

Precision planters
MS

MaterMacc

Modularity, flexibility and maximum seeding precision




Modularity, flexibility and maximum seeding precision



The beating heart of every precision planter is the distributor. MaterMacc was the first company to use high quality nylon polymers with fibreglass for the main components. This design guarantees long life operation and resistance to deformation, tear and wear. The company's belief is that, besides being at the cutting edge of technology, equipment must be durable. To this respect, the quality of materials is essential. This manufacturing principle extends to all components to grant a great structural sturdiness allowing a lower weight to become more efficient while reducing input costs.

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All specifications, dimensions, weights, power, etc. and images are approximate and non-contractual. The characteristics of the equipment shown are not specific to each country and may also represent equipment which is not available as standard and which is not available in all countries. Your trusted MaterMacc distributor will provide you with all the necessary information.

Proof of reliability of our distributors



MagicSem Plus pneumatic seed distributor

The MagicSem pneumatic metering system is designed to ensure accurate seed distribution rate at a constant and precise distance. It is entirely made of technical polymers with excellent resistance to deformation and remarkable stability of all construction tolerances over a wide range of temperatures maximising vacuum efficiency and sealing. The wide range of seeding discs enables MaterMacc to answer any specific need of the customers.

- Graduated seed selector index for precise adjustment.
- Carefully designed to avoid doubles and misses when seeding.
- Wide range of seeding discs differing in diameter and number of holes.
- The agitators are integral with the driving wheel support of the seed disc. This driving system has the dual function of preventing seeds compaction in the distributor and a smooth transmission with no vibration

and minimal torque.

- The metal blade located below the seed-plate in correspondance of seeding holes run is an exclusive MaterMacc technical solution to prevent pointed seeds such as sunflower or certain varieties of corn, from getting stuck into the holes avoiding in this way potential damage/breaking of seeds.
- This metal blade also makes sowing seeds variable in size possible using the same seed disc.
- In the MagicSem distributor, the seed plate leans on the disc-holder wheel which minimises friction against the 360° seal and allows smooth rotation.



Some of the latest innovations

The 360° seal **1** reduces friction against seed-plate thus significantly reducing rotational torque. This feature allows to improve suction performance while reducing wearing and maintenance.

2 Seeding disc with integrated agitator: the stirring up action improves seeds pick-up onto the holes, even at a higher speed, protecting seeds from damages with no influence to the range of crops which can be planted. Each distributor is individually tested by a special machine to make sure that all parameters are respected (vacuum operation, tolerances, torque etc). If the test is successfully passed, a sticker will be put on the distributor to certify quality control. The sticker shows the code to clearly identify the production batch. This is very important particularly in the case of after-sales activities. For MaterMacc it is essential that each planting unit perfectly works.

The benefits of MagicSem Plus

- High seeding speed
- Even, uniform seed distribution
- Several seed sizes distributed with the same disc
- Seeding disc high picking up effectiveness
- Metal blade just under seeding holes to prevent seeds from stacking and breaking **3**
- Reduced transmission torque needed
- Reduced wear of seals and seeding discs
- Low energy consumption

Row spacing easy and quick change



Features

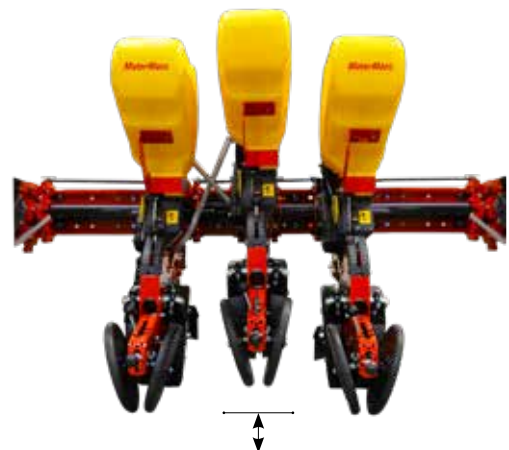
The Easy-Set system makes MaterMacc one of the most versatile planters manufacturer in the market.

This system allows the farmer to adapt the distance between the sowing units according to crop requirements, from a minimum spacing of 37.5 cm to 70-75-80 cm (on standard versions).

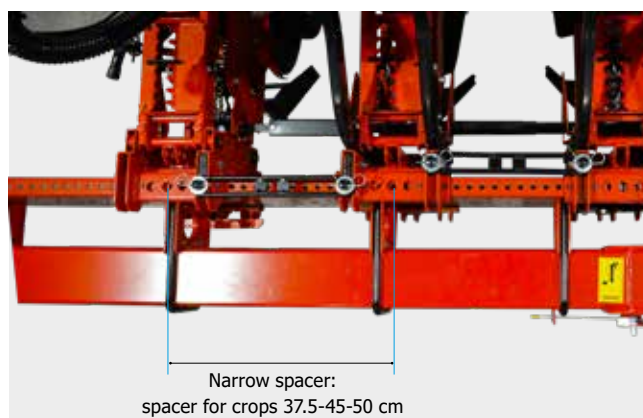
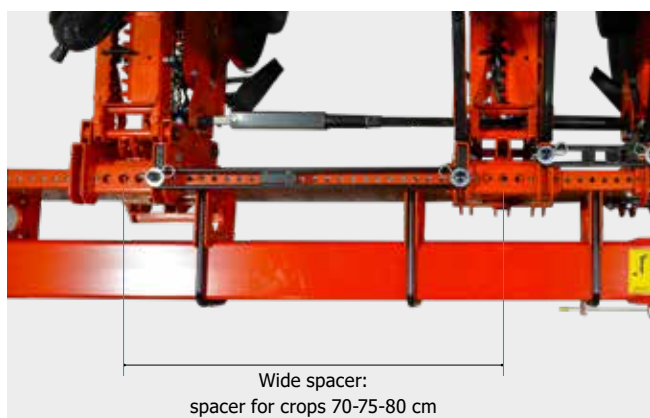
Other configurations are available on request.

Changing the row spacing is quick and easy, and can be done by a single person on both rigid toolbar and folding frames.

Resetting the planters rows configuration does not require to disassemble the planting units and fertilizer openers. Once spacing is set, the planting units which are not in use are lifted up while their transmission is easily disengaged. The rows arrangement conversion requires just a few minutes and does not involve any tool other than the lever to lift up the planting units which are not in use.



For example: from 50 cm to 75 cm spacing



Inter-row spacing rings

The spacing rings can be changed quickly from one rows configuration to another, ensuring maximum flexibility in use.

Thanks to Easy-Set, the planter can adapt to the agronomic needs of any crop.

Why put your trust in MaterMacc's Easy-Set system?

- Quick configuration changeover: in the order of 20-25 minutes
- It is also possible to have custom-made inter-row spacing rings of any size
- The manual version with hand lever which allows the adjustment by centimetre, is a more economical option than the hydraulic automatic system
- Hydraulically tested up to 9 meters working width



Precision planting





When precision becomes more affordable



- 1 MagicSem
- 2 Seed hopper 35 L.
- 3 Gauge wheel adjustment
- 4 Adjustable spring to increase the load on the planting unit
- 5 Planting unit lifting device
- 6 Clods pusher
- 7 Shoe opener or Double disc opener
- 8 Farmflex gauge wheel

MS4000 seeding unit

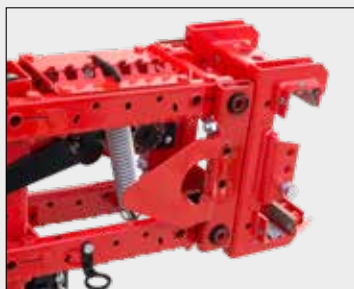
The 4000 series seeding unit is suitable for plating on well prepared soils. The seeding depth is adjusted by a rear gauge/compaction wheel.

It is mostly used for sowing sugarbeet and it is the only planting unit which can be equipped both with double disc or shoe coulters (the latter suitable for particularly wet soils). Both openers are interchangeable.

Highlights

- Economical: it's the most affordable in the range
- Lightweight: it is also possible to invert the position of down-pressure spring to lift up/make the planting unit float on surface decreasing in this way the planting unit overall weight down to 65 kg
- Possibility to use a coulters specifically designed for sugarbeet to improve seeding performance
- Chain drive for wide parallel linkage arms travel/vertical stroke: up to 25 cm
- Possibility of mechanically excluding the planting unit

4



5



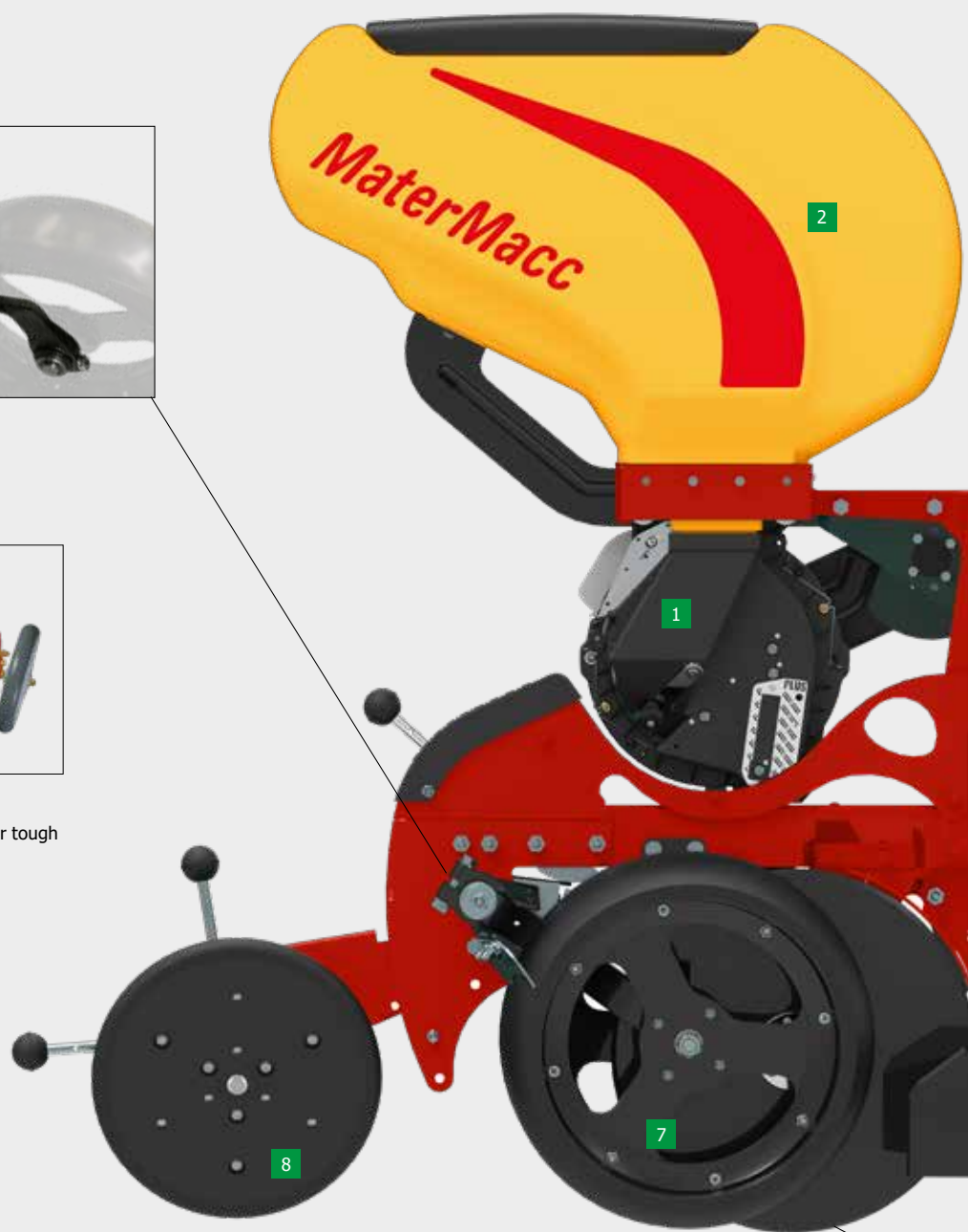
7



Our precision guarantee



Optional
V shaped closing wheels for tough soils.
V-closing 2" wheels with adjustable angle.



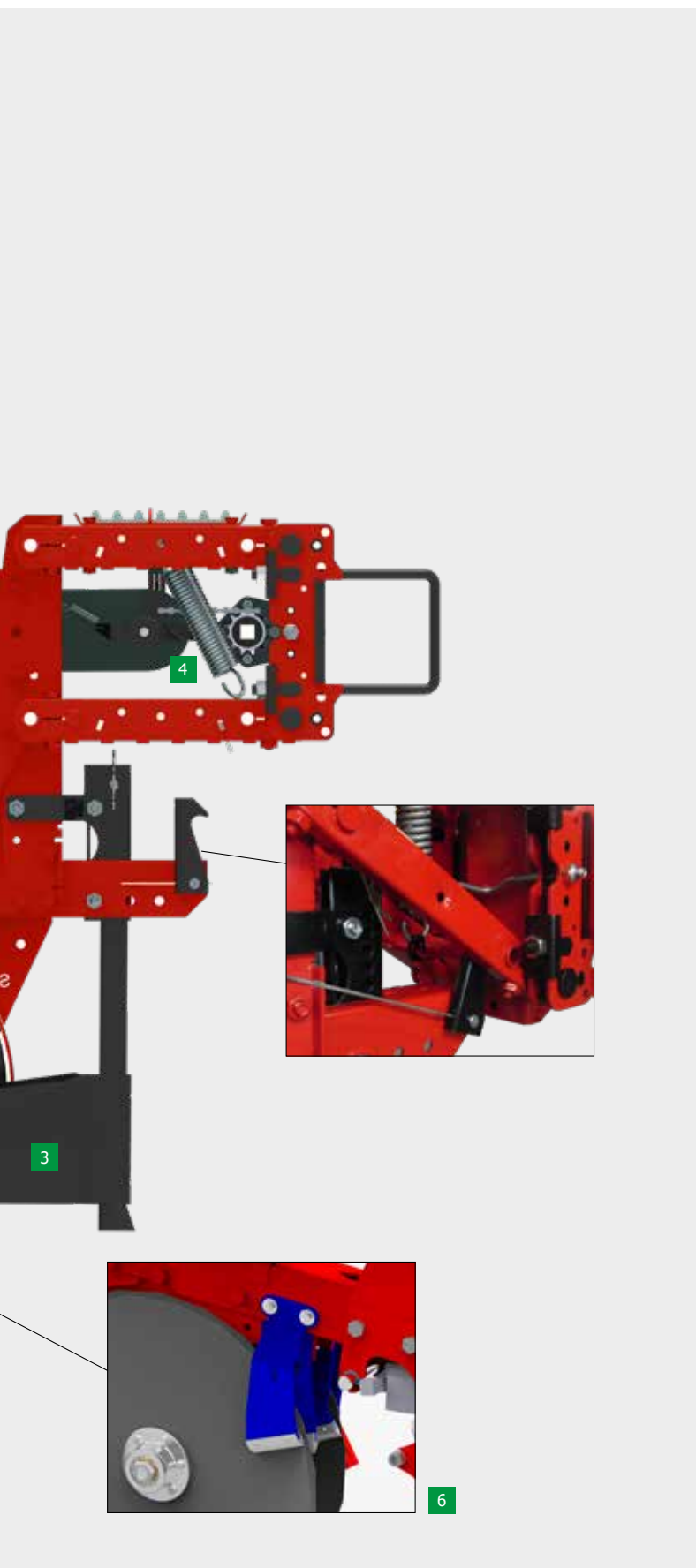
- 1 MagicSem Plus
- 2 50 L. seed tank
- 3 Clods pusher
- 4 Oversized spring with downforce up to 135 kg
- 5 Quick-Set adjustment wheels and integrated scraper
- 6 Double scraper with tungsten insert
- 7 Spoked depth gauge wheels
- 8 Cover wheels with four adjustments

MS8000 EVO planting unit

The EVO series features a seeding unit specially designed to work at speeds of between 6 km/h and 12 km/h, while retaining its compact, sturdy and lightweight design as per construction philosophy of 8000 series.

Highlights

- Press-folded and bolted-on structure of parallel linkage arms for optimal shocks absorption in minimum tillage conditions
- High-quality, heavy-duty bearings to resist both vertical and axial stress with a 6 lips sealing system to protect hubs from contamination of dust and debris
- Magicsem Plus distributor for seeding speed up to 12 km/h
- Minimum row spacing down to 27 cm with narrow side gauge wheels
- V closing wheels with four different adjustments: down-pressure, working-angle, spacing and the offset / staggered arrangement
- Optional configuration to adapt the planting unit to all soil textures



Toolbar options



MS 8100. Rigid toolbar

The planting units are directly mounted on the rigid toolbar by U-bolts, so that the planter is very compact, consequently the over-hanging weight is reduced and the centre of gravity is brought towards the tractor.



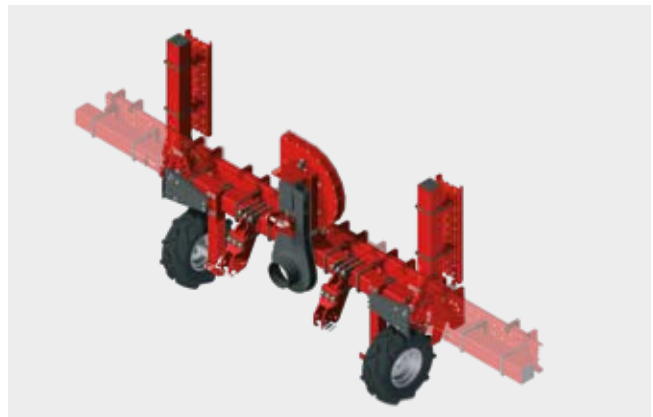
MS 8130. Telescopic toolbar

The planter is equipped with telescopic frame which is actuated by a hydraulic cylinder. The 2+2 external planting units are mounted on the frame telescopic section and slide in and out to go on transport and working position. Thanks to this frame arrangement it is possible to have a 6 row planter (at 70-75 cm inter-row spacing) with a transport width of 3 meters.



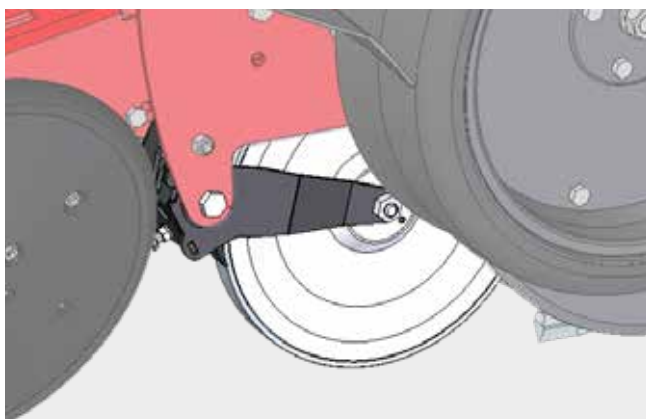
MS 8200. Double frame toolbar with Easy-Set

The Easy-Set rail supports are mounted on the toolbar extra supporting frame. This system allows to slide the planting units in and out on the supporting rail. The adjustment is manual by using a lever to assist the sliding operation.



MS 8230. Hydraulic folding Easy-Set frame

The hydraulic vertical folding frame combined with the Easy-Set system, allows the transport of planter on road with wide working widths. The Easy-Set system allows to slide the planting units from working position to transport position, after that the folding frames side wings lift up for transport and vice-versa.



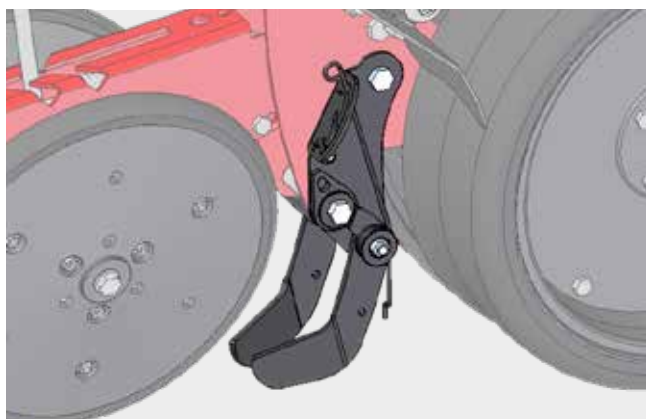
Ø250 mm stainless steel seed press wheel

The seed press wheel is mostly required by the professional farmer who needs the best precision with seed distance and the proper seed-to-soil contact for better emergence and growth of the crops. Available in rubber or stainless steel material.



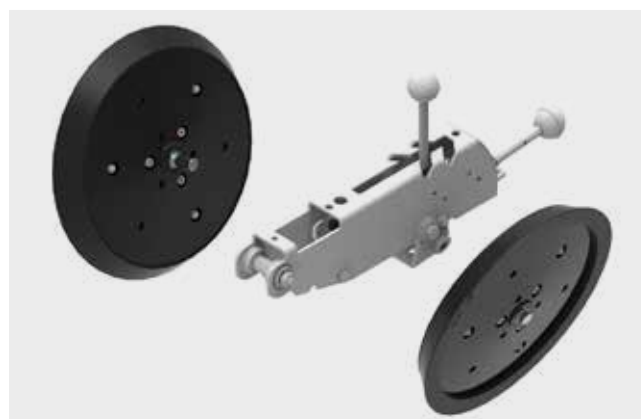
Row cleaner

It is more and more requested to manage crop residues particularly since farmers have been using agriculture conservative techniques. The trash wheels allow to remove crop residues where the planting unit opens the seeding furrow.



In-between seed covering kit

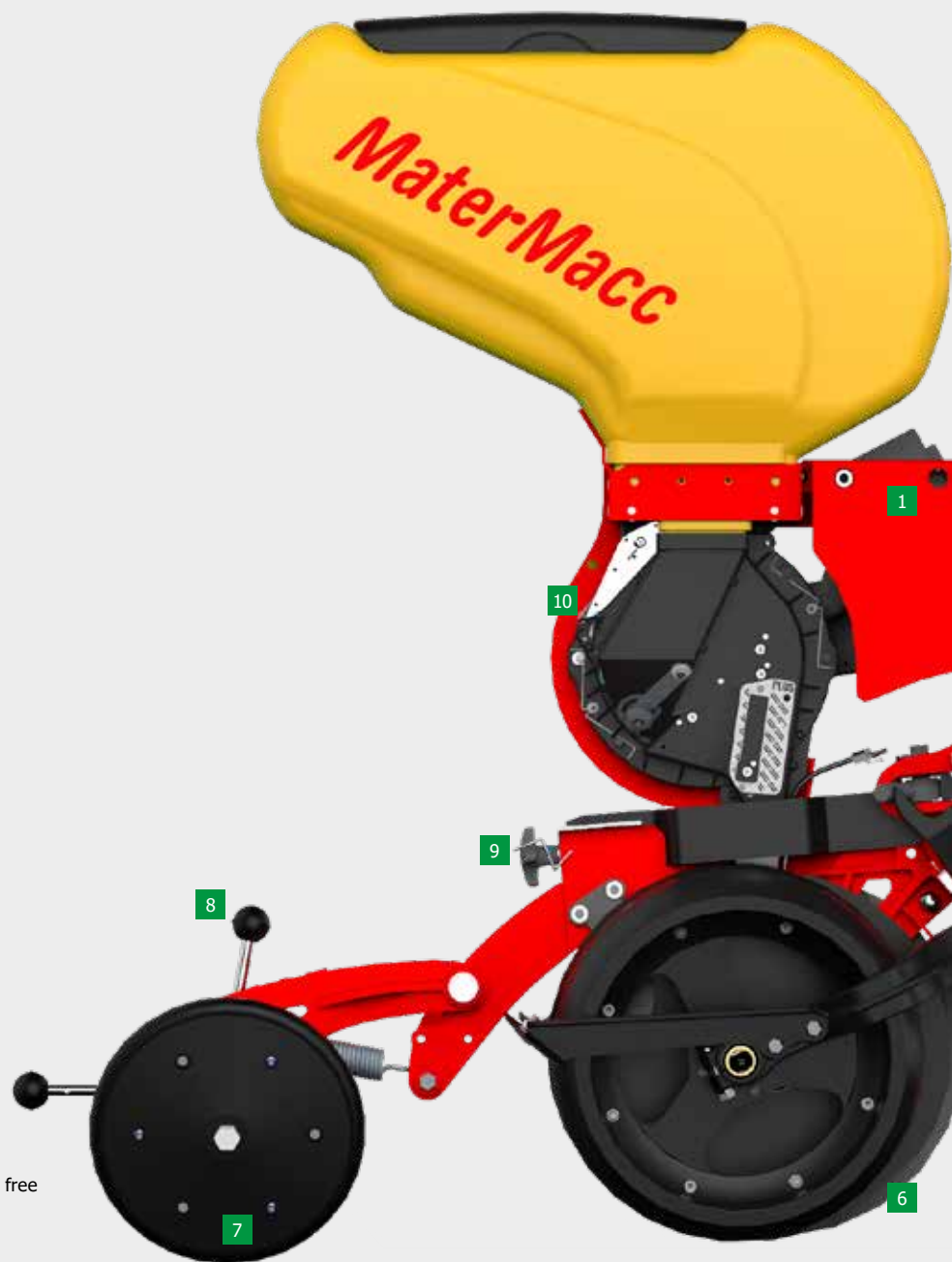
It helps the V covering wheels to better close the furrow above the placed seeds. It is more requested from professional farmers that look for the best conditions to cover the seeds, as it is essential for a proper crop germination.



Closing wheels for heavy/tough soils

Different kinds of cover wheels are available in relation to the soil texture. Here above is shown the version for heavy soils, in this case the wheels are made with a hard plastic material and trapezoid shape. These wheels are also suggested for clay soils.

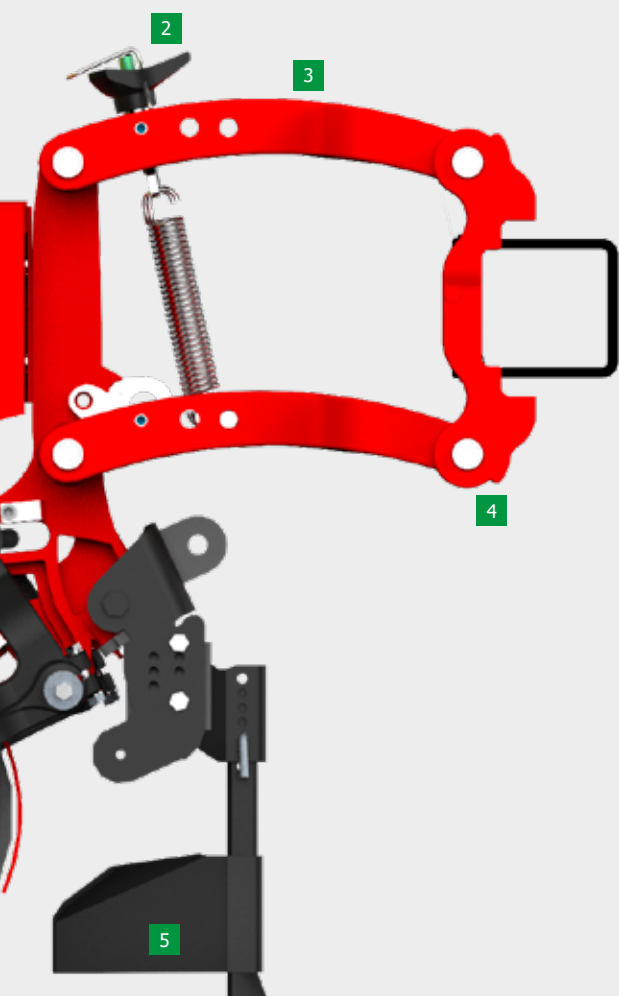
The future of seeding



- 1 Electric motor with integrated ECU
- 2 Easy down-pressure adjustment with sprung knob system
- 3 X structure parallel linkage arms to absorb shocks and loads (300 mm vertical stroke)
- 4 Self-lubricating sintered steel bushings maintenance free
- 5 Front clod pusher replaceable with alternative tools depending on soil working and typology
- 6 Ø390 mm staggered discs openers with double anti-wearing scraping system
- 7 1" cover wheels, replaceable with 2" trapezoid or toothed wheels
- 8 V wheels cast-iron support with 4 adjustments: down-pressure, inclination, spacing and off-set
- 9 Sowing depth adjustment with endless screw to optimize seed placing
- 10 Seed distributor model MagicSem Plus

MS9000 seeding unit

Each component of MS9000 planting unit has been thoroughly designed by MaterMacc R&D: a versatile planting unit that can be used in conventional-till, minimum-till and no-till conditions with high productivity levels. The MS9000 can be adapted to all farming techniques thanks to a reduced weight (still having a very sturdy construction) and a top 250 kg down-pressure.



Highlights

- Sturdy parallel linkage arms machined out starting from solid cast iron blocks
- Heavy-duty spring down-pressure adjustment, from 115 kg to 230 kg
- In-field easy adjustments to suite all working conditions
- Ready-to-use for any crop: no need to replace tools, seed-drop tubes or add seed-press wheels to the equipment
- Microgranulator mounted on the planting unit with its own electric drive and ECU
- Possible configuration for 'high speed' or 'direct seeding'
- Low power absorption in comparison to other direct seeders in the market

Suitable for all types of soil



Each soil has its own characteristics and peculiarities. The MS9000 element answers the operator's needs by adapting equipment to tillage operation.



Minimum tillage (standard)

The clods pusher moves clods and debris away to make furrow opening easier.



Minimum tillage with crop residue (optional)

The sweeping effect of the trash wheels moves sideways clods, crop residues on minimum tillage soil conditions.



Minimum or direct seeding on stones (optional)

In tough and stony soil conditions, the front tine integrated with clod pusher breaks down the top layer and moves away any stone.



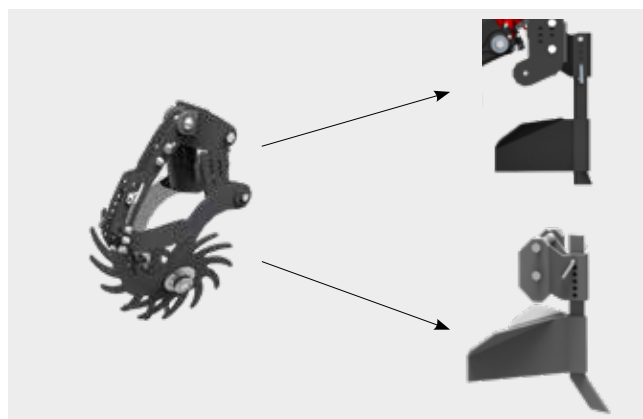
Direct seeding (optional)

On fairly loose ground with superficial crust, the turbo disc facilitates the working of furrow opener.



Direct sowing with crop residues (optional)

In very tough soil conditions or in presence of superficial crust and heavier crop residues, several optional tools can be combined.



Other combinations are possible in relation to the texture and toughness of soil as well as the variability of working techniques. It is possible to exclude the row cleaner without removing it.

Vegetable precision planters





Precision assured also with vegetables planting



MSO



MSO DUO

MSO/MSO-DUO series precision planters are the result of MaterMacc's long term experience in the precision seeding carried out with the 'big sisters' of MS family range.

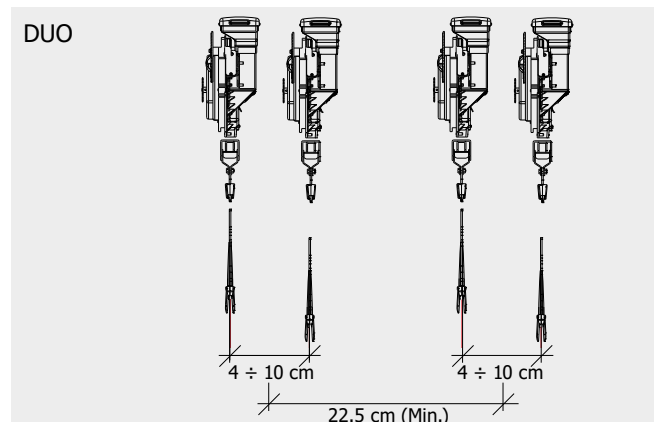
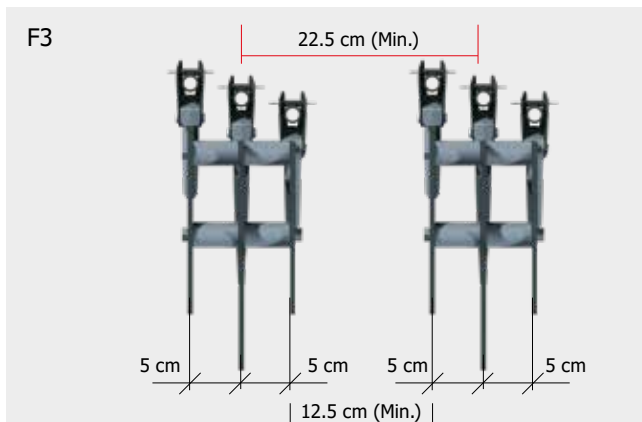
The great versatility of the distributor, in addition to Easy-Set toolbar system, makes these planters ideal for special applications such as sowing sugarbeets and vegetables in general.



The MSO seed distributor, in addition to suction, uses two blowing air flow systems; one to facilitate the detachment of the lighter seeds from the sowing disc and keep the holes cleaned from debris **A** the other to agitate/fluff-up seeds in the bottom of the distributor in order to facilitate the pick-up onto the seed plate holes **B**.

The MSO-DUO unit is equipped with 2 MagicSem distributors. Seeding is carried out in a double line with a row spacing between 4 and 10 cm within the planting unit. As with the MSO seeding unit, the MSO-DUO is equipped with rocker arm system with an accurate endless screw depth adjustment and a range of compression wheels: rubber, stainless steel or mesh to allow for optimum seedbed preparation in all types of soil conditions.

MSO/MSO DUO



MSO

Another aspect which characterises the flexibility in use is the spacing between rows. Although the minimum spacing between rows of MSO (centre to centre) is 22.5 cm, it is possible to use double F2 or triple F3 coulters with a dedicated selector to plant 2 or 3 rows simultaneously.



Height-adjustable drive wheels with pin system ensure optimum sowing in all conditions both on flat ground and raised beds.

MSO DUO

Alternatively, it is possible to use the more precise MSO DUO and change row spacing between 4 and 10 cm on the same planting unit. The minimum spacing between each planting unit stays 22.5 cm.



Most commonly vegetable planters are used in greenhouses or open fields, once the soil is finely prepared. It is possible to sow with variable seedbed configurations and row spacing.

Mechanical transmission



Mechanical: quick and safe setting

The mechanical transmission allows for 21 ratios, combining the top 7 with the 3 bottom sprocket wheels.



TC	B	MAGICSEM PLUS							TAC	A
17	17	26.0	37.0	18.5	9.2	4.1	3.5	3.1	2.1	17
18	18	76.3	38.3	19.6	9.8	4.4	3.7	3.3	2.2	18
19	19	82.7	41.3	20.7	10.3	4.6	3.9	3.4	2.3	19
20	20	87.0	43.5	21.8	10.9	4.8	4.1	3.6	2.4	20
21	21	91.4	45.7	22.8	11.4	5.1	4.3	3.8	2.5	21
22	22	95.7	47.9	23.9	12.0	5.3	4.5	4.0	2.7	22
17	18	101.4	50.7	25.3	12.7	5.6	4.8	4.2	2.8	18
18	19	107.0	53.5	26.7	13.4	5.9	5.1	4.5	3.0	19
19	20	112.6	56.3	28.2	14.1	6.3	5.4	4.7	3.1	20
20	21	118.2	59.1	29.6	14.8	6.6	5.6	4.9	3.3	21
21	22	123.9	61.9	31.0	15.5	6.9	5.9	5.2	3.4	22
17	23	129.5	64.8	32.4	16.2	7.3	6.2	5.4	3.6	23
18	17	135.4	67.8	33.9	17.0	7.6	6.5	5.7	3.8	17
18	18	143.8	71.8	35.9	17.9	8.0	6.8	6.0	4.0	18
19	19	151.4	75.8	37.9	18.9	8.4	7.2	6.3	4.2	19
20	20	159.5	79.8	39.9	19.9	8.9	7.6	6.6	4.4	20
21	21	167.5	83.8	41.9	20.9	9.3	8.0	7.0	4.7	21
22	22	175.5	87.7	43.9	21.9	9.7	8.4	7.3	4.9	22
18	23	183.1	91.7	45.9	22.9	10.2	8.7	7.6	5.1	23

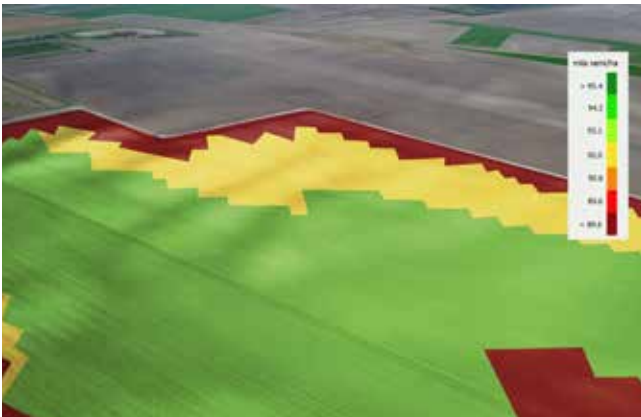
A very high number of in-row seed-to-seed distances can be achieved by following the practical instructions of the seed distribution chart, satisfying wide crop range applications. The transmission of both microgranulators and fertilizer is driven by the ground wheel opposite to the one dedicated to seed distribution. In the case of fertilizer distribution, it is also possible to upgrade the driving system from sprocket wheels set-up to stepless gearbox in oil bath.

The seed distribution charts are simple to read while the high/low density kit (which is supplied with standard equipment) allows to increase the distance range.



Electric: what is the meaning of autonomy?

All our top range models, both MS8130 and MS8230, are available in the Elektro version equipped with autonomous transmission. The system is independent from the tractor. All precision farming needs (such as variable rate and section control) are met in conformity with Isobus standards.



Using the soil fertility prescription maps, it will be possible to change seed investment adapting it to soil characteristics. The management of sections control, on the other hand, automatically shut-off the rows when fields have irregular shapes or simply comply with uploaded perimeter maps.

Advantages of electric drive

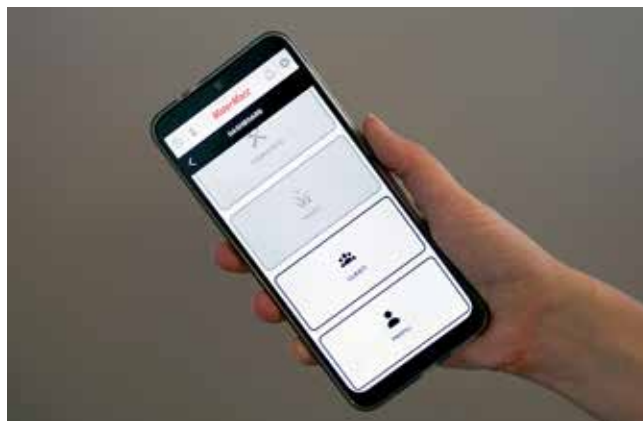
- Avoids slippage and delays
- Instant distribution at starts and stops
- Control of seeding uniformity with reporting in real time
- Constructive simplicity: avoiding the complexity of mechanical transmission, the driving system increases the versatility when changing planter working configurations

System for a perfect sowing control



Electronics tailor-made solutions

MiPlus represents an innovation in the tool control systems. It was born first of all from the idea of creating an operating system which does not require cumbersome wiring, that needs to be installed in the tractor's cab. In fact, the heart of the MiPlus system is a central unit on board the planter which send the information and graphic interface via Wireless to the tablet. This involves that any operator with his own or MaterMacc tablet, both iOS or Android, can connect to the control unit by Bluetooth.



Seed quality is checked using a standardised protocol in conformity with ISO 7256/1 specifications. The main aim of using a common protocol for precision planting is associated to the development of new tools which, from a traditional working speed of 7-8 km/h, are brought to 12 km/h (MaterMacc MS8000 EVO units) and beyond (MS9000 units). It is essential to control the quality of seeding accuracy in relation to working speed using standardised parameters universally recognizable. MiPlus system will be soon able to be used with any MaterMacc equipment: a single device for several working needs.

Features

- Seeding quality control system in accordance with ISO 7256-1
- Manual planting unit shut-off up to 60 rows
- Hectare counter and partial/total hour meter
- Working speed and data collection on productivity and investment in real time
- In-row average sowing distance and population in relation to the full planter or each individual row
- Reading of vacuum gauge and fan RPM at a glance
- Customer management (seeding operation full statistics)
- Possibility to frequently save custom-made settings



The following QR code brings you directly to the MiPlus App



Our history

- MaterMacc was founded in 1983 and always driven by the passion for agriculture and constant research for new solutions to apply in the AG business
- The company is specialized in the design, production of pneumatic precision planters, pneumatic and mechanical seed drills as well as weeding inter-row crop cultivators
- It also designs and produces electronic control systems for the management of agricultural machinery and hose-reel irrigation machines
- Made in Italy technology and quality at the service of agriculture

Quality in precision planting

- MaterMacc is proud to offer planters suitable for use in conventional tillage, minimal tillage or direct seeding (No-Till), meeting the needs of all farms
- The MagicSem pneumatic distributor, the greatest strength and core of MaterMacc planters, was designed to insure accurate seeds distribution at a constant and precise distance. It always maintains excellent performance with all seeds typology and size
- The corporate belief is that the equipment performance and the high level of service provided, above all guarantee customers growth over time, as customers success becomes MaterMacc success
- MaterMacc, Smart precision planters

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