIMUM SURFACE COMPACTION

The MCA-500 measures and monitors all important factors, such as amplitude, vibration frequency and compaction in real time. On our compact graphic display GDC-320 the calculated Intelligent Compaction Value is displayed, always guaranteeing you the optimum compaction result in the shortest time.



### ADVANTAGES

#### EASY TO OPERATE

The MCA-500 features an intuitive interface, allowing operators to quickly learn and use the system with minimal training and reduced risk of errors.

#### UPGRADEABLE

The modular design of the MCA-500 supports easy upgrades, enabling the addition of new features or enhancements without a complete system replacement.

#### DATA-DRIVEN INSIGHTS

The MCA-500 provides detailed insights for precise quality control and informed decision-making based on real-time data.

# THE FEATURES OF GRAPHIC DISPLAY

- **Intelligent Compaction Value Display:** Shows real-time compaction data for better quality control.
- **Vibration Frequency Display:** Monitors and displays current vibration frequency for precise adjustments.
- **Amplitude Display:** Provides real-time amplitude information for accurate compaction.
- **Compaction End Display:** Indicates when compaction is complete for efficient workflow.



**Detect thermal segregation.  
Ensure superior quality roads.**

# OPTIMIZED COMPACTION WITH MCA-1500-TAB

## INTELLIGENT SYSTEM FOR PERFECT, LARGE-SCALE COMPACTION

Through optimal interaction between the acceleration and temperature sensors, our system achieves superior compaction results. With our Android tablet, you can control the current asphalt temperature and compactor target value. As proof of quality, all compaction data is summarized and can be retrieved from a web server on demand at any time.

### BENEFITS

- Data storage for construction site, machine type, driver, and project data
- Quality assurance through comprehensive data recording
- Data transfer via 4G modem to a web server
- Measuring, displaying, and storing stiffness values
- Temperature acquisition
- GNSS positioning (in development)



**ANDROID  
DISPLAY**



**TEMPERATURE  
SENSOR**



**ACCELERATION  
SENSOR**

## ANDROID DISPLAY

Our compact Android display shows the calculated Intelligent Compaction Value, ensuring you always achieve the optimal compaction result in the shortest time. Thanks to the Android tablet.

The MCA-1500 measures and monitors all critical factors, such as amplitude, vibration frequency, and compaction completion, in real time. An optional integrated infrared sensor quickly detects asphalt surface temperature, enabling ideal bituminous paving installation in road construction. The built-in 4G modem transfers all compaction data to the server for further analysis and documentation.



## TEMPERATURE SENSOR

It operates on the infrared principle, utilizing a non-contact temperature sensor to accurately measure temperature from a distance.

This advanced technology allows for precise temperature readings without physical contact.

Additionally, it can provide these temperature readings via CANbus, ensuring seamless integration with other systems and allowing for efficient data transmission and analysis.

## ACCELERATION SENSOR

It detects the tamper's vibration and enhances the machine's driving signal, improving overall performance and efficiency.

The system provides direct CAN output for amplitude and frequency, offering detailed insights into operational parameters.

Additionally, it delivers data on Intelligent Compaction Value (ICV) and double jump, contributing to comprehensive monitoring and analysis.



# PERFECTION OF COMPACTION

## MCA-3000

### INTELLIGENT SYSTEMS FOR MAJOR PROJECTS – THE PINNACLE OF PRECISION IN COMPACTION

The MCA-3000 delivers superior compaction results through the optimal interaction of acceleration sensors, temperature sensors, and GNSS antenna technology. This integration allows for precise monitoring of key metrics, including asphalt temperature, compaction targets, and the number of crossings, all in real-time. The advanced visualization of the entire process helps maintain full control at every stage.

With a user-friendly display, the proper interpretation of measured values is quickly and intuitively learned. The system's straightforward design ensures that measurements are easily understood, making data interpretation more efficient and reliable. As a result, operators can confidently manage the compaction process with minimal training.

For added convenience, all compaction data is summarized and stored on a web server, allowing for on-demand access and verification. This feature serves as a proof of quality, ensuring that high standards are met consistently. The ability to retrieve data at any time supports transparency and accountability in all compaction projects.

The MCA-3000 also features innovative fleet management that synchronizes the crossings of multiple rollers, ensuring that each pass achieves optimal compaction. This automatic coordination not only maintains the highest quality but also allows for the simultaneous operation of several rollers and operators. This makes the MCA-3000 an ideal solution for large-scale projects that require efficiency, speed, and cost-effectiveness.



# THE FEATURES OF OPERAND-3000

- Measurement, display, and storage of stiffness values
- Color display of compaction progress
- GNSS positioning
- Temperature acquisition and display of temperature profile
- Data storage for site, machine type, operator, and project information
- Quality assurance with comprehensive data recording
- Customizable screen displays
- Data transfer via GSM to web server



**GNSS ANTENNA**



**TEMPERATURE  
SENSOR**

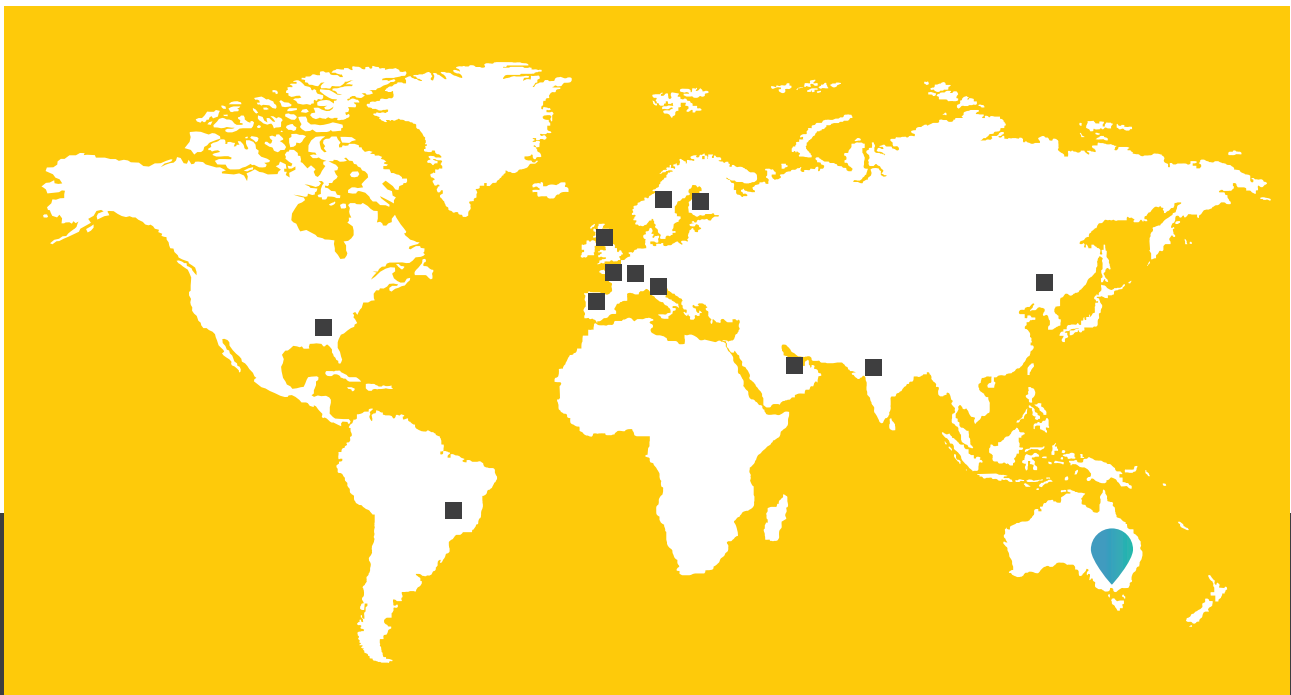


**ACCELERATION  
SENSOR**

# 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



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