Maestro SV L / SX L





PRECISE SINGLE GRAIN SEED DRILL WITH LIQUID FERTILISER APPLICATION



Maestro SV L / SX L

NEW STANDARDS FOR SINGLE GRAIN SEED DRILLS

- Versatile single grain seed drill for: maize, sunflowers, sugar beet, sorghum, rapeseed, soybeans and other bean species
- Rugged and reliable technology heavy parallelogram and row unit for highest demands
- Coulter pressures up to 350 kg for optimal sowing even in most difficult conditions or automatic soil-dependent coulter pressure adjustment AutoForce
- High work rate due to high capacities for fertiliser and seed with large central hoppers for fertiliser, micro-granular compound and seed with the central row supply Main Tank Supply (MTS)
- Unique machine design for short set-up times between road transport and field



The Maestro SV L/SX L is based on the well-proven machine concept of the Maestro SV/SX. This seed wagon has been used very successfully all over the world since 2012 with the machine model Maestro SW . The Maestro SV L/SX L is the 2nd generation of the most successful HORSCH single grain seed drill and due to the liquid fertiliser equipment and metering systems AirVac and AirSpeed offers new possibilities.

The seed supply of the 24 or 36 rows is carried out centrally from the large seed hopper with a capacity of 5 000 l. There is a large 3 900 l hopper on the seed wagon for liquid fertiliser application. Due to the single-stage centrifugal pump with a capacity of up to 350 l/min, about 20 to 100 l/ha of liquid fertiliser can be applied with an operational speed of up to 15 km/h. The fertiliser can either be applied with the grains into the seed furrow shortly in front of the drop tube or directly behind the catching roller into the still open seed furrow.

In the working width segment from 9 to 12 m, there is a seed wagon with a capacity of 2 900 l resp. for seed and liquid fertiliser. This machine is currently available as Maestro 16 SV L/SX L and as Maestro 18 SV L.

For an optimum contact to the young, developing plant, liquid fertiliser is applied into the seed furrow directly at the grain. As an option, the liquid fertiliser can also be applied behind the catching roller into the seed furrow. This might be required in wet or sticky conditions to ensure that the grain is embedded optimally by the catching roller.





3 900 l fertiliser, 5 000 l seed

Weight transfer from the seed wagon to the seed bar for a high coulter pressure of up to 350 \mbox{kg}

Main Tank Supply System

A CENTRAL HOPPER FOR SEED AND FERTILISER



MTS hopper with a capacity of 800 l

The HORSCH Main Tank Supply system, in short MTS system, is the central seed and fertiliser supply of the rows from a central hopper. The fertiliser is metered pneumatically via the distribution towers to the rows. The seed is transported by means of special MTS tubes to the row unit and then each single grain is metered with AirVac or AirSpeed. This facilitates and speeds up the MTS system for filling hoppers and irregular filling levels at the rows when using SectionControl and tramline control are prevented.

- Quick and easy filling of the hoppers with e.g. BigBags/ telehandler
- No physical stress when filling the machine
- Increase of the daily output due to short filling times
- No irregular seed filling levels at the row due to SectionControl or tramline control



MTS distribution box



Main Tank Supply System

Row unit

DURABLE - RELIABLE - SOLID



Robust Maestro row unit

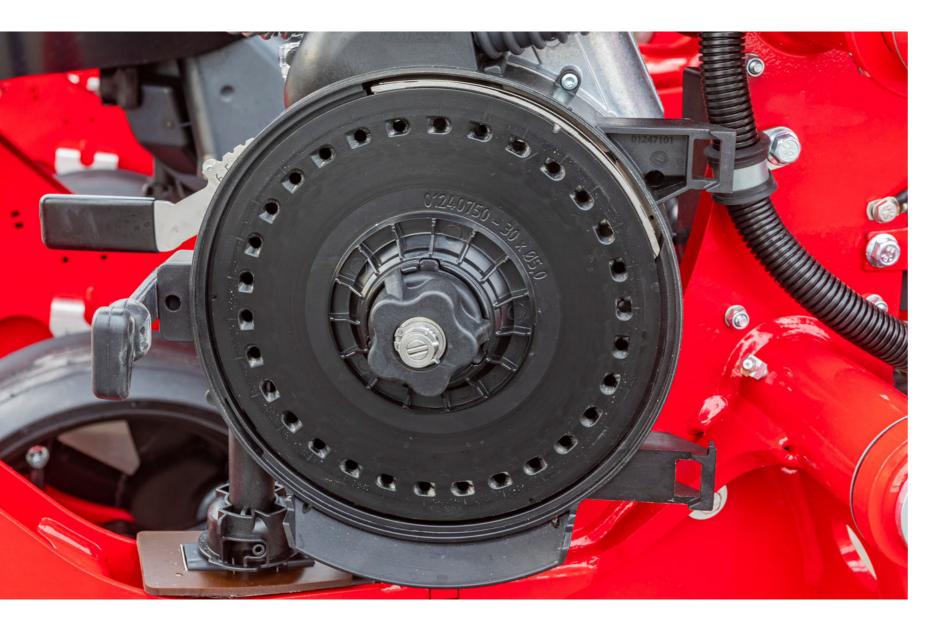
The Maestro row units mainly excel due to a long service life and a very stable design. With 35 cm the parallelogram is very wide so that especially laterally acting forces can be absorbed better. The maintenance-free bushes in the parallelogram are very large to guarantee a long service life. The row units can move by just under 40 cm to compensate for unevenness in the field. They are either clamped to the frame of the Maestros with a clamping device or for larger machine models are fixed. The coulter pressure is generated in the parallelogram of the row unit with a hydraulic cylinder. Coulter pressures up to 350 kg per row can be selected. The empty weight of the machine is used and transferred to the row unit.

The basic body of the row unit is heavy duty. The depth control system is equipped with large wear points to avoid having to comprise. The seed discs of the double disc coulter are equipped with reliable 2-row angular ball bearings. Depth control is carried out via a pin and 14 available positions. You can sow at depth from 1.5 to 9 cm. A catching roller to catch and press the grains is mounted as standard. The seed furrow is closed and consolidated by a V-shaped pair of closing wheels. In front of the disc blades, different front tools can be mounted on a standardised flange plate, e.g. trash wheels stars or a cutting disc.

- Hydraulic coulter pressure up to 350 kg
- Various front tools
- Closing wheel options for all soils
- Durable and low-wear design

AirVac and AirSpeed

VERSATILE - PRECISE - EFFICIENT



Basically, the new metering unit generations AirVac and AirSpeed are very similar and work according to the same metering principle. They can be used universally for a very precise grain singulation for a lot of crops. With different metering discs maize, sunflowers, sugar beet, soyabeans and other bean crops as well as rape and sorghum are singulated reliably.

The AirSpeed system works according to the overpressure principle where the grains are pressed to the perforated disc. The AirSpeed system works according to the overpressure principle where the grains are pressed to the perforated disc. In both metering devices, the grains run through a singulator which sees to it that double seed is avoided. The characteristic of this special component is that it does not have to be replaced when changing crops and that the driver does not have to carry out any adjustments. The contour of the singulator was optimised in such a way that a reliable singulation for all crops is guaranteed.

The basic difference of the two new metering unit generations is the transfer of the seed from the metering unit into the soil: after the singulation, the AirVac system leads the seed to the bottom of the furrow via a drop tube and the seed is pressed down by the catching roller if necessary. With the AirSpeed system the singulated grains are captured by an air current, accelerated and shot with the air current through the shoot pipe into the soil. They are caught and embedded by the mounted catching roller.

In both metering devices the grains pass a grain sensor in the drop – shoot tube for an optimum monitoring of the sowing success. The measuring technology of the sensor is able to count the grains, to determine the spacings between the grains and thus to transmit an information to the driver with regard to double spots or gaps.

Advantages at a glance:

- Can be used universally for different crops
- Easy to use: no adjustment of the separator required
- Reliable singulation of different grain sizes
- Electric drive as a basis for: SectionControl, VariableRate, tramline control

AirVac:

- Operational speeds up to 12 km/h
- Utmost flexibility for all crops and optimum embedding of the grain

AirSpeed:

- Operational speeds up to 15 km/h
- Maximum efficiency with safe embedding of the grain



The universal singulator does not have to be adjusted Easily accessible AirVac metering device





SectionControl allows for switching the rows off and on automatically via GPS

Press wheels

FOR A BETTER EMBEDDING OF THE GRAINS



V-press wheels wide: for lighter sites



V-press wheels wide, profiled: for light soils and fine seeds (beet



V-press wheels narrow: for normal conditions



Finger wheel: for medium and heavy soils

The closing of the seed furrow is the last time when you can influence emergence. Depending on the type of soil, the sowing method, sowing depth and the crop, the requirements differ. Therefore, the Maestros can be equipped with different press wheels and press wheel combinations to be able to achieve an optimum work result for all crops in all conditions.

Which press wheel is suitable for which application?

Rubber and profiled press wheel

V-pressure wheels wide

- Rubber closing wheels for light sandy conditions
- The profiled wheels are recommended for fine seeds
- The profile additionally creates fine earth and can better prevent silting.

Finger and spike press wheel:

- The finger press wheel is ideal for heavy and medium soils
- Spike press wheel for medium to light sites

Spike wheel: for medium

- Per row there is one finger/spike press wheel and one standard wheel to control the depth and to prevent the grains from moving.
- However, the wheels are not suitable for shallow sowing.
- If the furrow wall gets compacted because of the Double-Disc seed coulters, it is broken by the finger / spike wheel
 the furrow is removed.
- Seed furrow is not opened after seeding in dry conditions, especially especially on heavy clayey sites.
- Development of the maize root is encouraged

— Developmo

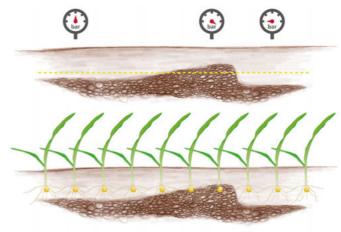
Spike wheel



Finger wheel

AutoForce

OPTIMUM EMBEDDING DESPITE CHANGING SOIL CONDITIONS



With AutoForce: optimum pressure – optimum seed depth

Without AutoForce: constant pressure – uneven placement

What do you need an automatic coulter pressure control for?

- Stony soils require more coulter pressure to place the seed at a consistent depth. If the coulter pressure is too low the coulter body would not move smoothly and the seed would germinate irregularly and with different speed.
- Light conditions or pressure-sensitive soils need less coulter pressure so that the soil is not compacted.
 Too much coulter pressure compacts the soil and slows down the development of the roots although all seed was placed at the same depth.
- There rarely are fields that are completely even. In every part of the field the coulter pressure has to be adapted.
- This is why AutoForce has been available for the Maestro line since 2016.

AutoForce guarantees an always consistent embedding of the grains in changing conditions. Thus, more regular emergence and populations are achieved. The contact pressure of the row unit is measured with a sensor at the two support wheels. This pressure (= nominal value) is previously set in the terminal. Three pressure levels are available: 25 kg, 50 kg and 80 kg (the values can also be adapted individually). With changing soil conditions, the row needs more or less power to be able to keep up the set placement depth. The contact pressure would change. The sensor detects this, and the system regulates the contact pressure in such a way that it always corresponds to the nominal value that has been set. This is possible due to the design of the machine which allows for transferring weight to the seed bar. The coulter pressure then varies automatically between 150 kg to 350 kg. The grain embedding is always carried out at the same level. Too shallow placement as well as soil compactions can be avoided.

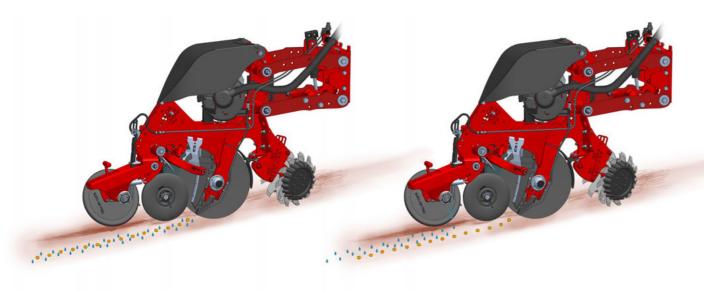


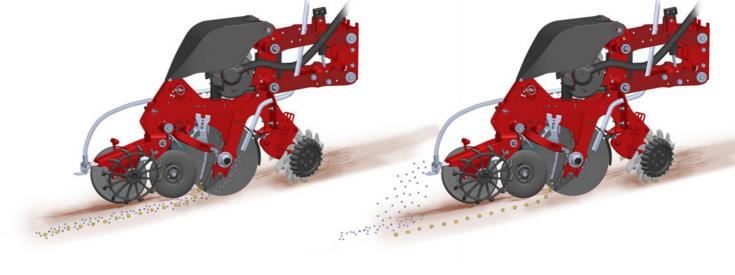
The Piezo sensor in detail



Hydraulic coulter pressure cylinder

FERTILISER AND MICRO-GRANULAR COMPOUND APPLICATIONS





Liquid fertiliser application in the row

Liquid fertiliser application behind the catching roller

Pneumatic application IN the row

Pneumatic application ON the row



Liquid fertiliser application behind the catching roller



Liquid fertiliser application in the row

Application options Maestro SV L/SX L

- Liquid fertiliser as a starter nutrient in the seed furrow
- Optimal nutrient supply from the formation of the germination roots
- Application in front of the fall/shot tube or behind the catching roller (in wet conditions)

Application of micro-granular compound

- Two application points are possible at the row unit
- Release position in the seed furrow for fertiliser granulate and crop care agents for good contact to the seedling
- Release option behind the row via baffles, for large, shallow distribution of underseed or slug pellets



Pneumatic application IN the row



Pneumatic application ON the row

INTELLIGENCE

Metering disc selection

- Maximum flexibility the use of different metering discs allows for sowing different crops with the HORSCH Maestro.
- The tool determines the appropriate metering disc for your application.
- Only enter the type of crop, operating speed, application rate and row spacing and off you go!



Rotor selection

- Facilitates the selection of the optimum rotor for any application
- Wide selection range from normal seeds to fine seeds to fertiliser and micro-granular compound
- Expert mode to carry out rotor configurations also for variable operating speeds and application rates



HorschConnect

Prepare today for tomorrow. Control different machine functions quite easily via the MobileControl app – your smartphone replaces the terminal! In addition, gain complete, transparent insight in all aspects of work performance and working quality with HorschConnect Telematics.



With HorschConnect telemetry solutions can be found in the sowing and plant protection sector – exactly where they make sense

eosT10 (Pro)

- High-resolution 10" terminal for controlling all ISOBUS devices according to ISO 11783
- Reliable and powerful: a high-performance hardware combined with an intuitive, user-friendly operation in daytime or night mode
- Straightforward transfer of application maps with the wireless Task Data Exchange
- Various layout options allow for a simultaneous display of several applications – for an optimum overview
- eosT10 and eosT10 Pro one hardware, completed by two licence kits. Precision is always standard for us.

AutoLine

- Automatic, GPS-based tramline control
- Optimised driving strategy near obstacles or on the headlands.
- Track-to-track driving is no longer required
- Available in combination with the terminal eosT10 Pro

Digital solutions exactly where they make sense

- Straightforward out-of-the-box solution with integrated
 SIM card, WLAN modem and other interfaces
- HorschConnect Telematics to document the performance of the machine
- HorschConnect Telematics for complete transparency of the working quality, e.g the application rate of all components, and exact documentation of the singulation quality
- Control of machine functions via the smartphone app MobileControl
- Control of machine functions via smartphone app
 MobileControl: e.g. Calibration of all metering units and control of the individual rows to check the singulation quality before starting to seed or in between



By means of the MobileControl app a test of the most important parameters of the singulation quality can be carried out any time.



Always keep an eye on machine performance and daily performance with HorschConnect Telematics



Due to the flexible holder, the eosT10 can be perfectly integrated in every cabin



By displaying up to 3 widgets in addition to the main workin screen, the user can keep track of several applications at the same time.



Drill independent of the track rhythm with HORSCH AutoLine!



Success factor transparency: position-specific data of all relevant information like error messages, operational speed or singulation quality



Quick and easy calibration or testing the singulation quality of the machine via smartphone with the MobileControl app

ADDITIONAL EQUIPMENT



Microgranular unit

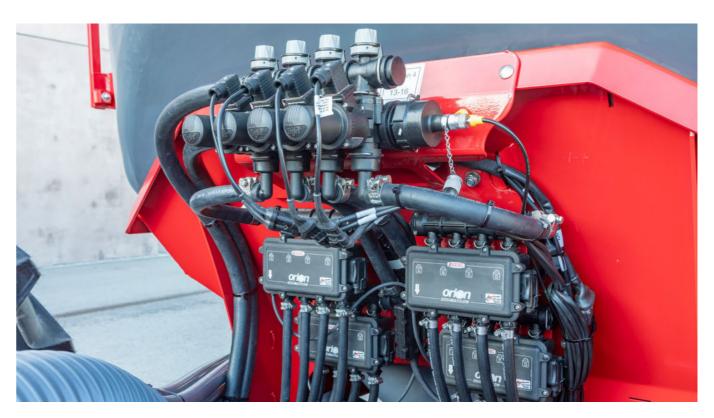
Twin tyres

For filling and to increase the accessibility of the machine, the hopper can be swivelled forward









Electronic flow monitoring and sectional row control







One of the additional radar sensors for ContourFarming

TECHNICAL DATA

Maestro SV L / SX L	16 SX L	24 SX L	16 SV L	18 SV L	24 SV L	36 SV L
Number of rows	16	24	16	18	24	36
Transport width (m)	3.00	3.50	3.00	3.00	3.50	3.50
Transport height (m)	4.00	4.20	4.00	4.00	4.20	4.20
Transport length (m)	7.80	9.50	7.80	12.00	9.50	9.60
Weight incl. seed waggon (kg)	9000	12500	9000	9000	12500	15500
Axle load (kg)	7400	9800	7400	7800	9800	11400
Vertical load (kg)	1600	2700	1600	1200	2700	4100
Hopper capacity seed waggon seed/fertiliser (l)	2900 / 2900	5000 / 3900	2900 / 2900	2900 / 2900	5000 / 3900	5000 / 3900
Feed opening seed waggon seed (mm)	990 x 720	990 x 720	990 x 720	990 x 720	990 x 720	990 x 720
Feed opening seed waggon fertiliser (Ø/mm)	400	400	400	400	400	400
Electric coulter pressure adjustment terminal (kg)	150 - 350	150 - 350	150 - 300	150 - 350	150 - 350	150 - 350
Depth control wheel Ø (cm)	40	40	40	40	40	40
Press wheels Ø (cm)	30 / 33	30 / 33	30 / 33	30 / 33	30 / 33	30 / 33
Catching roller	Standard	Standard	Standard	Standard	Standard	Standard
Row spacing (cm)	70 / 75	70 / 75	70 / 75	45 / 50	70 / 75	45 / 50
Sowing depth (cm)	1.5 - 9	1.5 - 9	1.5 - 9	1.5 - 9	1.5 - 9	1.5 - 9
Drop height seed (cm)			45	45	45	45
Tyre size seed waggon						
Operational speed (km/h)	6 - 15	6 - 15	2 - 12	2 - 12	2 - 12	2 - 12
Horsepower requirement (kW/hp)	184 / 250	257 / 350	160 / 220	220 / 300	220 / 300	257 / 350
Depressurized return flow (max. 5 bar)	1	1	1	1	1	1
DA control devices direct drive	1 DA hydr. functions 1 DA hydr. fan - direct drive, high pressure a. seed with adj. flow rate 1 DA hydr fan – direct drive, liquid fertiliser with adj. flow rate 1 DA hydr. direct drive, micro-granular compound	1 DA hydr. functions 1 DA hydr. fan – direct drive, high pressure and seed with adjustable flow rate 1 DA hydr. direct drive, micro-granular compound 1 DA hydr fan – direct drive, liquid fertiliser with adj. flow rate	1 DA hydr. functions 1 DA hydr. fan – direct drive, low pressure with adjustable flow rate 1 DA hydr fan – direct drive, liquid fertiliser with adj. flow rate 1 DA hydr. fan – direct drive, seed with adj. flow rate	1 DA hydr. functions 1 DA hydr. fan – direct drive, low pressure with adjustable flow rate 1 DA hydr fan – direct drive, liquid fertiliser with adj. flow rate 1 DA hydr. fan – direct drive, seed with adj. flow rate	1 DA hydr. functions 1 DA hydr. fan – e direct drive, low pressure with adjustable flow rate 1 DA hydr fan – direct drive, liquid fertiliser with adj. flow rate 1 DA hydr. fan – direct drive, seed with adj. flow rate	1 DA hydr. functions 1 DA hydr. fan – e direct drive, low pressure with adjustable flow rate 1 DA hydr fan – direct drive, liquid fertiliser with adj. flow rate 1 DA hydr. fan – direct drive, seed with adj. flow rate
Oil quantity hydr. liquid fertiliser (l/min)	15	15	15	15	15	15
Oil quantity hydr. fan vacuum (l/min)			25	25	55	55
Oil quantity hydr. fan overpressure and seed (l/min)	70	80				
Oil quantity hydr. fan seed (l/min)			20	20	20	20
Oil quantity hydr. fan seed and micro (l/min)			35	35	35	35
Oil quantity hydr. microgranular compound (l/min)	15	15				
Min. oil quantity lift/lower (l/min)	40	40	40	40	40	40
Power requirement in operation (A)	50	60	50	60	60	80
Implement attachment adjustable drawbar (mm)	Ring hitch Ø 58 - 79	Ring hitch Ø 58 - 79 mm	Ring hitch Ø 58 - 79	Ring hitch Ø 58 - 79	Ring hitch Ø 58 - 79	Ring hitch Ø 58 - 79
Implement attachment ball head	K 80	K 80	K 80	K 80	K 80	K 80



Your distributor

Statements from our customers all over the world



ExperienceTour

MAESTRO

HORSCH Maschinen GmbH

Sitzenhof 1 · 92421 Schwandorf Phine: +49 9431 7143-0 Fax: +49 9431 7143-9200 E-Mail: info@horsch.com

horsch.com

Paper: 120g/qm Maxi Offset. The paper is certified according to the EU Ecolabel. This label is only granted for products and services whose environmental consequences are considerably lower than those of comparable products. For more details see www.eu-ecolabel.de. Printing ink: Printing ink QUICKFAST COFREE. Free from mineral oil and cobalt. Moreover, it is certified and recommended for printing according to the "Cradle-to-Cradle" principle (quasi "from the origin back to the origin) – an approach that deals with the spreading of continuous and consequent recycling management. For more details see www.c2c-ev.de.

All specifications and diagrams are approximate and not binding. Technical features and design are subject to change.