



**DL/DA/S-DRILL/E-Drill/DF1/DF2**

PNEUMATIC SEED DRILLS

# 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.





The iM Farming logo appears when the implement can be connected to our smart farming systems and accessories, essential for managing your business.



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

# YOUR KVERNELAND

## INTELLIGENT FARMING SOLUTIONS

Choose the best farming solution for you and your land. Combine the highest possible yields with sustainability. This will start with the correct tillage. The choices you make depend on various factors and should match your specific circumstances, like soil structure, crop rotation, residue management, economic and ecological viabilities.

*The choice is yours!*

You must consider environmental and legal issues. From conventional methods to conservation tillage: the balance of operations at the right time has to be found to achieve high yields with the best soil condition (air, moisture, biological activity, etc.) with a minimum amount of energy, time and investment. For this, Kverneland offers a full range of intelligent farming solutions.

### CONVENTIONAL TILLAGE

#### Conventional Tillage

- **Intensive** method of cultivation
- Complete soil inversion e.g. by a plough
- Less than 15-30% crop residues left on soil surface
- Seedbed preparation done by an active tool or special seedbed harrow
- High phytosanitary effect by reduced pressure of weed and fungi diseases - fewer herbicides and fungicides needed
- Better dry-off and faster increase of soil temperature for better nutrients absorption

### CONSERVATION TILLAGE

#### Mulch Tillage





















- **Reduced** intensity in terms of depth and frequency
- More than 30% of residues are left on soil surface
- Extended repose period of the soil
- Cultivator and/or discs incorporate the crop residues within the top 10cm of soil for stable bearing soil
- Full-width tillage - seedbed preparation and seeding in one pass
- Protection against soil erosion; reduce soil loss by run-off and improve water storage capacity.
- Improvement of soil moisture retention

#### Strip Tillage

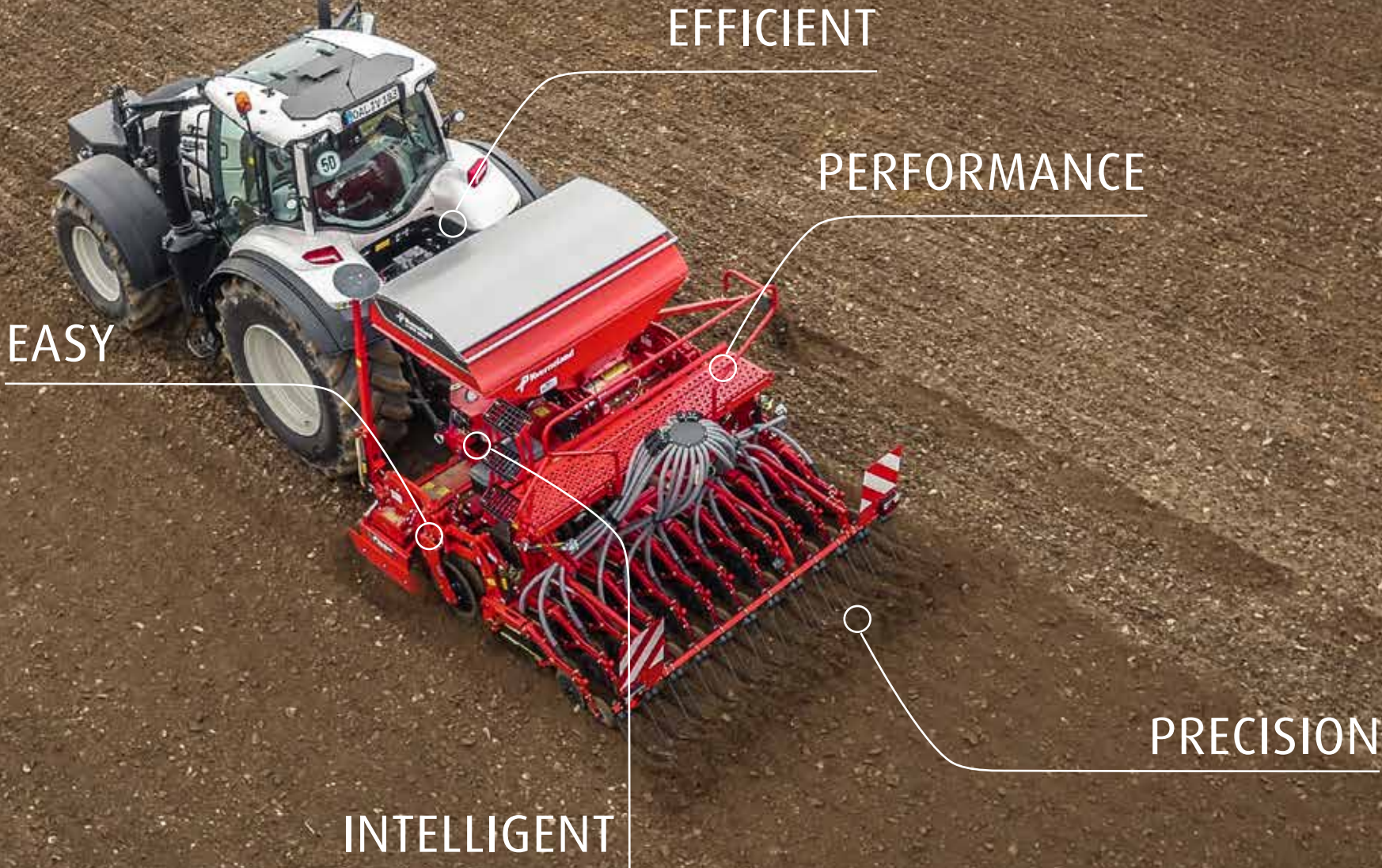
- **Zonal strip loosening** before or during seeding of up to 1/3 of the row width (Loibl, 2006). Up to 70% of the soil surface remains untouched
- Strip-till combines the soil drying and warming benefits of conventional tillage with the soil-protecting advantages of no-till by disturbing only the area of the soil where the seeds are placed
- Exact fertilising deposit
- Soil protection against erosion and drought

#### Vertical Tillage / No-Till

- **Extensive** method
- Working soil vertically avoids additional horizontal layers or density changes
- Increasing water infiltration, root development and nutrient take-up
- Plants' roots dictate the overall health of the plant, as they deliver nutrients and water throughout the season, contributing to a higher yield
- A strong set of roots make plants more resistant to wind and drought.
- Lower energy input required

KVERNELAND'S INTELLIGENT FARMING SOLUTION			Deep Tillage (not a must)	Basic Tillage	Seedbed Preparation	Seeding	Spreading	Spraying
CROP ESTABLISHMENT SYSTEMS	CONVENTIONAL			  	 	 	 	  
	intensive							
CONSERVATION		Soil coverage after Seeding						
extensive		> 30%	15 - 30%	up to 15%				
		Vertical Tillage shallow tillage	Mulch Seeding without soil inversion	Reduced Till without soil inversion	Conventional with soil inversion			

CLASSIFICATION OF TILLAGE METHODS KVERNELAND (Source: adapted from KTBL)



EFFICIENT

PERFORMANCE

EASY

PRECISION

INTELLIGENT

## EFFECTIVE SOWING FOR BEST GERMINATION

### Performance

Seeding at the right moment is one of the critical decisions you have to take as an arable farmer. And the soil needs to be prepared with care. Seed bed preparation and seeding in one pass with the cultivator-mounted e-drill relieves this pressure.

### Efficient

You invest in the best equipment for seeding. In return you want the best results and low cost of operation. The Kverneland seeders have been developed with a close centre of gravity. Less horse power needed means saving on fuel costs.

### Intelligent

You want a seed drill that is easy to calibrate, steer and monitor. You can rely on the Kverneland ISOBUS systems – and concentrate on your business.

### Easy

Soil structure is not the same on every field, neither are working conditions. For best results you want to adjust the tine depth of the power harrow and the sowing depth independently from each other. Centrally – to be efficient, as with the e-drill.

### Precision

Once you have configured your machine, you want to rely on a perfect execution. The e-drill with CX-II coulter is excellent in precision placement of the seed. Not too deep, not too shallow. So it will germinate perfectly, to grow into a great crop.

*In short, it's effective*





## AT A GLANCE

# ONE PASS POWER HARROW SEED DRILL COMBINATION

The machine's clear layout and the high level of incorporated intelligent technology offers the user maximum ease of use, from set-up and filling, to transport and the active seed bed preparation inclusive seeding operation. The combination makes it versatile to have everything done in one pass.

*One concept from one hand - Thats fits together!*

1

### Easy Filling and Lifting

The hopper can easily be filled using big bags, a front loader or a telescopic handler. The hopper can also be filled from a scissor trailer and grain auger. The large hopper capacity of up to 2000 litres reduces the set-up time. Due to the optimised position of the hopper and the power harrow, the centre of gravity is close to the tractor. The power harrow is ready for solo operation thanks to the coupling hook EURO-CONNECTION and the removable seed hopper.

2

### ELDOS - electric driven metering device

The easily accessible electric driven metering device, ELDOS, with exchangeable rotors is easy to adjust, without any tools.

3

### Easy adjustment

A parallelogram and a quadruple joint of the e-drill ensure the optimum and independent adjustment of the power harrow and coulters for a precise seed application. The sowing depth can be adjusted without tools by spacers which are located at the two outer hydraulic cylinders or mechanically with a crank. The power harrow is ready for solo operation within a short time thanks to the coupling hook EURO-CONNECTION.

4

### Precise seed placement with CX-II coulter

The CX-II coulter is precise, and very easy to set up. It guarantees smooth running and requires less power to pull and less coulter pressure to reach a constant seeding depth of up to 6cm.

5

### Covering the seeds

Harrowing the soil completes the seeding. An S-shaped harrow ensures an optimum covering of the seeds. The working intensity can be set by the stepless pressure adjustment.







Kverneland e-drill compact



Kverneland e-drill maxi



# E-DRILL MAXI AND COMPACT

## THE RIGHT CAPACITY FOR YOU!

The Kverneland e-drill compact, e-drill maxi and e-drill maxi plus are part of a fully integrated power harrow and seed drill combination.



Kverneland e-drill maxi plus

The seed hopper is mounted directly on the three-point linkage of the Kverneland power harrow for a positive centre of gravity reducing the requirement for lifting power.

The distribution head is mounted directly on the coulter bar, allowing the hopper capacity to be increased to up to 2,100 litres with use of an optional hopper extension.

The patented hinged hopper cover can be fully opened for easy filling with a front-loader, big bags or filling auger. The cover is protected by a bump protection and can flex up to 15°. The loading platform between hopper and distribution head ensures safe access for filling and maintenance purposes. Working lights inside and outside of the hopper allow safe use even in darkness.

*e-drill maxi plus – the combined grain and fertiliser version*

Model	Hopper capacity (l)		Power harrow
	Standard	with extension	
<b>e-drill maxi</b>	1,600	2,000	H-series & S-series
<b>e-drill maxi plus</b>	2,100 l Hopper can divided for two components 0:100, 70:30 or 60:40		H-series & S-series
<b>e-drill compact</b>	1,100	1,400	M-series, H-series & S-series

The e-drill maxi plus is able to apply two sorts in one pass. It can be two types of seeds or seed and fertiliser or a combination with e.g. slug pellets or only one type of seed. The hopper can be divided into an adjustable hopper ratio of 60:40, 70:30 or 100:0 with two independently working metering devices ELDOS positioned either side. The full hopper volume can be used when sowing one sort of seed only. With the double entry CX-II coulter the seeds/fertiliser is laid precise in the seeding row in just one pass.

Electronic low level sensors, adjustable from outside the tank, monitor a range of seeds from small quantities of rape as well as larger quantities of e.g. beans.

## FLEXIBLE WITH EURO-CONNECTION SOLO OR IN COMBINATION

Despite the integrated concept, the coulter bar can be coupled or uncoupled quickly via EURO-CONNECTION, allowing the power harrow also to be used solo. In addition there is the possibility to remove the hopper too for better view on the back of the levelling work and for less power and fuel consumption due to less weight.

### *Flexibility is key*

The coulterbar is attached with the EURO-CONNECTION directly to the roller frame. The coupling hook is similar to the front loader coupling. This can quickly and easily be hitched thanks to the readily accessible hydraulic and electronic interface. Track markers are attached to the power harrow, therefore, the power harrow is ready for solo operation within short time.

The e-drill model is exclusively designed to be combined with Kverneland power harrows (H-series and S-series). The power harrows need to be equipped with the EURO-CONNECTION coupling system. Conversion made simple! In a matter of minutes, the solo machine can be converted into a power harrow seed drill combination.



Flexible use of the power harrow whether with seed hopper or in solo operation depending on soil conditions.





EURO-CONNECTION



## USER-FRIENDLY ADJUSTMENTS FOR PERFECT SOWING DEPTH

The sowing depth can be adjusted mechanically centrally via crank or hydraulically via spacers at the two cylinders without any tools.

The quadruple joint of the coulter bar ensures a constant seed application by the short and long coulters at any sowing depth. The parallelogram of the power harrow guarantees an independent adjustment of the tine depth without any impact to the sowing depth. The complete coulter bar can be lifted e.g. for the preparation of the headlands.

The patented lateral position of the metering device ELDOS ensures a good and ergonomic access. This also facilitates an easy rest emptying and cleaning of the hopper.

In addition the depth adjustment of the following harrow is organised centrally by a crank. The scale allows an easy control, even if the complete harrow is lifted up.

Always the right speed! A radar speed sensor records the speed in order to maintain the relevant distribution rate at the correct time.



Easy access to the ELDOS due to patented lateral positioning,

The coulter bar can be lifted completely for solo use of the power harrow.

The sowing depth can be adjusted centrally by spacers at the two hydraulic cylinders without any tools or as standard equipment mechanically by two outer cranks.

# 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 or e-bas software. The e-com version is fully **ISOBUS compatible**. By the automatic section control, GEOCONTROL, the metering device stops/starts automatically. Double and/or missed seeding on headlands or odd-shaped fields is avoided. Special sensors ensure complete functionality from the tractor cab.

The e-bas system includes the basic electronics to run and monitor the machine functions via the Focus 3 terminal. The e-bas system controls the ELDOS metering device, the tramlining, the hectare metre and fan speed control.

## *Self-controlled and fail-safe.*

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 the calibration flap and give a warning if the wrong metering rotors are accidentally installed or the flap is not closed.



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  
for maize, sunflowers and  
greening seeds

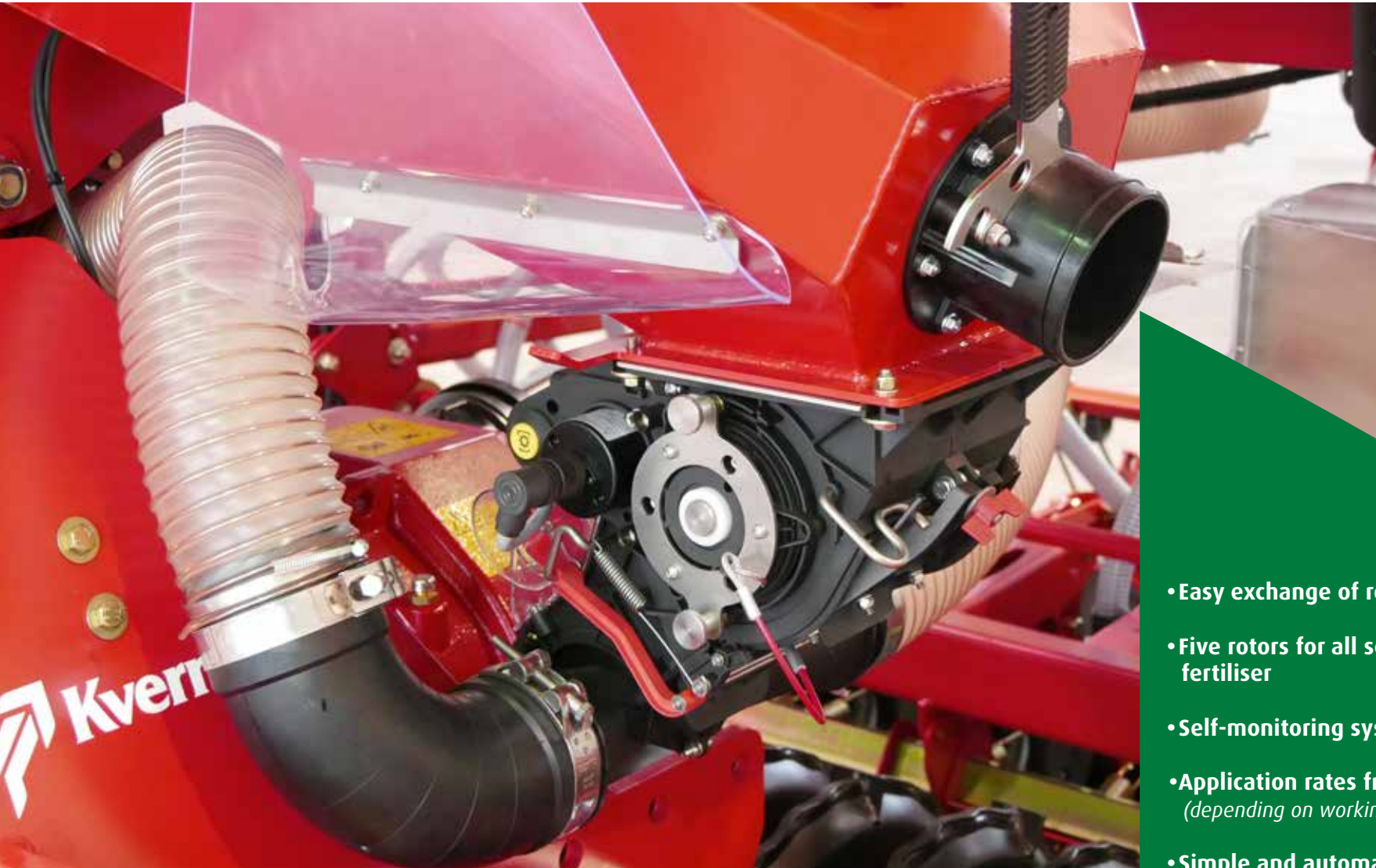


For even more precision, connect implement with an ISOBUS terminal.



A calibration bag and set of digital scales are supplied as standard. The calibration tests are carried out electronically rather than manually.





- 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



## DL - THE LIGHT DRILL

### MOUNTED, COMPACT AND LIGHT

The Kverneland DL is the ideal machine for small and medium-sized farms. The DL combines a compact and light design with the proven Kverneland quality. Working widths from 3.0 to 4.5m are available. The power requirement is from as little as 55kW due to the DL's close centre of gravity.

The wheels of the DL, whether fitted with standard or floatation tyres, run in the track ensuring constant ground contact. They can be easily adjusted to suit any track width from 1.65 to 2.10m. The hopper of the DL has a low filling height and offers a capacity on the 3.0 and 4.0m of 750 litres which can be extended to 1,000 litres. The hopper capacity of the DL with 4.5m working width has 1,000 litres as standard (no extension possible).

For the electronic control of the Kverneland DL, the FGS, Signus and ESA systems are available as option.





# DA CULTIVATOR MOUNTED DRILL

## THE CLASSIC SEED DRILL

**Lightweight cultivator-mounted seed drill for power harrows, rotary tillers and tine cultivators (working widths: 2.5 and 3.0m).**

The Kverneland DA is the top-selling pneumatic seed drill for all implement combinations. The easy handling and sturdy yet lightweight design of this professional starter model make it an extremely attractive option. Thanks to the favourable position of its centre of gravity and its light weight, the Kverneland DA can even be used by smaller tractors with low lifting power. It can be used both solo and as a cultivator-mounted model in combination with a wide variety of tillage implements.

The metering system is mechanically driven via the spiked landwheel running in the tilled soil. The metering device is centrally positioned and easily accessible under the hopper. The 750 litre hopper is fitted with a UV-protective, weatherproof cover. The distribution head is mounted in a protected position inside the seed hopper. Optional access steps make the seed hopper readily and safely accessible for manual filling. The standard machine is equipped with a 1000 rpm V-belt drive.

If required, the Kverneland DA can also be supplied with a hydraulic drive. The FGS tramline control system and the SIGNUS or ESA electronic seed rate control systems permit accurate tramlining. Exact continuation from one tramline to the next is ensured by the use of hydraulically folding track markers. Seed quantities can be increased or reduced proportionally on specific parts of fields as required using the optional electronic metering device ESA.





# S-DRILL CULTIVATOR MOUNTED DRILL

## MORE THAN JUST A DRILL

The Kverneland s-drill is the heavy-duty version of the DA. Available in working widths of 3.00, 3.50 and 4.00m it is a high-performance machine for large farms and estates.

Due to the large hopper volume of 1,050 litres set-up times are reduced and the performance increased. It is easily accessible via the wide loading steps. The seeds as well as the distribution head located inside the hopper are well protected against dust and humidity by the steel cover. The robust cover can be opened completely to allow a hopper filling with front loader, big bags or filling auger.

Thanks to the universal coupling triangle the s-drill can be mounted on existing Kverneland power harrows as well as on other soil preparation tools. Hydraulic coulter bar lifting is available optionally. The mechanical coulter pressure adjustment is standard equipment, while the hydraulic version is optional.

The reinforced, hydraulic folding marker arms are overload protected and ensure precise continuation from one pass to the next even under difficult conditions. The integrated brake stops the star wheel and by this the drive of the metering device as soon as the machine is lifted off the ground, e.g. on headlands. This prevents overseeding. The compact construction of the s-drill close to the tractor reduces the power requirement of the machine.







## FRONT TANKS DF1 AND DF2

### MAXIMUM FLEXIBILITY AND BALANCE

The modular structure of the Kverneland DF1 and DF2 ensures even weight distribution across the machine arrangement, giving the tractor maximum balance. This improves both safety and manoeuvrability, whilst at the same time giving the driver an unrestricted view over the entire machine set-up.



The front hoppers Kverneland DF1 and DF2 is more flexible than conventional seed drills. It can be used for both conventional and precision sowing. For precision sowing the front hoppers are fitted with special metering devices and the appropriate distribution head for row fertilising.

#### DF1

The standard hopper capacity of the DF1 for seeds or fertiliser is 1150 litres. This can be increased to 1700 litres with an optional hopper extension. The hopper can be filled using Big Bags, a front loader or an auger. An easily accessible, foldable platform at the hopper is available as an option to allow manual filling if required. Alternatively, the hopper can also be combined with a wheel packer for reduced front axle loading in work. The Kverneland DF1 is fitted with one mechanical metering device as standard or optional with the electric driven ELDOS (s. page 16-17). Both versions are allocated under the hopper which is easily accessible from the front. A large emptying chute directly above the metering device allows quick removal of leftover seed. A hydraulic fan drive can be supplied for tractors without a front p.t.o. shaft. The minimum power requirement for the Kverneland DF1 is 80 kW.



#### DF2

The bigger version of the Kverneland DF1 the DF2 with front twin hoppers has two metering devices. These are driven via the spiked landwheel, which runs on the right side of the machine. Hydraulic fan drives and landwheel lifting are available as options. The hopper of the Kverneland DF2 holds up to 1650 litres of seeds or fertiliser. This can be increased with an extension up to 2200 litres. Used in combination with a precision seed drill, the hopper can feed up to 16 rows with fertiliser. The minimum power requirement for the Kverneland DF2 is around 130 kW, and with the electronic metering device ESA, the Kverneland DF2 is also GPS-compatible. The handy positioning of all valves and electrics is clear and convenient, facilitating easy adjustment and maintenance.



Hopper	Coulterbar		EURO-CONNECTION
<b>DF1</b> (1 x mechanic metering device) or <b>DF1</b> (1 x ELDOS)	3.0m	rigid	●
	3.5m	rigid	●
	4.0m	rigid	●
	4.0m	foldable	-
	4.5m	foldable	-
<b>DF2</b> (2 x mechanic metering device)	5.0m	foldable	-
	6.0m	foldable	-
<b>DFC</b> (2 x mechanic metering device)	3.0m	rigid	●
	3.5m	rigid	●
	4.0m	rigid	●
	4.0m	foldable	-

## MECHANIC METERING AND DISTRIBUTION SYSTEM THE SYSTEM IN DETAIL

The central metering device accurately measures any desired volume of seed from 2kg/ha to 380kg/ha.

For the sowing of fine seeds, e.g. rape or grass, the metering device can be infinitely adjusted to fine seed/micrometering by means of a spindle, without any need for tools.

The central, totally enclosed cell wheel of the metering device accurately measures the required volume of seed and discharges it into the venturi cone where it is mixed with the air stream and then conveyed through the diffuser tube and the seed delivery hoses to the coulters. Depending on the model, the diffuser tube with the distributor is either located inside or outside the hopper for an excellent diagonal distribution either way.



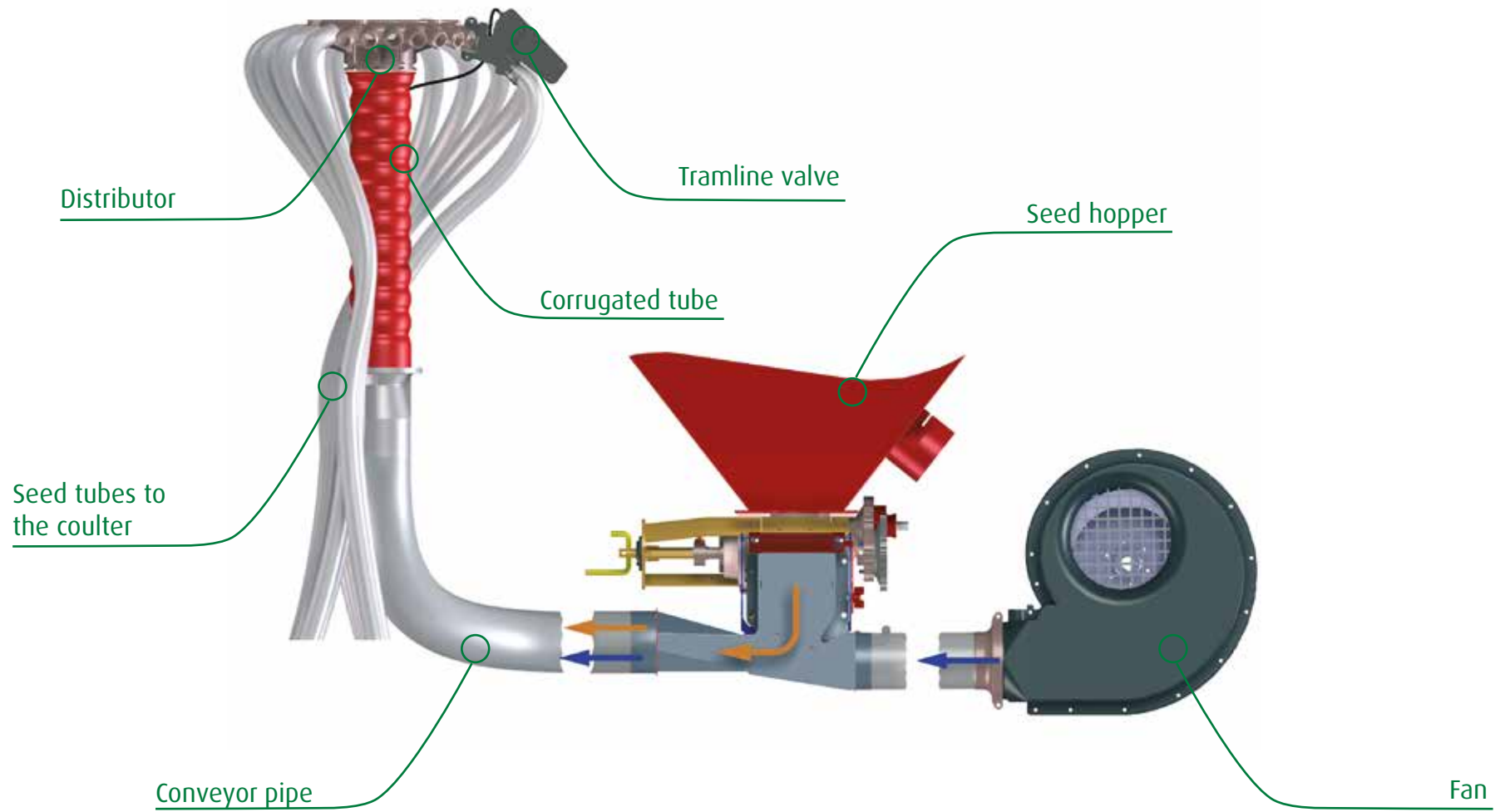
Setting for normal seed



Setting for fine seeds, with rotary brush



No tools required for adjustments





### Precise smooth running

The 325mm steel disc and the flat profile disc angle of 5.4° draws a narrow furrow which reduce power requirement.

### User-friendly

The CX-II coulters is completely maintenance free and very easy to set-up. A pre-loaded spring ensures an optimum penetration with up to 50kg.

### Optimum seed-to-soil contact

The press wheels (Ø 250mm x 42mm) can be set in flexible or fixed position or can be lifted out of work depending on soil conditions. A scraper is available for sticky soils.

### Centrally adjustment of seed depth

The seed depth adjustment can be controlled centrally via mechanical cranks or optionally by two outer hydraulic cylinders.

### Maximum clearance

The coulters staggering of 445mm guaranties save soil flow even with higher rates of residues.

12.5 & 15 cm

Two seed row distances are available.

## CX-II COULTER FOR PERFECT SEED PLACEMENT

The CX-II coulters are precise, and very easy to set up. With the double entry CX-II coulters two sorts of seeds/fertiliser is laid precise in the seeding row in just one pass. The flat cutting angle of the steel disc requires less coulters pressure to reach a constant seeding depth of up to 6cm.

Thanks to the combination of steel disc and flexible plastic disc, there is no need for independent scrapers. The coulters are completely maintenance free!

*Good penetration with less force*

The press wheels ensure the optimum coulters-soil contact. Important for a constant seed depth is the distance between the coulters and the press wheel. The close coupling of the CX-II system increases the seed depth accuracy because the closer the distance the less influence on the seed depth.

The depth adjustment, carried out without using any tools. Three possible adjustments adapted to soil conditions guarantee perfect seed placement. For level and even ground it can be set in the **fixed** position. In cloddy or stony conditions it is set in the **flexible position** to ensure smooth running and a perfect ground following. In extreme wet conditions the press wheel can be **lifted** out of work completely. On slightly sticky soils an optional scraper is recommended.



Fixed press wheel setting



Flexible press wheel setting



Lifted press wheel setting

## COULTERS FOR ALL CONDITIONS

### ACCURATE AND EFFICIENT



**CX disc coulters**



**CX disc coulters with narrow press wheels  
(26mm)**



**CX disc coulters with wide press wheel  
(65mm)**

DL & DA: The CX-disc coulters ensure exact seed placement under both wet and dry conditions. Due to the combination of convex steel disc and flexible plastic disc, there is no need for independent scrapers saving the costs for expensive wearing parts. The convex steel disc forms a clean and clear furrow with light re-compaction. The narrow profile allows higher working speed and the convex form of the disc ensures good depth control. The flexible plastic disc keeps the furrow open for exact seed placement. It cleans the steel disc and helps prevent sticking and blocking. Narrow and wide press wheels are available for special seeding conditions. These press wheels can be fully lifted in case of changing weather conditions.



### **CX-II coulters**

- s-drill, all e-drill models, coulters DF1 & DF2
- more s. page 28 - 29.



### **CX-II coulters double entry**

- Seeding of two sorts in one pass:
  - two types of seeds,
  - one type of seed and one type of fertiliser or
  - one type of seed combined with e.g. slug pellets
  - one type of seed

An extra second outlet does the fertiliser or second seed application in the seeding row in just one working pass. The fertiliser is applied in mixture with the seeds.







## POWERFUL SEEDBED PREPARATION FOR SUCCESSFUL GERMINATION

An optimal seedbed is the basis for high field emergence and thus for high yields. It requires a fine crumbled and uniform reconsolidated seedbed to allow an optimal seed coverage.

Despite of the DL all cultivator mounted seed drill models are exclusively designed to be combined with Kverneland power harrows either M-series, H-series and S-series or with the seedbed cultivator Access+. The foldable coulterbars can be combined with the F30 and F35 models.

Power harrows have long since become typical combination machines because they are largely independent of the soil conditions. On heavy soils it reaches an intensive crumbling. Under light conditions, it can work flat and at a lower rotor speed. Consequently, there is no better alternative for seedbed preparation.

*Quality made in Germany*

A power harrow together with a seed drill is finally an economic high performance combination.

Kverneland power harrows	Frame	Working width (m)	Min – Max power requirement (HP)
M-series	rigid	2.5 - 3.0	70 - 140
H-series	rigid	3.0 - 3.5 - 4.0	85 - 180
S-series	rigid	3.0 - 3.5 - 4.0 - 4.5	100 - 250
F30	fold	4.0 - 4.5 - 5.0 - 6.0	130 - 300
F35	fold	4.5 - 5.0 - 6.0	140 - 350



In order to prevent damage caused by stones and ensure even levelling 4 rotors per meter and the helical tine positioning reduces the peak loads on the driveline and results in smoother running and less fuel consumption.

## FOCUS 3

# ECONOMIC CONTROL SOLUTION

The Focus 3 terminal runs the e-bas system to control all basic electronic functions of the machines such as the ELDOS metering device, the hopper low level sensor and various tramlining systems.

It provides information on hectare, km/h and fan speed. They are shown on a large, clear digital display. The Focus 3 also has a full diagnostic function for testing machine sensors and outputs.

The **Focus 3 is not ISOBUS compatible** and it does not support GPS signals or applications.



### Focus 3: e-bas system not ISOBUS compatible

- Control of ELDOS
- Tramlining control
- Hectare metre
- Speed control
- Low level control
- km/h



# 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%.

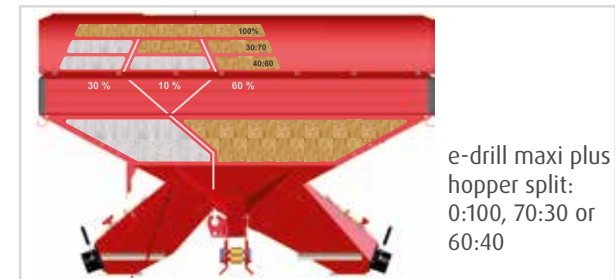
The iM Calculator app for tablets is free to download from the App Store or Google Play.

Please find the online calculator on our homepage:  
<http://imcalculator.kvernelandgroup.com/#/>



# SOIL PREPARATION, FERTILISING AND SEEDING IN ONE PASS

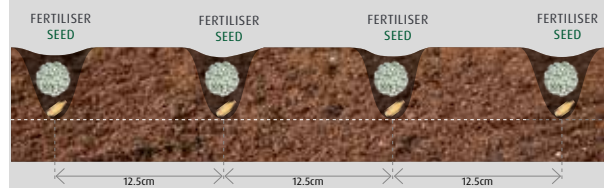
## CX-II COULTER DOUBLE ENTRY



The e-drill with double-entry CX-II coulters in combination with a DF-1 front hopper (max. 1,700 l) or the e-drill maxi plus with divided hopper applies the fertiliser within the seeding row. The fertiliser or a second different crop is placed together with the seeds in just one working pass.

This is especially suitable for example phosphoric fertiliser to support the initial germination and development of the plants in the most efficient way.

### 1<sup>ST</sup> POSSIBILITY: FERTILISER AND SEEDS IN THE SEEDING ROW



With the CX-II double-entry coulters the fertiliser is placed together with the seeds in the same seeding row.

### 2<sup>ND</sup> POSSIBILITY: 2 SORTS OF SEEDS IN THE SEEDING ROW



With the CX-II double-entry coulters two sorts of seeds are placed in the same seeding row.

### **Fantastic germination**

*"We struggled last autumn to get crops in with our previous drill due to constantly changing weather patterns," explains William Orr, of West Mains. Therefore the family-run farming business bought a 4m e-drill maxi, sitting above a 4m NG-S power harrow which create a close-coupled combination with the tractor. The outfit arrived in time to drill 100ha of spring barley. With 300ha of combinable crops, the farm ploughs ahead of the drill. He believes the power harrow's cracker packer provides the optimum level of consolidation directly behind the coulters.*

*"We're really pleased with the seed placement and germination," says William. A Tellus GO in-cab terminal takes care of drill set-up, with the farm yet to take advantage of ISOBUS.*

*"That said, it's already a very easy machine to use. Seed rolls are easy to swap and calibration is straight-forward," he adds. "I don't have auto start/stop on the drill, so I do need to allow for a little overlap."*

*"The e-drill has done a fantastic job." Mr Orr is so pleased with the e-drill that he plans to sow oilseed rape with it, this summer.*

William Orr, West Mains UK





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

Our 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*

*Speed up on the path towards connected agriculture. We offer you numerous options and solutions for how to produce more with less; utilise inputs more efficiently and thereby increase profits and sustainability.*

## 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 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.





*Improve your performance  
Maximum efficiency, minimum waste*

**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. 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.

**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.



**IsoMatch Grip**

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



**NEW**

**IsoMatch Global 2**

GPS antenna enabling satellite navigation for site-specific section control, variable rate application, manual guidance and field registration.



**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.



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

**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.*

# ORIGINAL PARTS & SERVICE

## LET'S FOCUS ON YOUR BUSINESS

- 
- ① LONG LASTING - HIGH QUALITY SPARE PARTS
  - ② OVER 100 YEARS OF PARTS KNOWLEDGE
  - ③ SUPPORT FROM A WIDE NETWORK OF DEALERS
  - ④ 24/7 SPARE PARTS SERVICE
  - ⑤ HIGHLY SKILLED DEALER TECHNICIANS



# MYKVERNELAND SMARTER FARMING ON THE GO

## A personalised online platform tailored to your machine needs

With MYKVERNELAND you will benefit from easy access to Kverneland's online service tools.

First hand access to information on future developments and updates, Operator and spare parts manuals, FAQs and local VIP offers. All info gathered in one place.



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# TECHNICAL DATA

Model	DL			DA		s-drill			e-drill compact			e-drill maxi			e-drill maxi plus			DF1	Coulterbar DF1				DF2	Coulterbar DF2				
Maschine type	mounted			cultivator mounted												modular mounted												
Working width (m)	3.0	4.0	4.5	2.5	3.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	front hopper	3.0	3.5	4.0 <sup>1)</sup>	4.5	front hopper	5.0	6.0
Transport width (m)	3.0	4.0	4.5	2.5	3.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0/3.0	3.0	3.0	3.0	3.0	
Hopper capacity (l)	750		1,000	750		1,050			1,100			1,600			1,700*			1,150	-				1,650	-				
Hopper extensions (l)	○ 250		-	-		-			○ 300			○ 400			● 400			○ 550	-				○ 550	-				
Quick emptying chute	●			●		●			●			●			●			●	-				●	-				
Low level sensor	●			●		●			●			●			●			○	-				○	-				
Metering device & Tramline system																												
Drive 1000 rpm	●		○	●		●			○			○			-			●	-				●	-				
Drive 540 rpm	○		●	○		○			-			-			-			-	-				-	-				
Hydraulic fan drive	○			○		○			●			●			●			○	-				○	-				
ELDOS electric driven metering device (No.)	-			-		-			● (1)			● (1)			● (2)			○ (1)	-				-	-				
Mechanic metering device (No.)	● (1)			● (1)		● (1)			-			-			-			● (1)	-				● (2)	-				
Micro metering	●			●		●			●			●			●			-	-				○	-				
e-bas electronic (Focus 3)	-			-		-			●			●			●			-	-				-	-				
e-com electronic (IsoMatch Tellus Pro/ Tellus GO)	-			-		-			○			○			○			○	-				-	-				
FGS - Tramline system	○			○		○			-			-			-			-	-				-	-				
Signus - Tramline system	○			○		○			-			-			-			○	-				○	-				
Metering device control	○			○		○			●			●			●			○	-				○	-				
Seed rate adjustment	○			○		○			●			●			●			○	-				○	-				
Seed quantity (min. - max.)	2 - 380kg/ha			2 - 380kg/ha		2 - 380kg/ha			1 - 400kg/ha			1 - 400kg/ha			1 - 400kg/ha			2 - 380kg/ha (1-400kg/ha)							2 - 380kg/ha			
Shut-off valves for tramlines	○			○		○			○			○			○			-	○				-	○				
Electric half-width shut-off	-			-		-			○			○			○			-	-				-	-				
Mechanic half-width shut-off	○			○		○			-			-			-			-	○				-	○				
Pre-emergence marker	○			○		○			○			○			○			○	○				○	○				
Vertical hydr. folding track marker with notched disc	○			○		○			○			○			○			○	○				○	○				

Model	DL			DA		s-drill			e-drill compact			e-drill maxi			e-drill maxi plus			DF1	Coulterbar DF1 ***					DF2	Coulterbar DF2	
Maschine type	mounted			cultivator mounted															modular mounted							
Working width (m)	3.0	4.0	4.5	2.5	3.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	3.0	3.5	4.0	-	3.0	3.5	4.0 <sup>1)</sup>	4.5	-	5.0	6.0	
<b>Coulters &amp; adjustments</b>																										
No. of coulters 12.5cm distance (standard)	24	32	36	20	24	24	28	32	24	28	32	24	28	32	24	28	32	-	24	28	32	36	-	40	48	
No. of coulters 15cm distance (option)	-			-		-			20	24	26	20	24	26	20	24	26	-	20	24	26	-	-			
CX-II coulters incl. press wheel	-			-		●			●			●			-			-	●					-	●	
CX-II coulters disc Ø (mm)	-			-		325			325			325			325			-	325					-	-	
CX-II coulters double entry (DF1 / Plus)	-			-		-			○			○			●			-	○					-	-	
Press wheel Ø (mm)	-			-		250 x 42			250 x 42			250 x 42			250 x 42			-	250 x 42					-	250 x 42	
Coulter pressure CX-II disc coulters (kg)	-			-		5 - 35			5 - 50			5 - 50			5 - 50			-	5 - 50					-	5 - 35	
Mechanic coulters pressure adjustment by crank	●			●		●			●			●			●			-	●					-	●	
Hydraulic coulters pressure adjustment	-			-		○			○			○			○			-	○					-	-	
Mechanic central seed depth setting by spindle	-			-		-			●			●			●			-	●					-	-	
Hydraulic central seed depth setting by two outer cylinder incl. coulters bar lifting	-			-		-			○			○			○			-	○					-	-	
CX-coulters (with / without press wheel)	●			●		-			-			-			-			-	-					-	-	
EURO-CONNECTION	-			-		-			●			●			●			-	●	●	●	-	-	-		
<b>Others</b>																										
S-tine harrow (10mm)	○			○		○			○			○			○			-	○					-	○	
Calibration set	○			○		○			●			●			●			○	-					○	-	
Loading step / Platform	○			○		○			●			●			●			○	-					○	-	
Lighting equipment	○			○		○			○ (LED)			○ (LED)			○ (LED)			○	-					○	-	
Oil charge hydr. fan (l/min)	40			40		40			30			30			30			40	-					40	-	
Min. power requirement (HP/kW)	73/55			80/58		90/66			100 / 74	115 / 85	125 / 92	130 / 96	140 / 103	150 / 110	130 / 96	140 / 103	150 / 110	106/80	100/74					173/130	150/110	
Weight ** (kg) with coulters	435-560			470-860		618-1,100			1,120	1,270	1,350	1,220	1,300	1,390	1,520	1,600	1,910	570-800	252-498					750-1,440	407-906	

\* Possible hopper split: 0:100; 40:60 or 30:70 \*\* Weight without power harrower \*\*\* DFC front hopper (Fertiliser & Seeds) in combination with coulters bar 3.0 to 4.5m and CX-II disc coulters with double entry  
<sup>1)</sup> rigid and fold version

● Standard equipment ○ Option - Not available

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