

MOBA 3D MACHINE CONTROLS

**MOBA 3D-MATIC – STATE-OF-THE-ART
TECHNOLOGY FOR OPTIMUM RESULTS**



MOBA[®]
MOBILE AUTOMATION

3D CONTROL FOR GRADERS, DOZERS AND BLADES — MOBA 3D-MATIC: EFFICIENT SYSTEM FOR PRECISE LEVELLING

MOBA 3D-matic is the optimal 3D levelling system for use on graders, dozers and blades. The system achieves exact results and works with the GNSS as well as with the total station. MOBA 3D-matic will win you over through easy installation, uncomplicated operation and an uncluttered presentation of all relevant information on the display. The MOBA 3D-matic software works with common file format DXF; all data can be used immediately and implemented precisely on the subsoil.

A further advantage: thanks to its modular design, the CAN communication-based system is compatible with all MOBA levelling systems, meaning that upgrading from 2D to 3D is possible at any time. The system is easy to install and can be retrofitted at any time.



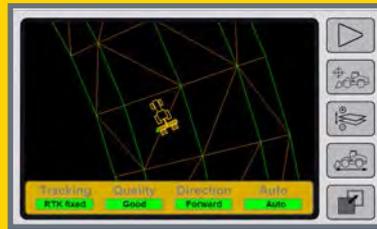
Benefits:

- » Higher operating efficiency when using the machinery
 - » Quick and exact handling of projects
 - » Precise results
 - » Manual control measurements are eliminated
 - » Quick and straightforward installation
 - » Ease of operation
 - » Compatible with all MOBA 2D levelling systems
- Upgrading possible at any time



» Main menu

Clearly arranged main menu through which, for example, project and machine data, sensors or additional info can be selected



» Position display

Display of the current position of the machine on the ground. Tracking describes the data reception and the quality of the satellite reception. Additionally, the direction and whether current operation is in the automatic mode are indicated.



» Height and incline angle

Display of the current height and incline angle relative to the specified target values.

Components



Control panel

- » Visualisation of the workflow and all important information
- » Transfer of saved data via USB interface
- » 7 inch transfective colour display
- » Intuitive operation



Controller

- » Integrated 2D and 3D controller in a single housing (optional)
- » Processes all measured values transmitted by the sensors
- » Compares target and actual values and regulates the hydraulics accordingly



GNSS antenna

- » Receives and processes both GLONASS and GPS signals for precise positioning
- » Rugged antenna for use under harsh conditions



Total station

- » Automatic search of the prism
- » Automatic target tracking
- » Range 200 metres

FLEXIBLE EQUIPMENT OPTIONS —
FLEXIBLE IN USE



MOBA 3D-MATIC & GNSS

If the MOBA 3D-matic works with a GNSS sensor, then the sturdy GNSS precision antenna on the mast records height and position with the highest level of precision. Signals are received and processed from all GPS and GLONASS satellites. A height precision of ± 2 centimetres makes it possible to attain exact planarity of the processed surfaces. The planarity performance is comparable to the laser or ultrasonic sensor of the basic system. The modular conception makes upgrading the GS-506 or Laser-matic 2D basic systems quick and easy.





MOBA 3D-MATIC & TACHYMETER

When using the MOBA 3D-matic with tachymeter, the tachymeter quickly and reliably searches for the drive prism. Target tracking is precise and constant even at high operating speeds. In the event of target interruptions, a search is automatically started. Under favourable weather conditions, depending on the expected accuracy, an operating range of up to 200 m is possible. The tachymeter system creates exact, homogeneous finish grading at absolute system accuracies of up to ± 5 mm in height and ± 20 mm when laying out the roadway edge. This is how simple as well as complex grading can be realised with little effort and the highest level of precision. The modular conception makes upgrading the GS-506 or Laser-matic 2D basic systems to MOBA 3D-matic quick and easy.



MOBA 3D-MATIC - THE OPTIMUM SYSTEM FOR EVERY REQUIREMENT



3D SYSTEM APPLICATION	MOBA 3D (GNSS)	MOBA 3D (Tachymeter)
» Dozer earthwork	●	●
» Blade earthwork	●	●
» Dozer grading	●	●
» Grader planing	●	●
» Dozer fine grading	●	●
» Grader fine grading	●	●
» Blade fine grading	●	●
» Earthwork acceptance	●	●
» Grading acceptance	●	●
» Landfill construction	●	●

● In frequent use ● Possible

YOUR REQUIREMENTS	MOBA 3D
» Road construction: highways	✓
» Road construction: state, county and country roads	✓
» Railroad lines	✓
» Air fields	✓
» Car parks	✓
» Municipal streets and roads	✓
» Industrial plants	✓
» Disposal sites	✓

2D BASIC SYSTEMS – EFFICIENT INCLINE AND HEIGHT CONTROL



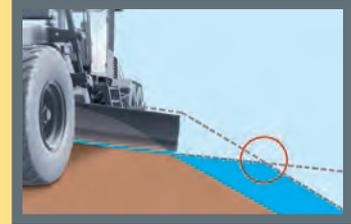
Mast tilt

- » Automatic compensation of mast tilt
- » Exact compensation of cutting angle shift



Side shift

- » Precise mounting edges due to automatic control of lateral blade movements



Hold-x-slope

- » Precise removal of crests and embankment edges, exact adherence of the blade angle
- » With half the blade width, accurate operation is possible beyond the project edges



GS-506

LASER-MATIC

The 2D levelling system GS-506 offers an extremely precise and reliable incline angle control. Flexible in use as well as in the selection of sensors, the GS-506 can be individually customised to meet all respective requirements and, as a future-oriented application, can be upgraded to 3D at any time. Whether road or site construction – the GS-506 delivers the optimum automation technology for nearly all construction machinery used in road construction. Conceived for use under tough conditions, all components have proven themselves in daily usage at construction sites and deliver precise and dependable results in every situation. The sophisticated software guides the operator intuitively through the menu. The system boosts quality through precise height and incline angle control while speeding up work processes. Projects can therefore be completed more quickly – and with higher quality results.

The 2D levelling system Laser-matic, for manual or automatic height adjustment of blades and scrapers, is the world's most flexible system for level control. Depending on the requirement, it works with diverse sensors that can be connected correspondingly. The MOBA Laser-matic is reliable in use and achieves precise results. With just four buttons, the system is very easy to operate. As it can store up to ten hydraulics configurations, the controller can be used for numerous machines without any additional calibration.

The system can also be upgraded with MOBA 3D-matic.