

Maestro SV / SX



UNIQUE SEED WAGON SYSTEMS WITH NEW POSSIBILITIES



Maestro SV / SX

NEW STANDARDS FOR SINGLE GRAIN SEED DRILLS

- 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
- Versatile single grain technology for: maize, sunflowers, sugar beet, sorghum, rape, soybeans and other bean species



The Maestro SV/SX excels due to its unique seed wagon concept. Since 2012 – so for more than 10 years, this seed wagon has been used very successfully with the Maestro SW all over the world. The Maestro SV/SX is the second generation of the most successful HORSCH single grain seed drill and offers new possibilities due to the metering systems AirVac and AirSpeed.

Two different seed wagon sizes are used for the Maestro SV/SX. In the working width range of 9 and 12 m (12, 16, 18 and 24 rows), the standard version of the central, pressurised double hopper provides a capacity for 2 200 l seed and 5 400 l fertiliser. An optional 50:50 partition is often recommended if there is a high share of legumes in the rotation. With this version, a capacity of 3 800 l is available for fertiliser and another 3 800 l for seed. With working width (24 and 36 rows), the fertiliser hopper has a capacity of 7 000 l, the central seed hopper has a capacity of 2 000 l. The farmer can also choose a hopper partition of 5 000/4 000 l for fertiliser/seed. Both seed wagon sizes are equipped with the central hopper system MTS (Main Tank Supply System). This means that the seed wagon pneumatically meters fertiliser as well as seed. The fertiliser is applied conventionally with the well-proven HORSCH metering technology via single disc or double disc fertiliser coulters. The seed is transported pneumatically to the rows via special sluices and is then singulated with AirVac or Air Speed.

The Maestro row units are equipped with a wide, stable parallelogram and as standard with a hydraulic cylinder that generates coulter pressure. Coulter pressures of up to 350 kg per row can be set manually at the terminal or fully automatically with the innovative coulter pressure regulation system AutoForce. The weight of the seed wagon is used to generate the coulter pressure over the whole width of the machine and lifts the seed wagon wheels while sowing.



Due to the sliding axle, the wide tyres run between the rows



Maestro 18 SV with 5 400 l fertiliser and 2 200 l seed

Main Tank Supply System

A CENTRAL HOPPER FOR SEED AND FERTILISER



MTS hopper with a capacity of 800 l

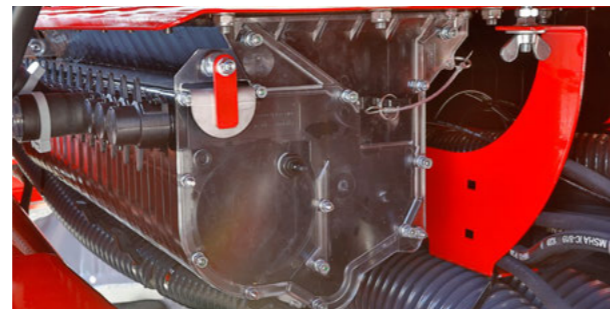
The HORSCH Main Tank Supply system, in short MTS system, is the central seed and fertiliser supply of the rows from a central hopper. The fertiliser is metered pneumatically via the distribution towers to the rows. The seed is transported by means of special MTS tubes to the row unit and then each single grain is metered with AirVac or AirSpeed.

Advantages of the MTS system:

- Quick and easy filling of the hoppers with for example 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

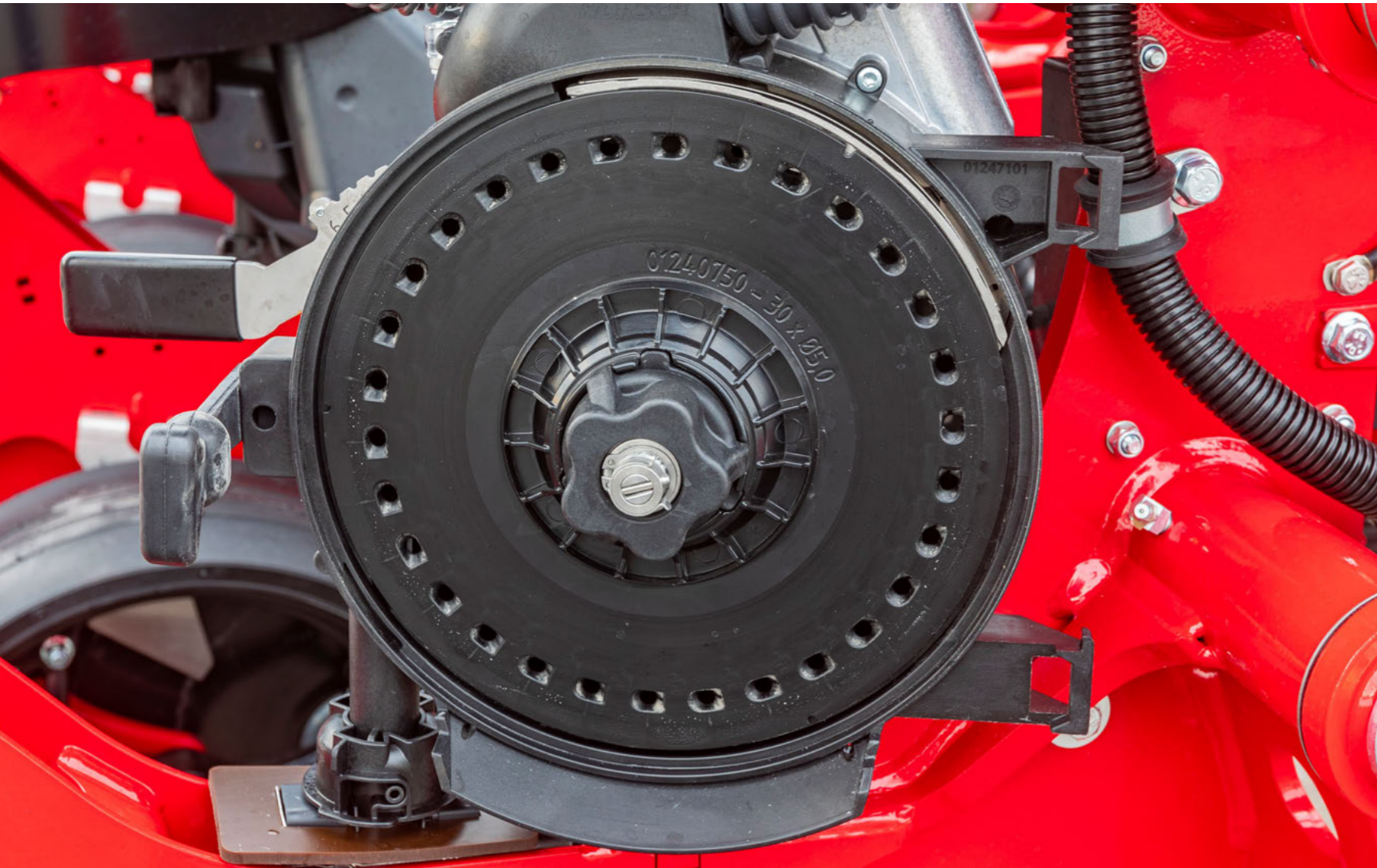
The Maestro row units mainly excel due to a long service life and a very stable design. With 35 cm the parallelogram is very wide so that especially laterally acting forces can be absorbed better. The maintenance-free bushes in the parallelogram are very large to guarantee a long service life. The row 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 coulters pressure is generated in the parallelogram of the row unit with a hydraulic cylinder. Coulters 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 coulters 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. Different front tools can be attached in front of the disc blade at a standardised flange plate, e.g. trash wells or a cutting disc.

- Hydraulic coulters 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



The new metering generations AirVac and AirSpeed basically have a very similar design. They 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. 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 between the two new metering generations is the transfer of the seed from the metering device into the soil: with the AirVac system, after the singulation the seed is led into the bottom of the furrow by means of the drop tube and if required is pressed by the catching roller. 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 measurement technology of the sensor is able to count grains, identify spacings between the grains and thus inform the driver about double spots and gaps.

Advantages at a glance:

- Can be used universally for different crops
- Easy handling: no adjustment of the singulator 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:

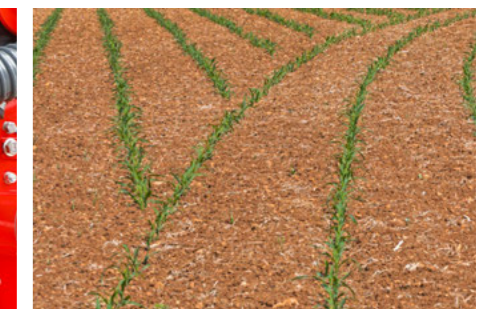
- Operational speeds up to 15 km/h
- Maximum efficiency with safe embedding of the grain



The universal singulator does not have to be adjusted



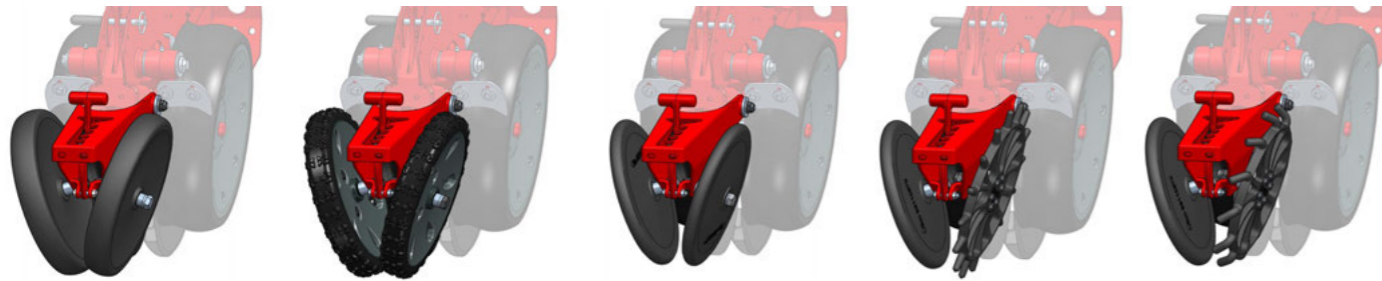
Easily accessible AirVac metering device



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

Press wheels

FOR A BETTER EMBEDDING OF THE GRAINS



V-pressure wheels wide: for lighter soils

V-pressure wheels wide with profile: for light soils and fine seeds (beet and rape)

V-pressure wheels narrow: for normal conditions

Spike wheel: for medium and lighter soils

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

- 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
- There is one finger / spike wheel and one standard wheel per row to control the depth and to avoid moving the grains.
- 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 sowing under dry conditions, especially on heavy clayey sites
- Development of the maize root is encouraged



V-pressure wheels wide



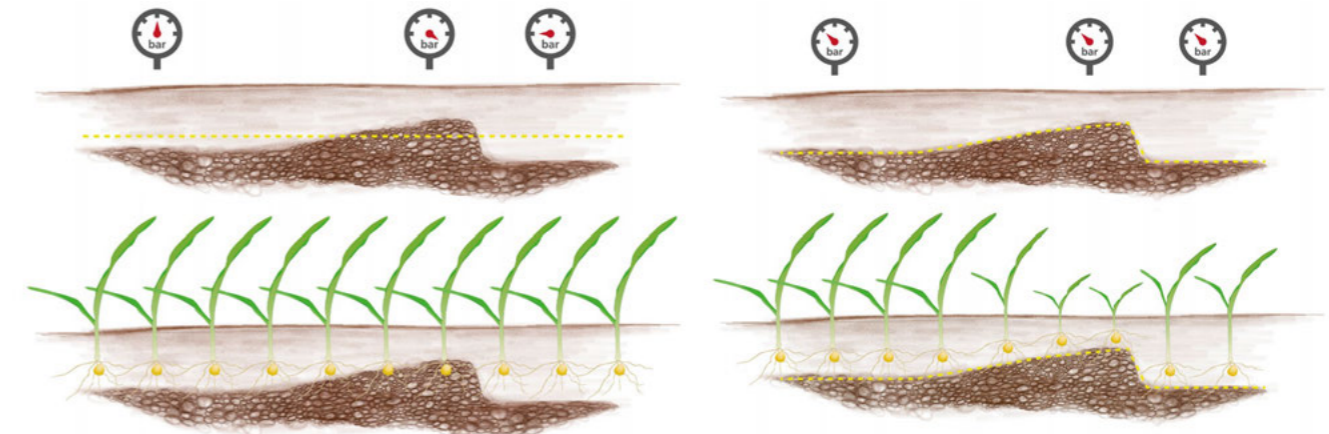
Spike wheel



Finger wheel

AutoForce

OPTIMUM EMBEDDING DESPITE CHANGING SOIL CONDITIONS



With AutoForce: optimum pressure – optimum sowing depth

Without AutoForce: constant pressure – irregular placement

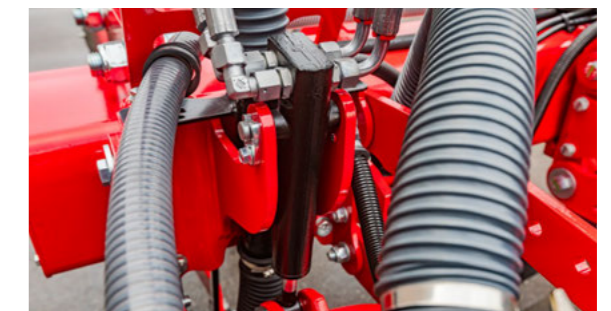
What do you need an automatic coulters pressure control for?

- Stony soils require more coulters pressure to place the seed at a consistent depth. If the coulters pressure is too low the coulters body would not move smoothly and the seed would germinate irregularly and with different speed.
- Light conditions or pressure-sensitive soils need less coulters pressure so that the soil is not compacted. Too much coulters 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. The coulters pressure has to be adapted to each section of the field.
- 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. You can choose between three pressure levels: 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 coulters pressure automatically varies between 150 kg and 350 kg. Thus, the grain is always embedded at the same level. A too shallow placement as well as soil compaction can thus be avoided.



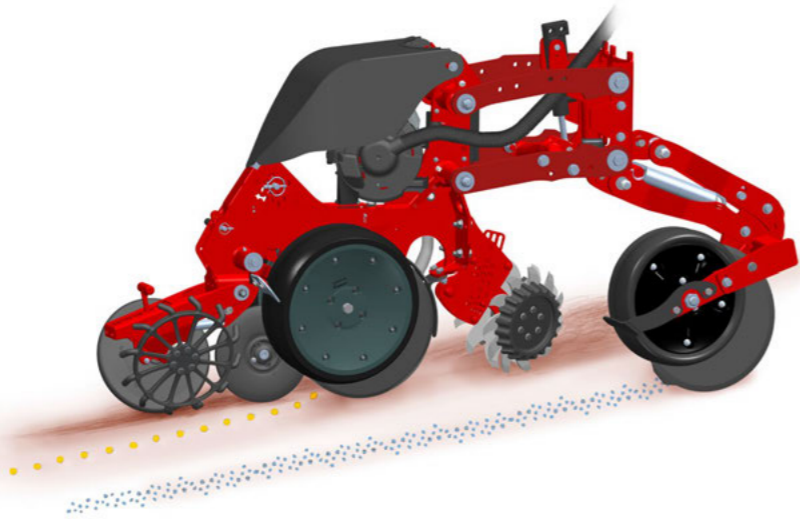
The Piezo sensor in detail



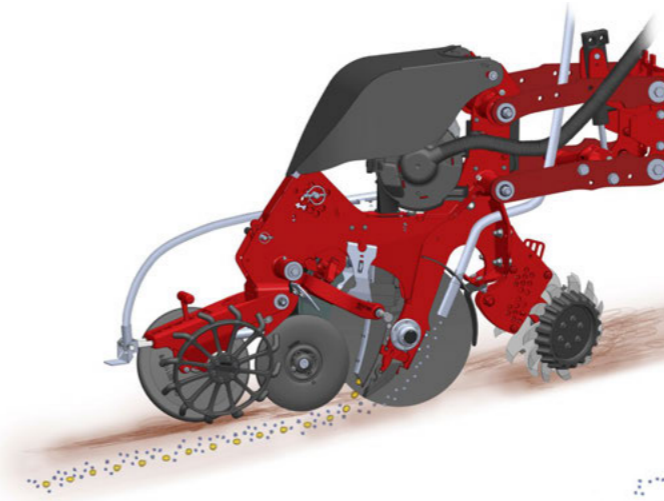
Hydraulic coulters pressure cylinder

FERTILISER AND MICRO-GRANULAR COMPOUND APPLICATIONS

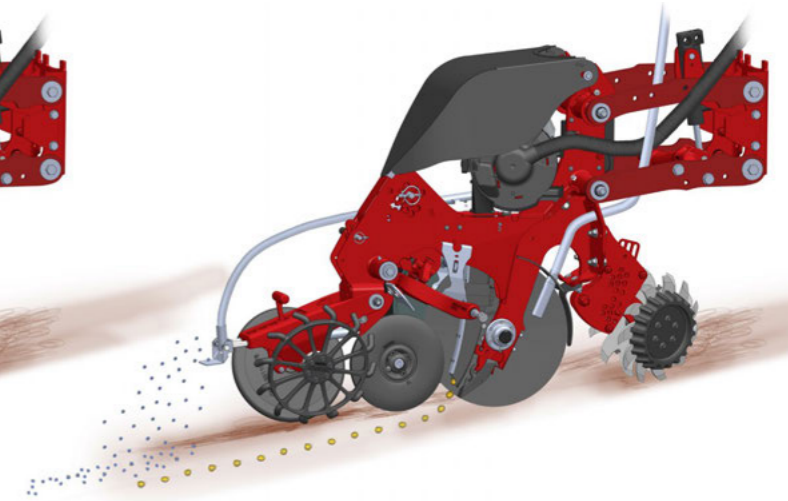
In addition to a precise placement of the grains the exact positioning of fertilisers or plant protection agents is very important for single grain sowing. The rows of the Maestros, thus, can be equipped with different components to provide an optimum solution for all requirements and demands.



Single disc fertiliser coulters controlled via its own parallelogram



Pneumatic application IN the row



Pneumatic application ON the row



SingleDisc fertiliser coulters

SingleDisc fertiliser coulters

- The SingleDisc fertiliser coulters is suspended independently of the seed row
- The placement depth can be set to 5 to 9 cm
- Quick adaption of the coulters pressure without tools from 40 to 140 kg
- Deactivation is possible without tools by lifting the unit out of work

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

DIGITAL SERVICES

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!



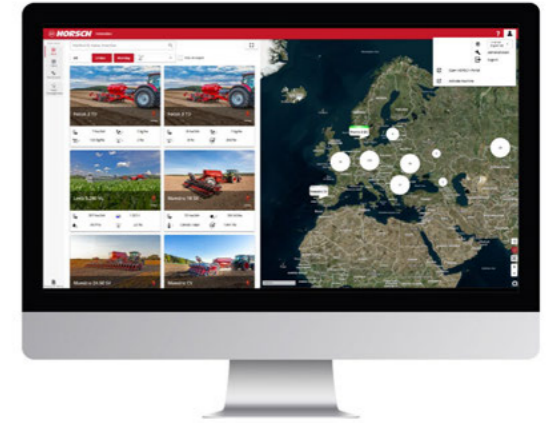
Rotor selection

- 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 telematics solutions can be found in the sowing and plant protection sector – exactly where they make sense

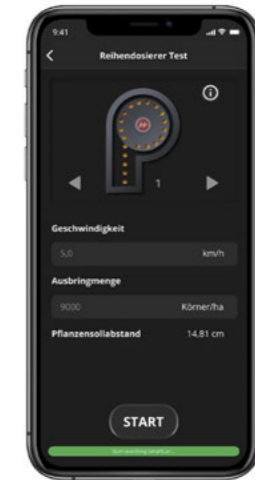
eosT10 (Pro)

- 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
- Targeted and proactive service due to remote access of the error messages
- Control of machine functions via the smartphone app MobileControl: e. g. the calibration of all metering units and the control of the individual rows to check the singulation quality before starting to sow or while sowing



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



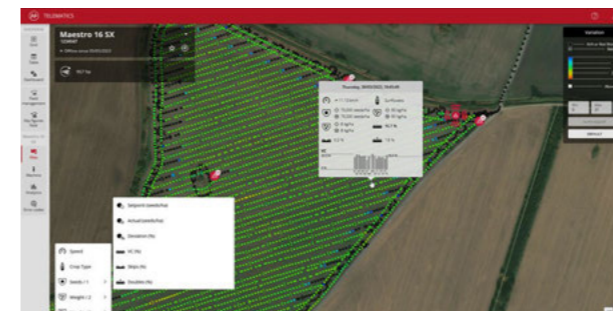
Due to the flexible holder, the eosT10 can be perfectly integrated in every cabin



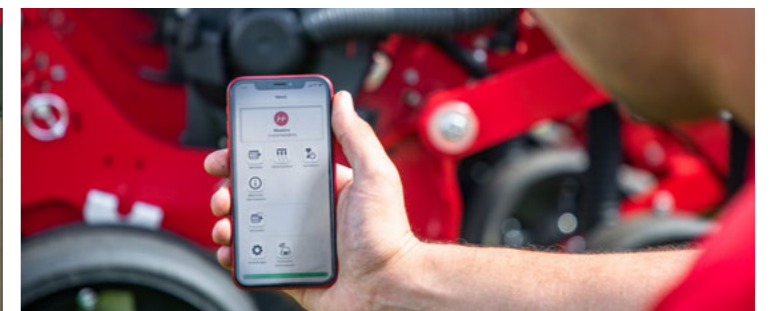
By displaying up to 3 widgets in addition to the main workin screen, the user can keep track of several applications at the same time.



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



Compact transport design with high fertiliser and seed capacity



Twin tyres 300/95 R 46 for 18 and 24.45/50 SV/SX

Due to the sliding axle, the wide tyres run between the rows



Agitator shaft fertiliser hopper outside



One of the additional radar sensors for ContourFarming

TECHNICAL DATA

Excerpt from the technical data. You will find further options on our website under www.horsch.com



Maestro SV / SX	12 SV	16 SV	18 SV	16 SX	18 SX	24 SX
Number of rows	12	16	18	16	18	24
Transport width (m)	3.00	3.00	3.00	3.00	3.00	3.00
Transport height (m)	4,00	4,00	---	---	---	4.16 (with micro-granular compound placement ON row 4.25)
Transport length (m)	7.80	7.80	7.80	8.90	7.80	9.50
Weight incl. seed wagon (kg)	---	---	---	---	---	13000
Axle load (kg)	7000 - 8700	7400 - 9000	7800 - 10000	7400 - 9000	7800 - 10000	10000 - 10000
Vertical load (kg)	1500 - 2400	1600 - 3000	1000 - 2200	1600 - 3000	1000 - 2200	3000 - 3000
Hopper capacity seed wagon seed/fertiliser version 1 (l)	2200 / 5400	2200 / 5400	2200 / 5400	2200 / 5400	2200 / 5400	2000 / 7000
Hopper capacity seed wagon seed/fertiliser version 2 (l)	3800 / 3800	3800 / 3800	3800 / 3800	3800 / 3800	3800 / 3800	4000 / 5000
Feed opening seed wagon seed (mm)	800 x 660 (Version 1)	800 x 660 (Version 1)	800 x 660 (Version 1)	800 x 660 (Version 1)	800 x 660 (Version 1)	800 x 660 (Version 1)
Feed opening seed wagon fertiliser (mm)	2450 x 660 (Version 1)	2450 x 660 (Version 1)	2450 x 660 (Version 1)	2450 x 660 (Version 1)	2450 x 660 (Version 1)	2450 x 660 (Version 1)
Feed opening seed wagon seed/fertiliser (mm)	1680 x 660 (2 x, Version 2)	1680 x 660 (2 x, Version 2)	1680 x 660 (2 x, Version 2)	1680 x 660 (2 x, Version 2)	1680 x 660 (2 x, Version 2)	1680 x 660 (2 x, Version 2)
Electrics. Coulter pressure adjustment. terminal (kg)	150 - 350	150 - 350	150 - 350	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)	75	75	45 / 50	70 / 75	45 / 50	70 / 75
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	---	---	---
Tyre size seed wagon	520 / 85 R 38, optional 580/70 R 38	520/85 R 38, optional 580/70 R 38	520/85 R 38; 580/70 R 38; 800/65 R 32; twin tyres 300/95 R 46	520/85 R 38 or 580/70 R 38	520/85 R 38 or 580/70 R 38 or twin tyres 300/95 R 46	520/85 R 42
Telescopic axle	Standard	Standard	Standard	Standard	Standard	Standard
Operational speed (km/h)	2 - 12	2 - 12	2 - 12	6 - 15	6 - 15	6 - 15
Horsepower requirement (kW/hp)	147 / 200	160 / 220	160 / 220	184 / 250	184 / 250	294 / 400
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 underpressure with adjustable flow rate, 1 DA hydr. fan direct drive fertiliser and seed with adjustable flow rate, 1 DA hydr. filling auger fertiliser system	1 DA hydr. functions, 1 DA hydr. fan direct drive underpressure with adjustable flow rate, 1 DA hydr. fan direct drive fertiliser and seed with adjustable flow rate, 1 DA hydr. filling auger fertiliser system	1 DA hydr. functions, 1 DA hydr. fan direct drive underpressure with adjustable flow rate, 1 DA hydr. fan direct drive fertiliser and seed with adjustable flow rate, 1 DA hydr. filling auger fertiliser system	1 DA hydr. functions 1 DA hydr. fan - direct drive, high pressure a. seed with adj. flow rate 1 DA hydr. fan - direct drive, fertiliser with adj. flow rate 1 DA hydr. filling auger, fertiliser system	1 DA hydr. functions 1 DA hydr. fan - direct drive, high pressure a. seed with adj. flow rate 1 DA hydr. fan - direct drive, fertiliser with adj. flow rate 1 DA hydr. filling auger, fertiliser system	1 DA hydr. functions 1 DA hydr. fan - direct drive, high pressure a. seed with adjustable flow rate 1 DA hydr. fan - direct drive, fertiliser with adj. flow rate 1 DA hydr. filling auger, fertiliser system
DA control devices pto-shaft drive	1 DA hydr. functions 1 DA hydr. fan - direct drive, low pressure with adjustable flow rate 1 DA hydr. filling auger, fertiliser system	1 DA hydr. functions 1 DA hydr. fan - direct drive, low pressure with adj. flow rate 1 DA hydr. filling auger, fertiliser system	1 DA hydr. functions 1 DA hydr. fan - direct drive, low pressure with adj. flow rate 1 DA hydr. filling auger, fertiliser system	1 DA hydr. functions 1 DA hydr. fan - direct drive, fertiliser with adj. flow rate 1 DA hydr. filling auger, fertiliser system	1 DA hydr. functions 1 DA hydr. fan - direct drive, fertiliser with adj. flow rate 1 DA hydr. filling auger, fertiliser system	---
Oil quantity hydr. fan fertiliser without micro-granular compound device (l/min)	---	---	---	---	---	60
Oil quantity hydr. fan fertiliser with micro-granular compound device (l/min)	---	---	---	---	---	75
Oil quantity hydr. fan fertiliser (l/min)	---	---	---	50	50	---
Oil quantity hydr. fan seed (l/min)	---	---	---	---	---	---
Oil quantity hydr. fan fertiliser/seed (l/min)	50	50	50	---	---	---
Oil quantity hydr. fan overpressure/seed (l/min)	---	---	---	70	70	80
Oil quantity hydr. fan vacuum (l/min)	25	25	25	---	---	---
Oil quantity min. lift/lower (l/min)	40	40	40	40	40	40
Power requirement in operation (AMP)	45	50	50	50	50	65
Implement attachment adjustable drawbar	Ring hitch Ø 58/79 mm	Ring hitch Ø 58/79 mm	Ring hitch Ø 58 / 79 mm	Ring hitch Ø 58 - 79 mm	Ring hitch Ø 58 - 79 mm	Ring hitch Ø 58 - 79 mm
Implement attachment ball head	K 80	K 80	K 80	K 80	K 80	K 80



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MAESTRO

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

horsch.com

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

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