MOBA-MATIC:
GRADE & SLOPE CONTROLS FOR PAVERS AND MILLING MACHINES.
The MOBA-matic is the most versatile control system for asphalt paver, milling machines or other mobile applications available. It combines controller and intuitive HMI in one housing and allows the integration of a huge variety of sensors for levelling and slope control. Various configuration possibilities guarantee an optimal adjustment to the machine and the operator. Nevertheless interaction is possible through four keys only. It’s ruggedness, wide variety of sensors and ease of use make it the choice for the road building professional.

Let our more than 30 years in the grade control design and manufacturing business be a benefit to your next job.

**Basic Features:**
- Ultra-reliable ceramic sensor elements
- 5-fold contact-free sensing
- More accurate than a single sonic sensor
- Ideal string line and ground sensing
- Real time temperature compensation
- No grid arms to balance
- No wire temperature bails to bend, break or lose

**Ground Reference Features:**
- Accuracy of \( \pm 1 \text{ mm} \)
- Not as affected by small debris in its path
- Warning signal at bigger deviations from reference setpoint
- Works as a joint match shoe without dragging or hanging up

**String Line Following Features:**
- Accuracy of \( \pm 2 \text{ mm} \)
- Eliminates string line deflection
- Signals the screed operator when it is about to move off string line
- 25 cm sensing range (room for manoeuvre) with constant accuracy

**System Features**
- Most versatile range of sensors to meet all job-site conditions:
  - Sonic-Ski®, Big Sonic-Ski®, Slope sensors, Rotary sensor, Wire rope sensor, Dual-Sonic, Laser receiver, ...
- Simple, modular system architecture — just plug and pave
- Easy operation
- Highly precise, save and reliable at every application
- Adaptable to every hydraulic system
- Increase of performance by individual optimisation
- 3D capable
- Common sensor cables
- CAN technology (real time communication; open for new sensor technology or master machine control systems)

**Digital Controller**
- Simple 4-button keypad
- Digital readout
- Bright LED signals
- 40 hydraulic types storable
- Easy to move from one machine to another
- Automatic sensor and error identification
- Takeover of set point by one button push
- Slope display even at grade control
- Waterproof
- Rugged

**Sonic-Ski®**
**Slope Sensor**

- Extremely robust sensor technology, developed especially for high compaction screeds
- Very high accuracy and resolution (zero point stability: 0,1%, measuring accuracy: ± 0,1%)
- With a sensor range of ± 20% it can handle super elevations without a problem
- Vibration- and waterproof
- Slope display even at grade control

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**Rotary Sensor**

- Works in all weather conditions
- Most favourable for high accurate reference sensing
- Usable for string line and ground sensing
- Measuring accuracy of greater than ± 0,1° ~ ± 0,3 mm

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**Wire Rope Sensor**

- Very accurate grade position sensor (± 0,5 mm) for milling applications
- Measuring range of 500 mm
- Wire (wearing part) changeable by the operator

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**Dual Sonic**

- Ultra-reliable ceramic transducers
- Price competitive alternative for contactless ground sensing or Big Sonic-Ski® application
- Constant temperature compensation
- Built in temperature bail

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**Laser Receiver LS-3000**

- Works with all common rotating lasers for machine control applications
- Linear detection of the laser beam
- No need for motorised mast for grade changes
- Grade detection accurate to ± 1 mm
- Receiving range: 290 mm/360°
- Selection of working point with one key touch
- Real proportional valve actuation
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.

By combining three Sonic-Ski® sensors it has become possible to sense a ground section at several, spatially separated spots. The MOBA-matic levelling system calculates an additional average value from these measurements and deduces a virtual reference level. New advantage: Even an unevenness which covers a larger ground section (e.g. road waves) will be smoothed out without any difficulty. For this reason, the system works even more efficiently than a single Sonic-Ski®. Combining the two averaging systems enables you to sense nearly all surfaces, irrespective of their condition. In addition, you can choose per keytouch whether the reference is to be duplicated with one Sonic-Ski® only or whether the average value of all sensor measurements is to be used. The result: a completely even surface.

The Big Sonic-Ski® non-contact averaging system produces the smoothest road surface and improves mat quality.

**Big Sonic-Ski® Benefits**

- Smooth mat
- Verifiable improved evenness
- Non-contacting grade sensing
- Smooth transitions
- No artificial reference required
- Improved paver manoeuvrability
- Sensing in front of and behind the machine
- Single use of each sensor for conventional grade control
- Easy mounting by one person only
- Simple system setup
- Various CAN sensor types can be combined

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