

MONOSEM

The precision Planter specialist



Inter-row and vegetable crop cultivators

www.monosem.com



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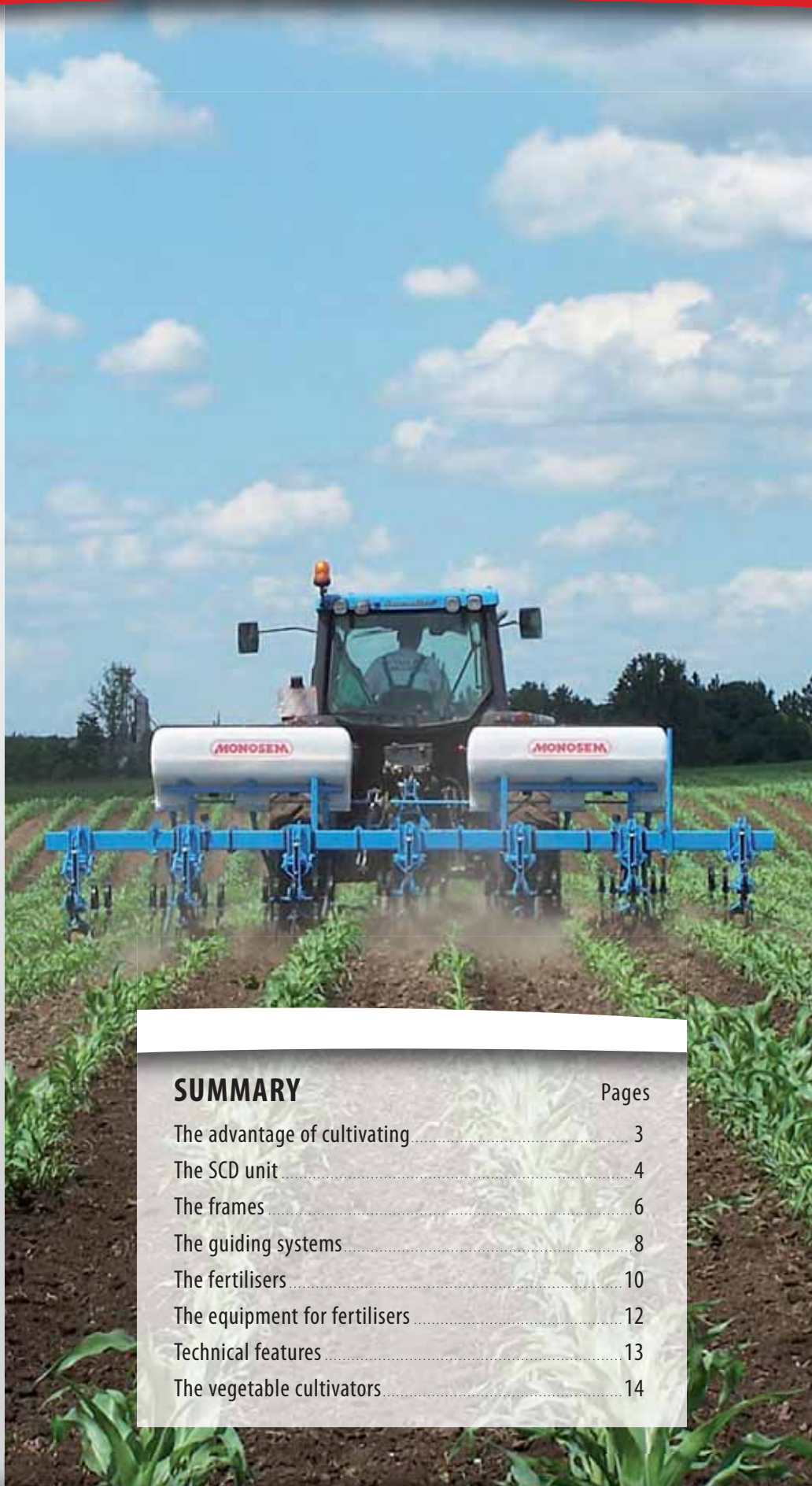
INTER-ROW AND VEGETABLE CROP CULTIVATORS

A specialist in precision planters, MONOSEM is also an inter-row cultivator specialist. Right from the early 50's, the company developed a range of cultivators for the vegetable grower.



The SUPER-PREFER designed for vegetable crop cultivating, and the SUPER CROP for inter-row crop cultivating crops like maize, sugar beet, sunflower, and oilseed rape. The SUPER CROP features plant protection discs as standard and so has become known as the "SCD".

No matter what the crop, your type of farm, or soil conditions, MONOSEM has equipment to meet with your requirements, and experienced people to advise and help you in choosing the right cultivator.



SUMMARY

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THE ADVANTAGE OF CULTIVATING

With increased weed resistance to sprays and the recent withdrawal of key sprays, cultivating now finds its place again in crop management. Additionally demands made on farmers with regards to safe practice and the environment have rekindled cultivating interesting. Cultivating offers multiple advantages, not just economical but also agricultural and environmental.



Before cultivating

After cultivating

Agricultural advantage

- Destruction of any weed even tough ones
- Working of the soil (fertiliser mineralization, restructuring and warming of the soil)
- Improved soil biological activity
- Limiting of pest activity (slugs, ...)
- Destruction of soil capping (caking)

Economical advantage

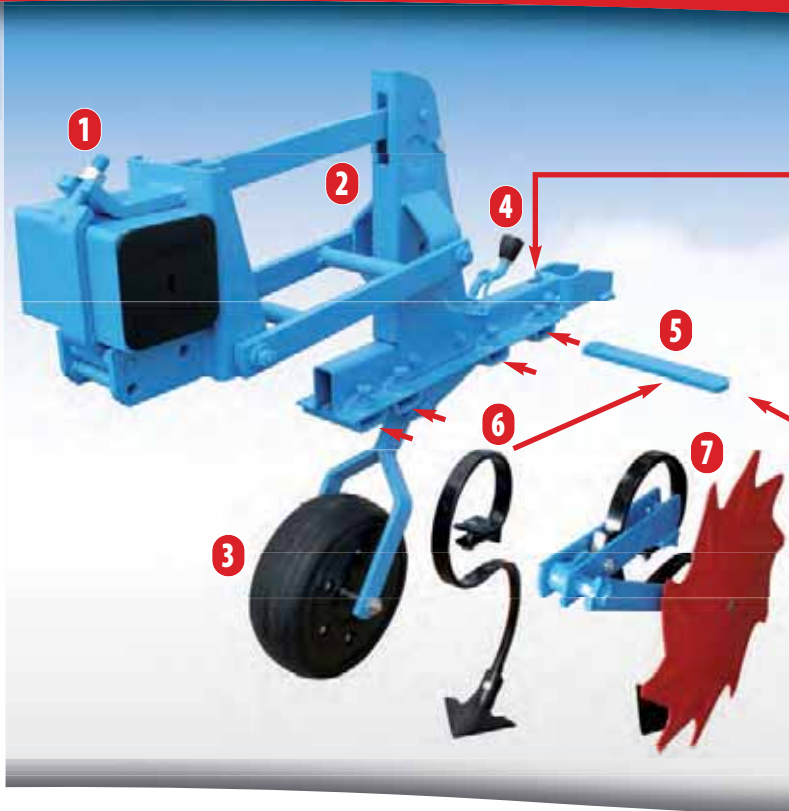
- Reduction of the number of field passes and the quantities of fertiliser (localised treatment when cultivating)
- Versatile cultivator which can be used for a range of crops
- Reduced water requirements (1 cultivating session is worth 2 crop waterings...)

Environmental advantage

- Reduced use of plant protection products
- Reduced quantities of fertilizer due to localized fertilizing
- Reduced water erosion

SCD RANGE

Strength, versatility and simplicity have made the reputation of the MONOSEM cultivators. As the cultivator has more than ever its place, MONOSEM is the specialist who can advise and help you in choosing the equipment for your cultivator.



1 Fixing clamp

The units are fixed by clamps with just one nut which means that the units can be easily moved. Its wide jaw fixing ensures a secure and perfect position of the unit when working.

2 Parallelogram

The parallelograms with a large ground clearance have a grease zerk. All the articulating parts are mounted on interchangeable bushes. The individual locking system holds the metering unit in an upper position.

3 Depth control wheel

The depth control wheel (300x100) features a supple self cleaning tyre, and for maximum strength, it is held on both sides, in a fork, with its axle running on maintenance free, enclosed and protected sealed bearings.

4 Turn Handle



A turn handle offers a step-less adjustment of the working depth. This adjustment system, combined with a visible depth control scale, gives a quick and easy adjustment of the working depth.

Versatility of the type of crops and at different stages

The versatility of the SCD cultivating unit, means that the cultivator can work in a wide variety of crops. The high ground clearance under the toolbar (65 to 70 cm) also allows for late cultivating.

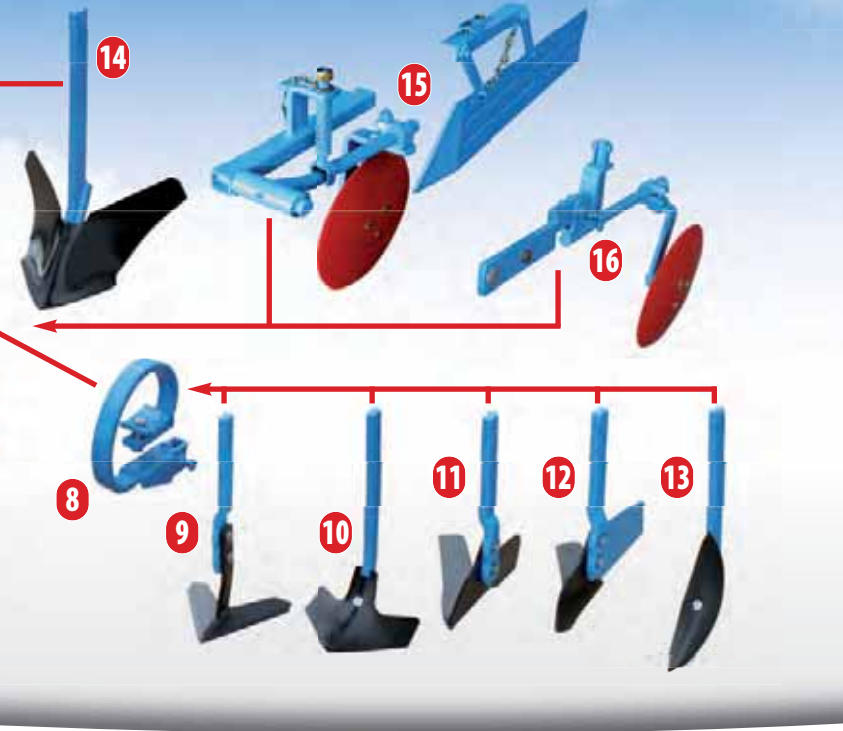


SCD cultivating unit with plant protection discs

SC cultivating unit without plant protection discs

SC CL cultivating unit with shovel and Lelièvre blades

Crops



Accessories

- 5** Cross part in special steel (offered in various lengths)
- 6** Spring tine with sweep share of 150 (also available with shares of 105)
- 7** Spring tine with sweep share of 150 and retractable plant protection disc
- 8** Spring bracket for range of blades
- 9** 'V' blade (available widths of 14, 20, 25 or 30)
- 10** Duckfoot (available in widths of 20, 25 or 30)
- 11** Maize or sugar beet Lelièvre blade
- 12** Planet blade with or without cheek
- 13** Rigid picking tine
- 14** Ridging Bodies (fixed or adjustable)
- 15** Plant protection plate with or without discs
- 16** Unbedding disc

Example assembly of a 4-row cultivator

Inter rows 45 to 65 cm



3 tines per unit
with share of 150
and plant
protection discs



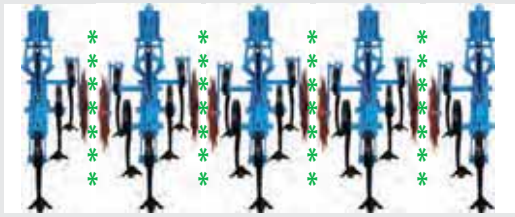
3 tines per unit
with share of 150



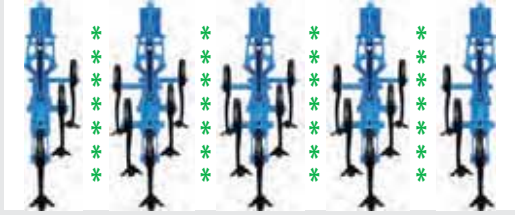
1 'V' Blade of 25
and 2 sugar beet
Lelièvre blades
per unit

Sugarbeet, Sunflower, Rapeseed, Beans,...

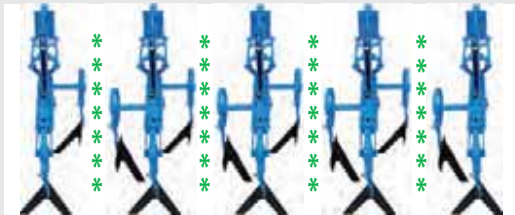
Inter rows 65 to 80 cm



5 tines per unit
with share of 150
and plant
protection discs



5 tines per unit
with share of 150



1 'V' Blade of 30
and 2 maize
Lelièvre blades
per unit

Maize, Sunflower, Rapeseed,...

THE FRAMES

THE RIGID FRAMES

THE TIP 5" RIGID FRAMES

The cultivators with TIP 5" rigid frames are suitable for cultivating from 4 to 8 rows maize and from 6 to 12 rows sugar beet. This frame is simple and economical and can be equipped with standard fertilizer attachments or a front-mounted fertilizer. In the double bar version, these frames can be equipped with high capacity fertilizer attachments.



TIP 5" rigid SCD cultivator – 4 rows at 75 cm inter row spacing

THE TOP 7" RIGID FRAMES

The TOP 7" rigid frame offers a heavy duty frame for wide configuration cultivators (up to 12 rows maize and 18 rows sugar beet). This frame is equipped with 700x12 land wheels that can be adjusted in height.



TOP 7" rigid SCD cultivator - 12 rows at 80 cm inter row spacing



TIP 5" rigid SCD cultivator - 8 rows at 70 cm inter row spacing at work

Transport carriage



For easier road transport of wide configuration cultivators, an optional transport carriage is available. This transport carriage is offered with the option of a manual or hydraulic lift system.

TIP 5" rigid SCD cultivator - 8 rows at 70cm inter row spacing in transport

Length of bar	3 m 50	5 m 20	6 m 60	9 m 80
Number of rows (inter row 45-50 cm)	6	-	12	18
Number of rows (inter row 65-80 cm)	4	6	8	12
Frame profile	5" x 5"	5" x 5"	5" x 5"	7" x 7"
Transport carriage	-	○	○	○
Land wheels	○ 2x(5.00x8)	○ 2x(5.00x8)	○ 2x(5.00x8)	● 2x(700x12)
Front-mounted	○	○	-	-

THE MANUAL FOLDING FRAMES

The manual folding frame offers an economical solution for transporting the cultivator on the road.

A lever enables the folding of the outer units for easy road transport.

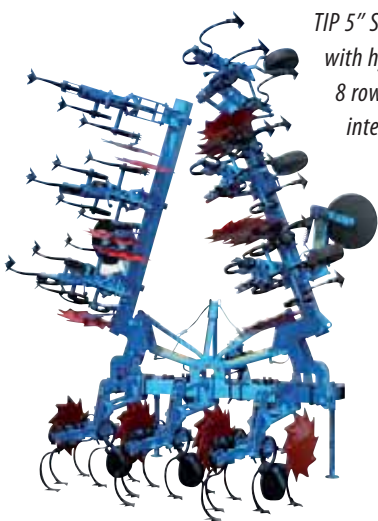
When folded, the maize cultivators with manual folding frames offer the possibility of cultivating 2 rows less, i.e. 4 rows from a 6-row cultivator.

Length of bar	3 m 70	5 m 00
Number of rows (inter row 45-50cm)	6	7
Number of rows (inter row 65-80cm)	4	6 (4 if folded)
Frame profile	5" x 5"	5" x 5"
Land wheels	○ 2x(5.00x8)	○ 2x(5.00x8)
Transport width	2 m 30	3 m 65/3 m 90 (2)
Front-mounted	○	○



TIP 5" SC cultivator with manual folding
4 rows at 75 cm inter row spacing

THE HYDRAULIC FOLDING FRAMES



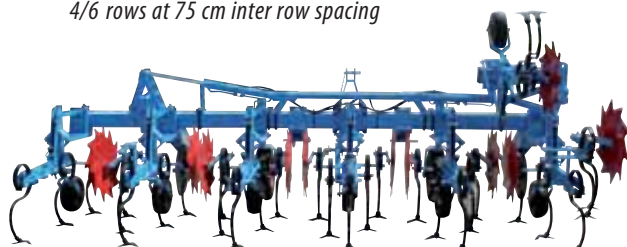
TIP 5" SCD cultivator with hydraulic folding -
8 rows at 75 cm inter row spacing

The hydraulic folding cultivators have a box frame profile of 5" x 5" or 7" x 7" according to the width of the cultivator.

TOP 7" SCD cultivator with hydraulic folding -
12 rows at 80 cm inter row spacing



TIP 5" rigid SCD cultivator with hydraulic folding
4/6 rows at 75 cm inter row spacing



Length of bar	4 m 90	5 m 20	6 m 70	9 m 30
Number of rows (inter row 45-50cm)	-	7	12	-
Number of rows (inter row 65-80cm)	6 (1) (4 if folded)	6	8	12
Frame profile	5" x 5"	5" x 5"	5" x 5"	7" x 7"
Land wheels	○ 2x(5.00x8)	○ 2x(5.00x8)	○ 2x(5.00x8)	● 2x(700x12)
Transport width	3 m 50	3 m 00	3 m 00	5 m 10/5 m 50 (2)
Front-mounted	-	○	○	-

● : Standard equipment ○ : Optional - : Not possible 1) Exclusively 75 cm inter row spacing 2) According to inter row

THE GUIDING SYSTEMS

SELF-GUIDING SYSTEM

The self-guiding cultivators, feature stabilising 'guiding' disc coulters. These discs ensure the cultivator to follow the tractor perfectly. The 2 discs (or 4 on wide configuration cultivators) constantly centre the cultivator on the tractor. They also feature two easily adjustable screws on the disc assembly to perfectly align the disc. This simple and economical system is suitable for all crops. When at work, the cultivator is maintained in the working position by the tractor hitch. Land wheels are however available as an option (or as standard equipment on wide configuration cultivators and/or with fertilizer attachment).



Stabilising disc coulters

The automatic guiding disc coulters feature a pressure spring that can be adjusted by a turn buckle. This ensures they are in constant contact with the ground and ride over any obstacle in the soil.

FRONT-MOUNTED

« STANDARD » FRONT-MOUNTED CULTIVATOR

For tractors equipped with front hitches, Monosem offer a front-mounted cultivator. These cultivators enable the driver to cultivate very close to the crop due to excellent visibility. They also offer better driving comfort. These cultivators are equipped with 2 front land wheels (1) and rear track eradicators (2).

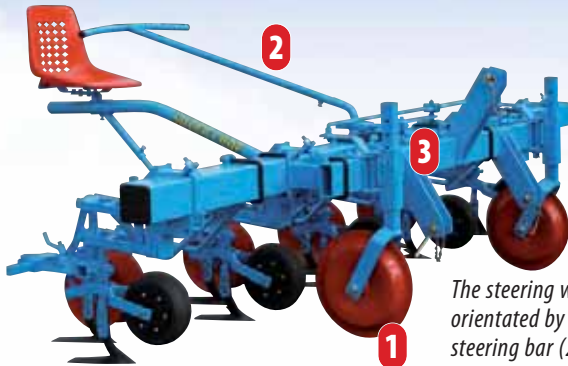


FRONT-MOUNTED CULTIVATOR "INVERSED"

The front-mounted cultivators with "inversed units" feature cultivating units that are pushed as opposed to pulled. This assembly has the advantage of reducing overhang giving the operator a more reactive cultivator.

MANUAL GUIDING

For high added value crops, a manual system of guiding is available. A steering bar enables the operator on the cultivator to orientate the steering wheels and thus move the cultivator sideways for hoeing near to the plants without damaging them.



The steering wheels (1), orientated by the steering bar (2), can be adjusted in height (3).



AUTOMATIC GUIDING

The automatic guided cultivator offers a precise and reliable guiding system no matter what the stage of development of the crop. A tracing disc placed on the planter (or during the first cultivating passage) traces a mark in the soil. This trace is taken up when cultivating by a special shaped wheel which operates the detectors. The detectors control the hydraulic unit linked to the aligning cylinders to ensure the machine is cultivating as near as possible to the crop.



Tracing disc



The tracing disc produces a precise guide track during the planting and retraces during the following cultivating passages.

Guiding wheel



The specially designed guiding wheel is assembled on a parallelogram ensuring the wheel follows the track made beforehand by the tracing disc.

Hydraulic unit



The hydraulic system is suitable for both, single acting with a free return, or by double acting.

Cylinders



The cylinders move the cultivator sideways so as to cultivate as near as possible to the row apart from the tractor position.

Control unit



The control unit is fully automatic with an added manual mode featuring an electric self centring control lever.

FERTILISER KITS

Offering both standard, and « High Capacity » hoppers or MONOSEM's own front-mounted hopper system, with MONOSEM you have the choice of a fertilising system best suited to your requirements.

Standard plastic hoppers are available in two sizes.

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

They are assembled on the rigid 4 to 8-row cultivators (inter row spacing from 65 to 80 cm), 6 to 12 rows (inter row spacing from 45 to 50 cm) or on the folding 4 to 6-row versions (inter row spacing from 65 to 80 cm).

« HIGH CAPACITY » HOPPER for rigid frames

The "high capacity" hoppers in corrosion resistant powder coated sheet metal are available on the 4 to 6-row cultivators (inter rows from 65 to 80cm) with rigid frames. The large hopper openings on the "high capacity" models allow easy loading of 500 or 600 kg bags.



Easy and rapid emptying

The « high capacity » fertilizer hoppers for folding frames feature a trapdoor on each side with a delivery hose to enable quick and simple emptying.



STANDARD HOPPER

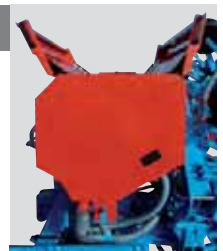


« HIGH CAPACITY » HOPPER for folding frames

The "high capacity" hoppers (980 l) are available on the 6-row cultivators (inter row from 65 to 80 cm) with hydraulic folding frame. The outer rows feature air assistance. The hopper is equipped with transparent windows for a visual check on the fertilizer lever from the tractor cab. The capacity and the large opening enable an easy loading of 500 or 600 kg bags.

V shaped opening

The V shaped opening system of the "high capacity" hoppers for folding frames makes filling both "clean" and easy.



FRONT MOUNTED HOPPER

The MONOSEM front-mounted hopper has been specifically designed for fertiliser application. With features like the sturdy frame and integrated cradle, removing the need for lowering stands. The 100% stainless steel metering system, gives longlife and corrosion resistance. A hydraulically raised and lowered pneumatic metering wheel, safe within the frame and track of the tractor, provides accurate metering, which when added to the integrated gearbox all endorses its functional design, purely for fertiliser.

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

The hopper can be assembled on the 4 to 8-row cultivators (inter row 65 to 80 cm) with rigid or folding frames.

For maximum versatility, the front-mounted hopper can be associated with a planter for fertilising when planting.



Cyclones

The cyclones are assembled between each unit enabling the fertilizer to drop (gravity) not blown to the ground, thus limiting dust forming.



Stainless steel metering system

The long life, corrosion resistant, 100% stainless steel metering system of the front-mounted hopper, features two sliding closure trapdoors so the operator can isolate the hopper from the metering system, allowing rapidly disassembled and cleaning if required even with a full hopper.



	Standard hopper	"HIGH CAPACITY" hopper for rigid frames	"HIGH CAPACITY" hopper for folding frames	Front-mounted hopper
Capacity (number of rows at 45-50 cm)	2x175 liters (6 rows) 4x175 liters (12 rows)	-	-	1000 liters - 1600 liters (6 to 12 rows)
Capacity (number of rows at 65-80 cm)	2x175 liters (4 rows) 2x270 liters (6 rows) 4x175 liters (8 rows)	1x1000 liters (4 rows) 2x700 liters (6 rows)	1x980 liters (6 rows)	1000 liters - 1600 liters (4 to 8 rows)
Mini/maxi output at 75 cm with standard output auger	80 to 350 kg/ha	80 to 350 kg/ha	80 to 350 kg/ha	Output according to the quality of the fertilizer
Mini/maxi output at 75 cm with high output auger	160 to 700 kg/ha	160 to 700 kg/ha	160 to 700 kg/ha	
Type of frame	Rigid Manual folding	Rigid	Hydraulic folding	Rigid Manual folding Hydraulic folding
Land wheels	○	●	●	○
Big-Bag loading	-	●	●	●

● : Standard equipment

○ : Optional

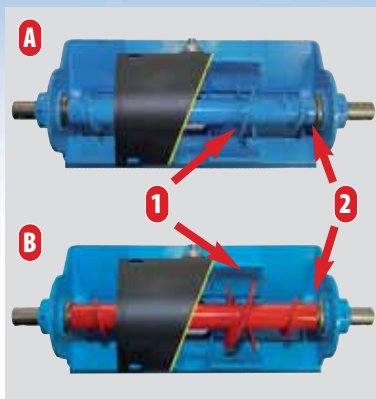
- : Not possible

1) According to the quality of the fertilizer product

COMPLEMENTARY EQUIPMENT

EQUIPMENT FOR FERTILISER

Distribution by auger



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



The « Standard » augers (A) in blue are for metering fertiliser from 80 to 350 kg/ha for an inter row spacing of 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 metering fertiliser 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.

Adjustment of the fertiliser rate



The adjustment of the quantity of fertilizer metered when cultivating is made using the gearbox which offers 12 ratios. The chart delivered with the fertiliser kit allows the operator to quickly select the ratio required for the metering rate desired.

Localized fertilising



The fertiliser product can be placed on one side of the row (C) or on each side (D) by simply adding a divider. The fertiliser is then incorporated into the soil by the cultivator tines.

Drive wheel



The drive wheel enables fertilising directly proportional to the forward speed of the tractor. The large ground clearance allows regular treatment in all circumstances.

Land wheels



On the models with “high capacity” fertilizer attachments, the height adjustable land wheels, ensure the cultivator stays at a constant height.

HERBICIDE EQUIPMENT

Our cultivators are offered with a range of spray herbicide equipment. Contact your local MONOSEM agent (1).



(1) : According to the country

TECHNICAL FEATURES

SCD RANGE

Frame	Rigid				Manual folding		Hydraulic folding				
	TIP 5"		TOP 7"		TIP 5"		TIP 5"		TOP 7"		
Width	3 m 50	5 m 20	6 m 60	9 m 80	3 m 70	5 m 00	4 m 90	5 m 20	6 m 70	9 m 30	
Transport width					2 m 30	3 m 65 (1)	3 m 50	3 m 00	3 m 00	5 m 10 (1)	
Number of rows 45-50 cm	6	-	12	18	6	-	-	-	12	-	
Number of rows 50-65 cm	5	7	-	-	-	7	-	7	-	-	
Number of rows 65-80 cm	4	6	8	12	4	6 (4 if folded)	6 (2) (4 if folded)	6	8	12	
Guiding	Self-guiding	●	●	●	●	●	●	●	●	●	
	Front-mounted	○	○	-	-	○	○	-	○	-	
	Manual guiding	○	○	○	-	○	○	-	○	○	
	Automatic guiding	○ (3)	○ (3)	○ (3)	-	-	-	-	○ (3)	○ (3)	-
Fertiliser	Standard fertiliser	○	○	○	-	○	○	-	○	-	-
	High capacity fertiliser	○	○	-	-	-	-	-	○	-	-
	Front fertiliser 1000 or 1600 l	○	○	○	-	○	○	○	○	○	-
Land wheels	○	○	○	●	○	○	○	○ / ● (4) 2x(5.00x8)	○	●	
Transport carriage	-	○	○	○	-	-	-	-	-	-	
Lighting kit	○	○	○	○	○	○	○	○	○	○	
Cultivator weight (inter row 65-80 cm)	550 Kg	770 Kg	980 Kg	1890 Kg	620 Kg	840 Kg	900 Kg	900 Kg	1140 Kg	2000 Kg	

« VEGETABLE GROWER » range (cf units p 14-15)

TIP 5" frame			Rigid									Manual folding		Hydraulic folding	
Width			2 m 00	2 m 20	2 m 60	3 m 00	3 m 50	3 m 80	4 m 50	5 m 20	6 m 60	3 m 70	5 m 00	5 m 20	6 m 70
Transport width												2 m 20	3 m 60	3 m 00	3 m 00
Type of unit		Inter row spacing	Number of rows												
LIGHT	V1L	40-60 cm	2	-	-	4	5	6	7	8	-	6	-	-	18 (5)
	V1D - Shovel of 20	30 cm	4	5	6	7	8-9	-	-	-	-	-	-	-	-
	V1D - Shovel of 25	35 cm	4	5	6	7	8-9	-	-	-	-	-	-	-	-
	V1D - Shovel of 30	40 cm	4	5	6	7	8	-	-	12	-	-	12	12	-
EXTRA-STRONG	C1L - Shovel 25, Sugar beet	40-60 cm	2	-	-	4	5	6	7	8	12	6	-	-	12
	C1L - Shovel 30, Maize Lelièvre	55-80 cm	2	-	3	-	4	-	5	6	8	-	6	6	8
	C3	55-80 cm	2	-	-	-	4	-	-	6	-	-	6	6	-
	C3D	55-80 cm	2	-	3	-	4	-	5	6	8	-	6	6	-
	DF5	60-80 cm	2	-	3	-	4	-	5	6	8	-	6	6	-
Manual guiding			●	●	●	●	●	●	●	●	●	●	●	●	●
Lighting kit			○	○	○	○	○	○	○	○	○	○	○	○	○
Weight of cultivator only (type C1L - inter row 55 - 80)			330 Kg		385 Kg		450 Kg		520 Kg	600 Kg	720 Kg		690 Kg	750 Kg	940 Kg

- : Standard ○ : On option - : Not possible For other special models and inter row spacing, please consult us.
 1) : according to inter row spacing 3) : exclusively even number of rows 5) : 36 cm inter row spacing
 2) : exclusively 75 cm inter row spacing 4) : with 980 l hopper

MARKET GARDENING RANGE

Vegetable crops demand particular attention and this is why MONOSEM designed a guidable, sturdy and versatile cultivator for all your hoeing, cultivating and re ridging activities.



1 Parallelogram

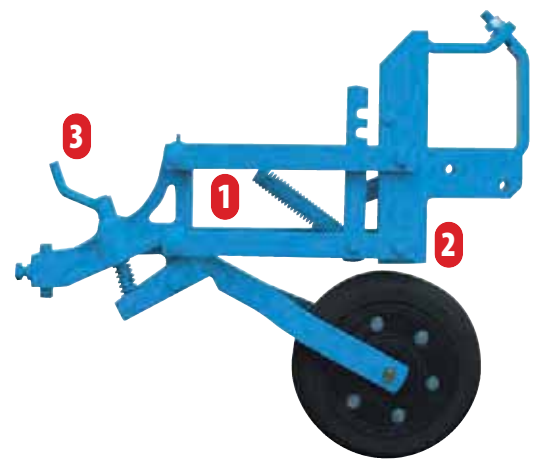
The vegetable units are assembled on a parallelogram with pressure spring.

2 Depth control wheel

The front 260x100 self-cleaning wheel ensures accurate depth control. It is mounted on maintenance free sealed ball bearings.

3 Depth control

Depth control is rapidly adjusted using a turn handle.



Frame



Easily adjustable, the frame in 5" x 5" profile can be assembled with a wide combination of equipment. The choice of frames within the SCD frame (see pages 6-7) enables working widths from 2 to 12 rows and over.

Steering system



The precise and gently steering system has an integrated locking system.

Main accessories



Shovel
(width 14, 20, 25, or 30)



Duckfoot
(width 20, 25 or 30)



Rigid shank
(flat or pointed shoe)



Lelièvre blade
(maize or sugar beet)



Planet blade
(with or without cheek)

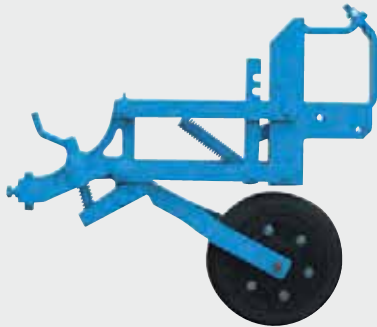


Bedder
(fixed or adjustable)



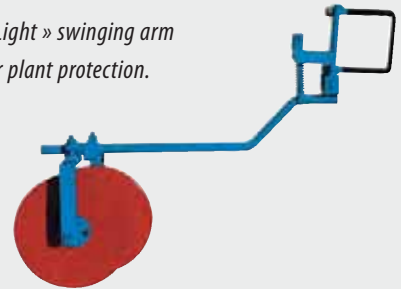
LIGHT UNIT

The « Light » unit is designed for assembly with 1 to 3 tools and is suitable for inter row spacings from 30 to 50 cm. This unit gives the frame a ground clearance of 50 cm.



Light balancing system

« Light » swinging arm for plant protection.



Light V1L unit

« Light » unit with 'V' Blade of 20 and sugar beet Lelièvre blades.



Inter row spacing: 40 to 60 cm

Light V1 unit

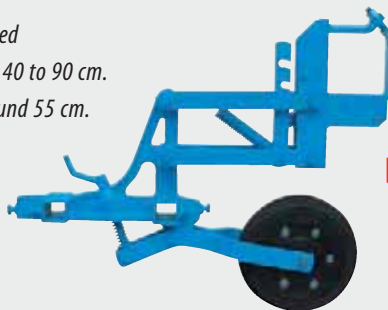
« Light » unit with 'V' Blade of 20, 25 or 30.



Inter row spacing: 30 to 40 cm

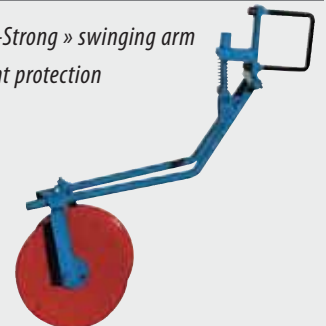
EXTRA-STRONG UNIT

The « Extra-Strong » unit is designed to be assembled with 3 to 6 tools and is suitable for inter rows from 40 to 90 cm. This unit gives the frame a ground clearance of around 55 cm.



Extra-Strong balancing system

« Extra-Strong » swinging arm for plant protection



Extra-Strong C1L unit

« Extra-strong » unit with 'V' Blade of 25 and Lelièvre sugar beet blades or 'V' Blade of 30 and Lelièvre maize blade.



Inter row spacing: 40 to 60 cm or 55 to 80 cm

Extra-Strong C3 unit

« Extra-Strong » unit with 3 'V' Blades of 25.



Inter row spacing: 55 to 80 cm

Extra-Strong DF5 unit

« Extra-Strong » unit with 5 rigid shanks.



Inter row spacing: 60 to 80 cm

The cost price of your machine does not just depend on your investment at the start. Maintenance and operation costs, re-sale price and the quality of the after sales service have a direct influence on the overall cost price of the machine. Our philosophy is based on the technical aspects, the quality and the reliability with the constant concern of meeting with your requirements.

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 machine, 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 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 NG Plus 4 planter with discs



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



Multi-purpose pneumatic NC planter with shoes



Mechanical MECA V4 planter for pelleted sugarbeet



Special MS vegetable planter for mini-seeds



Cultivator



The precision Planter specialist

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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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