



Satio

PNEUMATIC SOLO 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.





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





EFFICIENT

PERFORMANCE

INTELLIGENT

PRECISION

The Kverneland Satio provides cost-efficient technology essential for high yields through precise seed placement. Farmers face challenges like uncertain legal situations, unpredictable weather, the need for herbicide reduction, emerging weed resistance, and rising input and energy costs.

The Satio solo seed drill operates independently of seedbed preparation, allowing targeted seeding at the optimal time to achieve the best growing conditions. For example, winter barley benefits from a well-settled seedbed. By focusing solely on sowing, the Satio enables higher speeds and shallower seed placement, extends the time window, and reduces peak working times. This approach requires less power, minimizes soil compaction, reduces tractor tracks, and lowers fuel consumption. The right time and the placement with the CX-II coulter ensures in the prepared seedbed minimal soil disturbance, enhancing mechanical weed control and insect management for optimal results.

SATIO F - THE FOLDABLE SOLO SEED DRILL

HIGH EFFICIENT WITH CAPACTIY

The seed hopper of the foldable Satio F models (5.00 and 6.00m working width) offers a large capacity of 1,700l. The electric driven ELDOS metering system (1-400kg/ha) in e-com or e-bas version offers maximum comfort. A radar speed sensor records the speed in order to maintain the relevant distribution rate at the correct time. The Satio F in the e-com version is fully ISOBUS comfortable.

The CX-II coulters are clamped to the coulters bar and enable the choice row spacings of 12.5cm or 25cm to adapt to individual farming systems (crop care management, power requirement, weed type and pressure, limited climate factors, seed type, soil conditions etc.). The coulters pressure is adjusted mechanically using a crank or can optionally be controlled hydraulically from cab. Press wheels are supporting the fine adjustment of the sowing depth and increase soil to seed contact for fast emergence.

To increase comfort, the **sowing depth** of the Satio F models is **centrally adjusted** via spacers as standard. The spacers are on both sides of the headstock and adjust the height of the depth wheels. The value displayed on the scale of the spacers indicates the pointer position. The pointer is adjusted via top-link of the tractor to ensure an even sowing depth of front and rear coulters.

A full range of options like pre-emergence markers, S-tine following harrow, road light kit, LED working lights are available to customise to individual needs.

Independent sowing from cultivation

Compact design with closed
centre of gravity requires
low power requirement



OPTIMUM SEED RATE 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.

A calibration bag and set of digital scales are supplied as standard.



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



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



- 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



SATIO - THE RIGID SOLO SEED DRILL COMPACT AND LIGHTWEIGHT

The Kverneland Satio is the optimal choice for small and medium-sized farms and is characterised by its compact and lightweight design. The close centre of gravity allows low power requirement from 54kW. Working widths of 3.0 and 4.0m are available.

The hopper of the Satio has a low filling height and offers a capacity of 750 litres which can be extended to 1,000 litres. The wheels run in the track of the tractor ensuring constant ground contact and drive the mechanical metering device. They can be easily adjusted to suit any track width. Track eradicators loose the tracks before the seeds are placed.

The mechanical metering offers seed rates from 2 to 380kg/ha. For the electronic control of the Kverneland Satio, the FGS and Signus systems are available. Therefore, only two single-acting control valves are required to steer the fan drive and track markers.

Equipped with clamped CX-II coulters the sowing depth can be adjust at each press wheel setting or via the coulter pressure adjustment. The S-tine following harrow provides the correct covering.



MECHANICAL METERING DEVICE 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.



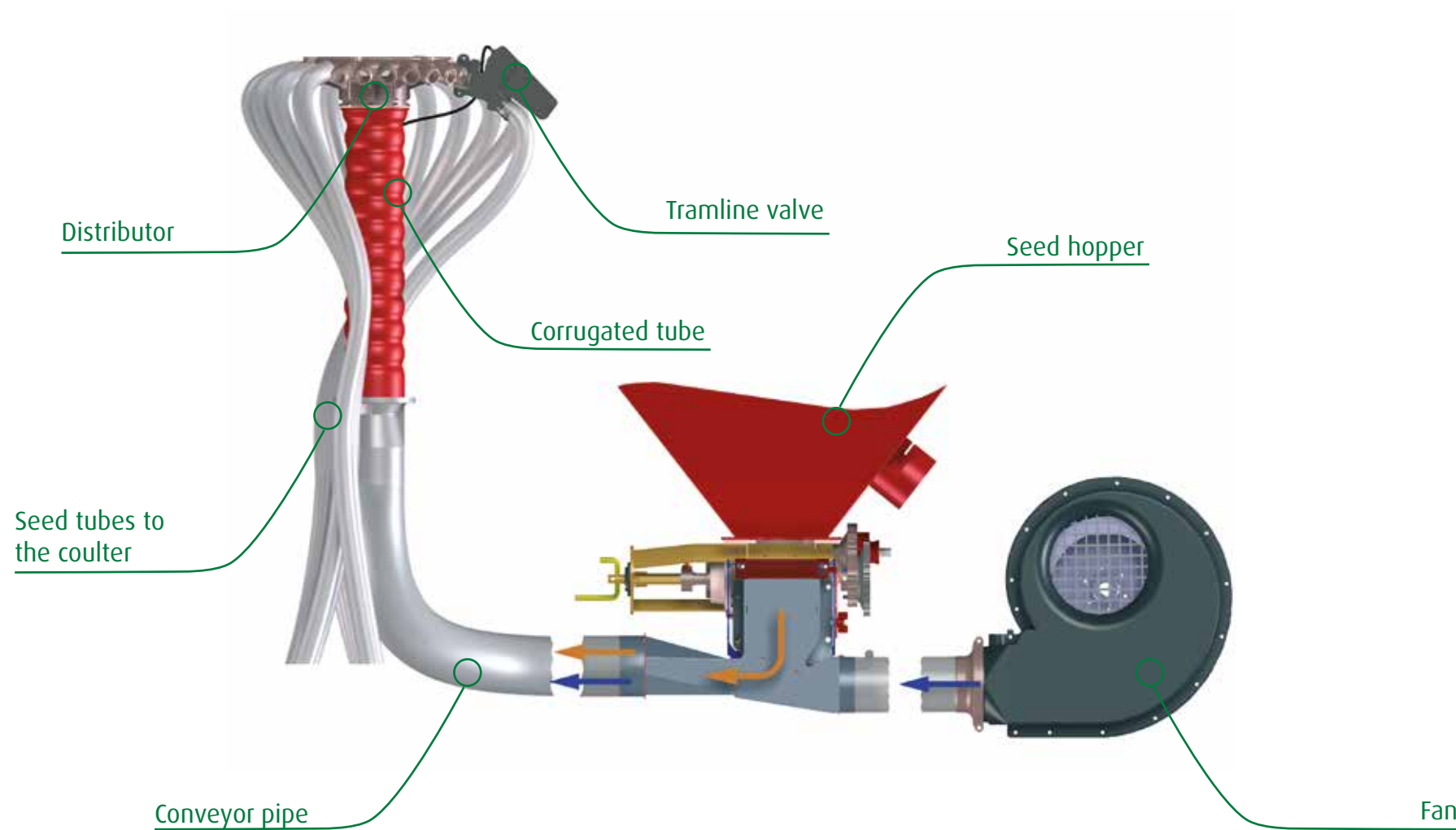
Setting for normal seed

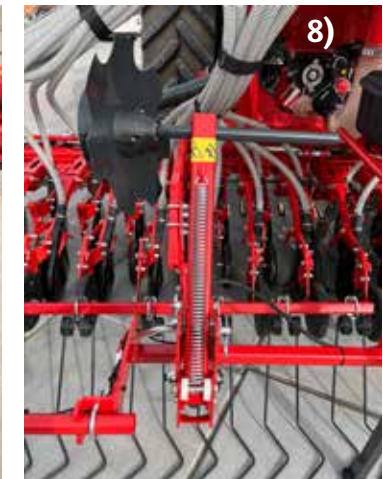
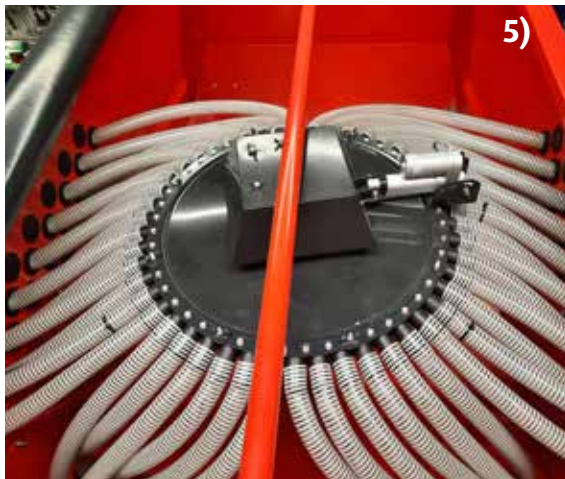


Setting for fine seeds, with rotary brush



No tools required for adjustments





- 1) Satio F good access to the ELDOS
- 2) Satio F LED working light
- 3) Satio F radar speed sensor
- 4) Satio F low level sensor (3 steps)
- 5) Satio F electric half-width shut-off, distribution head with 135mm tube, up to 8 shut-off valves)
- 6) Satio & Satio F: Option to change the track width
- 7) Satio & Satio F: Option road light kit for good visibility
- 8) Satio & Satio F: Option of pre-emergence marker
- 9) Satio distribution head with 100mm tube, up to 8 shut-off valves)
- 10) Satio low level sensor
- 11) Satio calibration flap underneath the mechanical metering device close automatically by starting the fan

USER-FRIENDLY ADJUSTMENTS FOR PERFECT SOWING DEPTH

The Satio models are easily adjusted without tools to all soil conditions. This adaptability ensures efficient and convenient operation in diverse agricultural environments.

The sowing depth of the foldable models can be adjusted centrally via spacers without any tools. The value at the scale which can be changed by spacers must match with the scale value of the pointer adjusted via the top-link of the tractor to ensure an even sowing depth. In addition the Satio F and the sowing depth of the rigid Satio is 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. An optional hydraulic version on the Satio F provides flexibility and customization according to soil specific operational needs. For reduce impact on the soil, the track-width is adjustable and the integrated track-eradicator loose the tractor and seeder tracks.

The position of the mechanical metering device or ELDOS is designed for convenient and ergonomic access. This facilitating easy rest emptying and cleaning of the hopper. A protective toolbox with rotors, scale and calibration equipment is always to hand. An adjustable low level sensor can be set from the outside.

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 up. 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 customize the aggressiveness of the operation.

The coulter pressure can be easily adjusted using a crank. Optionally, on the Satio F model, hydraulic adjustment is available. No additional tools needed.



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 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.

Adjustment of seed depth

The seed depth adjustment can be controlled centrally via spacers (Satio F), by the coulters pressure and individually at each coulters by hole/pins system of the press wheel setting.

Maximum clearance

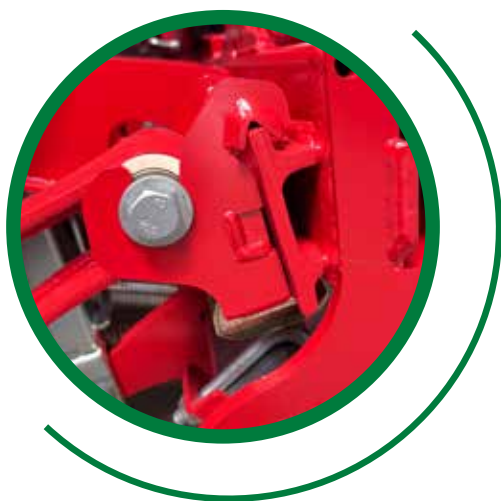
The coulters staggering of 445mm guarantees save soil flow even with higher rates of residues.

12.5 OR 25cm

row distances

CX-II COULTER

FOR PERFECT SEED PLACEMENT



The CX-II coulters, with or without press wheels, are clamped to the coulters 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 coulters 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 coulters 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. 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 coulters



With press wheel



Fixed



Flexible



Lifted

The sowing depth at the CX-II coulters can be finely adjusted with a pin, offering 15 settings on the Satio and six on the Satio F. The Satio F also includes a central depth setting for enhanced precision.

ISOBUS

EASY ADJUSTMENTS

With ISOBUS compatibility, all hydraulic settings, including the ELDOS metering device (calibration, seed rate) can be adjusted on the go using the ISOBUS terminal. The driver has a comprehensive view of all settings and can monitor them during the sowing process.

The Satio F requires one single-acting valve for the fan drive and three double-acting (DA) valves for track markers, folding, and hydraulic coulter pressure adjustments. These functions can be controlled from cab. Thanks to the ISOBUS functionality, they can be managed via the ISOBUS terminal.

Satio F functions steered with the ISOBUS terminal:

- Folding, unfolding
- Coulter pressure
- Track marker arms
- ELDOS metering device

Compatible with all ISOBUS terminals.

All connections, whether hydraulic, ISOBUS or electric, are easily accessible and clearly arranged on the headstock.



*iM FARMING - smart,
efficient, easy farming*

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.

*Improve your performance
Maximum efficiency, minimum waste*

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.



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

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.

Focus 3: e-bas system not ISOBUS compatible

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

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

Minimize downtime with remote diagnostics via ServiceCentre, enabling technicians to quickly resolve electronic issues from a distance. See how it works on YouTube.

Task Management

Enhance 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 when the implement is not connected to a tractor.

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.

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/#/>

Save seeds and money!

ORIGINAL PARTS & SERVICE

LET'S FOCUS ON YOUR BUSINESS

ORIGINAL
PARTS

- 
- 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.



REGISTER YOUR PRODUCT NOW:
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TECHNICAL DATA

Model	Satio		Satio F	
Maschine type	Satio 1030	Satio 1040	Satio 1050 F	Satio 1060 F
Frame	mounted		mounted foldable	
Working width (m)	3.0	4.0	5.0	6.0
Transport width (m)	3.0	4.0	3.0	3.0
Hopper capacity (l)	750		1,700	
Hopper extensions (l)	Ø 250		-	
Quick emptying chute	●		●	
Low level sensor	●		●	
Linkage top	CAT II / CAT III		CAT II / CAT III	
Linkage low	CAT II / CAT III N / CAT III		CAT II / CAT III N / CAT III	
Wheel type	26x12.00		26x12.00	
Metering device & Tramline system				
Drive 1000 rpm	○		○	
Drive 540 rpm	○		○	
Hydraulic fan drive	●		●	
ELDOS electric driven metering device (no.)	-		● (1)	
Radar speed sensor	-		●	
Mechanic metering device (no.)	● (1)		-	
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		1 - 400kg/ha	
Shut-off valves for tramlines	○		○	
Ø Distribution tube (mm)	100		135	
Electric half-width shut-off	-		○	
Mechanic half-width shut-off	○		-	
Pre-emergence marker	○		○	

Model	Satio		Satio F	
Maschine type	Satio 1030	Satio 1040	Satio 1050 F	Satio 1060 F
Frame	mounted		mounted foldable	
Working width (m)	3.0	4.0	5.0	6.0
Coulters & adjustments				
No. of coulters 12.5cm distance (no.)	● (24)	● (32)	● (40)	● (48)
No. of coulters 25cm distance (no.)	● (12)	● (16)	● (20)	● (24)
CX-II coulters incl. press wheel	●		●	
CX-II coulters special disc shape without press wheel	○		○	
CX-II coulters disc Ø (mm)	325		325	
Press wheel Ø (mm)	250 x 42		250 x 42	
Coulters pressure CX-II disc coulters (kg)	5 - 50		5 - 50	
Mechanics coulters pressure adjustment by crank	●		●	
Hydraulic coulters pressure adjustment	-		○	
Mechanics central seed depth setting	-		●	
Others				
S-tine following harrow (10mm)	○		○	
Track eradicator	●		●	
Calibration kit	●		●	
Toolbox	○		●	
Hydr. folding track marker with notched disc	○		○	
Loading step / Platform	●		●	
LED working lights	-		○	
Road light kit	○		○	
Oil charge hydr. fan 4400 U/min (l/min)	30		30	
Sync	-		●	
Min. power requirement (HP/kW)	73/54	98/72	122/90	146/108
Weight (kg)	780 - 1260	880 - 1450	1370 - 2160	1450 - 2350

● Standard equipment ○ Option - Not available

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