

MONOSEM

The precision Planter specialist

MONOSHOX[®]

NG Plus M



Pneumatic planter with double discs

www.monosem.com



EN

The result of several years of development and testing on hundreds of planters in many countries, MONOSEM launches a new metering unit stemming from the NG Plus range and called Monoshox[®] NG Plus M.

FROM NG PLUS... ...TO MONOSHOX[®] NG PLUS M

Launched in the 70's in the United States, the notion of planting with a planter resting on the ground directly in line with the seed drop, exists since 1989 in MONOSEM. Since the launching of the NG Plus range, the planting by double discs and gauge wheels has not ceased to progress.

*The NG Plus 2 version has been marked by the introduction of the PRO wheel, a large diameter press wheel which improves plant emergence « **the professional touch** ». The NG Plus 3 was known for being a heavy duty planter which is reliable with reinforced bearings and interchangeable wearing parts.*

More recently, the NG Plus 4 allowed easier adjustments to rapidly suit the planting conditions.

The new metering unit range Monoshox[®] NG Plus M conserves the distribution that makes the reputation of the NG Plus and adds, in particular, the new parallelogram with the Monoshox[®].EU suspension with shock absorber for higher work output with the MONOSEM planting quality.





SUMMARY

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Launched in the 70's in the United States, the notion of planting with a planter resting on the ground directly in line with the seed drop, exists since 1989 in MONOSEM.

Low maintenance, versatility; the "American planting system" has proven its efficiency. Associated with high quality distribution, the Monoshox[®] NG Plus M enables optimal use of the planter on large surfaces, thus reducing its operating costs.

1



The clod removers or the trash wheels clean the way for the future planting line pushing out clods, stones or trash.

2



The double discs open the furrow at a depth defined by the gauge wheels.

3



The V-tip finishes the bottom of the furrow for an optimal seed placement.

4



The curved seed chute tube has been specially designed to accompany the seeds gently into the ground and with a perfect accuracy.

5



The adjustable open press wheel unit, made up of 2 V-wheels, closes the furrow around the seed for optimal seed germination.*

* : Equipment according to the country



A DESIGN which makes all the difference

- **Rests on the ground directly in line with the seed drop**
- **Follows the ground contours**
- **Exceptional performances in all conditions**

Multi-crop planting



The quality of the distribution system enables the use of the planter for a wide number of crops giving high quality metering, even for small seeds such as rapeseed.

In precision planting, a good seed placement is not just a regular distance between seeds. The planting depth regularity, the pressing of seeds and the furrow closure are also important to have a quick and regular plant emergence.

The new Monoshox® NG Plus M metering unit range has technologies to ensure good planting at higher work speed.



Higher working speed with the MONOSEM quality planting



Planting at high speed without Monoshox®

Irregular plant emergence because of irregular distance between seeds and planting depth



Planting at high speed with Monoshox®

Regular plant emergence because of regular distance between seeds and planting depth

Monoshox® NG Plus M technologies serving the planting quality	Regular plant emergence	Regular distance between seeds	See pages
Monoshox®.EU suspension with shock absorber	✓	✓	8 - 9
Wide parallelogram / Higher pressure	✓		8 - 9
Easily removed V-Tip	✓	✓	8 - 9
MONOSEM Distribution		✓	6 - 7
PRO Wheel (option)	✓	✓	11
Adjustable open wheel unit*	✓		8 - 9

* Equipment according to the country

The winning combination for a good planting quality ensuring regular plant emergence at higher working speed.

High quality planting demands a good distribution system. This is why MONOSEM offers all their know how in order to give you an accurate, simple and extremely reliable distribution system. This high quality manufacturing has made the MONOSEM metering system a world wide name. Today for your planting, you too can demand the MONOSEM reference.

1 Cast aluminium metering box



The metering box is made from cast aluminium. Year after year the metering will always be just as accurate and this no matter the variations in temperature.

2 Wear gasket



The wear gasket is in permanent contact with the disc. It ensures the sealing of the disc and it is interchangeable.

3 Discs



The stainless steel discs 1,5 mm thick are very rigid. The agitator, fixed on to the disc stiffens the unit. The changing of the discs is easily made without tools. A complete range of discs for all precision seeds is available (cf. p30).

4 Scraper



The brass scraper avoids doubles. A spring on the metering box cover maintains the selector perfectly in place against the disc for optimal selection, even with small seeds.

5 Cover



The cover in alloy is specially designed for planting with a minimum of seeds.



6 Control window

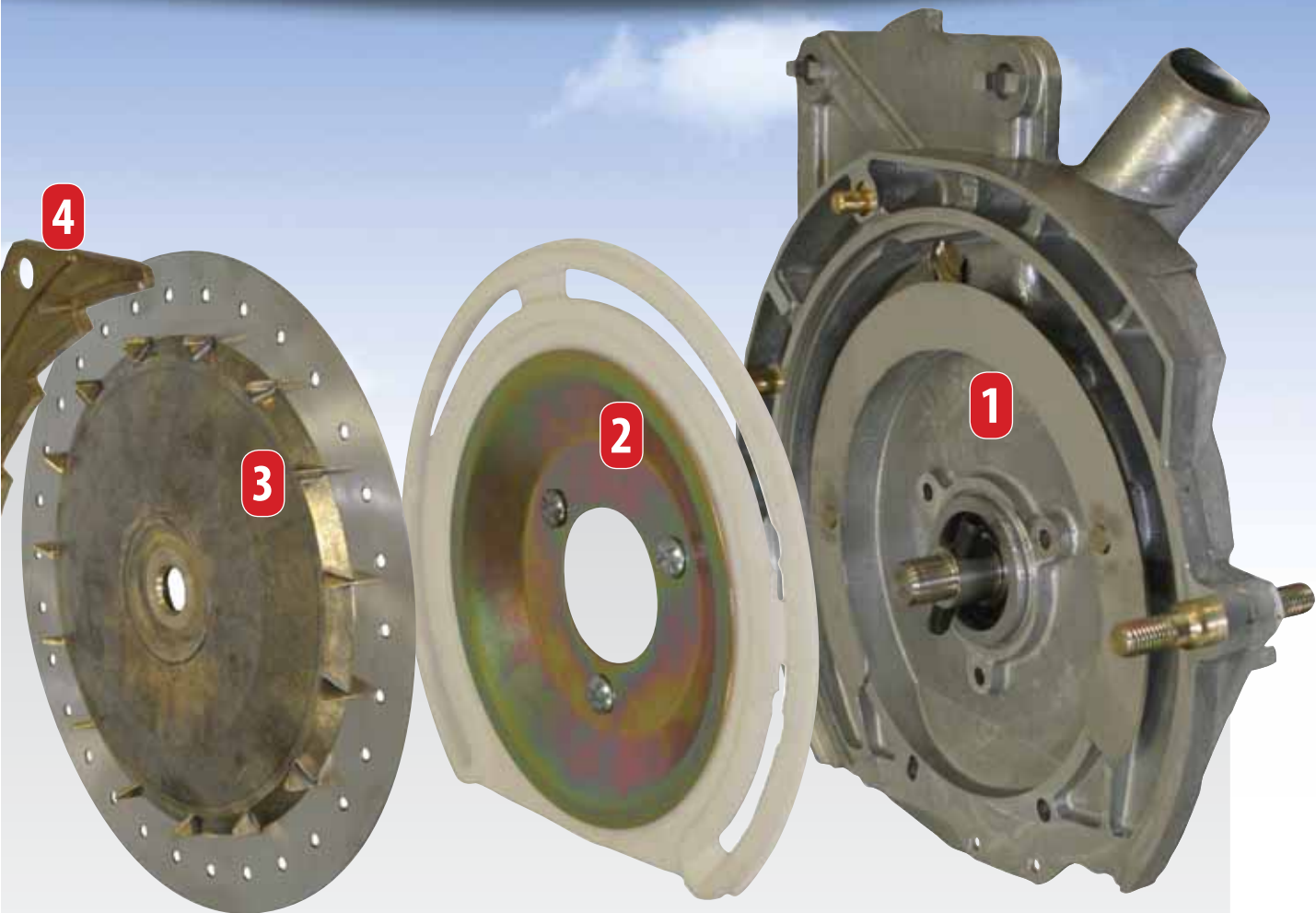


The distribution system is easily accessible, for both adjustments and control. A large transparent window allows for control of the selection after the selector.

7 Total emptying

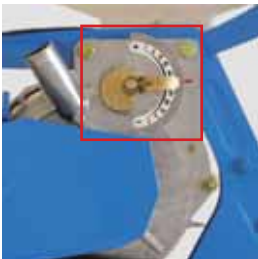


The emptying trapdoor offers optimal operating. Open the trapdoor and it stays open enabling, with the emptying auger supplied as standard equipment, an even easier and more efficient emptying.



One single adjustment of the vacuum and the selection

The single adjustment of the vacuum and the selection is a MONOSEM patent. This high precision system enables an optimal metering of the seeds.



For the large seeds, suction is maximum and the selector is adjusted according to the size of the seed.



For the small seeds, the suction is reduced simultaneously to the selector adjustment.



In order to meet with farmers new expectations, the metering unit has Monoshox[®] NG Plus M exclusive technologies enabling it to be:

- **Faster due to its Monoshox[®].EU suspension with shock absorber,**
- **More accurate, no matter what the type of seed with the easily removed tip,**
- **Easier adjustment with its parallelogram that can be rapidly adjusted in pressure and its new rear unit with adjusting levers.**

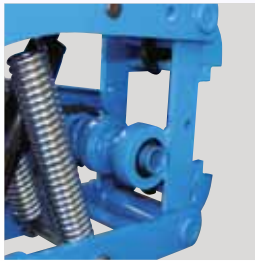
1



Hopper

The hopper in high resistance, transparent plastic has a capacity of 52 litres. The cover locks so will not close during filling, even in windy conditions.

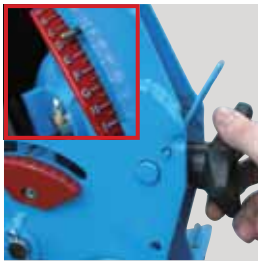
2



Safety clutch

Each metering unit is equipped with an audible safety clutch system with automatic clutching for optimal protection of the metering system.

3

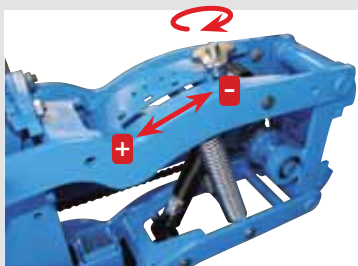


Depth adjustment

The depth adjustment is easily made using a hand wheel. This type of adjustment ensures a great control precision of the planting depth even for small seeds at a shallow depth. The new depth adjustment index is visible straight away from the rear. It is weather-proof.

4

Wide parallelogram with quick adjusting of the pressure



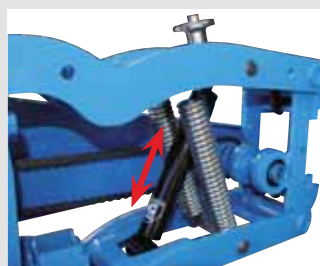
The parallelogram for the Monoshox[®] NG Plus M metering units is equipped with two adjustable pressure springs to rapidly suit the planting conditions. These two springs offer more pressure, retaining the planting unit on the ground and thus guaranteeing a greater stability of the unit.

The pressure exerted by the springs can easily be adjusted and this without using tools.

This new, reinforced parallelogram has pins mounted on bushings and is also wider which improves the unit stability.

5

Monoshox[®].EU Suspension with shock absorber



The Monoshox[®].EU like all good suspensions combines pressure springs with a shock absorber specially designed for using on a planting unit.

Thus, when working the two pressure springs retain the planting unit on the ground and the suspension with shock

absorber absorbs the shocks. The precision and the regularity of the planting depth remain optimal.

7

10

6

Exclusive Monoshox[®]

Flash



and access the video of the
Monoshox® NG Plus M



11



Clod remover bracket

The adjustment of the clod removers is precise (12 positions) and rapid due to the adjustment system with locking pins.
In order to suit different planting conditions, the clod removers are rapidly interchangeable with the trash wheels and this with no tool.

10



Gauge wheel arms

The bracket arms of the gauge wheels are assembled on interchangeable bushes. They are helically fluted for a good grease distribution.
Scrapers are standard assembly on the gauge wheels.

9



Gauge wheels

Large depth gauge wheels (110 mm) ensure an efficient and uniform depth control. Resting on the ground directly in line with the seed drop ensures the unmatched depth consistency that makes the reputation of the NG Plus.

The independent gauge wheels are mounted on an equalizing rocker bar which ensures uniform depth control even when one wheel encounters an obstacle (eg: stones).

8



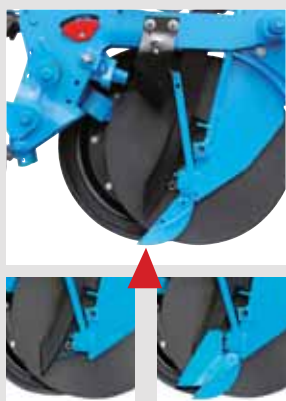
Double discs

The planting system is made up of two large diameter discs (380 mm) mounted on sealed ball bearings.

NG Plus M features

6

Easily removed tip



The patented quick-change system of the tip means you keep a tip forming a true V-shaped furrow for accurate seed placement at a regular depth, no matter what the planting depth or the type of seed (Maize, Sugarbeet, Rapeseed, Sunflower, Beans, Peanuts...).

With this tip, no tools are needed thanks to a lever placed between the discs. It is put back in place just as easily and in a sure manner by re-engaging it into its fixing bracket.

Two models of tips are available: the long tip for «normal» conditions or the long tip, short wings for

planting at shallow depths and/or in dry conditions (this tip keeps the furrow open until the seed drops and positions itself at the bottom of the furrow).

7

Adjustable open wheel unit*



The Monoshox® NG Plus M unit is equipped with a rear press wheel unit that can be adjusted using levers*.

The right hand lever (a) enables a rapid and accurate adjustment of the rear press wheel pressure.

The left hand lever (b) enables the adjustment of the angle of the wheels to rapidly suit the planting conditions (see pictures opposite).



* Equipment according to the country

MONOSEM has available a number of accessories to suit all your planting conditions. Our experience enables us to advise you in the choice of equipment.



Trash wheels

Trash wheels can be assembled in replacement of clod removers for planting in trashy soils.



Narrow trash wheel

For planting with reduced inter row spacings, retractable narrow trash wheels are available.



Flexible clod remover

The clod removers on flexible bracket are recommended for planting in stony soils.



Circular coultter

Smooth or rippled, the circular coultter improves the furrow opening and produces fine soil for low till planting and / or in trashy soils.



Narrow gauge wheels

For planting with reduced inter row spacings, narrow 5cm gauge wheels are available.



Shoe « Long tip, short wings »

The special shoe « Long tip, short wings » is specially designed for planting in dry soils and for small seeds.



Narrow press wheels

The 1" wheels (instead of 2") are available on option for improved pressing on hard ground and / or low till conditions.



Notched press wheels

The metallic press wheels with notched discs can be recommended for soils that are particularly crusty or hard after rain or to improve furrow closing in no or low-till conditions.

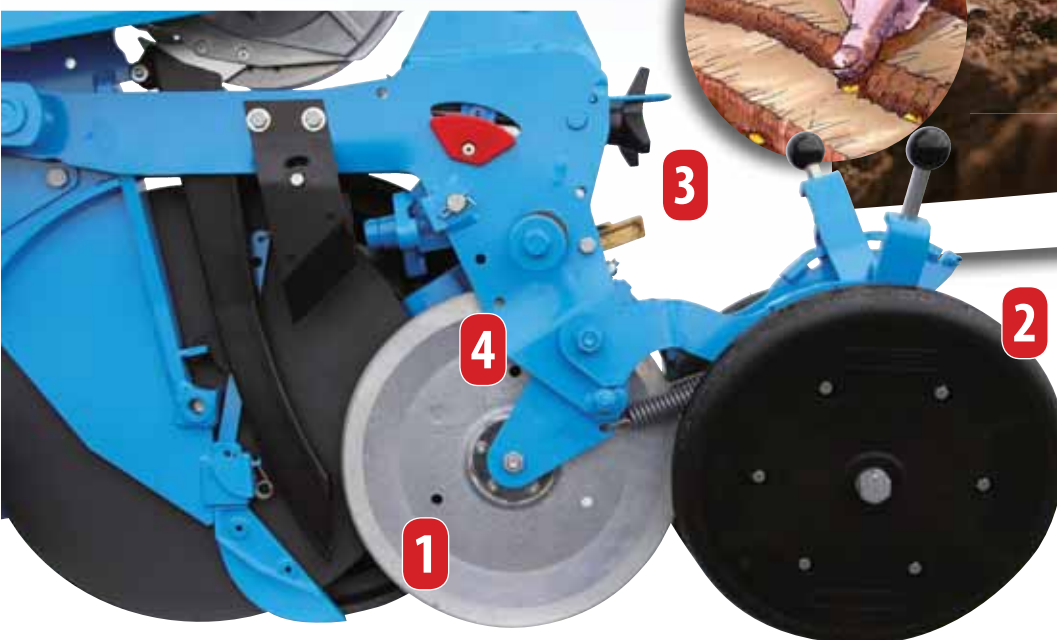


16L hopper

The 16-litre hopper is specially designed for planting small seeds at reduced inter row spacings (sugarbeet, rapeseed, ...).

« The professional touch »

The press wheel has been used for years on the vegetable and sugarbeet planters. MONOSEM has adapted this concept to the multipurpose planters with a large diameter press wheel, the PRO wheel.



- Consistent pressing
- Improved plant emergence
- Optimal germination
- Better seed placement quality

1



Large diameter press wheel

The PRO wheel in aluminium has a stainless steel coating and a plastic scraper. Wide diameter (295mm), it keeps its shape and offers a quality pressing and a better seed placement.

By improving the seed-to-soil contact, the emergence is more rapid and regular.

3



Integrated hooking up system

When the conditions are not suitable for the use of the PRO wheel, it can be very quickly retracted. Just lift the PRO wheel up by hand and lower the lock with the other. And the wheel is no longer in contact with the ground.

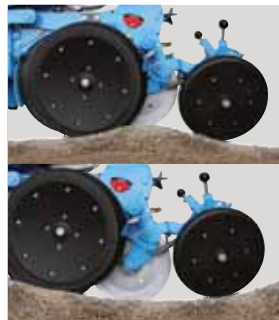
2



Combined adjustment

The packing down pressure of the PRO wheel is adjustable. It is combined with the pressure adjustment of the rear packing unit (a).

4



Independent wheel

Independant from the planting system and the rear press unit, the PRO wheel follows the ground contours for a consistent pressing.



Fixing of the metering units by clamps

The metering unit fixing system by clamps enables sure and solid fixing of the metering units. If necessary the metering units can be moved so as to modify the inter row spacings by loosening the clamps.

This system of fixing excludes all risks of lateral movement of the metering units during work and resists in the most difficult operating conditions.

1

Wheel units

On the MONOSEM planters, all the wheels drive the seed discs. This system ensures a smooth drive and thus a better planting precision. All the wheel units are equipped with a slip clutch for less stress on the seed discs on bends.

Frames that may be equipped with a "High capacity" fertilizer have reinforced wheel units. So that even in the case of adding fertilizer product, the wheel units will easily support this extra equipment.

For planting with reduced inter row spacings (up to 37,5 cm) or when planting in stony grounds, front wheel units are proposed.

The wheel units are available with 3 different models of wheels:

- Narrow (500x15) for reduced inter row spacings (sugarbeet)
- Standard (6,5x80x15)
- Wide (26x12) for minimum inter row spacings of 70 cm with rear wheel units



Planter with front wheel units for planting with reduced inter row spacings (up to 37,5 cm) or in stony soil conditions

2



Slip clutch



Standard wheel unit with 6,5x80x15 wheel



Reinforced wheel unit with 26x12 wheel



4

3

4

Turbofan

To suit all planter configurations (number of units, type of seeds, pneumatic transport of fertilizer, ...) and guarantee an optimal vacuum, MONOSEM has a wide choice of turbofans available.

The MONOSEM turbofans are reliable, efficient and ensure a regular vacuum for optimal operation of the metering. Our turbofans have 12 outlets in the standard version, an anti-rain flap (work monitor) and a drive by PTO shaft of 540 rpm. On option, the drives with PTO shafts at 450 rpm and 1000 rpm are available and also a drive by hydraulic motor. A universal joint is also proposed on option.



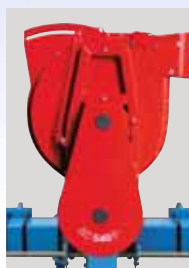
Standard Turbofan



High output Turbofan



Extra high output Turbofan



Double function turbofan



According to current law, MONOSEM can propose anti drift of dust kits (KAP). These kits are approved by the BBA Germany and guarantee the correct operating of MONOSEM planters.

NEW

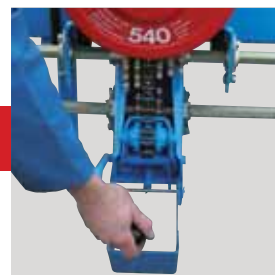
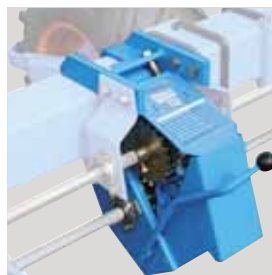


For even easier access, a rear seed spacing gearbox with integrated wheel unit is also available. This seed spacing gearbox with interchangeable sprockets gives an even more precise adjustment for seed population.

3

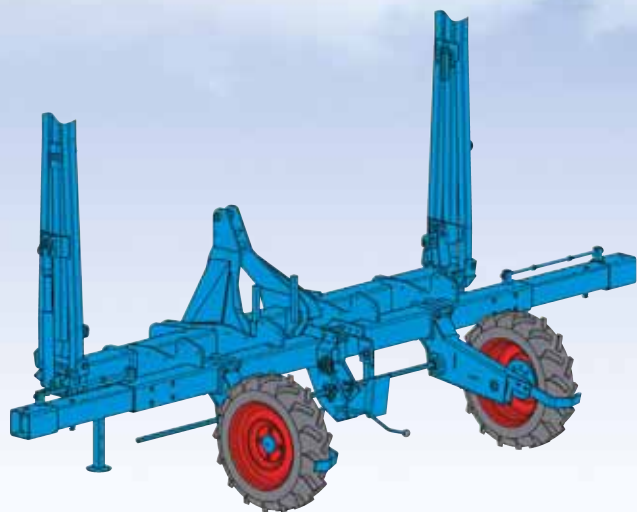
Seed spacing gearbox

The seed spacing gearbox has 18 ratios for a precise adjustment of the population. Changing the seed population is rapid. A single lever releases the chain. Then just place the required sprockets facing each other and release the lever to re-tighten the chain.



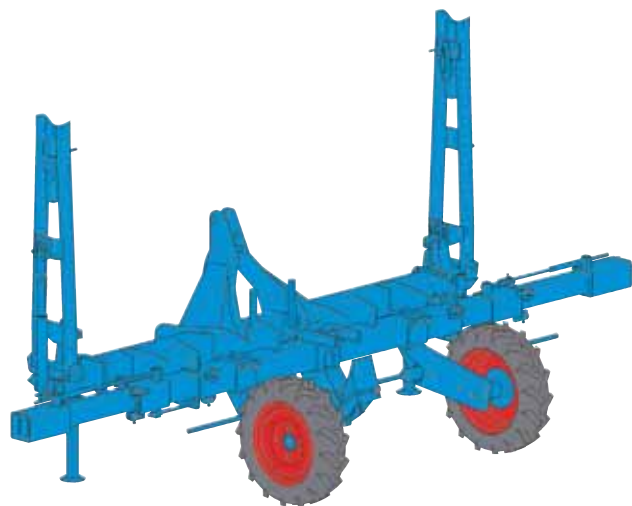
The standard seed spacing gearbox with 18 ratios gives a rapid and precise adjustment of the seed population.

In order to help you adjust your seed populations, download free of charge the MONOSEM application «Planter Adjustment» available under Google play or App Store.



The Monoblock single telescopic frame

The Monoblock single telescopic frame 260 has a 4 m 20 bar when working. When transported, the 1st and 6th rows retract for a transport width of 3 m 50. This frame is also suitable for an uneven number of rows. The Monoblock 260 can be equipped with "High Capacity" fertilizer attachments.



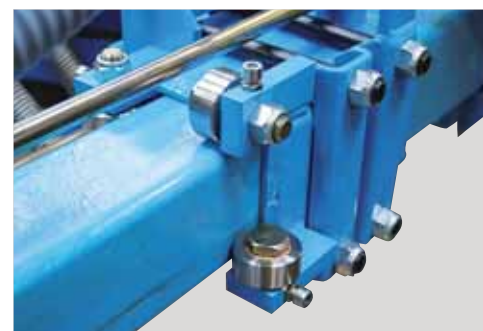
The Monoblock double telescopic frame

The Monoblock 260 double telescopic frame has a 4 m 20 bar when working. When transported, the 1st and 2nd together with the 5th and 6th rows retract for a transport width of 3 m 00. The Monoblock 260 frame can be equipped with "High Capacity" fertilizer attachments.

The row markers are fixed on to the main bar of the frame to limit the stress on the telescopic extensions.



Frames
Width
Number of metering units
Inter-row spacings (cm)
Number of « drive » wheel units
Number of seed spacing gearboxes
Transport width



The roller bearings mounted on bushes enable a perfect operation of the double telescopic frame year after year.

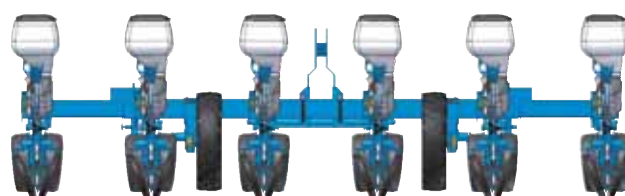


6-row Monoblock 260 single telescopic planter with 980 L fertilizer and Microsem (75 cm inter row spacing)



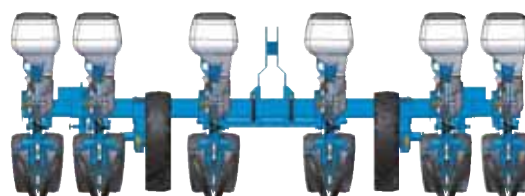
6-row Monoblock 260 single telescopic planter with Combined Microsem (75 cm inter row spacing)

The interest of a telescopic frame



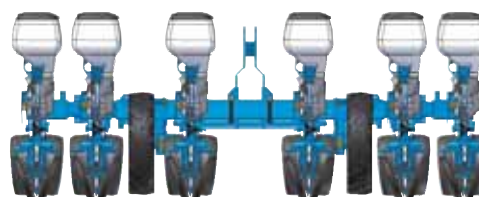
6-row single or double telescopic planter at work

4 m 40



6-row single telescopic planter in transport position

3 m 50



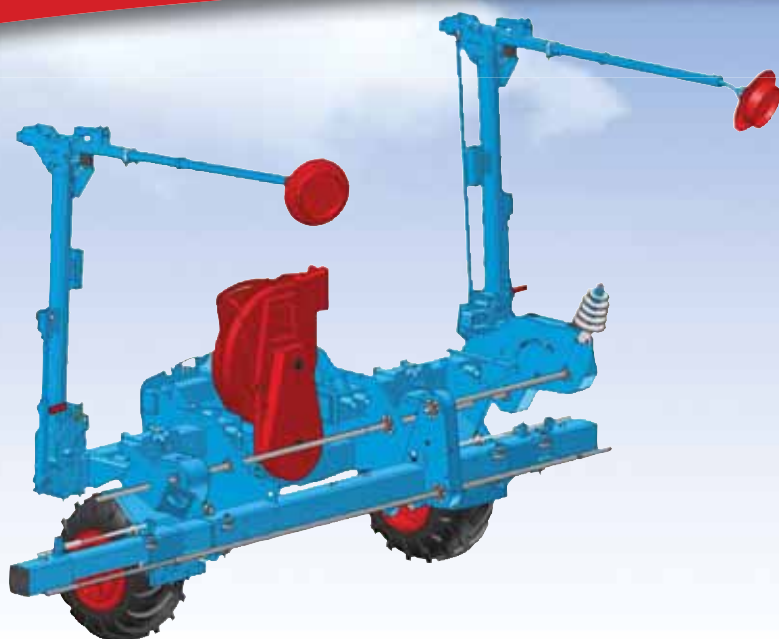
6-row double telescopic planter in transport position

3 m 00

Monoblock 260 Single telescopic			Monoblock 260 Double telescopic
4 m 20			4 m 20
6	7	8	6
75/80	55/60	45/49	75/80
2			2
1			1
3 m 50			3 m 00



The stop parts on the telescopic system enable an adjustment perfectly suited to the required inter row spacing and folding that is suited to the equipment of the planter.



The telescopic Monoblock2 Comfort frame

The Monoblock2 Comfort frame can be equipped with 6, 7 or 8 metering units. Its telescopic frame is available in single telescopic version (folding for a width of 3m50) or double telescopic version (folding for a width of 3m00 depending on the inter-row). It is equipped in the standard version with wide front wheels for a constant drive of the metering units. The Monoblock2 Comfort frame can also be equipped with « High Capacity fertilizers ».



6-row Monoblock2 Comfort planter with fertilizer 1030L and Combined Microsem (75 cm inter row spacing)



7-row Monoblock2 Comfort with Combined Microsem (60 cm inter row spacing)

Frames

Width

Number of metering units

Inter-row spacings (cm)

Number of « drive » wheel units

Number of seed spacing gearboxes

Transport width

* Depending on the equipment

Lateral seed spacing gearbox





The « PLUS » on the Monoblock2 Comfort planter with fertilizer and Microsem

Fertilizer 680 L or 1030L



The Monoblock2 Comfort planters can be equipped with a 680 L fertilizer or a 1030 L fertilizer. The fertilizers are equipped with 6 to 8 metering systems in stainless steel with individual trapdoors. A Double function turbofan (Df) ensures an efficient vacuum suction of the seeds and also to pulse the fertilizer on the 4 outer rows.

Access platform



On the Monoblock2 Comfort planters with fertilizers, a platform, delivered as standard equipment, enables an easy access to the fertilizer hopper. The platform and the step thus enable a safe access to the hopper during filling operations.

Adjustment by FertiDrive^{VM}



Easily accessible on the side of the planter, the FertiDrive^{VM} variable speed transmission allows very quick and easy adjusting of the quantity of fertilizer per hectare required. This transmission is also equipped with a disengaging mechanism, used to stop the fertiliser intake where it is not necessary.

Adjustment by MicroDrive^{VM}



The Microsem has a MicroDrive^{VM} variable speed drive easily accessible for a quick and easy adjusting of the required dose. This transmission is also equipped with a disengaging mechanism, used to stop the Microsem intake where it is not necessary.

Monoblock2 Single telescopic			Monoblock2 Double telescopic	
4 m 20			4 m 40	
6	7	8	6	7
70/75/80	50/55/60	49	70/75/80	55/60/65/70
2			2	
1			1	
3 m 50			3 m 00	3 m 00*

The drive of the metering unit is ensured by a reinforced transmission. The seed spacing gearbox is situated on the extreme left side of the planter for easy access and a rapid changing of the sprockets. The 20 settings with interchangeable sprockets offer a wide choice of seed populations.

Drive wheels

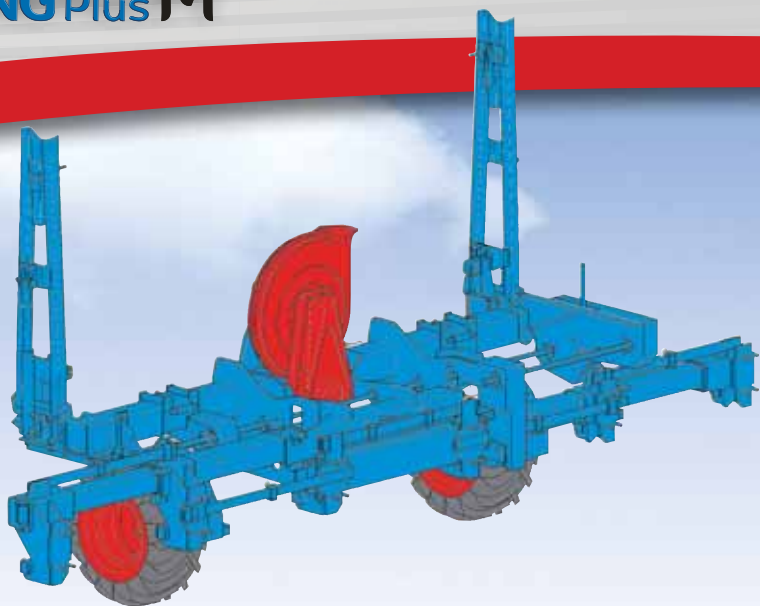


The wide wheels with large diameter ensure a regular and constant drive of the seed discs. The rapid adjustment of the width of the drive wheels means a rapid adjustment to the different tractor treads.

Folding row markers



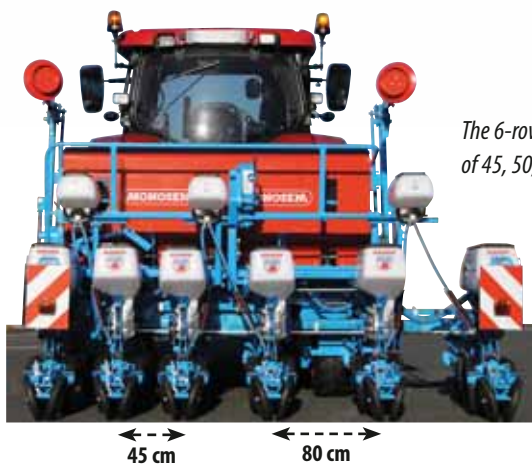
The folding row markers allow marking at the wheel or in the center but take up little space when in transport. They are also equipped with a safety system and a mechanical locking system for the transport.



The Extend frame

The Extend frame enables the rapid changing of inter row spacings by hydraulic control from the tractor cab. This frame is made up of two hydraulic telescopic bars that ensure the lateral movement of the metering units in order to change the inter row spacings.

It is equipped in the standard version with wide wheels for a constant drive of the metering units. The rapid adjustment in width to easily suited to the tractor treads.



The 6-row Extend planter enables spacings of 45, 50, 55, 60, 65, 70, 75 and 80 cm.



The mixed 6/7 row Extend version offers spacings of 75 and 80 cm in 6 rows and of 55 and 60 cm in 7 rows. It is thus possible to change very quickly with no disassembly, from 6 rows maize to 7 rows sunflower/rapeseed.



Frames

Width

Number of metering units

Inter-row spacings (cm)

Number of « drive » wheel units

Number of seed spacing gearboxes

Transport width

Telescopic bars



The hydraulic telescopic bars ensure the lateral movement of the metering units in order to change inter row spacings. In order to limit friction and ensure a longer life, the bars are equipped with guiding bearings mounted on bushings.



6-row Extend planter with fertilizer and Microsem

Extend 6 rows	Extend mixed 6/7 rows
4 m 15	4 m 15
6	7
From 45 to 80 cm	55 and 60 cm (7 rows) 75 and 80 cm (6 rows)
2	2
1	1
3 m 00	3 m 10



The « PLUS » on the EXTEND planter with fertilizer* and Microsem Access platform

On the Extend planters with fertilizers, a platform, delivered as standard equipment, enables an easy access to the fertilizer hopper. The platform and the step thus enable a safe access to the hopper during filling operations.

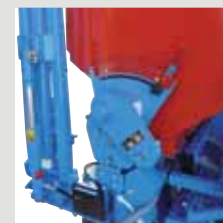


Pneumatic transport to outer rows

On the Extend planter, a Double function turbofan (Df) ensures an efficient vacuum suction of the seeds and also to pulse the fertilizer on the outer rows to efficiently distribute at 45 or at 80 cm inter row spacings. On the pulsed rows, a stainless steel cyclone is integrated on each fertilizer disc.

Discs fertilizer applicators

The Extend planter is equipped as standard with double-discs fertilizer applicators. These discs fertilizer applicators are height adjustable with pins and are equipped with a spring-loaded guard.



Adjustment by FertiDrive^{VM}

Easily accessible on the side of the planter, the FertiDrive^{VM} variable speed transmission allows very quick and easy adjusting of the quantity of fertilizer per hectare required. This transmission is also equipped with a disengaging mechanism, used to stop the fertiliser intake where it is not necessary.



Adjustment by MicroDrive^{VM}

The Microsem has a MicroDrive^{VM} variable speed drive easily accessible on the side of the planter for a quick and easy adjusting of the required dose. This transmission is also equipped with a disengaging mechanism, used to stop the Microsem intake where it is not necessary.

* Fertilizer only available on 6-row

Inter row spacing adjustment



The adjustment of the inter row of the Extend planter is very simple. You just have to position the stop parts on the adjustment bar on the required spacings and then lengthen or shorten the hydraulic cylinders on the telescopic bars in order to obtain the desired spacing.

Lateral seed spacing gearbox



The drive of the metering unit is ensured by a reinforced transmission. The seed spacing gearbox is situated on the extreme left side of the planter for easy access and a rapid changing of the sprockets. The 20 settings with interchangeable sprockets offer a wide choice of seed populations.

Drive wheels



The wide wheels with large diameter ensure a regular and constant drive of the seed discs. The rapid adjustment of the width of the drive wheels means a rapid adjustment to the different tractor treads.



The floating Double bar folding frame

The floating Double bar frame can be equipped with 8 rows in « maize » version and up to 12 rows in « sugarbeet » version. Its folding system at 3 m authorizes safe road transport.

Its design is compatible with an uneven number of rows (9 or 11 rows).

The floating extremities ensure a perfect following of the ground contours.



The TFC folding frame

The TFC folding frame can be equipped with 8 metering units in « maize » version. It is equipped with a 1500 L fertilizer. Its folding frame enables a folding for a width of 3m. The TFC folding frame is available in floating version with 4 wheel units (wide tyres 26x12) for a perfect following of ground contours or in rigid version with 2 front wheel units (wide tyres 26x12).

12-row Double bar folding planter (45 cm inter row spacing)



Frames	Double bar			
Width	6 m 00	7 m 00	6 m 00	
Number of metering units	8	9	11	12
Inter-row spacings (cm)	75/80	60	60	45/50
Number of « drive » wheel units	4			
Number of seed spacing gearboxes	3			
Transport width	3 m 00	3 m 00	3 m 50	3 m 00

A perfect following of ground contours



The floating Double bar folding and the floating TFC frames have independent wings with wheel units. This characteristic allows for a perfect following of the ground. At the field ends or to finish off a field, it is also possible to lift one or other of the wings (or the 2) thus automatically stopping the metering.



8-row Double bar folding planter (80 cm inter row spacing)



11-row Double bar folding planter (60 cm inter row spacing)

TFC Floating	Rigid TFC
6 m 00	6 m 00
8	8
75/80	75/80
4	2
3	1
3 m 00	3 m 00



The row markers on double bar folding frame and TFC folding frame enable a compact folding for a minimum transport dimension.



8-row TFC floating frame (75 cm inter row spacing)



The electric Eco function selector (2 DA / 4 functions) is available on option on the folding double bar and TFC frames to control 4 planter functions using 2 double actions.



The electric function selector (1 DA / 4 functions) is available on option (only on double bar frames) to control 4 functions on the planter using just one double action.

The « PLUS » on TFC planter with fertilizer



Fertilizer 1500 L

The TFC planters are equipped with a 1500 L fertilizer. The fertilizers are equipped with 8 metering systems with individual stainless steel trapdoors. A Double function turbobfan (Df) ensures an efficient vacuum suction of the seeds and also to pulse the fertilizer on the 4 outer rows. A step enables a safe access to the hopper.



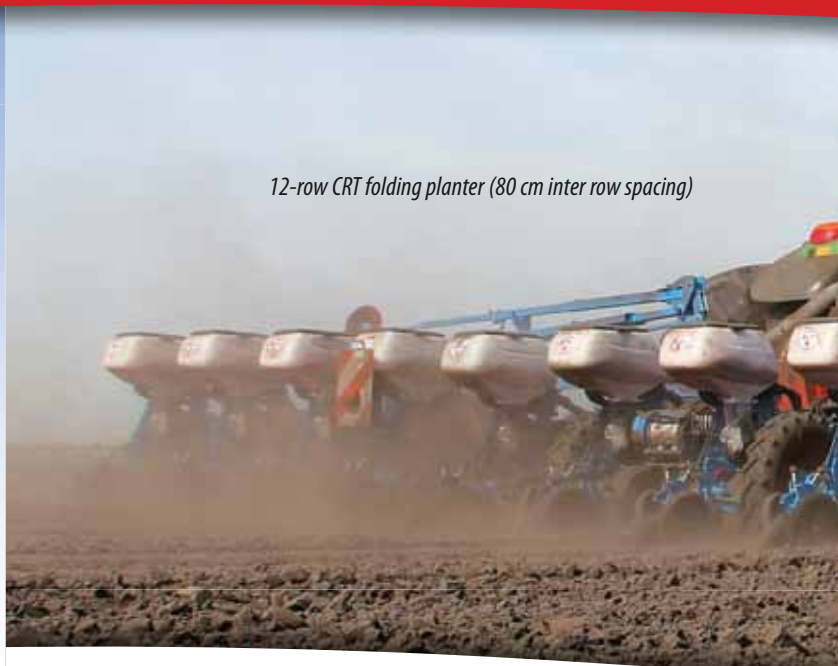
Adjustment by FertiDrive^{VM}

Easily accessible on the side of the planter, the FertiDrive^{VM} variable speed transmission allows very quick and easy adjusting of the quantity of fertilizer per hectare required. This transmission is also equipped with a disengaging mechanism, used to stop the fertiliser intake where it is not necessary.



The CRT Folding frame

The CRT folding frame can be equipped with 12 metering units in « maize » version. Its folding and telescopic frame enables a folding for a width at 3 m (depending on the inter-row and equipment). The floating extremities ensure a perfect following of the ground contours.

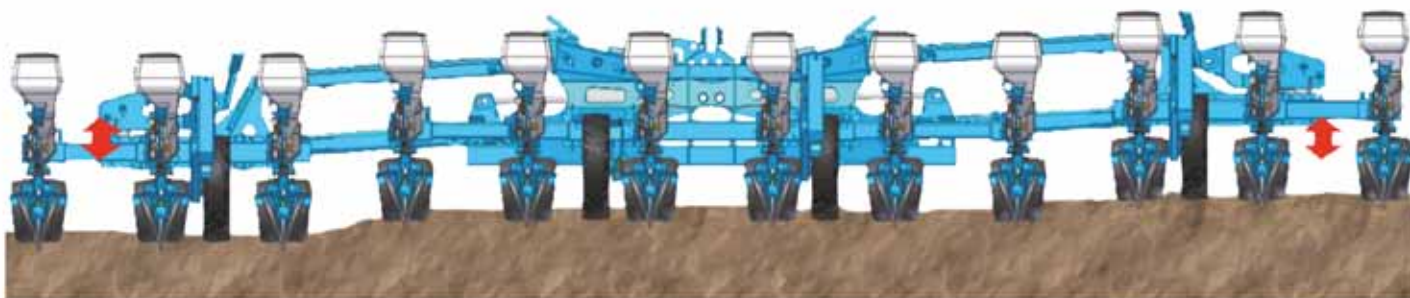


12-row CRT folding planter (80 cm inter row spacing)

Frames	CRT		
Width	9 m 00		
Number of metering units	12	12	13
Inter-row spacings (cm)	70/75	80	60
Number of « drive » wheel units	4		
Number of seed spacing gearboxes	3		
Transport width	3 m 00*	3 m 40	3 m 50

* Depending on the equipment

A perfect following of ground contours



The CRT folding frame has independent wings with wheel units. This characteristic allows for a perfect following of the ground; ideal in hilly grounds or slopes and in small sized fields.



The central part of the frame is made up of a double telescopic frame, the wings are telescopic and folding for a transport width of 3m (depending on the equipment).



The electric distributors enable to control all the functions of the planter with just one double acting distributor. An automatic control at the field end lifts the folding parts and the rows markers in order to maneuver safely.



The compact folding row markers enable marking at the wheel or at the centre and take up little space when in transport. They are also equipped with a safety system.



The CRT frame can be equipped with standard fertilizers (4 x 270 L) or the equipment for the front-mounted Standard or DUO fertilizer. In this configuration, the planter has 2 distribution heads (assembly according to inter row and equipment).

Standard fertilizers, « High Capacity » hoppers or front-mounted hoppers, with MONOSEM you can choose the fertilizing system the best suited to your planting conditions.

STANDARD HOPPER

Standard plastic hoppers are available in two sizes:

- 175L hopper, 2 or 3 outlets.
- 270L hopper, 3 outlets.

They are assembled on rigid or folding frames.



« HIGH CAPACITY » HOPPERS ON TELESCOPIC AND FOLDING FRAMES

The high capacity hoppers in sheet metal are available with Monoblock, Monoblock2, Extend and TFC Frames. Even with these fertilizers, the width on the road is under 3 m with the double telescopic, Extend and TFC frames. The outer rows are fed by pulsed air. The hopper is equipped with transparent windows for visual checking of the fertilizer level from the tractor cab. The capacity of the fertilizer allows for easy loading of 500 kg bags.

Wide opening



The « High Capacity » fertilizer hoppers allows a wide opening for a "clean" and easy filling of the fertilizer.

Easy and rapid emptying



The « High Capacity » fertilizer hoppers are equipped with a trapdoor on each side with a hose enabling a rapid and easy emptying of the hoppers.

Monoblock



The « High capacity » hoppers in sheet metal on Monoblock, single or double telescopic frames have a capacity of 980 L.

Monoblock2 / Extend / TFC



The « High Capacity » hoppers in sheet metal on the single and double telescopic Monoblock2 Comfort frames have a capacity of 680 L or 1030 L. On the Extend frames, the capacity is 1020 L. This capacity is 1500 L on the TFC folding frames.

Adjustment by FertiDrive^{VM}



The fertilizers on the Monoblock2 Comfort, Extend and TFC frames are equipped with a variable speed transmission for simple and precise adjustment of the quantity of fertilizer to be distributed.

FRONT MOUNTED HOPPERS



The front mounted MONOSEM hoppers have been specially designed for fertilizer applications. The sturdy frame with integrated cradle, the 100 % stainless steel distribution unit and driven by a land wheel with integrated gearbox indicate the care that is applied to manufacture.

The turbofan can be driven by PTO or hydraulic motor.

The front mounted hopper is multi-purpose and can be mounted on a SUPER CROP cultivator for fertilizing whilst cultivating.



Standard front-mounted hopper



The standard front hopper is available with capacities of 1000L or 1600L. The unit can be assembled on 6 to 12-row planters with rigid, telescopic or double bar folding frames.



Cyclones

The cyclones assembled opposite each metering unit allowing the fertilizer drop by gravity and thus limiting the dust forming due to the pulsed air.



Distribution Inox

The 100% stainless steel metering system of the front-mounted fertilizer has a closing trapdoor and can be rapidly disassembled.



Front-mounted DUO hopper



The front-mounted DUO hopper is available in capacities of 1500L or 2100L. The unit can be assembled on the 12-row CRT frames. This fertilizer has a double stainless steel metering system and a gearbox with lever for a rapid adjustment of the quantity of fertilizer to be distributed.

The MONOSEM fertilizers have the same manufactured quality as our planters enabling you to spread solid fertilizer in a very precise manner with an equipment perfectly suited to your requirements.



Adjustment of the fertilizer

The adjustment of the quantity of fertilizer metered when planting is made using a gearbox with 12 ratios.

The chart delivered with the fertilizers enable a rapid adjustment of the quantity metered.

NEW

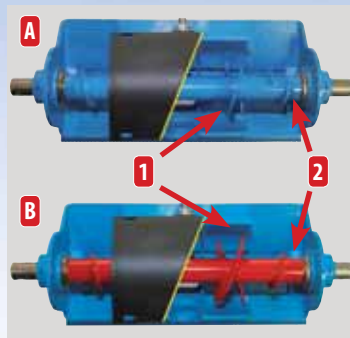


In order to help you to adjust your fertilizer attachments, download free of charge the MONOSEM application «Planter Adjustment» available under Google play or App Store.



Distribution by auger

The metering by auger (1), associated with agitators (2), ensure a regular dosing of the fertilizer. These augers in stainless steel are proposed with different pitches to meter exactly the required quantity.



The « Standard » augers (A) in blue are for fertilizer metering from 80 to 350 kg/ha for an inter row spacing at 75 cm and from 120 to 525 kg/ha for an inter row spacing of 50 cm.

The «High output» augers (B) in red have a larger pitch and are for fertilizer metering from 160 to 700 kg/ha for an inter row spacing of 75 cm and from 240 to 1050 kg/ha for an inter row spacing of 50 cm.

Fertilizing unit with tines or with discs



Two types of units are offered for fertilizing:

- with tines
- with double discs

The fertilizing unit with tines has an interchangeable tip. The fertilizing unit with discs is more versatile and better suited to low till conditions with trashy soils. The 2 types of units have a safety system with spring and depth control adjustment. For sugarbeet planting, specific fertilizing units are available.

	Standard hopper	High capacity hopper				Front-mounted hopper	
		Monoblock	Monoblock2 Comfort	Extend	TFC	Standard	DUO
Capacity (number of rows in maize)	2 x 270 litres (6 rows) 4 x 175 litres (8 rows) 4 x 270 litres (12 rows)	980 l.	680 l. 1030 l.	1020 l.	1500 l.	1000 l. 1600 l.	1500 l. 2100 l.
Number of rows (maize)	6 to 12	6	6 to 8	6	8	6 to 8	12
Mini/maxi output at 50 (with high output auger)	120 to 525 kg/ha (240 to 1050 kg/ha)	120 to 525 kg/ha (-)				Output according to the quality of the fertilizer	
Mini/maxi output at 75 (with high output auger)	80 to 350 kg/ha (160 to 700 kg/ha)	80 to 350 kg/ha (-)					
Type of frame	Telescopic (Monoblock) Folding (Double bar and CRT)	Telescopic (Monoblock)	Telescopic (Monoblock2 Comfort)	Extend	Folding (TFC)	Telescopic Repliable (Double-barre)	Folding (CRT)
Big-Bag loading	No	Yes				Yes	Yes

THE MICROSEM

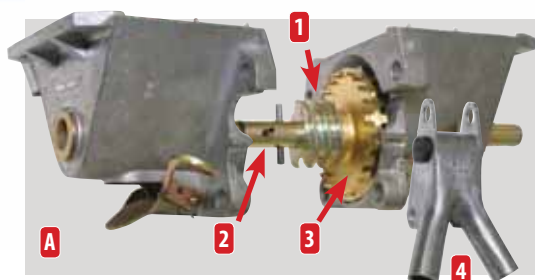
MONOSEM

The precision Planter specialist

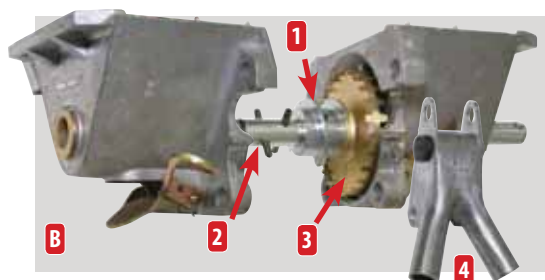
Whether for insecticide or helicide, the Microsem system with auger ensures a regular metering of microgranules. Its simple design enables an easy and reliable use. Multi-purpose, the Microsem is compatible with the majority of microgranulate products on the market (insecticides, helicides,...).

Distribution by auger

The principle of the Microsem distribution is based on a system of auger. The microgranules contained in the hopper are picked up by 2 augers (1). The agitators (2) allow for a regular feed of these augers. A finger wheel (3) then distributes uniformly the product in the chutes (4).



The « Insecticide » augers (A) allow to distribute from 3 to 25 kg/ha for an inter row spacing at 75 cm.



The « Helicide » augers (B) allow to distribute from 3 to 10 kg/ha for an inter row spacing of 75 cm.

Adjustment of the Microsem



Adjustment of the microgranulators is made using a gearbox with 18 ratios. If needed, other sprockets are available and also a rapid declutching system. The adjustment chart delivered with the Microsem enables a rapid adjustment of the quantity of product.



Available on option on certain models, the MicroDrive™ offers a rapid and precise adjustment of the dose to be applied.

NEW



In order to help you to adjust your Microsem attachments, download free of charge the MONOSEM application «Planter Adjustment» available under Google play or App Store.



Chutes



The Insecticide Microsem chute (5) is placed between the 2 discs for product supply in the planting line. The Helicide Microsem chute (6) is adjustable for a product supply on the planting line before or after the passage of the press wheels.

Combined Microsem



The Insecticide and Helicide Microsems can be associated for a simultaneous supply of the 2 products.

Emptying of the hoppers



The capacity of the Microsem hoppers is 20L. 40-litre hoppers are also available on option (Assembly according to frame). The trapdoors (7) and the chute (8) allow for a simple and quick emptying of remaining product.

The row cut-offs allow for an individual declutching of each metering unit. Several types of control systems are proposed. They stop the rotation of the metering system without cutting the vacuum and thus avoiding the mixing of the seeds in the metering boxes and variations of suction.



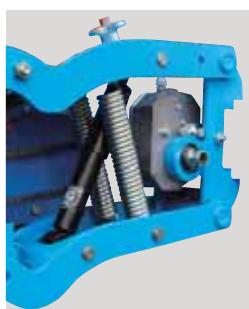
Mechanical system with lever

The mechanical cut-off system with lever, available on option, is an economical solution for declutching a metering unit.



Electromagnetic row cut-off system

The electromagnetic row cut-off systems enable an individual declutching of each metering unit from the tractor cab. The control box operates the electromagnetic clutches situated on the metering units. Several models of control boxes are offered.



Electromagnetic clutch on Monoshox[®] NG Plus M metering unit

Electromagnetic row cut-off system with manual control

The electromagnetic row cut-off systems with manual control enable an individual declutching of each metering unit from the tractor cab.

Each row is equipped with a rotation control light.

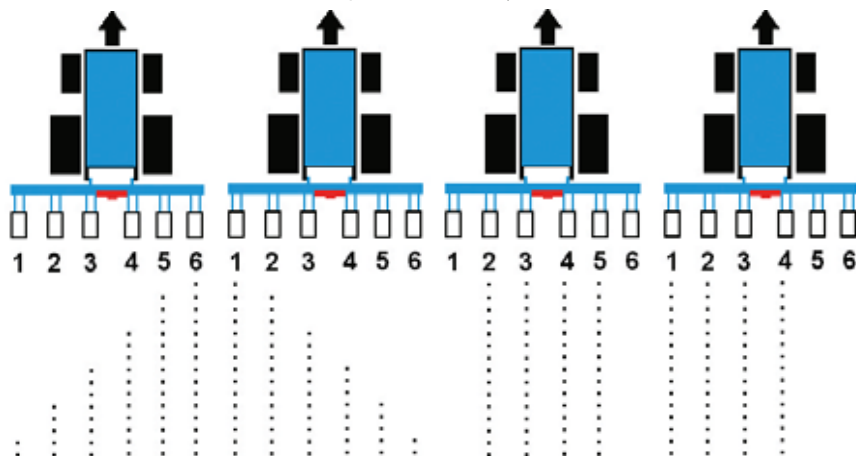
This system is available in 2, 4, 6, 8 and 12 rows.



The row cut-off unit CR 4200 specifically designed for the CS 4200 is available on option. This can manage up to 12 cut-offs.



Examples of row cut-off systems



CS 4200, CS 5000, CS 6200 and CS 7000 seed monitors with row cut-off system

The CS 4200, CS 5000, CS 6200 and CS 7000 seed monitors can be equipped on option with the row cut-off system. In this case, the metering unit declutching control is made via the monitor unit.

The CS 5000, CS 6200 and CS 7000 are also equipped with the automatic tramline function.

THE SEED MONITORS

Specialists in precision planters, MONOSEM offers a wide range of seed monitors. From the simple checking of the seed drop to the counting with indication of the distance between seeds, you will find the monitor suited to your requirements.



Functions	CS 1000	CS 1200	CS 3000 / CS 4200	CS 5000 / CS 6200	CS 7000
Seed drop control row by row	●	●	●	●	●
Alarm is no seed	●	●	●	●	●
Stop alarm	●	●	●	●	●
Alarm programmable threshold	-	●	●	●	●
Working speed by sensor	-	●	●	●	-
Working speed by radar	-	-	○ / -	○ / -	●
Total surface	-	●	●	●	●
Partial surface	-	●	●	●	●
Average population	-	-	●	●	●
Distance between seeds	-	-	● / -	●	●
Manual row cut-off	-	-	- / ○	●	●
Programmable row cut-off	-	-	-	●	●
Maximum number of rows	16	12	32 / 12	18 / 24	32
Seed population control	-	-	-	-	●
ISOBUS compatible (ISO 11783)	-	-	-	-	●



The seed monitor sensors are placed under the metering boxes. A beam of light enables the control of the seed passage, even the smallest seeds.

- : Standard
- : On option
- : Not possible



CS 7000

CS 7000 and Seed-Drive

The The Seed-Drive hydraulic control of the seed population replaces the planter seed spacing gearbox(es) by several hydraulic motors which drive the seed discs. This system offers the possibility of non-stop modulating of the seed population directly from the tractor cab.

The CS 7000 terminal is the interface enabling the operator to monitor the planter. It is linked to the main control unit (ECU) situated on the planter by a cable with a standardized 9-pin connector. The CS 7000 terminal and the hydraulic control system of the SeedDrive population are compatible with the ISO 11783 standard called ISOBUS.

SEED Drive

- Seed sensor
- Hydraulic motor
- 9-pin ISOBUS connector
- ECU Electronic Control Unit



Frames		Single telescopic						Double telescopic		
		Monoblock			Monoblock2 Comfort			Monoblock	Monoblock2 Comfort	
Width		4 m 50			4 m 50			4 m 50	4 m 50	4 m 50
Transport width		3 m 50			3 m 50			3 m 00	3 m 00	3 m 00 *
Number of metering units		6	7	8	6	7	8	6	6	7
Inter-row spacings (cm)		75 / 80	55 / 60 / 65	45 / 49	75 / 80	55 / 60 / 65	49	75 / 80	75 / 80	55 / 60 / 65 / 70
Turbofan		Drive by PTO – 540 rpm in standard version, 450 or 1000 rpm on option -								
Tyres		2 x (6,5x80x15)			2 x (26x12)			2 x (6,5x80x15)	2 x (26x12)	
Metering box	Standard (16 settings)	● 1			-			● 1	-	
	Lateral (20 settings)	-			● 1			-	● 1	
Hydraulic row markers		●			●			●	●	
Fertilizer	Standard	○ 2 x 270 L	-	-	-			○ 2 x 270 L	-	
	High capacity	○ 1 x 980 L	-	-	○ 1 x 680 L or 2 x 1030L			○ 1 x 980 L	○ 1 x 680 L or 2 x 1030L	
	Front-mounted Standard	○			○			○	○	
	Front-mounted DUO	-			-			-	-	
Microsem	Insecticide	○			○			○	○	
	Herbicide	○			○			○	○	
Hectare counter		○			○			○	○	
Seed monitors		○			○			○	○	
Row cut-off system		○			○			○	○	
Lighting kit		○			○			○	○	
Weight planter only		1300 kg	1425 kg	1550 kg	1500 kg	1625 kg	1750 kg	1350 kg	1550 kg	1675 kg

* Depending on the equipment

● : Standard

○ : On option

- : Not possible

For other models, special inter-row spacings and other crops, please consult u

MAIN MONOSHOX® NG PLUS M SEED DISCS

Type of seed	Standard discs delivered	Number of holes	Diameter of holes	Distances on the row (standard seed spacing gearbox)	Other possibilities, number and Ø of holes
Maize	DC 3050	30	5 mm	7 to 21,5 cm	18 - 24 and Ø 4,5 - 6 mm
Sunflower	DC 2425 DC 1825	24 18	2,5 mm	9 to 26,5 cm 12 to 35,5 cm	
Sugarbeet	DC 3020	30	2 mm	7 to 21,5 cm	24
Beans	DC 6045 DC 6035	60	4,5 mm 3,5 mm	3,5 to 11 cm	ø 2,5 mm
Soya - Peas	DC 6045	60	4,5 mm	3,5 to 11 cm	
Rapeseed	DC 7212	72	1,2 mm	3 to 9 cm	30 - 60 - 120
Cabbage	DC 3612	36	1,2 mm	6 to 18 cm	72 - 120
Sorghum	DC 7222	72	1,2 mm	3 to 9 cm	36
Kidney beans	DC 3060	30	6 mm	7 to 21,5 cm	ø 5 - 6,5 mm
Peanut	DC 3065	30	6,5 mm	7 to 21,5 cm	36 and ø 5,5 - 6 mm

FEATURES



The precision Planter specialist

Extend		Folding							
Extend 6 rows	Extend mixed 6/7 rows	Double bar				TFC Floating	TFC Rigid	CRT	
3 m / 4 m 50	3 m 10 / 4 m 50	6 m 00				6 m 00	6 m 00	9 m 00	
3 m 00	3 m 10	3 m 00	3 m 00	3 m 50	3 m 00	3 m 00	3 m 00	3 m 00 *	3 m 50
6	7	8	9	11	12	8	8	12	13
45-50-55-60-65-70-75-80	75-80 (6 rows) 55-60 (7 rows)	75 / 80	60	60	45 / 50	75 / 80	75 / 80	70 / 75 / 80	60
Hydraulic drive on option, universal joint on option									
2 x (26x12)	2 x (26x12)	4 x (6,5x15)				4 x (26x12)	2 x (26x12)	4 x (6,5x15)	4 x (6,5x15)
-	-	● 3				● 3	-	● 3	● 3
● 1	● 1	-				-	● 1	-	-
●	●	●				●	●	●	●
-	-	○ 4 x 175 L	-	-	-	-	-	○ 4 x 270 L	-
○ 1 x 1020 L	-	-				○ 1 x 1500 L	○ 1 x 1500 L	-	-
○	○	○				-	-	○	-
-	-	-				-	-	○	-
○	○	○				○	○	○	○
○	○	○				○	○	○	○
○	○	○				○	○	○	○
○	○	○				○	○	○	○
○	○	○				○	○	○	○
○	○	○				○	○	○	○
1700 kg	1850 kg	2250 kg	2350 kg	2600 kg	2550 kg	2900 kg (with fertilizer)	2850 kg (with fertilizer)	3500 kg	3500 kg

MONOSHOF® NG PLUS M METERING UNIT EQUIPMENT

Metering unit type	Maize	Sunflower	Beans	Sugarbeet	Rapeseed
52L hopper	●	●	●	○ 1)	● 1)
16L hopper	-	-	-	●	○
Gauge wheels 110 mm	●	●	●	○ 1)	● 1)
Gauge wheels 50 mm	○	○	○	●	○
Standard clod removers	●	●	●	-	● 1)
Narrow clod removers	○	○	○	●	○
Clod removers with flexible bracket	○	○	○	○	○
Disc on metering unit	○	○	○	○	○
Trash wheel	○	○	○	○ 1)	○ 1)
Monoshox® EU Suspension with shock absorber	●	●	●	●	●
Long tip	●	●	●	○	○
Long tip, short wings	○	○	○	●	●
PRO Wheel	○	○	●	●	●
Press wheels 2"	●	●	●	●	●
Press wheels 1"	○	○	○	○	○

● : Standard
○ : On option
- : Not possible
1) Depending on inter-row spacings and frames

For other models and other crops, please consult us.

Re-sale value

The re-sale value gives a good indication of the quality of a product and its suitability to the market. So when you decide to sell your MONOSEM planter, you will appreciate its high re-sale value.

MONOSEM quality

The quality has always been a main concern of MONOSEM. This is why when manufacturing the greatest care is taken in the quality control of the products.

Advice

The MONOSEM partners are specialists qualified to inform you on planting and help you out with solid advice.

The experience

Throughout the world, quality and reliability are often associated with MONOSEM. This is the result of a certain know-how gained in over 60 years of experience in agriculture.

Spare parts

Our spare parts department have available a large stock of original spares and accessories. So even after several years you will be sure to find the parts you require at your MONOSEM partners.



Multi-purpose pneumatic Monoshox® NG Plus M planter with discs

Multi-purpose pneumatic NG Plus 4 planter with discs

Special pneumatic « low-till » planter NX 2 with discs

Multi-purpose pneumatic planter with NC shoes

Special vegetable planter for mini-seeds MS

Mechanical planter for pelleted sugarbeet MECA V4

Cultivator



The precision Planter specialist

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Distributor



All the data concerning the equipment, the general appearance, the weight and dimensions are current at the date of printing and vary according to countries. They may be modified without previous notice.

This brochure cannot be considered as a binding document. Your Monosem partner will not hesitate in informing you of any possible changes.

In order to illustrate this brochure, certain safety housings and mechanisms may have been removed.

Apart from this particular case and complying with the recommendations in the manual, these must remain fitted.

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