Kverneland

Kverneland Saturia

PNEUMATIC CULTIVATOR-MOUNTED SEED DRILL

WHEN FARMING
MEANS BUSINESS

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

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

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 absorbation

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

The Kverneland Saturia offers an economical solution for farmers looking for a straightforward seed drill combination to achieve high yields and optimal growing conditions with customisable row spacing.

Farmers today face challenges like uncertain legal situations, unpredictable weather, the need for herbicide reduction, emerging weed resistance, rising input and energy costs.

The Kverneland Saturia allows seedbed preparation, consolidation and precise seed placement at the right time in just one pass and will support to reduce the time pressure in the autumn and spring.

KVERNELAND SATURIA - A STRAIGHTFORWARD COMBINATION
ALL IN ONE PASS

The Kverneland Saturia mounted seed drill is designed for small to medium-sized farms. Thanks to its modular design, it can be easily combined with an existing power harrow or other tillage implements, such as a short tine cultivator, rotary tiller or short disc harrow. The Kverneland Saturia is available in working widths of 3.0 and 4.0 metres. With the seed drill combination, seedbed preparation and sowing are carried out in just one pass.

Thanks to the optimum hopper position, the Kverneland Saturia can even be used by smaller tractors with lower lifting and pulling power. The metering system is mechanically driven by a spiked landwheel. An integrated brake avoids "overdosing" on headlands, when the seed drill is lifted. The centrally positioned metering device is easily accessible. The hopper has a capacity of 750 liters, extendable to 1000 liters, and is equipped with a UV-resistant, weatherproof cover.

The distribution head is mounted inside the seed hopper. A half-width shut off, shut-off or combi valves are optional available. Access steps with a platform ensure safe and convenient manual filling or calibration. The standard model includes a hydraulic fan drive, but a mechanical drive (540 or 1000 rpm) can also be provided if needed.

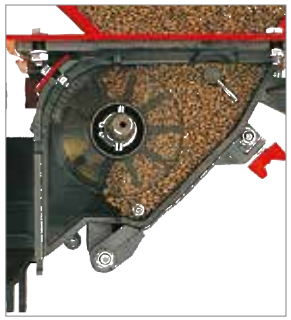
The FGS tramline control and the SIGNUS electronic seed rate control systems permit accurate tramlining. Optional features like hydraulically folding track markers, pre-emergence markers which ensure perfect pre-crop care actions, a hydraulic coulter bar lifting system for more intensive seedbed preparation without dismounting the drill or a tool box to store the calibration kit make increase the versatility.

MECHANICAL METERING DEVISE
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 diffusor tube and the seed delivery hoses to the coulters. The diffusor tube with the distributor is located protected inside the hopper and ensures precise diagonal distribution.

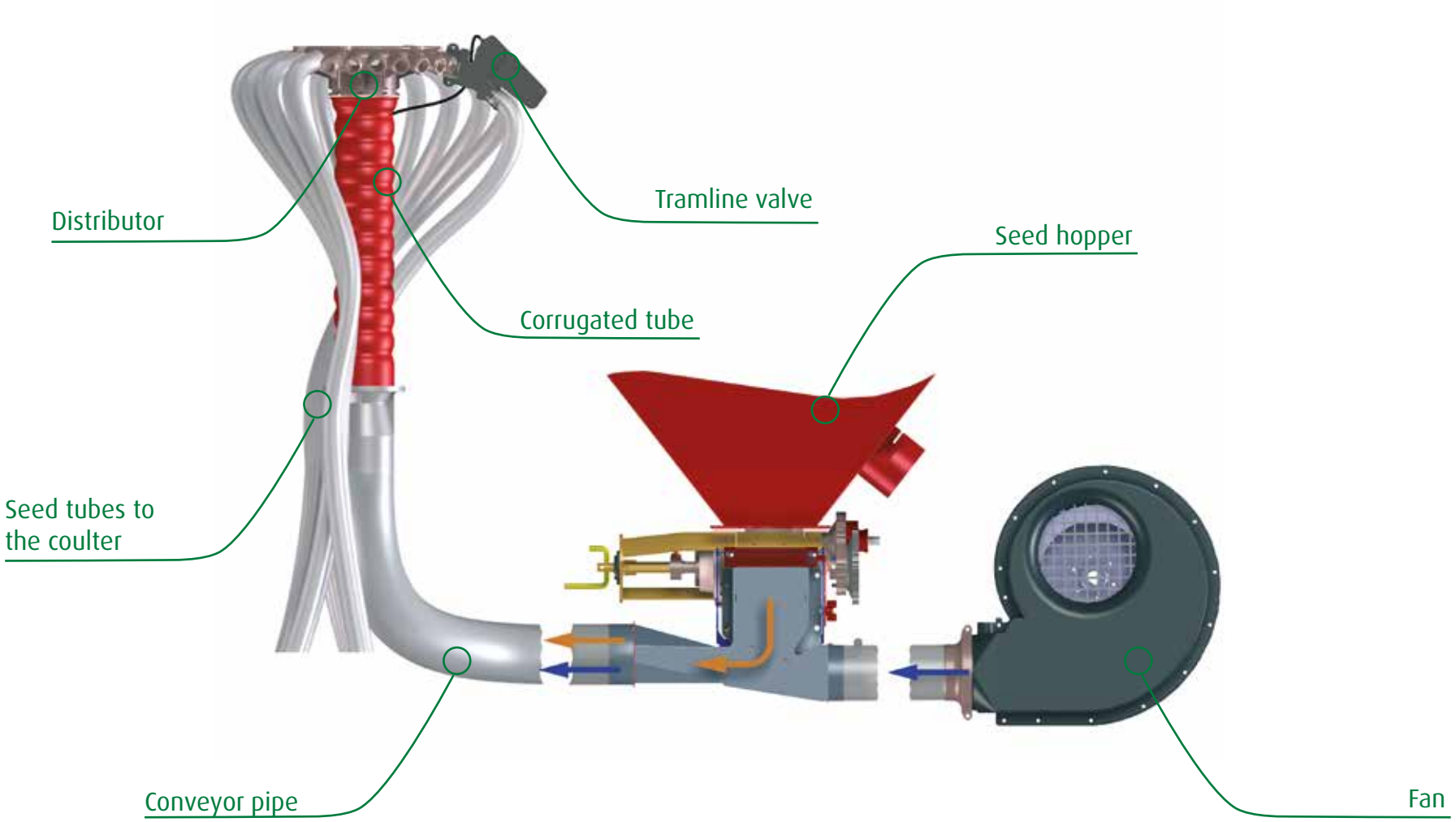


Setting for normal seed

Setting for fine seeds, with rotary brush

No tools required for adjustments

Hectar counter


Distributor
Tramline valve
Seed hopper
Corrugated tube
Seed tubes to
the coulter
Conveyor pipe
Fan

Precise smooth running

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

User-friendly

The CX-II coulter 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.

Adjustment of seed depth

The seed depth adjustment can be controlled via coulter pressure and press wheel setting by hole and pin system.

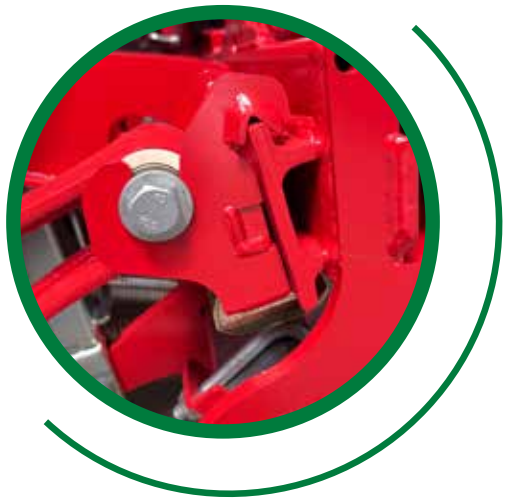
Maximum clearance

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

CX-II COULTER

with or without press wheel

CX-II COULTER
FOR PERFECT SEED PLACEMENT



The CX-II coulters, with or without press wheels, are clamped to the coulter bar which enables to change the row spacing. From factory a pre-setting of 12.5 or 25cm is offered. The CX-II coulters are staggered in two rows and ensuring a precise application. The flat cutting angle of the steel disc requires less coulter pressure to reach a constant sowing depth of up to 6cm and ensures smooth running. Thanks to the combination of steel disc and flexible plastic disc, there is no need for independent scrapers. The coulter is completely maintenance free!

Good penetration with less force

For wet and sticky soils, CX-II coulters **without press wheels** are available. The special curved disc design provides sufficient bearing capacity. Additional weight is saved and makes it cost-efficient.

Press wheels increase seed-to-soil contact and support the fine adjustment of the sowing depth. Up to 15 depth settings are possible. The depth adjustment is carried out without using any tools. Three adjustments adapted to soil condition 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. On slightly sticky soils an optional scraper is recommended.

Clamped CX-II coulter

Scraper

Fixed

Flexible

Lifted

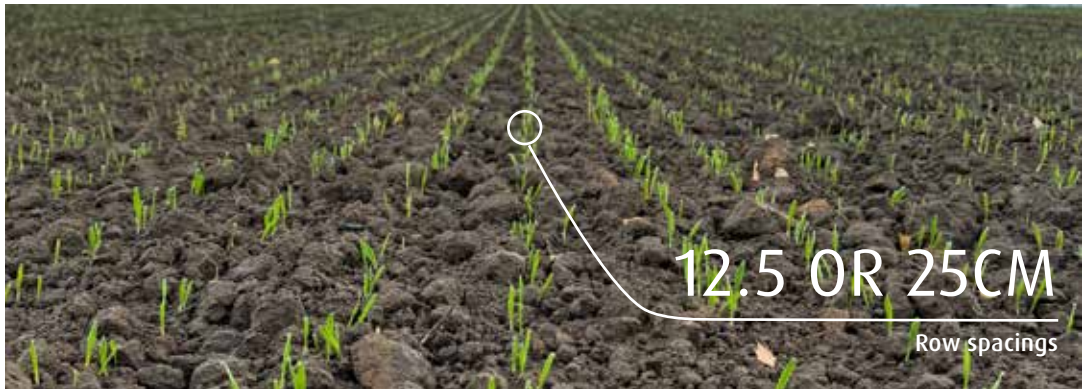
TWO SEED ROW SPACINGS
12.5 OR 25CM

The distance of the sowing rows is often philosophy. Each farmer has to decide by himself and has to consider local yield potential and the harvest utilisation of the crop. With our Kverneland proven CX-II coulter both spacings are possible due to the narrow profile design.

A distance of **12.5cm** offers for high seed rate the best distribution of seeds in the field because rows are quickly closed. The weed pressure is reduced and a good use of nutrients, water and sun is achieved.

You have the choice!

The wider distance of **25cm** has the advantage that the microclimate of the standing crop is better against fungal infestation. New type of seeds (Hybrid) achieve higher yields per spike. Therefore, less seeds are needed per m^2. These can be important on fields where water is a limited factor. In addition, less coulters per metre reduce the pulling force and lifting capacity requirement and have a better clearance especially in wet conditions. Finally it will reduce costs of the implement and seeds but depends on soil condition and management system.



KVERNELAND POWER HARROWS
SOLO OR IN COMBINATION

M series
The M series is a power harrow for tractors up to 140hp.

H series
The H series is the perfect choice for medium-sized farms and can be operated with tractors up to 180hp.

S series
The S series is the heavy-duty power harrow for all types of work in all conditions. The robust design is suitable for use with tractors up to 250hp.

Power harrows	Frame	Working width (m)	Min – Max power requirement (HP)	Roller	mounted and modular seed drills
Kverneland M series	rigid	2.5 - 3.0*	70 – 140	Tooth packer roller ø 575mm, Actiline roller ø 550mm, Actipack roller ø 560mm	Kverneland Saturia, Kverneland e-drill compact
Kverneland H series	rigid	3.0* - 3.5 - 4.0*	85 – 180		Kverneland Saturia, Kverneland e-drill compact, Kverneland e-drill maxi, Kverneland e-drill maxi plus, Kverneland f-drill CB
Kverneland S series	rigid	3.0* - 3.5 - 4.0* - 4.5	100 – 250		

* 3.0 and 4.0m working width can be combined with Kverneland Saturia models

1) Toolbox stores all items for calibration
2) Quick-shut for easy hopper emptying
3) Distribution head inside the hopper with shut-off or combi valves
4) Half-width switch-off mounted on the distribution head
5) Hydr. track markers and hopper extension
6) Spiked landwheel to drive the metering device
7) Triangle system for easy mounting the drill
8) Road light kit for safe road transport
9) Closing of the hopper cover
10) Safety access by steps and platform
11) Easy filling also by auger, loader or bag
12) Calibration flap underneath the mechanical metering device close automatically by starting the fan

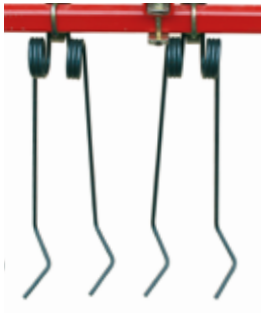
USER-FRIENDLY ADJUSTMENTS
FOR PERFECT SOWING DEPTH

The Kverneland Saturia is easily adjusted without tools to all soil conditions. This adaptability ensures efficient and convenient operation in diverse agricultural environments.

The sowing depth can be adjusted at each coulter if a press wheel is available and/or with the central coulter pressure adjustment. The standard coulter pressure is adjusted mechanical via crank.

The position of the mechanical metering device is designed for convenient and ergonomic access. This facilitating easy rest emptying and cleaning of the hopper. A toolbox for storing the calibation kit is optional available. The adjustable low level sensor detects from fine seeds up to beans and is standard in combination with FGS or Signus.

The pressure and height of the optional following harrow is adjusted by using a crank. The scale allows easy control, even if the complete harrow is lifted. To adapt the aggressiveness of the work, the angle of the tine segments can also be changed.



The pressure and height of the S-tine following harrow are adjusted using a crank. The angle can also be modified to customise the aggressiveness of the operation.

The coulter pressure can be easily adjusted using a crank. No additional tools needed.

ORIGINAL PARTS & SERVICE
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TECHNICAL DATA

Model	Kverneland Saturia	
Maschine type	Kverneland Saturia 1030	Kverneland Saturia 1040
Frame	cultivator-mounted	
Working width (m)	3.0	4.0
Transport width (m)	3.0	4.0
Hopper capacity (l)	750	
Hopper extensions (l)	○ 250	
Quick emptying chute	●	
Low level sensor	●	
Linkage to seedbed preparation implement	Saddle Triangle	
Metering device & Tramline system		
Drive 1000 rpm	○	
Drive 540 rpm	○	
Hydraulic fan drive	●	
Mechanic metering device (no.)	● (1)	
Micro metering	●	
FGS - Tramline system	○	
Signus - Tramline system	○	
Seed quantity (min. - max.)	2 - 380kg/ha	
Shut-off or combi valves	○	
⌀ Distribution tube (mm)	100	
Mechanic half-width shut-off	○	
Pre-emergence marker	○ (symmetric or asymmetric)	

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Maschine type	Kverneland Saturia 1030	Kverneland Saturia 1040
Frame	cultivator-mounted	
Working width (m)	3.0	4.0
Coulters & adjustments		
No. of coulters 12.5cm distance (no.)	● (24)	● (32)
No. of coulters 25cm distance (no.)	● (12)	● (16)
CX-II coulter incl. press wheel	●	
CX-II coulter special disc shape without press wheel	○	
CX-II coulter disc Ø (mm)	325	
Press wheel Ø (mm)	250 x 42	
Coulter pressure CX-II disc coulter (kg)	5 - 50	
Mechanic coulter pressure adjustment by crank	●	
Others		
S-tine following harrow (10mm)	○	
Toolbox	○	
Calibration kit (scale and bag)	●	
Hydr. folding track marker with notched disc	○	
Loading step / Platform	●	
Road light kit	○	
Oil charge hydr. fan 4400 U/min (l/min)	30	
Min. power requirement (HP/kW)	123/90	163/120
Weight (kg)	1100	1270

● Standard equipment ○ Option - Not available

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