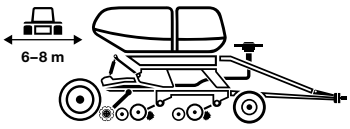


DIRECT SEED DRILL

BEDNAR

DIRECTO NO

Direct quality seeding

BEDNAR FARM MACHINERY
SINCE 1997

JOY OF FARMING

DIRECTO NO 6000

Why DIRECTO?

“In recent years, the view of agriculture has been changing, especially based on greater care of the soil and the climate. The drive to reduce CO_2 runs through modern society. Expert research has indicated that turning soil is one of the main sources of CO_2 in the air. This was the main reason why BEDNAR decided to develop the DIRECTO direct drill for direct drilling into stubble, catch crops or uncultivated soil.”

Jan Bednář

The BEDNAR DIRECTO NO is a no-till seed drill with a robust design for seeding new crop directly into stubble, catch crops or uncultivated soil. The unique DIRECT STAR disc coulter can establish crop stands even in the most difficult conditions of large amounts of post-harvest residues or very dry and hard-to-work soils.

DIRECTO is a versatile seed drill with the possibility of placing fertiliser together with the seed or under the seed and slightly to the side.

Thanks to the completely innovative seed coulter, which has undergone testing and modification over several years, the DIRECTO NO is one of the few direct seed drills that guarantees the farmer quality crop stand establishment under almost any conditions. The development of the DIRECTO seed coulter became the main topic of a doctoral dissertation at one of Europe’s leading technical universities.

DIRECTO NO 6000

Why DIRECTO?

TECHNICAL ADVANTAGES

- Pressurised hoppers for precise dosing of fertiliser and seed – application of large doses with high precision regardless of seed/fertiliser size.
- The robust DIRECT STAR disc seed coulter with high down pressure – 300 kg/seed coulter (actual down pressure).
- Unique fertilisation disc – the fertilisation disc deposits nutrients deeper (under the seed and slightly to the side, adjustable fertiliser placement depth), technical solution to increase the yield of the main crop.
- The seed drill does not exceed a transport width of 3 m when equipped with 710/50R 26.5 flotation tyres – standard machine equipment.
- Machine control via the proprietary BEDNAR EASY CONTROL software engineered by BEDNAR developers – simple, easy and intuitive operation.

AGRONOMIC ADVANTAGES

- Direct seeding into large amounts of plant residues or catch crops – reducing operating costs usually associated with tillage.
- Quality crop stand establishment in dry and hard-to-work soils – eliminating rapid soil drying in areas with rainfall deficits.
- Various fertiliser application systems – placing the fertiliser together with the seed (grain & fertiliser method) or placing the fertiliser under the seed and slightly to the side.
- Excellent seed row closure thanks to the sophisticated design of the closing wheel.
- Possibility of establishing crop stands with an inter-row distance of 16.7 cm or every other row at 33.4 cm.
- High variability – possibility of establishing crop stands of up to 3 different crops in a single pass.
- Reduction of CO_2 release (carbon footprint) according to new standards required by world organizations.

VARIABILITY OF USE AND NEW AGRONOMIC POSSIBILITIES

DIRECT SEEDING OF CATCH CROPS INTO STUBBLE AFTER WINTER WHEAT HARVEST

– seed drill: DIRECTO NO 6000
– seeding depth: 3 cm
– working speed: 14 km/hr

DIRECT SEEDING OF WINTER WHEAT INTO CORN SILAGE STUBBLE

– seed drill: DIRECTO NO 6000
– seeding depth: 3 cm
– working speed: 12 km/hr

DIRECT SEEDING OF WINTER WHEAT INTO A CATCH CROP

– winter wheat yield 8,68 t/ha
– seed drill: DIRECTO NO 6000
– seeding depth: 3 cm
– working speed: 14 km/hr

DIRECT SEEDING OF WINTER WHEAT INTO HARVESTED SOYBEAN STUBBLE

– winter wheat yield 8 t/ha
– seed drill: DIRECTO NO 6000
– seeding depth: 3 cm
– working speed: 14 km/hr

SPEED CHOP SC_F CUTTING ROLLER

SPEED CHOP CUTTING ROLLER – PART OF MODERN DIRECT SEEDING TECHNOLOGY

BEDNAR has developed the SPEED CHOP SC_F cutting roller to offer farmers the world over a complete and well-functioning technology for modern direct seeding. SPEED CHOP SC_F cutting roller consist of two rollers with a diameter of 460 mm. Each roller is formed by blades arranged in a helix shape. This solution enhances the cutting effect of plant residues, especially when cutting/crushing plant residues from stubble left from corn, sunflower, rapeseed or a catch crop.

SPEED CHOP SC_F cutting roller can be connected with a tractor to the rear or front three-point hitch.

IMPORTANT WORKING PARTS

HYDRAULICALLY ADJUSTABLE DRAWBAR

The hydraulically adjustable drawbar allows easy attachment to various types of tractor hitches while keeping the ability to contour the terrain perfectly. For example, with the K80 hitch, the terrain contouring function of the machine is keeped even through the fixed point on the tractor.

SCREW CONVEYOR

DIRECTO NO can be equipped with a screw conveyor. The screw conveyor is an optional piece of equipment for the machine. A suitable solution for filling the seed drill is through the rear dispensing window of the semi-trailer. The screw conveyor folds over the hopper chambers during transport.

TRANSPORT WHEELS

The DIRECTO NO seed drill is equipped as part of the basic equipment with large 710/50 R26.5 flotation tyres as standard. Even with these tyres, the seed drill does not exceed a transport width of 3 m. The wide tyres make the seed drill highly stable during transport.

FRONT SUPPORT WHEELS

Upon request, the DIRECTO NO seed drill can be equipped with front support wheels. These enable the seed drill to operate smoothly without jumping and similar movements that could have a negative effect by causing an uneven depth of fertiliser and seed placement.

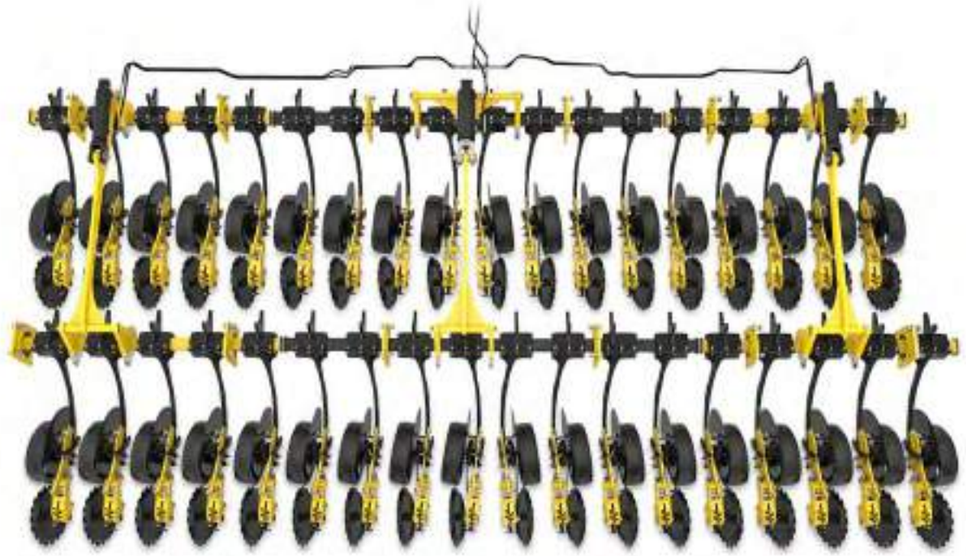
DIRECT STAR SEED COULTER FOR DIRECT SEEDING

The DIRECT STAR single disc seed coulter has been developed over several years to be able to work at 100% in all seeding conditions directly in stubble, a catch crop, or even in cultivated soil. Inter-row distance 16.7 cm, seed coulter distance in a row 33.4 cm.

The down pressure on the seed coulter is applied via rubber segments. The DIRECTO NO provides true down pressure on the seed coulter of 300 kg/coulter. The down pressure is adjusted mechanically on each seed coulter separately or hydraulically via the terminal. A pressure sensor constantly monitors the down pressure value.

Thanks to the 6° and 3° angle of the discs, the seed is placed so that it is immediately in contact with the soil. The seed is held in the seeding row with a rubber finger. All parts of the seed drill coulter are maintenance-free.

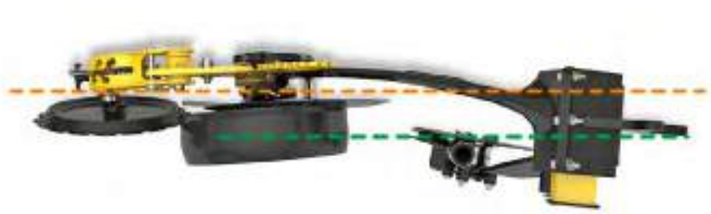
IMPORTANT WORKING PARTS



The seed coulters are tilted inversely towards each other. Axial forces are eliminated and the seed drill does not tend to pull sideways. The same feature also applies to the arrangement of the fertilisation discs – a precise design!

UNIQUE FERTILISATION DISC

BEDNAR has long-term experience with various fertiliser application options, which have been tested several times in the field. The positive effect of the fertiliser on increasing yield upon simultaneous establishing of crop stands was strongly confirmed. For the DIRECTO NO seed drill, we have designed a unique solution of a fertilisation disc that places the fertiliser “under the seed” and slightly to the side.



The fertiliser placement depth can be adjusted from 3.5 to 10.5 cm. The fertilisation discs are mounted on the beam, and thanks to them, the fertiliser placement depth is set centrally – with no need to adjust each disc individually.

“On the farm, we are now using the SWIFTERDISC XO_F disc cultivator, and we are greatly satisfied with it. We purchased the DIRECTO NO seed drill as a replacement for the BEDNAR OMEGA OO 6000 F seed drill. We decided to purchase the no-till seed drill due to its versatility – the possibility of using it for direct and conventional seeding. The seed drill is very easy to set up. In varous conditions, we appreciate the possibility to adjust the angle and down pressure of the rear closing wheel; it is very practical. Just like with the OMEGA seed drill, we were impressed by the calibration, which is performed at an easily accessible place.”

Jean-Yves a Antoine SONGEUR
France

IMPORTANT WORKING PARTS

CLOSING WHEELS

The DIRECTO NO seed drill can be equipped with two types of closing wheels – toothed or smooth. The closing wheel's sturdy frame keeps the direction straight. The closing wheel down pressure can be adjusted mechanically to close the seed row back, and the angular position of the wheel can be changed (multiple positions – angles).

SMOOTH CLOSING WHEEL

The FARMFLEX wheel is suitable for light, mostly sandy soils and its shape helps to perfectly close the seed row.

TOOTHED CLOSING WHEEL

The toothed wheel is suitable for heavier soils, and its shape helps to perfectly close the seed row.

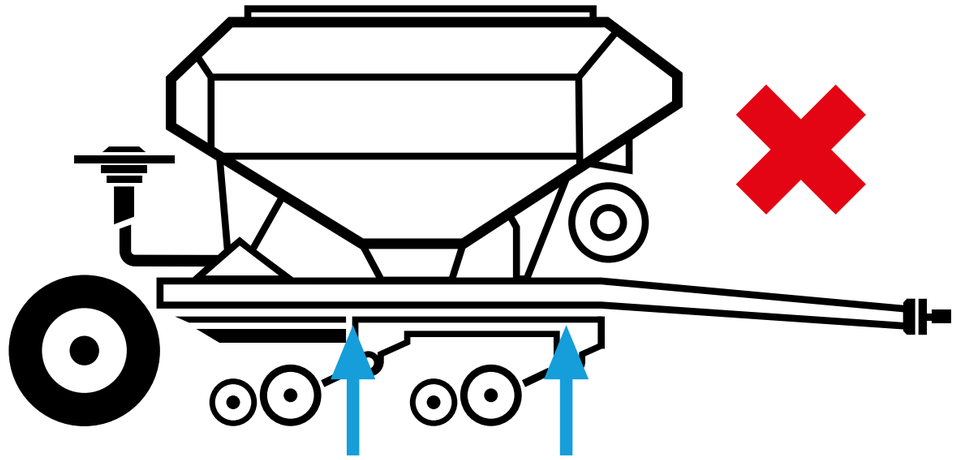
ADJUSTING THE DOWN PRESSURE WHEEL

The rear wheel down pressure is adjusted on the scale of each coulter. A spring creates the down pressure. This spring does not release from the holder.

SETTING THE WHEEL DOWN PRESSURE

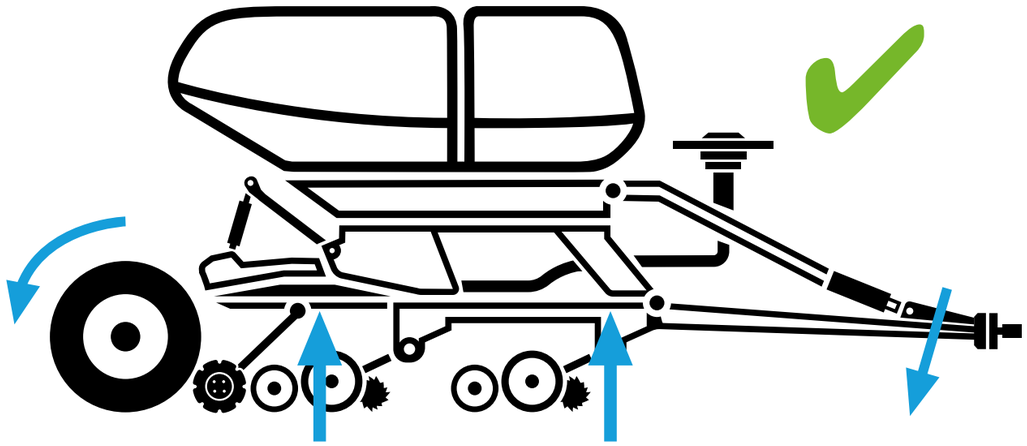
Down pressure is set by levers. The lever is part of the basic equipment of the machine. This system is both fast and convenient.

SEED COULTER LIFTING SYSTEM



COMPETITOR SOLUTION

Machines of competitors can lift seed coulters only as high as allowed by turning the beams + in the tractor arm. Upon every turn on the headland, competitors must lift the seed coulters in the pivots. This can result in making a hole in the pivots, causing the need to replace entire beams.



BEDNAR SOLUTION

With the BEDNAR DIRECTO NO seed drill, the entire machine is lifted, and the coulters remain as they are. The coulters do not move and the down pressure remains unchanged. The DIRECTO raises at the headlands on the axle and on the drawbar, or in the tractor arm. This eliminates the need to replace parts on the seed coulter beams.

OPTIONS
FOR ESTABLISHING CROP STANDS

DUAL-CHAMBER PRESSURISED HOPPERS ON ALL DIRECTO MODELS

The first BEDNAR seed drill models used non-pressurised hoppers. Practice clearly showed the major advantages of pressurised hoppers compared to non-pressurised hoppers. Today all BEDNAR seed drills, mounted hoppers and air-carts have pressurised chambers. It is no different for the DIRECTO NO seed drill.

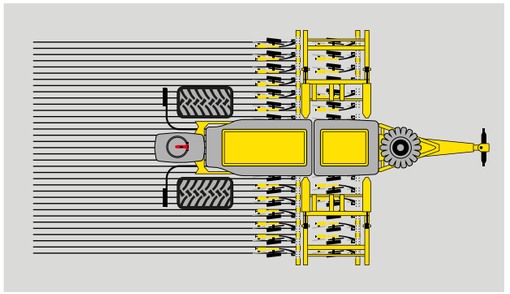
Main advantages of pressurised systems (of hoppers):
- more precise dosing (the pressurised design improves filling of the seeding roller, the roller is filled by a constant quantity),
- possibility of dosing even large doses of seed and fertiliser,
- elimination of mistakes of air flow at various fan speeds,
- highly accurate dosing regardless of the seed or fertiliser grain size.

The DIRECTO NO represents the seed drill of today's modern farmer, offering high variability of use and various possibilities of establishing crop stands (seeding multiple types of crops, seeding seed along with other seed, placing fertiliser under the seed or seeding various types of seed every other row at varying depths). The seed rate can be adjusted for individual chambers separately.

Seeding: seed with fertiliser into the seed coulters (grain & fertiliser) / two types of seed at an inter-row distance of 16.7 cm

1. The seed is placed in the row together with the fertiliser, the mixing of seed and fertiliser takes place in the pipe.
2. Seeding two types of seeds, mixing of seeds takes place in the pipe.
3. Seeding one type of seed (both chambers are filled with one type of seed).

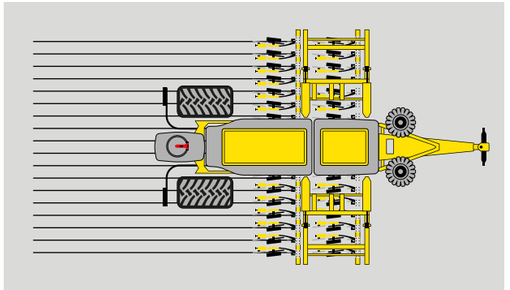
**with the possibility of switch-off half of the machine working width in the case of a dual distribution head configuration*



Seeding: seed with fertiliser into the seed coulters every second row (grain & fertiliser) / two types of seed every second row at an inter-row distance of 33.4 cm

1. The seed is placed in the row together with the fertiliser, the mixing of seed and fertiliser takes place in the pipe.
2. Seeding two types of seed (e.g. seed A deeper in the first row, seed B shallower in the second row).
3. Seeding one type of seed (both chambers are filled with one type of seed).

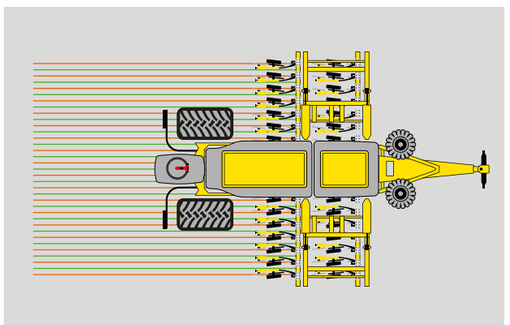
**without the possibility of switch-off half of the machine working width*



Seeding: seed into seed coulters / fertiliser into fertiliser discs

1. The seed is placed in the row with the seed coulter, the fertiliser is placed under the seed and slightly to the side with the fertiliser disc.
2. Seed A is placed in the row with the seed coulter, seed B is placed deeper under the seed and slightly to the side by the fertiliser disc..

**without the possibility of switch-off half of the machine working width*



MACHINE CONTROL AND ADJUSTMENT

SIMPLE CONTROL INCLUDING ISOBUS

Seed drills can be controlled by the ISOBUS system. If the tractor is not equipped with the ISOBUS system, the machine can be controlled via the following terminals.

Proprietary control software – created based on experience and requirements of operators, users. The DIRECTO NO seed drill is equipped with control software developed by BEDNAR development engineers.

The software offers clear, easy and intuitive control of the seed drill. If the seed drill is equipped with the ALFA DRILL 400 seeding unit, the seeding unit control is fully integrated into this system (no additional monitor required).

SMART 570 TERMINAL

- Efficient and easily controlled variant for controlling seed drills.
- Easy and fast installation of the terminal in the tractor cab.
- The terminal is equipped with a 5.7” colour touch display clearly showing all the data.
- Functions can also be controlled by buttons on the right side of the display or rotary controller.

ME TOUCH 800 TERMINAL

- A terminal with the latest touch technology.
- This terminal is equipped with an 8” TFT dual touch screen.
- The touch film behind protective glass allows for the use of the terminal in the demanding conditions of farming.
- Thanks to this high-resolution solution, you can display the “main window” and the “header window” at the same time.
- The TOUCH 800 terminal supports precision farming features such as Section Control, Variable Rate Control, Task Controller and FieldNAv (easy machine field navigation)*.
- To make it easier for the operator, the TOUCH 800 terminal can be supplemented with a range of accessories such as cameras, etc.*

*Some features cost extra and may require extra equipment. If interested, please contact your dealer.

EASY AND CONVENIENT CALIBRATION WITH AN EMPTY HOPPER

Calibration of the seed rate of seed/fertiliser is performed in the front part of the seed drill at an easily accessible place – there is no need to perform complicated calibration under the metering unit. Very convenient and easily accessible place for the operator.

The calibration tube can also be used to conveniently empty unsown seed/fertiliser from the hopper back into big bags.

EFFICIENT AND ACCURATE METERING MECHANISM

The metering mechanism of DIRECTO NO seed drills is made from stainless steel and driven by electromotor. The stainless steel design guarantees extremely long service life as opposed to the often used plastic design.

The metering mechanism is capable of dosing seed with extreme accuracy in a range from 0.6 to 350 kg/ha.

The system is equipped with a discharging slide for perfect emptying of the hopper. This slide is also for easy replacement of the seed roller.

A fluffer is part of the metering system for better mag permeability.

SEEDING ROLLERS

There are two types of seeding rollers as part of the basic equipment of DIRECTO NO seed drills (one type for fine seed such as rapeseed, the other for cereals).

The extended BEDNAR offer includes a total of 16 seeding rollers from 7 cm³ to 890 cm³ (see page 21).

MACHINE CONTROL AND ADJUSTMENT

FARM LINK MOBILE APP

BEDNAR developers have designed a mobile phone app that includes easy and simple seed drill calibration right from your mobile phone. The mobile app also includes a guide to help you choose the right seeding roller based on the seed/fertiliser type, working speed and required seed rate.

Connecting the seed drill with a mobile phone takes place via the Wi-Fi module.

Available on the App Store

GET IT ON Google Play

HOW DOES THE CALIBRATION PROCESS WORK?

1. Connect your mobile device to the machine equipped with the necessary components via Wi-Fi. The Wi-Fi password can be found on the terminal's diagnostics screen.
2. Open the app on your mobile device or tablet and follow the instructions.

OTHER EQUIPMENT OPTIONS

SEED FLOW SENSORS:
- variant 1 × 36
- variant 2 × 18

FERTILISER FLOW SENSORS
- variant 1 × 36

TRAMLINE VALVES (SEED)
- symmetrical 1 × 2

ADDITIONAL WEIGHTS
- variant 650/700 or 1350 kg
- the weight is placed on the main support frame and side folding frames

In the case of working without navigation, the DIRECTO NO seed drill can be equipped with hydraulically controlled side markers.

ALFA DRILL

ALFA DRILL 400 AS PART OF THE DIRECTO NO SEED DRILL

The DIRECTO NO seed drill can be equipped with the ALFA DRILL 400 seeding unit. The ALFA DRILL seeding unit is pressurised. It can be controlled:

- via ISOBUS
- via the terminal
- The ALFA DRILL seeding unit can be controlled with the software available for the DIRECTO NO seed drill. There is no need for another control monitor separate for the seeding unit in the tractor cab.

MAIN ADVANTAGES OF THE ALFA DRILL 400 SEEDING UNIT

The combination of a seeding unit as a third hopper on a seed drill offers a bigger versatility in the use of the machine. Also, the seeding unit allows to respond to new agronomic trends in crop establishment, where it enables you to establish up to three types of crop, to apply fertiliser, micro-granulate, and to seed the catch crop.

LIST OF SEEDING ROLLERS

7 cm³

KM420007

Poppy seed, Rapeseed

11 cm³

KM420011

Poppy seed, Rapeseed

14 cm³

KM420014

Mustard seed, Rapeseed

22 cm³

KM420022

Mustard seed, Rapeseed

30 cm³

KM420030

Mustard seed, Rapeseed

50 cm³

KM420050

Mustard seed, Wheat, Sunflower

75 cm³

KM420075

Wheat, Grass, Sunflower

100 cm³

KM420100

Wheat, Grass, Sunflower

145 cm³

KM420145

Wheat, Grass

150 cm³

KM420150

Wheat, Grass,

290 cm³

KM420290

Barley, Wheat, Grass, Rye

305 cm³

KM420305

Barley, Wheat, Grass, Rye

395 cm³

KM4204395

Barley, Wheat, Grass, Rye

580 cm³

KM420580

Peas, Barley, Oats, Wheat, Grass

790 cm³

KM420790

Peas, Barley, Oats, Wheat, Grass

890 cm³

KM420890

Peas, Beans, Wheat

BASIC DESCRIPTION

DIRECTO NO

		NO 6000	NO 8000
Working width	m	6	8
Transport width	m	2,9	2,9
Transport height*	m	4	4
Transport length*	m	8,7	8,8
Seed/fertiliser hopper capacity (chamber ratio 40:60)	l	5000	5000
Filling height of the dual-chamber hopper	m	3,2	3,2
Number of fertilisation discs	pcs	36	48
Fertilisation disc spacing	cm	16,7	16,7
Number of seed coulters	pcs	36	48
Seed coulter spacing	cm	16,7	16,7
Down pressure on seed coulter	kg	300	300
Frame clearance height	cm	65	65
Recommended power**	HP	200–280	280–360
Total weight**	kg	11 200	12 680

* depending on equipment ** depending on soil conditions *** weight included (ALFA DRILL 400 up to 350 kg)

CHOOSE WHAT YOU NEED

Tillage

SWIFTERDISC
Disc Cultivators

ATLAS
Disc Cultivators

FENIX
Versatile Cultivators

VERSATILL
Versatile Cultivators

SWIFTER
Seedbed Cultivators

KATOR
Rotary Harrow

TERRALAND
Chisel Plough

ACTROS
Combined Cultivator

GALAXY
Rollers

Seeding and Fertilising

OMEGA
Seed Drills

MATADOR
Strip-till Seed Drill

DIRECTO
No-till Seed Drill

FERTI-BOX
Hopper for Fertiliser

Mechanical / Strip Cultivation Mulching

ROW-MASTER
Inter-row Cultivator

STRIP-MASTER
Strip-till Cultivator

STRIEGEL-PRO
Straw Harrow

MULCHER
Rotary Cutter

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