# velox

SOLA

HIGH-PERFORMANCE PRECISION PLANTERS


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# The new generation of high-performance precision planters

At SOLÀ, we are fully aware of the growing pressure farmers face in their daily work. The challenges posed by climate change, rising input costs, labour shortages and increasingly stringent environmental regulations make it essential to have tools that enable these difficulties to be overcome, while preserving soil fertility for future generations.

The SOLÀ team shares a common commitment: to support farmers by offering advanced, high-quality solutions backed by decades of experience in the design and manufacture of sowing and planting machinery. This commitment has resulted in the VELOX high-performance precision planter, an innovative piece of equipment with multiple functions and a wide range of configurations that enable higher levels of productivity and profitability.

VELOX has been designed to maximise the potential of each sowing, offering **greater working speed** , **constant depth** and optimal contact between the seed and the soil. Its precision in singulation and spacing ensures rapid and uniform germination of the plants.

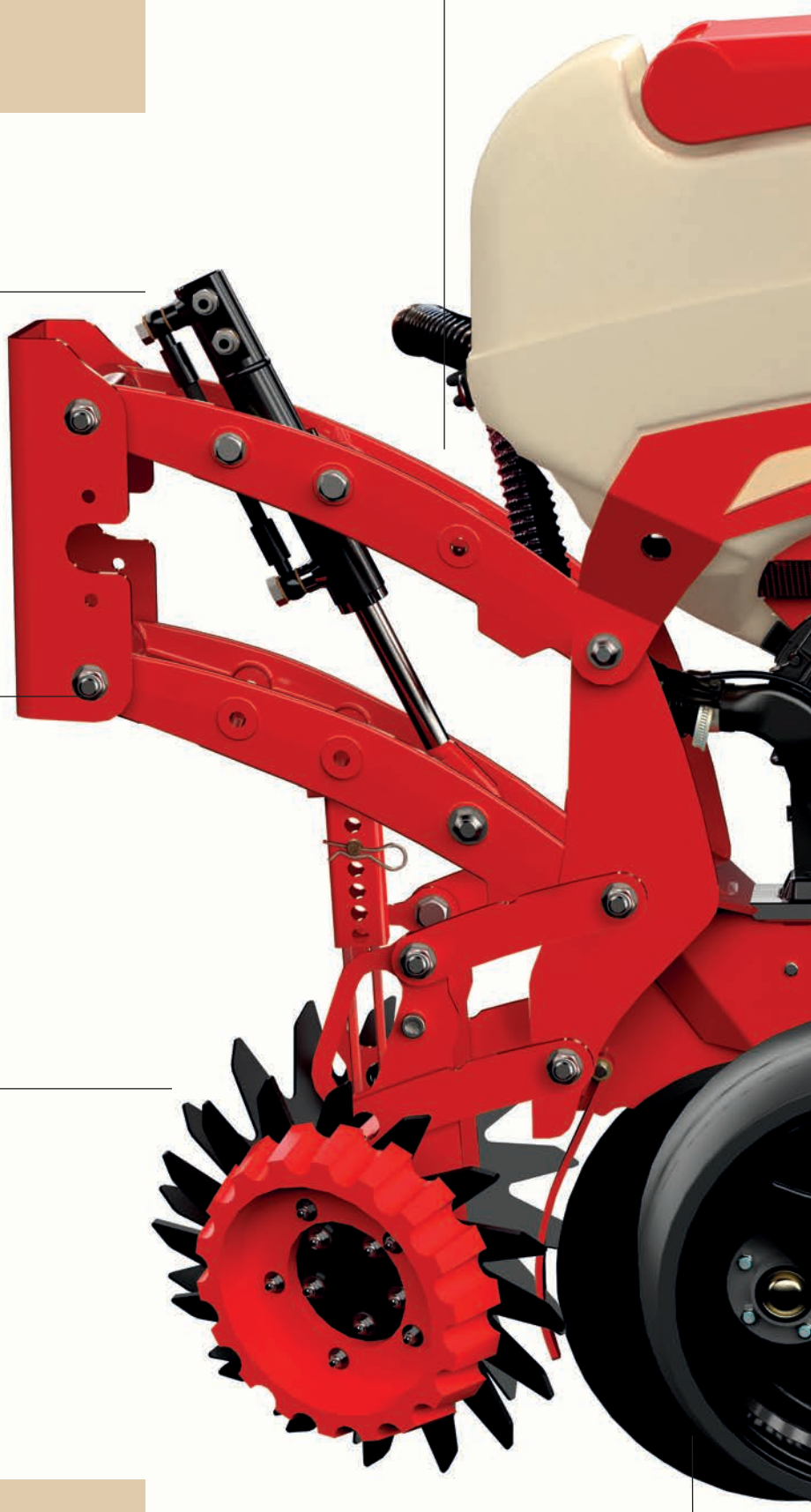
# An advanced seeding row unit

High-strength steel parallelograms for greater reliability and durability.

Hydraulics row unit down force system with up to 350 kg per row.

Long-lasting, maintenance-free parallelogram bushings.

Residue row cleaners sweep up floating debris with optional side wheels.



Double 15" opening disc with 9° angle.

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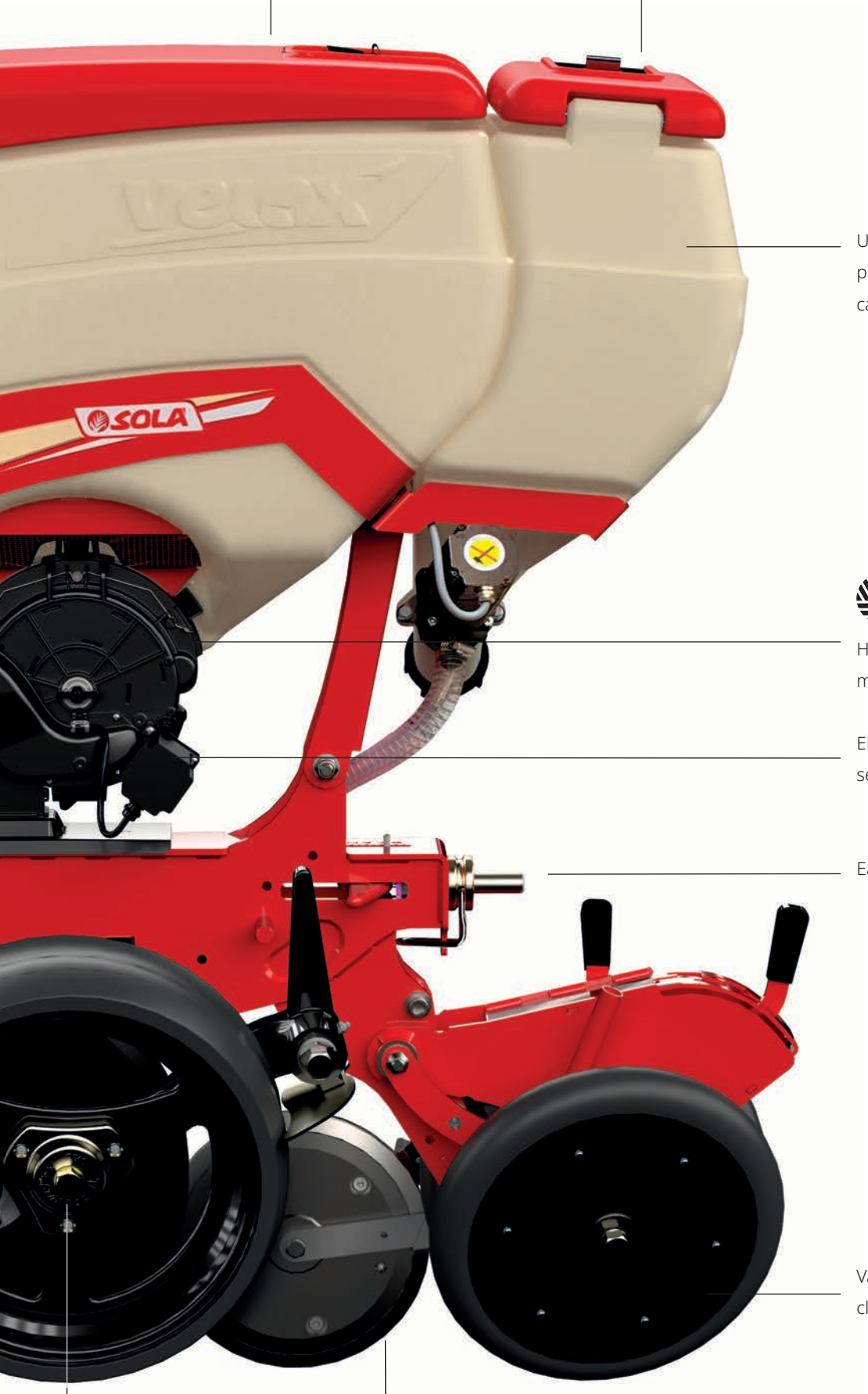
Large capacity hoppers of 70 litres.

Airtight lids with closing.




Up to two optional microgranular product hoppers, each with a capacity of 20 litres.

POWERED BY Precision Planting®

High-precision metering unit.

Electric drive system for the seeds metering unit (ELEKTRA).

Easy depth adjustment.

Various types of closing wheels.

Bearings with triple lip protection.

Optional seed press wheel for uniform contact between the seed and the soil.

# Optimal seed placement

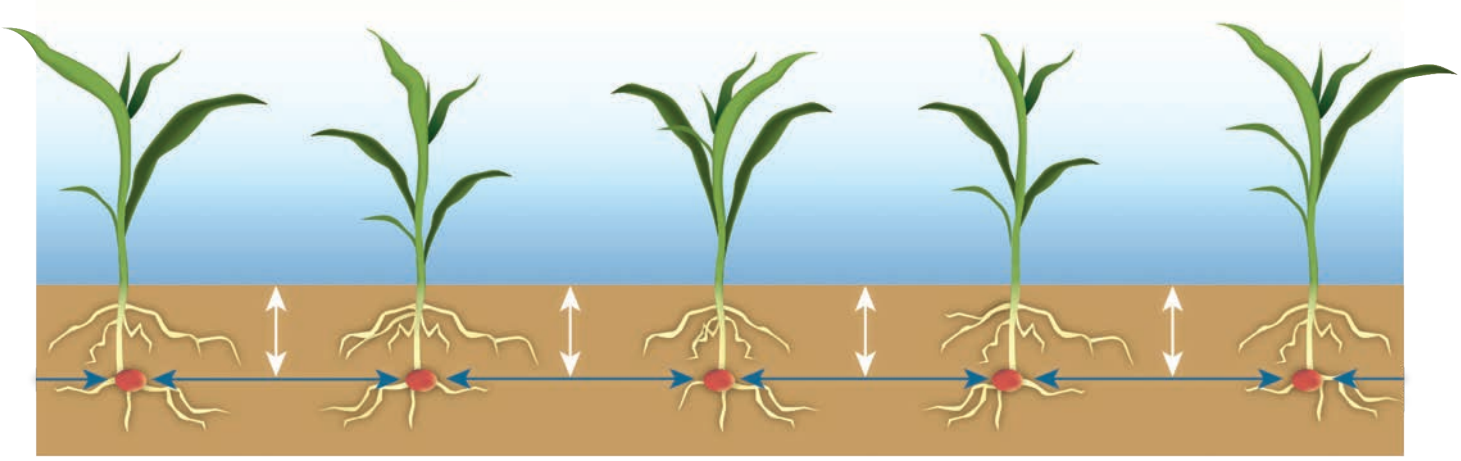
## Hydraulic pressure system

Numerous studies have shown that, among all factors, **uniform** seedgermination has the greatest influence on crop yield potential. Plants that emerge later than the rest have limited access to light and nutrients throughout the season, significantly reducing their yield compared to those that germinate earlier.

Depending on the degree of variability, potential yield losses in maize can range from 5% to 22%. Among the main causes affecting uniform emergence are irregular seeding depth and the presence of residues in the furrow. Preventing this residue from entering the furrow and maintaining a constant seeding depth are key factors in achieving uniform germination and, therefore, better yield. At high working speeds or on uneven and compacted soils, conventional pressure systems on the seeding row units may not effectively compensate for vibrations and bouncing, causing variations in seed depth and spacing, with a direct and negative impact on production potential.

In contrast, on the VELOX, the downward force of each seeding row unit is kept constant thanks to a hydraulic cylinder that ensures the same pressure on all rows, preserving the set seeding depth.

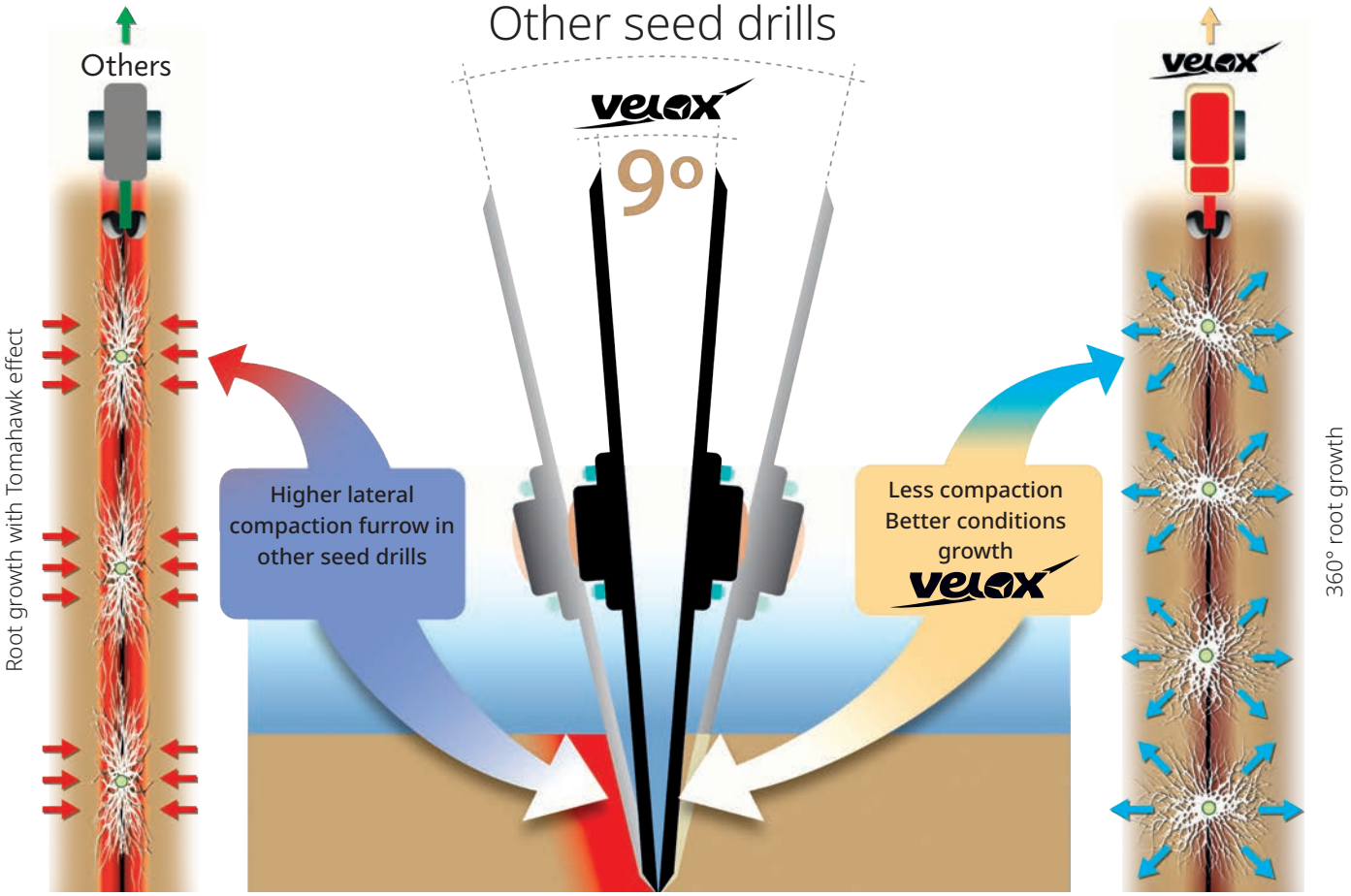
An innovative hydraulic regulation system allows for quick and precise pressure adjustment, reaching up to 350 **kg of** downward **pressure** per row in combination with the exclusive adaptive weight transfer (AWT) system, eliminating the need to add additional weights to the single-seed drill.add additional weights to the precision planter.



# Precision without complications

One of the main features of the VELOX is its seed release system, which uses the centrifugal force generated by the rotation of the sowing disc to project the seed accurately and quickly into the furrow, without additional assistance. Thanks to this principle, the VELOX does not require complex mechanisms that make the machine more expensive, difficult to maintain and offer no real return to the farmer.

| VELOX | OTHER SEED DRILLS |
|---|---|
| ✓ CENTRIFUGAL FORCE | ✗ PRESSURISED AIR<br>✗ ASSISTANCE BRUSHES<br>✗ ACTIVE DUCTS<br>✗ PUSH MECHANISMS |




# Double disc opener design

Our unique double disc furrow opener design has an angle of only 9° between the discs. This reduced penetration angle decreases power requirements, fuel consumption and downward force on the seeding row unit, while minimising compaction of the furrow side walls and promoting better seedbed formation.

Field trials and experience in different soil types, climatic conditions and tillage systems have shown that this design improves seed germination and emergence uniformity, resulting in consistently higher yields year after year.

The opening angle, combined with hydraulic control of the row unit down force, ensures uniform seeding depth and provides the ideal environment for each seed to develop, thus ensuring optimal and consistent results.

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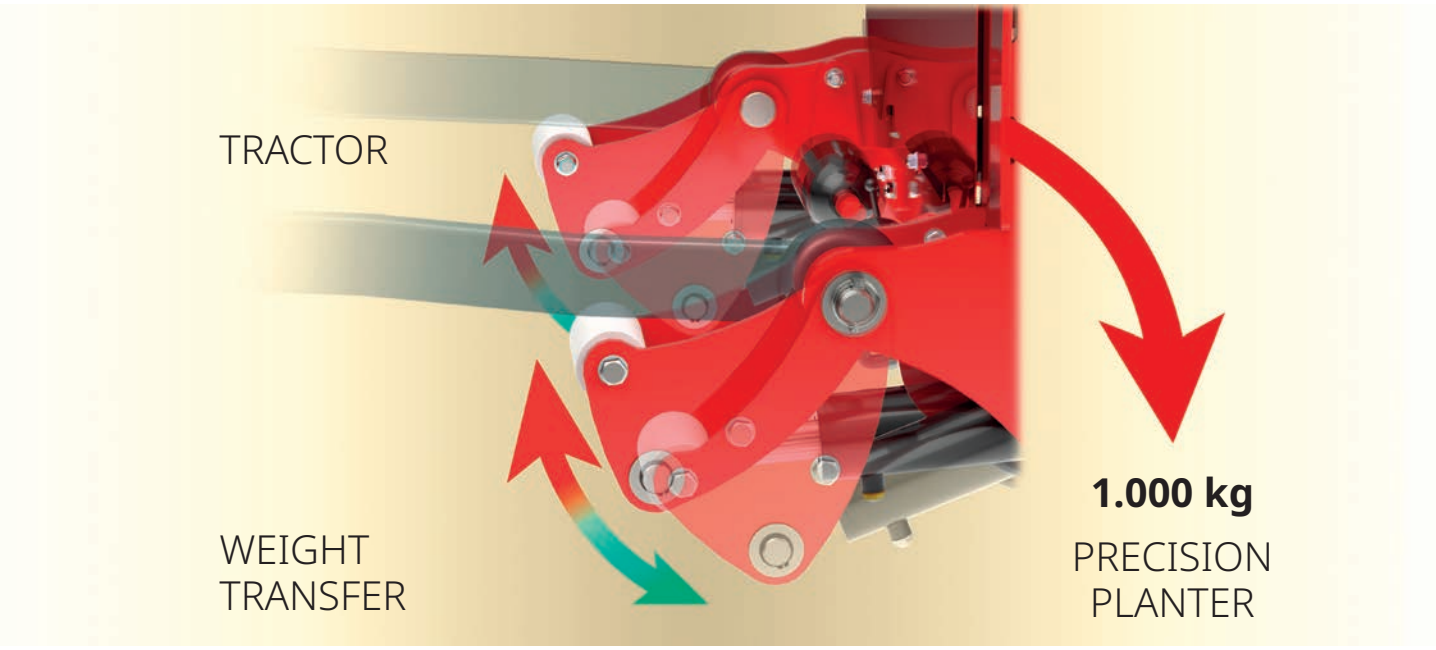
# Greater pressure with less weight




## Adaptive weight transfer (AWT)

The demanding terrain conditions, non till on stubble, high working speeds and heavy attachments on precision planters require greater downward force to keep the furrow openers in constant contact with the ground. This usually means increasing the total weight of the machine to ensure uniform seeding depth. However, increasing weight leads to higher fuel consumption, more complex design, and higher operating and maintenance costs.

At SOLÀ, we have developed the Adaptive Weight Transfer (AWT) system, specifically designed for precision planters equipped with a 3-point coupling. This system ensures **a constant seeding depth,** independent of working speed or soil conditions, without the need for additional counterweights. It is a pioneering system on the market, which automatically adjusts the desired pressure on the seeding row units and proportionally transfers the necessary weight from the tractor.

When the system is active, the hydraulic cylinders, by means of an ingenious cam mechanism, can transfer **up to 1,000 kg** of the tractor's weight to the frame of the precision planter, thus maintaining optimum downward force at all times.

The system operates fully automatically, applying just the right amount of pressure to the machine without causing excessive soil compaction or increasing power demand. In addition, for greater flexibility and control, the system can be easily deactivated when not needed.

# Excellent seed singulation

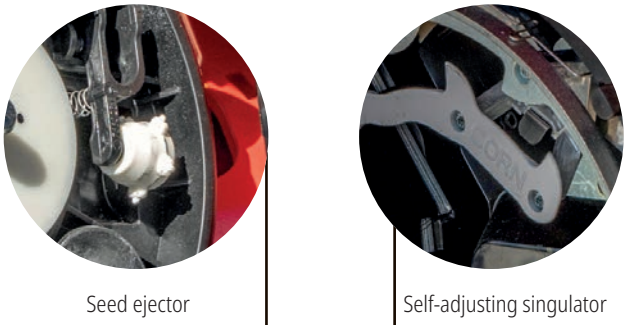
POWERED BY Precision Planting®

## Seed distribution

The quality of seed sowing directly influences the final crop yield. Each double seed can reduce the productive potential of the affected plants by between 40% and 80%, while each omission represents a potential yield loss of up to 100%. Therefore, each percentage point of improvement in singulation can translate into a 1% or greater increase in total yield.

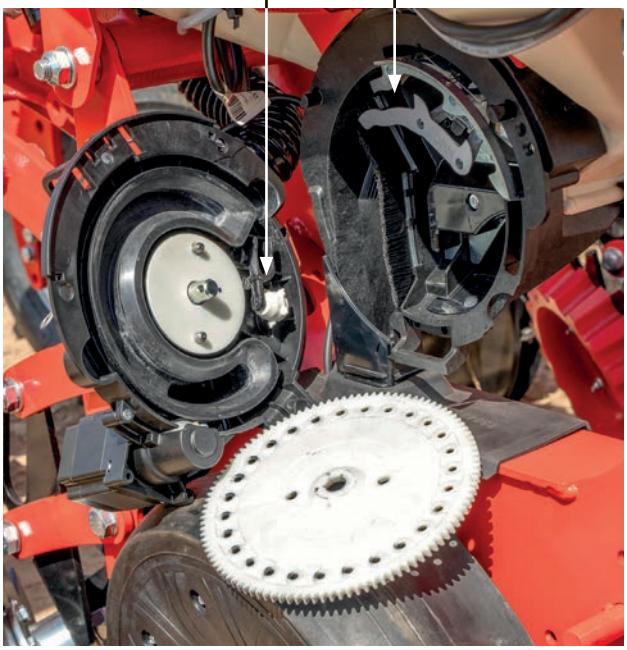
With the new Precision Planting metering unit, one of the most popular and versatile systems on the market, it is possible to achieve a **dosing**accuracy **of up to 99%.** This metering unit has demonstrated exceptional performance and reliability when sowing a wide variety of crops and seed sizes, including maize, sunflower, soybean, chickpea, rapeseed, beetroot, cereals, and others. In addition, maintenance is simple, as the seed separator requires no adjustments and incorporates an ejector wheel that cleans the disc holes to prevent dosing errors.

The VELOX precision planter is equipped with ELEKTRA, a control and monitoring system that is fully compatible **with ISOBUS** and complies with the latest standards in precision agriculture 4.0. The seed metering units are driven by stepper motors, capable of offering a wide range of working speeds with high torque even at low revs and rapid acceleration, ensuring accurate and uniform seed distribution across the field, especially after stops and at the headlands.



Seed ejector

Self-adjusting singulator



# Versatility with large capacity

## Hopper system

The seeding row units are equipped as standard with large 70-litre seed hoppers, which provide great working autonomy. They have an airtight closing that prevents moisture from entering and protects the contents, with easy-to-use safety mechanisms that prevent accidental opening during work or transport. In addition, the numbered rows facilitate both refilling and maintenance tasks.

Each row unit can incorporate up to two additional 20-litre hoppers for microgranular fertiliser and/or insecticide. The ISOBUS electric motors that drive these hoppers offer integrated control and monitoring via the universal ISOBUS terminal, allowing section control to be managed and independent adjustments to be made for each row, increasing application precision and reducing over-applicationthe ISOBUS universal terminal, allowing section control management and independent row-by-row adjustments, increasing application precision, reducing chemical consumption and contributing to greater respect for the environment.

A single universal metering auger allows a wide range of application flow rates to be achieved, reducing operator exposure to chemicals. To facilitate complete emptying of the hoppers, the drain plugs are strategically located below the metering units.

Furthermore, to obtain maximum effectiveness of the applied product, it is possible to select up to three different application points: on the surface behind the closing wheels, in the furrow between the furrow openers or before the closing wheels, depending on the type of product and working conditions.


Up to two hoppers with a capacity of 20 litres each for microgranular fertiliser and/or insecticide.

Large 70L capacity hopper with airtight closing and safety mechanism.

# Effective fertilisation solutions

## Fertiliser accessories

With VELOX, you can choose between an optional 1,400-litre fertiliser hopper integrated into the precision planter or a 2,000-litre AURA front hopper installed at the front of the tractor. Both are designed to maintain a continuous flow, reducing refills and increasing operational efficiency. To ensure uniform product metering, both hoppers are pressurized with air, with sealed lids and large openings that make cargo loading much easier.

The hopper installed on the precision planter incorporates two high-capacity metering units driven by ISOBUS-controlled electric motors, capable of delivering up to 400 kg/ha at 16 km/h on a 8-row planter with 75 cm between rows. Its flow delivery system ensures uniform distribution of fertiliser across all rows, without the risk of blockages.

The AURA front hopper is a state-of-the-art solution, compatible not only with VELOX, but also with other implements such as seed drills or cultivators, making it a versatile option for applying seeds, fertilisers or micronutrients. Depending on the work requirements, it can be equipped with one or two electric metering units, controllable via isobus or via an independent monitor.

The single-disc fertiliser arms feature a 16" diameter cutting disc, depth control wheel and heavy-duty pressure springs, suitable for working in demanding conditions at depths of 4 to 10 cm. The durability of the bearings is guaranteed by triple seal protection, while the furrow openers, made of wear-resistant cast steel, offer a long service life.

The 15" double disc furrow openers stand out for their simple depth adjustment between 3 and 9 cm, without the need for tools. These are installed directly on the frame together with the seeding row units, allowing the rows spacing to be quickly modified according to the needs of the crop.

Single-disc fertiliser spreader

Double disc fertilizer disc spreader

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# Versatility in a single seeding row unit

The VELOX precision planter is a truly versatile solution, capable of adapting to any type of crop, soil condition or tillage system. Its wide variety of configurations and options ensures you always have the right tools for every task.

CONVENTIONAL SOWING

CONVENTIONAL SOWING
OR MINIMUM TILLAGE

NON TILL

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# Solutions 4.0

SOLÀ's ELEKTRA system, integrated into ISOBUS, controls, monitors and records the main sowing parameters and meets all the requirements of Agriculture 4.0. Ease of configuration, precise application of seeds and fertilisers, the ability to work with prescription maps and accurate recording of application data help to reduce input costs, improve yields and enhance supply chain traceability.

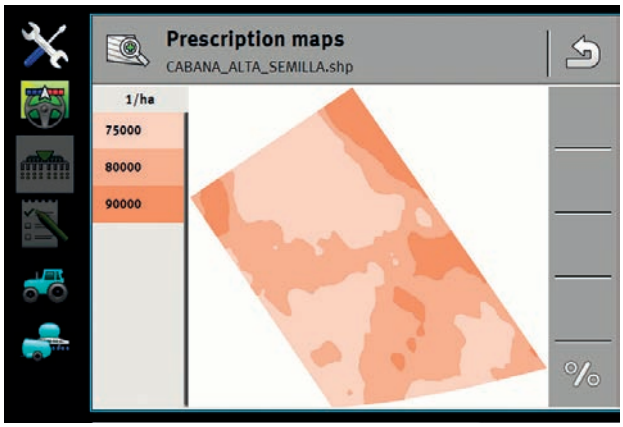
## Universal terminals

The TOUCH800 universal terminal complies with the isobus ISO 11783 standard and offers all the basic functions required for working with isobus machines. Its 8" monitor has a colour touch screen.

The 12" TOUCH1200 monitor is unbeatable in terms of flexibility, versatility and ease of operation. Its durability is guaranteed by the additional protection of the touch film under the glass, making it ideal for everyday use. TOUCH1200 can be used in a vertical or horizontal position and is capable of simultaneously displaying up to five functions in a series of customised designs and user interfaces, demonstrating its true versatility. All terminals can have several applications pre-installed to suit the practical needs of the farmer.

**SC -** The Section Control function automatically deactivates individual rows in the area of the field that has already been sown and activates them one by one in the area that has not yet been sown. This precise and effective control ensures that seeds and microgranular products are applied only where necessary, saving a considerable amount of inputs and avoiding yield losses due to overpopulation. This section control system benefits farmers by improving yields, reducing input costs, increasing productivity and optimising sowing patterns.

**TC -** The Task Controller function synchronises data exchange between the ISOBUS-compatible implement and your computer, enabling data transfer in both directions. The TC function allows precise coordination of sowing operations, streamlining the management of complex farm tasks.


VRA (Variable Rate Application) - The variable rate application tool with optional Multi Control allows you to use prescription maps for the application of seeds and fertilisers by zone, ensuring that each part of the field receives the correct amount of inputs necessary for optimal crop growth, resulting in higher yields and reduced costs.

**TL -** Track Leader, when connected to a DGPS receiver, this application allows you to drive along parallel rows, headlands or in contour mode, as well as in poor visibility conditions without the need for row markers. Obstacles can be marked and saved along with field boundaries and guidance rows. When a job is interrupted, it can be saved and restored at any time.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HIGH-PERFORMANCE
PRECISION PLANTER

**MAGDA-VELOX** are high-performance trailed precision planters, designed to work at high speed without compromising precision. With a working width of **12 metres** and a reduced transport width of only **3 metres**, they offer maximum productivity in the field together with excellent manoeuvrability on the road or in narrow areas.

Available in configurations of 16 row units at 70/75 cm and 24 row units at 50 cm, they provide a working capacity far superior to that of conventional seed drills. These models set a new standard in high-capacity sowing, combining exceptional operational efficiency with the most advanced technology on the market.

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# MAGDA

HIGH-PERFORMANCE PRECISION PLANTER

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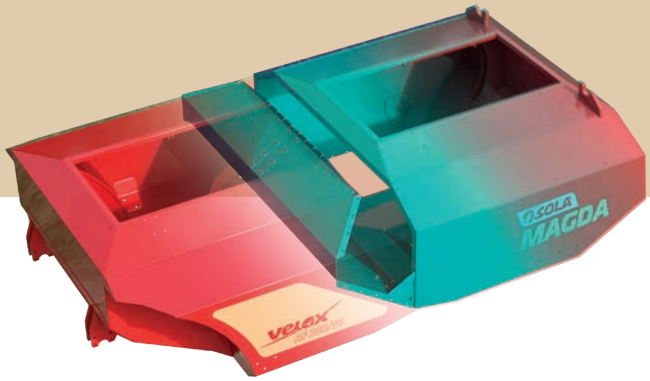
## Centralised Seed System (CSS)

MAGDA seed drills are available in two different configurations, both equipped with a large 8,000-litre hopper, with its capacity adjustable to the requirements of each job.

In the first version, the hopper is used entirely for fertiliser, which is dispensed by a high-precision system capable of applying up to 350 kg/ha at a speed of 15 km/h. In this case, the seed is supplied from each of the individual 70-litre hoppers fitted to the seeding row units.

The second version divides the main hopper into 60% for fertiliser and 40% for seed. With this configuration, the seeding row units adopt the CSS system, which does not require individual hoppers on the row units, as the seed is distributed directly from the central hopper.

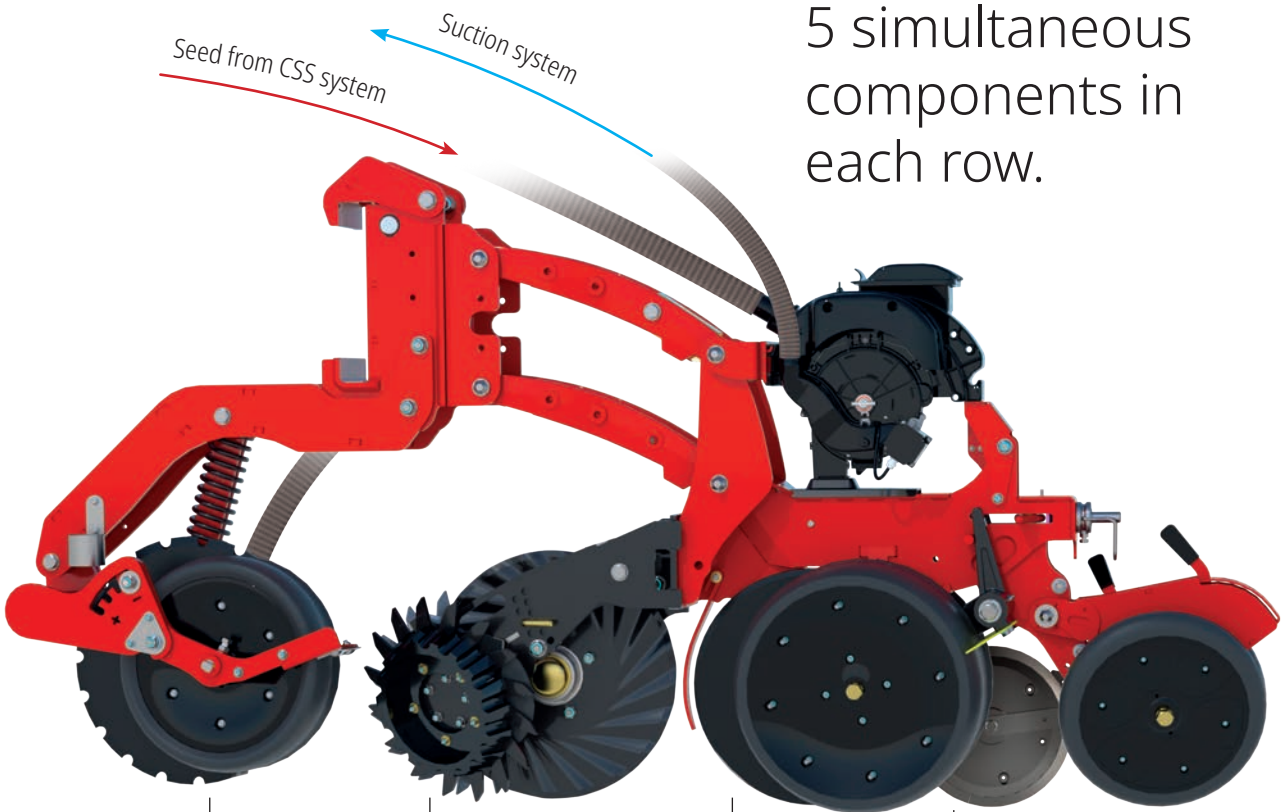

VELOX row unit

A Single-volume configuration of 8,000 litres for fertiliser and 70-litre hoppers for seed in each seeding row unit

Velox CSS row unit

B Two-compartment configuration: 4,800 litres for fertiliser and 3,200 litres for seed

# 5 simultaneous components in each row.




1 Fertilisation module consisting of a single-disc applicator and depth control wheels. (Optional)

2 Non Till Module consisting of a turbo disc and residue row cleaners. (Optional)

3 Sowing discs that ensure the seed is placed precisely in the seedbed.

4 Seed press wheel that eliminates air bags and ensures firm contact between the seed and the soil.

5 Closing wheels that close the furrow, creating ideal conditions for germination.

## Superior precision

MAGDA-VELOX represents a new generation of high-performance precision planters, designed to offer exceptional precision even at working speeds twice as high as those of a conventional precision planter. Their outstanding performance is maintained in all types of conditions, whether in non till, minimum till or traditional tillage, ensuring uniform emergence and optimal crop establishment.

They are the only machines on the market capable of simultaneously equipping a fertilisation system with a single disc, turbo blade and residue row cleaners, allowing complete preparation of the sowing row in a single pass. This unique configuration optimises working time, resource use and agronomic efficiency, consolidating the MAGDA-VELOX as a benchmark in high-capacity, precision sowing.


# Field strength, agility in transport.

Despite its high working capacity in the field, the MAGDA-VELOX stands out for its ease of transport and manoeuvrability. Its design allows the machine to be folded to a width of just 3 metres, facilitating road travel and access to plots with narrow entrances. This design combines high operational performance with maximum logistical convenience, allowing for quick transitions between plots without the need for additional equipment.

It is available in two wheel configurations, designed to offer low soil compaction and excellent manoeuvrability on all types of terrain. The 520/85R38 wheel version provides a large support surface, reducing pressure on the ground and minimising compaction, making it ideal for demanding conditions where maximum stability and traction are required without disturbing the soil structure. The twin wheel version further improves weight distribution, offering a wider and more uniform footprint, which is particularly advantageous on soft or wet terrain, where the aim is to avoid sinking and maintain excellent flotation.

Both configurations ensure that MAGDA-VELOX works with agility, precision and respect for the soil, even on plots with difficult access or variable conditions.

MAGDA-VELOX also incorporates an adjustable **telescopic wheel**axle , which allows the position of the wheels to be adapted to the distance between rows. This adjustment can be made directly from the tractor cab, so that the wheels run between the sowing rows without interfering with the crop. At the same time, the system allows the overall width to be reduced to 3 metres for transport, combining efficiency in the field with simple and safe transport logistics.



Configuration with 520/85R38 wheels and telescopic axle for transport at 3 m.


Configuration with twin wheels and telescopic axle for transport up to 3 metres.

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| MODELS | TV 300/6 | TV 300/6 | TV 300/7 | TV 300/7 S | TV 300/8 | TV 330/8 | TV 300/9 |
|---|---|---|---|---|---|---|---|
| Frame type | Telescopic | | | | Telescopic, double | | |
| Number of rows | 6 | 6 | 7 | 7 | 8 | 8 | 9 |
| Row unit type | VELOX | | | | | | |
| Distance adjustment between the rows | Hydraulic, with 5 cm increments | | | | | | |
| Working width | From 270 to 450 cm | From 300 to 480 cm | 7F from 315 to 420 cm<br>6F from 420 to 480 cm | From 350 to 560 cm | From 320 to 600 cm | From 360 to 640 cm | 9F from 360 to 495 cm<br>6F from 585 to 675 cm |
| Transport width | 3 m | | | | | 3.3 m | 3 m |
| Rows spacing | 45–75 cm | 50–80 cm | 7 rows 45-60 cm<br>6 rows 70-80cm | 50–80 cm | 40–75 cm | 45–80 cm | 9 rows 40-55cm<br>8 rows 65–75 cm |
| Seed metering unit | Vacuum metering unit with drive by electric motor | | | | | | |
| Seed hoppers | 70L each, with moisture-proof lids and closings | | | | | | |
| Row unit down force | Hydraulic cylinders in each row, up to 350 kg of pressure / Springs with 6 settings, up to 250 kg of pressure | | | | | | |
| Weight transfer system | Hydraulic with proportional weight transfer, up to 1000 kg of additional cargo on the frame | | | | | | |
| Furrow closing system | Two angle-adjustable closing wheels and 6 pressure settings up to 53 kg | | | | | | |
| Fertiliser system | Large capacity system with the option of a front hopper or a precision planter | | | | | | |
| Hopper installed on the precision planter | 1400L, air-pressurized hopper | | | | | | |
| Front hopper | Aura, 2000L air-pressurized hopper | | | | | | |
| Metering unit of fertilisers | Modular volumetric metering units, electrical drive ISOBUS | | | | | | |
| Fertiliser distribution | Air flow, hydraulically driven turbine | | | | | | |
| Fertiliser turners | Simple 16" opening disc or double 15" opening disc | | | | | | |
| Application of microgranular | Up to 2 hoppers per row, 20L each, ISOBUS electric drives, with 3 different application points | | | | | | |
| Residue row cleaners | Floating design with easy height adjustment, 350 mm residue row cleaners with optional 255x45 mm side wheels | | | | | | |
| Turbo discs + Residue row cleaners | Includes a single 16" disc with 4 depth settings and residue row cleaners | | | | | | |
| Hydraulic row markers | Optional extras | | | | | | |
| Required tractor power | ≥ 120 hp | | ≥ 130 hp | ≥ 140 hp | ≥ 160 hp | | |
| Tractor hydraulics requirements | Requires a "shut off center" hydraulic system, maximum flow rate of 40 l/min (70 l/min with fertiliser system) | | | | | | |
| Number of outputs hydraulics | 1 double-acting - folding frame (standard) | | | | | | |
| | 1 simple-stage - vacuum turbine (standard) | | | | | | |
| | 1 simple effect - fertiliser turbine (optional) | | | | | | |
| | 1 double-acting - row markers (optional) | | | | | | |
| | 1 - Free return row (standard) | | | | | | |

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LARGE HIGH-PERFORMANCE SEED DRILL

| MODELS | TV 330/9 | PF 300/8 | PF 300/9 | PV 300/12 | AF 300/16 | AF 300/24 |
|---|---|---|---|---|---|---|
| Frame type | Telescopic, double | Foldable | | | | |
| Number of rows | 9 | 8 | 9 | 12 | 16 | 24 |
| Row unit type | VELOX | | | | To: velox<br>B: velox CSS | Velox CSS |
| Distance adjustment between the rows | Hydraulic, with 5 cm increments | Manual | | Manual, continuous | Fix | |
| Working width | 9F from 360 to 540 cm<br>8F from 560 to 640 cm | From 560 to 640 cm | From 540 to 585 cm | 12F from 540 to 600 cm<br>9F 780 cm<br>8F from 840 to 960 cm | From 1120 to 1200 cm | 1200 cm |
| Transport width | 3.3 m | 3 m | | | | |
| Rows spacing | 9 rows 40-60 cm<br>8 rows 70-80cm | 70–80 cm | 60–65 cm | 12 rows 45-50cm<br>9 rows 65 cm<br>8 rows 70-80cm | 70cm<br>75cm | 50cm |
| Seed metering unit | Vacuum metering unit with drive by electric motor | | | | | |
| Seed hoppers | 9X70 L | 8X70 L | 9X70 L | 12X70 L | CONFIG. A: 16x70 L<br>CONFIG. B: 1x3,200 L | 1x3,200 L CSS |
| Row unit down force | Hydraulic cylinders in each row, up to 350 kg of pressure / Springs with 6 settings, up to 250 kg of pressure | | | | Hydraulic cylinders in each row, up to 350 kg of pressure | |
| Weight transfer system | Hydraulic with proportional weight transfer, up to 1000 kg of additional cargo on the frame | | | | - | |
| Furrow closing system | Two angle-adjustable closing wheels and 6 pressure settings up to 53 kg | | | | | |
| Fertiliser system | Large capacity system with the option of a front hopper or a precision planter | | | | High-capacity system in the precision planter | |
| Hopper installed on the precision planter | 1400 L Air-pressurized hopper | - | | | A: 8000 L<br>B: 4800 L | B: 4800 L |
| Front hopper | Aura, 2000L air-pressurized hopper | | | | - | |
| Metering unit of fertilisers | Modular volumetric metering units, electrical drive ISOBUS | | | | | |
| Fertiliser distribution | Air flow, hydraulically driven turbine | | | | | |
| Fertiliser turners | Simple 16" opening disc or double 15" opening disc | | | | 16" simple opener disc | |
| Application of microgranular | Up to 2 hoppers per row, 20L each, ISOBUS electric drives, with 3 different application points | | | | - | |
| Residue row cleaners | Floating design with easy height adjustment, 350 mm residue row cleaners with optional 255x45 mm side wheels | | | | | |
| Turbo discs + Residue row cleaners | Includes a single 16" disc with 4 depth settings and residue row cleaners | | | | | |
| Hydraulic row markers | Optional extras | | | | - | |
| Required tractor power | ≥ 160 hp | ≥ 160 hp | ≥ 180 hp | ≥ 180 hp | ≥275 | |
| Tractor hydraulics requirements | Requires a "shut off center" hydraulic system, maximum flow rate of 40 l/min (70 l/min with fertiliser system) | | | | Requires hydraulics with a 'shut off center' system, maximum flow rate of 180 l/min | |
| Number of outputs hydraulics | 1 double-acting - folding frame (standard) | | | | 2 double-acting frame | |
| | 1 double-acting vacuum turbine (standard) | | | | 1 simple effect - Vacuum turbines | |
| | 1 double-acting - fertilizer turbine (optional) | | | | 1 simple effect - fertiliser turbine | |
| | 1 double-acting - row markers (optional) | | | | | |
| | 1 - Free return row (standard) | | | | 2 - free return arows | |

# VELOX

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*Access to VELOX website*

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