Kverneland

OPTIMA

PNEUMATIC PRECISION 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.

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

SOW

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

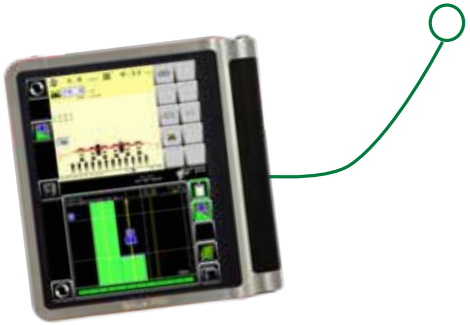
Vertical Tillage / No-Till
- **Extensive** method
- Working soil vertically avoids additional horizontal layers or density changes
- Increasing water infiltration, root development and nutrient take-up
- Plants' roots dictate the overall health of the plant, as they deliver nutrients and water throughout the season, contributing to a higher yield
- A strong set of roots make plants more resistant to wind and drought.
- Lower energy input required


EFFICIENCY
VERSATILITY
ACCURACY
INTELLIGENCE

EFFECTIVE SOWING
TO MAKE SOWING PERFECT

Accuracy
The Optima is excellent in precise seed placement. You can be sure that the sowing unit follows the ground contour perfectly and the coulter forms a clean and clear furrow to ensure best seed-to-soil contact. You can seed perfectly in line and in relation to each other but also synchronised over the complete working width.

Intelligence
You invest in the best equipment for sowing your crop. In return you want the best results and to increase the yields significantly. With the Optima you have everything under control by ISOBUS Technology and Kverneland's Precision Farming solutions.



Versatility
You want a precision drill that is versatile. Ready for the various crops with smaller or bigger seeds, to sow shallow or deep. Ready to adjust to the various ways of tillage, standard or mulch seeding in different type of soils. Universal machines allow cost savings.

Efficiency
When the time is right, you want to sow immediately. The soil has to be prepared with care and the moment of sowing depends on the right conditions, like local weather. To be successful you need a precision drill that is reliable and effective.

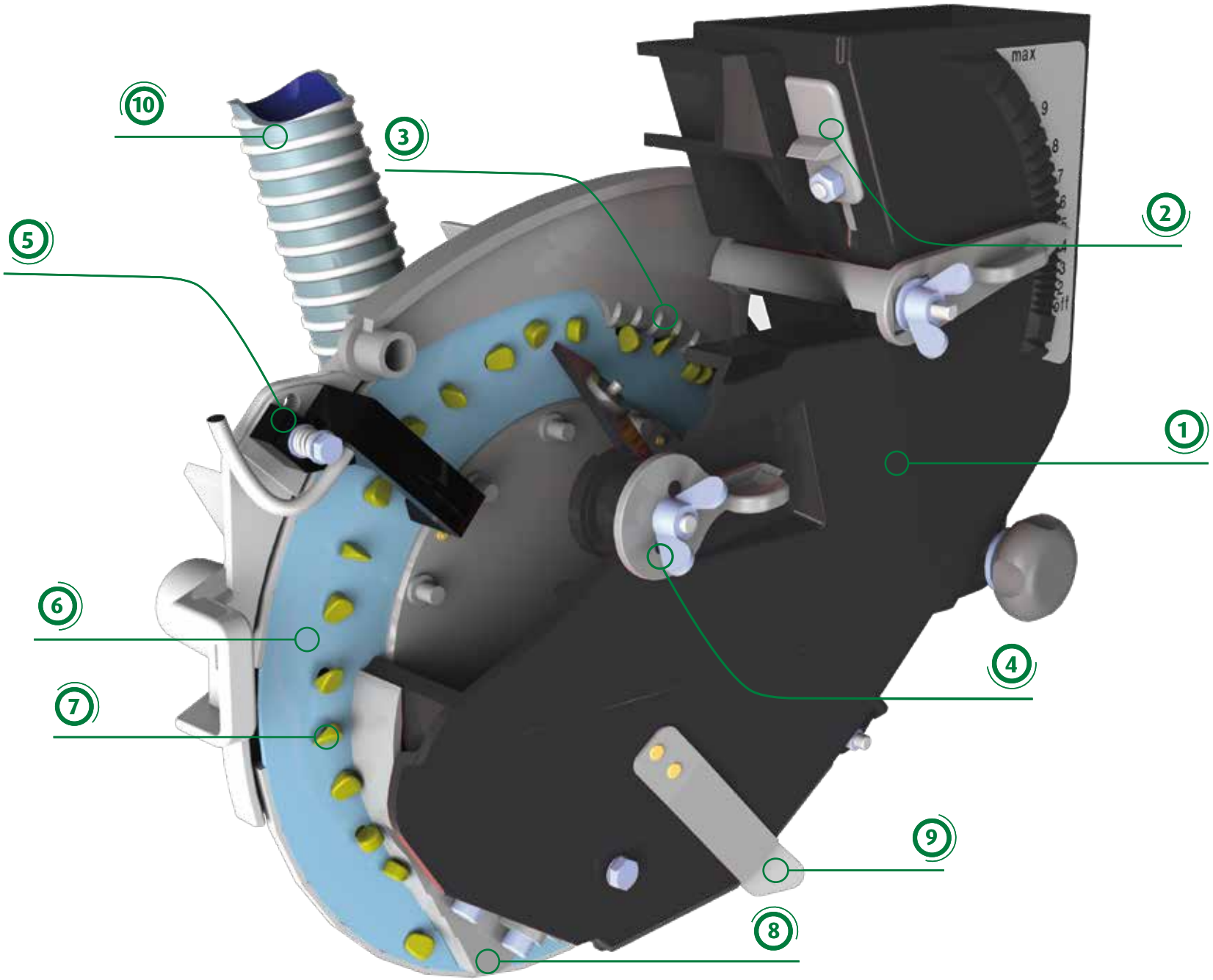
With Optima you can rely on a perfect execution.

SEEDING HEART WITHOUT SEALS
NO FRICTION, NO WEAR.

Precise singulation of small, large, round, elongated and flat seeds. Scrapers can be infinitely adjusted to suit seed size and type. During calibration the correct filling of the seed disc can be monitored via a window.

Reduced maintenance costs.

1. By using a **vacuum**, the seeds are sucked out of the stock and transported directly to the seed disc. While turning the seed disc the seeds are allocated to each of the holes.
2. The **filling height limiter** regulates the stream especially of small seeds.
3. The adjustable, **upper toothed scraper** singulates the seeds - one to each hole.
4. The adjustable, **lower scraper** ensures high precision, even of bigger seeds. It turns the seed into the correct direction. This is important for elongated seeds like sunflowers.
5. The **opto-electronic sensor** controls the correct allocation of seeds on the disc. In case of missing seeds, the sensor transfers a signal to the terminal. The opto-electronic sensor also serves as a low level sensor.
6. The **seed disc** turns on to the point of drop. The seed disc is directly fixed to the turning back of the vacuum heart. No sealing in the seedheart (only at the bearing backside) ensures a constant vacuum, an easy rotation of the seed disc with minimised friction, low power requirement and no wearing.
7. The **vacuum interruptor** closes the holes of the seed disc from the back side. The vacuum is interrupted and the seeds drop down controlled from the seed disc.
8. The **end-scraper** cleans the seed disc from seed residues, like coating or dust.
9. The **emptying flap** at the lowest point of the seeding heart enables a complete, easy emptying and cleaning of the seeding heart.
10. The **vacuum hose** connected with the fan or vacuum channel ensures constant vacuum. This is shown on a manometer, which is easily visible from the cab.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OPTIMUM PLACEMENT FOR PREPARED AND LIGHTER SOIL
CONVENTIONAL SOWING

The sowing units - like the whole machine - are modular in design. The basic element always remains the same and the equipment can vary according to individual requirements.

2 sowing units for conventional tillage.

The **Standard row** is used in conventionally prepared soil conditions. Soil is not too heavy and the land is always ploughed. The parallelogram, sowing coulter with coverer and press wheel ensure good penetration and prevent blockages.

The Tandem row is the right solution for light and marshy soil. The front wheel is connected to the press wheel with a bar. The depth of the row is guided by the front and rear wheel and can be centrally adjusted by a handle in the back.

Both row versions are available with 30 l seed hopper.

Standard

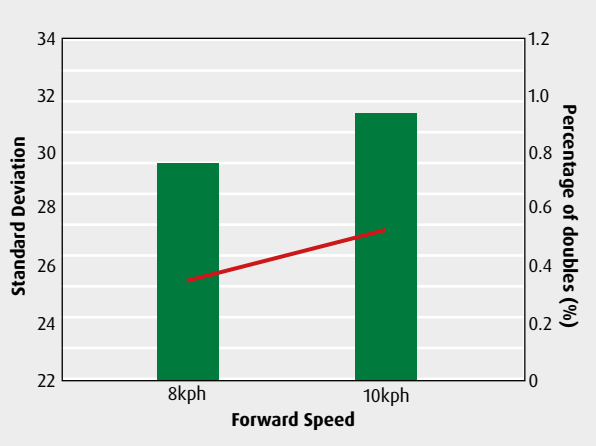
Tandem

PERFECT SEED PLACEMENT WITH HD-II ROW
MULCH AND CONVENTIONAL SOWING

The HD-II row is the universal sowing unit for all conditions from light to heavy soil or in conventional or mulch conditions. Safe operation despite plant residues.

Up to 100kg additional pressure.

- **Optimal depth control** even under extreme conditions, due to the heavy basic weight of the sowing unit with the possibility to add additional pressure (up to 100kg) onto each individual sowing unit via the spring-loaded system.
- **Effective ground contour following**, due to the large lateral depth control by open gauge wheels (ø 410mm, width 120mm).
- **Precise seed placement** by the small coulter which forms a clean furrow. Light re-compaction and seed covering is done by the intermediate press wheel (as option: heavy stainless steel) and the multi-adjustable V-press wheel - to ensure maximum field emergence.



Consistency of spacing
At both speeds Optima placed the seeds within an accurate range.

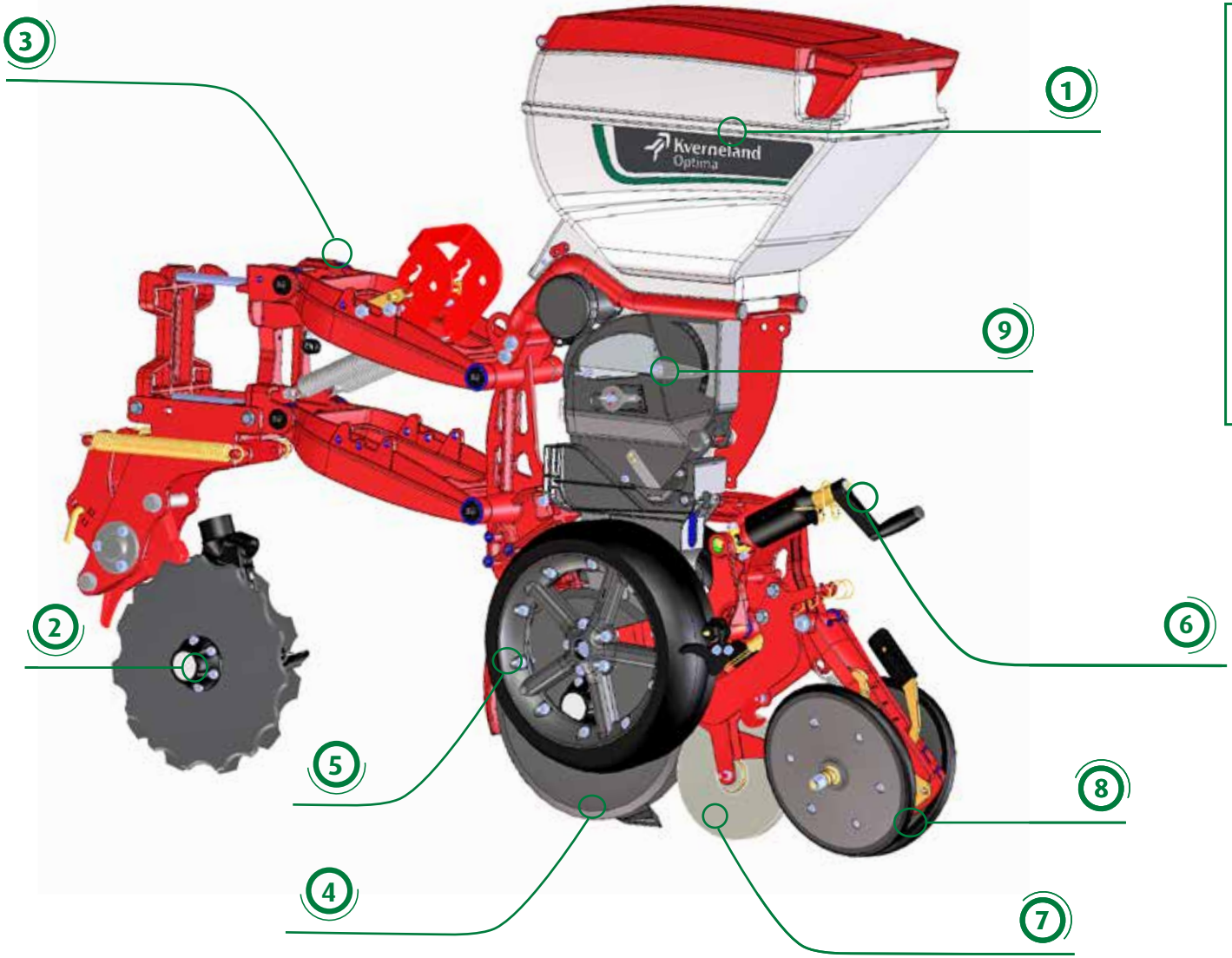
Based on source: Top Agrar

SOWING ROW HD-II
FOR LIGHT AND HEAVY SOIL

The stable patented cast-iron HD-II single Monoarm gives direct and easy access to the seeding heart with strong pivoting points.

Versatility and reliability are key.

1. 60l (30l) seed hopper
2. Notched double disc fertiliser coulter for all soil conditions
3. 410mm (273mm) parallelogram with additional 100kg (mechanical) weight transfer as standard
4. Double disc coulter with exclusive bearings and patented sealing.
   Optional with quick-fit coulter tip either XHD version for sugar beet or standard for maize for easy switch between crops.
5. Open gauge wheel with oscillating connection for smooth depth guidance
6. Spindle for convenient and precise depth adjustment
7. Optional stainless steel intermediate press wheel or cast iron with rubber ring for best seed-to-soil contact
8. 25mm (50mm) V-press wheels with pressure and angle adjustment for a safe closing of the furrow
9. Optima seeding heart - precise and well-established
10. Optional falling channel "Channel extra" with/without Plantirium sensor for seed detection from rapeseed, sunflower or pumpkin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XHD
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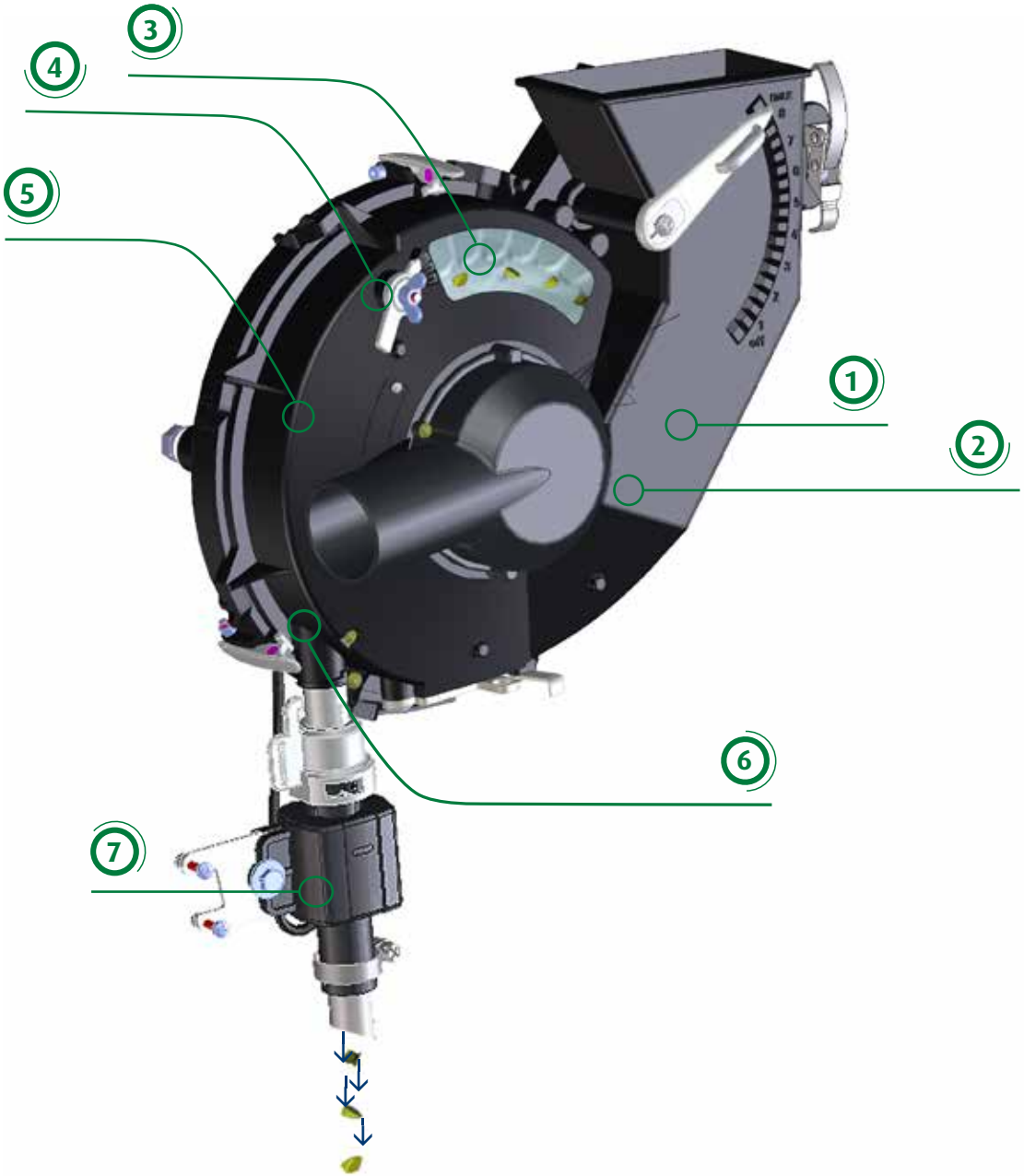
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THE SX SEEDING HEART
PRECISION AT HIGH SPEED

With the pressurised seeding heart the seeds are "shot" by an airstream of up to 70kph into the furrow. A smooth, flexible intermediate press wheel catches the delicate seeds. Any negative impact such as vibration on the way between release point and soil contact is eliminated due to the high air stream. The seeds reach their perfect position in the soil. Each sowing row is electrically powered by ISOBUS connection. An additional generator or other power sources are not required. The complete power supply and control is via ISOBUS.

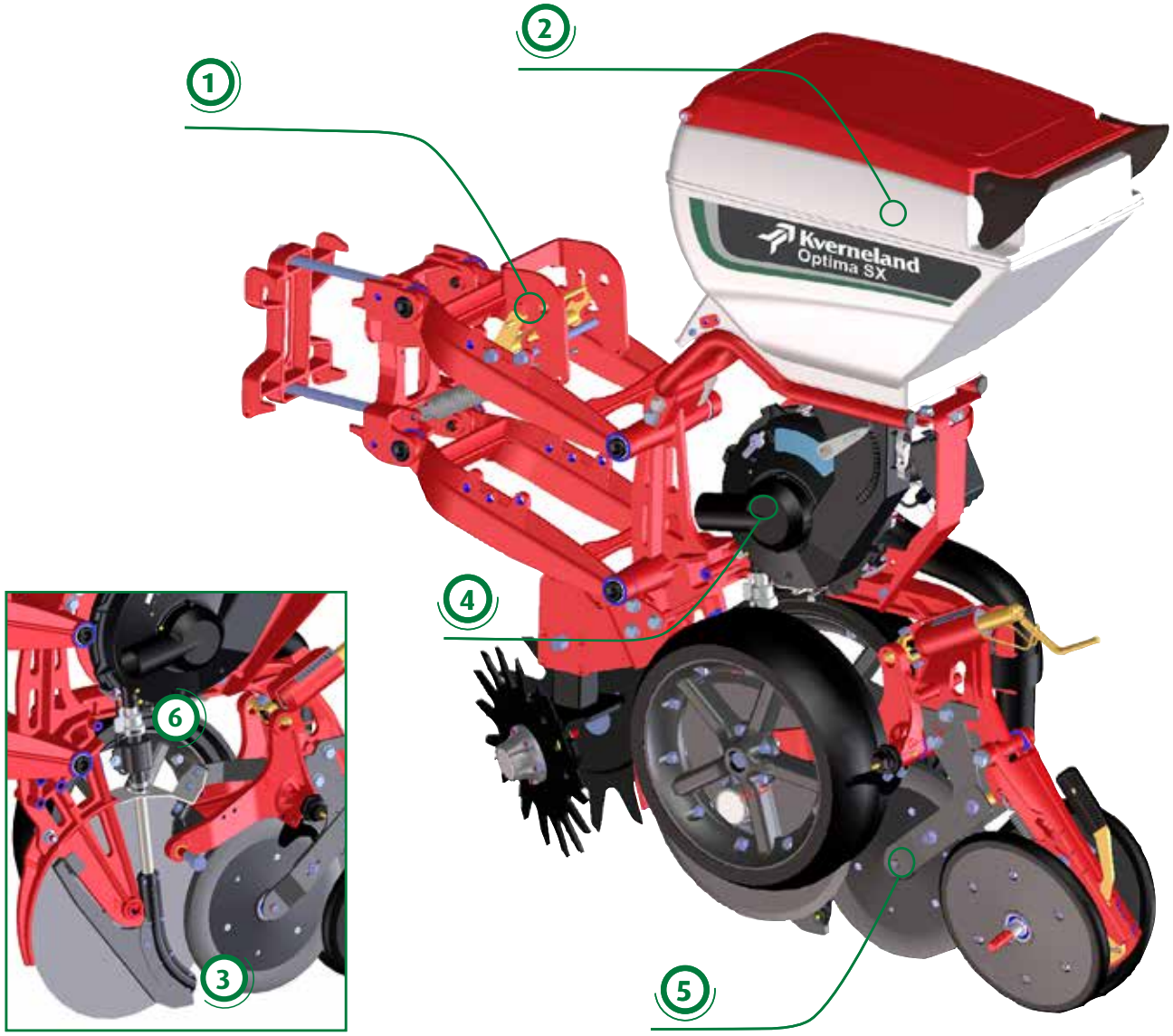
1. By using **air pressure**, the seeds are taken directly to the seed disc. Whilst turning the seed disc, the seeds are allocated to each of the holes.
2. The **filling height limiter** regulates the stream of the seeds, especially of small seeds.
3. The adjustable **upper toothed scraper** singulates the seeds to every hole.
4. The adjustable **lower scraper** ensures that bigger seeds are turned in the correct position and same direction.
5. The **seed disc** rotates to the point of release. The seed disc is directly fixed to the turning back - closed only by a bearing. The seeding heart is without sealing for minimised friction, wear and power requirement.
6. At the point of release, the seed drops down, controlled by the seed disc into the **seed tube** supported by the high air stream.
7. An **infrared photo sensor** monitors the perfect allocation of the seed disc. Defects or doubles as well as low level alerts of the seed hopper and seed counter are reported to the terminal.

HIGH SPEED SOWING UNIT
UP TO 18KM/H FOR UTMOST EFFICIENCY

The Optima SX high speed sowing unit ensures maximised performance and efficiency. With accurate seed singulation, precise seed placement and higher working speeds of up to 18km/h, the Optima TFprofi seeder is up to 100% more efficient than the HD-II row. The sowing row can be combined with the Optima R, Optima TFprofi, the multi-flexible telescopic Optima V, Optima F and large rigid Optima RS frames. All components are ready for high speeds.

- **Optimum depth control** due to the heavy basic weight of the sowing unit with the possibility to add additional pressure (up to 100kg) onto each individual sowing unit via spring-loaded system or optional hydraulically.
- **Effective ground contour following** due to the large depth control by open gauge wheels (∅410mm, with 120mm)
- **Precise seed placement** by the small coulter which forms a clean furrow. Good placement and seed covering is done by the smooth flexible intermediate press wheel and multi-adjustable V-press wheel.
- Ready for PUDAMA and GEOFORCE

1. All basic components of the row (cast-iron Monoarm, parallelogram, double disc coulter, open gauge wheels, trash wheels, V-press wheels etc.) are taken form the well-known HD-II seeding row.
2. 60 litres seed hopper capacity.
3. High speed seed tube.
4. Pressurised Optima SX seeding heart. Without seals - no friction, no wear. Integrated electric motor with GEOSEED function.
5. Smooth flexible intermediate press wheel for catching the seed to ensure good seed placement and recompaction.
6. Infrared monitoring of singulation quality.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Optima SX
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GEOFORCE
AUTOMATIC SOWING DEPTH AND PRESSURE CONTROL OF THE ROW

The Kverneland GEOFORCE system is designed to meet the challenges of varying soil conditions by ensuring precise seed placement. Light soils require less pressure, while heavier soils demand more. The system adapts seamlessly, maintaining even depth control and consistent weight on the gauge wheel across different soil types and working speeds.

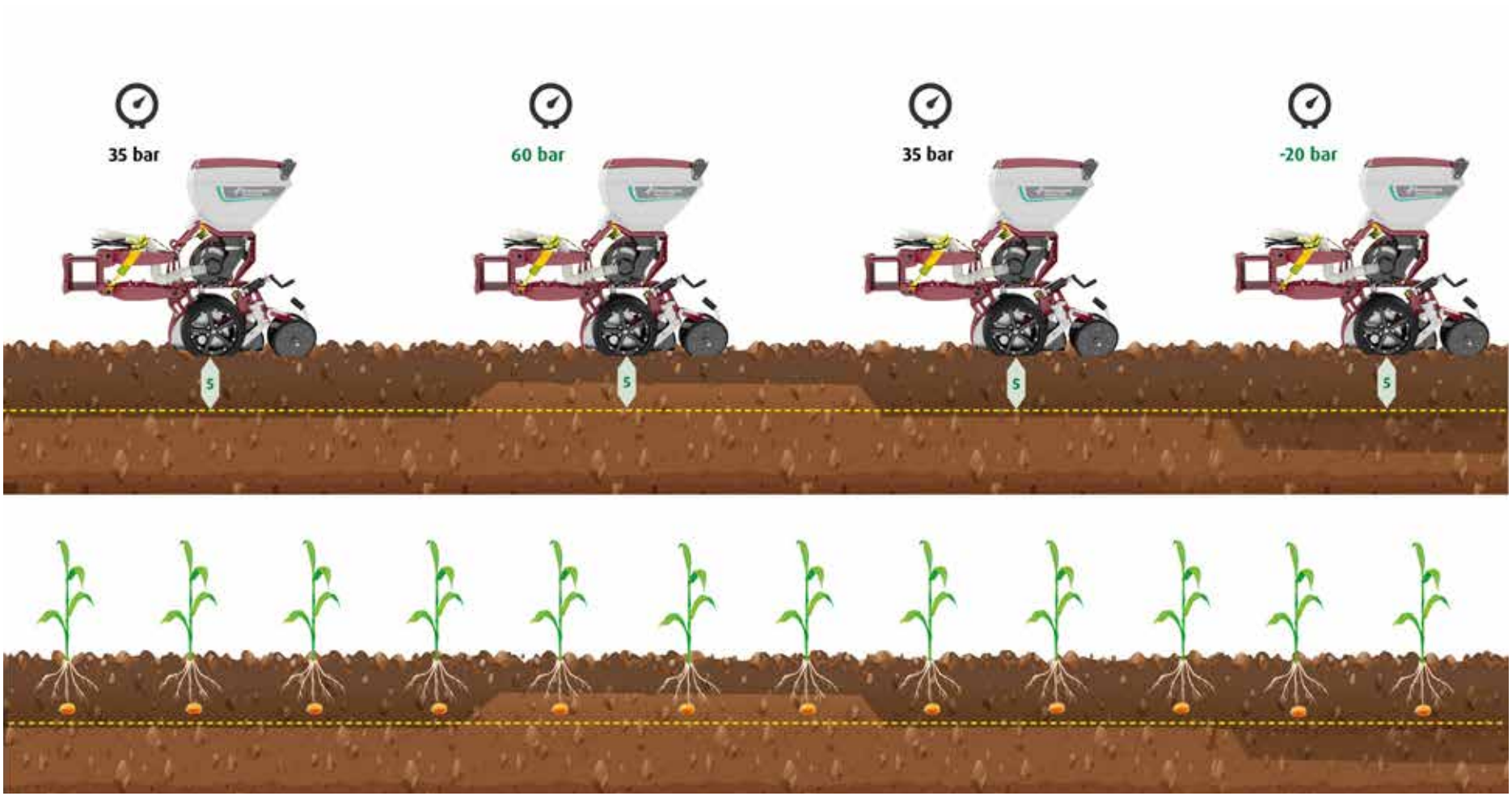
Equipped with advanced sensor technology and double-acting hydraulic cylinders in the setup of the row parallelogram, GEOFORCE automatically adjusts oil pressure to keep each sowing unit at the optimal depth. This ensures uniform germination and consistent field emergence, even in compacted areas like tractor tracks.

A complete lifting of one or more rows is also feasible when creating tramlines.

GEOFORCE's automated control minimizes operator workload, enhances sowing quality, and reduces production costs, resulting in higher, better-quality yields. Uniform seed placement promotes rapid leaf coverage, lowering weed pressure and the need for chemicals or mechanical weeding. The risk of bird damage and poor emergence from deep seed placement is minimized, benefiting shallow-sown seeds like rapeseed.

Precise pressure application reduces fuel consumption by preventing bulldozing effects and allows smooth operation at higher speeds. Additionally, the system extends the lifespan of coulters and wearing parts through on-the-go pressure adjustments, supporting more efficient maintenance cycles.

GEOFORCE is available with the high-speed Optima SX sowing row for maximum efficiency and yield.



GEOFORCE ensures a consistent sowing depth and automatic pressure control – fully independent of row weight or varying soil conditions. Target is to place every seed at the same depth for optimal emergence and growth. Field studies (Beck, 2014) show that automatic downforce systems can boost yields by 0.8% to 7.5%.
Making GEOFORCE a smart step toward higher efficiency and productivity!


Kverneland
Optima TF profi
PUDAMA
Kverneland
Optima SX

PUDAMA - TARGETED FERTILISER APPLICATION

100 % YIELD WITH 25 % LESS STARTER FERTILISER

PUDAMA ensures systematic, precise placement of starter fertiliser. This targeted application delivers nutrients exactly where they are needed for optimal growth.

PUDAMA offers targeted, discontinuous fertiliser placement directly around maize seeds, leading to better nutrient absorption by plant roots compared to conventional row fertiliser spreaders. This approach reduces fertiliser use between rows, cutting nitrate and phosphate runoff into water systems. Research from the University of Applied Sciences Cologne shows that PUDAMA can save at least 25% of starter fertiliser while maintaining yield potential. By using resources efficiently, PUDAMA supports sustainable crop production and protects soil, water, and air quality

The fertiliser is collected at the fertiliser coulter in a defined quantity and shot by an airstream into the soil as a deposit. A sensor link between the fertiliser coulter and seeding unit ensures synchronised seed and fertiliser placement. The Optima SX PUDAMA achieves speeds up to 15 kph, placing up to 25 fertiliser spots per second.

The PUDAMA system can be integrated into the Optima TFprofi and Optima F models with SX high-speed rows.

PUDAMA

OPTIMA TFmaxi
FOR MAXIMUM OUTPUT

Precise seed placement and high efficiency - that is Optima TFmaxi. Folding is activated easily from the tractor cab. Also all other functions are integrated in the ISOBUS steering system: electrohydraulic drive of the fertiliser applicator or the e-drive of the row units. In combination with GEOCONTROL the Optima TFmaxi is not only highly efficient - it's also very precise.

The Optima TFmaxi combines high performance technology with maximum user friendliness. The machine's clear and logical layout coupled with the high level of intelligent technology offer the user maximum ease of use, from set-up and filling, folding in less than 1 minute and to the seeding operation. The telescopic drawbar frame allows seamless coverage of the field due to the overall length of the machine being reduced to allow tighter headlands turns.

The high performance Optima TFmaxi is equipped with a 4000l fertiliser hopper and 16 seed hoppers - 60l each. Despite the large capacity the pulling force is still low - starting from 240hp.

Up to 100ha per day

Optima TFmaxi	
Working width (m)	12
Number of rows	16
Row width (cm)	70/75/80
HD-II row	●
SX row	-
e-drive GEOCONTROL	●
e-drive II / GEOSEED	-
Fertiliser	4000 l
Microgranule applicator	-

● Possible - Not available


4,000 LITRES
UP TO 100HA/DAY
16 ROWS
12M WORKING WIDTH

OPTIMA RS
HIGH PERFORMANCE AND OUTPUT

The Optima RS frame is designed for farmers and contractors looking for a solid and easy solution, but high efficiency.

The Optima RS frame is available in working width from 6.1m to 9.3m. In order to offer maximum flexibility, the Optima RS frame can be adjusted to different row widths, starting from 35cm to 80cm in even and uneven configurations. It can be equipped with the full range of Kverneland sowing units: Optima HD-II and SX high speed sowing unit. The solid and strong frame made by an 180mm x 180mm square tube is ready to carry up to 18 HD-II or SX sowing units.

Compact on the street and wide in the field.

The Optima RS frame can be fitted with a large 2000l fertiliser hopper or alternatively with f-drill front hoppers for a good weight distribution. In addition, the electric driven micro-granule applicator is available for up to 18 rows.

For safe road transport, a strong lengthwise transport device is available – the machine complies with the EU Type approval and is ready for transport at 40 km/h even with 18 rows and fertiliser, thanks to the pneumatic brake system.

Optima RS					
Working width (m)	6.1	6.8	7.6	8.3	9.3
Number of rows	8-12	8-16	12-16	12-18	12-18
Row width (cm)	45-80	35-80	65	45-70	50-80
HD-II row	●	●	●	●	●
SX row	●	●	●	●	●
e-drive-II / GEOCONTROL	●	●	●	●	●
Mounted fertilizer 2000l	●	●	●	●	●
Fertiliser in combination with f-drill front hopper	●	●	●	●	●
Microgranule applicator*	●	●	●	●	●
GEOFORCE	●	●	●	●	●

* Only in combiantion with SX/HD-II rows and e-drive II

● Possible - Not available

OPTIMA TFprofi
MAXIMUM OUTPUT

The Optima TFprofi is the perfect combination of high performance and low tractor power requirement. The trailed, foldable frame with eight rows can be equipped with a 2000l fertiliser hopper.

The Optima TFprofi can be operated by a 90hp tractor - requiring no lifting capacity. Equipped with either a hydraulic drive or with a direct fan drive via PTO shaft, this machine can also be used with tractors that have little hydraulic power.

Smooth running.

The Optima TFprofi can be equipped with 4 landwheels to ensure smooth running. Due to an intelligent adjustment system at the wheels, the sowing units perfectly follow the ground contour. The hydraulic cylinders of the landwheels are divided into two parts: one responsible for the lifting process and the other one for the following of the ground contours.

Optima TFprofi	
Working width (m)	6
Number of rows	8
Row width (cm)	70/75/80
HD-II row	●
SX row	●
e-drive II / GEOSEED	●
Mounted fertiliser hopper (l)	2000
Microgranule applicator	●
PUDAMA	●

● Possible - Not available


2,000 LITRES
Reduced set-up time due to large capacity of fertiliser hopper.
8 ROWS
Each seed hopper has a capacity of 60 litres
≥90HP
Low pulling force, no lifting capacity needed
40KM/H
Homologation for road transport
90°
Optimised pivoting point for close headland turning

OPTIMA F HYDRAULIC FOLDING

LARGE IN FIELD - NARROW ON THE ROAD

The Optima F hydraulic folding frame is the right choice for larger farms and contractors. It can be fitted with HD-II or SX row units for large performance. The 6.00m Optima F is quickly folded to transport position. Thanks to the parallel hydraulic folding system, it is not necessary to empty each individual hopper before folding, which saves time.

The frame can be equipped with 8 rows for maize, 12 rows for the combined usage in sugar beet, maize, sunflowers or soya or with maximum 16 HD-II rows for narrow seeding of maize and rape seed.

The micro-granule applicators, micro-drill, are available as an option. For the application of fertiliser, the Optima F can be combined with the front hoppers f-drill or iXtra LiFe for liquid fertiliser or equipped with a central mounted hopper with a volumne of 1125l. The machine is fully ISOBUS compatible and ready for GEOCONTROL and GEOSEED.

- **Clear design**
- **Close centre of gravity**
- **Combination with mounted or front hoppers f-drill or iXtra LiFe as feriliser hopper**
- **GEOCONTROL and GEOSEED**
- **Hydraulic frame ballasting kit**
- **Hydraulic fan drive**
- **Close row sowing**

Optima F					
Working width (m)	6	6	6	6	6
No. of rows	8	9	11	12	16
Row distance (cm)	70/75/80	60	55	45/50	37.5
HD-II row	●	●	●	●	●
SX row	●	●	●	●	-
e-drive II / GEOSEED	●	●	●	●	●
Mounted fertiliser hopper (l)	● (1125)	-	-	● (1125)*	-
f-drill	●	●	●	●	●
iXtra LiFe	●	●	●	●	●
Microgranule applicator	●	●	●	●	●
PUDAMA	●	-*	-*	●	-*
GEOFORCE	●	●	●	●	●

● Possible - Not available * On demand

- Compact and clear design
- Variable row width
- Integrated fertiliser system
- Optimised centre of gravity

OPTIMA V
MAXIMUM FLEXIBILITY

The Optima V is the perfect seed drill for farmers and contractors who need a machine with various row widths. The adjustment of the row width is done in next to no time which ensures a speedy response to changing requirements.

The headstock is made of round tubes which saves weight and increases the stiffness. Plastic glide parts integrated within the main telescopic frame (160mm square tube) guarantee longterm usage of the machine. All inner rows are mounted on 8 maintenance free plastic rolls and are adjustable in different step widths.

- Optima V is available with 6, 6+1 or 8 rows.
- Optima V with 6 rows allows the flexible adjustment of the row width e.g. for the sowing of sugarbeet at 45cm or for maize at 75/80cm.
- Optima V with 6+1 rows offers additional option to work with either 6 or 7 rows at various row widths.
- Optima V with 8 rows is ready for close row sowing for high yields.

For more precise fertiliser application a half-switch-off is possible when two electro-hydraulic fertiliser drives are installed on each hopper side.
More comfort is offered by the tool box to have all at hand, the foldable stairs with maintenance platform and an optional filling auger.

Optima V			
Working width (m)	2.70 - 4.80	3.15 - 4.80	2.64 - 4.40
Number of rows	6	6 + 1	8
Row width (cm)	45-80	(6r) 75+80 (7r) 45-65	33-55
HD-II row	●	●	●
SX row	●	●	●
e-drive II / GEOSEED	●	●	●
Mounted fertiliser	●	●	●
Filling auger	●*	-	-
f-drill	●	●	●
iXtra LiFe	●	●	●
Microgranule applicator	●	●	●

● Possible - Not available

Ready for GEOSEED.

Number of rows	Row width with different settings									
	Type	Rows	1	2	3	4	5	6	7	Transport
	6	6	80cm	75cm	70cm	65cm	60cm	55cm	50cm	45cm
	6+1	6	80cm	75cm						
	6+1	7			65cm	60cm	55cm	50cm	45cm	
	8	8	55cm	50cm	45cm	40cm	37.5cm	35cm		33cm

OPTIMA R - STRONG AND COST-EFFICIENT
STRAIGHTFORWARD

The rigid Optima R frame is the cost-efficient alternative for different farm sizes and complements the range of Optima RS models. The Optima R has no lengthwise transport device so is particularly suitable for farmers who do not need to cross public roads.

Simple and cost-efficient.

The Optima R allows universal seed application depending on the type of sowing unit and equipment fitted. Available in working widths from 3.0m to 6.0m, the Optima R can be set at row widths from narrow 35cm up to wide 80cm for maize respectively up to 150cm for pumpkins. Sowing of sunflowers, sugarbeets, rape or soya beans is also possible.

All Optima R frames are available with mechanical or electric drive, thus, ready for GEOCONTROL and GEOSEED. Standard, Tandem, HD-II or SX rows can be chosen according to field and farm requirements. The Optima R can be combined with a large central fertiliser hopper which has a capacity of 1,000 l and can be driven mechanical or electro-hydraulic. The combination with a front hopper system is possible. The micro-granule applicator, micro-drill, or a filling auger is also available as an option.

Optima R						
Working width (m)	3.0	3.5	4.0	4.5	5.0	6.0
Number of rows	2-8	3-8	3-8	3-8	4-8	5-8
HD-II row	●	●	●	●	●	●
SX row	●	●	●	●	●	●
Standard row	●	●	●	●	●	●
Tandem row	●	●	●	●	●	●
e-drive II / GEOSEED	●	●	●	●	●	●
Mechanical drive	●	●	●	●	●	●
Mounted Fertiliser	●	●	●	●	●	●
f-drill	●	●	●	●	●	●
Microgranule applicator	●	●	●	●	●	●
GEOFORCE	●	●	●	●	●	●

● Possible - Not available

- Precise fertilization and sowing saves costs for fertilizers and seeds
- Environment protection in terms of resources and CO^2-emissions
- Fertilization and sowing in just one pass
- All from one hand!
  One concept - front tank, electronics and seeding technology
- Good ballasting and utilization

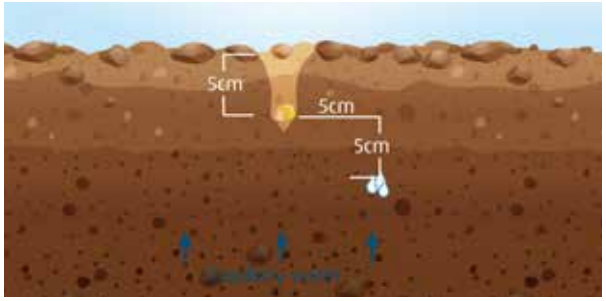
IXTRA LIFE FRONT TANK
IN FRONT OF A GOOD START

This innovative ISOBUS combination ensures that seeds are sown at the right place and applies the correct amount of liquid fertiliser at the same time. For the best start of the crop, the liquid fertiliser is placed close to the seed.

The iXtra LiFe front tank works in combination with the precision drill Optima to apply the fertiliser during seeding sugar beet, maize or sunflowers for example. The smart electronics on both seeder and front tank communicate so the application starts and stops together with each individual seed row. The iXtra LiFe provides liquid fertiliser close to the rows of the precision drill. With stricter fertilisation legislation an efficient nutrient application is key to reduce the total amount of fertiliser every year. Row fertilisation is a way to increase efficiency and save money due to a better placement of the fertiliser near the seeds. At the same time it creates space for additional application of organic fertilisers.

The electric driven seeding elements in combination with GPS and GEOCONTROL automatically switch on or off in exactly the right place, ensuring that there is no overlap in the headland or in any row that has already been seeded. This is especially the case in triangular shaped fields and on curved or irregular shaped headlands.

The liquid fertiliser always follows the row unit which ensures perfect application and prevents double or missing spots.



Kverneland iXtra LiFe	
Sections	4 - 6 - 8 - 12 - 16 - 18
Nominal tank capacity (l)	1,100
Maximum tank capacity (l)	1,300
Clean water tank capacity (l)	2 x 65
Empty weight (kg)	221
Front linkage	Cat. II
Piston membrane pump (hydraulic driven) (l/min)	200
Electrical level indicator Standard	Standard
Control panel	Electrical (ISOBUS)

FRONT HOPPER F-DRILL
MAXIMUM FLEXIBILITY AND BALANCE

The Kverneland front hopper f-drill as fertiliser hopper increase capacity and performance. The modular structure of the f-drill together with the Optima model ensure even weight distribution across the machine arrangement, giving the tractor maximum balance. This protects the soil structure, improves safety and manoeuvrability, whilst at the same time giving the driver an unrestricted view over the entire machine set-up.

The range of Kverneland f-drill front hoppers are available in two sizes and each volume in two versions. The f-drill compact has a capacity of 1600 litres and the f-drill maxi up to 2200 litres. Both models are fitted with the electric driven metering device ELDOS. The standard version is equipped with one ELDOS metering unit. Higher application rates can be achieved with the duo version, as two ELDOS units distribute two times in total up to 600kg/ha.

The wide opening of the hopper allows filling with a big bag or filling auger. A close-fitting 2-part hopper cover protects from dust and water and can easily be opened and closed. The pyramid sieves inside the hopper protect the ELDOS from stones and crush fertiliser clods. The positioning of all the major components is well-organised and clear. The hydraulic fan and the ELDOS metering device are located in front of the hopper for best access. A radar sensor records the speed in order to maintain the relevant distribution rate at the correct time. The hopper is fitted with an access platform, ideal for maintenance purposes and for the filling operation.

Model	Litre	No. of ELDOS
f-drill compact	1,600	1
f-drill compact duo	1,600	2
f-drill maxi	2,200	1
f-drill maxi duo	2,200	2

OPTIMA E-DRIVE II
CONTROLLING AND STEERING FROM CAB

e-drive II	
Individual row start and stop function	●
Variable seed rate per row	●
Variable seed rate adjustment during sowing	●
Two independent tramlining systems	●
Opto-electronic control	●
Section control	●
Application maps	●

With e-drive II each sowing unit is driven individually via an electric motor. All the data is entered and read by an ISOBUS conform terminal like IsoMatch Tellus PRO or Tellus GO+. The sowing distances are infinitely adjustable on the move. All the sowing units can be switched off individually. This solution saves seeds and money!

ISOBUS Standard.

In conjunction with close row sowing widths of 37.5cm or 45/50cm another benefit of e-drive II comes into play: Individual tramline control. Tramlines can be set up for every sprayer width and irrigation system.

The e-drive II features complete electronic monitoring of all machine functions. This includes the seed monitoring by opto-electronic sensors as well as the steering of hydraulic functions such as the control of trackmarker arms and folding processes. Only the design of the seeding heart without a sealing enables the steering of all these functions without external power supply. All functions for every machine can be used without an extra generator or accumulator.

Rape Kit

Sowing rape with your precision drill enhances the range of application and improves the pay back of the machine costs. Results from various testing facilities have shown a high germination rate of precision-drilled rape, especially in difficult soil conditions. Thus each rape plant has best access to nutrients and water for high yields.

Channel Extra & Plantirium Sensor (HD-II)

The Channel Extra is for shallow sowing of small seeds like sugarbeet and rape seed. Perfect placement is guaranteed by the special design of this falling channel. Curling or jumping of seeds in the seed furrow is prevented.

The Plantirium sensor for seed detection from small like rape to larger seeds like beans or sunflowers. It automatically adapts to new seed type. An optical system counts the seeds, detect missing and doubles. The driver gets information in the terminal about the status of the working quality of each row. In addition a signal appears when the seed hopper is empty. In-field software updates are possible.

Intermediate Press wheel (HD-II)

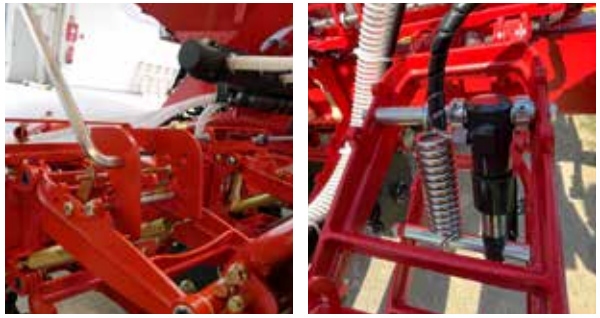
Kverneland's intermediate press wheels provide the best seed-to-soil contact. This is especially necessary in dry conditions to get best access to capillary water. This is the most available form of water for plants to utilise because it is in the soil pore spaces or held loosely around soil particles. The cast iron version with rubber ring is designed for light to mid soil with less stones. The heavier stainless steel roller with scraper is used in heavy stony field conditions.

Equip your Optima according to your requirements.

- **Perfect crop establishment systems**
- **For mulch or conventional sowing**
- **For all cultures from beans to rape**

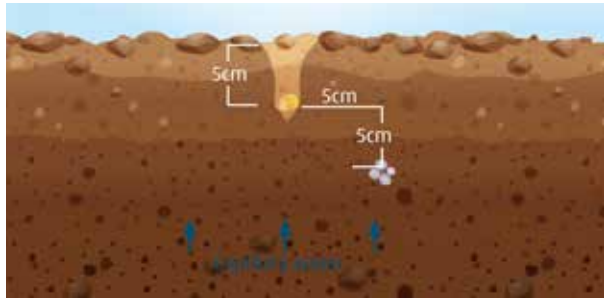
OPERATOR-FRIENDLYNESS
SIMPLE ADAPTATION AND ADJUSTMENT

Trash Wheel
Seeding in different conditions extends the usage of your Optima. For conditions with a high amount of residues, the Optima can be equipped with trash wheels that remove straw and other residues in front of the sowing unit.



Coulter Pressure Adjustment
With the pressure adjustment either mechanically from 0 to 100kg or hydraulically with spring loaded release system from -40kg as pressure release to 100kg the operator can individually adjust the coulter pressure of each row to any soil conditions: 0kg or -40kg in light and sandy soils, 100kg in heavy clay. This prevents bulldozing and ridge forming and ensures smooth running at an uniform sowing depth.

Double Disc Fertiliser Coulter
The notches of the double disc fertiliser coulter give perfect traction in all soil conditions and allow perfect fertiliser placement. The overload protection ensures blockage-free operation especially in conditions with stones or with high amounts of residues. The integrated scrapers are useful for sticky soil.

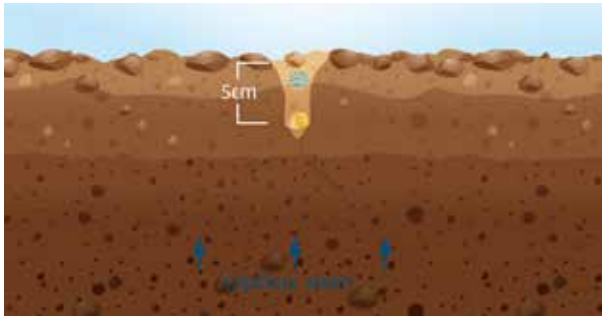


Fertiliser placement 5cm below and beside of the placed seed

ELECTRIC MICRO GRANULE APPLICATOR
MICRO-DRILL FOR OPTIMA HD-II AND SX

The demand for microgranule applicators is increasing. Micro nutrient and also small amounts of insecticides or fungicides ensure the best start for the crop. The Institute for Application Techniques in Plant Protection (JKI) is constantly working on technologies and procedures to enhance the safety of humans and nature in Germany, regarding plant protection. The aim of the Institute is to optimize the use of plant protection products and contribute to a sustained increase of plant production systems. The JKI has granted the approval for the Kverneland micro granule applicator, micro-drill, to comply with these standards. (Reference G 2196).

The electric driven micro granule applicator micro-drill for the Optima HD-II and SX sowing units has been designed as backpack behind the sowing unit and offers a hopper capacity of 17 liters. It is electrically driven and ISOBUS controlled. The metering device consists of a wear-resistant plastic housing and exchangeable cell wheels made of stainless steel which ensure precise metering of the micro granules.



Operator saftety
Increasing operator safety by easy and safe handling was focus during development. Therefore, the operator can exchange the cell wheels even when the hoppers are full of granule. There is no need to empty them first, reducing the operator's risk of being in direct contact with the granules.

A plus for the environment
The granulate falls freely into the seed furrow without air support, minimising the emission of dust and complying with the current guidelines for emission control for any granulates applied.

Precision Farming
The comfortable, fully ISOBUS integrated control system allows the adaption of the stop and start points of the seed row. This ensures precise shutting on and off at the end of the field (without overlaps or faults) and in addition allows the switching off during tramline operation.

Optima SX

Optima HD-II

Kverneland Micro granule applicator micro-drill	
Hopper capacity (Liter)	17
Minimum application rate (kg/ha)	2 (37.5 cm row width & 2km/h)
Maximum application rate (kg/ha)	25 (80 cm row width & 18km/h)
Cell wheels	Different cell wheels in 3mm, 6mm and 9mm width for Granule, Micro fertilizer and slug pellets
Power requirement	max. 3 A / 12 V
Electronic system	ISOBUS (GEOCONTROL of the sowing row)
Electronic standard	AEF conform
Weight (without granule/ferilizer) (kg)	8.9
Optima Models	frames with HD-II e-drive II and SX rows

1

2

3

3

4

4

5

6

7

MICRO-DRILL OPTIMISED CROP CARE
WITH ELECTRIC DRIVE

Each micro granule applicator unit micro-drill is electrically powered by ISOBUS connection. An additional generator or other power sources are not required. The complete power supply and control is via ISOBUS. A calibration test is necessary to adjust the system to according granules or fertiliser. The system defines the correct cell wheel and setting quantity.

1. The **hopper** has a capactiy of 17 liter. Comfortable is the low filling height. The filling level is visible from outside. The tank empties completely without any additional cleaning. The easy backwards slided hopper cover is prepared for using a sure-fill adpater.

2. The **electric driven metering device** regulates the dosing process for different granules. The metering device developed in Kvernelands own plastic factory in Germany consists of a wear-resistant plastic housing. A motor drives the system via two gear wheels. The motor speed depends on the granulate volume and is steered by the ISOBUS system.

3. The integrated **shut-off valve** enables a cell wheel change even if the hopper is full of granules or fertilizer.

4. With the **adjustbale lever** it is very easy to convert the system from calibration to work modus.

5. Different **cell wheels** with large and small cell depths are made of stainless steel and suitable for different granules and applications rates. Three exchangable cell wheels are ready to hand and stored well-protected in a box at the unit.

6. The operational cell wheel is fixed in a **cartridge.** Therefore will be no touch-contact with the granulate when exchanging the cell wheel.

7. A well arranged sticker with a **scale** indicates the correct cell wheel at the cartridge.

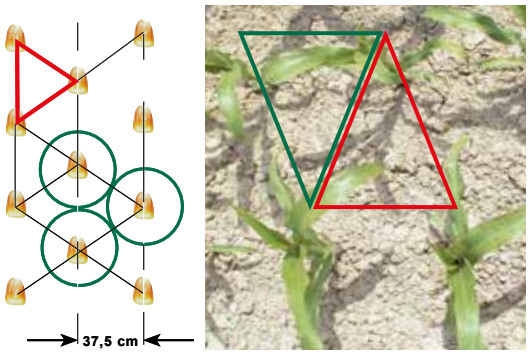
CLOSE ROW SOWING
OPTIMUM CONDITIONS FOR GROWTH

Giving all plants the optimum growing conditions and same access to nutrients, water and sun is the basis for high yields.

With the sowing of maize, former harvesting processes had limited the standard row distance to 75cm. Due to the introduction of chopping and picking attachments which are independent of this former standard row width, close row sowing has become possible.

This opened up for enhanced growth. Various tests have shown that with row distances between 30cm to 50cm yield increases by up to 10%. In fact, close row sowing at 37.5cm has turned out as the optimum setting for prosperous maize population.

Up to 10% higher yields.



Close row spacing and defined seed placement by GEOSEED ensures optimum growth

- **From 37.5 to 50cm**
- **2-D Placement with GEOSEED**
- **Optimum growing space**
- **Yield increase up to 10%**

GEOCONTROL

COST SAVING WITH PAYBACK

The more precisely and evenly a seed is sown, the easier it is to work and harvest, and the greater the possible yield.

Seeding with GPS and GEOCONTROL in combination with an Optima e-drive II is a major step towards precision and cost saving. These machines are all equipped with ISOBUS technology which, with the help of the IsoMatch Tellus PRO terminal, can be easily controlled.

Each electric driven seeding element, in combination with GPS and GEOCONTROL, is automatically switched on or off in exactly the right place, ensuring there is no overlap with any row that has already been sown. This is especially handy in triangular fields, on curved or irregular shaped headlands. You can also continue seeding at night since the switching on/off of the seed elements is completely reliable.

iM CALCULATOR APP - free to download

After filling in the required data, the calculator clearly shows what you can save in terms of money. With GPS it is possible to accurately seed, spread and spray without any overlap. The iM Calculator app calculates the cost saving by using those GPS functionalities.

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 scan the QR code or find the online calculator on our homepage:
http://imcalculator.kvernelandgroup.com/#/

GEOSEED

PATENTED 2-D SEED PLACEMENT

GEOSEED increases the yields of row crops and ensures maximum efficiency. Seeds are placed perfectly in line and in relation to each other.

GEOSEED Level 1 is the precise synchronization of seed placement across the full working width of the machine. This ensures that seeds are distributed evenly, achieving an optimal pattern—either parallel or diamond-shaped—across the soil surface. The positive effects of this technology are far-reaching. By enhancing seed distribution, GEOSEED maximizes the efficient use of key resources such as nutrients, water, and sunlight, fostering optimal plant growth. Additionally, this uniform planting pattern helps reduce the risks of wind and water erosion, as the even distribution of plants improves soil structure and coverage, leading to better water retention and minimizing soil degradation.

- **Increase in yield**
- **Best use of nutrients, water and sun**
- **Reduces the risk of water and wind erosion in hilly conditions**

OPTIMA MODELS ARE FULLY ISOBUS COMPATIBLE
VARIABLE RATE FOR PRECISE ETABLISHMENT OF CROPS

Variable rate control with an Optima can be done via an application map, where in combination with GPS, the Optima automatically changes its seed rate based on a pre-determined amount. This can be done individually on each sowing row, which means that each sowing heart can manage different seed rates for a specific area.

Example maize 60,000 to 90,000 seeds/ha depending on yield expectation and soil condition. Grid 5 x 5m.

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.

NEW

Kverneland Sync – the Implement Gateway
Always Connected – Easy and Direct
With Kverneland Sync, your implement stays connected to Kverneland online services, ensuring efficient, user-friendly data transfer to IsoMatch FarmCentre and ServiceCentre.

Remote Service
Reduce downtime with remote diagnostics via ServiceCentre, enabling technicians to quickly resolve electronic issues from a distance.

Task Management
Optimize reporting and transparency with real-time tracking, performance measurement, and secure data storage in IsoMatch FarmCentre. Perfect for managing logistics and invoicing in machine cooperations.

GEOFENCING
Protect your implement against theft with GEOFENCING and a backup battery, ensuring localization even without a tractor.

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.

iM FARMING - smart, efficient, easy farming

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.

IsoMatch Global 3

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

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.

Flexible in combination

"We are contractors specialized in sowing and precision seeding located in Hoekse Waard, in the South of Rotterdam. For the precision seeding of maize, sweetcorn and pumpkins, we work with a Kverneland Optima 8 and 12 rows in combination with the iXtra LiFe front tank for liquid fertilizer application.
The Kverneland Optima is equipped with the IsoMatch Terminal Tellus Pro which we use also for our other Kverneland seed drills. The front tank and precision drill are both visible and monitored on one screen. Both implements are equipped with GEOCONTROL which individually shuts on/off the rows, ensures automatic section control on headlands and prevents overlapping in the field.
Thanks to Kverneland technology, we, as contractors provide better use of the minerals in the root zone of the plants. This results in savings both on fertilisers and minerals and is thus environment-friendly. "

Arjan Breure, Contractor Breure Klaaswaal, Netherlands
Main branch: sowing and precision seeding
Optima for precision seeding: pumpkins, maize for silage and sweetcorn

Key to success

"In spring, I use the precision drill for maize sowing and in the summer for the sowing of oilseed rape. This is not only an additional pay-off of machine costs but it meets the often arid conditions we face in our area in the summer. Here it is of major importance to achieve a maximum seed-to-soil contact for an even germination.

Our Optima V is fitted with GEOCONTROL. Thus we avoid any overlapping or missing of seeds - saving costs on surplus seeds and in addition facilitating any following crop care operations as well as harvesting. Our benefit is the increased yield due to evenly matured crops.

The Optima V offers me an extra in flexibility and with the optimised ISOBUS controlled seed placement, we benefit from a profitable return on investment."

Georg Springorum, Germany
500 ha, Crops: Wheat, Oilseed rape, Barley, Sugar beet, Triticale, Maize
Climate: Continental

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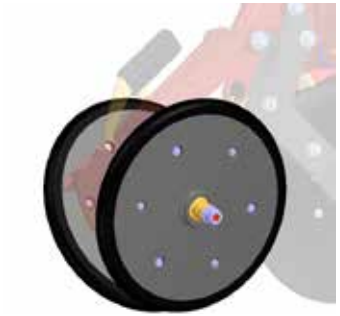
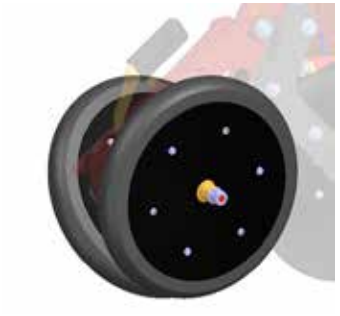
COVERING AND CONSOLIDATION

PRESS WHEELS FOR ALL TYPES OF SOIL AND SEEDS



V-press wheel 25mm

- Standard equipment HD-II and SX
- Close the furrow by covering the seed with soil
- Moist and heavier soil
- Deeper sowing depth
- Targeted pressure
- Reliable and a long lifetime due to high resistance to abrasion and wear
- Adjustable intensity (angle and distance)
- Pressure can be easily adjusted without tools



V-press wheel 50mm

- Optional equipment HD-II and SX
- Close the furrow by covering the seed with soil
- Ensuring access to capillary water
- Moist and medium soil
- Deep and shallow sowing depth
- Reliable and long lifetime
- Carrying capacity
- Adjustable intensity (angle and distance)
- Pressure can be easily adjusted without tools

Mountain Bike press wheel 50mm

- Optional equipment HD-II and SX
- Close the furrow by covering the seed with soil
- Medium to lighter soils
- Optimal for shallow sowing, such as sugar beets and rapeseed
- Wheel with a profile that ensures sufficient carrying and grip
- Reduces the risk of erosion, and capping
- Promotes a weatherproof surface
- Adjustable intensity (angle and distance)
- Pressure can be easily adjusted without tools

Farmflex press wheel 500mm

- Standard equipment on Standard row
- Depth control for even sowing horizon
- Medium to lighter soils
- Excellent elastic reaction with self cleaning effect
- Robustness and performance but lightweight and easy to adjust
- High carrying capacity

Farmflex press wheel 370mm

- Optional equipment on Standard row
- Depth control for even sowing horizon
- Medium to lighter soils
- Excellent elastic reaction with self cleaning effect
- Robustness and performance at higher pressure

Monoflex press wheel

- Standard equipment on Tandem row
- Self-cleaning effect independing of the pressure
- Ideal for wet and loamy soils.

- **Operator-friendly** due to maintenance-free bearings
- **Optimal coverage and consolidation for capillary water access**
- **Long lifetime and realiability**

TECHNICAL DATA

Model	Optima R						Optima V	Optima F	Optima TFprofi	Optima RS					Optima TFmaxi
Frame type	rigid						variable	parallel hydr. fold	trailed fold	rigid					trailed fold
Working width (m)	3.00	3.50	4.00	4.50	5.00	6.00	2.70 - 4.50	6.00	6.00	6.10	6.80	7.60	8.30	9.30	12.00
No. of Standard / Tandem sowing rows	2-8	3-8	3-8	3-8	4-8	5-8	-	-	-	-	-	-	-	-	-
Row width Standard / Tandem row (cm)	35-150	37.5-150	45-150	55-150	55-150	66-150	-	-	-	-	-	-	-	-	-
No. of HD-II sowing rows	2-8	3-8	3-8	3-8	4-8	5-8	6 / 6+1 / 8	8-16	8	8-12	8-16	12	12-18	12-18	12
Row width HD-II row (cm)	37.5-150	37.5-150	45-150	55-150	55-150	66-150	33 - 80 [1]	37.5-80	70 - 80	45-80	35-80	65	45-70	50-80	70-80
No. of SX sowing rows	2-6	3-7	3-8	3-8	4-8	5-8	6 / 8	8-12	8	8-12	8-12	12	12-18	12-18	-
Row width SX row (cm)	45-150	45-150	45-150	55-150	55-150	66-150	37.5 - 80	45-80	70 - 80	45-80	45-80	65	45-70	50-80	-
GEOFORCE [5]	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-
Transport width (m)	3.00	3.50	4.00	4.50	5.00	6.00	3.00	3.00 [6]	3.00 [2]			3.00			3.00
Mechanical drive of row	○	○	○	○	○	○	-	-	-	-	-	-	-	-	-
e-drive II, ready for GEOSEED	○	○	○	○	○	○	●	●	○	○	○	○	○	○	● [4]
Fan drive 1000rpm	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●
Fan drive 800rpm	●	●	●	●	●	●	●	●	●	●	●	●	●	●	-
Hydraulic fan drive	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Hydraulic row lifting device	-	-	-	-	-	-	○ (6+1)	-	-	-	-	-	-	-	-
Frame															
Linkage	CAT 2/3N	CAT 2/3N	CAT 2/3N	CAT 2/3N	CAT 2/3N	CAT 2/3N	CAT 3N	CAT 3N/CAT 3	CAT 3N Cross shaft [3]	CAT 3/4N	CAT 3/4N	CAT 3/4N	CAT 3/4N	CAT 3/4N	CAT 3N Cross shaft
Tyres 7.00-12AS	○	○	○	○	○	○	-	-	-	○	○	○	○	○	-
Tyres 26x12.00STG	●	●	●	●	●	●	●	●	-	●	●	●	●	●	-
Tyres 12.5/80-18	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●
Hydraulically operated track marker	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Hydraulically frame ballasting kit	○	○	○	○	○	○	○	○	-	○	○	○	○	○	-
Fertiliser															
Mounted fertiliser spreader	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Maximum no. of rows with mounted fertiliser spreader	8	8	8	8	8	8	8	8-12	8	18	18	18	18	18	16
Mechanical drive of fertiliser spreader	●	●	●	●	●	●	●	-	●	●	●	●	●	●	-
Electro-hydraulic drive of fertiliser spreader	○	○	○	○	○	○	○	●	○	○	○	○	○	○	●
Fertiliser hopper capacity (l)	1000	1000	1000	1000	1000	1000	1000	1125	2000	2000	2000	2000	2000	2000	4000
Filling auger	○	○	○	○	○	○	○ (6 rows)	○ (8 rows)	○	-	-	-	-	-	○
Weigh cells	-	-	-	-	-	-	-	-	○	-	-	-	-	-	-
No. of rows with front hopper f-drill/ iXtra LiFe	6/8	6/8	6/8	6/8	6/8	6/8	6/8	8/12/16	-	8/12	8 /12 /16	12	12/16	12/16	-
PUDAMA	-	-	-	-	-	-	-	○	○	-	-	-	-	-	-
Micro granule [7]															
micro-drill (electric driven)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	-

Optima row variants	Standard	Tandem	HD-II	SX
Hopper 60l	-	-	●	●
Hopper 30l	●	●	○	-
Mech. coulter pressure adjustment from 0 to 100kg weight transfer to the parallelogram	-	-	●	●
Hydr. coulter pressure adjustment from -40 up to 120kg weight transfer to the parallelogram	-	-	○	○
XHD Quick-fit coulter tip sugar beet	-	-	○	-
Quick-fit coulter tip maize	-	-	○	-
Clod deflector	-	○	○	○
Trash wheel	-	-	○	○
V-press wheel 25mm	-	-	●	●
V-press wheel 50mm	-	-	○	○
Mountain Bike press wheel 50mm	-	-	○	○
Farmflex 370mm	●	-	-	-
Farmflex 500mm	○	-	-	-
Monoflex press wheel	-	●	-	-
Open gauge wheel	-	-	●	●
Intermediate press wheel stainless steel with scraper	-	-	○	-
Intermediate press wheel cast iron with rubber ring	-	●	○	-
Electric drive	○	○	●	●
Mechanical drive	○	○	○	-
GEOFORCE	-	-	-	○
PUDAMA	-	-	-	○
Lifting device	●	●	○	○
Rape kit	○	○	○	○
Channel extra	-	-	○	-
Plantirium Sensor	-	-	○	-
Weight (kg)	60	75	129	129

[1] Depending on no. of rows
[2] 3.40m if 80cm row width
[3] Optional CAT. 3 with cross shaft, 40mm Ringe eye and K80 pulling eye
[4] available with e-drive without GEOSEED
[5] available with SX row version
[6] > 3.00m transport width when 16 HD-II rows with 37.5cm row width
[7] available with HD-II or SX row and e-drive II

● Standard equipment
○ Option
- Not available

WHEN FARMING MEANS BUSINESS

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