

Vegetable planter  
MSO, MSO DUO

***MaterMacc***

# Small seed, big harvest







## Small seed, big harvest



All information on dimensions, weights, output, etc. and the photos are approximate and are not binding. The equipment shown is not country-specific and may include equipment that is not standard or is not available in all countries. Your local MaterMacc dealer would be pleased to provide you with all the information you need.

From carrots and onions to peppers and pumpkins – regardless of whether they are planted normally, in a raised bed, or in ridges – the MSO vegetable planters from MaterMacc are designed for the precision planting of a wide range of vegetables. The huge versatility of the MAGICSEM distributor and the simple adjustment of the row spacing using the EASY-SET system make these planter great all-rounders. The planters are available as MSO models with one distributor per planter unit, or as MSO DUO versions with two distributors per planter unit.

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# Successful plant growth



## It begins with planting the seed

The production of high-quality food is the goal of every farming business that grows vegetables. However, achieving high yields of the best vegetables can't be left to chance. It is the result of site conditions, good management, and the professional application of agricultural technology.

Compared to conventional cash crops, speciality crops often have their own requirements that need to be taken into account by the machinery.

What all crops have in common is that the planting process lays the foundation for a successful harvest. In addition to the weather, the type of soil, and the planting conditions, the technology used is decisive for seed emergence and the development of the plants.

## Create good starting conditions

Plant growth begins with germination, when the seed starts to grow roots. The following factors in the immediate vicinity of the seed influence how this happens: Water, heat, oxygen and light or darkness.

Choosing the right time for planting and using precision planting technology can make most of these four requirements.

Precise seed placement at the appropriate planting depth with adequate consolidation creates ideal germination conditions with sufficient capillary water and enough oxygen supplied through the soil pores.





## Plenty of nutrients

Before the seedling has formed the first leaves for photosynthesis, nutrients are supplied by the seed. This usually lasts only a few days. The plant must then be provided with all the necessary nutrients in sufficient quantities by its surroundings.

These substances are partly provided by the soil. However, the soil supply can be limited, especially in terms of nitrogen, phosphorus and potassium. That is why these substances need to be replenished by fertilisation.

Applying a fertiliser directly during planting ensures that the plants develop well. At the same time, it helps you to save resources by carrying out several steps in one pass. This is possible thanks to the optional fertiliser applicator and micro-granule spreading system on MSO planters.

## Healthy environment

To ensure healthy growth of the plant, it is important that diseases and pests in the seedbed are minimised.

One way to achieve this is by thorough seedbed preparation. Applying insecticide granules during planting can also have a supporting effect here. These form a protective shield around the seed. This ensures that the plant can develop freely.

# Precision planting



## Small seed, big harvest

The potential yield of vegetables is significantly influenced by the way the seed is placed in the soil. There are three key factors during planting that determine how well the crop can become established:

- Precise seed distribution for the best plant distribution density
- Uniform seed placement depth for good germination and rapid emergence
- Perfect covering of the seed for improved capillarity

At MaterMacc, we provide you with the tools to meet these requirements perfectly: the MSO and MSO DUO vegetable planters.

## Precision separation

What is important for each individual plant is the best possible plant distribution density. The more uniform the distribution, the more constant the light utilisation, rooting and nutrient supply to the plants.

### Hybrid technology by MaterMacc

The MAGICSEM distributor on MSO vegetable planters has been specially developed for precision placement of the smallest seeds. What is unique is the way the distributor combines the effects of positive and negative air pressure.

MAGICSEM uses vacuum to draw the seeds against a perforated disc so that they pass through the holes individually. For maximum reliability also with the smallest seeds, a jet of compressed air in the distributor chamber prevents the seeds from sticking so that they can be picked up perfectly by the metering disc. A second air jet makes it easier for the seed to detach from the metering disc.





## Consistent seed depth

Choosing and consistently maintaining the right seed depth has a decisive influence on germination, seedling development and ultimately on the yield of the vegetable plants.

A sufficient seed depth is necessary for the seed to reach enough capillary water for germination. At the same time, however, the seed must also be placed close enough to the surface to ensure rapid emergence. However, each type of crop has different requirements.

### Tandem roller for depth control

The seed placement depth on MSO vegetable planters can be set quickly and easily using the hand crank for each planter unit. The planter units are mounted on a parallel linkage. Tandem rollers guide the seed coulters evenly through the seedbed at the correct depth.

## Perfectly covered

Uniform consolidation of the seed ensures that it is well covered. This improves the capillary transport of the water towards the seedling.

### Double consolidation

The tandem roller on each planter unit provides double consolidation of the soil in front of the seed and behind it.

In addition, a spring-loaded tine covers the seed with soil to close the seed slot. Firming rollers between the seed coulters and the tines are also available as an option.

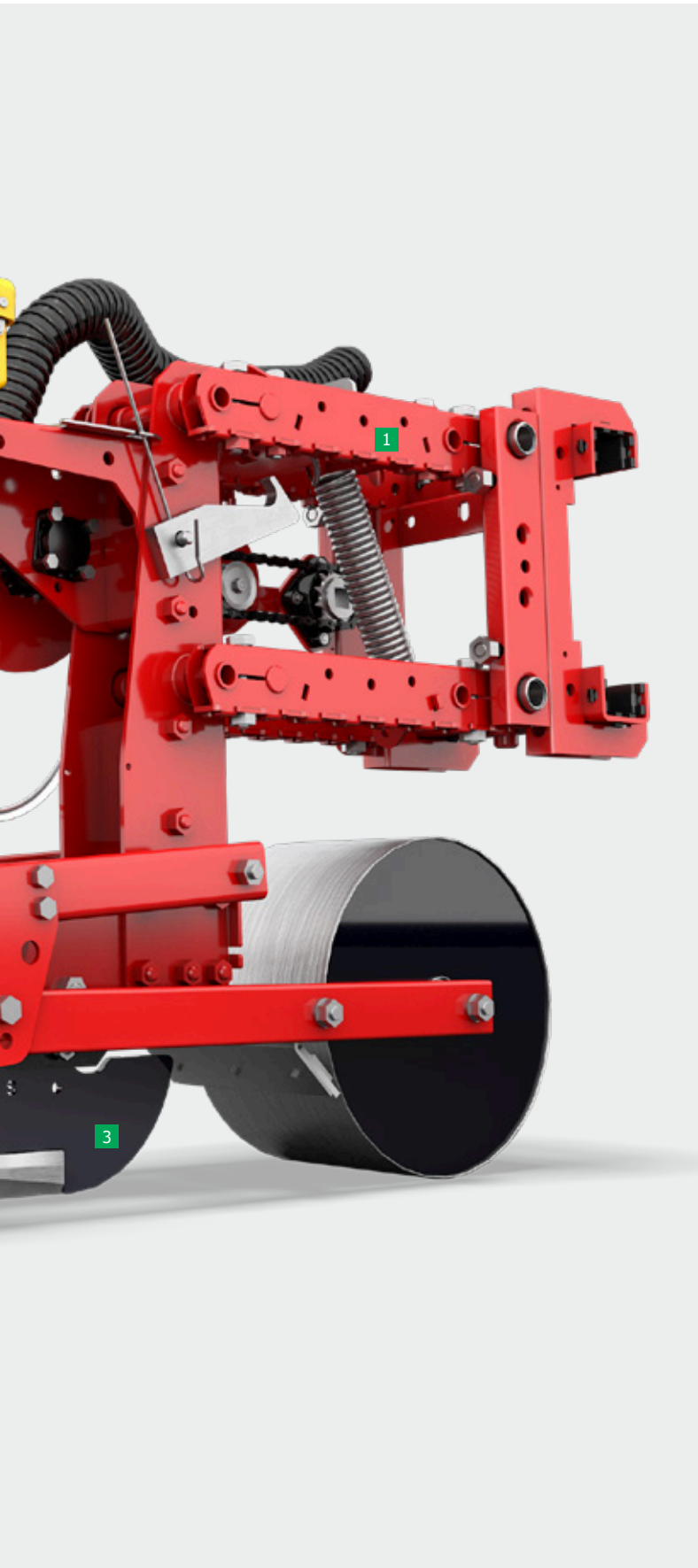
# Precision planting

## Planter unit



- 1 Parallel linkage
- 2 Depth adjustment
- 3 Seed coulter
- 4 Firming roller
- 5 Tine





## Planter unit

Each planter unit is mounted on a parallelogram to ensure uniform depth control. The unit can be loaded or unloaded by up to an additional +/- 27 kg using a tension spring. Each row can be easily switched off by lifting and locking it manually.

## Tandem roller and depth adjustment

The two press wheels before and after the seed coulters operate as a tandem roller and guide the planter unit smoothly over the seedbed. The rear roller serves as a press wheel and is available in steel or, as an option, in rubber (especially for wet soil). A mesh wheel can also be fitted if required.

You can easily set the seed placement depth using the hand crank on each planter unit. An indicator scale helps achieve the same setting on all units.

## Seed coulters

The seed coulters feature a Suffolk coulters. The coulters are available with one, two, or three rows of holes. These enable up to three rows of seeds to be planted for each distributor.

## Tine and firming roller

The spring-loaded tine covers the seed with soil to close the seed slot. To ensure the seed is covered perfectly, firming rollers in stainless steel or rubber are available between the seed coulters and tine.

## Seed hopper

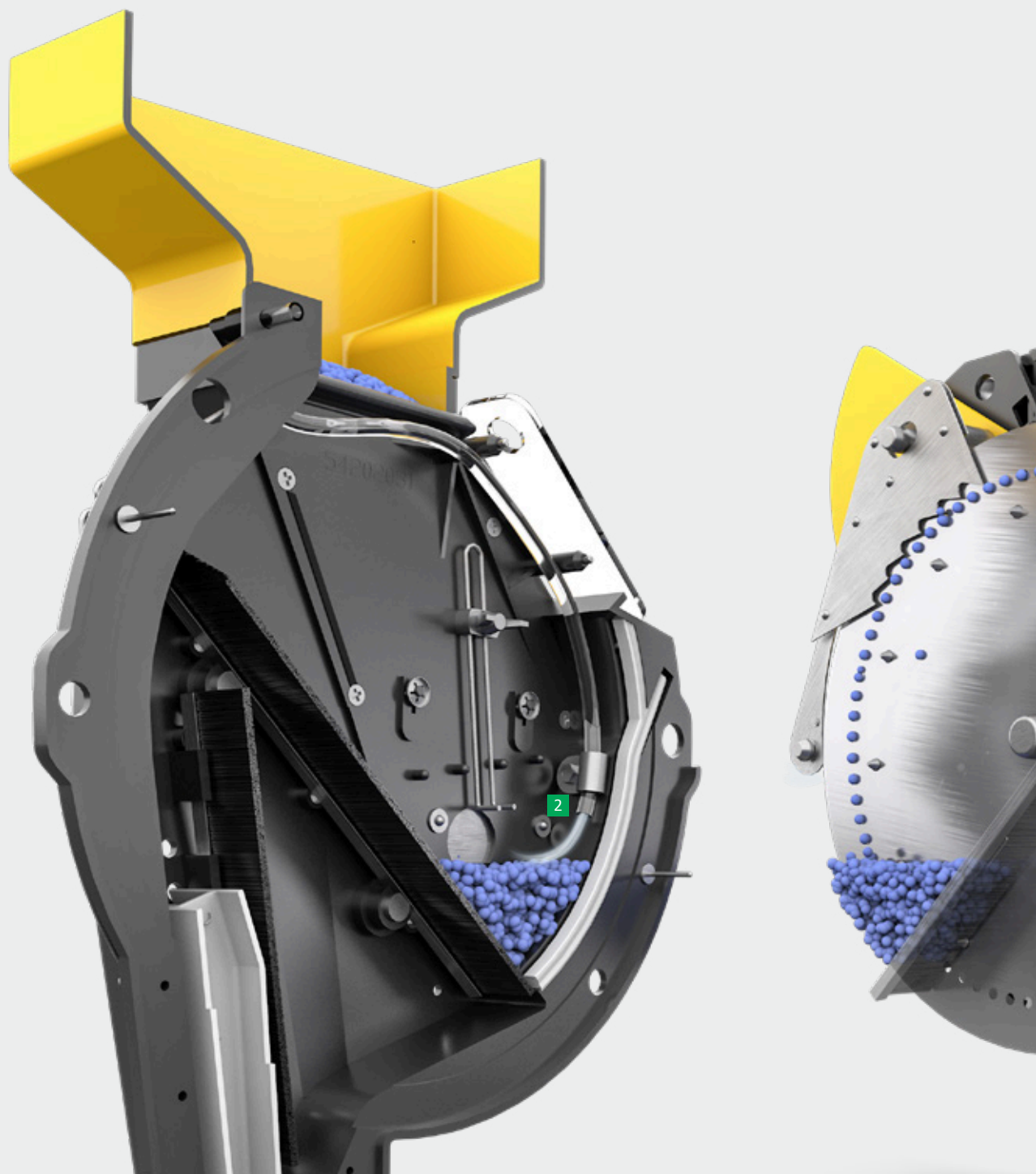
The MSO and MSO DUO planters are fitted with 5 litre seed hoppers per distributor as standard. 15 litre seed hoppers are available as an option.

## MSO EASY-SET

For different row spacings, the planter units can be moved mechanically on a toolbar parallel to the main frame as standard. The steps are 8 mm.

# Precision planting

MAGICSEM distributor



- 1 Vacuum chamber
- 2 Pneumatic agitator
- 3 Air jet helps free seed material





## MAGICSEM distributor

The housing of the MAGICSEM distributor is made from a special polymer/glass fibre compound. Compared to an aluminium housing, this design offers higher torsional and bending strength. It also withstands temperature fluctuations without any thermal deformation.

### Pneumatic agitator

A compressed air jet is directed into the seed distributor as a pneumatic agitator. The air flow prevents the seeds from sticking and enables optimum seed pick-up by the metering disc, even with the smallest seeds.

### Metering disc with agitator function

We offer a choice of metering discs depending to match each type of seed material. The metering discs are made of stainless steel and can be swapped around quickly and easily. The metering discs are attached to the 12 pins on the drive wheel. The tips of the carrier pins also act as an additional agitator in the distributor chamber.

### Scrapers

The scraper prevents more than one seed from entering the holes on the metering disc. The intensity can be adjusted by changing the angle. There is an inspection window to check that it is set correctly.

### Seed material outlet

The outlet is positioned close to the ground to ensure a low drop height for precision seed placement.

The vacuum is cut off at this point so that the seed detaches from the metering disc. Compressed air is directed at the perforated disc through a jet on the other side. The low-pressure air flow ensures maximum reliability even with the smallest seeds. At the same time, it removes any dirt and dust from the holes.

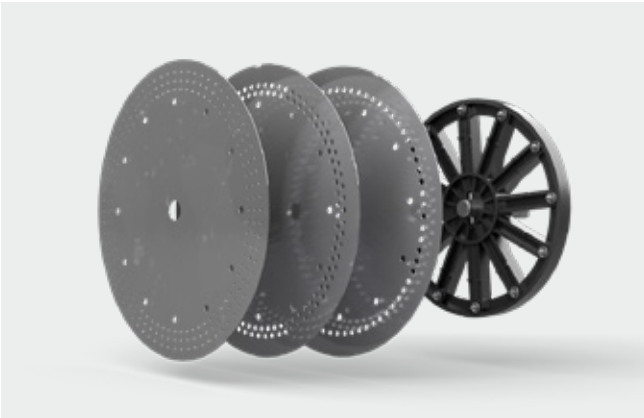
The metering disc is then cleaned again by two brushes.

# Precision planting

MAGICSEM distributor

|        | Pumpkin | Courgette | Cucumber | Asparagus | Tomato | Capsicum | Peperoni | Aubergine | Fennel | Onion | Shallot | Parsnip (coated) | Carrot | Beet | Radish | Lettuce | Chicory | Radichio lettuce | Spinach | Valerian | Leeks | Celery | Broccoli | Cabbage | Cauliflower | Sage | Borage | Coriander | Mustard | Poppy | Thistle |
|--------|---------|-----------|----------|-----------|--------|----------|----------|-----------|--------|-------|---------|------------------|--------|------|--------|---------|---------|------------------|---------|----------|-------|--------|----------|---------|-------------|------|--------|-----------|---------|-------|---------|
| 0.6 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |
| 0.8 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |
| 1.0 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |
| 1.2 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |
| 1.5 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |
| 2.0 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |
| 2.5 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |
| 3.5 mm |         |           |          |           |        |          |          |           |        |       |         |                  |        |      |        |         |         |                  |         |          |       |        |          |         |             |      |        |           |         |       |         |

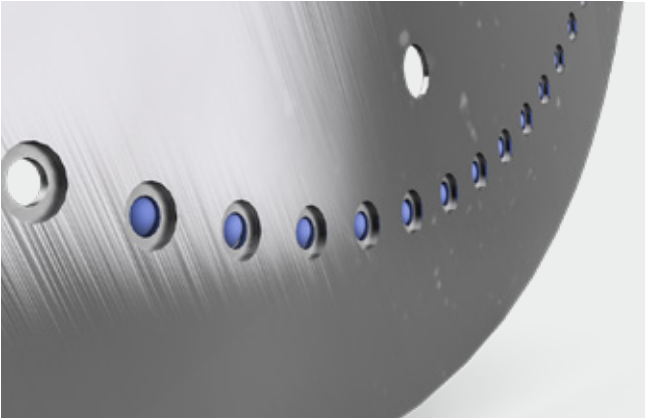
A wide range of metering discs is available with holes from 0.6 mm to 3.5 mm in diameter to match every type of crop. The table above shows our recommendations for different types of vegetables.



## Metering discs

The metering discs are made from stainless steel. We offer discs with one, two or three rows of holes for single or multi-row planting on each distributor.

When they are swapped out, they are simply pushed onto the drive wheel.



## Graduated holes

On metering discs with holes of 2 mm diameter or less, the holes have a stepped design. This helps very small seeds stay attached to the disc during metering.



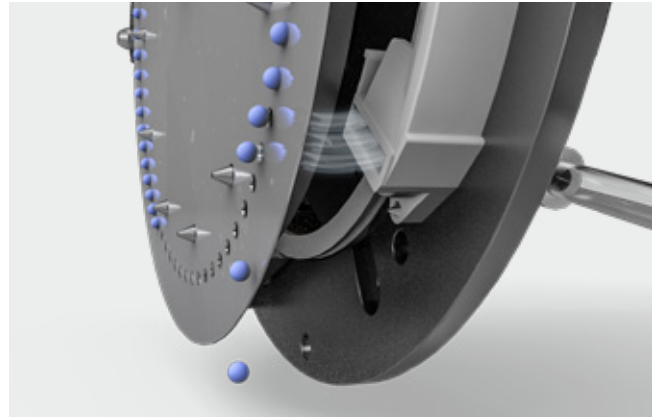
# MSO, MSO DUO



## Seed material outlet

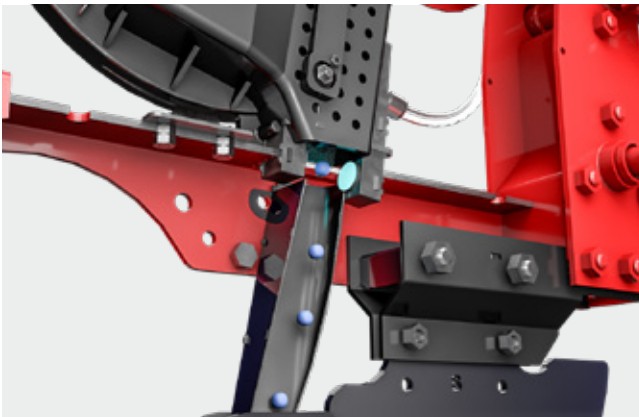
The seed outlet of the distributor is located at 5 o'clock in relation to the metering disc so that it is as close as possible to the ground.

Depending on whether one, two or three seed rows are to be planted, different plastic inserts are provided to guide the seed to the individual coulter pipes.



## Compressed air assists seed release

In contrast to conventional vacuum singling systems, where seed separation is achieved purely by interrupting the vacuum, the MAGICSEM system uses a flow of air at low pressure to assist. This ensures maximum reliability even with the smallest seeds. At the same time, any dirt and dust is removed from the holes.



## Light barrier for monitoring the planting process

Automated monitoring of the planting process is particularly important for very small seeds because the seeds are very difficult to see with the naked eye once they are in the soil.

Each seed row can be fitted with a light barrier as an option. This enables seed placement to be monitored on the MSO (single-row sowing only) and MSO DUO models.



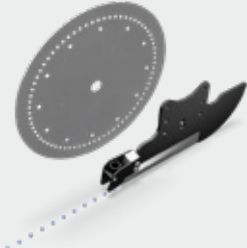
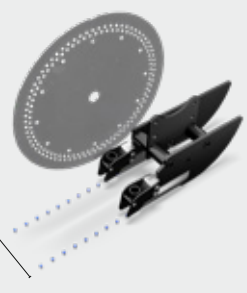
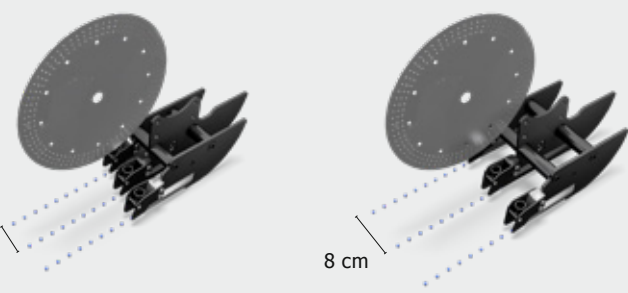
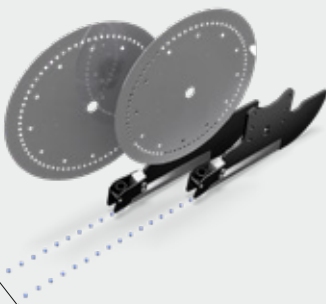
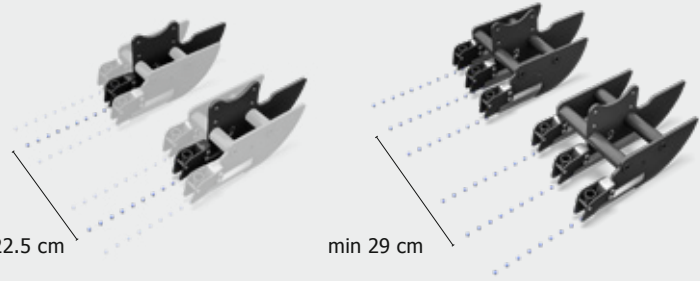
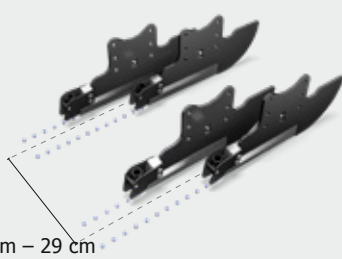
## Cleaning system

After planting, the seed hopper can be emptied through a cover in the base of the distributor.

A suction system with a separate hopper allows you to completely empty the distributor of any remaining seed material.

# Precision planting

MAGICSEM distributor

|                                 | MSO  | MSO DUO   |
|---------------------------------|--|---|
| Planting method and row spacing | <div><p>F1</p></div> <div><p>F2</p><p>10 cm</p></div> <div><p>F3</p><p>5 cm</p><p>8 cm</p></div> | <div><p>F1</p><p>4 cm – 10 cm</p></div>     |
| Row width                       | <div><p>min 22.5 cm</p><p>min 29 cm</p></div>   | <div><p>at least 25.8 cm – 29 cm</p></div> |



## One, two, or three rows per planter unit

Depending on the requirements of the individual plants and the harvesting machinery, you can choose between planting single, double or triple rows for each planter unit. You can choose between MSO and MSO DUO vegetable planters.

- MSO: for one to three-row planting with the seed metered by one distributor
- MSO DUO: for two-row planting with seed metered by one distributor for each row of seed



### MSO

On the MSO, there is a MAGICSEM distributor on each planter unit. This can be fitted with metering discs with one, two, or three rows of holes and the corresponding number of seed coulters. This allows the seed material to be placed in one, two or three rows per distributor.

The plastic insert in the seed outlet and the scraper may need to be replaced depending on which metering disc is being used. Changing the setup is quick and easy.

On MSO vegetable planters, you have the advantages of a wide range of planting setups and row spacing options combined in one simple design.



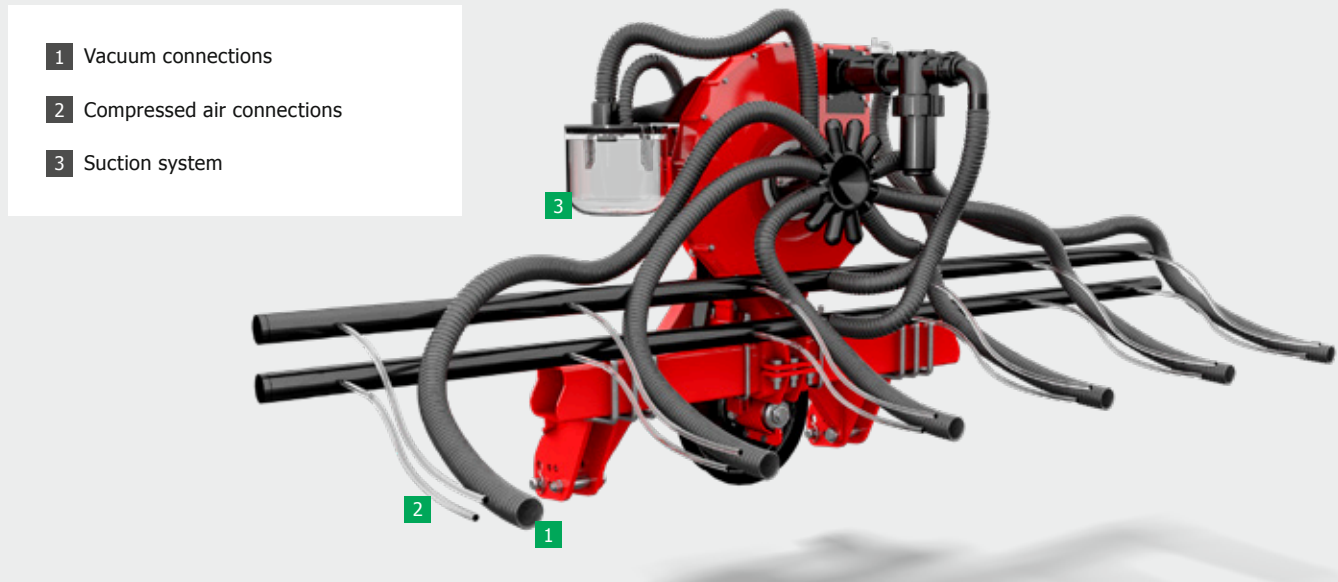
### MSO DUO

Each planter unit on the MSO DUO is fitted with two complete MAGICSEM distributors including seed hopper and seed coulters. Each distributor plants one row of seeds.

Each distributor can be moved from side to side to adjust the row spacing between 4 cm and 10 cm.

The advantage of the MSO DUO compared to the MSO is its more precise metering when planting two rows.

# Precision planting



## Fan

The fan on MSO vegetable planters creates a vacuum inside the distributors. At the same time, it also supplies the distributors with compressed air. The suction system for cleaning the distributors is also linked to the fan.



## Driveline

The powerful yet quiet fan from MaterMacc is available for PTO speeds of 540 / 750 / 1000 rpm. It can also be driven hydraulically as an option.

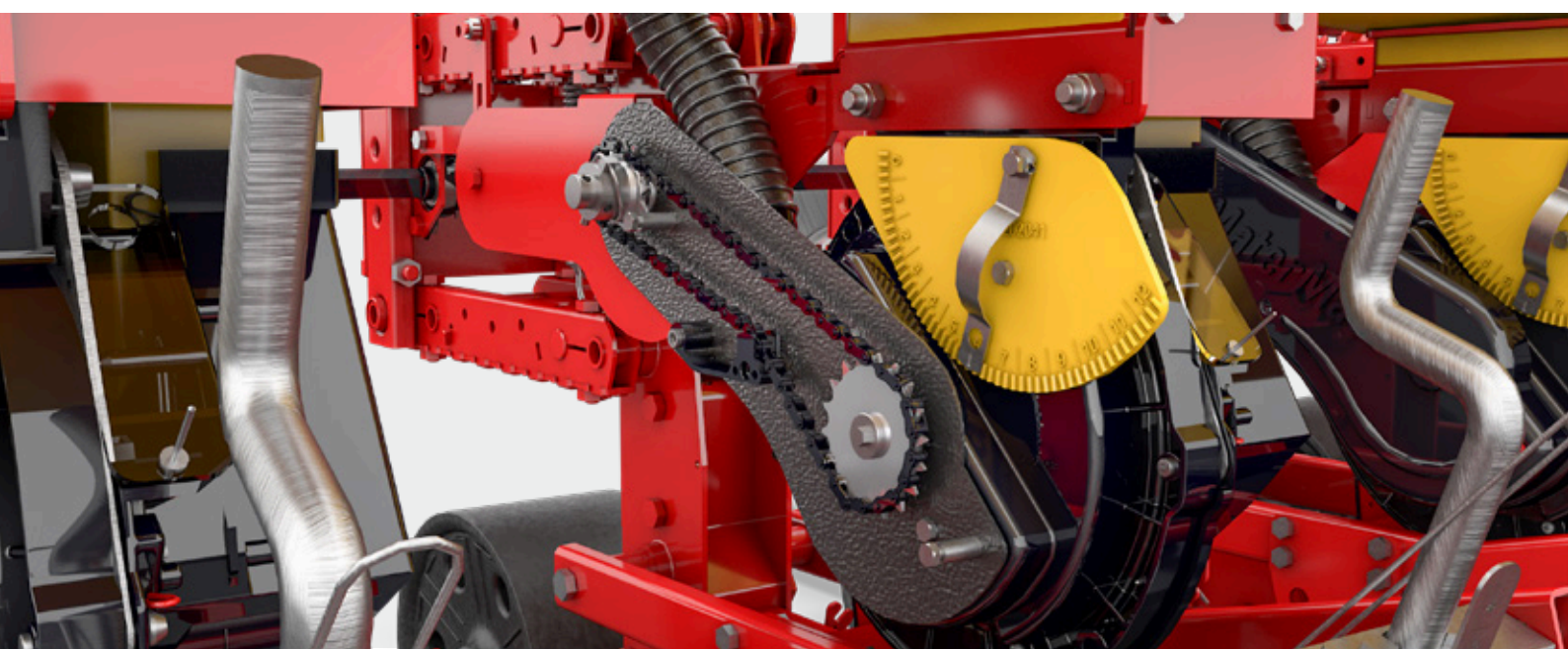
Depending on the equipment fitted, the vacuum can be read at a pressure gauge or on a tablet and adjusted by changing the PTO speed.

## Durable

Thanks to the large volume of air in the suction chamber, the vacuum system can be operated with a relatively low negative pressure. This protects both the seals and the distributor. The vacuum should be selected as follows, depending on the size of the seed:

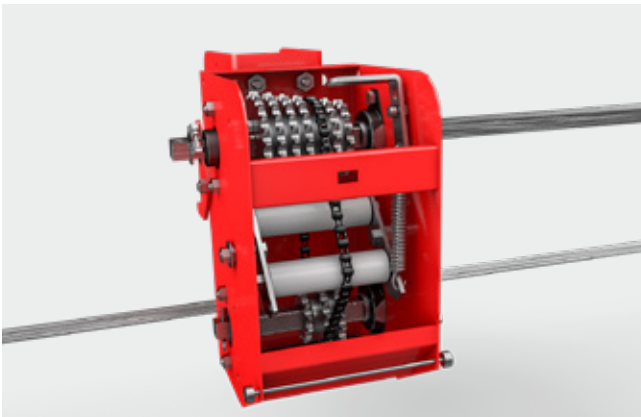
- 30 mbar – 40 mbar for small and light seeds
- 35 mbar – 45 mbar for large and heavy seeds





## Mechanical driveline

The planter units are driven mechanically by one of the two chassis wheels.



## Main gearbox with 21 speeds

The 21-speed chain drive system allows you to select the required seed spacing without the need for tools.

A table showing the relationship between the gear and hole spacing on the metering is provided on the gearbox cover.

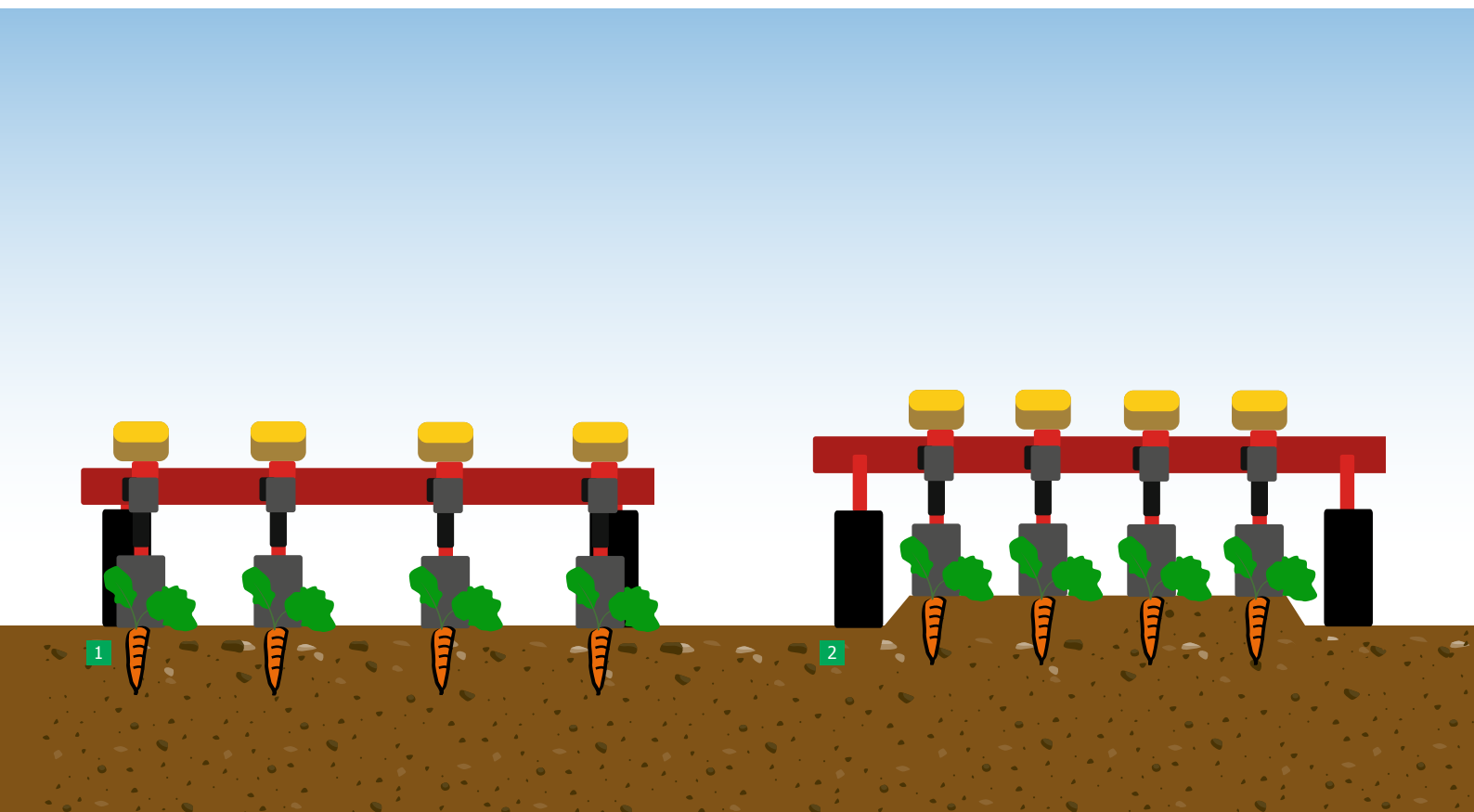


## Each planter unit can easily be switched on and off

The planter units are each driven by a lay shaft and can be quickly switched on and off separately without the need for tools.

In addition, each planter unit can be lifted and locked in place.

# Versatility



## The all-rounder

Vegetable farming sets its own rules. The requirements for each type of vegetable are very different. That is why there are three different ways of farming vegetables:

- 1 Normal seed
- 2 Raised seed bed
- 3 Planting in ridges

MaterMacc offers a wide range of solutions for successfully planting all three of these methods.

### Normal seed

The spacing between rows when planting vegetables is determined by the space needed by each plant and the header on the harvest machinery.

Thanks to the EASY-SET system on the MSO planter, you can simply move the planter units on a toolbar parallel to the main frame to set the required row spacing.

### Raised seed bed

Regardless of whether you are planting on level ground or on raised beds, thanks to the height-adjustable wheels you can use MSO vegetable planters for any scenario.

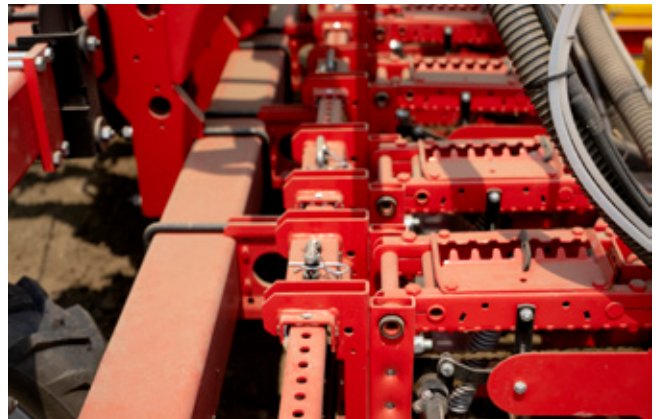
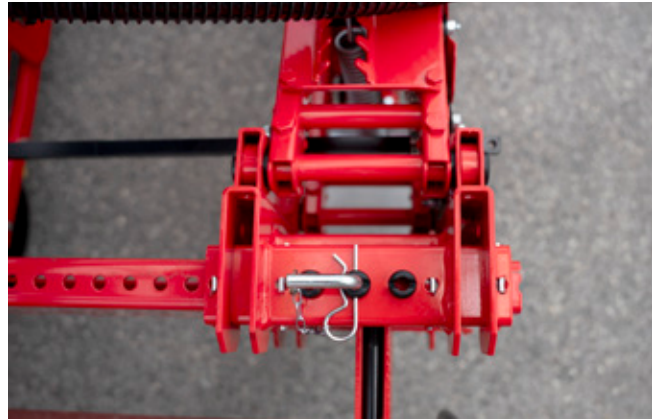
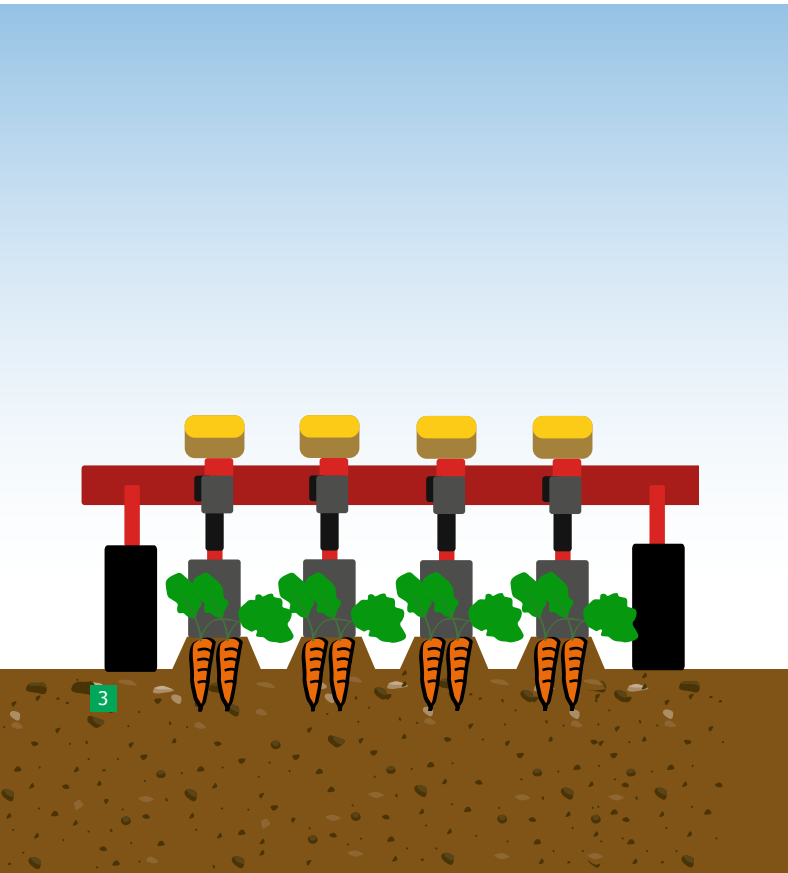
### Planting in ridges

Many vegetables are sensitive to waterlogged soil. The heavier the soil, the more the advantages of a ridge crop outweigh the disadvantages:

- Improved drainage
- Better aeration of the soil
- Faster warming of the soil in springtime

Thanks to the MAGICSEM distributor system that allows up to three rows of seeds to be placed per planter unit, each ridge can be planted with one, two or three rows.





## Height adjustable wheels

The height-adjustable running wheels allow the planter to be used for normal, raised bed, and ridge scenarios.

The two 5.00-12 wheels can be adjusted in a hole matrix in 50 mm steps without the need for tools.

## Ingenious configuration

On the MSO, the wheels are located in front of the main frame. This means that you can move the planter units to the left and right along the toolbar without them colliding with the wheels. This is where versatility meets convenience.

## MSO EASY-SET for setting the row spacing

The EASY-SET system on the MSO planter enables quick and easy adjustment of the row spacing.

The planter units can be moved along the toolbar parallel to the main frame in steps of 8 mm and fixed mechanically using a lever. The minimum row spacing is 22.5 cm on the MSO and 25.8 cm on the MSO DUO.

## Maximum flexibility

Any row can be easily switched off by lifting and locking individual planter units manually.

For example, an MSO planter set up for 6 rows with a row spacing of 45 cm can be converted into a 4-row planter with a row spacing of 75 cm.

# Cost effectiveness



## Conserving resources

The MSO and MSO DUO vegetable planters can be supplied with optional equipment to apply fertiliser and micro-granules.

These two equipment options enable planting, fertilisation and the application of plant protection products to be carried out in a single pass. Not only does this reduce soil compaction, it also optimises the time worked by personnel.

## Planting with fertiliser

Applying a fertiliser during planting is essential for ensuring that plants develop fast at an early stage. In the first stages of development, plants have a shallow root system and are unable to absorb nutrients from deeper layers.

A starter application, especially using a fertiliser with phosphorus, helps the plants to develop a strong root system so that they can quickly access nutrient reserves in the soil.

The crop plants are then also better able to compete against companion plants. As a result, herbicide usage can be reduced.





## Micro-granules

By applying fertiliser in the form of micro-granules during planting, the nutrients can be used directly by the seedlings.

- Micro-granules have the advantage that they are quickly dissolved and release nutrients even in dry soil conditions.
- Because they are deposited directly in the seed slot, it is easier for the roots of the plants to absorb the nutrients.

Compared to conventional fertilisation methods, much smaller quantities of fertiliser are needed. What is more, almost 100 % of the fertiliser is used by the plants because it is available immediately.

## Plant protection products

The micro-granule spreader is also suitable for distributing granular soil insecticides. These are deposited in the seed slot to form a protective shield around the plant. The insecticides can target pests such as carrot fly, wireworm, cutworm and cabbage fly.

Slug pellets can also be applied using the micro-granule spreader.

# Cost effectiveness

## Fertiliser application



## Fertiliser application

Fertilisers are applied to the soil surface through dedicated drop hoses and distributed close to the ground. This guarantees full surface application regardless of the wind conditions.



## Metering

Similar to a seed drill, cam wheels are mounted on a mechanically driven shaft to enable speed-dependent metering of the fertiliser. Each row is equipped with its own distributor.

The application rate is adjusted using a slide for each cam wheel. These can be set centrally using an adjustment wheel for all distributors.

## Complete kit

The fertiliser application system consists of two hoppers, each of which holds 165 l or 215 l as required, a distributor unit for each fertiliser row and the drop hoses.

Each hopper has openings on the underside for emptying residues. Cleaning is also made much easier.



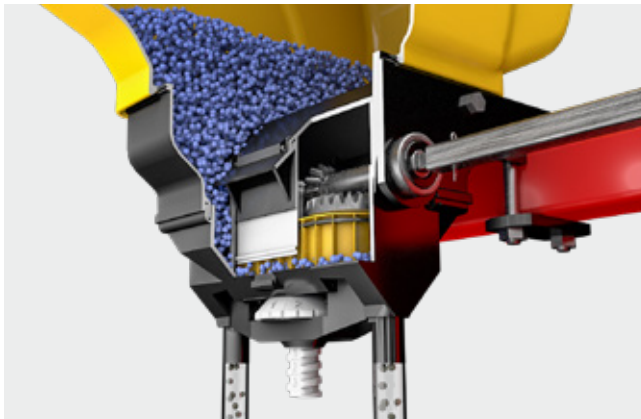
# MSO, MSO DUO

Micro-granule spreader



## Micro-granule spreader

The micro-granules are transported through a drop hose to the seed coulter, where they are placed directly into the seed slot. Placement between the seed rows is also available as an option.



### Metering

A vertical conveyor belt with carrier bars takes the granulate from the bottom of the hopper and transports it to two drop hoses. The conveyor belt is driven mechanically by a shaft and an angular gearbox.

The application rate is set using a small wheel on the underside of each distributor. The two metering slides open and close as required.



### Complete kit

The micro-granulate hopper is made of plastic and holds 25 l. On MSO planters, each hopper supplies two planter units. On MSO-DUO machines, a hopper is needed for each planter unit.

Each hopper has two openings on the underside for emptying residues. Cleaning is also made much easier.



## Vegetable planters: 2 – 6 rows

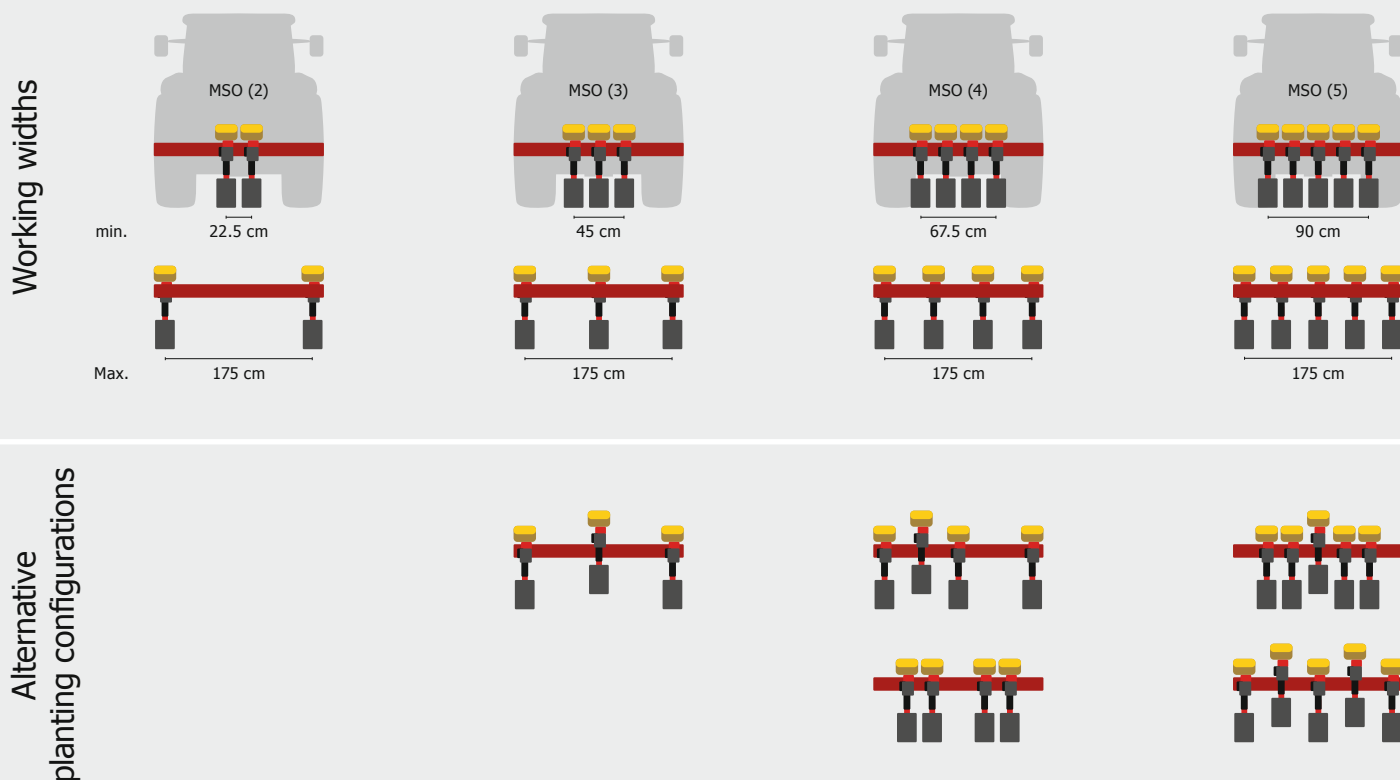






# Vegetable planters: 2 – 6 rows

MSO



## MSO toolbar concept

MSO vegetable planters are available with two to six planter units. Each planter unit is equipped with a distributor. All models feature a rigid toolbar. The toolbar is 200 cm wide on machines up to five rows, and 250 cm wide on machines with six rows.

### Maximum flexibility

Thanks to the EASY-SET system on MSO planters, the row spacing can be easily adjusted. The minimum row spacing is 22.5 cm. Working widths of up to 175 cm are possible on the models with the narrow frame. The six row planter achieves a maximum working width of 225 cm.

Any row can be easily switched off by lifting and locking individual planter units manually.

For example, an MSO planter set up for 6 rows with a row spacing of 45 cm can be converted into a 4-row planter with a row spacing of 75 cm.

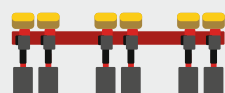
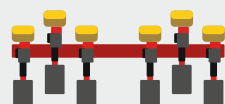
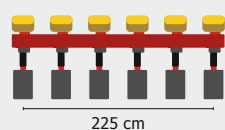
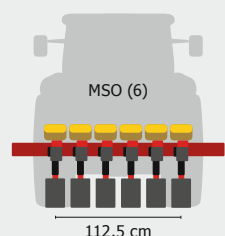
## Fertiliser and micro-granule equipment

MSO vegetable planters can be supplied as an option with a fertiliser application and micro-granule spreading system.

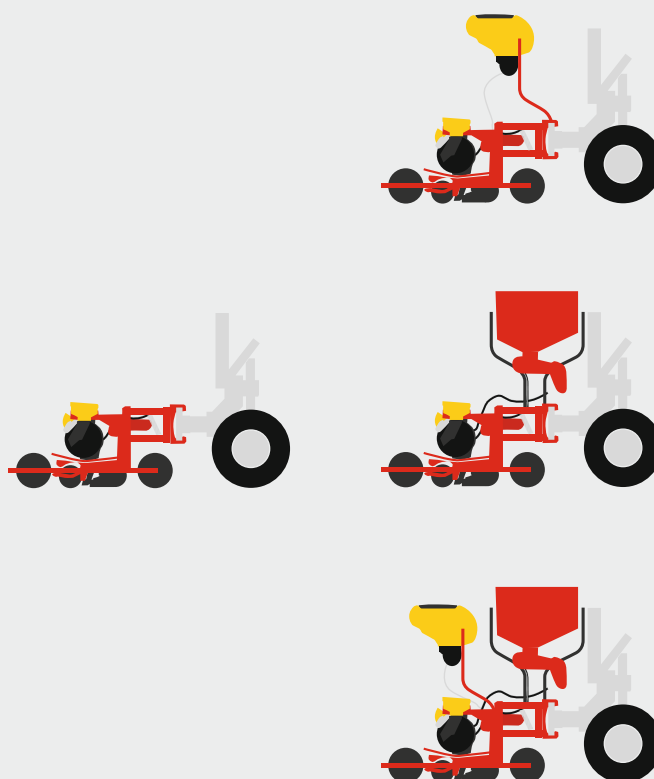
The fertiliser application system consists of two metal hoppers, each of which holds 165 l or 215 l as required, a distributor unit for each fertiliser row and the drop hoses.

The micro-granulate hopper is made of plastic and holds 25 l. On MSO planters, each hopper supplies two planter units.





Equipment options



## Versatile precision planting, even with the smallest seeds

“Thanks to its ability to easily change the row spacing, the MSO is a versatile machine that allows me to plant a variety of crops, ranging from squash and green beans, to onions, spinach, courgettes and carrots.

The MSO has a very precise and easy-to-adjust distributor. I find that it is very accurate both along the seed slot and in terms of seed placement depth, even with crops that have very small seeds. As a result, I can save on seed material, which is very expensive for some types of vegetables.”

Antonio Gurian  
Farmer and Contractor  
Lodi | Italy



## Vegetable planters: 3x2 – 6x2 rows





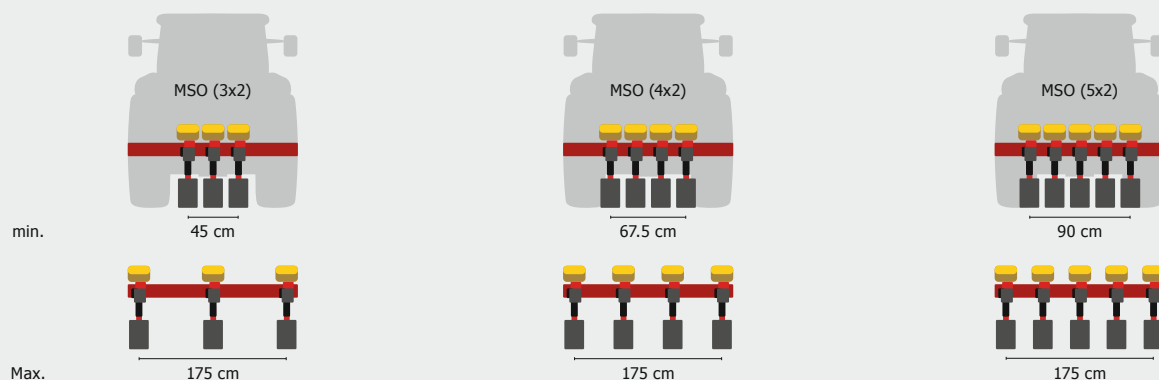




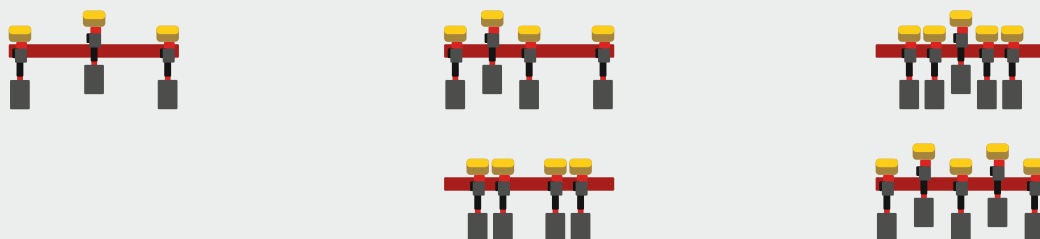
# Vegetable planters: 3x2 – 6x2 rows

## MSO DUO

### Working widths



### Alternative planting configurations



## MSO DUO toolbar concept

MSO DUO vegetable planters are available with three to six planter units. Each planter unit is equipped with two distributors. All models feature a rigid toolbar. The toolbar is 200 cm wide on machines up to five rows, and 250 cm wide on machines with six rows.

### Maximum flexibility

Thanks to the EASY-SET system on MSO DUO planters, the row spacing can be easily adjusted. The minimum spacing (centre-to-centre) between two planter units is 25.8 cm. Working widths of up to 175 cm are possible on the models with the narrow frame. The six row planter achieves a maximum working width of 225 cm.

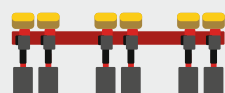
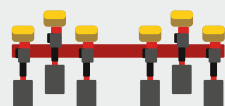
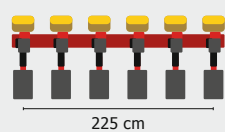
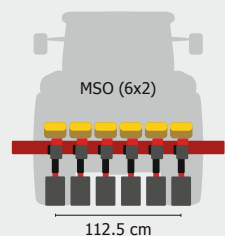
Any row can be easily switched off by lifting and locking individual planter units manually.

## Fertiliser and micro-granule equipment

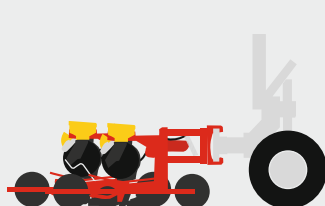
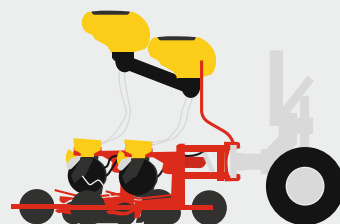
MSO DUO vegetable planters can be supplied as an option with a fertiliser application and micro-granule spreading system.

The fertiliser application system consists of two metal hoppers, each of which holds 165 l or 215 l as required, a distributor unit for each fertiliser row and the drop hoses.

The micro-granulate hopper is made of plastic and holds 25 l. On MSO DUO planters, each hopper supplies one planter unit.



Equipment options



# Digital farming

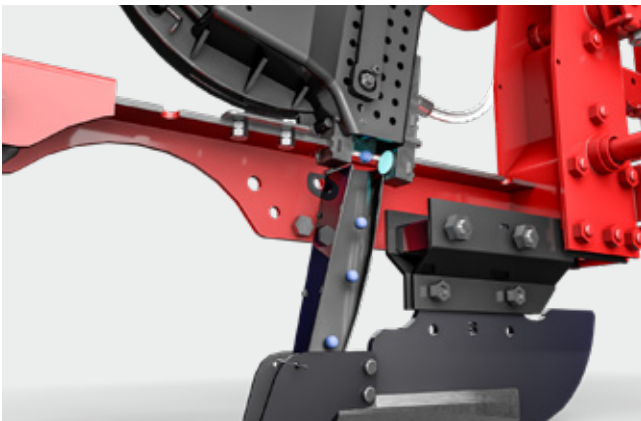
MiPlus





## Customised electronic systems

MiPlus offers the capability of controlling machines and transmitting information wirelessly. The heart of the system is the job computer with Bluetooth interface. Any tablet, regardless of whether Android or iOS, can connect to it. The MiPlus app can be downloaded free of charge from the app store.



## Monitoring the planting process

Thanks to MiPlus, you can easily monitor the planting process from the driver's seat using your tablet and detect double seeding or missing windows.

MaterMacc has installed a light barrier that is able to distinguish even the smallest seeds from dirt and dust and detect them reliably.

Automated monitoring of the planting process is particularly important for very small seeds because the seeds are very difficult to see with the naked eye once they are in the soil.

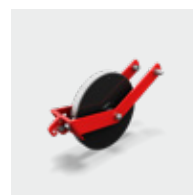
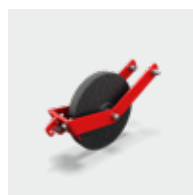
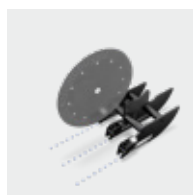
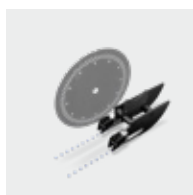
## More data recorded

- Counters for hectares and hours
- Display for working speed
- Display for productivity and seed rate
- Average seed spacing and average planting density (overall, or for individual rows)
- Display for current vacuum
- PTO speed



This QR code takes you directly to the MiPlus app

# Technical data



**Seed coulter for two rows**

**Seed coulter for three rows (5 cm)**

**Seed coulter for three rows (8 cm)\***

**Rubber firming roller**

**Stainless steel firming roller**

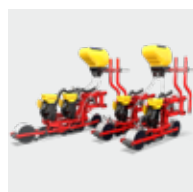
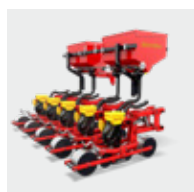
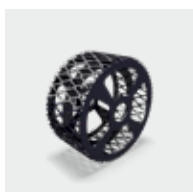
|         |                          |                          |                          |                          |                          |
|---------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| MSO     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| MSO DUO | –                        | –                        | –                        | <input type="checkbox"/> | <input type="checkbox"/> |

## More equipment options

- + 15 litre seed hopper
- + Stainless steel fertiliser hopper
- + Hydraulic fan drive

|               | Number of rows | Minimum row width | Toolbar width | Maximum working width |
|---------------|----------------|-------------------|---------------|-----------------------|
| MSO (2)       | 2              | 22.5 cm           | 200 cm        | 175 cm                |
| MSO (3)       | 3              | 22.5 cm           | 200 cm        | 175 cm                |
| MSO (4)       | 4              | 22.5 cm           | 200 cm        | 175 cm                |
| MSO (5)       | 5              | 22.5 cm           | 200 cm        | 175 cm                |
| MSO (6)       | 6              | 22.5 cm           | 250 cm        | 225 cm                |
| MSO DUO (3x2) | 3x2            | 25.8 cm – 29 cm   | 200 cm        | 175 cm                |
| MSO DUO (4x2) | 4x2            | 25.8 cm – 29 cm   | 200 cm        | 175 cm                |
| MSO DUO (5x2) | 5x2            | 25.8 cm – 29 cm   | 200 cm        | 175 cm                |
| MSO DUO (6x2) | 6x2            | 25.8 cm – 29 cm   | 250 cm        | 225 cm                |

# MSO, MSO DUO



**Rubber press wheel  
140 mm /  
200 mm**

**Mesh press wheel  
140 mm**

**Light barrier for  
monitoring the  
planting process**

**Fertiliser  
application**

**Micro-granule  
spreader**

**Bout markers**

|                          |                          |                          |                          |                          |                          |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## Configure your own machine

■ = standard, □ = optional, – = not available

\* seed coulter for three rows (8 cm) needs 200 mm press wheel

| Transport width | Minimum power | Weight |
|-----------------|---------------|--------|
| 200 cm          | 30 hp         | 380 kg |
| 200 cm          | 30 hp         | 425 kg |
| 200 cm          | 30 hp         | 470 kg |
| 200 cm          | 40 hp         | 515 kg |
| 250 cm          | 40 hp         | 560 kg |
| 200 cm          | 40 hp         | 500 kg |
| 200 cm          | 40 hp         | 520 kg |
| 200 cm          | 50 hp         | 530 kg |
| 250 cm          | 50 hp         | 570 kg |





## Our company history

- MaterMacc was founded in 1983 out of a passion for agriculture and the constant search for new solutions in agriculture.
- The company specialises in the development and manufacture of pneumatic precision planters for traditional crops as well as pneumatic and mechanical planters, no-till planters and crop care machines.
- We also manufacture electronic equipment for the control and management of agricultural machinery and tools for controlling irrigation systems.
- MaterMacc stands for technology and quality – made in Italy to serve agriculture.

## Small seed, big harvest

- Pinpoint placement of the smallest seeds thanks to the MAGICSEM distributor
- Versatility thanks to the different seed coulters for one to three rows per distributor
- Quick and easy adjustment of the planting rows using EASY-SET system
- Cost effective planting options with fertiliser and micro-granules
- Convenient operation with the planting process controlled by a light barrier and MiPlus

## Company contact details:

### **MaterMacc S.r.l.**

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