HORSCH

Maestro SV / SX

LARGE CAPACITIES AND WIDE WORKING WIDTHS FOR MAXIMUM WORK RATE

Maestro SV / SX

NEW STANDARDS FOR SINGLE GRAIN SEED DRILLS

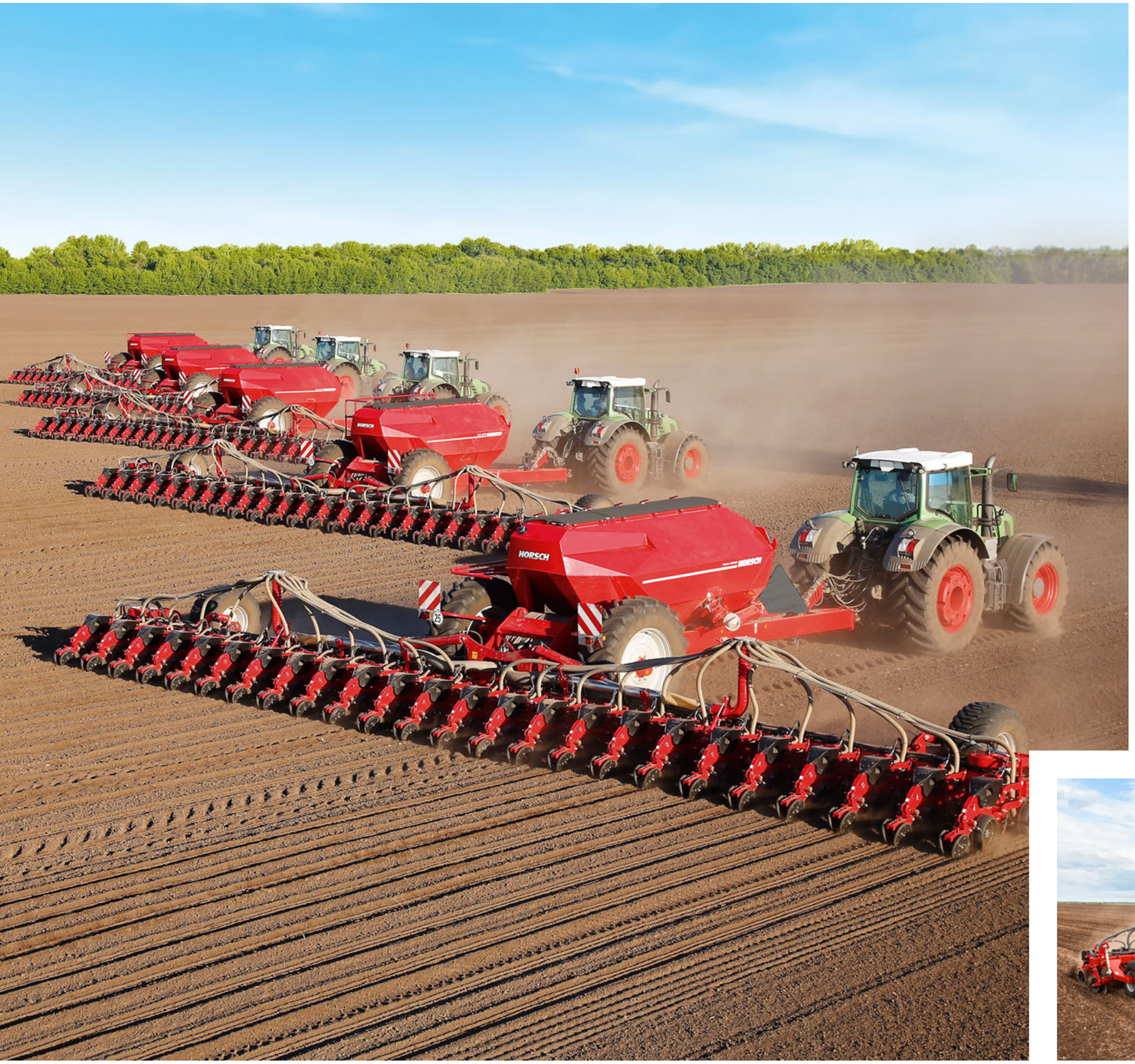
— Versatile single grain seed drill for: maize, sunflowers, sugar beet, sorghum, rapeseed, soybeans and other bean species

— 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 automati 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 fiel



The Maestro SV/SX impresses due to a unique seed wagon concept. This seed wagon has been used very successfully worldwide with the machine model Maestro SW since 2012 – for over 10 years. The Maestro SV/SX represents the second generation of HORSCH's most successful single grain seed drill and offers new possibilities with the metering systems AirVac and AirSpeed.

The Maestro SV/SX can be used with two different sizes of seed wagons. In the working width segment of 9 and 12 m (12, 16, 18, and 24 rows), the central pressurised double hopper offers a capacity of 2 200 l of seed and 5 400 l of fertiliser in the standard version. An optional 50:50 partition is often recommended if there is a high share of legumes in the rotation. In this configu ation, 3 800 l are available for fertiliser and another 3 800 l for seed. In the 18 m working width segment (24 and 36 rows), the fertiliser hopper has a capacity of 7 000 l, and the central seed tank of 2 000 l. A hopper partition with 5 000/4 000 l for fertiliser/seed is also available. Both seed wagon sizes are equipped with the central hopper system MTS (Main Tank Supply System). This means that both fertiliser and seed are metered pneumatically from the seed wagon. 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 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

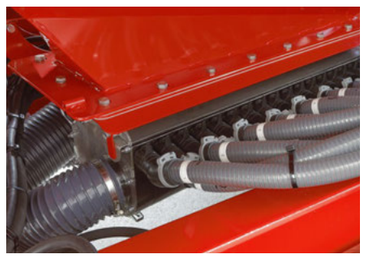
Maestro 18 SV with 5 400 l fertiliser and 2 200 l seed

Main Tank Supply System

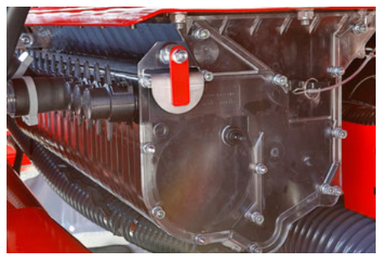
A CENTRAL HOPPER FOR SEED AND FERTILISER

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 fi ling hoppers and irregular fi ling levels at the rows when using SectionControl and tramline control are prevented.

Maestro 24.45 SV while sowing rape



MTS distribution box



Main Tank Supply System

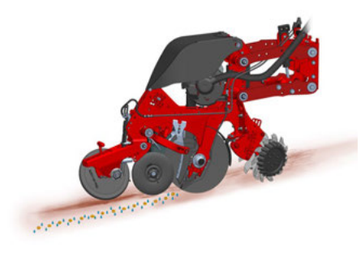
Compact Liquid Tank system

LIQUID AND SOLID COMBINED: THE SMART NUTRIENT SOLUTION

Discover the innovative HORSCH Compact Liquid Tank system (CLT system) – the key to precise and effective nutrient supply! With the additional liquid fertiliser tank, the liquid and solid components are combined in one machine to optimally supply the plants. The precise application is carried out via a reliable piston diaphragm pump, and during application, two positions can be chosen: directly into the seed furrow in front of the seed or behind the press wheel for ideal conditions even in wet conditions. For even more control, we offer an optional individual row flow monitoring and half-side control.

CLT system with 800 l tank capacity

Application directly into the seed furrow



Liquid fertiliser application in the row

Row unit

DURABLE - RELIABLE - SOLID

Robust Maestro row unit

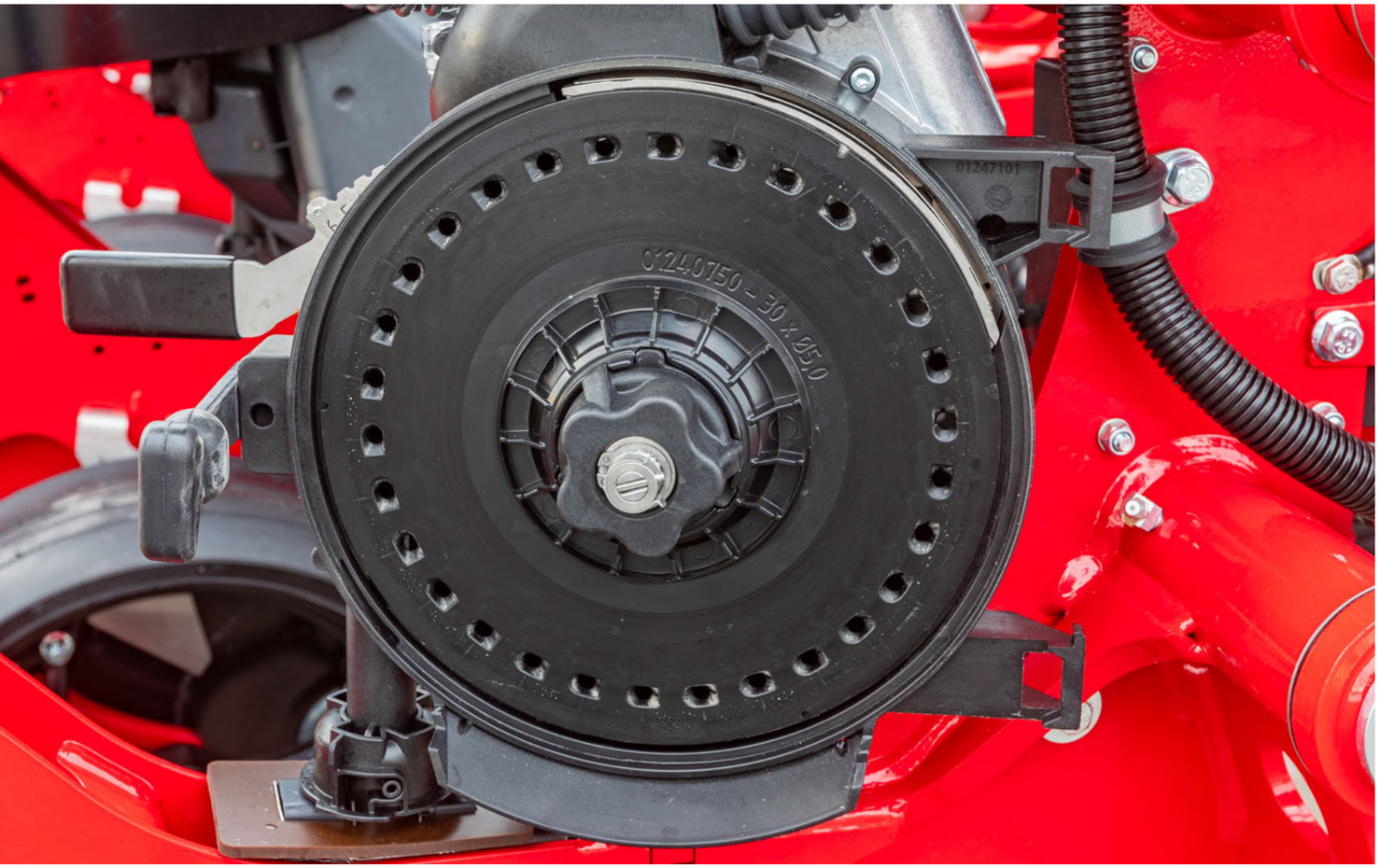
The Maestro row units mainly excel due to a long service life and a very stable design. With 35 cm the parallelogram is very wide so that especially laterally acting forces can be absorbed better. The maintenance-free bushes in the parallelogram are very large to guarantee a long service life. The row units can move by just under 40 cm to compensate for unevenness in the field. They a e either clamped to the frame of the Maestros with a clamping device or for larger machine models are fixed. The coulter p essure 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. 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 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 c ops 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 sensor's measurement technology can count grains, determine the distances between the grains, and thus provide the driver with information regarding double spots and 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 a l crops and optimum embedding of the grain

AirSpeed:

— Operational speeds up to 15 km/h

— Maximum efficiency with safe embedding of the ain

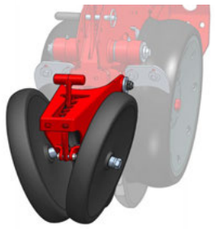
The universal singulator does not have to be adjusted

Easily accessible AirVac metering device

SectionControl allows for automatic row shut-off and activation via GPS.

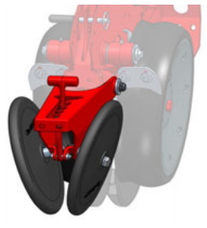
V-press wheels

FOR A BETTER EMBEDDING OF THE GRAINS

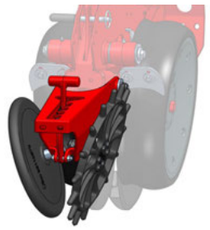


V-press wheels wide: for lighter sites

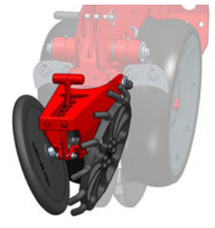
V-press wheels wide, profiled: for light soils and fine seeds (beet and rapeseed)



V press 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 eme gence. 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 a e recommended for fine seeds
- The profile additiona ly creates fine earth and can better prevent silting.

- **Finger and spike press wheel:**
- The finger p ess wheel is optimal for heavy and medium soils.
- Spike press wheel for medium to light sites
- Per row there is one finger/spike p ess wheel and one standard wheel to control the depth and to prevent the grains from moving.
- However, the wheels are not suitable for shallow seeding.
- If the furrow wall gets compacted because of the DoubleDisc seed coulters, it is broken by the finger / spike wheel – the furrow is removed.
- No opening of the seed furrow after sowing in dry conditions, especially on heavy, clayey soils
- Development of the maize root is encouraged

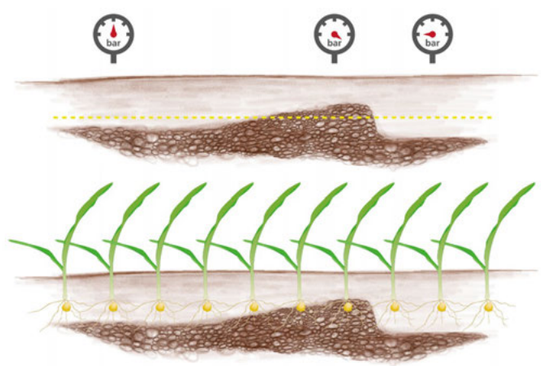
V press wheels wide

Spike wheel

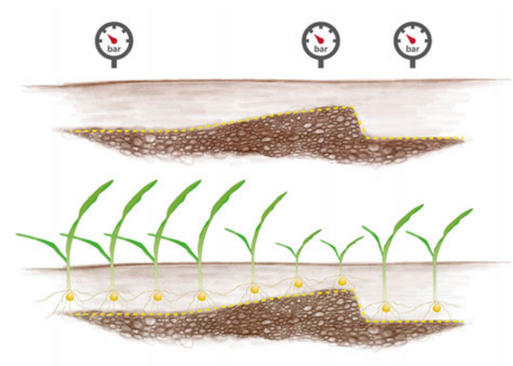
Finger wheel

AutoForce

OPTIMUM EMBEDDING DESPITE CHANGING SOIL CONDITIONS



With AutoForce: optimum pressure – optimum seed depth



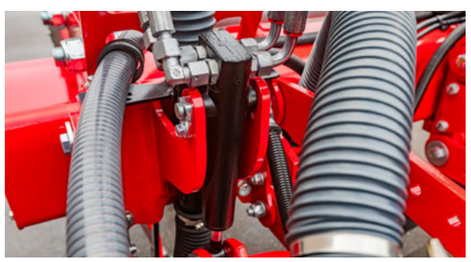
Without AutoForce: constant pressure – uneven placement

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 a e completely even. In every part of the field the coulter p essure 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 automatically varies between 150 kg and 350 kg. The grain embedding is always carried out at the same level. Too shallow placement as well as soil compactions can be avoided.

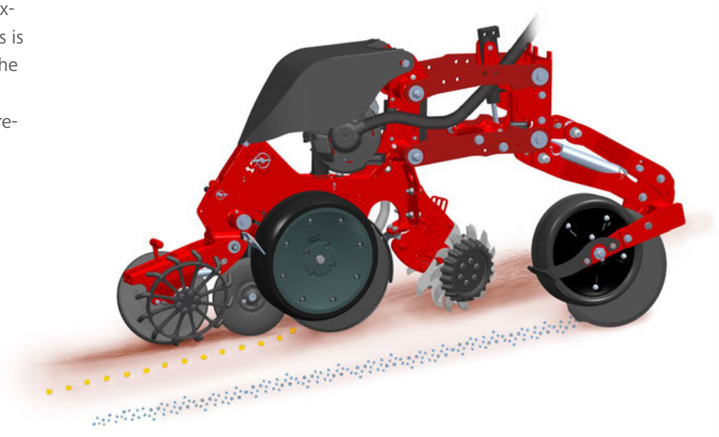
The Piezo sensor in detail



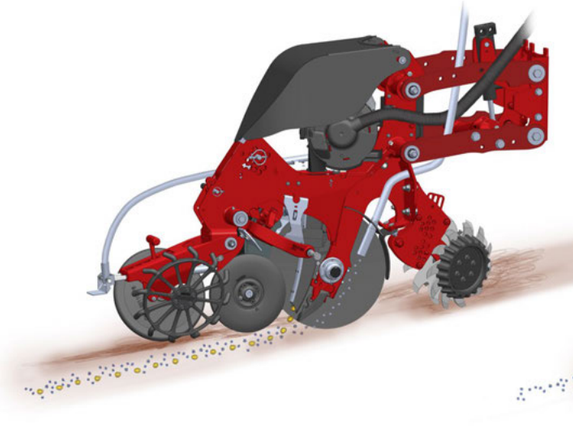
Hydraulic coulter pressure cylinder

FERTILISER AND MICROGRANULAR APPLICATIONS

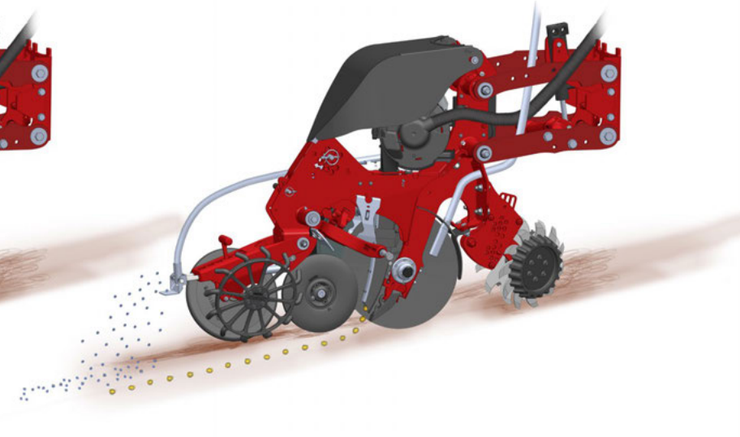
In addition to a precise placement of the grains the exact positioning of fertilisers or plant protection agents is very important for single grain sowing. The rows of the Maestros, thus, can be equipped with different components to provide an optimum solution for all requirements and demands.



Single disc fertiliser coulter controlled via its own parallelogram



Pneumatic application IN the row



Pneumatic application ON the row

Single disc fertiliser coulter

Single disc fertiliser coulter

- The SingleDisc fertiliser coulter is suspended independently of the seed row
- Placement depth adjustable from 5 to 9 cm
- Quick, tool-free adjustment of the coulter pressure from 40 to 130 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 l ge, shallow distribution of underseed or slug pellets

Pneumatic application IN the row

Pneumatic application ON the row

INTELLIGENCE

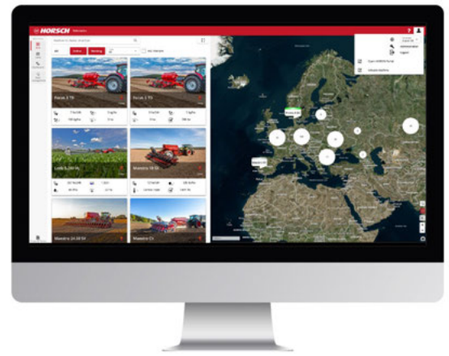
eosT10 / eosT10 Pro

- High-resolution 10“ terminal for controlling all ISOBUS devices according to ISO 11783
- Reliable and powerful: high-performance hardware combined with intuitive, user-friendly operation in day or night mode
- Various layout options allow for a simultaneous display of several applications – for an optimum overview
- Straightforward transfer of application maps with the wireless Task Data Exchange
- A real-time transmission of the terminal display via Remote Support facilitates the technical support.

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

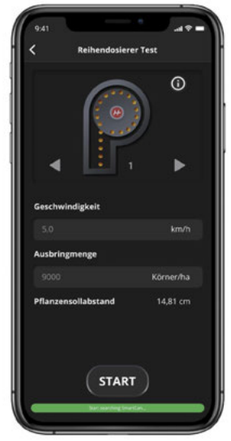
HorschConnect

Prepare today for tomorrow. Easily control various machine functions via the HORSCH Control app – your smartphone complements the terminal! Gain comprehensive, transparent insight into work rate and work quality with HorschConnect Telematics.



With HorschConnect, telemetry solutions are making their way into the sectors seeding and crop care - exactly where they make sense

- 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
- Targeted and proactive service due to remote access to error messages
- Control of machine functions via the smartphone app HORSCH Control: e.g. Turning off all dispensers and controlling individual rows to check the quality of singulation before starting sowing or in between
- The HORSCH Screen provides live data and visualisations of the current machine work to ensure a precise overview of the work results at any time



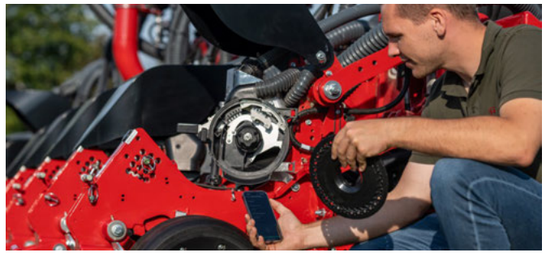
By means of the HORSCH Control app, a test of the most important parameters of singulation quality can be carried out at any time on a individual row basis

Metering disc selection

- Maximum flexibility – the use of diffe ent metering discs allows for sowing a wide variety of 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!

AutoLine

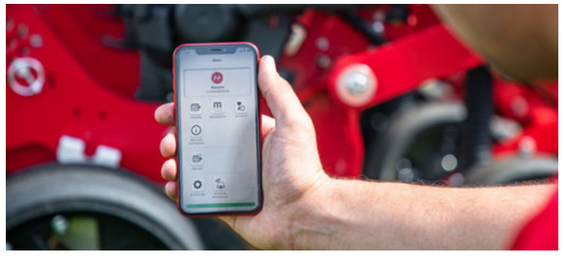
- Automatic, GPS-based tramline control
- Optimised driving strategy near obstacles or on the headlands
- Track-to-track driving is no longer required
- Available in combination with the eosT10 Pro terminal or other tramline-capable ISOBUS terminals



The HORSCH Assist app with the „Metering Disc Selection“ function helps you to select the optimal metering disc for every application.

With single grain seeding technology and HORSCH AutoLine, tramlines can be sown completely flexibly and independently of the driving di ection supported by GPS.

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



Quick and easy calibration or testing of the machine’s singulation quality via smartphone with the HORSCH Control app

ADDITIONAL EQUIPMENT

Microgranular unit For fi ling 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 tank external

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	24.50 SV	12 SX	16 SX	18 SX	24.50 SX	24 SX
Number of rows	12	16	18	24	12	16	18	24	24
Transport width (m)	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00	3,00
Transport height (m)	4,00	4,00	4,00	4,00	4,00	4,00	4,00	4,00	4.16 (with microgranular compound ON the row 4.25)
Transport length (m)	7,80	7,80	7,80	7,80	7,80	8,90	7,80	7,80	9,50
Weight incl. seed waggon (kg)	11100	12000	12200	13800	11100	12000	12600	13500	13000
Axle load (kg)	7000 - 8700	7400 - 9000	7800 - 10000	8600 - 10800	7000 - 8700	7400 - 9000	7800 - 10400	10000 - 10500	10000 - 10000
Vertical load (kg)	1500 - 2400	1600 - 3000	1000 - 2200	2000 - 3000	1500 - 2400	1600 - 3000	1000 - 2200	2000 - 3000	3000 - 3000
Hopper capacity seed waggon seed/ fertiliser version 1 (l)	2200 / 5400	2200 / 5400	2200 / 5400	2200 / 5400	2200 / 5400	2200 / 5400	2200 / 5400	2200 / 5400	2000 / 7000
Hopper capacity seed waggon seed/ fertiliser version 2 (l)	3800 / 3800	3800 / 3800	3800 / 3800	3800 / 3800	3800 / 3800	3800 / 3800	3800 / 3800	3800 / 3800	4000 / 5000
Feed opening seed waggon 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)	800 x 660 (version 1)	800 x 660 (version 1)	800 x 660 (version 1)
Feed opening seed waggon 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)	2450 x 660 (version 1)	2450 x 660 (version 1)	2450 x 660 (version 1)
Feed opening seed waggon seed/fertiliser (mm)	1 680 x 660 each (version 2)	1 680 x 660 each (version 2)	1 680 x 660 each (version 2)	1 680 x 660 each (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)
Elektr. Schardruckverst. Terminal (kg)	150 - 350	150 - 350	150 - 350	150 - 350	150 - 350	150 - 350	150 - 350	150 - 350	150 - 350
Depth control wheel Ø (cm)	40	40	40	40	40	40	40	40	40
Press wheels Ø (cm)	30 / 33	30 / 33	30 / 33	30 / 33	30 / 33	30 / 33	30 / 33	30 / 33	30 / 33
Catching roller	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Row spacing (cm)	75 / 75 / 80	75 / 75 / 80	45 / 50	45 / 50	70 / 75 / 80	70 / 75 / 80	45 / 50	45 / 50	70 / 75
Row spacing (Inch)	30	30	-	-	30	30	-	-	-
Sowing depth (cm)	1,5 - 9	1,5 - 9	1,5 - 9	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	520/85 R 38, optional 580/70 R 38 or 800/65 R 32	520/85 R 38, 580/70 R 38 or 800/65 R 32	520/85 R 38; 580/70 R 38; twin tyres 300/95 R 46	580/70 R 38 or twin tyres 300/95 R 46	520/85 R 38 or 580/70 R 38	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	580/70 R 38 with twin tyres 300/95 R 46	520/85 R 42
Telescopic axle	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
Operational speed (km/h)	2 - 12	2 - 12	2 - 12	2 - 12	6 - 15	6 - 15	6 - 15	6 - 15	6 - 15
Horsepower requirement (kW/hp)	147 / 200	160 / 220	160 / 220	220 / 300	162 / 220	184 / 250	184 / 250	257 / 350	294 / 400
Depressurised return flow (max. 5 bar)	1	1	1	1	1	1	1	1	1
DA control device direct drive	1 DA hydraulic functions, 1 DA hydraulic fan direct drive vacuum with adjustable flow rate, 1 DA hydraulic fan direct drive fertiliser and seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive vacuum with adjustable flow rate, 1 DA hydraulic fan direct drive fertiliser and seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive vacuum with adjustable flow rate, 1 DA hydraulic fan direct drive for fertiliser and seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive vacuum with adjustable flow rate, 1 DA hydraulic fan direct drive fertiliser and seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive overpressure and seed with adjustable flow ate, 1 DA hydraulic fan direct drive fertiliser with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive overpressure and seed with adjustable flow ate, 1 DA hydraulic fan direct drive fertiliser with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive overpressure and seed with adjustable flow ate, 1 DA hydraulic fan direct drive fertiliser with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive overpressure and seed with adjustable flow ate, 1 DA hydraulic fan direct drive fertiliser with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive overpressure and seed with adjustable flow ate, 1 DA hydraulic fan direct drive fertiliser with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system
DA control devices pto-shaft drive	1 DA hydraulic functions 1 DA hydraulic fan direct drive vacuum with adjustable flow ate 1 DW hydraulic fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	1 DA hydraulic functions, 1 DA hydraulic fan direct drive seed with adjustable flow ate, 1 DA hydr. fi ling auger fertiliser system	---	---
Power requirement during operation (AMP)	45	50	50	60	45	50	50	60	65
Adjustable drawbar linkage with ring hitch ball joint	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm	Pin Ø 42 or 51 mm
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	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	K 80	K 80	K 80

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