Machine Control

Learn more about our products that allow the use of precision agriculture in cultivation, harvesting and transportation operations.
Hexagon has the most complete solution for precision agriculture. Our products work to monitor and manage operations and automate tractors, machinery and equipment. This solution works in different phases of the agricultural and forestry process, from soil preparation, planting, cultivation to harvesting and raw material transportation.

The products ensure quality and efficiency throughout the entire process, helping the operator perform tasks with the utmost accuracy. In addition, the products are able to offer cost reduction in operations with work area optimisation and the smart use of resources and inputs.

Understand how precision farming increases the profitability of your business*:

- 10% better fuel usage
- More than 10% increase in productivity
- 25% reduction in inputs with the variable rate controller
- 5% increase in the use of the planting area
- 20% reduction of inputs with section control
- More than 10% increase in productivity

* values may vary according to working accuracy
Reasons to choose Hexagon as your partner in your Digital Transformation

**End-to-end solution:**
We are the only supplier in the market that has a complete solution that covers everything from optimised long-term planning to the automation of operations in the field through onboard controllers in a synchronised way to reduce time lost in activities.

**Experience in agricultural and forest market:**
Our team has more than 20 years of experience in the market. We speak the same language of the field and know both the problems and the solutions, developing the best and most efficient strategies to solve them.

**Hexagon Expertise:**
We have at our disposal all the technologies developed by Hexagon, a global leader in sensors, software and autonomous solutions, allowing us to bring to the agricultural and forestry sectors the cutting-edge innovations in the areas of geopositioning, mapping, automation, embedded electronics, artificial intelligence and systems integration.
Learn more about our HxGN AgrOn products

Our products allow users to use all solutions and a single display, without the need for hardware duplication.
Ti5, Ti7 and Ti10 Displays

Unit of software, sensors and actuators used to monitor and automate agricultural operations.

Understand the differences between our displays below, and discover the best option for your operation:

Ti5 Display

This model is available in a 5” screen with IP65 and is indicated for operations that can be carried out with low precision, such as spreading limestone in a distributor. In Ti5 Display it is possible to include AgrOn Electric Auto Steering, AgrOn Guidance and just another product to choose from.

Ti7 Display

This model is available in a 7” screen with IP64 and optional mobile communication items such as Wi-Fi and/or 4G. The Ti7 Display is ideal for operations that require high precision in the execution or when you want to have the combination of two or more activities at the same time since it is possible to include all the precision agriculture resources in a single equipment.

Ti10 Display

Developed with disruptive technologies and high processing capacity, Ti10 enables greater connectivity between field operations. With a friendly and easy to use interface, it is ideal for any type of operation and conditions of use. Ti10 has a 10” screen and accepts all the features of precision agriculture in a single device.

Farming Accuracy

- GNSS L1 GPS/Glonass Autônomo: 15 cm (pass to pass, 15min)
- GNSS L1 GPS/Glonass EGNOS*/WAAS**: 50 cm (with repeatability)
- GNSS L1/L2 GPS/Glonass: 10cm (pass to pass, 15min)
- GNSS L1/L2/Lband GPS/Glonass TerraStar: 3 cm (with repeatability)
- GNSS L1/L2 GPS/Glonass RTK: 2 cm (with repeatability)

* available only in Europe
** available only in the United States.

Operation Mode

- A-B Line
- A+Heading
- Parallel A-B Curve
- Adaptive Curve
- Pivot
Learn more about our HxGN AgrOn products

AgrOn ISOBUS Display
Standard connection between display, electronic systems, implements and machines.

- Includes the Universal Terminal (UT) and the Task Controller (TC)
- Has TC-BAS, TC-SC and TC-GEO capabilities
- Plug-and-play installation on steer ready machines
- Possibility of section shutdown and control at fixed and variable rate
- Activity logging and telemetry
- Works on agricultural and forestry machinery
- Integrated with Ti7 or Ti10 display

Scan the QR Code and watch the video or click here.
AgrOn Guidance
Orientation system to maintain alignment with tractors, machinery and agricultural and forestry equipment while executing routes.
- Precision in every operation – straight lines, curves and pivots
- Multiple options of orientation
- Ability to upload map file to system for guidance
- Ability to mark objects on the map

AgrOn Auto Steering
Automated precision navigation system for tractor, machinery and agricultural and forestry equipment.
- Compatible with electric or hydraulic activation, and also with steer ready tractors
- Correction system for slope and abrupt maneuvers
- Ability to work in straight lines, curves and pivots
- Adaptability to most tractors on the market
- High performance guaranteeing better adjustment to the route
- Possibility of loading lines projected in the office

AgrOn Sprayer Control
Automated control system for spray sections during application.
- Automatic control of the spraying section
- Enables manual control of sections
- Enables automatic section closure
- Allows installation with various valve assemblies
- Monitors and controls the application of up to 2 liquid inputs in up to 16 sections

Scan the QR Code and watch the video or click here.

AgrOn Fertilisation Control
Automated control system for fertiliser and limestone applications.
- Possibility of installation on track and electric variable rate
- Calibration and simple operation
- High precision controller
- Visualisation during operation
- Detailed operation information records
- Monitors and controls the application of up to three solid inputs
- Import maps (.shp) previously defined in the office
- Section shutdown on hydraulic motors

Scan the QR Code and watch the video or click here.
**AgrOn Seedling Marker**

Generates maps of seedlings and pits through georeferencing for forestry operations.

- Activation of the points through analog or digital sensors
- Facilitates irrigation and fertilisation in each seedling through georeferencing markings

**AgrOn Bait Control**

Automated control system for application of formicidal baits in forestry operations.

- Monitors and controls the application of formicidal bait (1, 2 or 3 actuators)
- Export maps of systematic georeferenced application
- Enables localised application and georeferencing of ant nests

**AgrOn Subsoiling Control**

Automated subsoiling depth monitor system.

- Simple calibration and operation
- Allows visualisation of measurements during operation
- Registers detailed operating information

**AgrOn Planting Assistant**

An operator assistance system for excavators to conduct forest planting.

- Assists the operator of excavators to conduct planting in the planned area.
- Generates maps with the position of the georeferenced seedlings
- Marks the target positions for planting
- Includes an intuitive interface
- Ideal for planting operations on sloping ground
- Enables night-time planting with greater security
- It can be used in conjunction with HxGN AgrOn Machine Monitoring
- Integrated only into the Ti5 or Ti7 display

**AgrOn Seedling Marker**

Generates maps of seedlings and pits through georeferencing for forestry operations.

- Activation of the points through analog or digital sensors
- Facilitates irrigation and fertilisation in each seedling through georeferencing markings
**AgrOn Haul-Out Dynamic Allocation**

Synchronised system for allocation of haul-out transporter and the cutting pace of harvesters.
- Indicates the ideal moment for moving a haul-out tractor assembly to a harvester
- Considers distances, paths and times of movement on the cutting front
- Increases the total time of operation of harvesters, due to the reduction of the waiting time by available haul-outs

**AgrOn Machine Monitoring**

Monitoring system for machines and fleets in the field.
- Read RPM and/or similar parameters of the machine
- Time and downtime monitoring
- Speed information of the operation on the onboard controller
- Integration with pre-existing sensors of the machine
- Allows you to configure alarms
- Integrated with software to register operations

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**AgrOn Planting Monitor**

Seed spacing monitoring system.
- Improved calibration with simple setup
- Measures seed population
- Night planting ability
- Reduction of application failures
- Prevention of over-planting

**AgrOn Planting Control**

Automated planter control system.
- High precision controller
- Controls up to five simultaneous inputs, one of seed, three of fertilisers and one of liquids
- Calibration and simple operation
- Fixed and variable seed rate planting
- Monitors and controls each section of seed or fertiliser

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Scan the QR Code and watch the video or click here.
Module:

**AgrOn Remote Access**

System for remote access to displays for technical assistance and calibrations.

- Remote monitoring of the machine
- Ensures fast, efficient and cost-effective service
- Accepts different Internet connections: cable, Wi-Fi, 4G, 3G and even 2G
Hexagon is a global leader in digital reality solutions, combining sensor, software and autonomous technologies. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and Mobility applications.

Hexagon’s Agriculture division provides technologies that convert data into intelligent information that enables smart planning, efficient execution, precise machine controls and automated workflows that optimise operations and increase profits.

Our technologies are shaping production and people-related ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 24,000 employees in 50 countries and net sales of approximately 5.2 bi EUR.

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