



# *MaterMacc*

an ARBOS Company

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## **PRODUCTS CATALOGUE**

**Seed drills for cereals**

# COMPANY PROFILE

## **Innovation at your service**

For MaterMacc innovation means experimentation, design, building and testing, the fundamental elements which characterize the development of new products. MaterMacc was established in the early 1980's and, as of January 2015, has become part of the Lovol Arbos Group.



This important step outlines a move forward in the internationalization strategy of the company, which is particularly attentive to the enhancement of the technological skills and excellence of Italian companies in the mechanical field and particularly in agricultural engineering.

Production plants are located in San Vito al Tagliamento, province of Pordenone, industrial centre of north-eastern Italy, not far from Venice and Treviso airports. This location provides the company with good connections with areas in the world where MaterMacc sells its products.

MaterMacc plants cover a surface of 15.000 m<sup>2</sup> which includes 3 areas designated for production, R&D, commercial and administrative offices, and 6 hectares of trial fields where new products are tested.

Always keeping an eye on innovation led MaterMacc to make technological developments in agriculture, file numerous patents, increasing machine speed and ease of use.

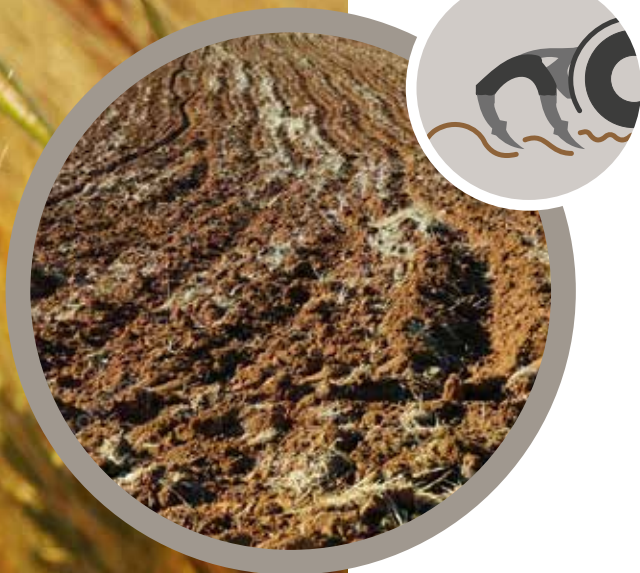




## Conventional agriculture

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**GRANO**  
**GRANO-F**  
**MSD**  
**MSD 2.0**  
**MSD 2.0 ELEKTRO**  
**MSD 2.0 FTC**  
**MSD 2.0 COMBI**  
**MSD 2.0 COMBI FOLDING**



## Minimum tillage

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**MEK-X**  
**MEK-XF**  
**MSD 2.0**  
**MSD 2.0 ELEKTRO**  
**MSD 2.0 FTC**  
**MSD 2.0 COMBI**  
**MSD 2.0 COMBI FOLDING**



## Direct drilling

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**UST**

# SEED DRILLS FOR CEREALS

## ***Precision even when drilling cereals***

MaterMacc is renowned for its compact, light and precise vacuum planters but is also establishing itself in the cereals and fodder sector. The current seed drill line includes mechanical and pneumatic seed drills suitable to any agricultural style; conventional or conservative with machines that can seed cereals on a well-refined seedbed, on rough soil and even in zero-tillage conditions.



### **GRANO / MEK-X** **Mechanical seed drills - Simple and reliable**

GRANO is available with suffolk, single or double disc coulters. MEK-X mounts an aggressive coulter or single disc, ideal to work on minimally prepared soil.



### **MSD** **Pneumatic seed drills - High working speed**

Available with working width spanning from 4,0 to 6,0 m and with foldable tool bar.





**UST**  
**Pneumatic seed drills**  
**minimum till & no-till - *Unique***

High performance pneumatic seed-drill geared to ward conservative agriculture techniques. The foldable frame allows for low road transport width with working widths of 4,5 and 6,0 m.



**MSD 2.0**  
**Pneumatic seed drills - *Hi-tech seeding***

This evolution of the MSD seed drill is characterized by a richer technological content, longer range and higher productivity.



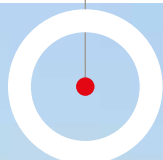
**MSD 2.0 COMBI & FOLDING**  
**Seed drill combined with power harrow - *Work even faster***

Combining the MSD 2.0 pneumatic seed drill to a robust power harrow you double your productivity. Available in working width spanning from 3,0 to 6,0 m, with fixed or foldable frame and front seed tank.



# MECHANICAL SEED DRILLS

## GRANO



Seed covering  
harrow (OPTIONAL).

**Row marker**  
Hydraulic automatic  
row marker (OPTIONAL).

### Available planting units



Suffolk coulters with depth control.



Disc coulters with depth control.



Double disc coulters.



Double disc coulters with seed  
pressing wheel.



## MECHANICAL SEED DRILLS FOR CEREALS



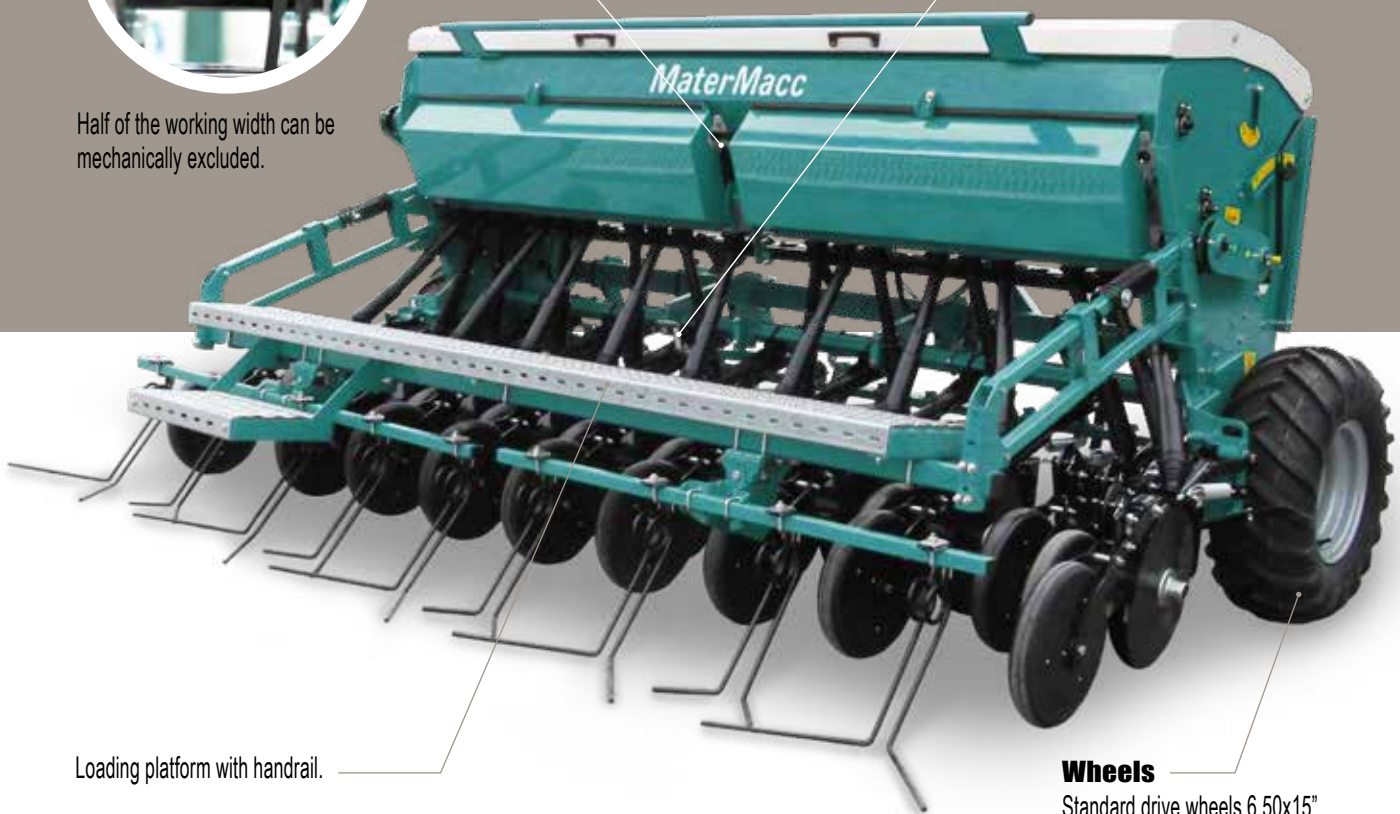
Step-less CVT gearbox with seeding rate test handle.



Centralized coulters adjustment.



Half of the working width can be mechanically excluded.



Loading platform with handrail.

### Wheels

Standard drive wheels 6.50x15",  
optional drive wheels 26.00x12".

### Accessories



Surcharge for triple coulter unit with shoe opener.



Seeding depth limiter for rice.



Stone protection device for disc coulter.

# GRANO Mechanical seed drills for cereals

Mechanical drill machine for cereals, rapeseed, soy, lucerne and other forage in rows on prepared soil.

This is a compact drill machine, and has a working width from 2,5 m to 4,0 m.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT			POWER REQUIRED	CAPACITY	
				COULTER	DISC	DOUBLE DISC		SEED	FERTIL
		(cm)	(cm)	(kg)			(hp)	(L)	
GRANO 250	17	14.7	250	470	540	625	50	420	—
GRANO 250	19	13.2	250	480	550	645	50	420	—
GRANO 250	21	12.0	250	490	560	665	70	420	—
GRANO 300	19	15.8	300	545	625	720	50	500	—
GRANO 300	21	14.3	300	560	640	745	70	500	—
GRANO 300	23	13.0	300	575	655	770	70	500	—
GRANO 300	25	12.0	300	590	670	795	70	500	—
GRANO 350	25	14.0	350	660	740	885	70	585	—
GRANO 350	27	13.0	350	675	755	905	90	585	—
GRANO 350	29	12.0	350	690	770	925	90	585	—
GRANO 400	29	13.8	400	760	840	985	90	670	—
GRANO 400	31	12.9	400	775	855	1010	100	670	—
GRANO 400	33	12.0	400	790	870	1050	100	670	—



The fluted roller seed distributor has two distinct selectable working elements for small seeds.



# GRANO-F Mechanical seed drills for cereals

Mechanical drill machine for cereals, rapeseed, soy, alfalfa and other forage in rows on prepared soil.

This is a compact drill machine, and has a working width from 2,5 m to 4,0 m.

Being able to spread fertilizer while seeding increases the versatility of this product.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT			POWER REQUIRED	CAPACITY	
				COULTER	DISC	DOUBLE DISC		SEED	FERTIL
		(cm)	(cm)	(kg)			(hp)	(L)	
GRANO-F 250	17	14.7	250	520	590	675	60	283	137
GRANO-F 250	19	13.2	250	530	600	695	60	283	137
GRANO-F 250	21	12.0	250	540	610	715	80	283	137
GRANO-F 300	19	15.8	300	595	675	770	60	330	170
GRANO-F 300	21	14.3	300	610	690	795	80	330	170
GRANO-F 300	23	13.0	300	625	705	820	80	330	170
GRANO-F 300	25	12.0	300	640	720	845	80	330	170
GRANO-F 350	25	14.0	350	710	800	950	80	380	205
GRANO-F 350	27	13.0	350	725	815	965	100	380	205
GRANO-F 350	29	12.0	350	740	830	980	100	380	205
GRANO-F 400	29	13.8	400	810	890	1045	100	450	220
GRANO-F 400	31	12.9	400	825	905	1070	110	450	220
GRANO-F 400	33	12.0	400	840	920	1095	110	450	220

## Tank

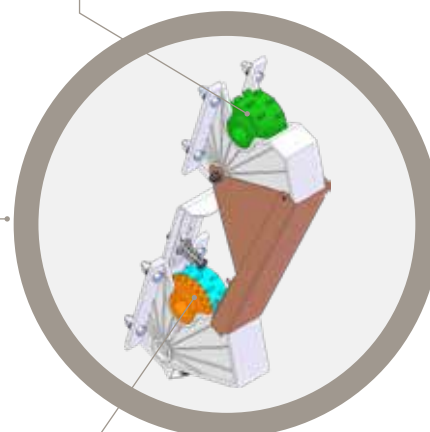
The inside of the hopper has two distinct sections for seed and fertilizer so that they won't mix before reaching the drop pipe.



Seed hopper.

Fertilizer tank.

Fertilizer metering unit.



The metering unit, has two different rollers for small and large seeds.



# MECHANICAL SEED DRILLS

## MEK-X



Half of the working width can be mechanically excluded (MEK-X 300 only).

Straight seed covering spring down pressure and inclination can both be adjusted.

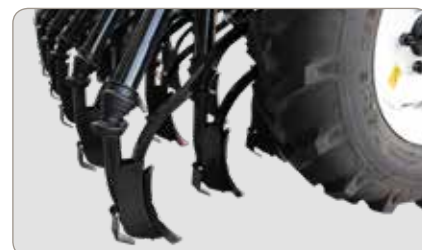
### Available planting units



Spring couler.



Disc couler with depth control.



The seeding elements are placed on three rangs.



### One metering unit for all seed types

The fluted roller seed distributor has two distinct selectable working elements for small seeds. The fluted rollers are shielded from dust by a transparent window that allows to monitor working performances.



Single sprocket for very small seeds.

Sprockets for large seeds.

### Transmission

A contact wheel transmits the motion to the distributors.



### Wheels

Standard drive wheels 7.50x16".

### Towed version (Optional)

The machine can be towed thanks to the reversible drawbar both during work or during transport.



# MEK-X Mechanical seed drills for cereals

Mechanical drill machine for cereals, rapeseed, soy, lucerne and other forage in rows on lightly worked soil.

This is a compact drill machine, and has a effective working width of 2,4 and 3,0 m.



MODEL	N° OF ROWS	ROW SPACING		TOOL BAR	WEIGHT		POWER REQUIRED	CAPACITY	
		SHARE	DISC		SHARE	DISC		SEED	FERTIL
		(cm)		(cm)	(kg)		(hp)	(L)	
MEK-X 250	15	-	15.0	250	-	915	50	530	-
MEK-X 250	16	14.5	14.0	250	847	970	50	530	-
MEK-X 250	17	13.5	-	250	854	-	50	530	-
MEK-X 250	18	12.7	-	250	861	-	50	530	-
MEK-X 250	19	12.0	-	250	868	-	50	530	-
MEK-X 300	20	14.9	14.5	320	940	1075	50	705	-
MEK-X 300	21	14.2	13.8	320	948	1090	70	705	-
MEK-X 300	23	12.9	-	320	962	-	70	705	-
MEK-X 300	25	11.8	-	320	976	-	90	705	-



## Towed version (Optional)

Two hydraulic actuators lift the machine from the ground to protect the seeding elements during transport. Seeding depth is adjusted hydraulic.



## Mounted version (Standard).

Seeding depth is adjusted mechanically.



# MEK-XF Mechanical seed drills for cereals

Mechanical drill machine for cereals, rapeseed, soy, lucerne and other forage in rows on lightly worked soil.

This is a compact drill machine, and has a effective working width of 2,4 and 3,0 m. Being able to spread fertilizer while seeding increases the versatility of this product.



MODEL	N° OF ROWS	ROW SPACING		TOOL BAR	WEIGHT		POWER REQUIRED	CAPACITY	
		SHARE	DISC		SHARE	DISC		SEED	FERTIL
		(cm)		(cm)	(kg)		(hp)	(L)	
MEK-XF 250	15	-	15.0	250	-	915	50	290	240
MEK-XF 250	16	14.5	14.0	250	847	970	50	290	240
MEK-XF 250	17	13.5	-	250	854	-	50	290	240
MEK-XF 250	18	12.7	-	250	861	-	50	290	240
MEK-XF 250	19	12.0	-	250	868	-	50	290	240
MEK-XF 300	20	14.9	14.5	320	940	1075	50	390	315
MEK-XF 300	21	14.2	13.8	320	948	1090	70	390	315
MEK-XF 300	23	12.9	-	320	962	-	70	390	315
MEK-XF 300	25	11.8	-	320	976	-	90	390	315

## Tank

The inside of the hopper has two distinct sections for seed and fertilizer so that they won't mix before reaching the drop pipe.



Fertilizer tank.

Seed hopper.

The two separated hopper sections and double distributor can also be used to seed mixes of seeds with different dimensions ensuring the highest precision of seeding rate adjustment and uniformity of seeding from start to finish.



Additional variator for fertilizer or seed mixes



# PNEUMATIC SEED DRILLS

## MSD

### Row marker

Hydraulic automatic row marker.



### Distribution heads

Pneumatic transportation and distribution head for an even distribution of the seed.

Loading platform with handrail.

### Planting units



Disc coultter with depth control.

### Accessories



Seeding depth limiter for rice.



Stone protection device for disc coultter.



### Seed tank

Large tank 1000 L, with four metering units.

Transport lights and reflection panels.



### Wheels

Standard drive wheels 6.50x15", optional drive wheels 26.00x12".

### Variator

Step-less speed gearbox.



### Metering unit

Each seed drill mounts 4 pneumatic seed distributors, each connected to its own distribution head (seed monitor MSC 12000 OPTIONAL).



### Cut off device

Modular manual seeding cut-off device. Electromechanical release complete for 4 metering units (OPTIONAL).



### Small seeds metering unit

The seed tank holds 140L and can be used both for small seeds or microgranular products (OPTIONAL).

# MSD Pneumatic seed drills for cereals

Pneumatic seed drill for sowing in rows in tilled or semi-tilled soil for cereals, rapeseed, soy, alfalfa and other forage.

The working width ranges from 4,0 m to 6,0 m with a standard row minimal distance of 12,5 cm. The tool bars fold hydraulically, with a transport width of 2,54 m.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT	POWER REQUIRED	CAPACITY	
						SEED	MICRO
		(cm)		(cm)	(hp)	(L)	
MSD 400	28	14.3	254/400	1120	80	1000	140
MSD 400	32	12.5	254/400	1160	80	1000	140
MSD 450	32	14.1	254/450	1190	80	1000	140
MSD 450	36	12.5	254/450	1230	90	1000	140
MSD 500	32	15.6	254/500	1230	80	1000	140
MSD 500	36	13.9	254/500	1270	90	1000	140
MSD 500	40	12.5	254/500	1310	100	1000	140
MSD 600	40	15.0	254/600	1410	100	1000	140
MSD 600	44	13.6	254/600	1450	100	1000	140
MSD 600	48	12.5	254/600	1490	110	1000	140







### **Hydraulic towing device (OPTIONAL)**

The hydraulic towing device allows to convert the machine from mounted to towed.

Ideal to work on uneven soil, on slopes and with small tractors.





# PNEUMATIC SEED DRILLS

## MSD 2.0



### Seed tank

Large tank 1300 L, with four metering units.

### Wheels

Standard drive wheels 26.00x12".

### Row marker

Hydraulic automatic row marker.



**ENAMA certified seeder**



# MAGIC DRILL



Single sprocket for very small seeds.

Sprockets for large seeds.

Adjustable feelers.

## One metering unit for all seed types

The metering system has been developed to ensure optimal performance and consistent distribution for all types of seed. The MagicDrill seed distributor is made up of variable cell fluted rollers that can be used individually, for very small seeds, or together for doses up to 400 kg/ha.

Choosing the most appropriate setting is really easy and requires only a few, simple manual movements.

The 4 distributors can be fully inspected, to optimise and reduce cleaning to a minimum. The sowing test is also easy to carry out, thanks again to the clearance space around the distributors.

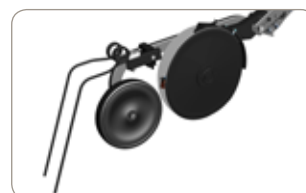
## Available planting units



Single disc unit and anti-clogging device.

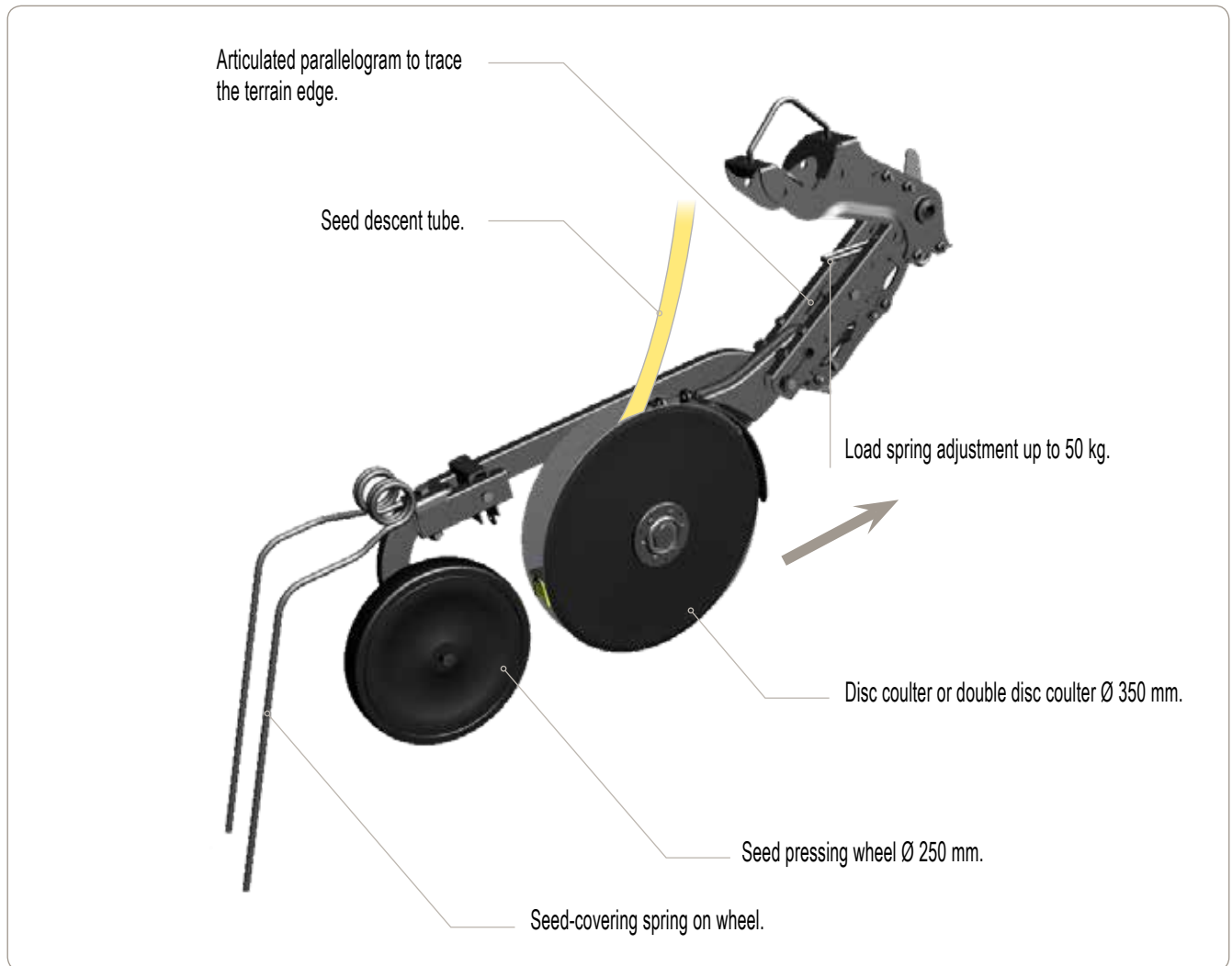


Single disc unit and seed pressing wheel.



Double disc unit and seed pressing wheel.

## Double disc unit with depth gauge wheel



### Planting unit

The jointed parallelogram part of the planting unit ensures robust and reliable performance over time, including during intensive use at high sowing speeds.

The down pressure can be adjusted up to 50 kg on each seeding element; this ensures the same sowing depth is maintained, even on firm soils.

The seed pressing wheel has the double function of closing the sowing furrow, and to act as a depth control wheel. It can be manually adjusted to adjust the depth of seeding.

Finally, the seed cover adapts to the irregularity of the terrain and distributes the seeds evenly.



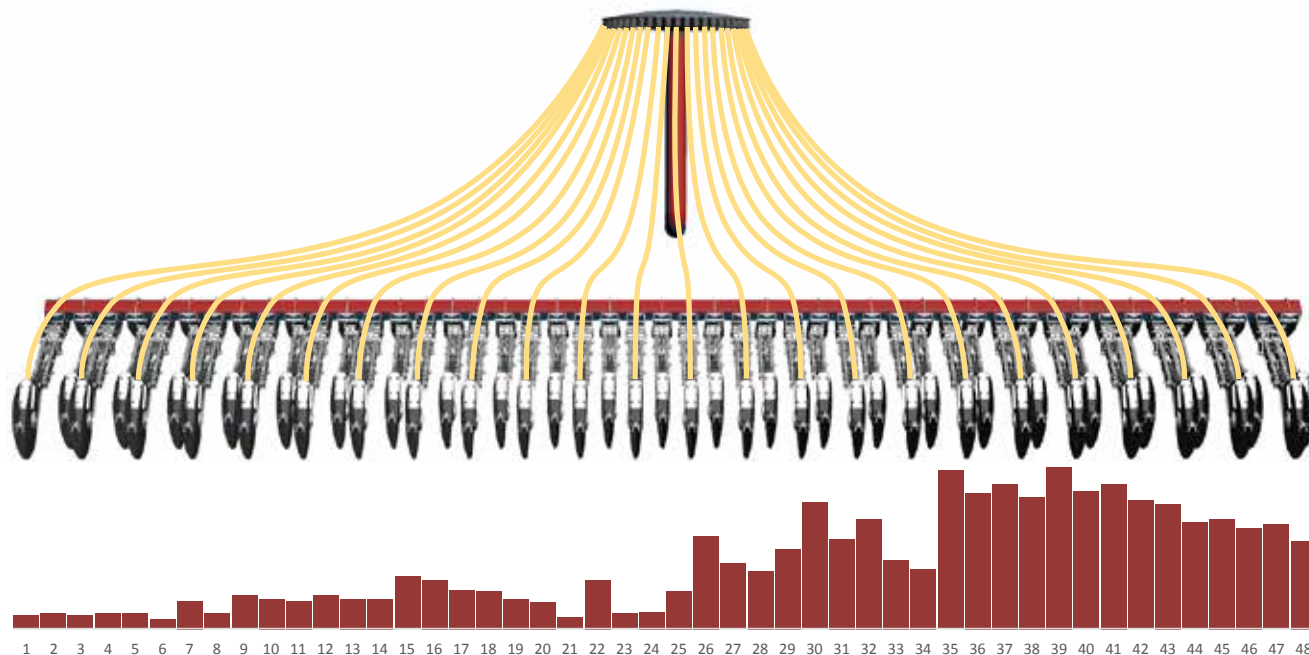
Seed-covering spring-tooth harrow.



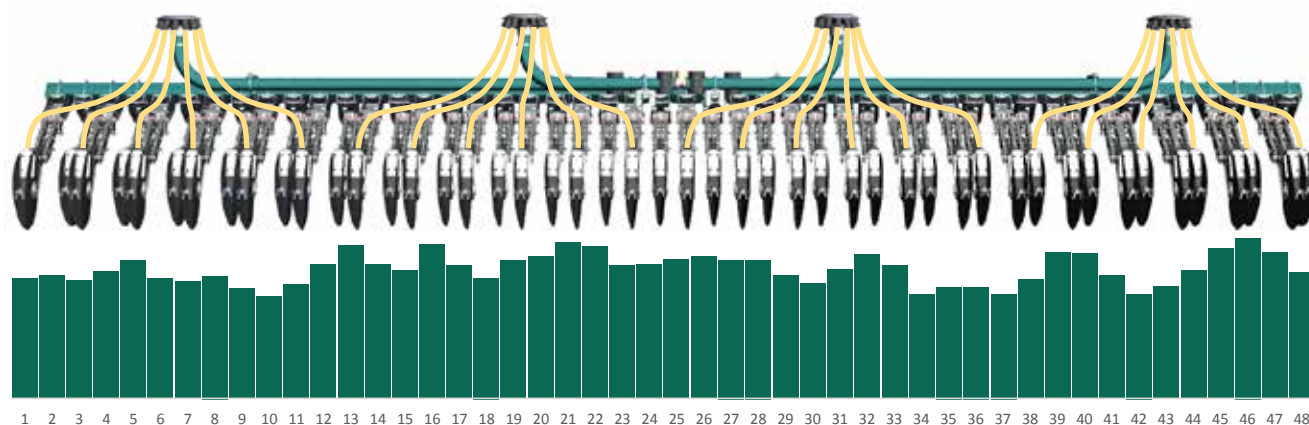
Seed-covering spring on wheel.  
Only for model with wheel.



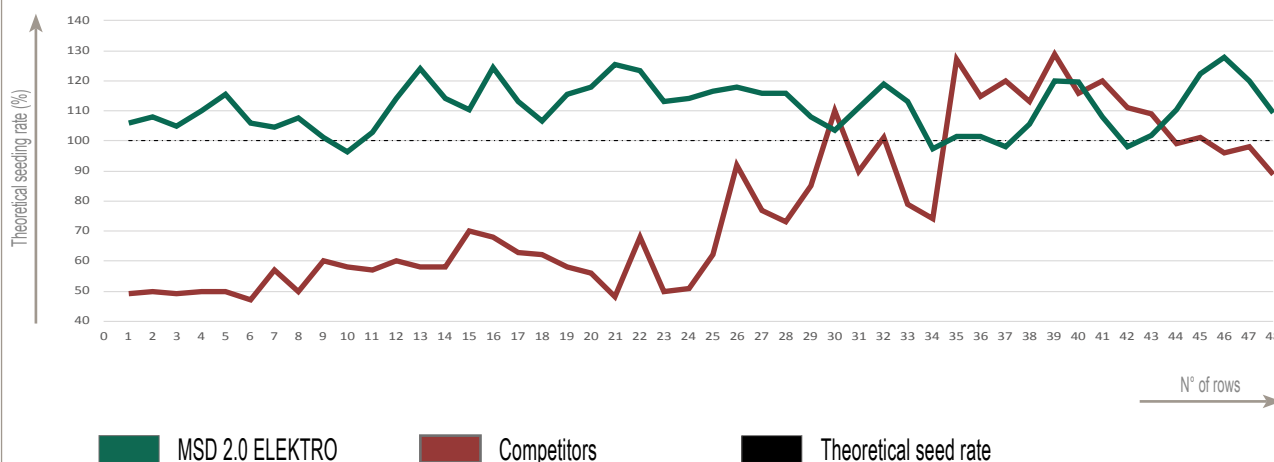
## Our competitors



## MaterMacc MSD 2.0 seed drill



### Tested conditions: 5 kg/ha rapeseed; working speed: 12 km/h



### Distribution heads

Seed distribution is perfectly divided up between the 4 sowing distributors and 4 mixing heads (6% mean error as compared to the 26% detected testing our competitors). This excellent solution reduces dosing errors to a minimum across the whole operating width. In addition, the 4 sowing sections can be excluded singularly, where there is overlap.

# MSD 2.0 Pneumatic seed drills for cereals

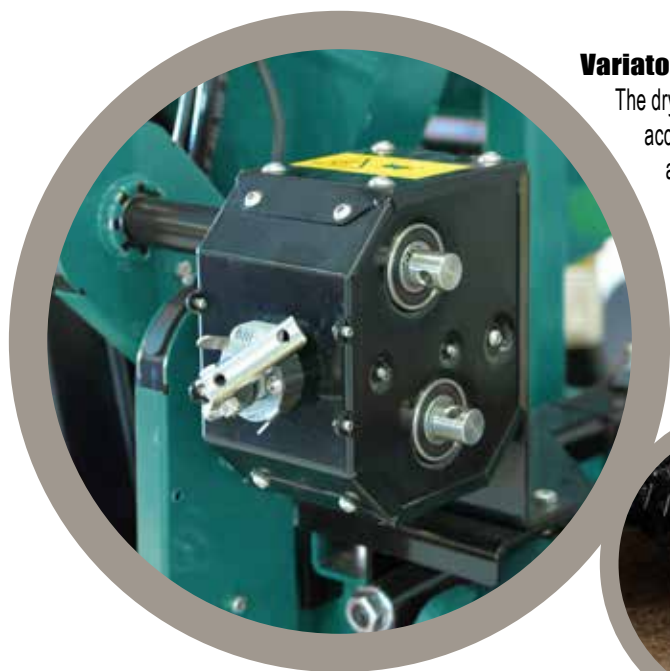
Pneumatic seed drill for sowing in rows in tilled or semi-tilled soil for cereals, rapeseed, soy, alfalfa and other forage.  
The working width is 5,0 m and 6,0 m with a standard row distance of 12,5 cm.  
MSD-2.0 has transport width of 2,7 m.



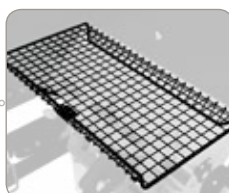
MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT			POWER REQUIRED	CAPACITY
				DISC	DISC + PRESS WHEEL	DOUBLE DISC + PRESS WHEEL		SEED
		(cm)	(cm)	(kg)			(hp)	(L)
MSD 2.0 50	32	15.0	270/500	1440	1630	1690	90	1300
MSD 2.0 50	36	13.9	270/500	1490	1710	1790	100	1300
MSD 2.0 50	40	12.5	270/500	1550	1790	1880	110	1300
MSD 2.0 60	40	15.0	270/600	1560	1800	1920	110	1300
MSD 2.0 60	44	16.6	270/600	1620	1880	2020	120	1300
MSD 2.0 60	48	12.5	270/600	1670	1960	2110	120	1300

## Variator

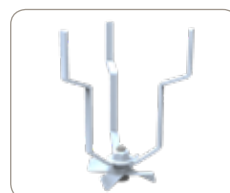
The dry-running cam stepless gear box allows all types of seed to be dosed highly accurately (this applies to large seeds as well as very small seeds such as rape and alfalfa). The variator does not require maintenance, is easy to adjust and operates consistently, both when distributing relatively small quantities and when covering large sowing areas. The variator is activated by a large transmission wheel with a very wide tread to prevent it from skidding thus ensuring uniformity of distribution across the whole field surface.



## Kit small seeds (rapeseed)



+



+



Sifter for small seeds.

Distribution head mixer impeller.

MSD 2.0 agitators for small seeds.



# MSD 2.0 ELEKTRO

## Pneumatic seed drills for cereals

Pneumatic seed drill for sowing in rows in tilled or semi-tilled soil for cereals, rapeseed, soy, alfalfa and other forage.

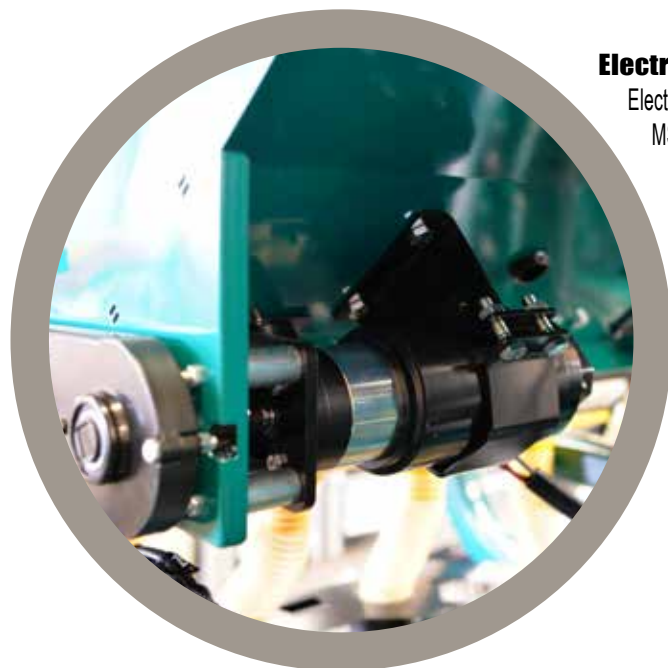
The working width is 5,0 m and 6,0 m with a standard row distance of 12,5 cm.

The 4 dispensers are powered by an electric motor and controlled by the MaterMacc X4 sowing monitor. This monitor allows the seed density to be changed quickly, by setting the desired value. It also controls the sowing flow for each section.

The tramline and seed exclusion functions are optional and can be integrated with the X4 monitor.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT			POWER REQUIRED	CAPACITY
				DISC	DISC + PRESS WHEEL	DOUBLE DISC + PRESS WHEEL		SEED
		(cm)	(cm)	(kg)			(hp)	(L)
MSD 2.0 E 50	32	15.0	270/500	1440	1630	1690	90	1300
MSD 2.0 E 50	36	13.9	270/500	1490	1710	1790	100	1300
MSD 2.0 E 50	40	12.5	270/500	1550	1790	1880	110	1300
MSD 2.0 E 60	40	15.0	270/600	1560	1800	1920	110	1300
MSD 2.0 E 60	44	16.6	270/600	1620	1880	2020	120	1300
MSD 2.0 E 60	48	12.5	270/600	1670	1960	2110	120	1300



### Electric dosage

Electric dosage is managed via an X4 control monitor, supplied as standard with the MSD 2.0 ELEKTRO. The 4 MagicDrill sowing distributors operate via a reliable electric motor, meaning calibration is automatic. This means the sowing dose can be varied while working.

The X4 monitor, in addition to adjusting the seed investment, also functions as hectare counter, it is preconfigured to exclude the 4 seeding sections and the tram-line. It also manages independently the PRESTART and PRESTOP function. With this function it is possible to seed perfectly on the entire field surface, right to the outer edge.



### Function monitor X4

- Seeding check alarm
- Partial and total hectare counter
- Working speed
- Blower RPM sensor
- Seed level sensor
- Tramline set-up
- Section excluder set-up
- Seeder PRESTART, PRESTOP

# PNEUMATIC SEED DRILLS WITH FRONT TANK MSD 2.0 FTC



Front LED lights are useful during transport and while seeding.

Folding ladder for tank inspection.

Parking wheels (OPTIONAL).



## Electric dosage

Electric dosage is managed via an X4 control monitor, supplied as standard with the MSD 2.0 FTC. The 4 MagicDrill sowing distributors operate via a reliable electric motor, meaning calibration is automatic.

This means the sowing dose can be varied while working.

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## Function monitor X4

- Seeding check alarm
- Partial and total hectare counter
- Working speed
- Blower RPM sensor
- Seed level sensor
- Tramline set-up
- Section excluder set-up
- Seeder PRESTART, PRESTOP

## SVA 2.0 Front tank

The 1800 L SVA 2.0 front tank can be used to supply seeds to the MSD 2.0 FTC and COMBI FOLDING seed drill. Its total capacity can reach 2200 L using tank extensions (OPTIONAL).



MODEL	 SIZE (AXBXC)	WEIGHT	CAPACITY
	(cm)	(kg)	(L)
SVA 2.0	234x160x137	400	1800



# MSD 2.0 FTC With front tank

Pneumatic seed drill for sowing in rows in tilled or semi-tilled soil for cereals, rapeseed, soy, alfalfa and other forage.

The working width is 5,0 m and 6,0 m with a standard row distance of 12,5 cm.

The 4 dispensers are powered by an electric motor and controlled by the MaterMacc X4 sowing monitor. This monitor allows the seed density to be changed quickly, by setting the desired value. It also controls the sowing flow for each section. The tramline and seed exclusion functions are optional and can be integrated with the X4 monitor.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT			POWER REQUIRED	CAPACITY
				DISC	DISC + PRESS WHEEL	DOUBLE DISC + PRESS WHEEL		SEED
		(cm)	(cm)	(kg)			(hp)	(L)
MSD 2.0 FTC 50	32	15.0	270/500	1640	1830	1890	90	1800
MSD 2.0 FTC 50	36	13.9	270/500	1690	1910	1990	100	1800
MSD 2.0 FTC 50	40	12.5	270/500	1750	1990	2080	110	1800
MSD 2.0 FTC 60	40	15.0	270/600	1760	2000	2120	110	1800
MSD 2.0 FTC 60	44	16.6	270/600	1820	2080	2220	110	1800
MSD 2.0 FTC 60	48	12.5	270/600	1870	2160	2310	120	1800

## Row marker

Hydraulic automatic row marker.

## Distribution heads

Pneumatic transportation and distribution head for an even distribution of the seed.



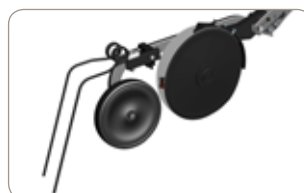
## Available planting units



Single disc unit and anti-clogging device.



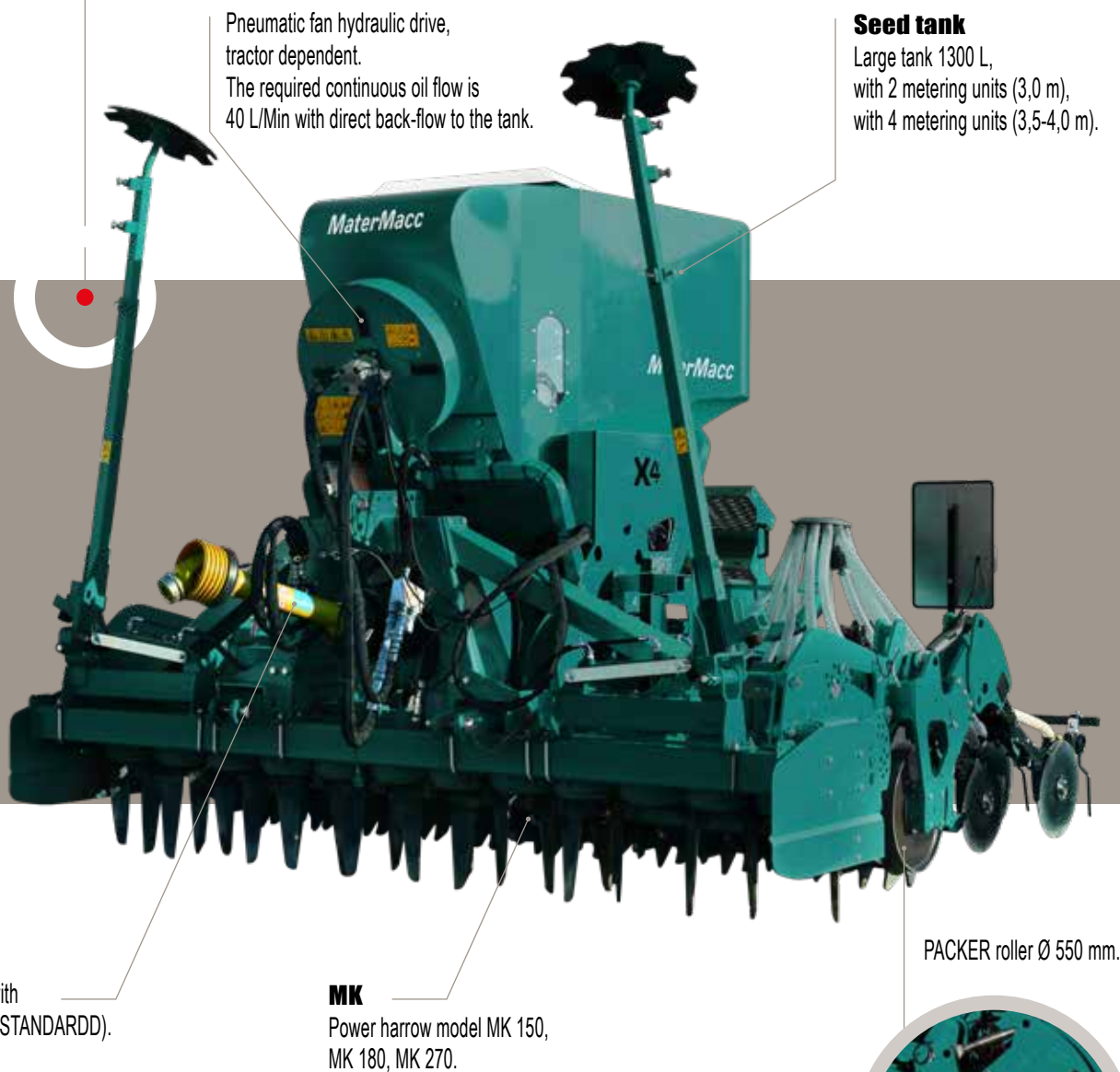
Single disc unit and seed pressing wheel.



Double disc unit and seed pressing wheel.



# SEED DRILL COMBINED WITH POWER HARROW MSD 2.0 COMBI



## Available planting units



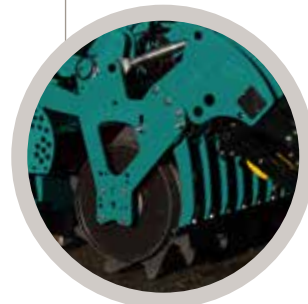
Single disc unit and  
anti-clogging device.



Single disc unit and seed  
pressing wheel.



Double disc unit and seed  
pressing wheel.





### MSD 2.0 COMBI

The MSD 2.0 COMBI seeder is particularly compact to reduce the strain on the lifter to a minimum, thereby reducing the extent to which the ground is compacted down.

Combined MaterMacc seeders allow you to prepare, level and cement the ground so as to be able to sow in one go.

This versatile machine reduces operating times.

#### Row marker

Hydraulic automatic row marker (OPTIONAL).

GPS aerial for speed detection.

Electrical button for the distribution test.

Transport lights and reflection panels.

Loading platform with handrail.



#### Monitor X4

The metering unit are powered by an electric motor and controlled by the MaterMacc X4 sowing monitor. This monitor allows the seed density to be changed quickly, by setting the desired value.

It also controls the sowing flow for each section. The tramline and seed exclusion functions are optional and can be integrated with the X4 monitor.

# MK

## Power harrow

### Supplied exclusively in combination with the seed drill.

To ensure excellent performance even in difficult conditions where there are crop residues, our machines are designed and built with an optimal distance between the tooth-holder support and the harrow box.

This means a significant amount of residue and any stones can pass through easily, avoiding running into troublesome blockages. The teeth on the harrow also ensure optimal penetration including in difficult terrain, maintaining a constant working depth.

The Paker roller with a diameter of 550 mm is suitable for medium-to-hard terrain; it is extremely versatile and can be used in combination with the seeder.

3 different rotating harrows, MK 150 with a single ball bearing for up to 150 hp.

MK 180 for up to 180 hp, MK 270 for up to 270 hp, both with opposite tapered bearings.

As an optional, all harrows can come with a quick tooth-dismantling kit.



\*standard - \*\* optional

MODEL	N° BLADES	DEPTH WORK	WIDTH		RPM ROTOR		POWER REQUIRED POWER HARROW	WEIGHT POWER HARROW
			WORK	TRANSPORT	540	1000		
		(cm)	(cm)		(min <sup>-1</sup> )		(hp)	(kg)
MK 150/300	24	10-30	294	300	348 *	362 **	110-150	1290
MK 180/300	24	10-30	294	348	350 **	359 *	110-150	1468
MK 180/350	28	10-30	342	348	350 **	359 *	110-180	1635
MK 180/400	32	10-30	390	396	350 **	359 *	120-180	1815
MK 270/300	24	10-32	294	300	–	365 *	150-270	1530
MK 270/350	28	10-32	342	348	–	365 *	150-270	1685
MK 270/400	32	10-32	390	396	–	365 *	160-270	1855

## Power harrow accessories



Kit rigid track eradicator.



Kit NO STOP spring track eradicator.



Quick-Fit tines.



# MSD 2.0 COMBI

## Seed drill combined with power harrow.

Pneumatic seed drill for sowing in rows for cereals, rapeseed, soy, alfalfa and other forage. The working width ranges from 3,0 m to 4,0 m with a standard row minimal distance of 12,5 cm. .

The dispensers are powered by an electric motor and controlled by the MaterMacc X4 sowing monitor. This monitor allows the seed density to be changed quickly, by setting the desired value. It also controls the sowing flow for each section.

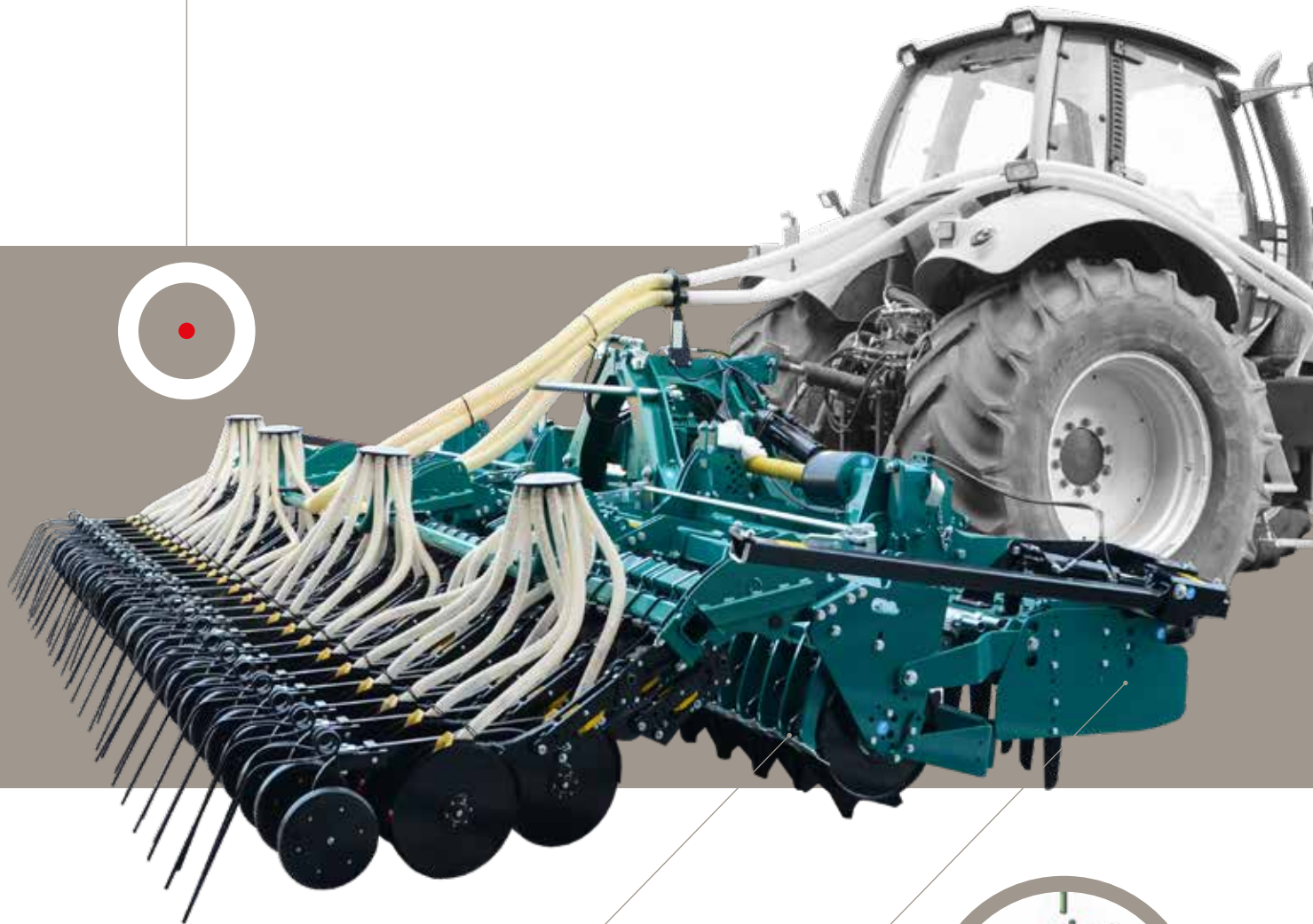
The tramline and seed exclusion functions are optional and can be integrated with the X4 monitor.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT			POWER REQUIRED	CAPACITY
				DISC	DISC + PRESS WHEEL	DOUBLE DISC + PRESS WHEEL		SEED
		(cm)	(cm)	(kg)			(hp)	(L)
MSD-C 300/150	18	16.6	300	2220	2290	2330	130-170	1300
MSD-C 300/150	20	15.0	300	2250	2330	2380	130-170	1300
MSD-C 300/150	24	12.5	300	2320	2420	2470	130-170	1300
MSD-C 300/180	18	16.6	300	2290	2360	2400	140-190	1300
MSD-C 300/180	20	15.0	300	2320	2400	2450	140-190	1300
MSD-C 300/180	24	12.5	300	2390	2480	2540	140-190	1300
MSD-C 350/180	20	17.5	350	2560	2640	2700	160-210	1300
MSD-C 350/180	24	14.5	350	2630	2720	2790	160-210	1300
MSD-C 350/180	28	12.5	350	2660	2760	2830	160-210	1300
MSD-C 400/180	24	16.6	400	2780	2860	2930	180-240	1300
MSD-C 400/180	28	14.3	400	2850	2950	3030	180-240	1300
MSD-C 400/180	32	12.5	400	2920	3030	3120	180-240	1300
MSD-C 300/270	18	16.6	300	2370	2430	2470	180-250	1300
MSD-C 300/270	20	15.0	300	2400	2470	2520	180-250	1300
MSD-C 300/270	24	12.5	300	2460	2550	2610	180-250	1300
MSD-C 350/270	20	17.5	350	2650	2710	2770	200-270	1300
MSD-C 350/270	24	14.5	350	2700	2790	2860	200-270	1300
MSD-C 350/270	28	12.5	350	2750	2830	2900	200-270	1300
MSD-C 400/270	24	16.6	400	2780	2860	2930	220-270	1300
MSD-C 400/270	28	14.3	400	2850	2950	3030	220-270	1300
MSD-C 400/270	32	12.5	400	2920	3030	3120	220-270	1300



# PNEUMATIC SEED DRILL COMBINED WITH A POWER HARROW & FOLDING TOOL BAR MSD 2.0 COMBI FOLDING



PACKER roller Ø 550 mm.

## MK

Folding power harrow with 4.5, 5.0 and 6.0 m working width. Quick release blades available as optional.



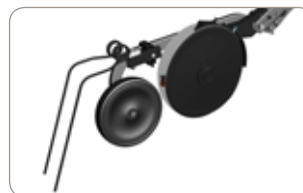
## Available planting units



Single disc unit and anti-clogging device.



Single disc unit and seed pressing wheel.



Double disc unit and seed pressing wheel.



### MSD 2.0 COMBI FOLDING

The MSD 2.0 COMBI FOLDING has a road transport width of just 2,54 m, with a working width of 4.5-5.0-6.0 m.

Combined MaterMacc seeders allow you to prepare, level and cement the ground so as to be able to sow in one go. This versatile machine reduces operating times.

Pneumatic fan hydraulic drive, tractor dependent. The required continuous oil flow is 40 L/Min with direct back-flow to the tank.

### SVA 2.0 tank

The 1800 L front tank holds its own fan and an inspection ladder.



### Power arrow adjustments

The power harrow is highly versatile, working depth and overall setup can be adjusted according to your particular needs. In addition, the seeding bar depth adjustment system is independent from that of the power harrow.



Height-adjustable leveling bar to further crush and level the soil.

Working depth control by pin adjustment.



### Row marker

Hydraulic automatic row marker (OPTIONAL).

# MK Power harrow

## Supplied exclusively in combination with the seed drill.

To ensure excellent performance even in difficult conditions where there are crop residues, our machines are designed and built with an optimal distance between the tooth-holder support and the harrow box.

This means a significant amount of residue and any stones can pass through easily, avoiding running into troublesome blockages.

The teeth on the harrow also ensure optimal penetration including in difficult terrain, maintaining a constant working depth.

On the MK harrow it is possible to install the Packer roller, with a diameter of 550 mm, suitable for medium and heavy soils. This roller is versatile and prepares a good seed bed for the seed drill to work on. The MK models with hydraulic foldable frame are equipped with opposite tapered bearings, safety hooks, mechanical floating system and a quick release blades.



## Some possible configurations

MODEL	N° BLADES	DEPTH WORK	WIDTH		RPM ROTOR	POWER REQUIRED POWER HARROW	WEIGHT POWER HARROW
			WORK	TRANSPORT	1000		
		(cm)	(cm)		(min <sup>-1</sup> )	(hp)	(kg)
MK 260/450	36	10 - 30	448	250	310/352	120-260	2900
MK 260/500	40	10 - 30	496	250	310/352	160-260	2900
MK 350/600	48	10 - 30	592	250	324/363	220-350	3590



## Power harrow accessories



Kit rigid track eradicator.



Kit NO STOP spring track eradicator.



# MSD 2.0 COMBI FOLDING

## Seed drill combined with power harrow.

Pneumatic seed drill for sowing in rows in tilled or semi-tilled soil for cereals, rapeseed, soy, alfalfa and other forage. The working width ranges from 4,5 m to 6,0 m with a standard row minimal distance of 12,5 cm.

The dispensers are powered by an electric motor and controlled by the MaterMacc X4 sowing monitor. This monitor allows the seed density to be changed quickly, by setting the desired value. It also controls the sowing flow for each section. The tramline and seed exclusion functions are optional and can be integrated with the X4 monitor.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT			POWER REQUIRED	CAPACITY
				DISC	DISC + PRESS WHEEL	DOUBLE DISC + PRESS WHEEL		SEED
		(cm)	(cm)	(kg)			(hp)	(L)
MSD-2.0CF 450	36	12.5	254/450	3700	3830	3900	160-260	1800
MSD-2.0CF 500	32	15.0	254/500	3800	3930	4000	160-260	1800
MSD-2.0CF 500	36	13.6	254/500	4000	4130	4200	170-260	1800
MSD-2.0CF 500	40	12.5	254/500	4300	4430	4500	180-260	1800
MSD-2.0CF 600	40	15.0	254/600	4600	4730	4800	220-350	1800
MSD-2.0CF 600	44	13.6	254/600	4900	5030	5100	230-350	1800
MSD-2.0CF 600	48	12.5	254/600	5200	5350	5400	240-350	1800



## Electric dosage

Electric dosage is managed via an X4 control monitor, supplied as standard with the MSD 2.0 COMBI FOLDING. The 4 MagicDrill sowing distributors operate via a reliable electric motor, meaning calibration is automatic. This means the sowing dose can be varied while working.

The X4 monitor, in addition to adjusting the seed investment, also functions as hectarecounter, it is preconfigured to exclude the 4 seeding sections and the tram-line. It also manages independently the PRESTART and PRESTOP function. With this function it is possible to seed perfectly on the entire field surface, right to the outer edge.

## Function monitor X4

- Seeding check alarm
- Partial and total hectare counter
- Working speed
- Blower RPM sensor
- Seed level sensor
- Tramline set-up
- Section excluder set-up
- Seeder PRESTART, PRESTOP





# PNEUMATIC SEED DRILLS MINIMUM TILL & NO-TILL UST

## Tank

Seed and fertilizer tank with loading platform.  
Total capacity 3000 L (2000 L for seed, 1000 L for fertilizer).

## Blower

Hydraulic blower for pneumatic seed transportation (40 L/min).



## Seed and fertilizer metering unit

Volumetric and independent seed and fertilizer metering unit with divided distribution for each seeding row.



## Road transport wheels

Low pressure transport wheels  
600/50-R22.5 (UST 450)  
700/50-R22.5 (UST 600).

## Compression wheels

Compression roller to adjust depth, with 17x8.00-R8 low-pressure wheels in correspondence with every coulter.



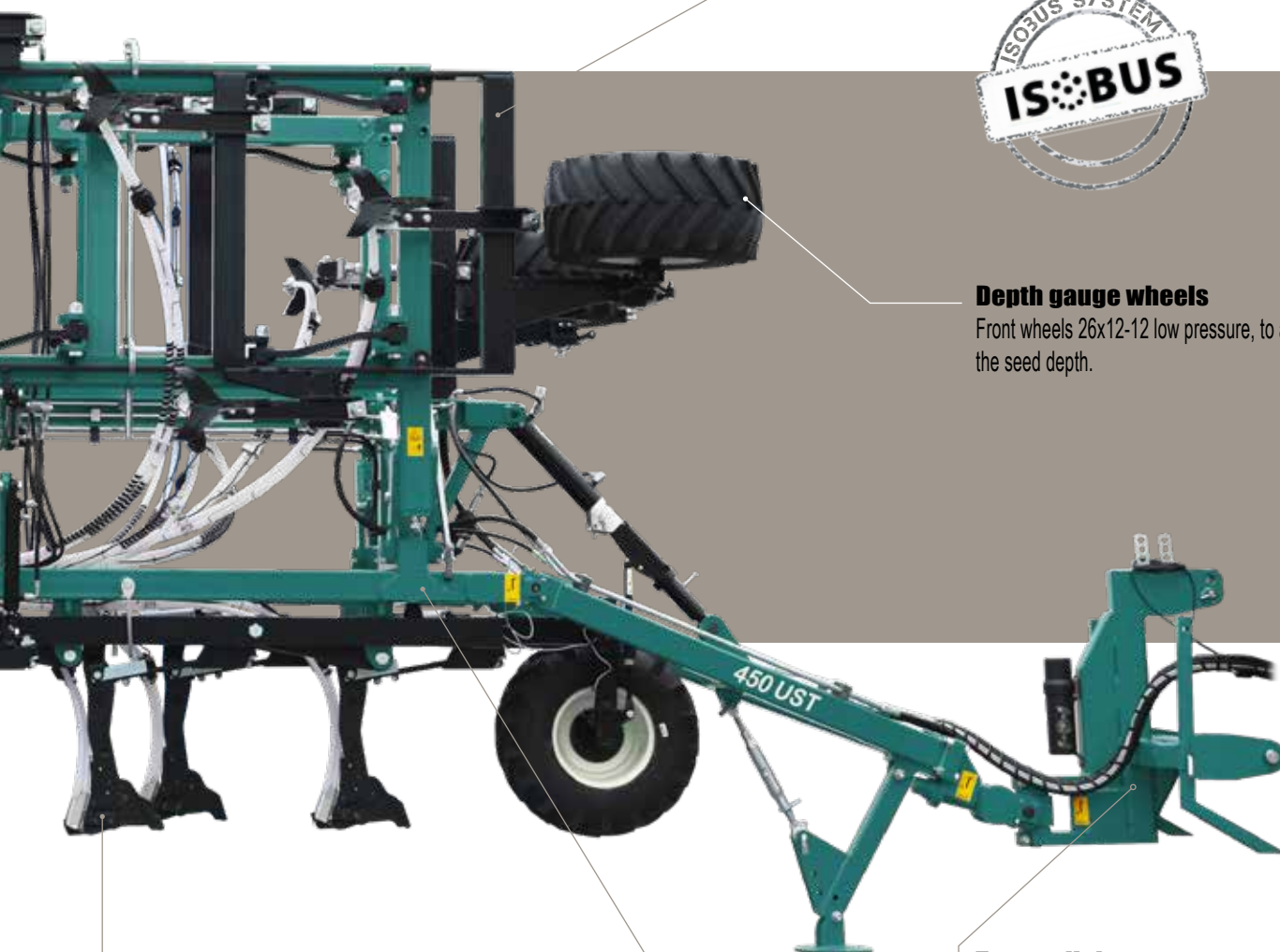
## Planting unit carriers

Planting units fitted on independent, floating carriers. The system allows you to follow the edge of the land, uniformly distributing the load via a hydraulic system.



## Depth gauge wheels

Front wheels 26x12-12 low pressure, to adjust the seed depth.



## Planting unit

Optimal planting units distance, on 5 ranks.  
Clearance form the ground of 600 mm allowing optimal flow of the crop residue.

## Tool bar

Foldable frame for transportation on the road.  
Transport width shorter than 3,0 m.

## Tractor linkage

3-point hitch, II and III cat.,  
with rotation joint.



# UST Pneumatic seed drills minimum till & no-till

The UST Air Seeders - Under Surface Seeding Technology are developed for conservation tillage sowings of all kind of winter cereals, OSR, forage seeds and cover crops.



MODEL	N° OF ROWS	ROW SPACING	TOOL BAR	WEIGHT	POWER REQUIRED	CAPACITY	
						SEED	FERTIL
		(cm)	(cm)				
<b>UST 450</b>	15	30	290/450	4280	130-150	2000	1000
<b>UST 600</b>	20	30	300/600	5200	170-200	2000	1000

Safety bolts: the connection system ensures protection of the planting unit from stones and other debris.

Mechanical jack to change the inclination angle of the planting unit.



Each seed line is prearranged with a photocell to control the flow and prevent any obstructions from forming.

Articulate parallelogram to follow the soil profile.

Seme

Fertilizzante

Push rod with tungsten carbide insert for a long-term duration.

Seed/fertilizer diffuser.

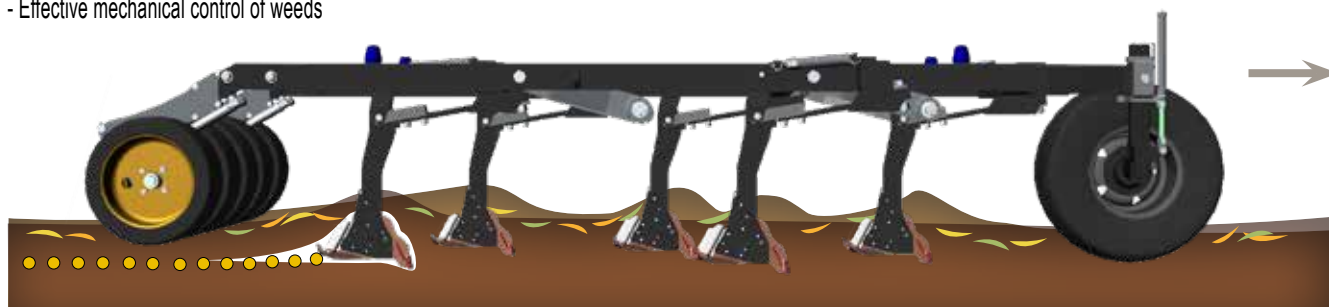
23 cm wide wing-shaped tungsten carbide coated working element.

## Sequence of introducing the planting unit into the ground

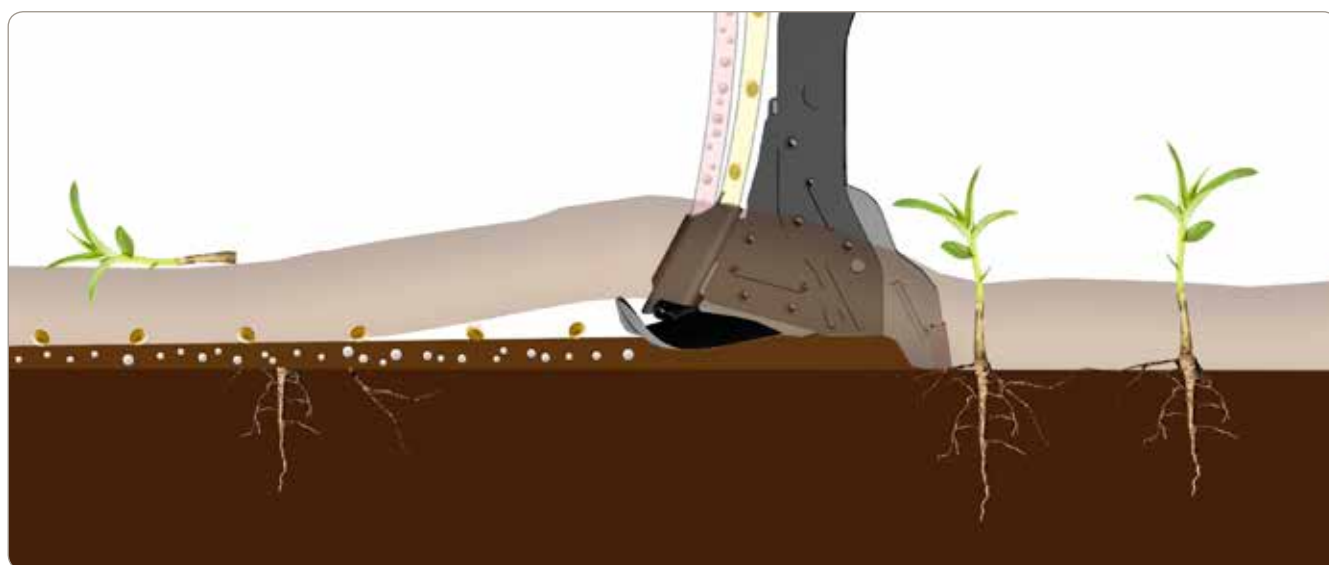


## Agronomic advantages of conservative agriculture through the UST seeder

- Reduction of disturbance to the soil improving the structure of the terrain and increasing the mineralisation of the organic substance, facilitating the development of organisms and other benefits.
- Ground protection of the ground from erosion and no waste of mineral nutrients.
- Increase in the moisture retention capacity of the soil
- Nutrient elements available from the first stage of development with subsequently less need for fertilizers in the crop growing phase.
- Better water drainage and more rapid growth of crops
- Effective mechanical control of weeds



The UST planting unit with little wings (patented) allows getting a furrow by raising a layer of soil. This layer then drops off over the seed after the passage of the planting unit. This technology enables the seed to be planted without any contact with soil remains. Moreover, the little wings grant an efficient mechanical weeding.



The sowing unit keeps the crop residue at the surface in order to prevent contact with the seed inside the furrow; effective mechanical control of weeds.

## Advantages compared to no-till sowing with a double disc couler

### Less power used and reduction in consumption

With the UST seeder and at equal working widths, lower traction power is required thanks to the number of couler elements used. It is clear that less power translates into less consumption of fossil fuel.

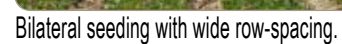
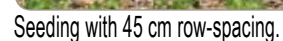
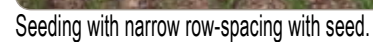
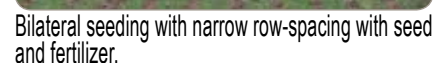
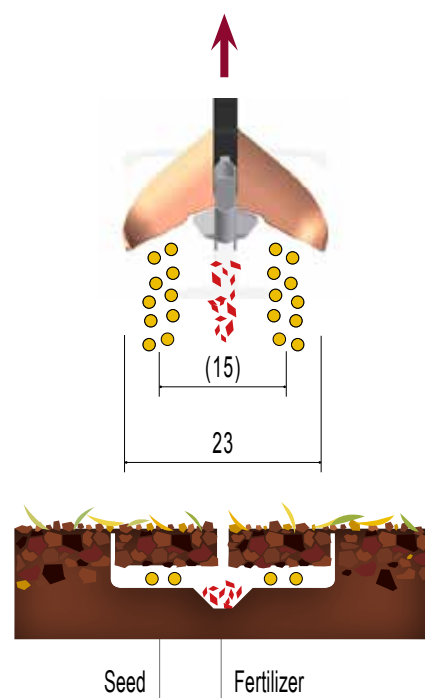
### Parts subject to wear

The disc seed planting system assembly subjects many working parts to wear and requires spare parts for correct machinery maintenance. Thanks to the simplicity of the construction of the AS-UST seeder couler element, only a few spare parts are required, all of which are reasonably priced.

### In terms of agronomics

The no-till disc system which sows and/or cuts the crop residue with the subsequent mixing of the terrain together with seed planting limits the development of the root system and plant growth.

The bilateral seed diffuser and the 30 cm distance between the centre points of the coulters makes different seed row spacing possible. Below are some examples.

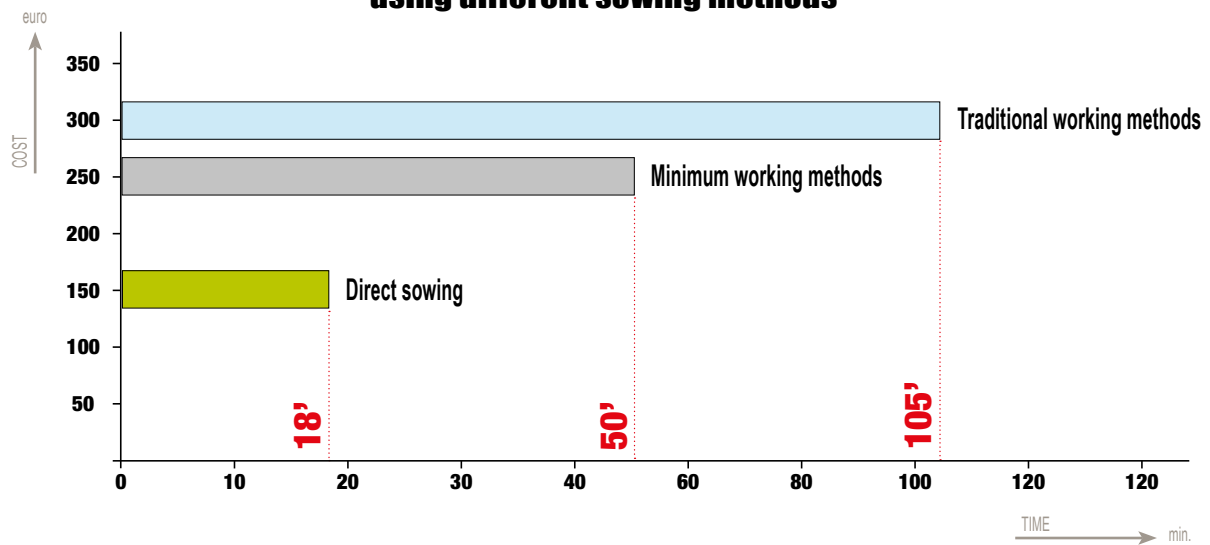


| 38 |



## Economic advantages

### Real comparisons of the test per unit/ha with the same tractor using different sowing methods



#### Traditional working methods

Combined ploughing, harrowing and planting, 3.0 m.



#### Minimum working methods

Preparation with cultivator and anchors of 3.0 m and sowing with pneumatic seeders of 4.5 m.



#### Direct sowing

Direct sowing with UST of 4.5 m.



## Economic benefits provided by the UST seeder

### Time

Time saved always translates into money, eliminating ploughing, harrowing, work with disc harrows and the preparation in general of the land for sowing means saving an average of 50% compared to traditional working methods and approximately 30% when compared to minimum working methods.

### Spare parts

The UST seeder has a maintenance cost per Ha which is extremely low thanks to the small number of parts which are subject to wear.

### BIO Crops

The UST no-till sowing which is also used for BIO crops facilitates the growth of the root system of specific plants.

### Versatility

The versatility of the UST allows most existing crops to be sown such as soya, cereals, forage, cover crop. For this reason it can be defined as a universal seeder.



MONITOR	MODEL	FUNCTION
 <p><b>ISOBUS (*)</b></p>	<p>MSD 2.0 ELEKTRO MSD 2.0 FTC MSD 2.0 COMBI MSD 2.0 COMBI FOLDING UST</p>	<p>Seeding control system based on ISOBUS standard (ISO 11783). Fully compatible with any tractor/monitor with ISOBUS technology.</p> <ul style="list-style-type: none"> <li>- Manual or tramline based (OPTIONAL) row crop exclusion</li> </ul>
 <p><b>X35</b></p>	<p>MSD 2.0 ELEKTRO MSD 2.0 FTC MSD 2.0 COMBI MSD 2.0 COMBI FOLDING UST</p>	<p>Kit VIRTUAL TERMINAL ISOBUS X35 (touchscreen 12")</p> <p>VIRTUAL TERMINAL X35 offers the same functions of X25, and moreover:</p> <ul style="list-style-type: none"> <li>- Horizon XTEND: to view all mobile devices</li> <li>- Variable rate control (VRC) up to 8 products</li> <li>- Standard GNSS if connected to receivers SGR-1/AGI-4</li> <li>- Autonomous section control (ASC) for a maximum of 200 sections</li> <li>- ISOBUS with functions: UT, TC-BAS, TC-GEO and TC-SC</li> <li>- Possibility to connect up to 6 cameras</li> </ul>
 <p><b>X25</b></p>	<p>MSD 2.0 ELEKTRO MSD 2.0 FTC MSD 2.0 COMBI MSD 2.0 COMBI FOLDING UST</p>	<p>Kit VIRTUAL TERMINAL ISOBUS X25 (touchscreen 8")</p> <ul style="list-style-type: none"> <li>- Remote support for technical assistance</li> <li>- Full capability to map and manage data</li> <li>- Bright, sunlight readable multi-touch display, with information boxes that can be re-positioned</li> <li>- Easy to install on the most common vehicles on the market, in manual and autonomous drive mode</li> <li>- Possibility to export map of boundaries, coverage, applications record</li> <li>- Integrated complete UT ISO and TC ISO</li> </ul>
 <p><b>RACS</b></p>	<p>MSD 2.0 ELEKTRO</p>	<p>RACS - Real Automatic Control Speed</p> <ul style="list-style-type: none"> <li>- No calibration needed</li> <li>- Real speed measurement in all soil conditions and in the presence of crop residues</li> <li>- Accurate forward speed in any work environment</li> <li>- Instant detection of speed in departures and arrivals at the end of the field</li> <li>- Depth laser to detect the sinking value of the wheel on the ground in wet soil conditions</li> </ul>

(\*) Functions may vary according to the VIRTUAL TERMINAL connected to the tractor.

MONITOR	MODEL	FUNCTION
 <p><b>MONOTRONIC 32</b></p>	UST	<ul style="list-style-type: none"> <li>- Seeding check alarm</li> <li>- Partial and total hectare counter</li> <li>- Working speed</li> <li>- Everage seed distance on each row</li> <li>- Everage seed population on each row</li> <li>- Seeding control up to 32 rows</li> </ul>
 <p><b>MSC 12000</b></p>	MSD	<ul style="list-style-type: none"> <li>- Seeding check alarm</li> <li>- Partial and total hectare counter</li> <li>- Working speed</li> <li>- Distance travelled</li> <li>- Sowing flow control</li> </ul>
 <p><b>X4</b></p>	MSD 2.0 MSD 2.0 ELEKTRO MSD 2.0 FTC MSD 2.0 COMBI MSD 2.0 COMBI FOLDING	<ul style="list-style-type: none"> <li>- Seeding check alarm</li> <li>- Partial and total hectare counter</li> <li>- Working speed</li> <li>- Blower RPM sensor</li> <li>- Seed level sensor</li> <li>- Tramline set-up</li> <li>- Section excluder set-up</li> <li>- Seeder PRESTART, PRESTOP</li> </ul>
 <p><b>CNT7</b></p>	GRANO MEK-X	<ul style="list-style-type: none"> <li>- A hectare counter</li> <li>- A rev counter</li> </ul>







**MATERMACC S.p.A.**

Z.I. Ponte Rosso, Via Gemona 18  
33078 San Vito al Tagliamento (PN) • Italy  
Tel. +39 0434 85267 • Fax +39 0434 85517  
E-mail: info.mm@arbos.com

[www.matermacc.it](http://www.matermacc.it)



For reasons of graphic layout and clarity, some of the pictures and images do not show the mounted "CE" protections. The technical data and models presented in this catalogue are not in any way binding. We reserve the right to change specifications without prior notice.

MaterMacc Social



DEALER

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