

MONOSEM

No. 1 Precision Planters



distributed by

MONOTEC
SOUTH AFRICA



Most accurate and durable seed meter

- *accepts irregular seed shapes and sizes without planting skips or doubles*
- *aluminium construction keeps it's precision during the whole planter life*



Most accurate and durable dry fertiliser meter

- *corkscrew auger handles poor quality fertiliser without fertiliser build-up*
- *brilliantly designed for even and consistent fertiliser output row by row*





Heavy and robust frame constructions

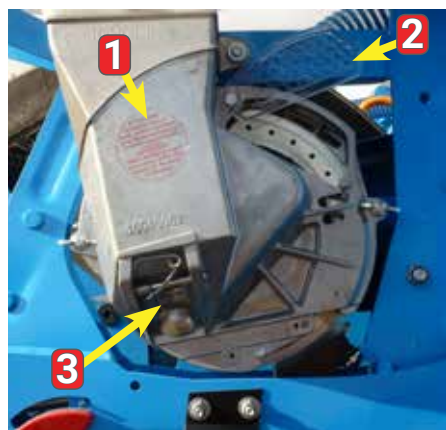
- *designed to work with large fertiliser openers on a separate front beam*
- *strong enough to carry fertiliser bins over the full width of the frame*



No-nonsense design

- *short chains and lowest possible amount of bearings & shafts*
- *easy to set, operate and maintain*





(1) Cover (outside)

Cast aluminium

(2) Control Window

Operator can easily see the result of his adjustments

(3) Clean Out Trap Door



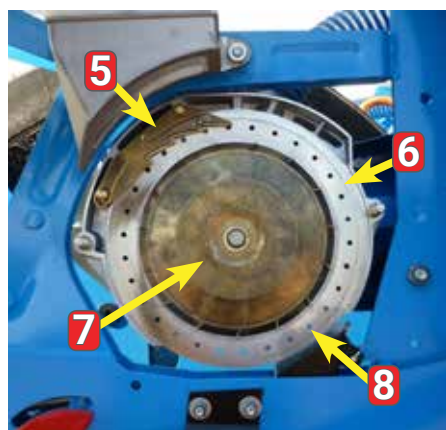
Cover (inside)

(4) Brass Seed Wiper

directs seed release to guarantee precise seed spacing

(5) Adjustable Brass Singulator

Eliminates doubles without creating skips



(6) Seed Disc

1.5mm stainless steel

(7) Brass Agitator

(8) Seed Drop Point

Right above seed tube

(9) Wear Gasket

Teflon gasket behind seed disc will last for many years



(10) Hold Down Plate

(11) Meter Main Body

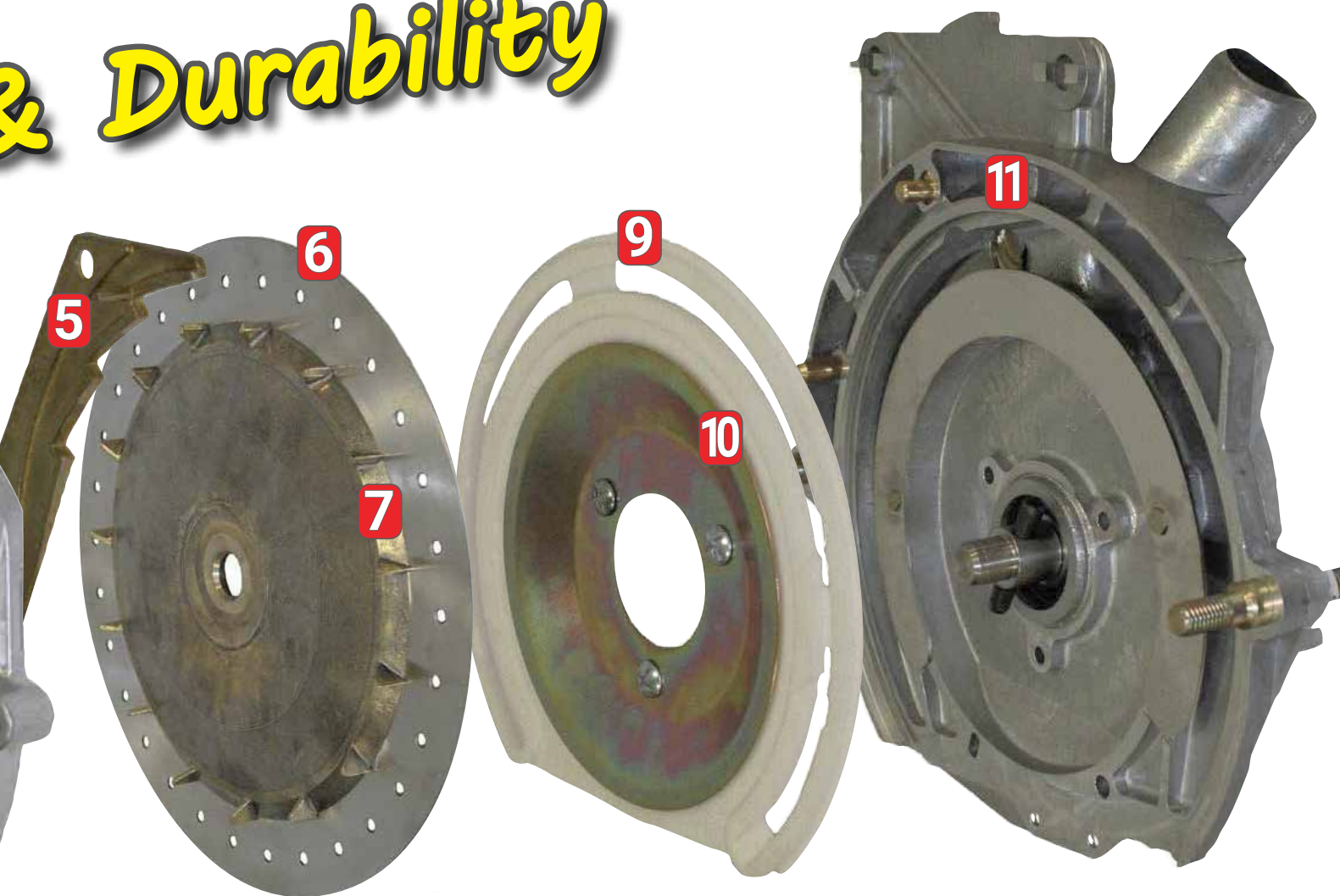
Precision &



The lever on the left side



& Durability

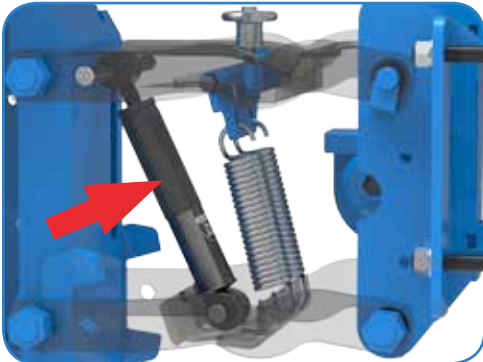
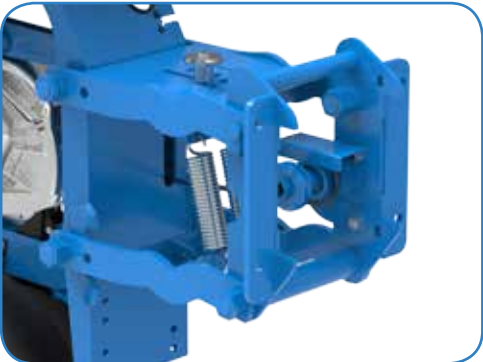
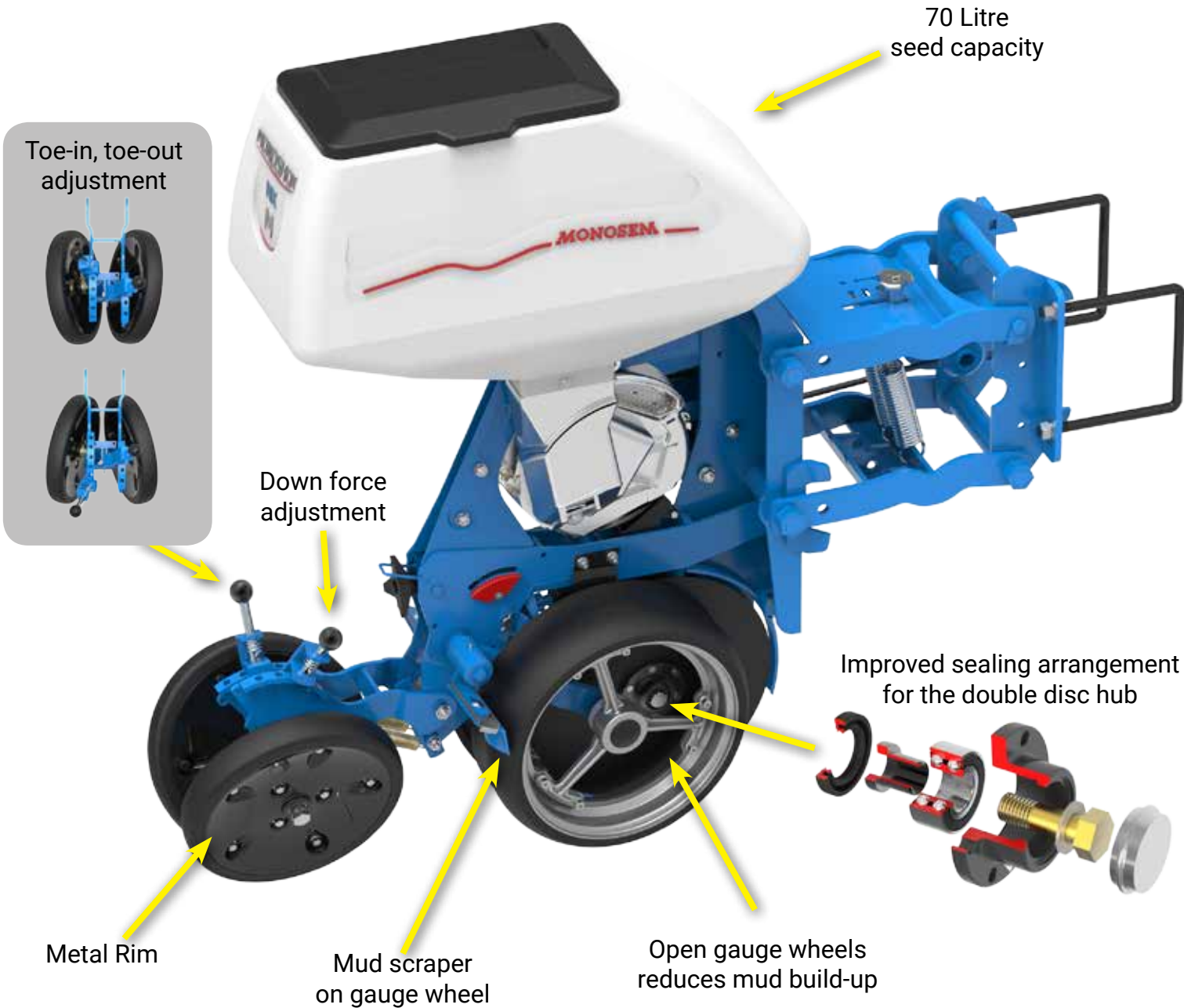


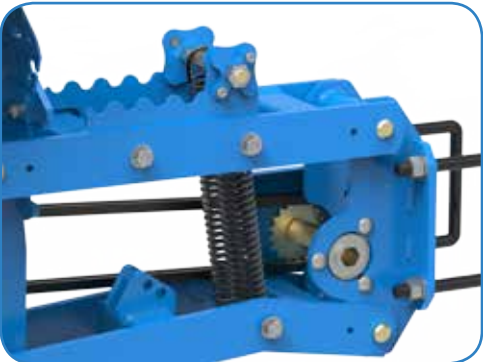
Adjusting the Seed Singulation :
of the meter's main body adjusts the Singulator on the inside.

**The more the lever is set towards PLUS
the less aggressive the Singulator.**

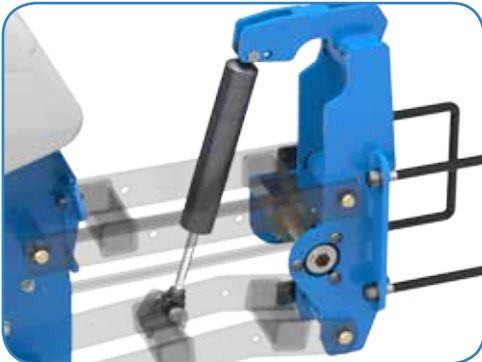
**The more the lever is set towards MINUS
the more aggressive the Singulator.**



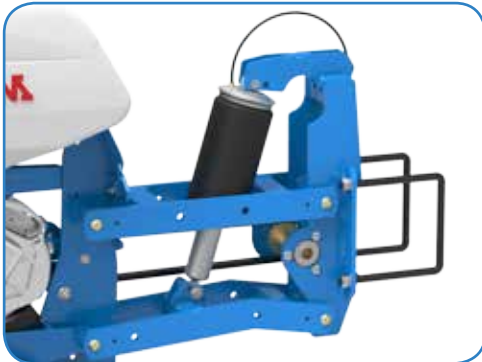




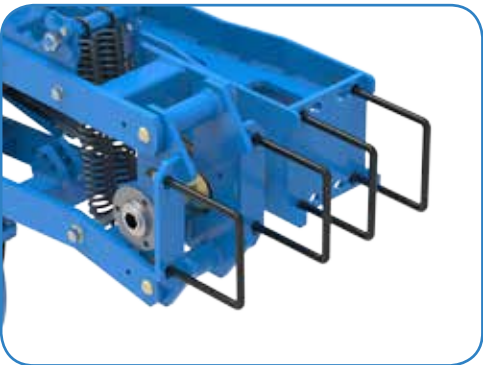
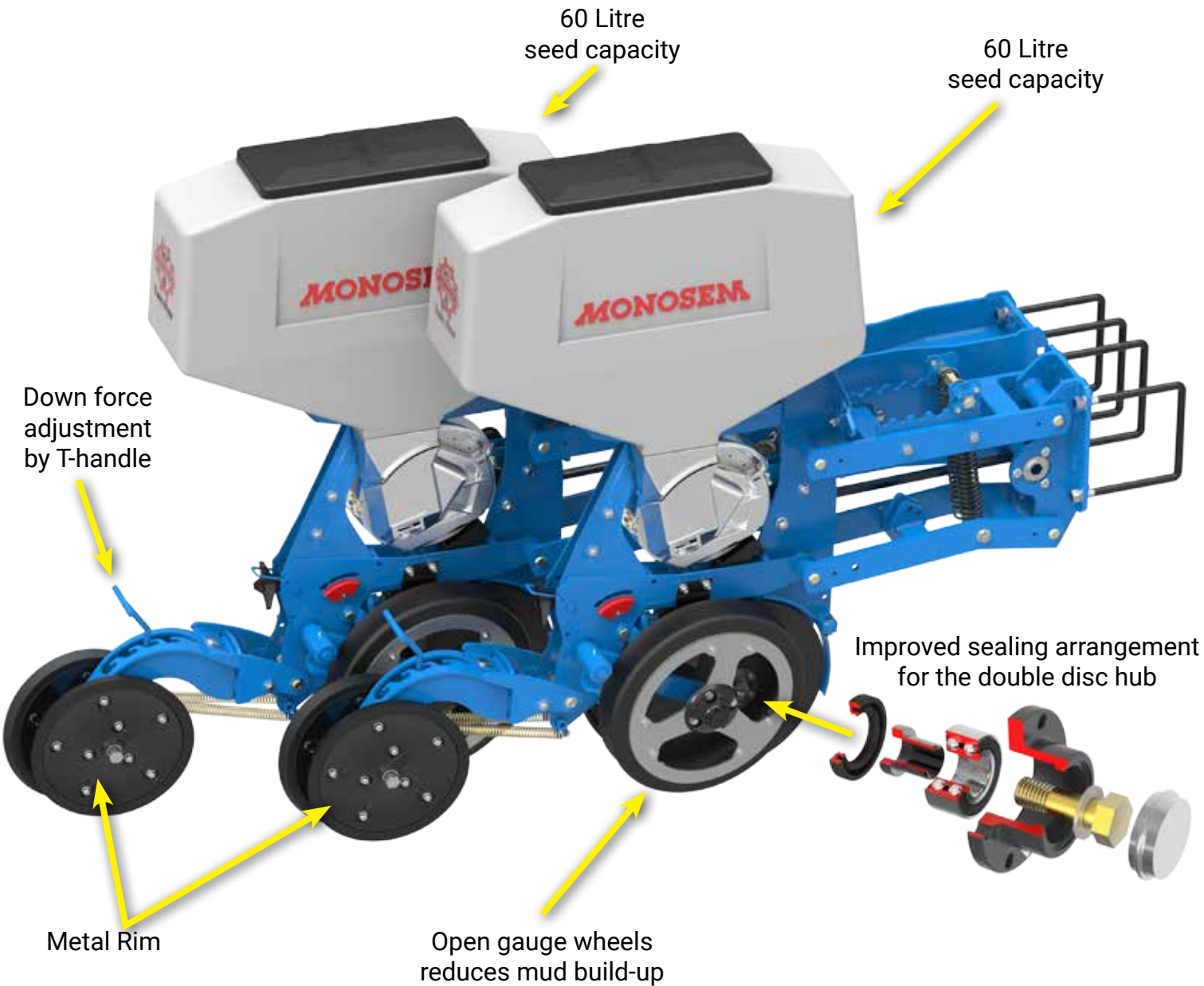
Optional : Row units can be equipped with easy to adjust spring down force and clamp for 3-point mounted frames.



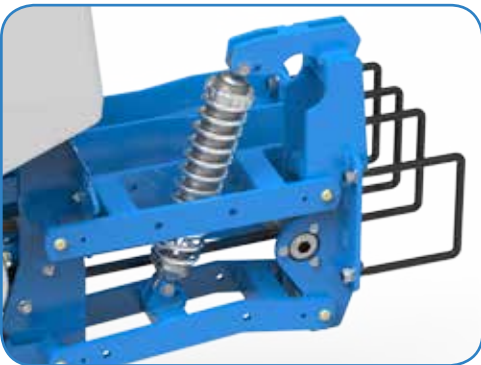
The interior of any Monoshox is a gas filled off-road racing shock that resists compression but extends quickly.



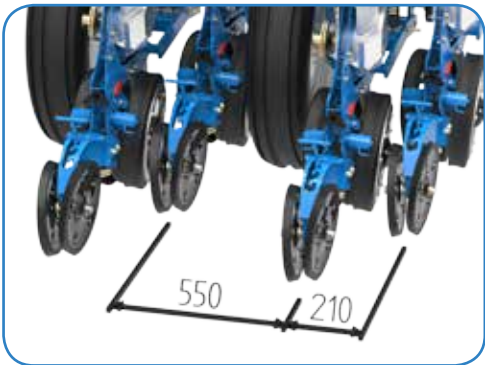
Optional : In-cab controlled Monoshox Air pneumatic airbag replaces coil-over spring. Requires 24V compressor and monitor.



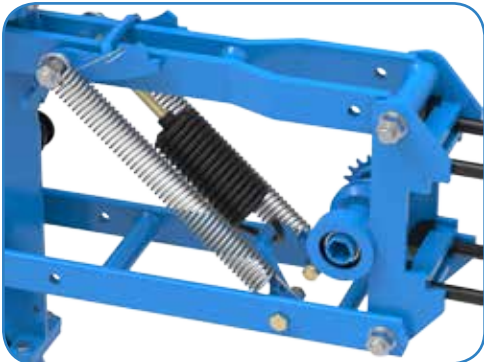
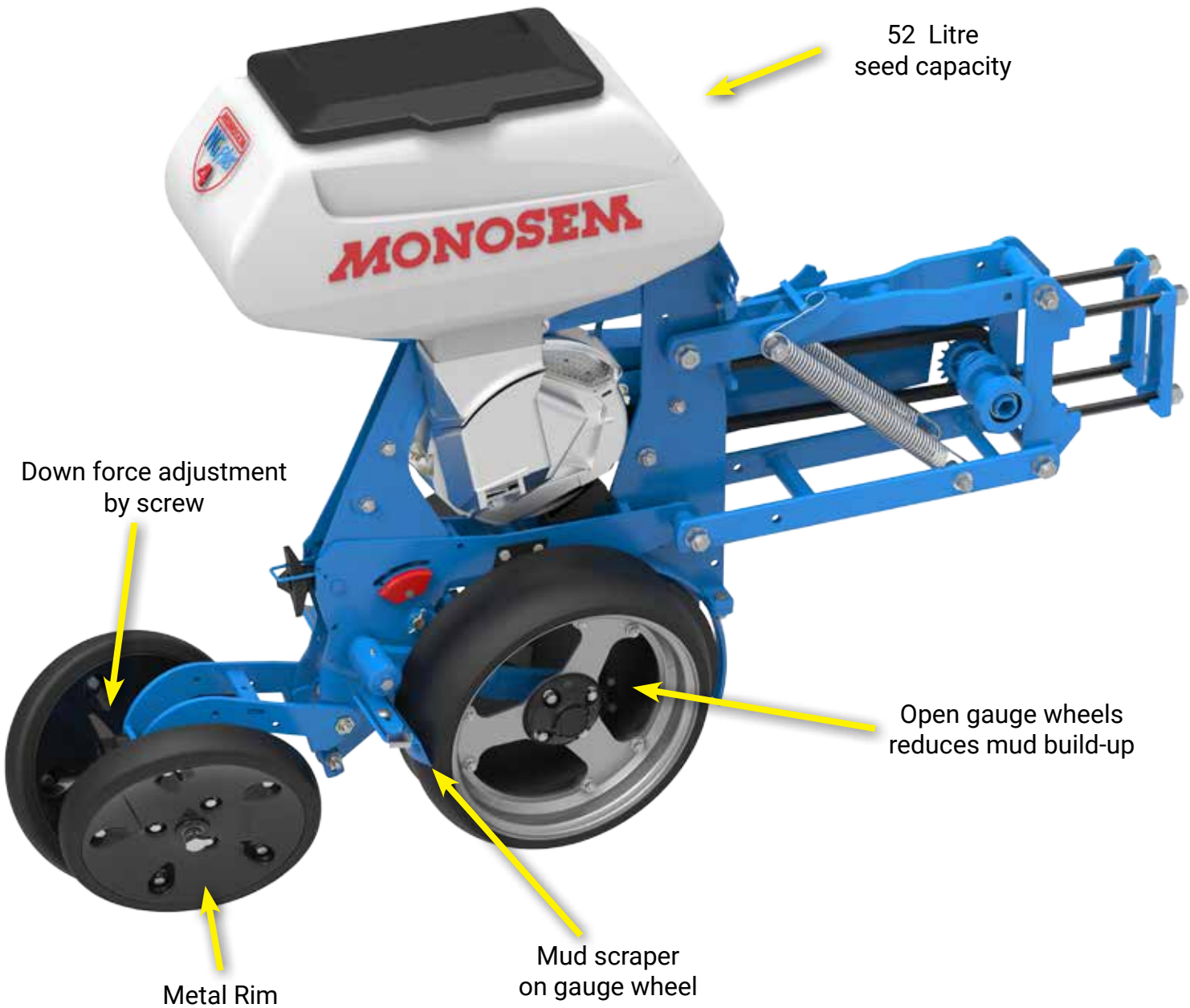
Optional : Twin Row units can be equipped with clamps for 3-point mounted frames.



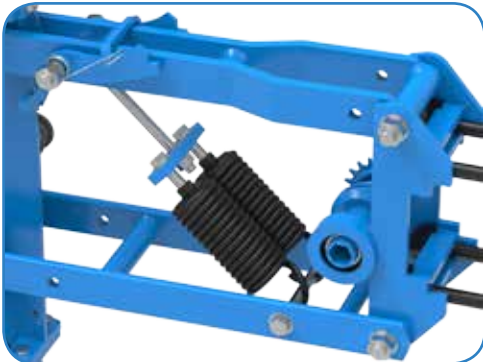
Optional : Twin Row units can be equipped with Monoshox linkage and shock absorber.



Minimum row unit distances : 210mm from row to row and 550mm from row to row with planter wheel in between



Optional : Heavy Duty adjustable down force spring in addition to standard springs

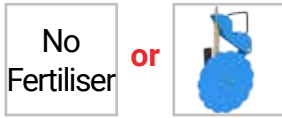


Optional : Super Duty adjustable down force double spring in replacement to standard springs

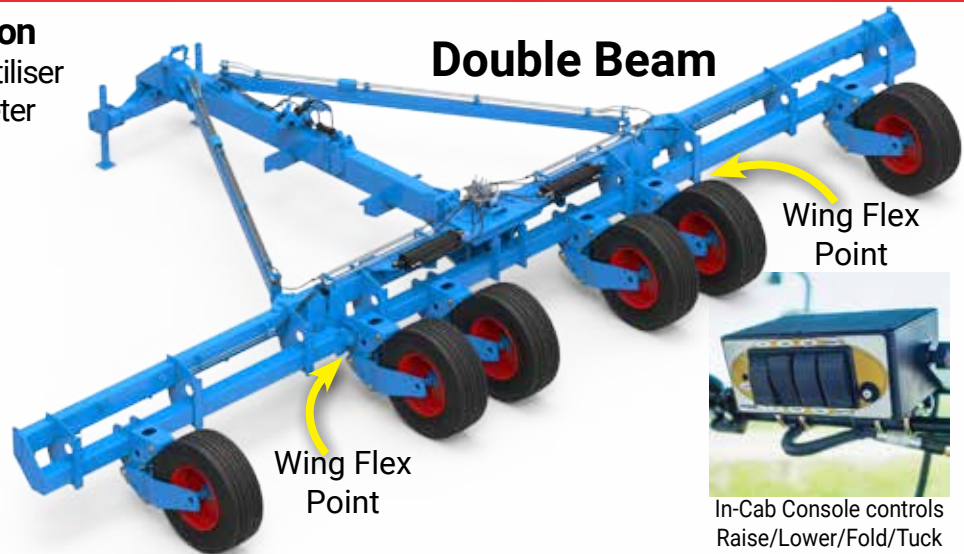


Optional : Mounting bracket for clod deflector or fixed row cleaner

Double Beam Construction
for non No-Till planters with fertiliser
openers up to 460mm diameter



Triple Beam Construction
for all planters including No-Till with
510mm fertiliser single disc or
No-Till openers



12 and 16-row planters

ULTRA-MAX Double Beam equipped with liquid fertiliser and no openers



1



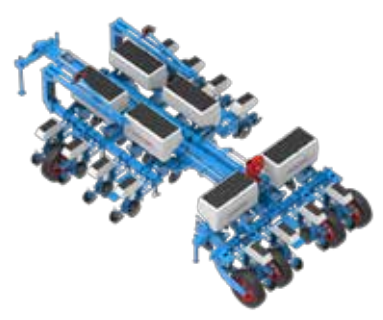
ULTRA-MAX in planting position

2



ULTRA-MAX half way folded

3



ULTRA-MAX in transport position

ULTRA-MAX Triple Beam equipped with dry fertiliser and No-Till coulter & tine openers



ULTRA-MAX forward folding planters are offered with :

A) Standard mechanical options

- Contact Drive
- Fertiliser hoppers on the row
- Row markers

B) Advanced options

- Hydraulic drive for variable application rates
- Electronic control through an ISOBUS terminal
- Central fertiliser bulk hopper & pneumatic distribution

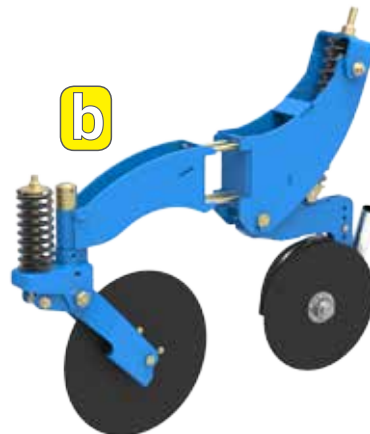
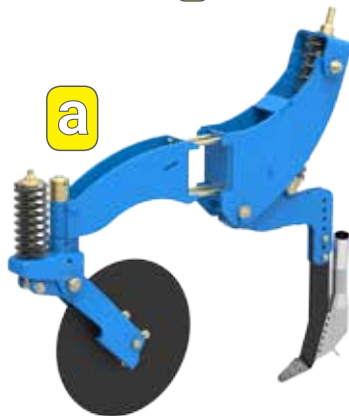


QUAD-MAX planter

Can be built as a thoroughbred No-Till planter or as a conventional machine.
Possible row spacings : 91.4 and 76.2cm but also 52.5, 50, 45 and 37.5cm



Fertiliser tools include the popular **a** No-Till coultter & Trip-Tine as well as a new **b** Coultter & Double Disc combo



Planter configurations up to 36 rows are possible without any heavy framework folding forward or upward for transport.



2 section QUAD-MAX in transport position



2 section QUAD-MAX in planting position

8 to 36-row planters

Huge fertiliser and seed capacity on top of each row.

- No fans, hydraulic motors • No horizontal delivery pipes



Seed & Fertiliser volumes per 50cm row :

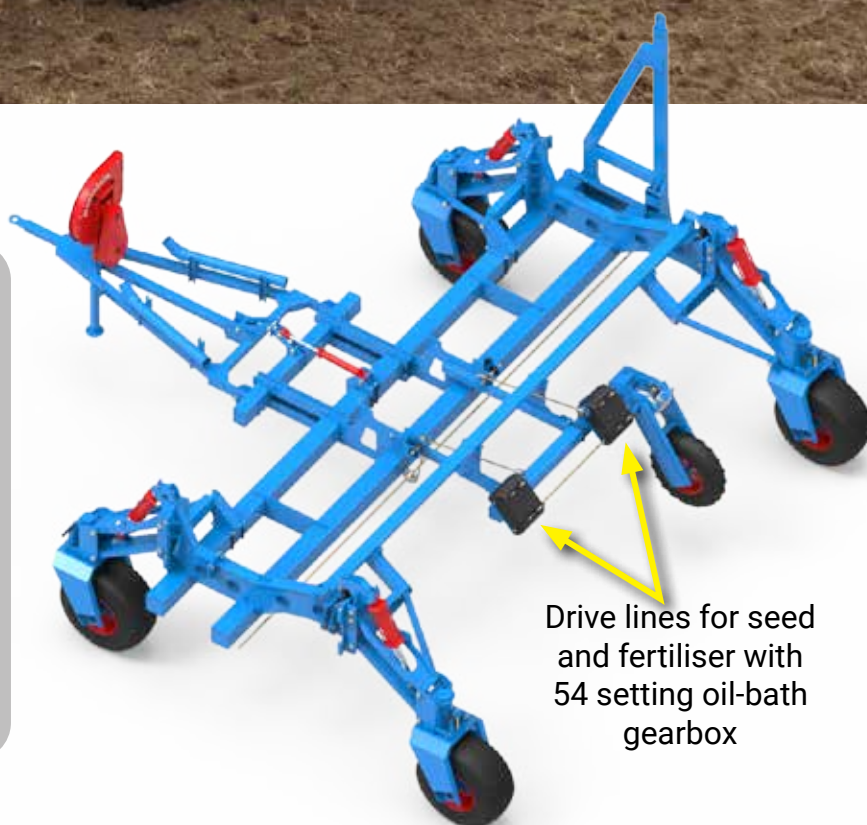
Position **1**
300 Litre Seed
No Fertiliser



Position **2**
220 Litre Seed
175 Litre Fertiliser

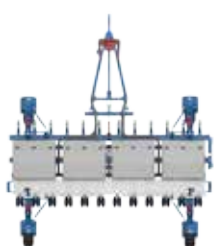


Position **3**
85 Litre Seed
310 Litre Fertiliser

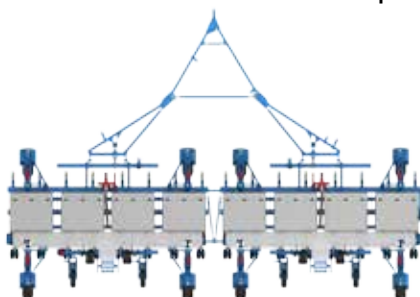


Drive lines for seed and fertiliser with 54 setting oil-bath gearbox

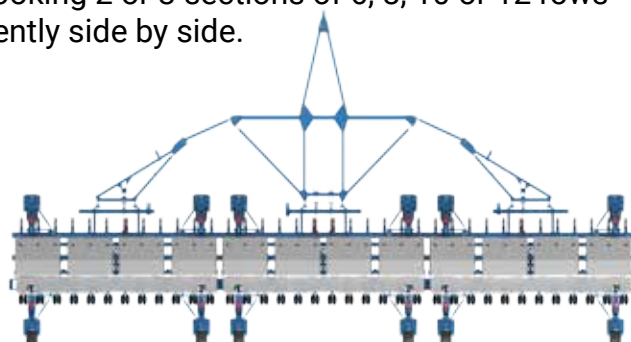
Wide configurations are built by hooking 2 or 3 sections of 6, 8, 10 or 12 rows permanently side by side.



Single section planter

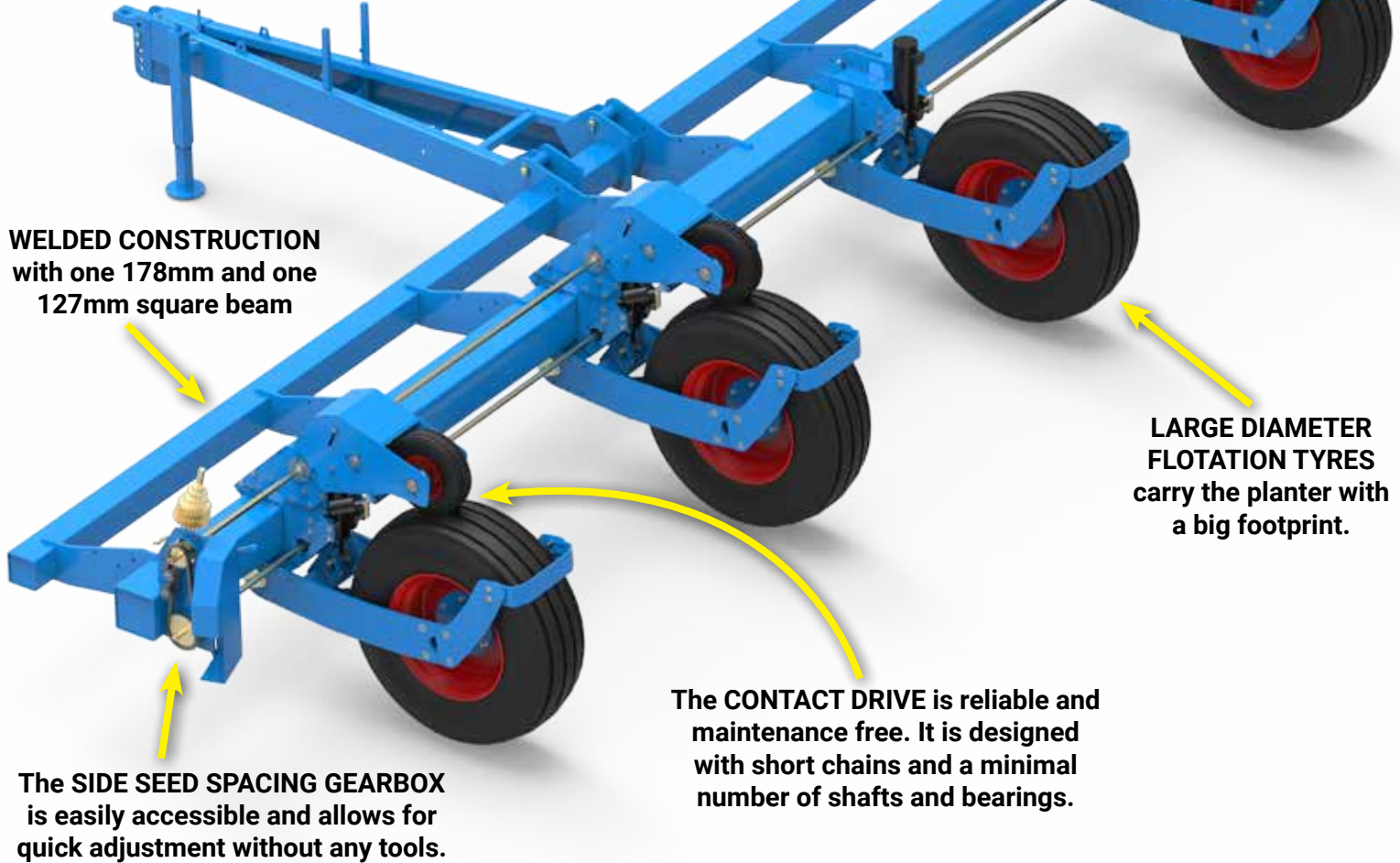


Double section planter



Triple section planter

Our PULL TYPE FRAMES are heavy and robust. The straight forward design of the drive and lift system make them easy to set and a pleasure to operate.



3 to 12-row planters



Wheels with a 7.5x20 tyre are fitted for row spacings of 76cm and narrower.



TWO OPTIONAL WHEEL SIZES



Wheels with a 12x18 tyre are fitted for row spacings of 91cm and wider.

**MONOSEM NO-TILL PLANTERS
WORK IN THE THOUGHEST
CONDITIONS**



Planter frame height is easily changed using clip-on spacers



Triple-lip sealed SKF flange bearings on wheel hubs



MONOSEM

Twin-Row Planters

**INCREASE YOUR YIELD!
PLANT MORE SEEDS WITHOUT
PLANTING TOO CLOSE**



Better plant spacing

- Less competition for nutrients and moisture
- Better root development
- More space for photosynthesis
- Better growth

Quicker canopy

- Controls weed pressure
- Conserves moisture



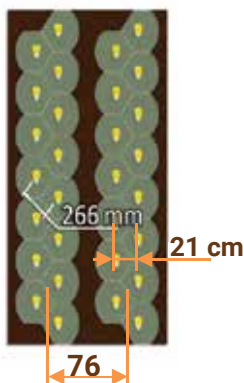
80,000 seed planted per HA
with :

Single Row



Theoretical
Root Area per
plant: 637cm²

Twin-Row



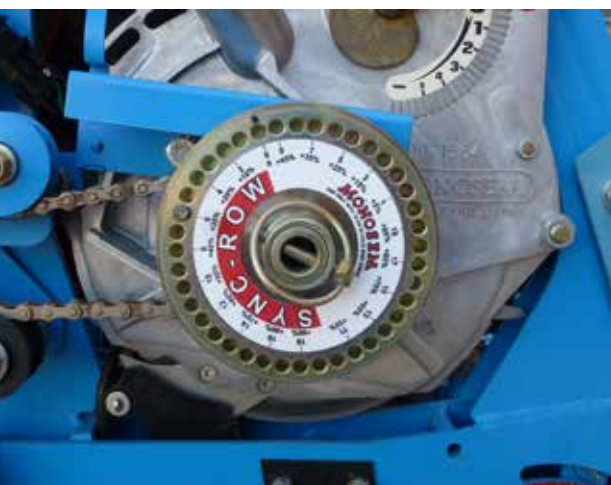
Theoretical
Root Area per
plant: 917cm²



The Original



ADVANTAGES OF THE TWIN-ROW SYNC-ROW®



Planting in a diamond seed drop maximises space between each plant and reduces competition for nutrients. On Monosem planters independent row units driven by a shared hex shaft ensure the Sync-Row® diamond pattern remains consistent pass after pass.

Sync-Row® Timing system designed to maintain the staggered seed and create the diamond pattern :

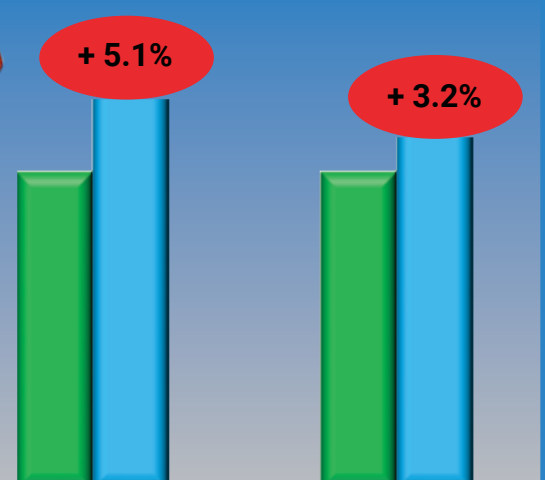
- Easily adjusted with a simple turn of the dial, less than one minute per twin-row pair
- Adjusts the position of the seed disc to synchronise the seed drop

The average gain with Twin-Row Sync-Row® in 2011 was + 5.1% with a -3.5% to + 9.3% variance according to varieties.

The average gain with Twin-Row Sync-Row® in 2012 was + 3.2% with a +1.5% to + 4.4% variance according to varieties.

Source: Trials carried out in partnership with Dekalb in France in 2011 and 2012. Comparison Single line planting (commercial seed population) and Twin Row Sync-Row® planting (seed population + 20%)

Basis of 7 variances tested in 2011 and 2012 in different regions of France.



MONOSEM 3-point mounted planter with MONOSHOX row units, four 250 litre fertiliser bins, higher wheel units and side seed spacing gearbox.



3-POINT MOUNTED FRAMES have ample space for the fertiliser tools in front and row units on the rear.

HIGHER WHEEL UNITS use 7.6x15-SL tyres and drive a shaft on top of the rear beam



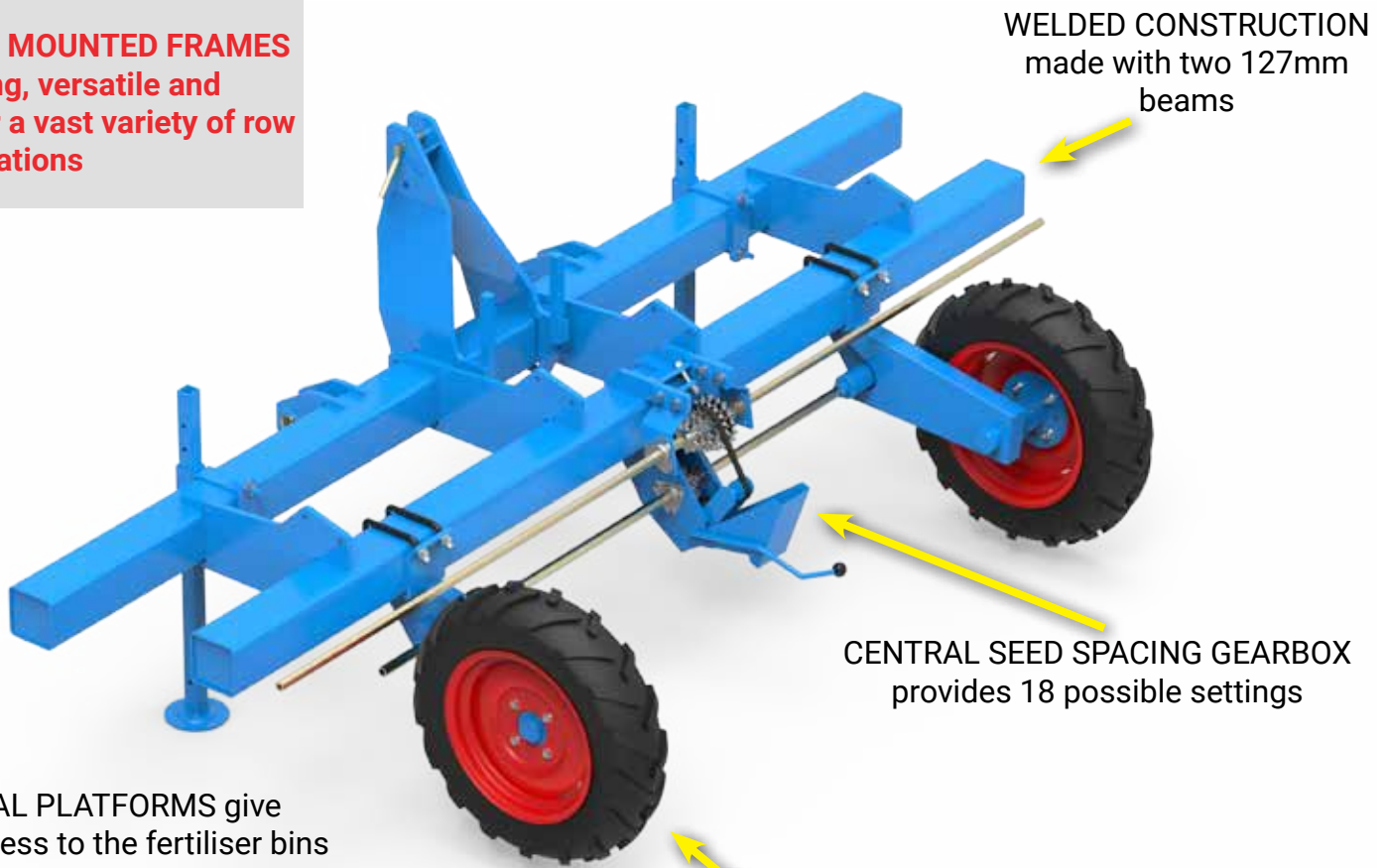
The SIDE SEED SPACING GEARBOX is easily accessible and allows more than 18 standard settings



Mount row units as close as 28cm apart with OPTIONAL FORWARD FACING WHEEL UNITS

2 to 16-row planters

3-POINT MOUNTED FRAMES are strong, versatile and allow for a vast variety of row configurations



OPTIONAL PLATFORMS give easy access to the fertiliser bins



STANDARD WHEEL UNITS have 6.5/80x15 tyres and drive a shaft underneath the rear beam.

MONOSEM 3-point mounted planter set at 76cm with NGplus4 row units, two 350 litre dry fertiliser bins, **MICROSEM** granular applicator.



Efficient & Reliable !

Three sizes ensure a regular vacuum for optimal operation of the seed meter to suit all planter configurations.



Standard Turbopan



High Output Turbopan



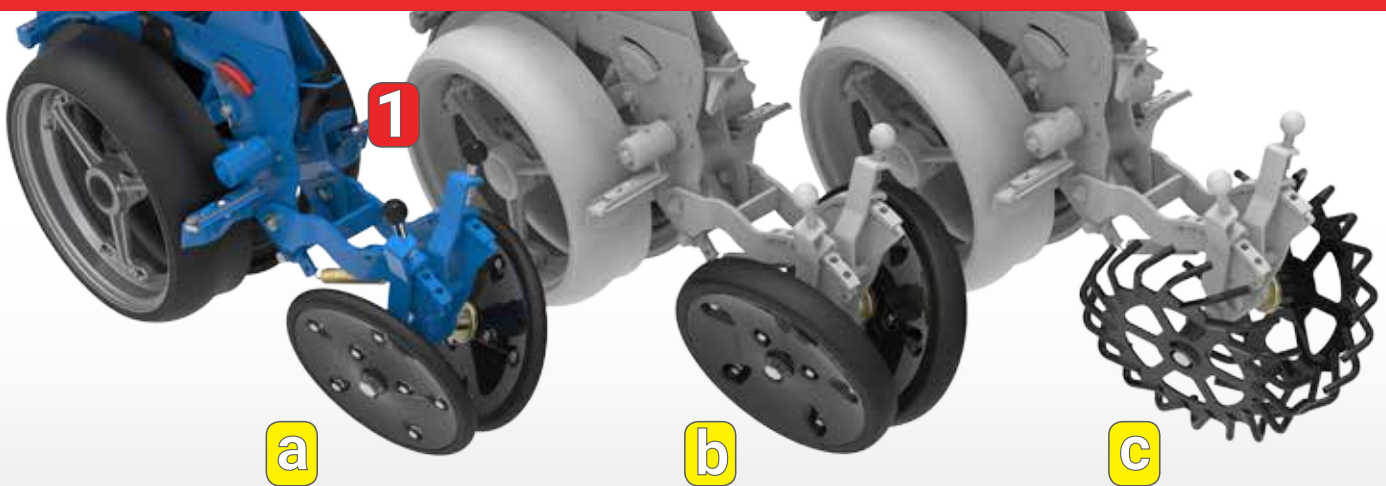
Extra High Output Turbopan



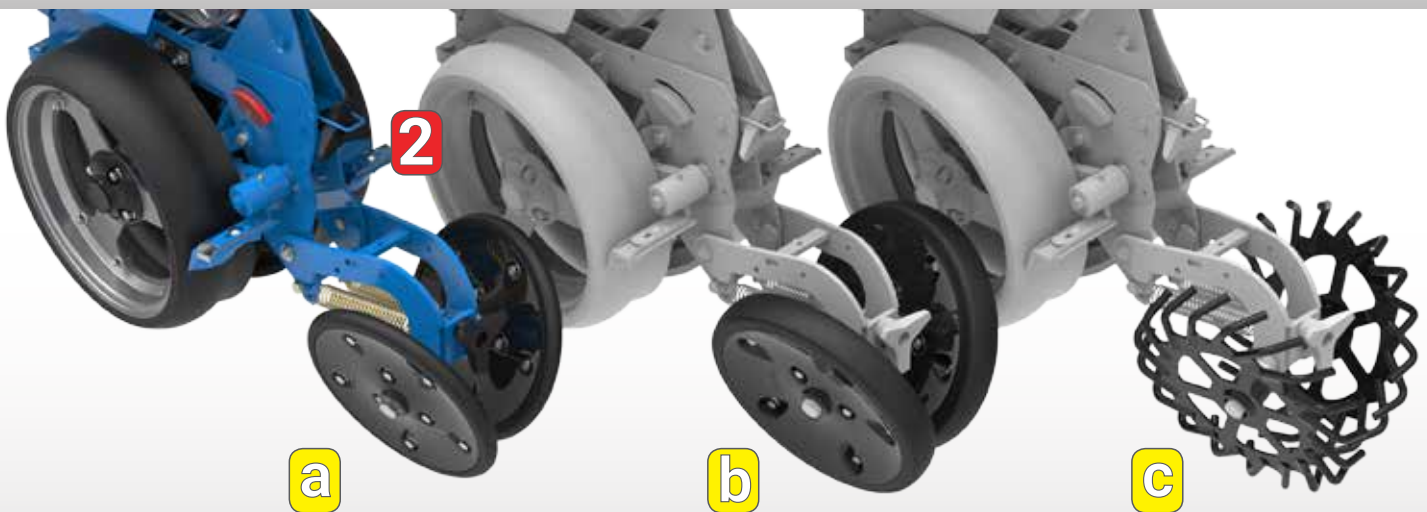
**Standard Drive
with PTO shaft**



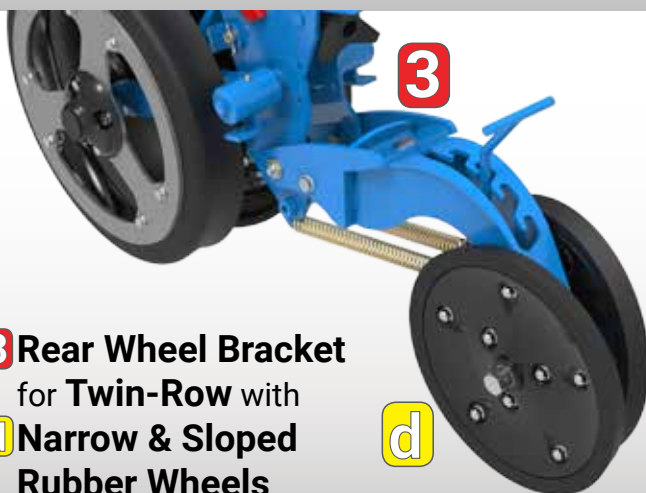
**Optional Hydraulic Drive
with vacuum gauge**



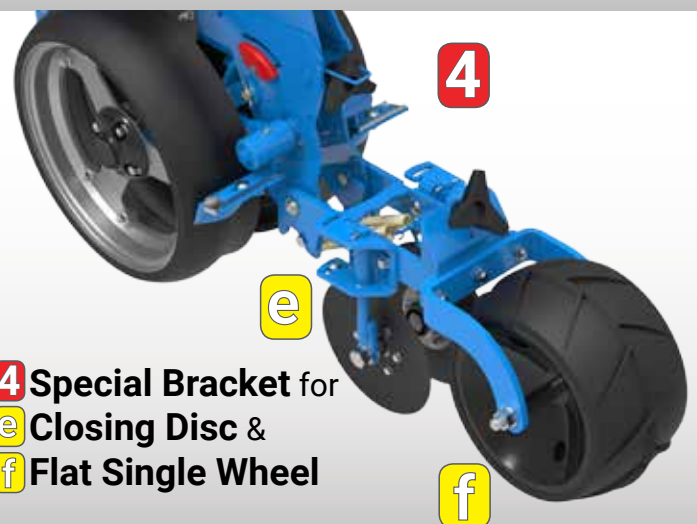
1 Two Lever Adjustable Rear Wheel Bracket (adjustable toe-in, toe-out and down force)
with **a** 25mm Narrow Rubber, **b** 50mm Wide Rubber or **c** Steel Finger Wheels



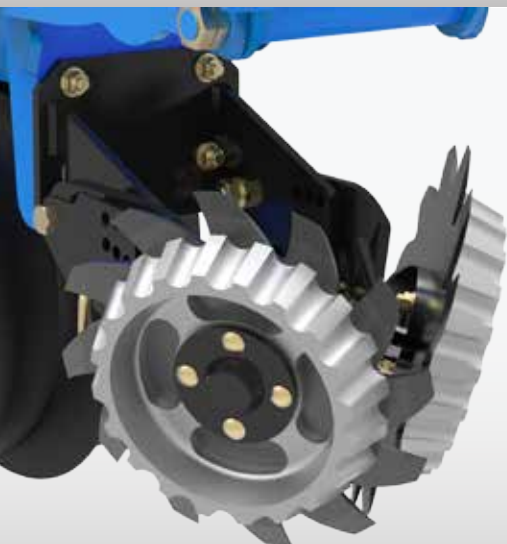
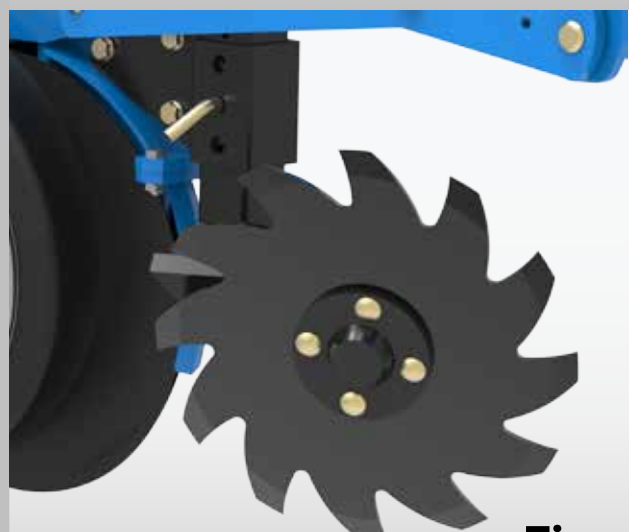
2 Screw Adjustable Rear Wheel Bracket (adjustable down force only)
with **a** 25mm Narrow Rubber, **b** 50mm Wide Rubber or **c** Steel Finger Wheels



3 Rear Wheel Bracket
for **Twin-Row** with
d **Narrow & Sloped**
Rubber Wheels

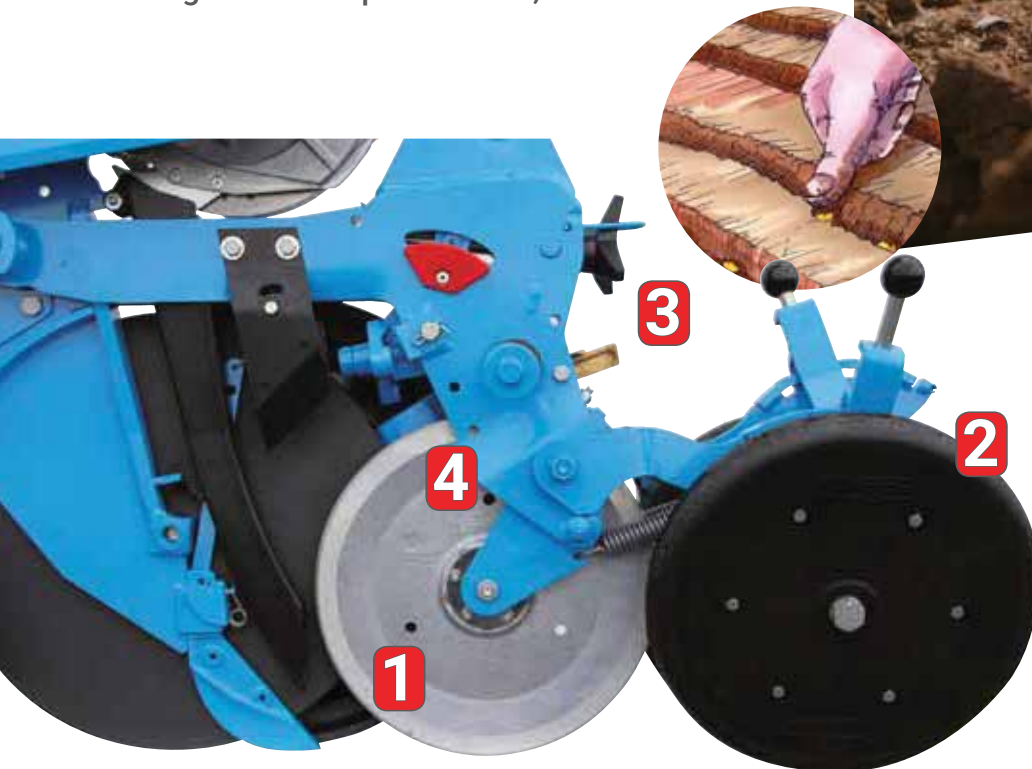


4 Special Bracket for
e **Closing Disc &**
f **Flat Single Wheel**

**a****Clod
Deflector****d****Fixed
Row Cleaner****b****Short
Floating Row Cleaner****e****No-Till Coulter****c****No-Till Coulter
& Floating Row Cleaner****f****Fixed Row
Cleaner For Twin-Row**

« The professional touch »

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



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

1



Large diameter press wheel

The PRO wheel in aluminium has a stainless steel coating and a plastic scraper. Wide diameter (295mm), it keeps its shape and offers a quality pressing and a better seed placement. By improving the seed-to-soil contact, the emergence is more rapid and regular.

3



Integrated hooking up system

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

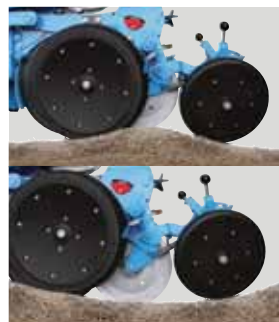
2



Combined adjustment

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

4



Independent wheel

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

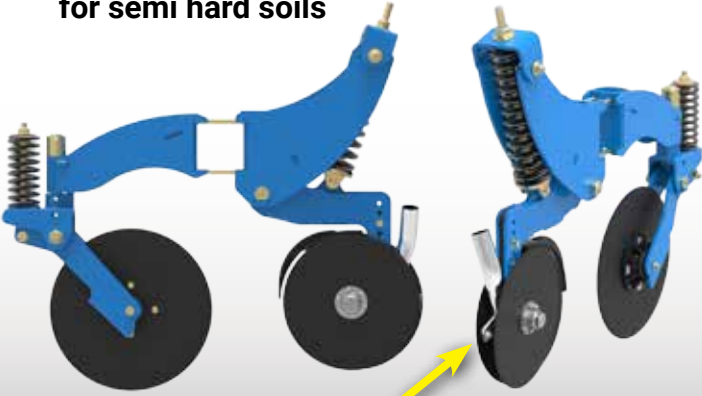
Fertiliser Opener Options for No-Till :

NO-TILL COULTER & TINE COMBO for hard soils



Auto Reset Trip Action

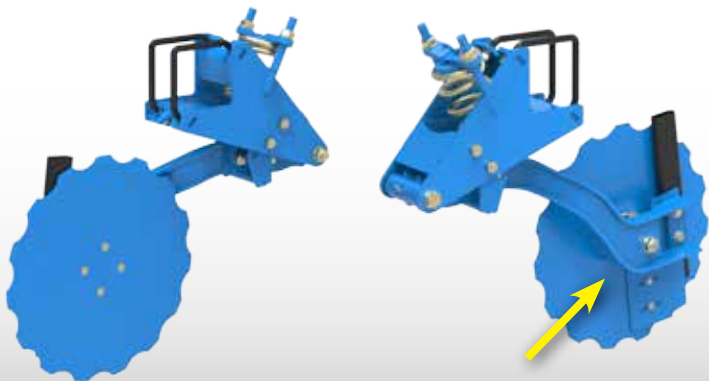
NO-TILL COULTER & DOUBLE DISC COMBO for semi hard soils



Double Disc exchangeable with Trip-Tine

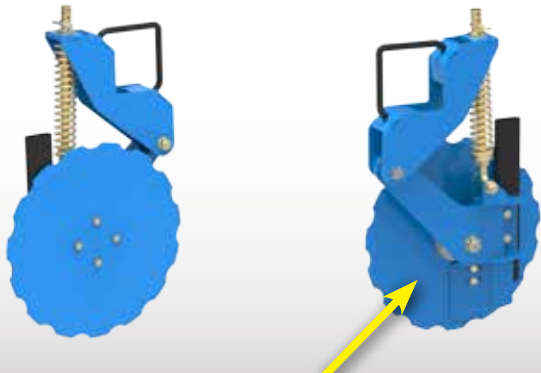
For Minimum Tillage or Conventional Tillage :

510mm SINGLE DISC FERTILISER OPENER



SKF Agri Hub

460mm SINGLE DISC FERTILISER OPENER



SKF Agri Hub

DRY FERTILISER BINS are offered with 250, 350, 500 or 600 litre capacity.



8-row fitted with four 600 litre bins

HIGHLY ACCURATE & LOW IN MAINTENANCE
even with
• HIGH FERTILISER RATES and
• POOR FERTILISER QUALITY

Replaceable Polyacetal moulded lining provides great durability at low friction with fertiliser.

Overflow when fertiliser opener is blocked. Rain cap can be taken off to monitor flow.

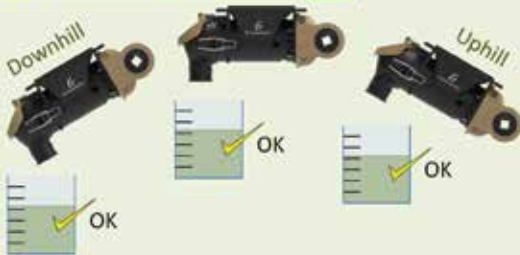
Galvanised cork screw like auger is free from plastic coated square bar and easy to exchange. High and low output available.

Angle drive gear system with low friction and torque

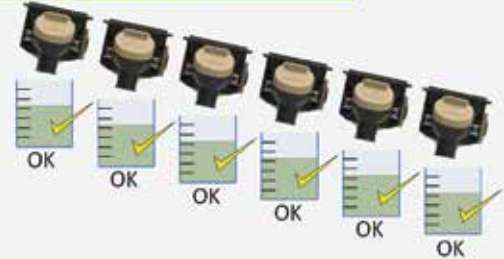
Double sealed ball bearings with special grease ensures low torque and high durability

Five fold protection between bearing and fertiliser with self cleaning discharge hole

Even Up / Downhill Distribution



Even Linear Distribution



Cream colour rain cap

1 can be taken off completely. Without cap **1**, the tractor operator can easily monitor the fertiliser distribution.

Even with cap, fertiliser will overflow through opening **a** in case of blockage in the opener. Service and cleaning is made easy as the front spout **2** clips off and the auger screw **3** can be pulled out by hand.



Variety of integrated systems available from



Possible options include :

- Hydraulic drives for seed or fertiliser
- Electric drive for seed or fertiliser
- Variable seeding rate
- Variable fertiliser rate
- Individual row shut-off
- Section shut-off
- Fertiliser blockage monitoring
- Seed monitoring

9-pin ISOBUS
connector

One type inductive
sensor for :

- ground speed
- shaft speeds
- up / down positions



**Electric Seed
Drive**



**Electric
Fertiliser Drive**



**Hydraulic
Fertiliser Drive**



**Hydraulic
Seed Drive**

No-Till planter with electric seed & fertiliser drive

- No chains
- No idlers
- No tensioners
- Less bearings
- No clutches
- No hex. shaft





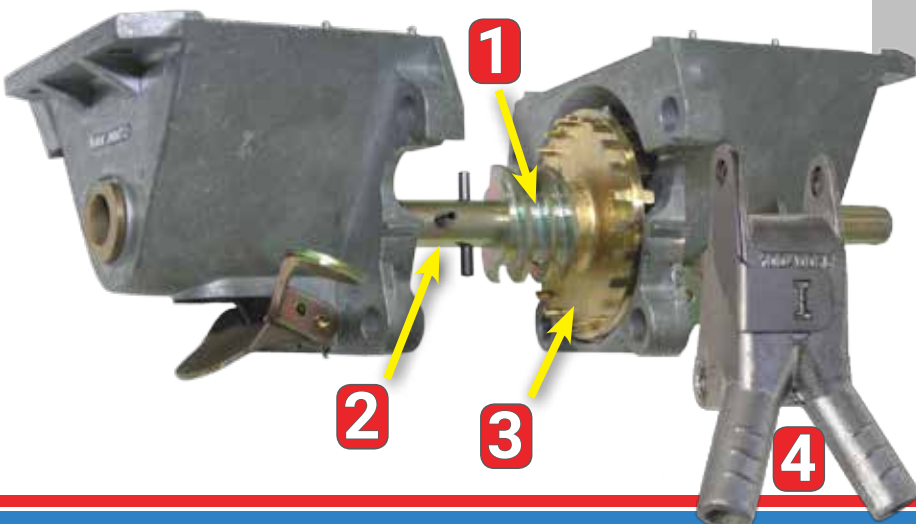
Separate MICROSEM hopper
20 Litre for two row units

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 quick declutching system.

40-litre hoppers are also
available on option



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 the product uniformly in the chutes **4**.



MONOTEC
BUILDING

MONOSEM

**PLANTERS FOR
SOUTH AFRICA**



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