Professional GPS technology for agricultural use

GPS LANDSURVEYING DEVICES

- To easily settle disputes
- To survey your land in an affordable and accurate manner
- For landcontrol of wageworks
- For walking and vehicle use



GPS LINEGUIDANCE DEVICES

- For more precise work without overlapping and omissions
- Help at bad visibility conditions
- 4-7% input and fuel saving
- System easy to develop

AUTOMATIC STEERING

- utilisation from seeding till harvesting
- It results preciser achievment of works
- concrete immediate saving
- +/- 2 cm accuracy through 24 hours
- removes the burden of the tractor driver

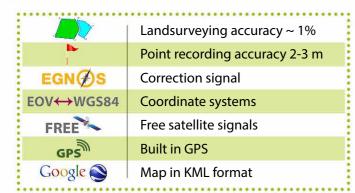




www.ldagro.com

LD-Agro - GPS Mapper

Would you like to survey your land by yourself easily, quickly and affordably? Choose the GPS Mapper!





Advantages of the GPS Mapper:

No more boundary disputes with your neighbour, and you can check the actual dimensions of the seasonal works area. The problem of recording of landmarks and corner points is solved. It is suitable for surveying, recording different fields, and optional points as well for example: wildlife damage, bottomland area, soil sampling points, strong weed, brooding area, ditches, tree rows etc. You can use it for surveying your land while walking or driving too.

Accessories:

5" GPS Mapper device / surveying software (on 2GB SD Card) / User's Guide / car holder / car charger

LD-Agro - GEO Mapper

Do not you want to wait for the surveyors? Do you look for an accurate land surveying device? Then the GEO Mapper with backpack with GPS is the ideal solution!

	Land surveying accuracy ~ 0,5-1%		
N	Point recording accuracy < 1,5 m		
EGN ØS	Correction signal		
EOV↔WGS84	Coordinate system		
FREE	Free satellite signals		
GPS	Wire GPS connection		
Google 💊	Map in KML format		



The advantages of GEO Mapper:

Recording points, boundaries and area sections. A handled computer that can be used independently (car navigation, MP3-MP4 player etc). Thanks to the GEOX1 receiver built in the backpack it is suitable for searching and recording the corner points of the land. Thanks to the backpack design the GEOX1 receiver in high position gives an accurate position also at difficult field conditions for example if you shall measure the land near to buildings or among hills or at fring of forest.

Accessories:

5" GEO Mapper device, PocketArea landsurveying software on 2GB SD Card / User's Manual / carcharger / GPS backpack (built-in electronic, LD-Agro GEOX1 GPS receiver, battery)

LD-Agro - Precision Mapper

Beside of landsurveying would you like to measure point, line or area? Choose Precision Mapper the area control device of agricultural plants!





Advantages of Precision Mapper:

The Precision Mapper is an excellent device at your service which can be used to survey and locate the dimensions of the land, area sections, line sor soil sampling points.



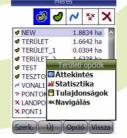
GPS connection without cable:

Precision Mapper is connected to the GPS-receiver via Bluetooth and so in the off-road vehicle or on the trunk the communication is excellent and you can survey your land comfortably.



IP54 water- and shockresistance:

You can not wait with surveying a land with wildlife damage or highwater. The Precision Mapper landsurveying GPS device you can use in rain, ditch and dirt too thanks to its IP54 design. Dust, rain, dirt – it is not obstacle for Precision Mapper.



AreaControl Software:

The menu points in LD-Agro Precision Mapper software speak for themselves. Landsurveying is very simple, you have to walk or drive only along the area or the line to be surveyed and the device continouosly records the covered distance. The data from the Precision Data Mapper landsurveying GPS can be copied into your computer in shape- or KML format.

Accessories:

3,2"LD-Agro Precision Mapper device / AreaControl software on 2GB SD card / User's Manual / carcharger / GPS backpack (built-in electronic, bluetooth receiver, LD-Agro GEOX4 GPS receiver, battery)

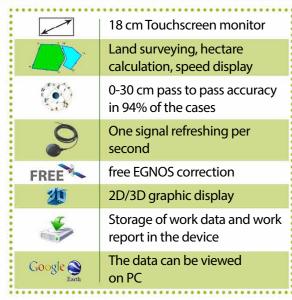






LD-Agro - Mg Navigator V1

Do you look for an affordable GPS lineguidance device with large display? In the Mg Navigator V1 you will find it.







Reachable savings:

- Fertilizing without overlapping 4% less fertilizer
- There are no omissions at fertilizing 0,2% more output
- Pest control without overlapping 4% less chemicals
- There are no lands without handling, no weedy areas 0,2% more output
- Fuel costs 4% saving

The advantages of Mg Navigator V1 device:

Satisfactory work performance in fog or dark or even in dust cloud. It makes the job of the driver significantly easier so overlapping and omissions can be minimized. It is very simple to operate its use can be acquired from the user manual quickly. The machine can be mounted in 5 minutes or re-mounted into another vehicle.

By using row guidance device adjusting to straight or curved reference lines you can always stay on the optional trace this way decreasing the overlapping and omissions to a minimum. With the help of this GPS row guidance device you can decrease both machine costs and working hours. Complete more work in less time!

You can always stay on the right track with the LD-Agro Mg Navigator V1 agricultural GPS!

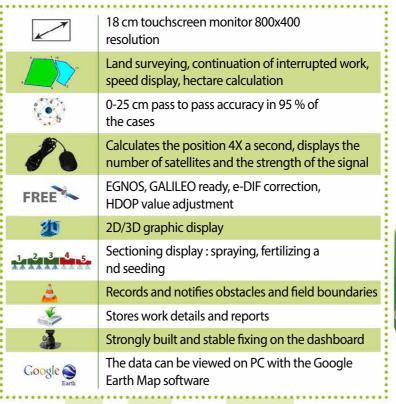
During field works carried out without tramlines overlapping is always on the agenda and it can cause considerable losses: this results on average 7% more surplus fertilizers and pesticides applied higher machine costs and more working hours. Now all of these can be easily avoided by using LD-Agro Mg Navigator V1 GPS row guidance. Reduce overlapping between rows. No more unnecessary applied fertilizers and pesticides.

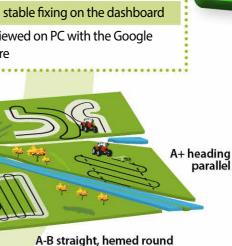
The box contains:

LD-Agro Mg Navigator V1 / LD-Agro GeoX1 GPS receiver / stable holdarm / 12V charging cable / User's manual / Mg Navigator V1 row guidance software on 2GB SD Card / gift LD-Agro MAP software (downloadable)

LD-Agro - Mg Navigátor V2

Do you want to acquire the basics of precision farming? Choose this affordable yet powerful and precise GPS row guidance!







Reachable savings:

- Fertilizing without overlapping –
 5% less fertilizer
- There are no omissions at fertilizing 0,3% more output
- Pest control without overlapping –
 5% less chemicals
- There are no lands without handling, no weedy areas – 0,3% more output
- Fuel costs 5% saving

The advantages of the Mg Navigator V2 device:

Free mode

Identical curve

Use the Mg Navigator V2 device for avoiding overlapping and omissions at spraying and fertilizing. Work precise during hard weather conditions in the night, fog or dust cload. The Mg Navigator V2 device is able to display the boundaries and the obstacles on the land. It is easy to re-mount the device and it has simple-to-use menu points for everybody.

Sectioning display:

A-B parallel

You can start precision farming right away with the sectioning helping function. Do not look at the weedy rows anymore on your land avoid the double spraying and omissions! Spray chemicals only where it is neccessary!

The content of the box:

LD-Agro Mg Navigator V2 / LD-Agro GeoX4 GPS receiver / stable holdarm on dashboard / 12V charging cable / User's manual / Mg Navigator V2 row guidance software on 2GB SD Card / gift LD-Agro MAP software (downloadable)



LD-Agro - Line Guide 300

Are you worried for the accuracy? The Leica trademark is one of the best known in the geographic informatics! With a Leica GPS receiver you can forget about the sudden signal losses!

	18 cm touchscreen monitor 800x400 resolution
7 10	Land surveying, continuation of interrupted work, speed display, hectare calculation
	0-20 cm pass to pass accuracy in 97 % of the cases
9	Calculates the position 5X a second, geographic informatic GPS receiver
FREE	EGNOS, GALILEO ready, e-DIF correction, HDOP value adjustment
20	2D/3D graphic display
1,2,3,4,5,	Sectioning display: at spraying, fertilizing and seeding
À	Records and notifies obstacles and field boundaries
*	Stores work details and reports
1	Strongly built and stable fixing on the dashboard
Cooole 🔊	The works achieved, omissions and overlappings

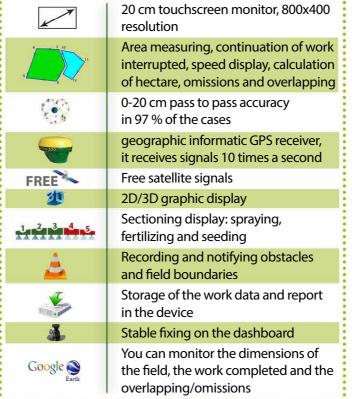
can be viewed on PC with the Google Earth Map



LD-Agro - LineGuide 800

The most accurate row connection and guidance even at turning points and along curved lines. It is possible only with 10 Hz John Deere GPS receiver!







Advantages of the LineGuide 300 device:

software

The LineGuide 300 lineguidance device with the Leica GeoSpective 2 GPS receiver provides very high level of accuracy among hard land conditions (edge of the forest, high building, hilly area). The receiver can optionally receive the signals of the Russian Glonass signals and it is able for 10 Hz mode (10 signals per second). In this way the device can function with high accuracy when it does not use services with monthly fee. The possibility of improving the LineGuide 300 device is impressive it is compatible with all of the types of automatic steering in favour of the more profitable and cost-saving farming.

The content of the box:

LD-Agro LineGuide 300 / Leica GeoSpective 2 GPS receiver / stable holdarm on dashboard / 12V charging cable / User's manual / LineGuide 300 row guidance software on 2GB SD Card / free of charge LD-Agro MAP software (downloadable)

Reachable savings:

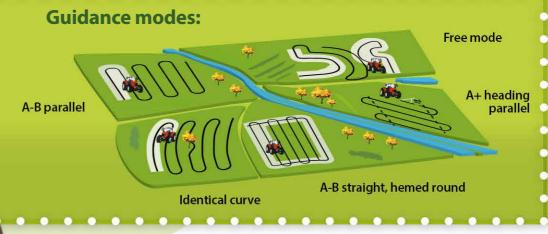
Fertilizing without overlapping – 7% less fertilizer

There are no omissions at fertilizing - 0,6% more output

Pest control without overlapping - 7% less chemicals

There are no lands without handling, no weedy areas -0,6% more output

Fuel saving – 7%



Advantages of the LineGuide 800 device:

The 20 cm diameter of the device provides good visibility for all people. Thanks to the 10 Hz signal refreshing of the John Deere GPS receiver you can use the device confidently also at the turning points. With its outstanding accuracy, easy re-mounting, weather-independent utilisation this device is the best lineguidance in our assortment. Due to the possibilities of further development it brings near the real essence of the precision farming the cost effective working to everybody.

The content of the box:

LD-Agro LineGuide 800 / John Deere Starfire 300 GPS receiver / stable fixing element on dashboard / 12V charging cable / User's Manual / LineGuide 800 lineguidance software on 2 GB SD Card / free of charge LD-Agro MAP software (downloadable)





LD-Agro - UniDrive - the universal steering automatic

Would you like to farm each day bigger land? Would you decrease the costs with accurate working? Then choose the LD-Agro automatic steering!

- · Universal, you can mount to almost every machine
- It is easy to re-mount to another machine
- It stores the shape of the earlier lands
- Optional also with +/- 2 cm accuracy
- Mounting without replacing the original steering wheel
- Non-skidding design
- Adjustable with wheelangle sensor



Advantages of the device:

The tractors, combines and self-propelling sprayers run with +/- 2 cm accuracy without human intervention on straight and curve lines. The Uni-Drive results more precise working and relieve the tractor driver who can deal with the quality of working. With automatic steering it does not matter what time of the day is or what types of visibility are during 24 hours of the day continuously precise and cost-effective achievment of the works. With using the UniDrive in case of the seeded plants the distance of the tramlines can be perfectly accu-



Easy to remount:

Use the biggest advantage of the UniDrive system! The unique split gear design allows for ast installation and switching between vehicles. So you can use the precise automatic steering at the most necessary workprocess.



LD-Agro inclination angle compensation

The built-in compass, the gyroscope and the acceleration meter in unique way corrects the inclination angle (inclination, pitching, snaking, side inclination) and increases the accuracy.



LD-Agro wheelangle sensor

For increasing the accuracy on a unique way on the market it is possible to order the UniDrive with a wheel-angle sensor which gives and additional input for the accurate steering.

"LD-Agro – if the accurate GPS signal is worth for you"

Optional accuracy for automatic steering:

LD-Agro GeoD10 GPS receiver

0-20 cm accuracy (free of charge EGNOS correction signals)



LD-Agro GeoD20 GPS receiver

±2 cm accuracy (RTK basestation or NTRIP provider's correction signals)



LD-Agro Robotpilóta - hydraulic steering

You shall reach the most direct and accurate steering even if you have a steerready tractor or you need an additional hydraulic mounting!

- It is possible to use from seeding through the inter-row cultivation till the harvest
- Concrete immediate saving and more output
- +/- 2 cm accuracy through 24 hours
- Direct and immediate steering
- For hydraulicly steerready tractors
- With additional mounting of the hydraulic controlvalve
- Compatible with the earlier LD-Agro linguidance units



Advantages of the device:

With hydraulic steering control it is possible to reach more accurate working and significant seed-corn-, chemicaland fertilizer-saving. The robotpilot system increases the efficiency, decreases the fatigue of the driver, the amortisation of the machine and furthermore during 24 hours a day with +/- 2 cm accuracy provides the precision farming. Thanks to the hydraulic steering control this is the most accurate steering solution. Thanks to the quick reaction on hilly areas and at such workprocesses it is applicable too where the powermachine can slip.

> Do you have a steerready tractor? You shall use your existing units confortably, precisely and more economically! **Extend your tractor now with automatic steering!**

GPS accuracy guaranted!

The system works with 0-20 cm accuracy with the free of charge EGNOS signals but in this case the biggest advantage of the hydraulic direct steering the outstanding accuracy will be lost. That is why we suggest the +/- 2 cm accuracy Geo20 GPS receiver using the RTK correction signal! ATTENTION! At LD-Agro company the quality is highly important that is why we have measured the accuracy we guarantee in all of the cases at the wheel of the tractor on the earth and we do not state the optimal accuracy at the GPS receiver!

"LD-Agro – the guarantee of the reliable GPS signal!"

LD-Agro SteerReady Drive

It contains those steerready vehicles which have factory made steering valve, wheelangle sensor and sensor for manual correction. The LD-Agro ECU central control unit achieves the precise control of the existing units and the processing of the GPS signals and compensation of inclination angle. For example: CASE AccuGuide ready, New Holland IntelliSteer ready, John Deere

AutoTrac ready, AGCO AutoGuide2, Fendt **AutoSteer** ready etc.



to the AutoSteer vehicle.



If the farm vehicle does not have hydraulic steering

LD-Agro Hydraulic Drive



Would not you like to have damage due to overlapping/omissions coming from human inattention or fatigue? Do you need perfectly accurate rowconnection 24 hours a day? With automatic steering you do not have to worry for double spraying and omissions.

- More attention for controlling the workprocess
- Each day bigger area processed
- Decreasing costs due to the precise achievment of works
- During whatever visibility conditons usable
- · Precise and cost-effective working 24 hours a day

LD-Agro GPS GeoD20 GPS receiver

- ±2 cm reachable accuracy
- two phases L1/L2 GPS receiver
- EGNOS, GLONASS, RTK



LD-Agro GPS GeoD10 GPS receiver

- 0-20 cm accuracy
- one phase L1 GPS receiver
- EGNOS



LD-Agro LineGuide 300/800





Mounted on the steering wheel, grower can install on almost any vehicle in the fleet and switches between vehicles in minutes.



It is necessary to set up connection between the RTK signal provider and the moving machine. The transfer is achived via GSM network and the correction signals come each second into the receiver. For all receiver it is necessary to have a GSM SIM Card paid by the data-turnover.



It provides the accurate processing of the GPS signals. Built-in compass, gyroscope and acceleration meter corrects the inclination angle in outstanding way on the market thanks to the 9-axle inertiasensors.

The programming and maintaining of ECU can be achieved via WiFi. The automatic setting and calibration enables the easy installation and utilisation.



Control valve

The hydraulic control valve receives precise commands in form of electric signals from the central LD-Agro ECU unit which are used by the steering system of the vehicle for keeping on row.



The LD-Agro Wheel Angle Sensor measures the position of the vehicle steered wheels and provides wheel position feedback to the AutoSteer controller.



LD-Agro footswitch makes the job of the driver easier. With the use of the foot switch you do not have to touch the monitor to engage/disengage the automatic steering.



Leica RTK basestation

- For serving more machines
- There is no 3-5 km effective range limit you do not have to carry the basestation
- Tranfer of RTK signal on GSM network toward the moving tractor
- +/- 2 cm reachable accuracy
- Ideal for seeding, rowspace cultivation







LD-Agro GeoX4 GPS receiver (GPS, EGNOS)

L1 onefrequency 4 Hz GPS receiver it receives 4x more signals than GeoX1. Pass to pass: 0-25 cm. Return accuracy: 1-2 m.



LD-Agro GeoD10 GPS receiver (GPS, EGNOS)

L1 onefrequency 10 Hz GPS receiver. It is an agricultural targetspecific development suggested to automatic steering. Pass to pass: 0-20 cm. Return accuracy: 1-2 m.



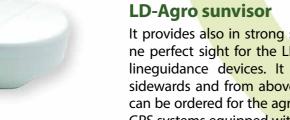
LD-Agro Geo20 GPS receiver (GPS, **EGNOS, GLONASS, RTK)**

L1/L2 10/20 Hz GPS receiver. It is an agricultural targetspecific development. It is suggested for LD-Agro UniDrive, SteerReady Drive and Hydraulic Drive automatic steering. Pass to pass and return accuracy with RTK: ±2 cm.



Leica GeoSpective 2 GPS receiver (GPS, EGNOS, GLONASS)

Outstanding capability onefrequency GPS receiver, 5/10 Hz functioning. Especially for agricultural use suggested also for automatic steering. Pass to pass: 0-20 cm. Return accuracy: 1-2 m.



Leica RTK basestation

Above 3 machines it is an ideal choice because it is not necessary to buy the network correction for all individual machines. Practically with one basestation it is possible to provide unlimited number of machines with correction signal. Pass to pass and return accuracy: ±2 cm.



Reverse camera

For observing the dead space behind the tractor and avoiding the accidents. The LD-Agro linequidance devices we can extend also with two cameras. For example: it is not necessary to stopfor monitoring the machine and the product overflow the work canbe achieved without break.



LD-Agro footswitch

The footswitch is to be ordered for the automatic steering systems makes the job of the driver easier. With using it it is not necessary to touch the monitor for switching in or off the automatic steering at the turnings.



LD-Agro UniDrive Transfer Kit

It provides simple re-mounting for further machines. The electric engine of UniDrive is possible to re-mount with a couple of movements. With the help of the Transfer kit the machine-specific fixing elements and the cables we can build-in stable into the other machines.

It provides also in strong sunshine perfect sight for the LD-Agro lineguidance devices. It shades sidewards and from above too, it can be ordered for the agricultural GPS systems equipped with 7 or 8 inch monitor.



Mg Navigator V2, Lineguide RAM arm (vacuum)

You can fix your GPS Linequidance device stable in the cabin of the tractor on the windscreen. The angle of view is adjustable totally free thanks to the two knucklepoints.



Virtual sectioning

Some of the linequidance devices are able to achieve virtual sectioning so you can spray out the chemicals much more accurately. The tractor driver can see on the monitor of the GPS lineguidance accurately when it is necessary to open or close the particular section manually in order to avoid double spraying. It is very important during seeding, fertilizing and spraying!



Posterior roundhemming lineguiding mode

Some of the chemicals with caustic effect (for example AHL) or liquid fertilizer can damage the machines and the tires. That is why it is practical to roundhemm the land at the end of the workprocess. With this mode you can avoid trampling down the newly seeded corns. First we determine how many rows we use for roundhemming then the linequidance device gives a signal if we have reached this lane. So we can achieve the roundhemming of the land at the end of the workprocess much more economically.



Last row linguiding mode

If you would not like to work with identical parallel rows then it is optional to choose the "Last row" linequiding mode too. In this case if you leave the ideal line (for example you shall avoid a tree or an electric pylon on the land) in the next row already the new line will be the reference line. So in all of the cases the last row will be the reference line for the following row.



Place specific spraying

You can load spraying maps made on the base of output map or soil sample drawing map into the LD-Agro LineGuide GPS devices. The maps in shape format are to be manually made for example with Farmworks software or with service providers dealing with soil analysis. After this you can read with meter accuracy the quantities are to be sprayed out from the display of the linequidance and you can achieve the place specific spraying cost-effectively without expensive equipments.



Work achievement control

Numerical statistics about the areas treated with overlapping or omissions which you can control the quality of the work done with. At wagework it can be useful too because the statistic data can make the accountings easier.



LD-Agro Heli controll

In unique way you can use the LD-Agro lineguidance devices also at airspraying! During the flight it is very important to precisely record the data of the route flown and the handled areas. Because during the flight the pilots have no time to switch the monitor of the linequidance (or there is no chemical-spraying) that is why it is done by a microcontroller. So the treated areas appear automatically there on the monitor where the pilot has really sprayed out!





Would you like to choose considerately? You shall be informed from reliable source about the possibilities!

Pass to pass and return accuracy

The pass to pass accuracy means how accurately the tractor can turn onto the following row. The return accuracy means the possibility of repetition for example if you want to find the same row in 2 hours or 1 year. The accuracy shall be taken into consideration not only on the base of the data announced by the service providers because the GPS lineguidance and the type of the steering control significantly influence too.

"LD-Agro – the guarantee of the reliable GPS signal!"

GPS, GLONASS

American and Russian satellite system, using the service is free of charge.All of the LD-Agro GPS receivers receive the signals of the GPS satellites and some of them receive also the signals of GLONASS satellites its advantage is that the particular position from more satellite signal more accurately can be determined.

EGNOS

This is a free of charge DGPS correction signal service above Europe. For receiving this signal it is necessary to have L1 frequency range GPS receiver which continuously receives the correction signals arriving from the satellite. All of the LD-Agro GPS receivers can receive and process these correction signals.

Omnistar XP/HP, Terrastar-D

DGPS correction signal service. Annual fee per machine – 1000 EUR for receiving it you need two phase GPS receiver. It is not recommended for seeding and linespace cultivating. For using it it is necessary to have continuos clear view in the direction of South. This solution we do not recommend for LD-Agro automatic steering!

NTRIP provider/RTK

Real time correction signal service for receiving it it is necessary to have dual frequency GPS receiver. Receiving the subscribed signals from an NTRIP provider is going to be achieved through GSM network. It is an ideal choice if you need to serve only 2-3 machines! Annual costs per machine are: 1000 EUR.

Own basestation / RTK

This is the best solution if you want to serve more powermachines or the machines of the neighbour farm with the +/- 2cm correction signal. Using the own basestation there is no annual subscription fee of 1000 EUR per machine. Receiving the signals can be achieved via radiofrequency or GPS network.

Pass to pass and return accuracy











Can not you choose? With the assistance of the comparing schedule you can find easily the most suitable solution for you!

Mg Navigátor V1 Mg Navigátor V2 LineGuide 300

Reachable functions/devices









		Sometime time in the second	0	
Pass to pass accuracy, availability	0-30cm / 92	% 0-25cm / 95	% 0-20cm / 97%	0-20cm / 97%
GPS receiver and signal refreshment	LD-Agro GeoX1 1Hz	LD-Agro GeoX4 4Hz	Leica GeoSpective2 5Hz / 10Hz	JohnDeere Starfire 300 10Hz
Size of monitor	7" ~ 18 cm	7" ~ 18 cm	7" ~ 18 cm	8" ~ 20 cm
GPS	х	х	х	х
EGNOS	х	х	x	х
GLONASS	-	-	o	o*
Lineguidance	х	х	х	х
Area measuring, hectare calculation	х	x	X	x
Storing workdata and workreport	х	x	X	x
KML, Shp export for PC	х	x	X	x
LD-Agro MAP software	х	х	х	х
Displaying virtual sectioning	-	x	X	x
Reverse camera	-	o (2db)	o (2db)	o (1db)
Posterior roundhemming	-	-	0	О
Last row lineguiding mode	-	-	0	0
Precision place specific spraying	-	-	0	0
Work achievement control	-	-	0	О
LD-Agro UniDrive	-	0*	0	o*
LD-Agro SteerReady Drive	-	-	0	o*
LD-Agro Hydraulik Drive	-	-	0	o*
LD-Agro wheelangle sensor	-	0	0	О
LD-Agro inclination angle compensation	-	0	0	О
LD-Agro GeoD10 GPS receiver	-	0	0	О
LD-Agro GeoD20 GPS receiver	-	-	0	О
LD-Agro GPS modem for RTK	-	-	0	О
Leica RTK Basestation	-	-	0	О
Network RTK/NTRIP service			0	О
X=	basic equipment	– = not reachable		replacing GPS receiver



Company information

LD-Agro Technologies Ltd deals with production and development of agrarelectronic instruments. LD-Agro is a registered trademark which means reliable quality level. The GPS products are produced under the LD-Agro trademark since 2010 and the sales of these products is achieved with Hungarian centre mainly in Europe.

Our outstanding products on the market are devided into three main groups. GPS landsurveying devices, lineguidance GPS devices, and robotpilot/steering automatic systems with the necessary accessories and services.

The uniquely developed products sold under the trademark LD-Agro represent not only higher quality level but because the production of the products is achieved in Hungary so the product support and service is going to be achieved on higher level.

Our range of products we have determined so that we can stand at the disposal of smaller entrepreneurs with couple of hundred hectares and farms with more thousand hectares with usable, modern, the level of farming and economy increasing devices.

Introduction of modern technologies within a small period of time results not only the increase of the level of production but also the improvement of the output of farming which we can avoid the surplus spraying with and we can improve the organisation of works and the economic decision can be made in the base of systematic professional information.

Your trading partner:

LD-Agro Technologies does not bear responsibility of the press mistakes appeared in this catalogue! In reality the shape, size, color and other parameters of the products can differ from that you can see in this edition!

LD-Agro Technologies

www.ldagro.com

^{*} The accuracy of GPS receiver depends among of others from that how many satellites it sees in the particular part of the day, can it receive correction signal or is there any shading or disturbing factor hereabout! Of the accuracy of the GPS devices we do not bear responsibility. The continuous disposal of DGPS correction signals and the number of reachable satellites is not our competency so we can not influence them.