

MONOSEM

The precision Planter specialist

NC



Pneumatic planter with shoe

www.monosem.com



EN

The fruit of the MONOSEM expertise, the NC is a multi-purpose pneumatic planter with shoe. Stemming from the PNU and NG machines that participated in the global success of the company, the NC range is now marketed in two versions, NC Classic and NC Technic.

EASY-TO-USE, STURDY AND MULTI-PURPOSE

In order to meet with customer requirements for a planter with shoe, MONOSEM markets the NC range in two versions.

The NC Classic is designed for farmers who want a simple and sturdy planter for maize and sunflower planting in well-prepared soils.

The NC Technic is a more versatile planter. The adjustable design of this planter offers the choice of depth control and furrow opening. With these features, it can be used for planting maize, sunflower, beans, sugarbeet, soya bean, peas, rapeseed... in traditional soil preparation or less well-prepared soils.





SUMMARY

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The NC Classic is designed for farmers who want a simple and sturdy planter for maize and sunflower planting in well-prepared soils.

1



Parallelogram

The heavy-duty parallel linkage with its long travel is mounted on replaceable metallic bushes.

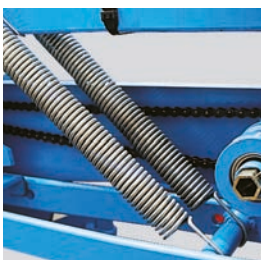
2



Safety clutch

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

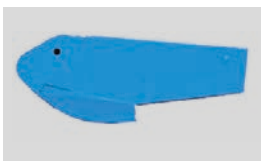
3



Down pressure spring

Two depth control springs enable the stabilizing of the unit.

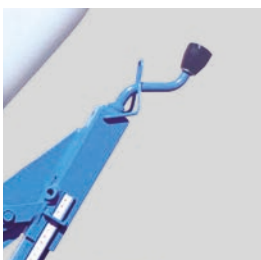
4



Shoe

Planting with shoe (maize shoe) with interchangeable tip.

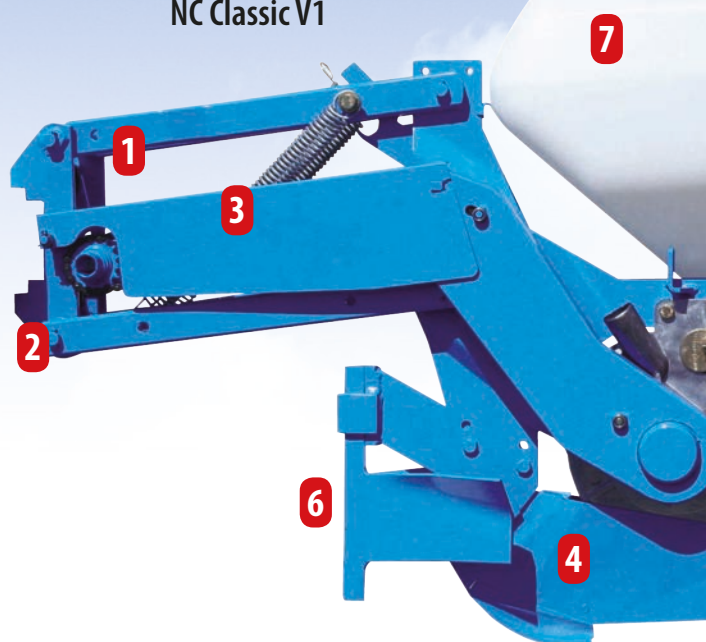
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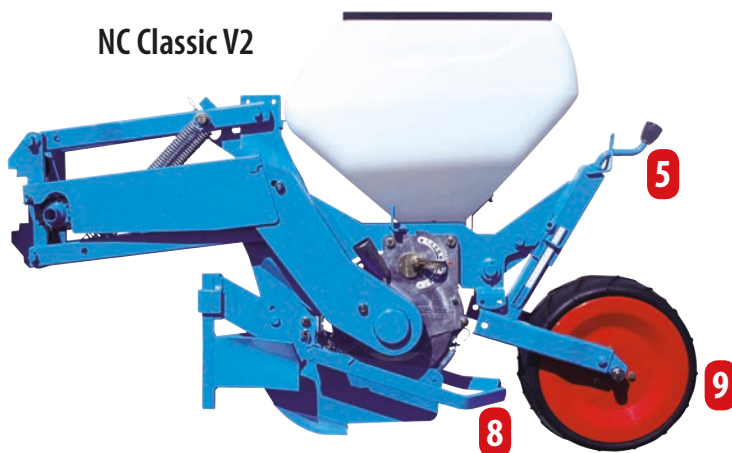
Depth control

The working depth adjustment with crank adjuster and reference index is very simple and precise.

NC Classic V1

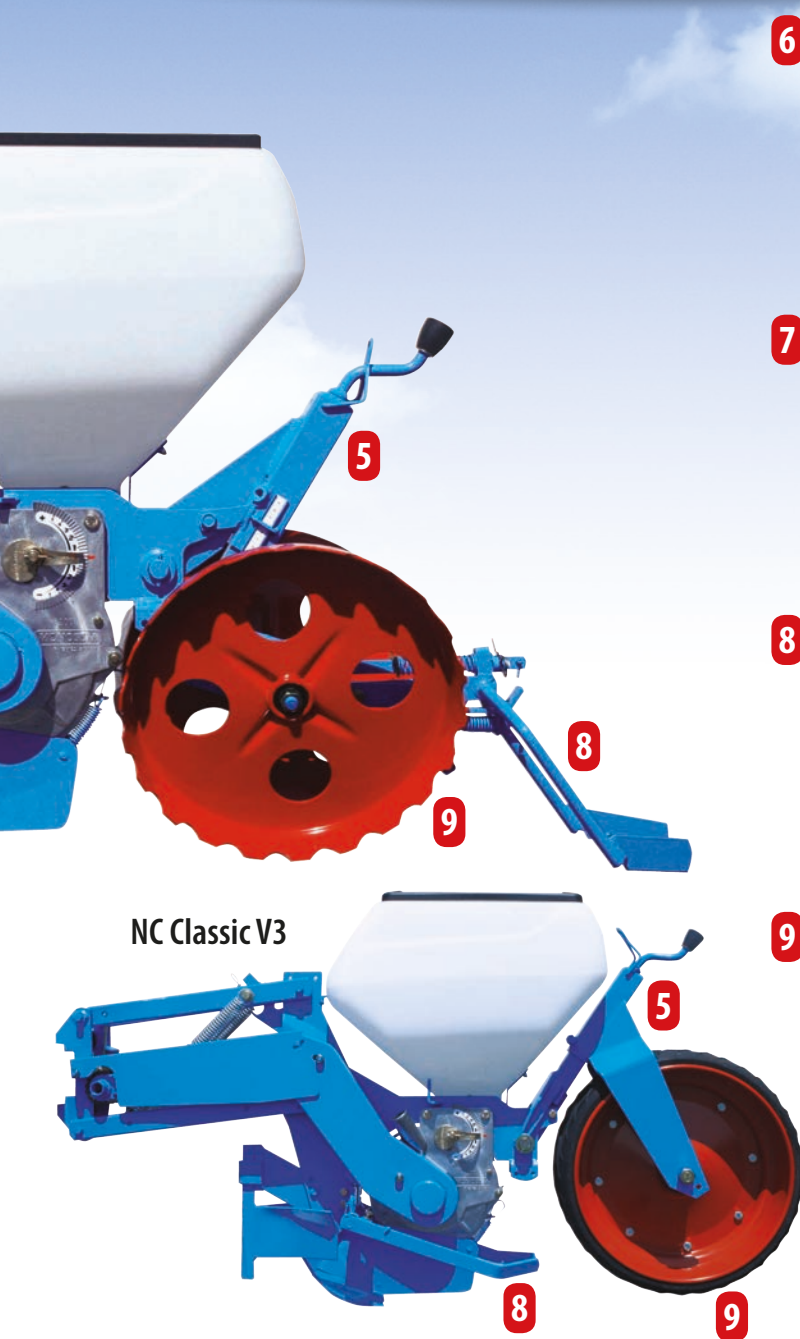


NC Classic V2



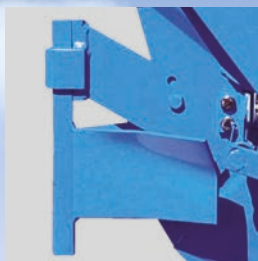
On the NC Classic metering unit, the depth control is made with the rear wheels.





NC Classic V3

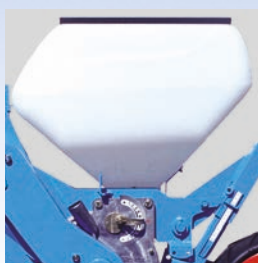
6



Clod remover

The clod remover, adjustable in height is delivered as standard equipment on the NC Classic metering units.

7



Hopper

Heavy-duty plastic hopper with a 40-litre capacity as standard. (Hopper 20 litres optional).

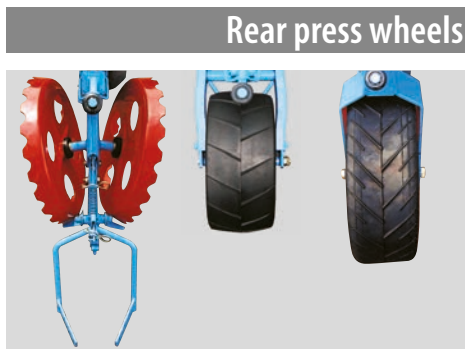
8



Scrapers

The NC Classic V2 and V3 are fitted with scrapers between the shoe and the rear wheels as standard equipment for closing the furrow. On the NC Classic V1, these scrapers are fitted behind the press wheels. On option, short scrapers are also available (photo opposite).

9



Rear press wheels

The NC Classic offers the choice of three types of rear press wheels mounted on sealed ball bearings.

Steel V-wheels

370 x 170
Farmflex

500 x 175
Farmflex

COMPLEMENTARY EQUIPMENT



Double-disc openers

A double disc can be fitted on to the NC unit in order to improve furrow opening (planting in less well prepared soils or in trashy soils).



Additional adjustable spring

An adjustable, extra pressure spring can be added for planting in hard or trashy soils (assembly according to frame).

The NC Technic is a more versatile planter. The adjustable design of this planter offers the choice of depth control and furrow opening. With these features, it can be used for planting maize, sunflower, beans, sugarbeet, soya bean, peas, rapeseed... in traditional soil preparation or less prepared soils.

1



Parallelogram

The heavy-duty parallel linkage with its long travel is mounted on replaceable metallic bushes.

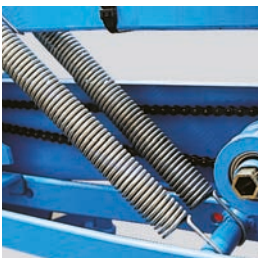
2



Safety clutch

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

3



Down pressure spring

Two depth control springs enable the stabilizing of the unit.

4



Rear V-press wheels

The furrow closure is made by two V self-cleaning press wheels.



These V-wheels can be adjusted and offer four rearward positional settings and scrapers*.
*except the narrow maize NC Technic version

5



Depth control

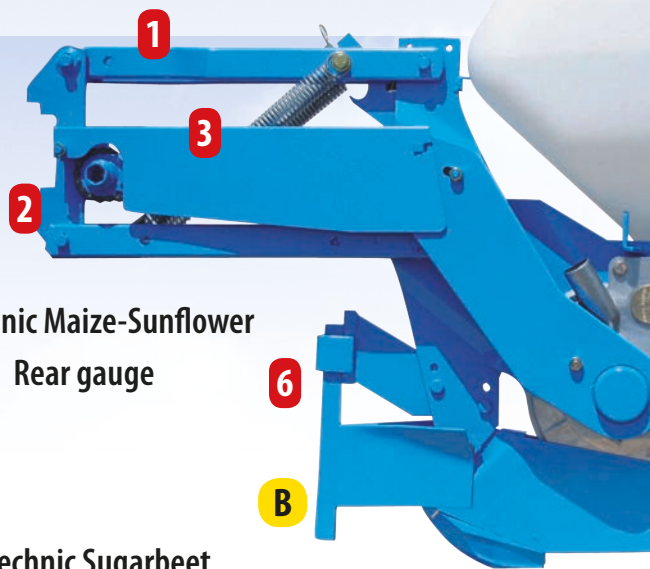
The working depth adjustment is made with a reference index lever, guaranteeing a very simple quick and precise setting.



On the «rear gauge» metering units, the depth control is ensured by the rear press wheel unit.

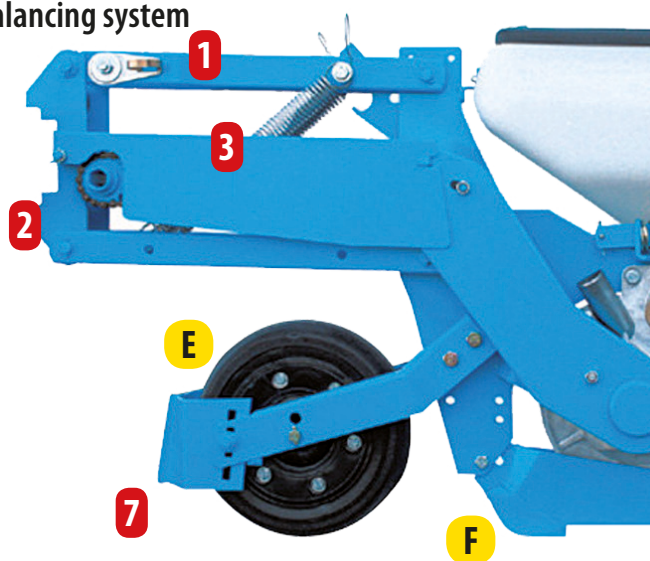
NC Technic Maize-Sunflower

Rear gauge



NC Technic Sugarbeet

Balancing system

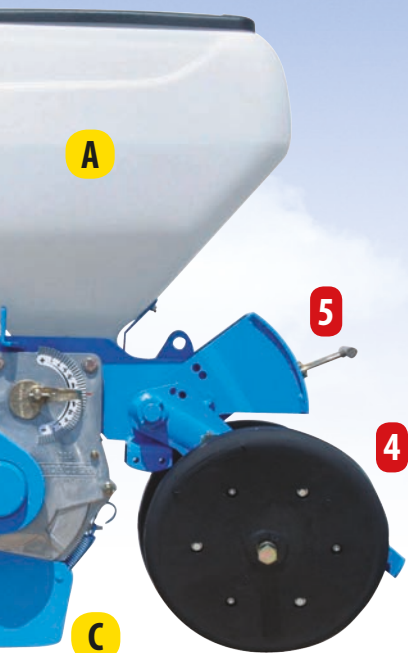


On the «balancing» metering units, the depth control is ensured by the front wheel and the rear press wheel unit. An adjustment spring enables the distribution of the front / rear loads even to a «Front gauge» depth control.



A kit for modify i
«rear gauge sys t

COMPLEMENTARY EQUIPMENT



6 A double disc can be fitted on to the NC unit in order to improve furrow opening (planting in less prepared soils or in trashy soils).
Double disc only for NC Technic maize model (6).
Double disc with 285x65 wheels for Balancing NC Technic model (7).



An adjustable, extra pressure spring can be added for planting in hard or trashy soils (assembly according to frame).



Crumbler kit

A 40-litre plastic hopper.

B The clod remover adjustable in height is delivered as standard equipment on the NC Technic Maize-Sunflower metering units.

C Maize shoe with replaceable tip.

D 20-litre plastic hopper.

E 300 x 100 front wheel with self-cleaning tyre mounted on sealed ball bearings.

F Specially shaped sugarbeet low shoe with replaceable tip.

G Retractable press wheel with adjustable pressure.
Intermediate stainless press wheel mounted on ball bearings with plastic scraper.
Intermediate press wheel with self-cleaning tyre on option.



H Spring to adjust the front/rear weight distribution of the unit on the tandem system.

OTHER NC TECHNIC METERING UNITS



By fitting the NC Technic metering unit with the balancing system into « balancing system »



NC Technic Sugarbeet metering unit
Balancing system
Double-discs & 285x65 wheels



NC Technic Beans metering unit
Balancing system
300 x 100 front wheel



NC Technic Maize metering unit
Rear gauge
Double-discs

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.

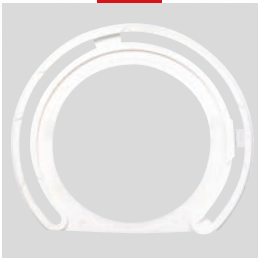
1



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. p26)

4



Scraper

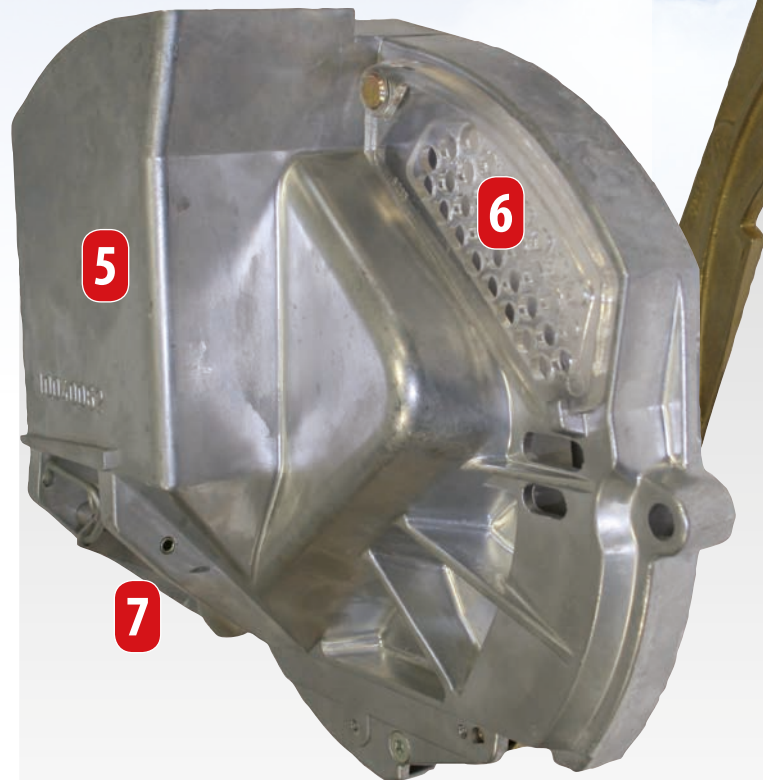
The brass scraper avoids doubles. A spring on the metering box cover maintains the selector perfectly in place against the disc for optimal selection, even with small seeds.

5



Cover

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



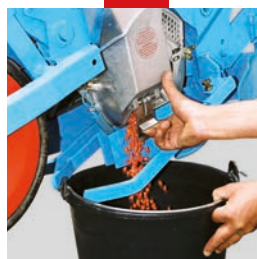
6



Control window

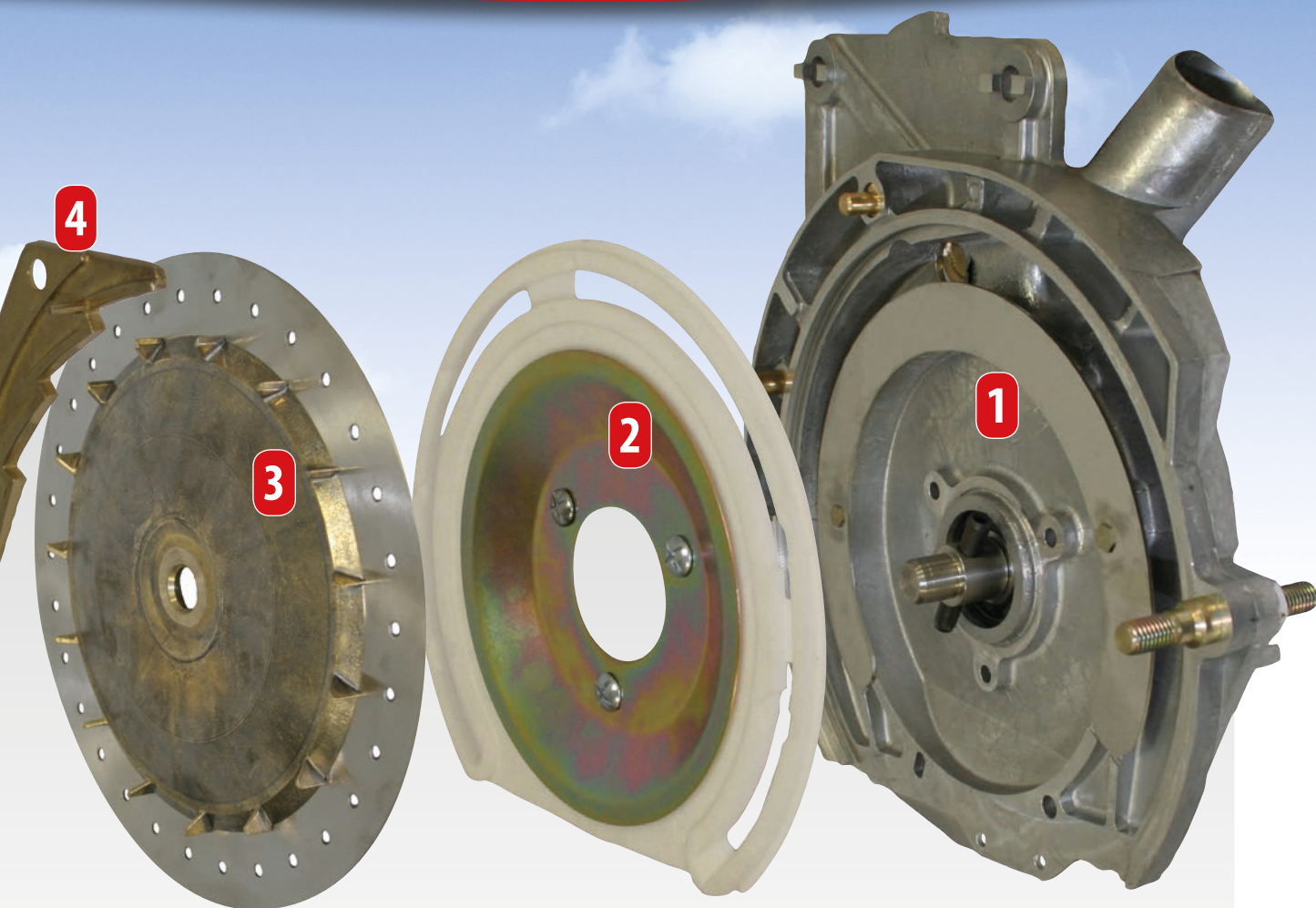
The distribution system is easily accessible, for both adjustments and control. A large transparent window allows for control of the selection after the selector.

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.

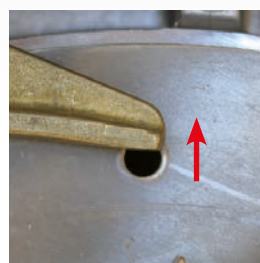


One single adjustment of the vacuum and the selection

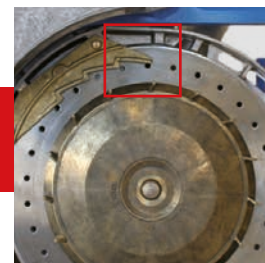
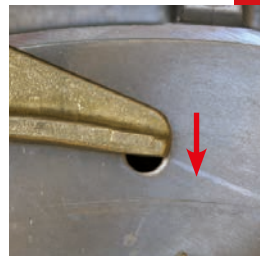
*The single adjustment of the vacuum and the selection is a MONOSEM patent.
This high precision system enables an optimal metering of the seeds.*

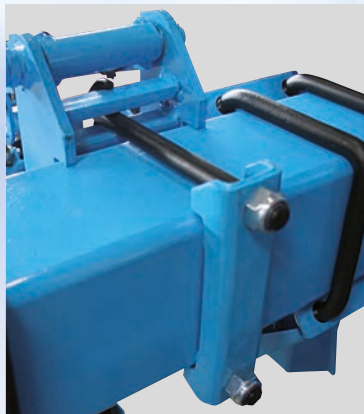


*For the large seeds,
suction is maximum
and the selector is adjusted according
to the size of the seed.*



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





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.

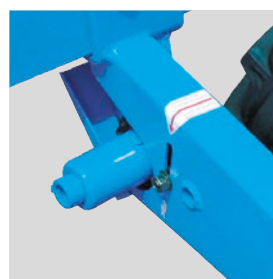
The standard wheel unit (rear) remains the best suggestion because it ensures better drive and a good following of the ground contours.

The wheel units are proposed 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.



2



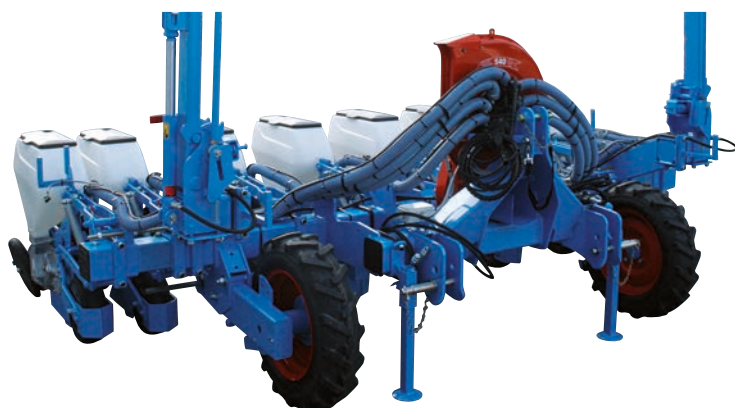
Slip clutch



Standard wheel unit with 6,5x80x15 wheel



Reinforced wheel unit with 6,5x80x15 wheel



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



4

Turbofan

Because the necessary vacuum on a planter depends on several parameters, (Number of metering units, type of seeds, ...), MONOSEM has models of turbofans adapted to your needs.

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

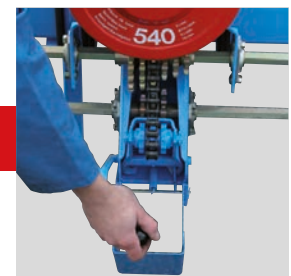
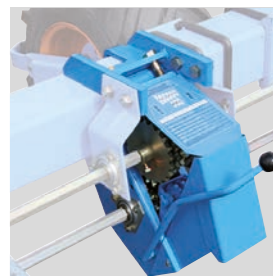


According to current law, MONOSEM can propose anti drift of dust kits (KAP). These kits are approved by the BBA Germany and guarantee the correct operating of MONOSEM planters.

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.



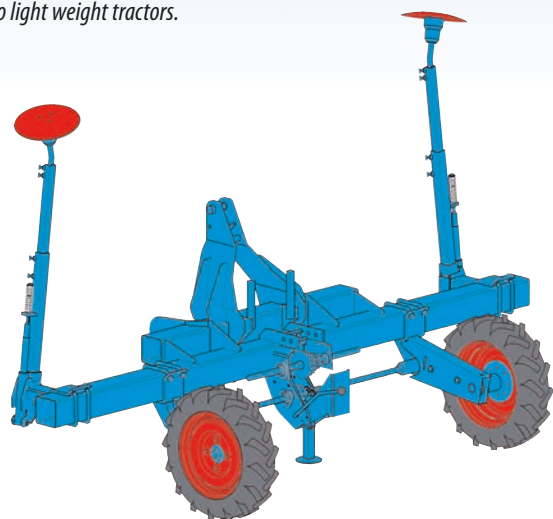
In order to help you adjust your seed populations, download free of charge the MONOSEM application «Planter Adjustment» available under Google Play or App Store.

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.



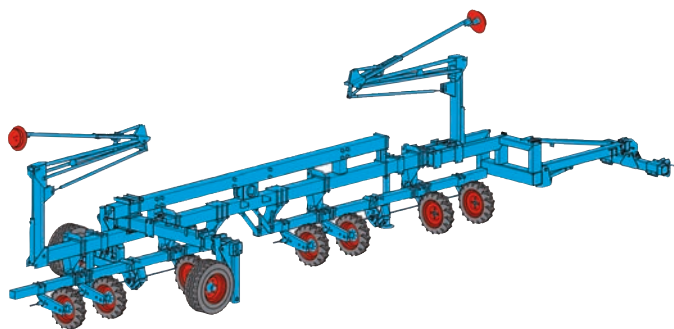
The rigid Monobar frame

The rigid Monobar frame can have 3 m to 6 m 10 bar. This simple and economical frame can be equipped up to 8-row maize or 12-row sugarbeet with or without fertilizer attachment. Its reduced overhang and its weight enable it to be hitched on to light weight tractors.



The rigid Monoblock frame

The rigid Monoblock frame is a welded unit made up of two bars, one supporting the hitch and the turbofan and the other the metering units and the wheel units. Its design is particularly suited to planting with an uneven number of rows. It may be equipped with a 3 m to 4 m 50 bar.



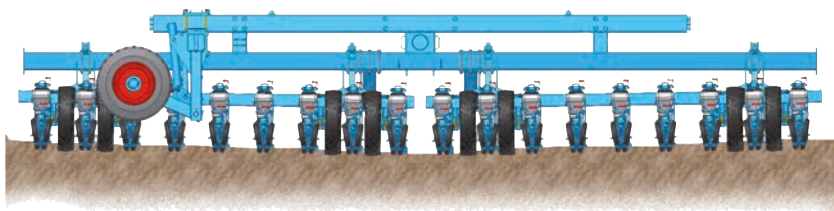
The coupled frame

The coupled frame is the coupling of 2 standard monobar frames. The 2 frames are supported by a double 180x180 mm bar – 9 m 00 to 12 m 00 long. This type of frame is suited to 16-row maize or 24-row sugarbeet planters.

12-row NC Technic Sugarbeet rigid monobar planter (45 cm)
Fertilizer 4 x 175L with shoes



Frames	Rigid	
Length of bar	3 m 00	
Number of metering units	4	6
Inter-row spacings (cm)	70-80	45/50
Number of « Drive » wheel units	2	
Number of seed spacing gearboxes	1	
Transport width	-	



On the wide configuration frames, a correct following of the ground contours is essential. This is why each frame making up a coupled frame is independent and has articulations allowing for a perfect following of the ground contours.

FRAMES

MONOSEM

The precision Planter specialist



*NC Classic V1 planter 4-row Monobar rigid frame (75 cm)
Microsem and Fertilizer 2x175 L with knives*



*NC Technic Maize planter 8-row Monobar rigid frame (70 cm)
Fertilizer 4x175 L with knives*



*NC Technic Maize planter 12-row Monobar rigid frame (45 cm)
Fertilizer 4x175 L with knives*

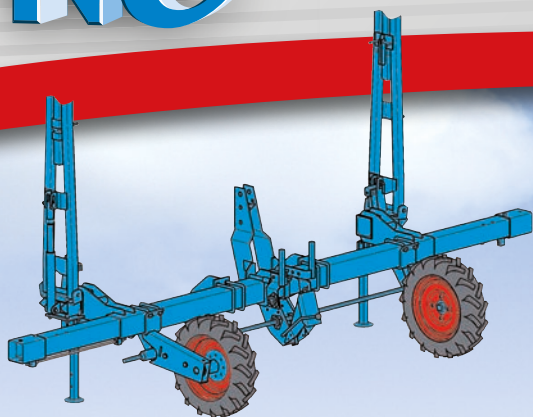


*NC Technic Sugarbeet planter 18-row coupled frame (45 cm)
Microsem and Fertilizer 6x175L with knives
Transport carriage*

Monobar			Rigid Monoblock	Coupled	
4 m 50	6 m 10		3 m 00	9 m 00	
6	8	12	6	12	18
70/75/80	70/75/80	45/50	50	70/75	45/50
2	4		2	8	
1	1		1	2	
-	3 m 00		-	3 m 00	

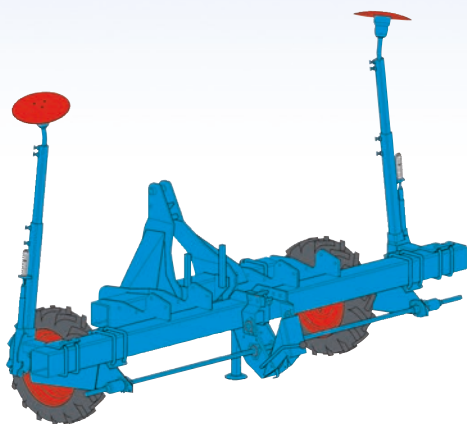


Transport carriages are available for the rigid and coupled frames. For the rigid frames, the carriage is fitted with a manual or hydraulic lift system. For the coupled frames, the lift system is hydraulic and is equipped on option with a hydraulic or pneumatic braking system.



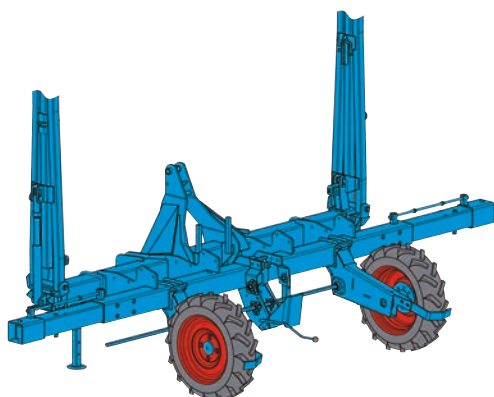
The Monobar single telescopic frame

The Monobar single telescopic frame has a 4 m 50 bar when working. When transported, the 1st and 6th row retract for a transport width of 3 m 00 at 3 m 50 according to the type of metering unit. Its reduced over hang and its weight enable it to be hitched on to light weight tractors.



The Monoblock 125 single telescopic frame

The Monoblock single telescopic frame 125 has a 4 m 50 bar when working. When transported, the 1st and 6th rows retract for a transport width of 3 m 00 at 3 m 50 according to the type of metering unit. This frame is also suitable for an uneven number of rows.



The Monoblock 260 single telescopic frame

The Monoblock single telescopic frame 260 has a 4 m 50 bar when working. When transported, the 1st and 6th rows retract for a transport width of 3 m 00 at 3 m 50 according to the type of metering unit. This frame is also suitable for an uneven number of rows. The Monoblock 260 can be equipped with "High Capacity" fertilizer attachments.



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

The row markers are fixed on to the main bar of the frame to limit the stress on the telescopic extensions (Monoblock 260).



6-row NC Technic Maize Monobloc single telescopic planter (75 cm)
Fertilizer 2 X 270L with knives



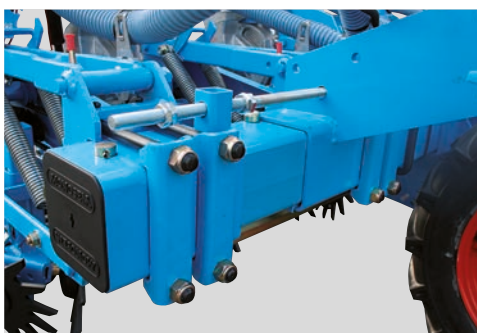
NC Technic Maize planter 6-row Monoblock Telescopic Frame
Fertilizer 2 X 270L with knives



NC Classic V3 planter 6-row single telescopic Monoblock frame (75 cm)
Fertilizer 980 L with knives

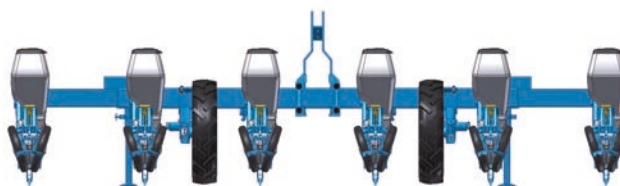
Monobar		Monoblock 125	Monoblock 260	
4 m 50		4 m 50	4 m 50	
6		8	6	
75	80	35/45/49	75	80
2	2	2	2	2
1	1	1	1	1
3 m 40*	3 m 50	3 m 50	3 m 40*	3 m 50

*3 m 00 with narrow NC Classic V1, V2 and V3 metering units - 3 m 15 with NC Technic metering units

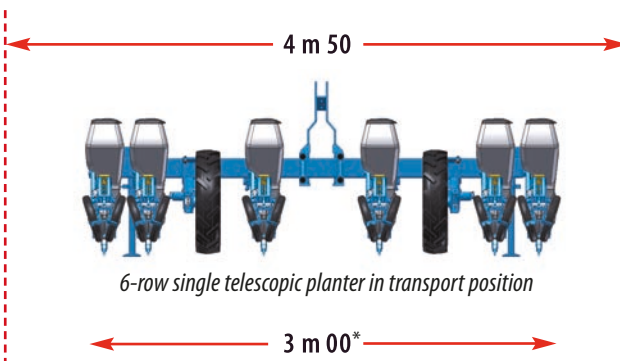


The stop parts on the telescoping system enable an adjustment perfectly suited to the required inter row spacing and folding that is suited to the equipment of the planter.

The interest of a telescopic frame



6-row single planter at work



6-row single telescopic planter in transport position

*3m00 with inter row spacing of 75 cm and NC Classic V1 (narrow), V2 and V3.
3m15 with inter row spacing of 75 cm and NC Technic units
3m40 with inter row spacing of 175 cm and NC Classic V1 units
3m50 with inter row spacing of 80 cm

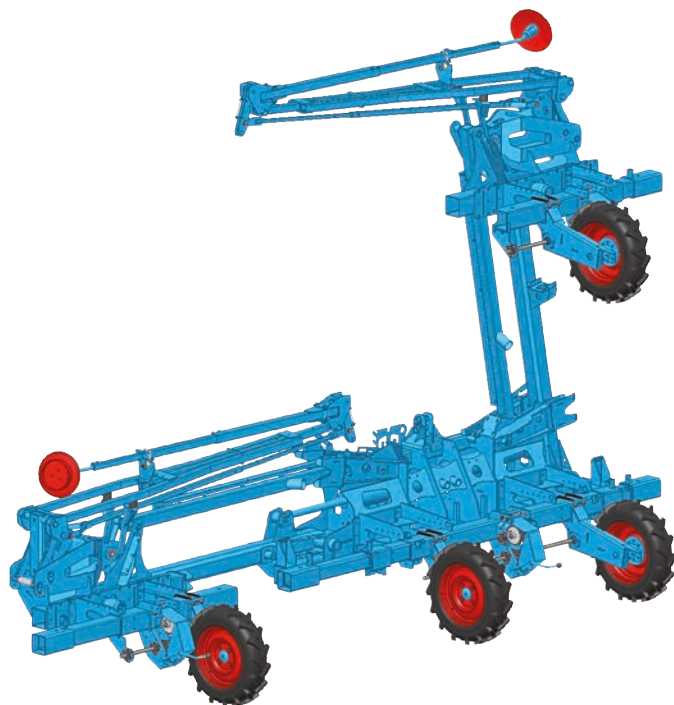


The floating Double bar folding frame

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.



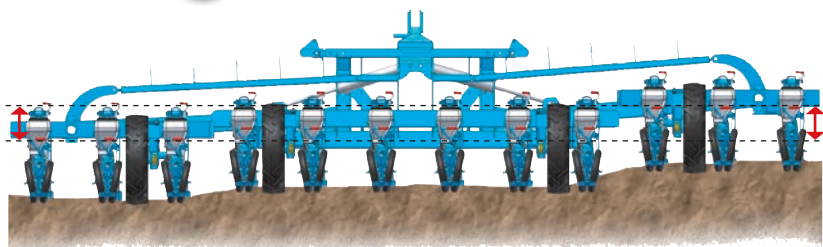
The CRT Folding frame

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.



Frames	Double bar	
Length of bar	6 m 00	
Number of metering units	8	12
Inter-row spacings (cm)	75/80	45/50
Number of « Drive » wheel units	4	
Number of seed spacing gearboxes	3	
Transport width	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.



12-row NC Technic Sugarbeet double bar folding planter (45 cm)



NC Classic V2 planter 8-row double bar folding frame (75 cm)
Microsem and Fertilizer 4 x 175L with knives.



NC Technic Maize planter 12-row double bar folding frame (45 cm)

CRT
9 m 00
12
70/75/76,2/80
4
3
3 m 00



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



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).

To meet with all requirements, MONOSEM can also propose additional solutions based on frames originally designed for other ranges of metering units. Here are some examples...

*NC Classic V2 planter - 8 rows at 75 cm
TFC folding frame at 3m00
with 1500-litre fertilizer with discs.
(See this frame in the NG Plus 4
and Monoshox® NG Plus M brochures)*



*NC Classic V2 planter - 6 rows
Extend frame with hydraulically adjustable
inter row spacing (45 to 80 cm)
(See this frame in the NG Plus 4
and Monoshox® NG Plus M brochures)*



*NC Classic V2 - 2x6 rows Twin-Row
Double bar rigid frame (6 rows Twin Row)*



*NC Classic V2 - 2 x 4 rows Twin-Row
Rigid monobar frame (Twin-Row 4 rows)*



*NC Technic Maize planter - 16 rows at 70 cm
Combining 2 rigid double bar 8-row frames with fertilizers 4 x 175L with knives on toolbar*



*NC Technic Maize planter - 3 rows at 75 cm
Monoblock frame with 255-litre fertilizer (175L + 80L) with knives*



** Example of CRT frame folded at 3m00*



*NC Classic V2 planter - 12 rows at 75 cm
Folding CRT frame - folds to 3m00 **

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 three sizes.

- 85L hopper, 1 outlet.
- 175L hopper, 2 or 3 outlets.
- 270L hopper, 3 outlets.

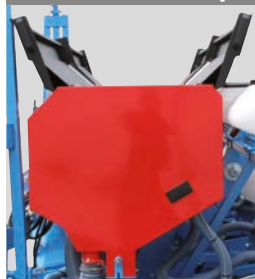
They are assembled on rigid, telescopic, folding and coupled frames.



« HIGH CAPACITY » HOPPERS ON MONOBLOC TELESCOPIC FRAMES

The high capacity hoppers in sheet metal have a capacity of 980L and are available with Monoblock 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.



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 MONOSEM cultivator for fertilizing whilst cultivating.



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.



Stainless steel distribution unit



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

Standard front-mounted hopper



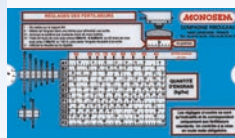
The standard front hopper is available with capacities of 1000L or 1600L. The unit can be assembled on the NC up to 12-row planters with rigid, telescopic or folding frames.

Front-mounted DUO hopper



The front-mounted DUO hopper is available in capacities of 1500L or 2100L. The unit can be assembled on the NC - 12-row CRT and coupled 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.

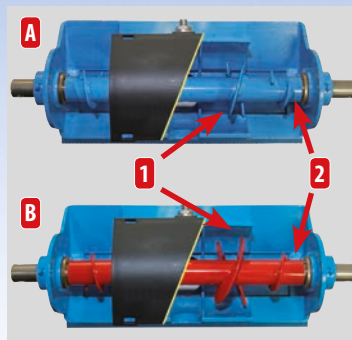
The chart delivered with the fertilizers enable a rapid adjustment of the quantity metered.



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	
		Monobloc	Standard	DUO
Capacity (number of rows in maize)	2 x 270 l. (6 rows) 4 x 175 l. (8 rows) 4 x 270 l. (12 rows)	980 l.	1000 l. - 1600 l.	1500 l. - 2100 l.
Number of rows (maize)	6 to 12	6	6 to 12	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	Rigid and Coupled Telescopic (Monobloc) Folding (Double bar and CRT)	Telescopic (Monobloc)	Telescopic Folding (Double bar and CRT)	Coupled Folding (CRT)
Big-Bag loading	No	Yes	Yes	Yes

THE MICROSEM

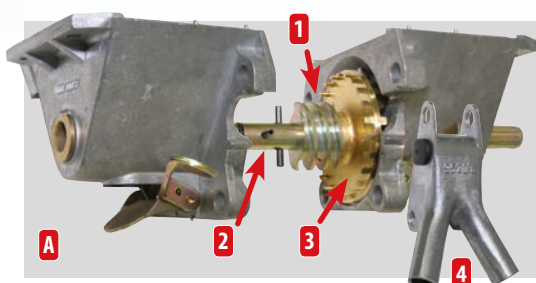
MONOSEM

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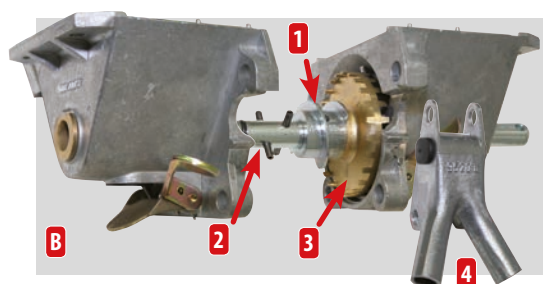
Whether for insecticide or helicide, the Microsem system with auger ensures a regular metering of microgranules. Its simple design enables an easy and reliable use. Multi-purpose, the Microsem is compatible with the majority of microgranulate products on the market (insecticides, helicides,...).

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. As standard, the insecticide Microsem authorizes quantities of 3 to 25 kg/ha and from 3 to 10 kg/ha for a helicide Microsem on a planter with 75 cm inter row spacings.



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 drop tube (6) is placed behind the shoe for application on the planting line.

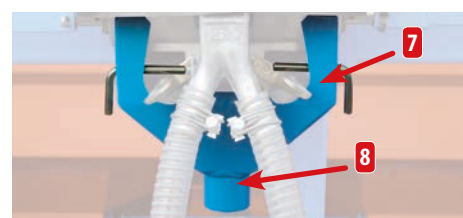
An anti-slug drop tube is also available for application after the passage of the press wheels.

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 NC metering unit



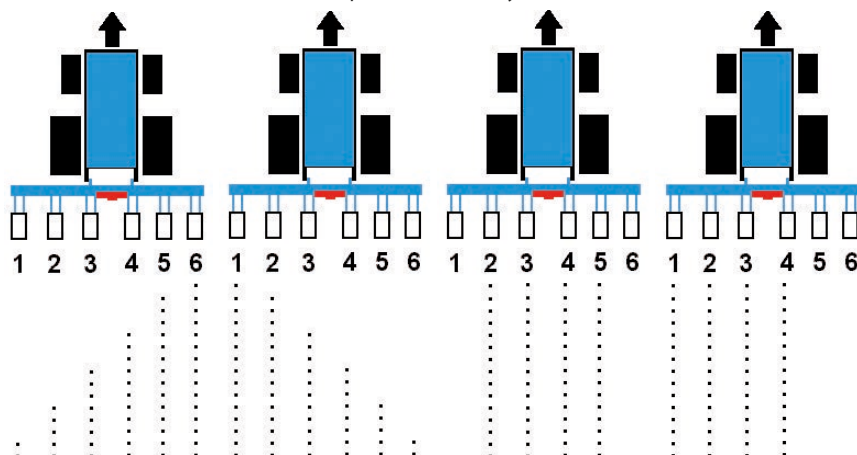
Electromagnetic row cut-off system with manual control

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 and 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.



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.

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)	-	-	-	-	●	●

● : Standard
○ : On option
- : Not possible

CS 7000 and Seed-Drive



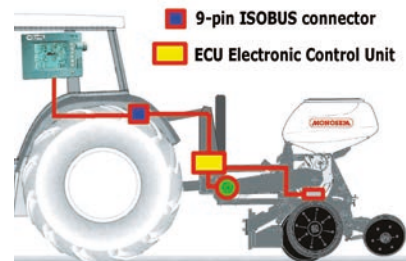
CS 7000

The SeedDrive 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		Rigid					Coupled		
		Monobar				Monoblock			
Length of bar		3 m 00		4 m 50	6 m 10		3 m 00	9 m 00	
Transport width		-		-	3 m 00		-	3 m 00	
Number of metering units		4	6	6	8	12	6	12	18
Inter-row spacings (cm)		70-80	45/50	70-80	70-80	45/50	50	70/75	45/50
Turbofan		Drive by PTO – 540 rpm in standard version, 450 or 1000 rpm on option - universal joint on option							
Tyres		2 x (500x15)		2 x (6,5x80x15)	4 x (500x15)		2 x (6,5x80x15)	8 x (6,5x80x15)	8 x (500x15)
Metering box (16 settings)		● 1		● 1	● 1		● 1	● 2	
Hydraulic row markers		○	○	●	●		○	●	
Fertilizer	Standard	○ 2 x 175 L		○ 2 x 270 L	○ 4 x 175 L		○ 2 x 270 L	○ 4 x 270 L	○ 5 x 175 L + 1 x 270 L
	Front-mounted Standard	○	○	○	○	○	○	○	-
	Front-mounted DUO	-	-	-	-	-	-	○	○
Microsem	Insecticide	○	○	○	○	○	○	○	○
	Helicide	○	○	○	○	○	○	○	○
Hectare counter		○	○	○	○	○	○	○	○
Seed monitors		○	○	○	○	○	○	○	○
Row cut-off system		○	○	○	○	○	○	○	○
Lighting kit		○	○	○	○	○	○	○	○
Weight planter only		600 kg	800 kg	800 kg	1200 kg	1700 kg	850 kg	2800 kg	3600 kg

MAIN NC 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	36 - 60 - 120
Cotton	DC 3635	36	3,5 mm	6 to 18 cm	
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

FEATURES

MONOSEM

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Coupled		Single telescopic			Folding		
		Monobar	Monoblock 125	Monoblock 260	Double-bar	CRT	
12 m 00		4 m 50	4 m 50	4 m 50	6 m 00		9 m 00
3 m 00		3 m 15	3 m 50	3 m 15	3 m 00	3 m 00	3 m 00
16	24	6	8	6	8	12	12
70	45	75/80	35/45/49	75/80	75/80	45/50	70/75/76,2/80
Drive by PTO – 540 rpm in standard version, 450 or 1000 rpm on option - universal joint on option							
8 x (6,5x80x15)	8 x (500x15)	2 x (6,5x80x15)			4 x (6,5x80x15)	4 x (500x15)	4 x (6,5x80x15)
● 2		● 1			● 3		● 3 (Wheel unit gearbox)
●		●			●		●
-	-	○ 2 x 270 L	○ 2 x 270 L	○ 2 x 270 L or 1 x 980 L	○ 4 x 175 L		○ 4 x 270 L
-	-	○	○	○	○	○	○
○	○	-	-	-	-	-	○
○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○
○	○	○	○	○	○	○	○
3500 kg	4200 kg	900 kg	1200 kg	1000 kg	1800 kg	2200 kg	3000 kg

*According to equipment

● : Standard

○ : On option

- : Not possible

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

NC METERING UNIT EQUIPMENT

Metering unit type		NC Classic V1	NC Classic V2	NC Classic V3	NC Technic Maize	NC Technic Sugarbeet	NC Technic Beans
40L hopper		●	●	●	●	○	●
20L hopper		○	○	○	○	●	○
Front assembled equipment	Clod removers	●	●	●	●	●	●
	300 x 100 front wheel 2)	-	-	-	○	●	●
	Double-discs openers	○	○	○	○	-	-
	Double discs and 285 x 65 wheel 2)	-	-	-	○	○	○
Balancing system 3)		-	-	-	○	●	●
Additional adjustable spring 1)		○	○	○	○	○	○
Maize shoe + 4 cm		●	●	●	●	-	-
Low maize shoe		-	-	-	○	○	●
Sugarbeet shoe		-	-	-	-	●	-
Scrapers		●	●	●	-	-	-
Stainless press wheel 3)		-	-	-	○	●	○
Supple intermediate press wheel 3)		-	-	-	○	○	○
Rear assembled equipment	Steel V-wheels	●	○	○	-	-	-
	Wheel 370 x 170 Farmflex	○	●	○	○	○	○
	Wheel 500 x 175 Farmflex	○	○	●	-	-	-
	2" press wheel	-	-	-	●	●	●
	Crumbler kit	-	-	-	-	○	-

1) Please consult us 2) Only with balancing system 3) Only compatible with low maize shoe and sugarbeet shoe

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.

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



The precision Planter specialist

Distributor

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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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