



SMARTSOLUTIONS

by Homburg

Smart solutions for controlling implements via ISOBUS and RTK GPS

Innovative solutions that take
your implements to the next level
of precision farming

Work smarter, not harder



Added precision and headland automation to my planter

SMARTSTEER

RTK Implement steering

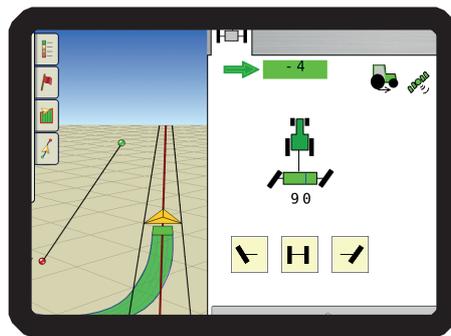
Discover the premium and most advanced implement steering on the market: SmartSTEER. It will add precision, extra capacity and comfort to your implements too!

Universal

SmartSTEER is the most universal and accurate RTK implement steering system on the market and is sold and used worldwide. SmartSTEER integrates in your existing GPS system and will steer any implement behind the tractor along the same curve/track/AB-line as chosen in your display. SmartSTEER makes your work a lot easier: simply press the start button and be surprised!

Benefits of SmartSTEER

- ✓ Adds precision plus saves time by headland automation.
- ✓ Full Automatic Pause, Center or Follow-tractor mode on headland assists the operator and saves time, soil and fuel by eliminating reversing.
- ✓ Reverse options for wheel steering (AB line & headland).
- ✓ No additional cab clutter thanks to the ISOBUS VT interface.
- ✓ Easy (and almost) Plug & Play Installation.
- ✓ Compatible with almost any RTK receiver (incl. Homburg SmartRTK).
- ✓ Suitable for all implements behind tractors with wheel, hitch, drawbar, sideshift or coulter.
- ✓ Can use existing NTRIP (sharing) for implement receiver.



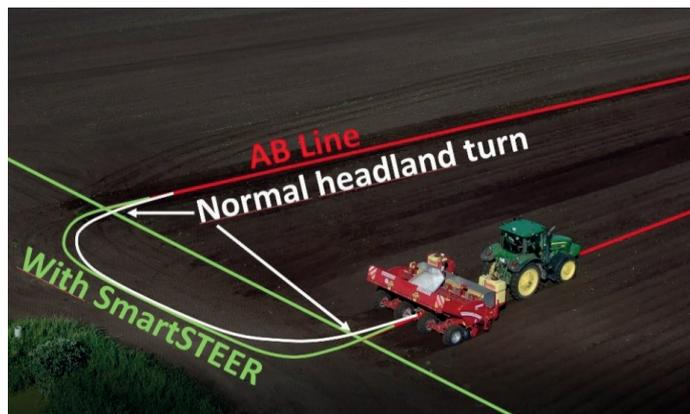
Discover more about SmartSTEER



▲ Easy and intuitive user interface via ISOBUS VT



▲ SmartSTEER on Grimme



▲ Headland automation with follow-tractor mode

AVAILABLE FOR*

- Ag Leader ✓
- Case ✓
- Claas ✓
- Deutz ✓
- Fendt ✓
- John Deere ✓
- Massey Ferguson ✓
- New Holland ✓
- Raven ✓
- Steyr ✓
- Topcon ✓
- Trimble ✓
- Valtra ✓

Support for multiple brands (unlocks) available.

RTK soil leveling made easy with your existing ISOBUS hardware

SMARTLEVEL

3D RTK leveling

This is what you need for your scraper: SmartLEVEL can use your existing display and RTK receiver to move soil and works all over the world. The functionality is comparable with laser leveling, but a grade/slope can be set in up to 3 directions to create a (tilted) double roof model shape.

Universal

SmartLEVEL is compatible with almost every ISOBUS display and NMEA RTK receiver. SmartLEVEL transforms your scraper into a precision tool, making it an easy and cost-efficient upgrade using your existing GPS components.

Benefits of SmartLEVEL

- ✓ Easy to install and use for 3D levelling.
- ✓ No limits in elevation or range unlike laser based systems.
- ✓ Align button to compensate for possible (vertical) RTK drift.
- ✓ Can be used with radio and NTRIP RTK.
- ✓ Offset & toggle buttons to shift scraper up or down with adjustable offsets.
- ✓ Can use (proportional) ISOBUS aux-N joystick or buttons or SmartSOLUTIONS joystick.
- ✓ Ag Leader displays only: auto updating cut and fill maps showing where to move soil from and to.
- ✓ Limited support for prescriptions.
- ✓ Improves field accessibility and yield by preventing wet spots.

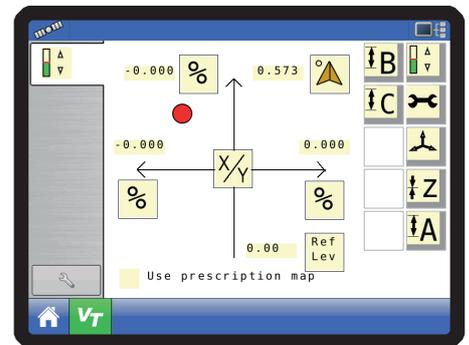
Additional info

SmartLEVEL supports PWM hydraulic valves and can automatically configure Novatel, Trimble or Topcon receivers to work with SmartLEVEL. SmartLEVEL does not need an unlock in the display.

Three simple operating modes

- Manual.
- Semi-automatic: Manual control while limiting downwards movement by actual set profile.
- Fully automatic for finalizing.

Discover more about SmartLEVEL



▲ Setup page for slope settings



▲ Cut & Fill map and Run page with vertical lightbar



▲ Proportional joystick

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Brought gridplanting to my existing ISOBUS display

SMARTSTOPnGO

ISOBUS Grid/ Rastermodule Module

SmartSTOPnGO is a GPS based grid planting system using the ISOBUS display of an RTK guidance system. SmartSTOPnGO provides 12V output signals at the set distance to engage i.e. a buzzer, lamp, valves etc. Depending on the harness chosen, it connects either via ISOBUS socket or in the cab via CPC connector.

Using SmartSTOPnGO

Simply set the heading and distance between stops, and SmartSTOPnGO will send 12V signal(s) at each stop. The display shows the operator the next stop number and current distance remaining. Offsets and duration of signals can be easily set. Additionally, when SmartSTOPnGO is used to bring the tractor to a standstill, it can be configured to require a press on the display or an external signal before driving resumes.

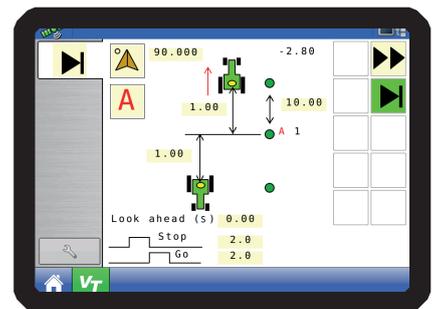
Benefits of SmartSTOPnGO

- ✓ Easy to install and use.
- ✓ No display unlocks needed (just ISOBUS VT/UT).
- ✓ Adjustable duration of both the STOP and GO pulses.
- ✓ Adjustable offsets for both directions of driving or to create diamond pattern.
- ✓ Comes prewired for an external Resume/GO signal.
- ✓ Fast Forward button to pause signalling while i.e. on headland.
- ✓ Optional 2nd channel for i.e. adding fertilizer or put i.e. a pole after every 5 trees.
- ✓ Counts the number of stops in the current pass.
- ✓ Updates/upgrades with additional features foreseen.
- ✓ Equal and accurate spacing allows for i.e. easier weeding and a more consistent crop.

Hardware

The SmartSTOPnGO bundle consists of a module and harness which connects to the implement/application. The compact and waterproof module can be placed on the tractor or implement as desired. External resume input is also prewired.

Discover more about
SmartSTOPnGO



▲ SmartSTOPnGO user interface



▲ SmartSTOPnGO in use



▲ SmartSTOPnGO module

COMPATIBLE WITH*

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- Valtra ✓

Straight ploughing without stress

SMARTPLOUGH

RTK Ploughing system

This is what you need for better yields and planting! By using SmartPLOUGH on your width adjustable/vario plow, you will get higher capacity, a more even field and higher yields. Additionally, you will get even more straight planting since planters tend to follow the soil as how it was prepared. SmartPLOUGH as InFurrow is a proven solution and successfully used for over 10 years, and meanwhile also SmartPLOUGH OnLand is turning soil all over the world.

Using SmartPLOUGH

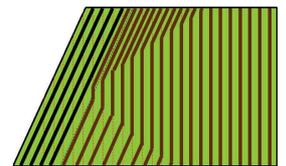
SmartPLOUGH is easy to use and does, like an autosteer system, the job for you by adjusting the working width with RTK accuracy. This assures straight and even ploughing that matches your AB lines used for planting.

Benefits of SmartPLOUGH

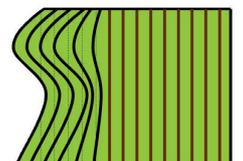
- ✓ Easy to install and use by day and night, also by less skilled drivers.
- ✓ Via tractor ISOBUS socket and can use OC or LS hydraulics.
- ✓ Usable for both curved and straight AB-lines.
- ✓ Can finish with a full pass at the end of the field.
- ✓ Automatically stops adjusting the width when lifted on headland.
- ✓ The normal InFurrow version of SmartPLOUGH can transit from one to the other AB line without help, and thus plough one year from curve to straight and next year from straight to curve.
- ✓ SmartPLOUGH OnLand does, if first passes do not match the AB line, require the operator to drive manually along those first passes or boundary and the system will straighten them according to the curve or AB line chosen.
- ✓ For InFurrow with Ag Leader displays also fan patterns are possible.
- ✓ Dedicated kits for i.e. Lemken ISOBUS ploughs available.

Hardware

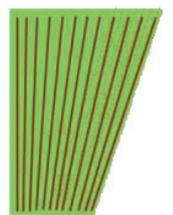
- InFurrow: Module, Harness, Angle & Tilt sensor, valve.
- OnLand version has an upgraded ECU and uses a double RTK receiver (no complicated tilting mechanism) and NTRIP harnessing.



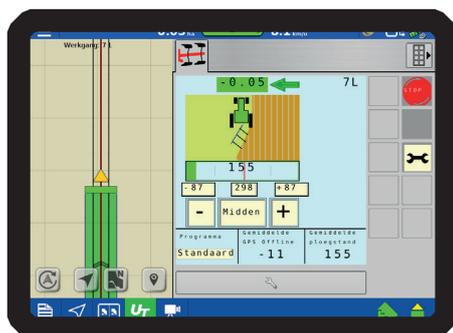
Advanced mode ▲



Straight & Curved ploughing ▲



Fan mode ▲



▲ SmartPLOUGH user interface



▲ SmartPLOUGH OnLand with double receiver

Discover more about SmartPLOUGH



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- Ag Leader ✓
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- Trimble ✓
- Valtra ✓



Bridges between ISOBUS display and your existing implement

SMARTCONTROL

Section & rate control

This SmartSOLUTION is the key to control your implement with section control and possibly rate control via ISOBUS. The SmartControl module converts ISOBUS to the desired CAN/serial protocol for both sections and rate control. Alternatively it can directly control sections of any implement using 12V output signals. SmartCONTROL can be used for both OEM applications and to retrofit onto supported equipment.

Universal

SmartCONTROL translates ISOBUS Task Control commands (section control) into 12V outputs or 3rd party CAN and Serial protocols. Also target rates and as-applied rates can be communicated between the display and implement controller when supported by the CAN/serial protocol. With SmartCONTROL you can control your non-ISOBUS implement (i.e. sprayer, spreader, planter or hoe) by ISOBUS.

Benefits of SmartCONTROL

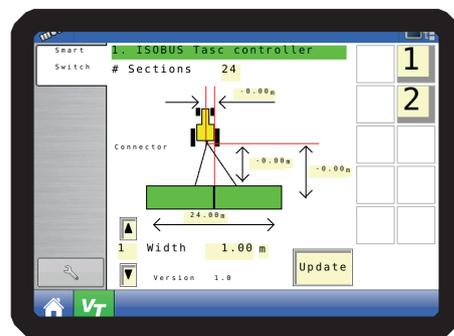
- ✓ Easy to install and use (no operator interaction after installation).
- ✓ Predefined harnesses for several applications.
- ✓ Can either connect to ISOBUS socket or in cab CPC connector.
- ✓ Solid, reliable, proven with hundreds of modules in the field.
- ✓ Allows using prescriptions or crop sensors (i.e. Ag Leader OptRx) on your existing ISOBUS display and will also log the as-applied rate when using CAN/serial connection.

Compatibility and protocols

Standard protocols are provided for:

- CAN: Agrifac (Condor 2014+ and Milan).
- Serial: Rauch/Kuhn Quantron A & E (GPS Control).
- Serial: HARDI HC5500 with Jobcom.
- Direct 12V: Up to 4 sections with only the SmartControl module.
- USC 12V: Up to 48 sections using our USC I/O modules (8 sections per module).

Discover more about SmartCONTROL



▲ SmartCONTROL settings



▲ Compatible with Hardi HC5500



▲ Compatible with Quantron A & E

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- Valtra ✓



From idea to innovation: The story of SmartSOLUTIONS

SMARTSOLUTIONS

SmartSOLUTIONS originated from a vision to make agriculture smarter, more efficient, and more precise. In 2012, on a farmyard, the first idea was born: SmartPLOUGH, an innovative ISOBUS based plough control system. This marked the beginning of a series of smart applications, developed in collaboration with Risseeuw Techniek.

The products emerged from the desire to get more out of the then costly ISOBUS RTK GPS systems. What started in the Netherlands quickly grew into an international success. The second product, SmartCONTROL, enabled nozzle-by-nozzle control via ISOBUS – a technology found in many self-propelled sprayers, often without users even realizing it.

The most well-known product is SmartSTEER, an implement steering system that gained popularity thanks to its easy installation and seamless integration with tractor GPS. It's smart headland automation increases capacity and comfort when turning on the headland and quickly became a favorite addition.

All SmartSOLUTIONS are designed with user-friendliness in mind: no extra displays in the cab, but control via the tractor's existing ISOBUS display. The Smart module on the implement does the rest.

Originally intended as an addition to the Ag Leader RTK systems distributed by Homburg, the success soon attracted attention from manufacturers and

importers worldwide. Today, SmartSOLUTIONS is a well-established name in the industry, compatible with most well known brands and systems.

SmartSOLUTIONS stands for proven quality, reliability, precision, and innovation that is easy to apply. Homburg continues to invest in technology that helps farmers work smarter and get more out of their machines.



Available for*:

	SmartSTEER	SmartLEVEL	SmartSTOPnGO	SmartPLOUGH	SmartCONTROL
Ag Leader	✓	✓	✓	✓	✓
Case	✓	✓	✓	✓	✓
Claas	✓	✓	✓	✓	✓
Deutz	✓	✓	✓	✓	✓
Fendt	✓	✓	✓	✓	✓
John Deere	✓	✓	✓	✓	✓
Kubota		✓	✓		✓
Massey Ferguson	✓	✓	✓	✓	✓
New Holland	✓	✓	✓	✓	✓
Raven	✓	✓	✓	✓	✓
Steyr	✓	✓	✓	✓	✓
Topcon	✓	✓	✓	✓	✓
Trimble	✓	✓	✓	✓	✓
Valtra	✓	✓	✓	✓	✓

*Compatibility: most actual ISOBUS RTK systems are supported, in case of doubt for i.e. older series: contact your dealer.

SMARTSOLUTIONS

by Homburg

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