



u-drill

UNIVERSAL SEED DRILL

WHEN FARMING MEANS BUSINESS

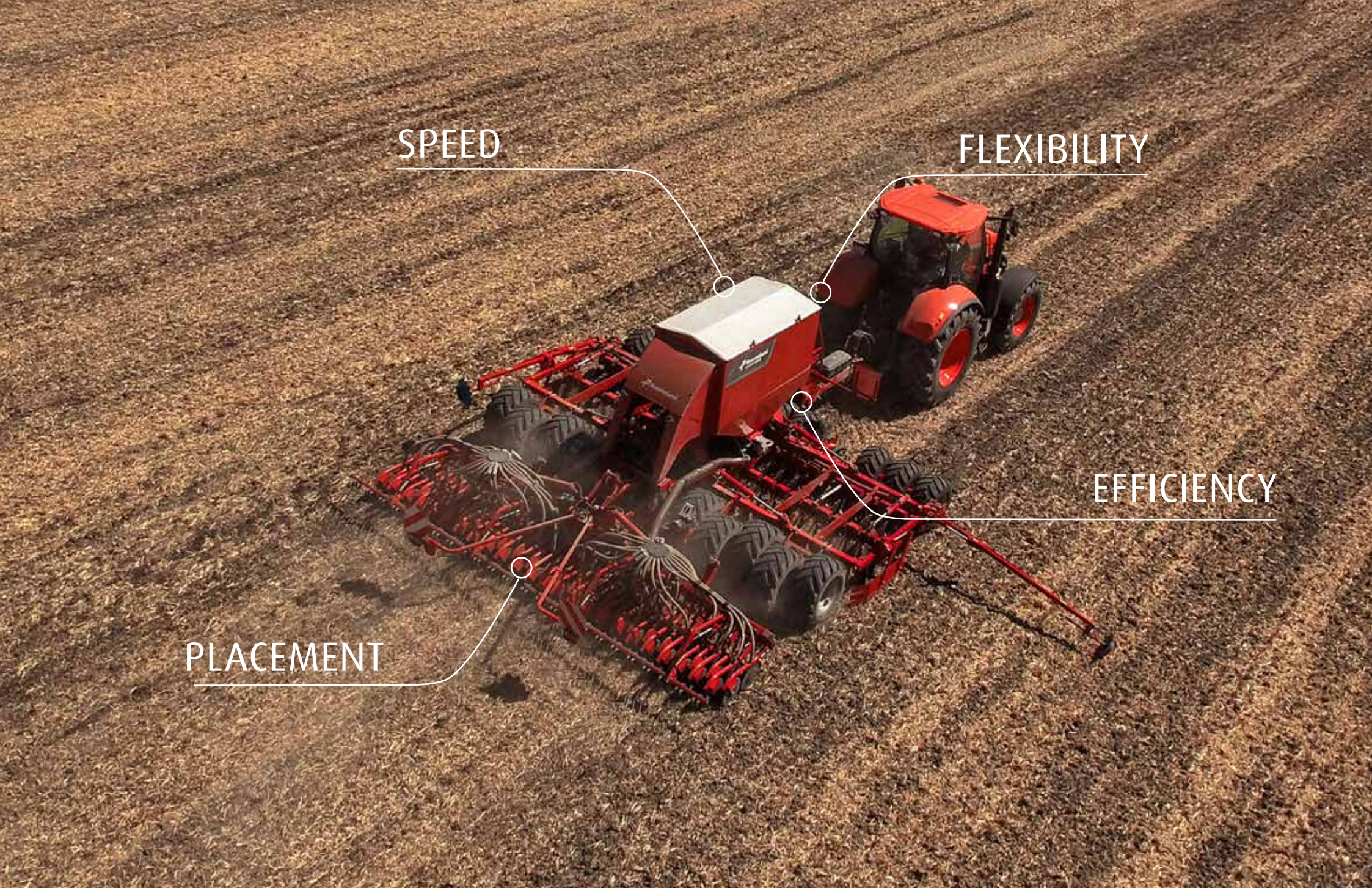
Realising the full potential of farming is about growing and developing your business, not only your crop or livestock, but also your profit. Improve productivity and profitability by focusing on the positives and minimising disadvantageous aspects, through strong, dedicated management.

Success springs from determination and clear targets, from laying down the appropriate strategy and allocating correct investments for the future. Quality results require the right ideas and equipment. When there is work to be done, you need the optimal setup and smart solutions that support you towards an easier, more profitable way of working. You need solutions that make tough and demanding conditions less complicated.





Effective sowing means speeding up when the soil is exactly right, in order to give your crop a head start.



SPEED

FLEXIBILITY

EFFICIENCY

PLACEMENT



EFFECTIVE SOWING TO GIVE YOUR CROP A HEAD START

Speed

When the time is right, you want to drill immediately. Only one day is the best. Tomorrow conditions may be worse. Speed is important. You need a machine that has the right capacity to finish the job in time.

Flexibility

You want your machine to be flexible. Each field has its own soil structure and specific working conditions. So you need a seed drill that is easy to adjust, preferably from the tractor cab. You don't want to lose valuable time.

Efficiency

This seed drill has been designed with the lowest weight possible and requires relatively low pulling force. The u-drill offers high performance and operator convenience, to achieve consistently good results - even at high speeds.

Placement

You want to rely on perfect execution: levelling the soil, preparing the seedbed, re-compacting, placing the seeds accurately and smooth closing in one single pass. The Kverneland u-drill universal seed drill combines capacity, easy adjustment and a perfect seed placement.

The highest possible efficiency in sowing.

OVERVIEW

5 STEPS IN ONE SINGLE PASS

With its modular design, the u-drill combines proven Kverneland components. Perfect preparation, levelling and recompaction of the seedbed, placing and pressing the seeds is done in one single pass.

Saving time and money.

①

Levelling the soil

For the best possible preparation, the front tyre packer levels the soil, crushes large clods and thus paves the way for the optimum depth control of the following tools. The front tyre packer has a diameter of 800mm and can be lifted hydraulically when it is not needed.

②

Preparing the seedbed

Two rows with short disc harrows ensure a nice and uniform seedbed over the entire working width. An important feature is the proven disc harrow section with its conical disc shape and the individual suspension. Due to the hydraulic system, the disc harrow can be adjusted with continuous variability from the tractor cab.

③

Recompacting before sowing

The loosened soil is recompacted by large tyre packers. Perfect depth control of the coulters and an optimum seed-to-soil contact ensure an excellent capillary action. The large tyre diameter of 900mm significantly reduces the required tractive power.

④

Sowing at uniform depth

The heart of the machine is its coulters. The narrow profile of the coulters with their slightly offset steel discs allows easy penetration into the soil. Nearly all of the coulter pressure (as much as 100kg) can be used on the integrated press wheels. The result: uniform seeding depth even at high working speeds.

⑤

Covering the seeds

Harrowing the soil completes the seeding. S-shaped or finger harrows ensure an optimum covering of the seeds. The working intensity can be set by the stepless pressure adjustment and at three different angles. To prevent damage to the harrow when reversing, it is equipped with an effective reversing device.



OPTIMUM SEED PLACEMENT WITH ELDOS AUTOMATIC AND SAFE

ELDOS is the **electric driven metering device** for Kverneland pneumatic seed drills. It is state-of-the-art technology for perfect seed placement.

ELDOS is steered by Kverneland e-com software, which is fully **ISOBUS compatible**. By the automatic section control, GEOCONTROL, the metering device stopps/starts automatically. Double and/or missed seeding on headlands or odd-shaped fields is avoided. Special sensors ensure complete functionality from the tractor cab.

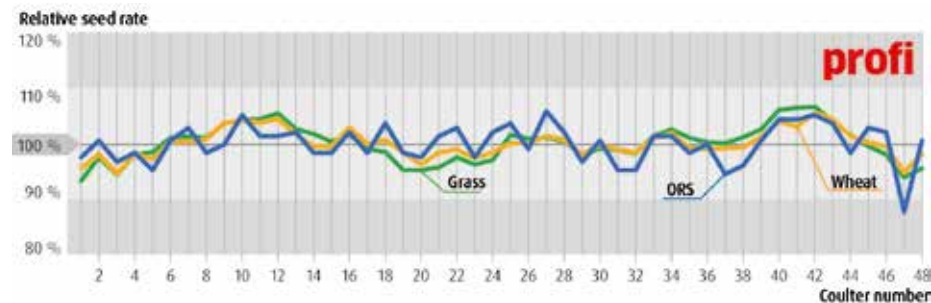
Calibration is automatic, and a range of interchangeable seed metering rotors can be swapped - even when the hopper is full - without the need for tools. Sensors monitor the metering rotors, and give a warning if the wrong metering rotors are accidentally installed.

Good results of – rate variation across the drill.

According to the test from magazine Profi, the coefficients of variation of seed rate across the drill (i.e. the spread around the average) were 2.7% for wheat, 3.3% for grass and 3.7% for OSR.

Seed rate is pretty consistent across the width of the drill, showing maximum errors of 12% (OSR), 7% (wheat) and 7% (grass). Graph: ST.

Source: Magazine Profi





- Easy exchange of rotors
- Five rotors for all sorts of seeds and fertiliser
- Self-monitoring system
- Application rates from 1-400kg/ha
(depending on working width and speed)
- Simple and automatic calibration

40 : 60

Division of hopper capacity
u-drill plus is 40 : 60

400 kg/ha

High capacity, high speed:
application rates up to
400kg/ha depending on
working width and speed.

12%

Up to 12% yield increase
with precision fertilisation.

u-drill AND u-drill plus

HIGH SPEED AND MAXIMUM PERFORMANCE

Powerful and efficient performance - that is what the u-drill offers. The machine can operate at high forward speeds of up to 18km/h, whilst maintaining a consistent working depth. The seeding depth and the coulter pressure can be centrally controlled by the push of a button from the tractor.

The u-drill is quickly set up for operation: All important settings can be controlled from the **in-cab display**, starting from the simple calibration up to any adjustments in field. Being adjustable on the go as to seeding depth, coulter pressure and automatic headland management, the u-drill offers operator comfort and safe application.

A plus for the combined application.

The u-drill is available either as **standard drill** (u-drill) or as **grain and fertiliser version**, u-drill plus. Both versions have a lightweight, yet robust structure, allowing the deployment of the u-drill on all kinds of sites. They come in working widths of 3.0, 4.0 and 6.0m. Depending on the working width, the hopper capacity is either 3,000l (3.0m and 4.0m) or 4,350l (6.0m u-drill) and 4,200l (6.0m u-drill plus).

The hopper of the u-drill plus is divided lengthwise. The proportion is 40 : 60. The two metering devices are accordingly positioned on either side.

FERTILISER PLACEMENT IN OR BETWEEN THE ROWS

Model	No. of metering devices ELDOS	Application rate
u-drill 3000/4000/6000	1/1/2	32kg/min/ELDOS
u-drill plus 3000/4000	2/2	45kg/min/ELDOS
u-drill plus 6000	2	65kg/min/ELDOS

The u-drill plus has been designed for precise fertiliser placement during sowing. It is able to apply fertiliser rates up to 400kg/ha (depending on speed and width). The pressurised hopper system of the 6.0m version ensures these rates are maintained even under the most difficult conditions. The hydraulic fan drive is powered from the tractor hydraulics.

1. Fertiliser placement within the disc harrow section

The outlets within the second row of the disc harrow section apply the fertiliser exactly in between two seeding rows. All plants have exactly the same access to the incorporated fertiliser deposit. By adjusting the working depth of the disc harrow, the depth of the fertiliser placement is determined.

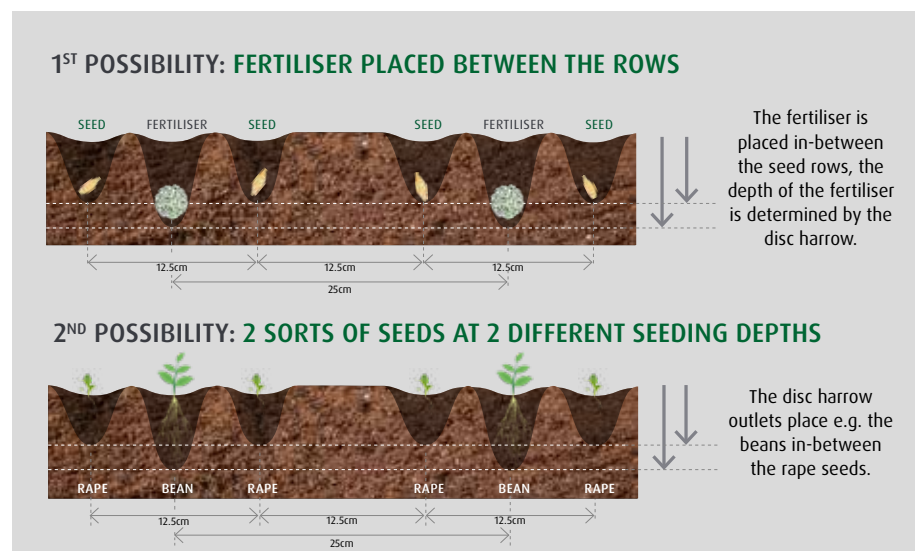
2. Fertiliser application within the seeding row

The fertiliser application within the seeding row is done by the double-entry CD-coulter. The fertiliser is placed together with the seeds. This is especially suitable for phosphoric fertiliser to support the initial germination and development of the plants in the most efficient way. The special design of the double-entry coulter with two exits also allows the seeding of two different crops in just one working pass.

Up to 12% increase in yield.

In trials of spring sown crops, yields have shown **increases up to 12%** compared to crops where the fertiliser (here: NPK) has been applied by other methods.
(Source: Landsforsøgene 2012, DK)

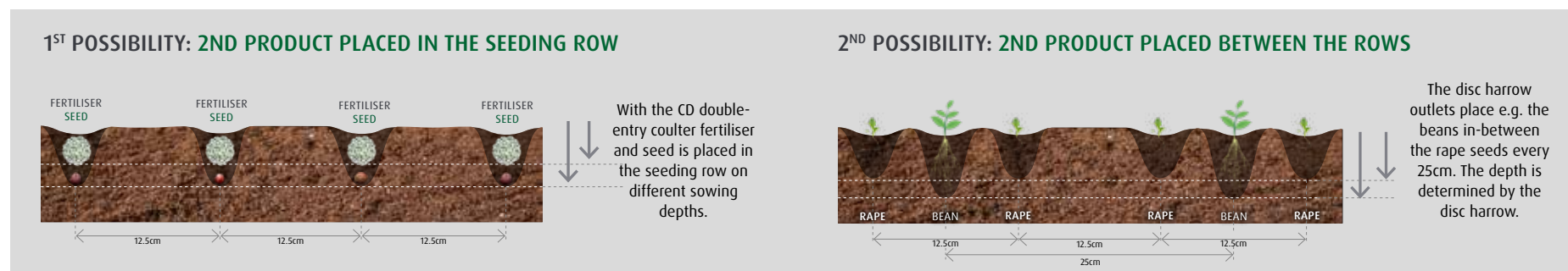
① PLACEMENT WITH DISC HARROW & CD COULTER (2 DISTRIBUTION HEADS)



② PLACEMENT WITH CD DOUBLE-ENTRY COULTER (2 DISTRIBUTION HEADS)



③ PLACEMENT EITHER WITH CD DOUBLE-ENTRY COULTER OR DISC HARROW & COULTER (3 DISTRIBUTION HEADS)





12 times longer lifetime

Fully integrated maintenance-free disc bearings provide an easy flow, thanks to durable bushes, exclusively designed for Kverneland.

Self-cleaning press wheels

The press wheels (Ø 380mm) are made of special rubber with a self-cleaning effect.

Centrally steered seed depth

The seed depth adjustment is steered centrally via the ISOBUS terminal.

Just one sort of coulter

Clear overview and simplified maintenance.

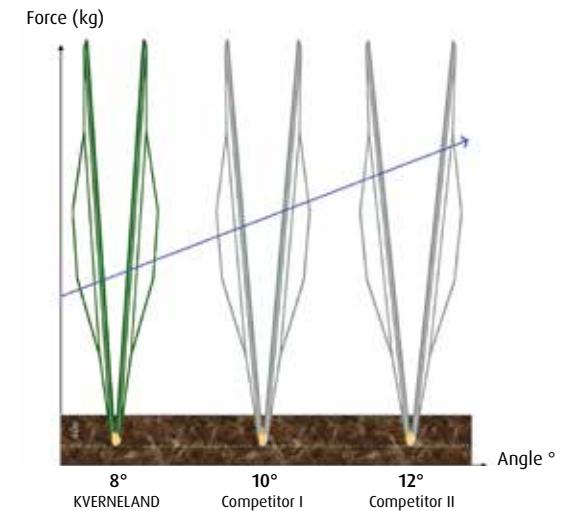
CD COULTER

FOR PERFECT SEED PLACEMENT



Thanks to the very slim design of the **CD coulters**, there is only a small amount of soil being moved. Therefore you need less pressure to achieve the right seeding depth. Thus, more of the available coulters pressure can be led to the press wheels. The result is a very even seed application.

Up to 25% less penetration force needed.



Lower fuel consumption with narrow profile of CD coulters

The CD coulters of the u-drill have an extremely narrow profile design, with an angle of only **8°**.

There is a clear relation between the angle of the seed cutting disc and power requirement: the smallest angle requires less power and less fuel.



PROFESSIONAL SOIL PREPARATION

FOR A PERFECT SEEDBED AND MAXIMUM GROWTH

①

Front wheel packer – larger footprint reduces compaction

For a perfect result in all seeding conditions, Kverneland recommends the fully equipped u-drill with front tyre packer in order to distribute the load on a larger tyre surface. As a result the contact pressure and the rolling resistance decreases and less power gets lost in soil compaction. Furthermore, due to the improved tire-ground tothing, the soil can support higher driving forces.

②

Disc harrow

The disc harrow consists of two rows of aggressively pitched conical discs. The discs are 5mm thick and hardened for long life. Thanks to their conical shape, the cutting angle remains constant. The high rotation speed ensures an excellent cutting quality.

Less traction needed.

③

Offset wheel packer

For perfect depth control of the coulters, an optimum seed-to-soil contact and excellent capillary action, the loosened soil is re-compacted by a large tyre packer. The large tyre diameter of 900mm together with the off-set position significantly reduces the tractive power required by the machine and thus ensures a consistently good work result.

HEADLAND MANAGEMENT FOR UTMOST PRODUCTIVITY

The u-drill comes with a fully automated **headland management system**. This saves the driver lots of time and eases the operation.

Extremely operator-friendly.

Using just one button, the u-drill operator can initiate a headland sequence with wheels, discs and coulter bar all capable of automatic operation in timed stages. The lifting sequence starting with the disc section ensures a constant depth control until the headland.

As the headland sequence starts, the metering device stops automatically - avoiding double seeding. The seed hoses are empty at the headland. This saves up to 5% of seed.

The driver can concentrate on steering the machine and the correct operation. In addition double and/or missed seeding is prevented. With headland management the job can be done more quickly, precisely and efficiently. The drill requires only one double-acting spool to operate.

Feature	u-drill	Competitor I	Competitor II
in cab depth control disc harrow unit	●	●	●
in cab depth control seeding depth	●	-	●
in cab coulter pressure adjustment	●	-	-
Headland Management	●	-	-





5%

No double seeding on
headlands saves up to
5% of seeds



iM CALCULATOR APP

FREE TO DOWNLOAD

With GPS it is possible for the farmer to accurately seed, spread and spray without any overlap. The iM Calculator app calculates the cost saving by using those GPS functionalities.

Save seeds and money!

After filling in the required data, the calculator clearly shows what you can save in terms of money.

The amount of seeds saved depends on the size and shape of the field and may amount to more than 5%.

The iM Calculator app for tablets is free to download from the App Store or Google Play.

Please find the online calculator on our homepage:

<http://imcalculator.kvernelandgroup.com/#/>



A man with short grey hair, wearing a blue quilted jacket over a black shirt and blue jeans, stands next to a large red Kverneland u-drill machine. The machine has large black tires and a red and white striped safety sign. The Kverneland logo is visible on the machine's body. The background is dark, suggesting an indoor setting like a barn or workshop.

Impressed by low pulling force and perfect seed placement

"I had two Optima precision seeders when I wanted to buy a new seed drill. As I was very satisfied with my Optima, the Kverneland u-drill was the first choice to look at. I'm a mechanical engineer, so I checked the machine thoroughly from the technical point of view. That was so convincing that I tried a demo machine in my field. After the first 10 hectares I decided that this machine is what I was looking for. I was impressed by the low pulling force and the seed placement. That was the reason I did not let this machine go. I bought it right away and I am still happy."

Szűcs Zoltán, Hungary
1,200 ha, Crops: Corn, hybrid corn, wheat,
phacelia, poppy, Climate: Continental



MANAGE YOUR FARM AS A BUSINESS WITH OUR ISOMATCH PRECISION FARMING OFFERING

Kverneland's precision farming offering is essential in managing your farming business with success. Applying electronics, software, satellite-technology, online tools and Big Data enables you to use your farming equipment more effectively and reach higher profitability of your crops.

iM FARMING - smart, efficient, easy farming



Reduce overlap and save up to 15% on input costs with IsoMatch GEOCONTROL

Enhance your success with e-learning

IsoMatch Simulator is a free downloadable virtual training program. It simulates all functions of the IsoMatch Universal Terminals and Kverneland ISOBUS machines. Train yourself and make yourself familiar with your machine to avoid errors and enhance your machine performance.

The best overview in farm management

IsoMatch FarmCentre is the first of a series of telematics solutions. This fleet management solution is applicable for your ISOBUS machines in combination with an IsoMatch Tellus GO/PRO. Whether you wish to control your fleet, manage tasks remotely or analyse machine performance data, IsoMatch FarmCentre provides this in an efficient web application, linking implements, tractors, terminals and the cloud in one continuous flow of data and connectivity.



Maximum savings: The IsoMatch GEOCONTROL precision farming application includes Manual Guidance and Data Management free of charge. It is possible to expand this application with Section Control and/or Variable Rate Control.



NEW

Be a PRO in increasing productivity

The **IsoMatch Tellus PRO** 12-inch terminal provides you with the optimal solution for an all-in-one control system inside the tractor cab including automatic steering. It is the centre for connecting all ISOBUS machines, running precision farming applications and Farm Management Systems. It offers everything you need to get the maximum out of your machines and crop, as well as cost savings in fertiliser, chemicals and seeds by using automatic section control and variable rate control. With the unique dual screen functionality it gives you the opportunity to view and manage two machines and/or processes simultaneously.



100%

100% focus on the result
in the field with
IsoMatch AutoDrive-E

100% focus, maximum performance

IsoMatch AutoDrive-E provides automatic tractor steering. Manage your work to be more efficient and avoid overlaps which leads to cost savings of up to 15%, better growing conditions and increased yield. (Only in combination with IsoMatch Tellus PRO).

Easy control management

The **IsoMatch Tellus GO** is a cost-efficient 7-inch terminal, especially developed for managing the machine in a simple way. Easily set up the machine with the soft keys and simply use the hard keys and rotary switch for optimal control while driving.



*Improve your performance
Maximum efficiency, minimum waste*

NEW



IsoMatch Global PRO

GPS antenna system with RTK precision for the highest accuracy (2-3 cm) and best productivity.

NEW



IsoMatch Grip

This ISOBUS auxiliary device is made for maximum machine control and efficient farming. Operate up to 44 implement functions from one device.



IsoMatch InLine

Light bar for manual guidance including section status information. Manage the distance from the A-B line and steer for the ideal position.



IsoMatch (Multi)Eye

Connect up to 4 cameras to the IsoMatch Universal Terminals. It gives you full control and overview of the entire machine operation.

ORIGINAL PARTS & SERVICE

ONLY ORIGINAL PARTS WILL KEEP YOUR MACHINE A KVERNELAND

Did you know that Kverneland parts are manufactured to the same high standards and strict specifications as Kverneland machines? Original Parts will always work and fit as intended, and are guaranteed to keep your machine running at maximum performance.

Kverneland has been a symbol of quality since 1879. The experience we have, combined with a constant strive to improve our products, ensures that the best parts are available for your Kverneland machine. Parts and service surround your machine with a safety-net. The quality of the machine ensures optimal usage and the quality of the parts provide a low life-cycle cost and longer wearing time.

Our long term relationship starts at the purchase of your Kverneland machine, and we will continuously stay by your side for support and assistance. We will guide you on the way to make sure you achieve maximum performance, productivity and profit.

Do not compromise quality with cheap solutions, remember that only Original Kverneland parts are the guaranteed solution to achieve what is expected by a Kverneland machine.



YOUR PARTS SPECIALIST

Through our worldwide dealer network you will find your local dealer, whom is always prepared to assist you. Your Kverneland dealer knows every inch of your machine and will gladly provide the expertise needed to ensure that you are operating at maximum potential.

Your parts specialist has got all the parts that you need and will also have the facilities to service your machine. Make sure to visit your Kverneland dealer on a regular basis to be updated on promotions and product news that you will not find elsewhere.



ALWAYS AVAILABLE

Time is money, and we know the importance of receiving the right parts at the right time! Your Kverneland dealer is supported by a massive distribution network to supply you with exactly what you need, when you need it.

Our main distribution centre is located in Metz, France. A strategic location for distributing parts to all corners of the world. With over 70,000 parts in stock and 24/7 service, we are ready to supply you with parts – at any time!



EASY ACCESS TO INFORMATION

Are you looking for a complete overview of parts for your machine? Maybe you are searching for more technical information? Our Online Search Database, *Quest*, has all of the information available for your machine, gathered in one place.

Various documentation like Parts Manuals, Operation Manuals, Software updates and FAQ's are all there. *Quest* is available in several different languages and can be accessed wherever and whenever. All answers are easy to find – just a few clicks away !

TECHNICAL DATA

Model	u-drill rigid		u-drill fold	u-drill plus		
Working width (m)	3.0	4.0	6.0	3.0	4.0	6.0
Transport width (m)	3.0	4.0	3.0	3.0	4.0	3.0
No. of CD coulters	24	32	48	24	32	48
No. of metering devices	1	1	2	2	2	2
Hopper capacity (l)	3,000	3,000	4,350	3,000	3,000	4,200
Required oil volume	> 90l/min					
Single-acting hydraulic valve + zero-pressure return for fan drive	●	●	●	●	●	●
1 x double-acting hydraulic valve for machine control	●	●	●	●	●	●
Power requirement 12 V > 70 A	●	●	●	●	●	●
CD double disc coulters	●	●	●	●	●	●
CD double entry seed outlet	○	○	○	○	○	○
Coulter pressure up to 100kg	●	●	●	●	●	●
Electro-hydraulic adjustment of the seed placement depth via ISOBUS terminal	●	●	●	●	●	●
Press wheels (Ø 380 x 50mm)	●	●	●	●	●	●
Row spacing (12.5cm)	●	●	●	●	●	●
Coulter staggering (17.5cm)	●	●	●	●	●	●
Electronic adjustment of the seed quantity with radar	●	●	●	●	●	●
Filling level sensors in the seed hopper (no.)	● (1)	● (1)	● (2)	● (2)	● (2)	● (2)
Fan speed sensor	●	●	●	●	●	●
Metering device monitoring	●	●	●	●	●	●
Electronic half-width shut-off	-	-	●	-	-	●
Mid-mounted front packer (Ø 800mm)	○	○	○	○	○	○
Complete front packer (Ø 800mm)	-	○	○	○	○	○
Electro-hydraulic adjustment of the disc harrow depth via ISOBUS terminal	●	●	●	●	●	●
Disc harrow (Ø 460mm)	●	●	●	●	●	●
Offset tyre packer (Ø 900mm)	●	●	●	●	●	●
Maintenance platform, road transport lights, in-hopper light	●	●	●	●	●	●
Hydraulic fan drive	●	●	●	●	●	●
Lower link suspension Cat. 3N (825mm)	●	●	○	●	●	○
Lower link suspension Cat. 3 (965mm)	○	○	●	○	○	●
Lower link suspension Cat. 4 (965mm)	-	-	○	-	-	○

Model	u-drill rigid		u-drill fold	u-drill plus		
Working width (m)	3.0	4.0	6.0	3.0	4.0	6.0
Hydr. Clod board	●	●	●	●	●	●
S-shaped seed harrow 10mm	●	●	●	●	●	●
Finger harrow 12mm	○	○	○	○	○	○
Calibration set	●	●	●	●	●	●
Filling auger	-	-	○	-	-	-
Hydraulical folding track marker with notched discs	○	○	○	○	○	○
Track eradicators (2 times per track)	○	○	○	○	○	○
Pneumatic brakes	○	○	○	○	○	○
Hydraulic brakes	○	○	○	○	○	○
Extended drawbar for tractors with twin tires up to 4.5m	○	○	○	○	○	○
Pre-emergence marker (centre marking)	○	○	○	○	○	○
Soil flow harrow	○	○	○	○	○	○
LED work lights	○	○	○	○	○	○
iM Tellus for non-ISOBUS-capable tractors	○	○	○	○	○	○
iM Tellus for ISOBUS tractors	○	○	○	○	○	○
Hopper volume weighing system with separate monitor	○	○	○	○	○	○
Headland management	●	●	●	●	●	●
Weight (kg) (with front packer + track eradicators)	4,600	5,400	8,120	4,800	5,600	8,400
Min. power requirement (HP)	95	120	190	95	120	190



Rotor 1
for high rate cereals



Rotor 2
for grass or similar



Rotor 3
for rape and small seeds



Rotor 4
for low rate cereals



Rotor 5 (option)
for maize, sunflowers and
greening seeds

- Standard equipment
- Option
- Not available

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