

# MONOSEM

*The precision Planter specialist*

## MONOSHOT<sup>®</sup>

NX M



*Pneumatic planter with double discs*

[www.monosem.com](http://www.monosem.com)



EN

*The outcome of MONOSEM's experience in precision planters, the NX has been specially developed for low-till techniques, no-till planting and intensive conditions of use.*

## EVOLUTION OF DEPTH CONTROL

*Launched in the 70's in the United States, the notion of planting resting on the ground directly in line with the seed drop or « **American system of planting** » exists in MONOSEM since 1989. But since 25 years, depth control using double discs and gauge wheels, named « **American depth control** » has not ceased to progress in order to meet with your requirements.*

*Adapting to the low-till methods of the farmers, MONOSEM proposes since 2003, the NX planter, specially designed for **low-till techniques, no-till planting and intensive conditions** of use.*

*Due to the metering unit design with reinforced bearings and interchangeable wearing parts, the NX is a **heavy-duty** planter which is **very reliable**.*

*The new metering unit range Monoshox® NX 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.*

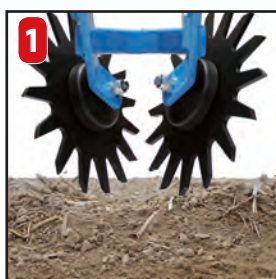


**SUMMARY**

Pages

The Monoshox® NX M concept .....	4
Distribution .....	6
Metering unit .....	8
The main equipment .....	10
PRO Wheel .....	11
The components of the TOP 7" frame .....	12
The rigid, mounted frames .....	14
The folding, mounted frames .....	16
The rigid, pull-type frames .....	18
The folding, pull-type frames .....	20
The fertilizers .....	22
The equipment for fertilizers .....	24
Microsem .....	25
The row cut-off systems .....	26
Seed monitors .....	27
The Seed-Drive hydraulic control .....	28
Farmer's viewpoints .....	29
Technical features .....	30

*The Monoshox® NX M metering unit is the result of the know-how and experience of MONOSEM in the field of depth control with discs in Europe since 1989 with the NG Plus. The Monoshox® NX M planter is designed for demanding farmers and contractors looking for a versatile precision planter capable of working in difficult and low-till conditions with high quality planting. So if you are looking for a heavy-duty, reliable and precise planter, choose the Monoshox® NX M.*



**1** The trash wheels\* clean the way for the future planting line pushing out clods, stones or trash.



**2** The circular coulter\* (smooth or rippled) prepares the passage for the double discs and produces fine soil for the future planting line.



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



## 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-purpose use in different soil conditions and soil preparations



The planting design leaves a wide versatility in the use no matter what the type of soil or the preparation. The depth control by double discs and the penetration force of the NX metering unit (up to 250 kg per unit) ensures perfect planting depth regularity in traditional, low-till and no-till conditions.

\* according to the country

# NX M CONCEPT

*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® NX M metering unit range has technologies to ensure good planting at higher work speed.*



## A higher working speed with the MONOSEM planting quality



### 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® NX M technologies serving the planting quality	Regular plant emergence	Regular plant emergence	See pages
Monoshox®.EU suspension with shock absorber	✓	✓	8
Wide parallelogram / Higher pressure	✓	✓	8
Easily removed V-Tip	✓	✓	8
MONOSEM Distribution		✓	6
PRO Wheel in cast iron (option)	✓	✓	11
PRO Wheel in cast iron (option)	✓		8

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

*\* Equipment according to the country*

*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 worldwide 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 in Teflon 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

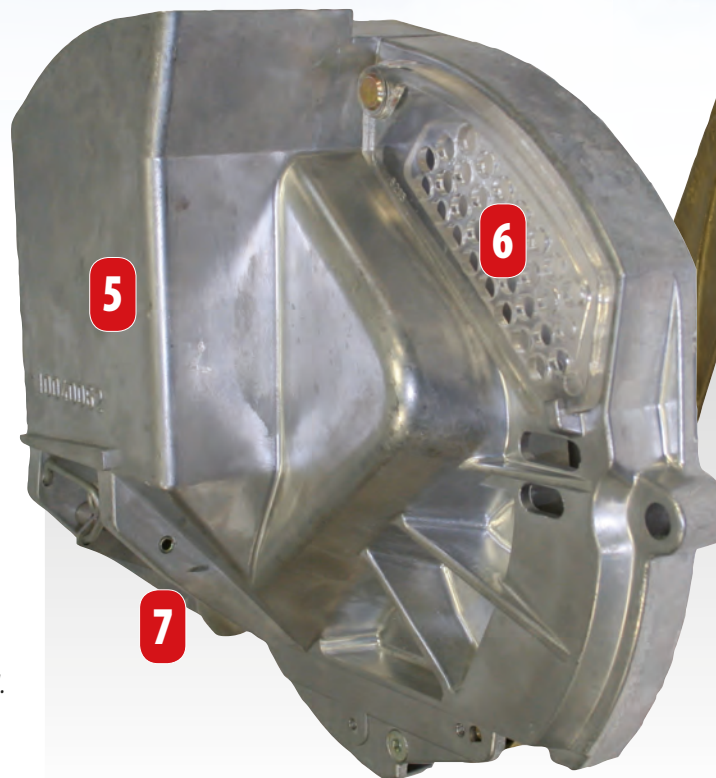
*The brass scraper avoids doubles. A spring on the metering box cover maintains the selector perfectly in place against the disc for optimal selection, even with small seeds.*

5



## Cover

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



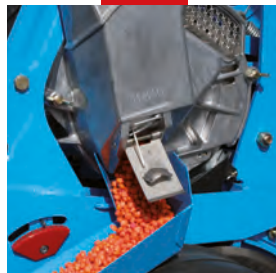
6



## Control window

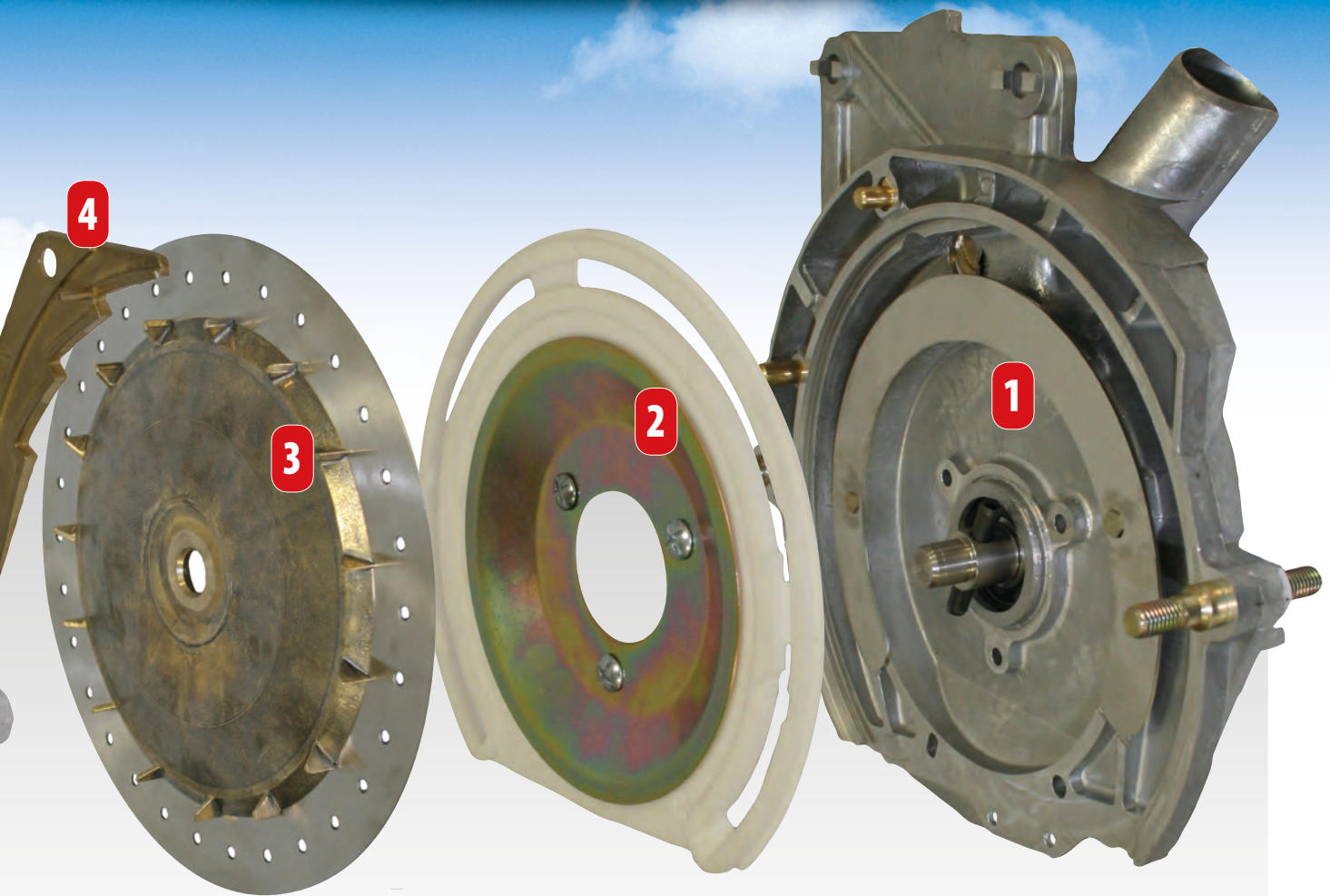
*The distribution system is easily accessible, for both adjustments and control. A large transparent window allows for control of the selection after the selector.*

7



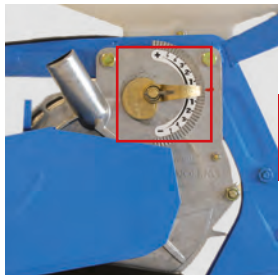
## Total emptying

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

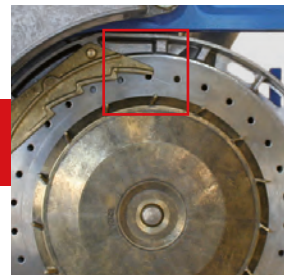
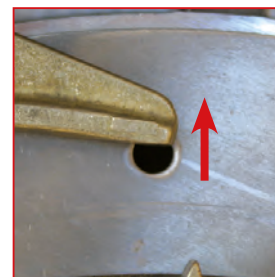


## One single adjustment of the vacuum and the selection

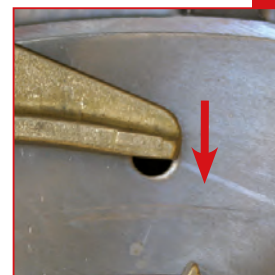
*The single adjustment of the vacuum and the selection is a MONOSEM patent.  
This high precision system enables an optimal metering of the seeds.*



*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.*



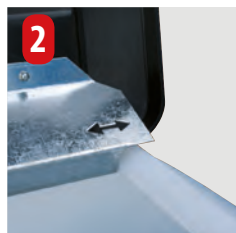
In order to meet with farmers new expectations, the metering unit has Monoshox® NX M exclusive technologies enabling it to be:

- 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 to adjust with its parallelogram that can be rapidly adjusted in pressure and its new rear unit with adjusting levers.



## Safety clutch

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



## Hopper

The hopper in high resistance, transparent plastic has a capacity of 70 litres.  
The cover locks so will not close during filling, even in windy conditions.



## Depth adjustment

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



## Wide and short parallelogram

The wide and short parallelogram ensures an excellent stability both vertically and laterally of the metering unit which follows perfectly the ground contours. The wide unit head for fixing on to the 7" TOP frame is also specific to the NX. It enables an extremely rigid metering unit-frame assembly. The shafts are assembled on self-lubricating bushes for a longer life.



## Double pressure springs, rapidly adjusted

The large diameter double springs ensure a high depth control pressure, guaranteeing unit stability and regular depth in all conditions. They enable the transfer of the frame weight on to the metering units.

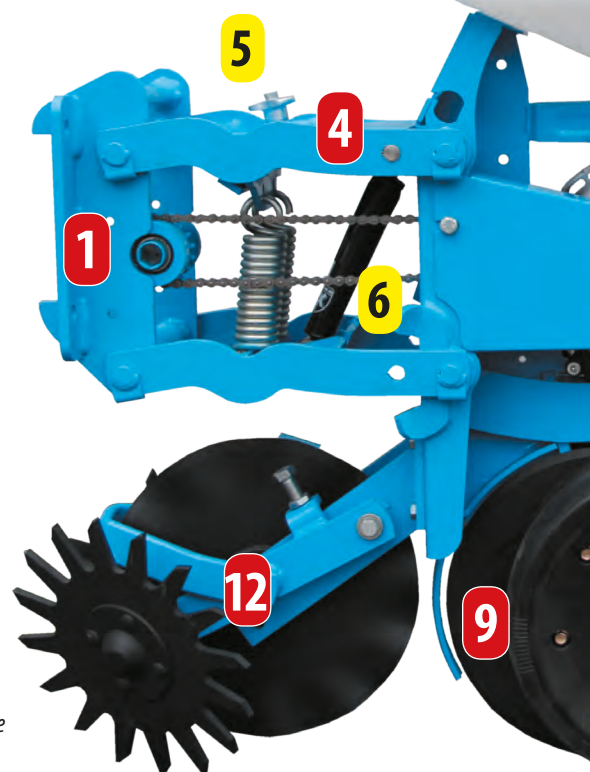
These pressure springs are adjustable so as to suit all planting conditions.



## 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.



## Monoshox® NX M



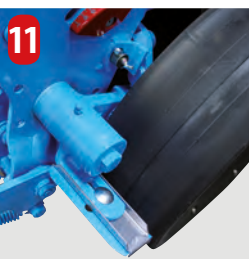
Flash and access  
the video of the  
Monoshox® NX M



### Wide clearance for a wide choice of accessories

The front part of the metering unit offers a wide clearance so enabling the use of a wide range of accessories for low-till planting. The trash wheels and circular coulter combination is delivered as standard equipment on NX\* units. Optional equipment is available.

\*: according to the country



### 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.



### 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. 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).



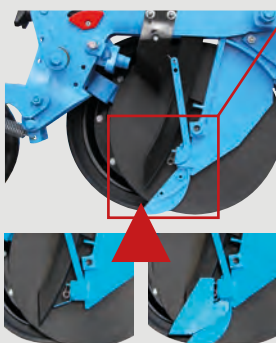
### Double discs

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

## Exclusive features

7

### Easily removed tip



The patented quick-change system of the tip means you keep a tip forming a true V-shaped furrow. The tip adapts to planting conditions and seed types without being removed.

Two models of tips are available:

- The long tip for «normal» conditions.
- 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.

8

### Adjustable open wheel unit\*



The Monoshox® NX 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 wheel and circular coulter combination

*The trash wheels and circular coulter combination is delivered as standard equipment on Monoshox® NX M\* units.*

*\* according to the country*



## Trash wheel

*The trash wheels alone can be assembled on the Monoshox® NX M unit for low-till planting conditions and with soil trash.*



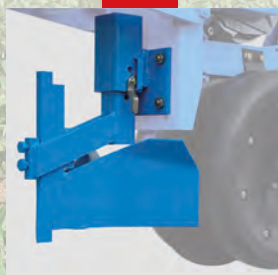
## Floating trash wheel

*The floating trash wheels enable a close following of the ground contours and to remove trash without working the soil.*



## Circular coulter

*Smooth or rippled, the circular coulter improves the furrow opening and produces fine soil for low till planting and / or in trashy soils or planting into another crop.*



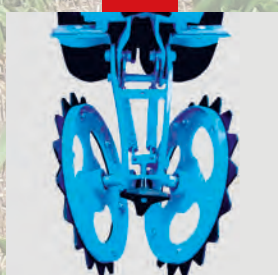
## Clod removers

*On well prepared soils with no trash, the clod removers push aside clods and stones on the future planting line.*



## Shoe « Long tip, short wings »

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



## Notched press wheels

*The rear metallic wheels with notched discs can be used when the soils are particularly crusty or hard after rain or to improve furrow closing.*



## Heavy notched press wheels

*The heavy notched press wheels in cast iron are used for soils that are extremely difficult to close.*

## « 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

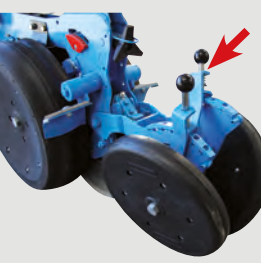
1



### Large diameter press wheel

The PRO wheel in cast iron 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.

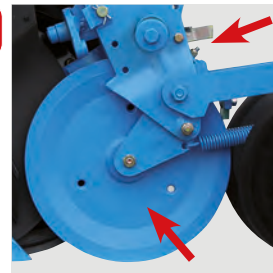
2



### Combined adjustment

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

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.

4

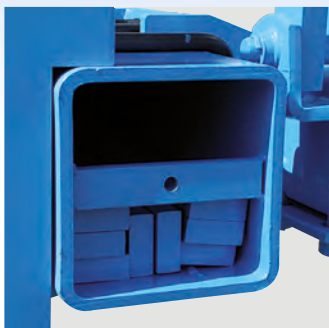


### Independent wheel

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

*The Monoshox® NX M planters are equipped with heavy duty TOP 7" frames in mounted or pull-type versions. These frames are characterized by a top of the market design and equipment enabling work in difficult and intensive conditions.*

**1**



## 7" x 7" bar

*The main part of this 7" TOP frame is a steel 7" x 7" bar. It is on this heavy duty bar that the Monoshox® NX M metering units are assembled. The method of fixing the units with clamps excludes any risk of lateral movement of the unit when working and resists the most difficult working conditions. The considerable weight of this frame ensures a superior force of penetration of the planter. On the rigid frames, extra ballast can, if necessary, be supplied to complement the standard ballast (see opposite).*

**2**

## Reinforced wheel units

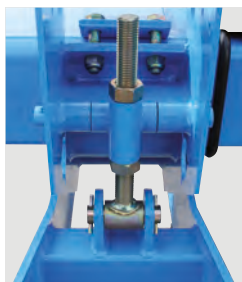
*The 7" TOP frames are equipped with specific reinforced wheel units, capable of supporting the heavy weight of the planter.*

*They have, as standard equipment, large diameter land wheels ensuring a regular drive of the seed discs in both the pull-type and mounted versions.*

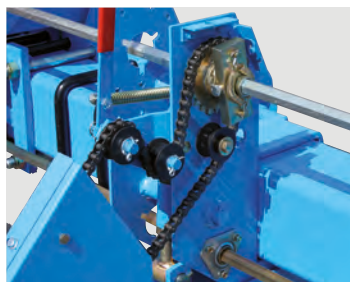
*These wheel units are equipped with a height adjustment system enabling the unit parallelograms to always work in an optimal position. They also have, as standard equipment, wheel scrapers.*



*On the Monoshox® NX M planters, the whole transmission is protected by housings for work in trash and vegetation.*



*The wheel units are equipped with a height adjustment system enabling the units to work well.*



*The drive system is equipped with reinforced chains and a safety slip clutch.*



Wheel unit on mounted frame with 6,5 x 16 wheel.



Wheel unit on pull-type frame with 7,5 x 20 wheel.  
(235 x 75 wheel on 6 and 8-row WingFold)

**1**



**NEW**



*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.*



5

### Turbofan

Because the necessary vacuum on a planter depends on several parameters, (Number of metering units, type of seeds,...), MONOSEM has 3 models of turbofans: **standard, high output or extra high output.**

The MONOSEM turbofans are « silent », 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

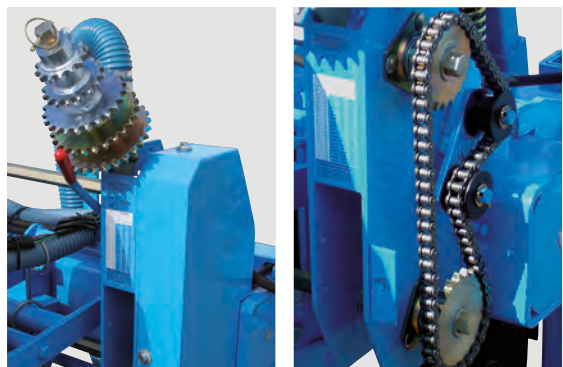


Extra high output Turbofan

3

### Seed spacing gearbox

The drive of the seed discs is ensured by a reinforced transmission. The seed spacing gearbox, situated on the side of the planter, has easy access for a rapid changing of the seed population. In the standard version, the seed spacing gearbox with interchangeable sprockets has 20 ratios covering the most commonly used seed populations. For customers wanting special seed populations, other sprockets are available on option.



The seed spacing gearbox with interchangeable sprockets enables a rapid and precise adjustment of the population.



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.

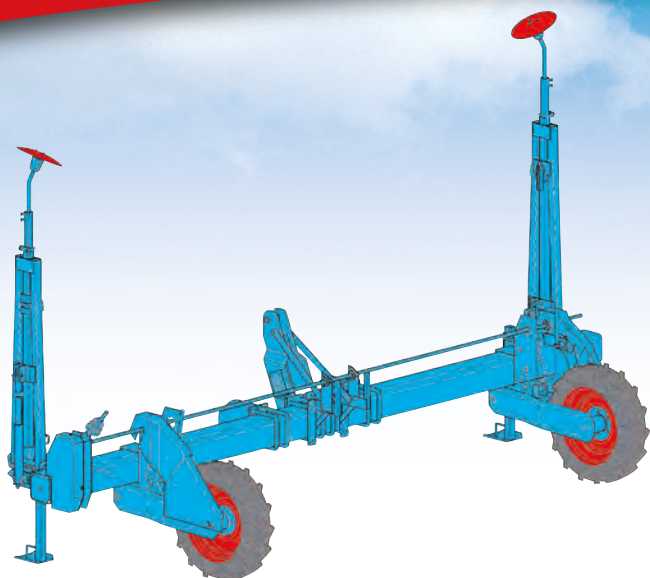
4

### Row markers

The row markers on the TOP 7" frames are equipped with notched discs assembled on hub with double bearings. This type of disc ensures a regular marking no matter what the conditions. A crown to be bolted on to the row marker disc is also available as standard equipment or on option according to the models. This crown limits the working depth of the row marker in supple soils and brings extra weight to the row markers on hard soil thus improving the marking.

According to the planter model, the row markers are single, double or triple folding.



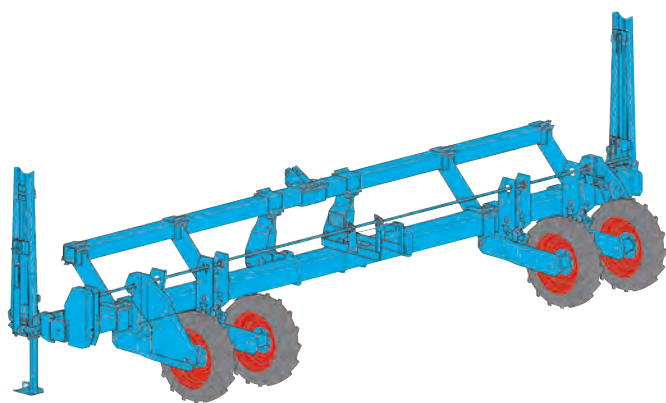


## The rigid Monobar frame

The rigid monobar frame can be assembled with a 3m to 4m70 toolbar. This **simple and economic** frame is equipped with a semi-automatic hitch. Its **reduced overhang** and its weight means that it can be hitched to tractors that are relatively light. This frame is suited to 4 to 6-row planters without fertilizer attachment.



4-row planter (75 cm inter row spacings)



## The rigid Double bar frame

The rigid double bar frame has a sturdy, heavy duty design. It is equipped with a hitch with pins. Its double bar means a toolbar of up to 9m00, i.e. 12 rows. This type of frame can have up to 8 rows when equipped with "high capacity" fertilizer attachments.



Hitch on rigid double bar frame



Row marker for 4-row planter

Length of bar	3 m 00
	Monobar
Number of metering units	4
Inter-row spacings (cm)	75
Number of wheel units	2
Number of « drive » wheel units	2



4-row planter with fertilizer (75cm inter row spacings)



6-row planter (80cm inter row spacings)

3 m 20	4 m 70	6 m 30	9 m 00
or double bar	Double bar		
4	6	8	12
70 - 75 - 76,2 - 80	70 - 75 - 76,2 - 80	70 - 75 - 76,2 - 80	70 - 75 - 76,2 - 80
2	2 (4 on option)	2 (4 if fertilizer)	4
2	2 (4 on option)	2 (4 if fertilizer)	4



6-row planter with fertilizer (75cm inter row spacings)



Row marker  
for 6 and 8-row  
planters

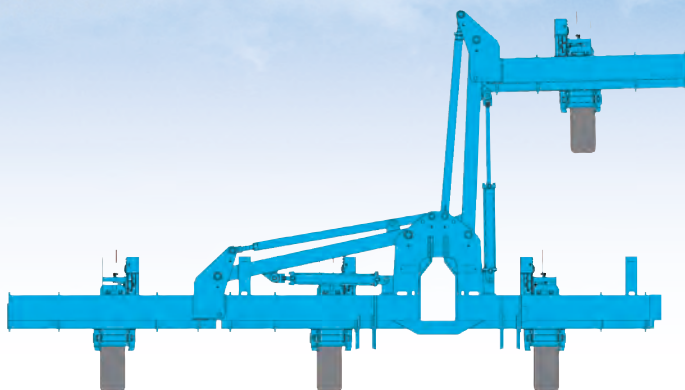


Double folding row marker for planter up  
to 12 rows



12-row planter (75cm inter row spacings)

8-row folding planter with front fertilizer (inter row spacings of 75cm)



## The folding mounted frame

The folding mounted frame consists of 2 x 7" bars for 6 to 12-row planters. The folding system makes travelling on the road easier. The 6 and 8-row versions can be equipped with a front-mounted fertilizer. This frame has a hitch with pins cat. 3.



## High penetration capacity ... Even at the extremities



The NX is a heavy planter specially suited to difficult planting conditions. So as to conserve this distinctive feature, MONOSEM uses a rigid folding frame at work which helps ensure the even force of penetration of the NX metering units.

### Length of bar

Number of metering units

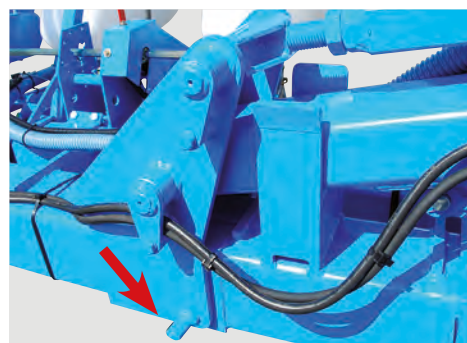
Inter-row spacings (cm)

Number of wheel units

Number of « drive » wheel units

Number of seed spacing gearboxes

Transport width



When working, a shaft maintains the frame rigid thus conserving the penetration capacity of the planter at the extremities.

# FRAMES

## MONOSEN

*The precision Planter specialist*



6-row folding planter (inter row spacings of 75cm)



8-row folding planter (inter row spacings of 80cm)



8-row folding planter in transport position



12-row folding planter (inter row spacings of 75cm)

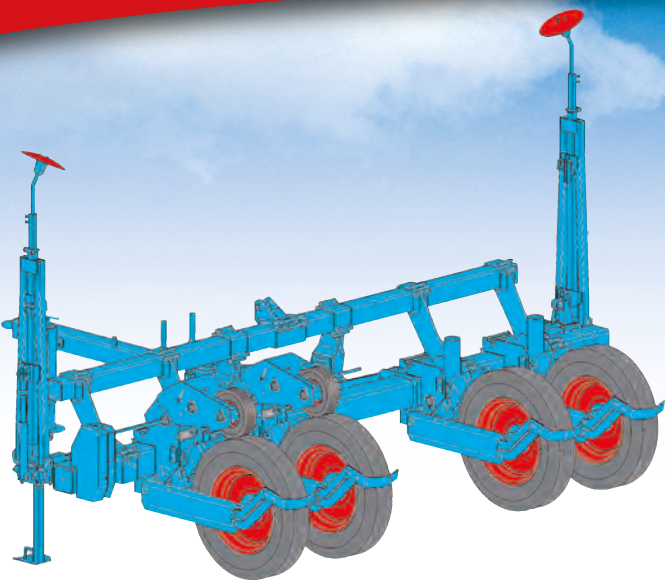
4 m 70	6 m 30	9 m 30
6	8	12
75 - 76,2 - 80	75 - 76,2 - 80	75 - 76,2 - 80
2	4	4
2	4	4
1	3	3
3 m 10	3 m 50	5 m 20



A function selector is available on option for the easy control of all the planter functions using a single double acting system with a mechanical lever and this with electric control.



The pivoting row markers that equip the 8-row folding planters offer a compact folding for minimum transport dimensions.



## The rigid, pull-type frame

The rigid, pull-type frame is a double bar frame equipped with a 3-point hitch on which is fixed a hitch tongue. This type of frame can be assembled with 4 to 8 metering units. The land and drive hydraulic wheel units enable the planter to be used with a lightweight tractor; the planter being simply pulled by the tractor.

8-row pull-type planter with fertilizer (inter row spacings of 70 cm)



## Hydraulic wheel units

The rigid pull-type frames are equipped with hydraulic lift wheel units. These wheel units are equipped with large diameter wheels (7.50x20) ensuring a good soil bearing capacity and a regular drive of the seed discs. When working the planter is lowered (1). When in transport position and at the end of fields, the wheel units are lifted (2). For total safety during transport, these wheel units are equipped with a mechanical locking system (3). This lift system with hydraulic wheel units ensures an excellent ground clearance of the planter (4).

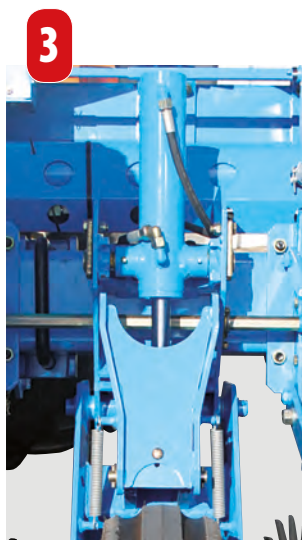
### Length of bar

Number of metering units

Inter-row spacings (cm)

Number of wheel units

Number of drive wheels





6-row pull-type planter with fertilizer (inter row spacings of 75cm)



8-row pull-type planter with fertilizer (inter row spacings of 70cm)

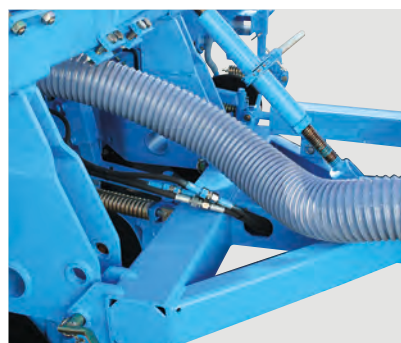
3 m 20	5 m 10	6 m 70
4	6	8
70 - 75 - 76,2 - 80	70 - 75 - 76,2 - 80	70 - 75 - 76,2 - 80
2	4	4
1	2	2

## Turbofan with large angle PTO shaft



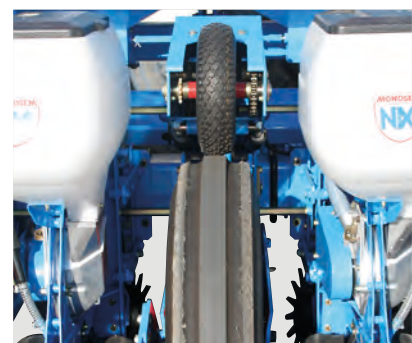
The turbofan has a mechanical drive with a large angle enabling the hitching of the planter to all tractors no matter what type of hydraulic system they have.

## Adjustable and articulated tongue



The articulated tongue fixed on to the 3-point hitch of the planter is adjustable in height which means an easy and rapid adjustment of the planter perpendicularity and thus adapting easily to the tractor used.

## Drive wheel



On the rigid, pull-type frames, the planter drive (metering system, fertilizer and Microsem) is ensured by one or several land wheels (the 6 and 8-row models are equipped with 2 land wheels). This reliable system ensures a regular and smooth drive.



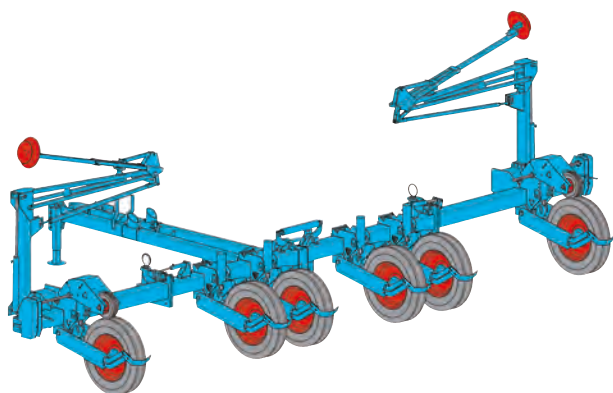
## 6-row Pull-type WingFold folding frame

The WingFold folding pull-type frame can be equipped with 6 maize metering units. It is equipped with 2 hydraulic wheel units. The wings are manually folded to the front for easier road transport. This frame can also be equipped with a 1030-litre «High Capacity» fertilizer.



## 8-row Pull-type WingFold folding frame

The WingFold folding pull-type frame can be equipped with 8 maize metering units. It is equipped with 4 hydraulic wheel units. The wings are hydraulically folded to the front for easier road transport. This frame can also be equipped with the 1500-litre "High Capacity" fertilizer.



## The WingFold Flex folding pull-type frame

The WingFold Flex folding pull-type frames are available in a 12-row version. Just like the rigid pull-type frames, they are equipped with hydraulic wheel units in the standard version. The wings are folded to the front. These frames have a central articulation point in order to follow the ground contours. This articulation allows a clearance of 13° upwards and 12° downwards. These frames can also be equipped with standard fertilizer attachments.

8-row WingFold pull-type planter with fertilizer (inter row 75 cm)



Length of bar	4 m 50	6 m 00
Number of metering units	6	8
Inter-row spacings (cm)	70 - 75 - 76,2 / 80 <sup>(1)</sup>	70 - 75 - 76,2
Number of wheel units	2	4
Number of drive wheels	2	2
Transport width	3 m 00 / 3 m 40	3 m 00

<sup>(1)</sup> Please, contact us



12-row WingFold Flex pull-type planter with fertilizer (inter row spacing 76,2 cm)



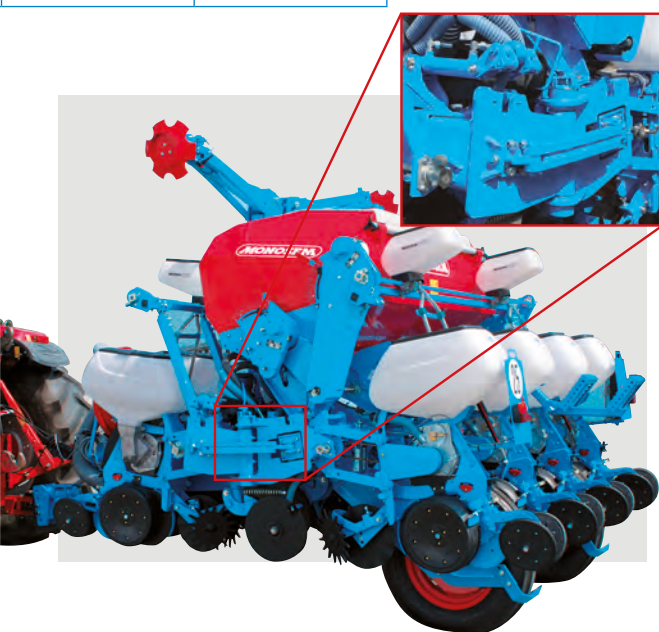
6-row WingFold pull-type planter with fertilizer (inter row spacing 75 cm)



6 m 80	9 m 20
8	12
80	70 - 75 - 76,2
4	6
2	2
3 m 40	5 m 00



On the 8-row WingFold, all the planter functions are controlled by a hydraulic distributor with electric control.



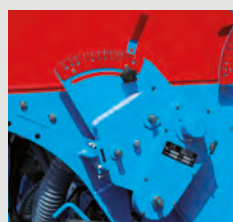
On the 8-row WingFold, the folding system to the front of the metering units is integrated into the bar. A mechanical locking system with hydraulic cylinders block the frame in a rigid position when working.

### The « PLUS » on the 6 and 8-row WingFold planter with fertilizer



#### «High capacity» Fertilizer

The WingFold planters are equipped with a 1030L (6-row) and 1500L (8-row) fertilizers. The fertilizers are equipped with stainless steel metering systems with individual trapdoors. A Double function (Df) turbofan ensures an efficient seed suction and also enables the driving of the fertilizer out to the outer rows. A step gives safe access to the hopper.



#### Adjustment by FertiDrive<sup>VM</sup>

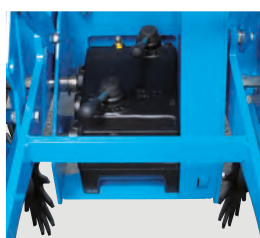
The transmission by FertiDrive<sup>VM</sup> enables a very easy and rapid adjustment of the quantity of fertilizer required per hectare. This transmission is also equipped with a declutching system which stops the fertilizer spreading when necessary.



#### Adjustment by MicroDrive<sup>VM</sup> \*

The transmission by MicroDrive<sup>VM</sup> (only available on planters equipped with a fertilizer attachment) enables a very easy and rapid adjustment of the quantity of product required per hectare. This transmission is also equipped with a declutching system which stops the microgranulator when necessary.

\* MicroDrive<sup>VM</sup> only available on versions with fertilizer attachment



The folding pull-type WingFold is equipped with a seed spacing gearbox with lever for a rapid and precise adjustment of seed population.



For easier operating, the WingFold planter is fitted with a tongue with an articulated head which hitches up on to the lift arms of the tractor.



The 8-row folding pull-type WingFold has 4 wheel units with hydraulic lift offering a large ground clearance and a greater stability at field ends.

*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 outlets.
- 270L hopper, 3 outlets.

*They are assembled on the 12-row folding, pull-type frames.*

## HIGH CAPACITY HOPPERS

*The “High Capacity” hoppers in sheet metal are available on the rigid mounted or pull-type 4 to 8 row frames and the 6 and 8-row WingFold folding pull-type frames.*

*On the rigid frames, the capacities are 2 x 400 litres on the 4-row planter, 2 x 700 litres on a 6-row planter and 2 x 1000 litres on an 8-row planter.*

*The folding pull-type WingFold planters have a hopper of 1030 litres (6-row) and 1500 litres (8-row) with individual trapdoors, platform, emptying trapdoors and drive via FertiDrive<sup>VM</sup>.*



*Fertilizer 2 x 1000 litres on 8-row rigid pull-type planter*



	Standard hopper
Capacity (number of rows in maize)	4 x 270 litres (12 rows)
Number of rows at 75 cm	12
Mini/maxi output at 75 cm (with standard output auger)	80 to 350 kg/ha
Mini/maxi output at 75 cm (with high output auger)	160 to 700 kg/ha
Type of frame	WingFold Flex folding pull-type
Fertilizer adjustment	Standard
Big-Bag loading	no



*Fertilizer 1500 litres on 8-row folding pull-type WingFold planter*



## FRONT MOUNTED HOPPER



The front mounted MONOSEM hopper has 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.

This hopper is available with capacities of 1000 L or 1600 L, the turbofan being driven by PTO or hydraulic motor.

It can be assembled on the 4 to 8-row NX planters with rigid or folding mounted frames.

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

High capacity hopper		Front-mounted hopper
Rigid	Folding	
2 x 400 litres (4 rows) 2 x 700 litres (6 rows) 2 x 1000 litres (8 rows)	1 x 1030 litres (6 rows) 1 x 1500 litres (8 rows)	1000 litres - 1600 litres
4 to 8	6 or 8	4 to 8
80 to 350 kg/ha	80 to 350 kg/ha	Output according to the quality of the fertilizer
160 to 700 kg/ha	-	
Rigid mounted (double bar) Rigid pull-type	WingFold folding pull-type	Rigid mounted Folding mounted
Standard	FertiDrive <sup>VM</sup>	Standard
yes	yes	yes

### Stainless steel metering system

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



### 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.



*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 enables a rapid adjustment of the quantity metered.



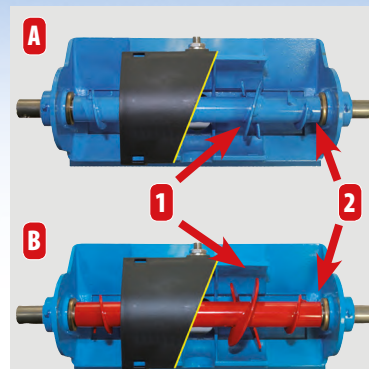
**NEW**



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.

## Metering by auger

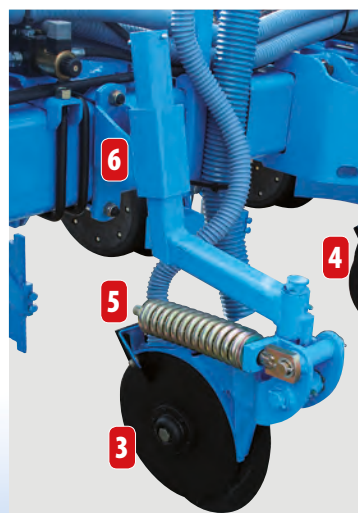
The metering by auger (1), associated with agitators (2), ensure a regular dosing of the fertilizer. These augers in stainless steel are proposed with different pitches to meter exactly the required quantity.



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.

## Pivoting fertilizer discs



The fertilizer discs on the NX planters have been specially designed for intensive working conditions. These double discs (3) are pivoting (4) and an adjustable pressure spring (5) helps them adapt to the planting conditions (trash ...). This pressure spring also ensures the disc retraction in the case of obstacles.

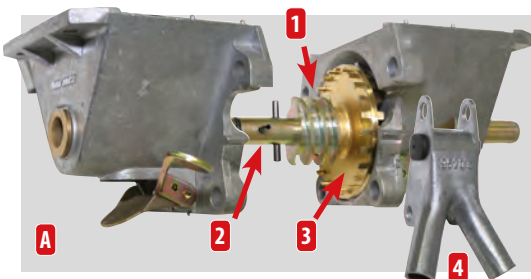
The discs have a working depth adjustment system (6).



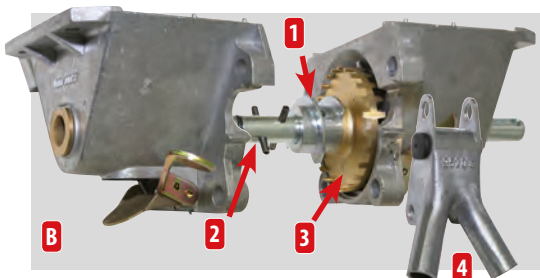
Whether for insecticide or helicide, the Microsem system with auger ensures a regular metering of microgranules. Its simple design enables an easy and reliable use. Multi-purpose, the Microsem is compatible with the majority of microgranulate products on the market (insecticides, helicides,...).

## 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



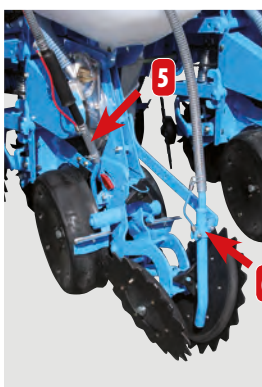
Adjustment of the microgranulators is made using a gearbox with 18 ratios. If needed, other sprockets are available and also a rapid declutching system. The adjustment chart delivered with the Microsem enables a rapid adjustment of the quantity of product.

**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



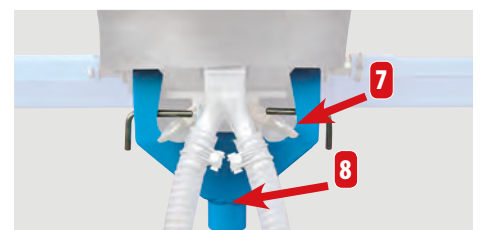
The Insecticide Microsem chute (6) is placed between the 2 discs for product supply in the planting line. The Helicide Microsem chute (7) is adjustable for a product supply on the planting line before or after the passage of the press wheels.

## Combined Microsem



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

## Hopper and emptying



The capacity of the Microsem hoppers is 20L. 40-litre hoppers are also available on option (see opposite, assembly according to frame). The trapdoors (8) and the chute (9) 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.*

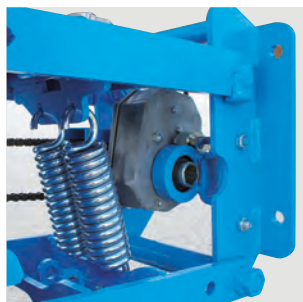


## Mechanical system with lever

*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® NX M metering unit*

## Electromagnetic row cut-off system with manual control

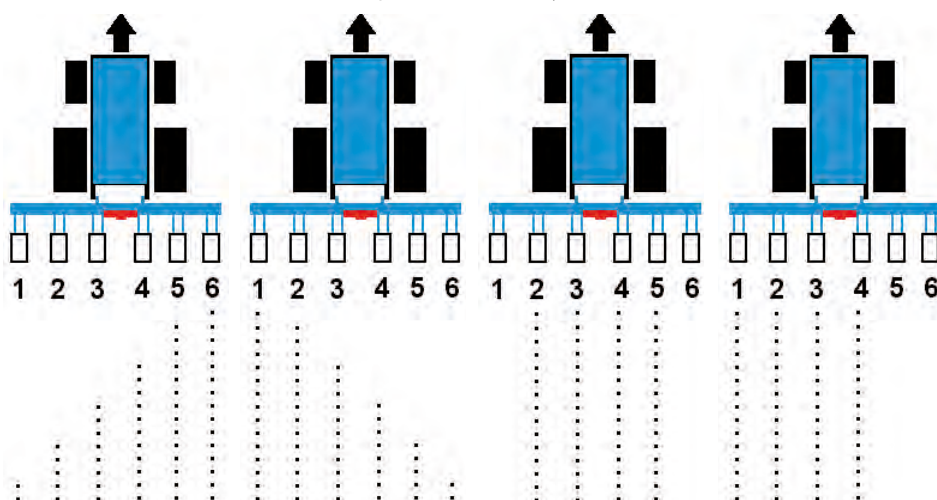
*The electromagnetic row cut-off systems with manual control enable an individual declutching of each metering unit from the tractor cab. Each row is equipped with a rotation control light. This system is available in 2, 4, 6, 8 and 12 rows.*



*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, CS 7000, CS 8000, CS 8000 Touch seed monitors with row cut-off system

*The CS 4200, CS 5000, CS 6200, CS 7000, CS 8000 et CS 8000 Touch 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.*

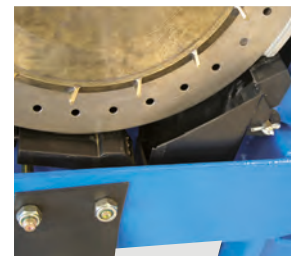
*The CS 5000, CS 6200, CS 7000, CS 8000 and CS 8000 Touch are also equipped with the automatic tramline function.*

# 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	CS 8000 / CS 8000 Touch
Seed drop control row by row	●	●	●	●	●	●
Alarm if 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	24
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

*Availability of these different models according to the country*

# THE SEED-DRIVE HYDRAULIC CONTROL SYSTEM

Gain in work output without losing out in precision. The MONOSEM planters equipped with the Seed-Drive hydraulic control system enable you to modulate the seed population from the tractor cab.



## ECU Module

The ECU module manages the hydraulic control of the planter. It communicates with the CS 7000 terminal according to the international standard ISOBUS.



## Radar

Placed on the planter, the radar enables a precise measuring of the working speed and eliminates all slipping phenomenon.



## Hydraulic motor

With the Seed-Drive control system, the gearbox(es) on the planter are replaced by one or several hydraulic motors enabling a smooth drive of the metering units. This drive method is a guarantee of reliability and long life of the system.



## Seed control sensor

The individual electronic monitors ensure the control and the counting of the seeds on each metering unit, offering a high precision of the system and total peace of mind for the user.



## CS 7000

In addition to the control management, the CS 7000 handles the surface counting, the calculation of the average seed population, the distance between seeds and also enables the management of row cut-offs (optional equipment).



## 9-pin ISOBUS connector

The CS 7000 terminal is linked to the planter by a cable with a standardized 9-pin connector which complies with the ISO 11783 standard named ISOBUS. This system ensures optimal and standardized communication between the tractors and the implements.

**For an incomparable quality in planting and high work output, choose the winning combination:**  
**Monoshox® NX M – Seed-Drive**

- Optimal seed placement even at high speed due to the smooth hydraulic drive and absence of slipping (Full computer control by radar).
- Comfort and time saver, easy, rapid and intuitive adjustments of the seed population from the tractor cab.
- Economy in seeds: manage without error the varieties, the plots, the planting conditions,...



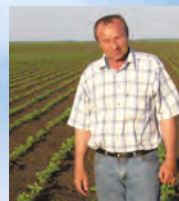
User: Carlos Sanchez  
**Planter: 6-row NX mounted**  
Year of Purchase: 2003  
Total surface: 2 000 ha



**Spain**

Province of Navarre

*The NX planter enables me to plant my 250 ha of maize and beans no matter what the soil preparation. 15 % of my planting is done in no till conditions, 60 % low till and 25 % in prepared soils. Monosem is for me a mark which has my entire confidence.*



User: Gladyshev Anatoliy  
**Planter: 2 x 8-row NX pull-type with fertilizer**

Year of Purchase: 2007  
Total surface: 1 500 ha  
(per planter)



**RUSSIA**

Region of Rostov

*The investment in 2 NX planters has enabled us to improve productivity due to the low ground tillage and also the high capacity hoppers (seed and fertilizer). The pull-type frames do not require high powered tractors.*



User: Tavriya-Skif  
**Planter: 8-row NX pull-type with fertilizer**

Year of Purchase: 2005  
Total surface: 5 000 ha



**UKRAINE**

Region of Zaporozhye

*The NX planter is a sturdy and extremely reliable planter which enables us to plant around 1000 ha per year. The versatility of the NX metering unit enables us to work just as well in prepared soils as in low till conditions with perfect regularity. The capacity of the fertilizers offer us a large autonomy and the pull-type frame means that it can be hitched on to a low-powered tractor.*



User: Gaec Ferme Decrozo  
**Planter: 6-row NX rigid with fertilizer hopper**

Year of Purchase: 2000  
Total surface : 1 000 ha



**FRANCE**

Isère

*A few years ago, we decided to abandon the tillage of our fields because the soils which are 15-20 % clay were becoming increasingly difficult to plough. MONOSEM proposed their NX planter which was still at the stage of testing. Today the NX planter meets perfectly with our requirements and we have recovered a good soil structure and an increase in microbial life.*



User: Rüegsegger AG  
**Planter: 6-row NX mounted with fertilizer**

Year of Purchase: 2006  
Total surface: 500 ha



**SWITZERLAND**

Region of Zurich

*I chose the NX planter for its strength and perfect precision planting. This planter plants a little over 100 hectares per year.*



User: Kovács Zsigmond  
**Planter: 6-row NX pull-type with fertilizer**

Year of Purchase: 2007  
Total surface: 900 ha



**HUNGARY**

Region of Debrecen

*We chose the NX planter for its sturdiness. This planter plants 200 ha of sunflower and 250 ha of maize per year at a speed of sometimes around 10 km/h. Even at this speed the precision is still excellent.*



User: SCEA des Matouneyres  
**Planter: 12-row NX rigid with Aulari fertilizer hopper and CS 7000**

Year of Purchase: 2006  
Total surface: 2 100 ha



**FRANCE**

Gironde

*Planting 600 to 650 ha of maize per year, the NX is, for us, the ideal planter: simplicity, high quality metering and planting with double discs with low maintenance. High productivity of the hoppers is appreciated and the precision can be relied on especially with the Seed-Drive system which eliminates any problem of slipping in our sandy soils. Furthermore, with the fertilizer applicator, we have been able to cut down around 40 % of expenses in this field.*



User: GAEC de Berberis M. Cornuez  
**Planter: 5-row NX mounted with fertilizer**

Year of Purchase: 2005  
Total surface: 750 ha



**FRANCE**

Haute-Saône

*We bought a NX planter jointly 5 years ago, when we passed over to no-till. We chose the NX planter for its design suited to this type of planting but also for the advice and follow-up ensured by MONOSEM. We equipped our planter with the PRO wheel which enables a seed placement in fresh, damp soil and even improves this placement.*



User: Václav Talák  
**Planter: 2 x 6-row NX rigid with fertilizer**

Year of Purchase: 2004  
Total surface: 3 600 ha



**CZECH REPUBLIC**

Region of Zlin

*We bought our first NX planter 6 years ago. As contractors, we wanted a planter that could work in all types of conditions. Totally satisfied with the performance of this planter, we have just bought another 6-row.*



User: Derek Mathews  
**Planter: 4 x 6-row NX pull-type with fertilizer**

Year of Purchase: 2007  
Total surface: 2 250 ha  
(per planter)



**SOUTH AFRICA**

North Western Province

*I am a maize and sunflower farmer in the North West region. The NX planter is very strong with low maintenance. I am very satisfied with the precision seed placing and the plant emergence. The other advantage of the NX planter is to be able to do both no till and normal tillage planting.*

## PLANTER TYPE MONOSHOX® NX M

Frames		Mounted TOP 7"					
		Rigid					
Width		3 m 00	3 m 20	4 m 70	6 m 30	9 m 20	4 m 70
Number of rows, maize		3 m 00	3 m 20	4 m 70	6 m 30	9 m 20	3 m 10
Number of units		4	4	6	8	12	6
Inter-rangs (en cm)		75	70 -75 - 76,2 - 80				
Turbofan		Drive by PTO – 540 rpm in standard version, 450 or 1000 rpm on option Hydraulic drive on option, universal joint on option					
Tyres		2 x (6.5x16)	2 x (6.5x15)	2 (ou 4) x (6.5x16)	2 (ou 4) x (6.5x16)	4 x (6.5x16)	2 x (6.5x16)
Metering box	20 settings	1	1	1	1	1	1
	18 settings	-	-	-	-	-	-
Hydraulic row markers		●	●	●	●	●	●
Fertilizer	Standard	-	-	-	-	-	-
	High capacity	○ 2 x 400 l.	○ 2 x 400 l.	○ 2 x 700 l.	○ 2 x 1000 l.	-	-
	Front-mounted Standard	○	○	○	○	-	○
	Front-mounted DUO	○	○	○	○	○	○
Microsem	Insecticide	○ 1)	○	○	○	○	○
	Helicide	○ 1)	○	○	○	○	○
Hectare counter		○	○	○	○	○	○
Seed monitors		○	○	○	○	○	○
Lighting kit		○	○	○	○	○	○
Weight maize planter only (with fertilizer)		1250 kg (1570 kà)	1260 kg (1580 kà)	1680 kg (2140 kà)	2150 kg (2910 kà)	3350 kg (-)	2700 kg (-)

## MAIN MONOSHOX® NX 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 13 to 35,5 cm	
Soya - Peas	DC 6045	60	4,5 mm	3,5 to 11 cm	
Rapeseed	DC 7212	72	1,2 mm	2,5 to 5,5 cm	36 - 60 - 120
Cabbage	DC 3612	36	1,2 mm	6 to 18 cm	72 - 120
Sorghum	DC 7222	72	2,2 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

For other models, special inter row spacings and other seeds, please consult us.

# FEATURES



The precision Planter specialist

## PLANTER TYPE MONOSHOX® NX M

		Pull-type TOP 7"						
Folding		Rigid			Folding			
6 m 30	9 m 20	3 m 20	5 m 10	6 m 70	4 m 50	6 m 00	6 m 80	9 m 20
3 m 50	5 m 20	3 m 20	5 m 10	6 m 70	3 m 00 <sup>(2)</sup>	3 m 00	3 m 40	5 m 00
8	12	4	6	8	6	8	8	12
75 - 76,2 - 80		70 - 75 - 76,2 - 80			70 - 75 - 76,2 - 80 <sup>(2)</sup>	70 - 75 - 76,2	80	70 - 75 - 76,2
		Drive by PTO – 540 rpm in standard version, 450 or 1000 rpm on option Large angle PTO shaft, Hydraulic drive on option, universal joint on option						
4 x (6.5x16)	4 x (6.5x16)	2 x (7.5x20)	4 x (7.5x20)	4 x (7.5x20)	2 x (235x75)	2 x (235x75)	2 x (235x75)	6 x (7.5x20)
3	3	1	1	1	-	-	-	1
-	-	-	-	-	1	1	1	-
●	●	●	●	●	●	●	●	●
-	-	-	-	-	-	-	-	○ 4 x 270 l.
-	-	○ 2 x 400 l.	○ 2 x 700 l.	○ 2 x 1000 l.	○ 1 x 1030 l.	○ 1 x 1500 l.	○ 1 x 1500 l.	-
○	-	-	-	-	-	-	-	-
○	○	-	-	-	-	-	-	-
○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○	○
○	○	○	○	○	●	●	●	○
3000 kg (-)	3600 kg (-)	1660 kg (1960 kg)	2430 kg (2820 kg)	3030 kg (3660 kg)	2500 kg (2900 kg)	3100 kg (3650 kg)	3150 kg (3700 kg)	4250 kg (5050 kg)

## MONOSHOX® NX M METERING UNIT EQUIPMENT

Technical Features	Metering unit equipment *
70L hopper	●
Gauge wheels 110 mm	●
Clod removers	○
Trash wheel	○
Floating trash wheel	○
Trash wheel and circular coulter	●
Smooth circular coulter	○
Rippled circular coulter	○
Monoshox® .EU shock absorber	●
PRO Wheel	○
Press wheels 2"	○
Press wheels 1"	●
Heavy notched press wheels	○
Notched discs for 1 or 2" press wheels	○

● : Standard

○ : On option

- : Not possible

\* : According to the country

1) : Incompatible with fertilizer

2) : Inter row spacing 80 cm, please consult us

For other models, special inter-row spacings 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 Monoshox® NX M with discs



Multi-purpose pneumatic planter with NC shoes



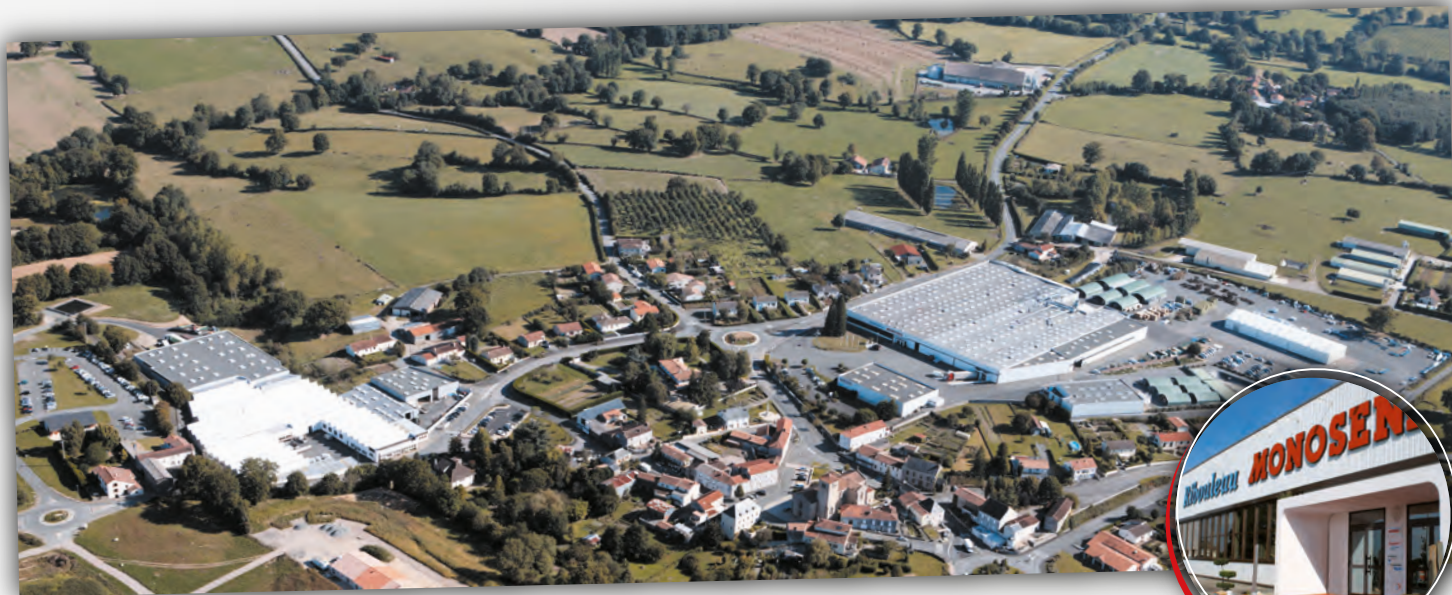
Special vegetable planter for mini-seeds MS



Mechanical planter for pelleted sugarbeet MECA V4



Cultivator



# MONOSEM

*The precision Planter specialist*

**COMPAGNIE COMMERCIALE RIBOULEAU**

15, rue Beaujon – 75008 PARIS – France

**RIBOULEAU MONOSEM**

**Factories - Technique - Research - Information**

12, rue Edmond Ribouleau - 79240 LARGEASSE FRANCE

TEL. 00 33 5 49 81 50 00 - FAX 00 33 5 49 72 09 70

*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.

Réf. 90500EN- 07/15