

# **BEDNAR**



## NOVELTIES 2020

**JOY** OF FARMING

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





# BEDNAR is completing the largest investment in its history

In the 2020 season BEDNAR opens its new production hall. The number of assembly stations will significantly increase, with more precise and detailed planning, reduction in assembly times thanks to new technologies, improvement of internal logistics, and the possibility to assemble machines up to 20 metres wide. Moving batch production to the new hall will create space in the current premises that will be reconstructed to a new semi-automated component warehouse and will also be used for the expansion of the paint shop and its future automation. The construction of the new hall commenced in December 2018. The grand opening is being prepared for the spring months of 2020.



December 2018



March 2019



2018



2019



May 2019



July 2019

## MAIN DATA ABOUT BEDNAR FMT PRODUCTION AFTER THE COMPLETION OF THE NEW HALL

- New hall **12268 m<sup>2</sup>**.
- Current area under the roof: 14 770 m<sup>2</sup>. After the completion of the hall: **27038 m<sup>2</sup>**.
- Total open area of BEDNAR FMT is about **13 hectares**.



NOVELTY



XE 12400 PROF1		
Working width	m	12,4
Transport width	m	3
Transport length	m	8-9
Working depth*	cm	2-14
Number of discs	pcs	100
Total weight**	kg	10 500-13 000
Recommended output*	HP	400-620

\* depends on soil conditions \*\* acc. to the equipment

# SWIFTERDISC XE\_PROF1

disc cultivator

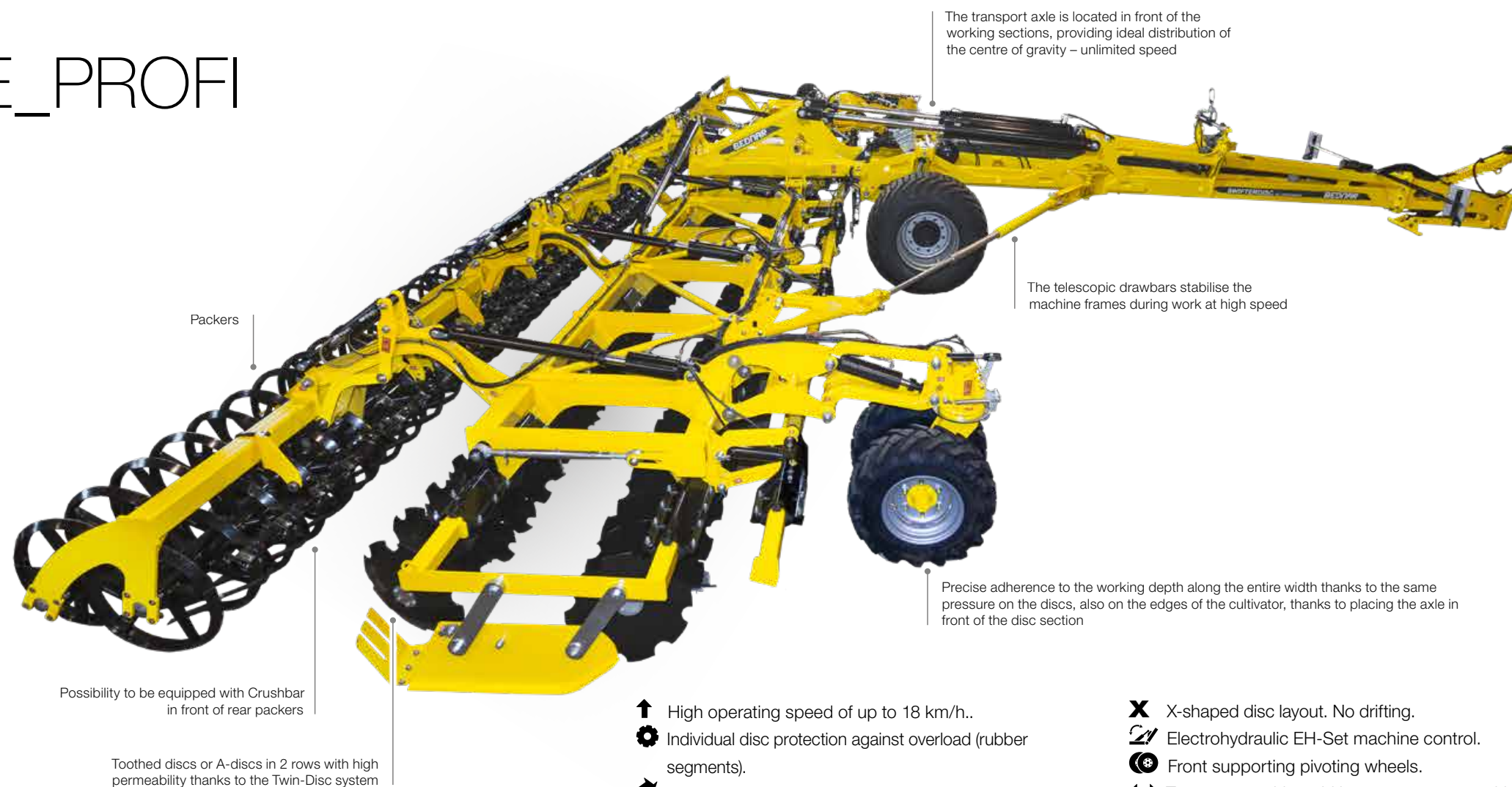
## HIGH DAILY OUTPUTS AND CONVENIENT ELECTROHYDRAULIC CONTROL

SWIFTERDISC is a wide mounted stubble cultivator with a short layout, designed for tremendous daily outputs and cost savings thanks to the width of the machine and high operating speed.

The main advantages of the machine include the X-shaped disc layout that prevents drifting of the machine, and the placement of the transport axle in front of the working discs. This solution eliminates drifting of the machine during work. The machine can be equipped with 560mm discs and a front cutting roller. This structural design much increases the quality of the work. The flotation tyres reduce pressure on the soil.

SWIFTERDISC XE 12400 PROF1 is an ideal machine for the CTF system (Controlled Traffic Farming). The machine precisely follows the tractor tracks.









EH-set for controlling all machine functions (electrohydraulic control). Comfortable and safe.



- ↑ High operating speed of up to 18 km/h..
- ⚙ Individual disc protection against overload (rubber segments).
- ⚙ Front roller along the entire width.
- ✕ X-shaped disc layout. No drifting.
- 🔧 Electrohydraulic EH-Set machine control.
- ⚙ Front supporting pivoting wheels.
- ↔ Transport machine width 3 m, transport machine height 4 m.



## ADVANTAGES OF ELECTROHYDRAULIC MACHINE CONTROL

- ✓ ISOBUS Compatible.
-  Fully automatic fold/unfold sequence with one button.
-  All operating parameters are set only by entering the terminal values. The hydraulic cylinders are automatically adjusted to the correct position.
-  Immediate adjustment of the machine for different soil properties.
-  Possibility to adjust working depth and other machine settings when driving from the tractor cab.
-  Relief function – used when the tractor does not have enough power, for example uphill.
-  Supports ISOBUS TC – working depth adjustment according to the map, possibility to record working depth/speed/hectares/hours while driving the machine for subsequent analysis.
-  SECTION CONTROL – automatic lifting and countersinking at headland.
-  Loadsensing – ensures that the hydraulic pump in the tractor always runs optimally.





NOVELTY

soil cultivation



		FO 5003	FO 6003
Working width	m	5,270	5,890
Transport width	m	3	3
Transport length	m	9,03	9,03
Working depth*	cm	5–35	5–35
Number of tines	pcs	17	19
Spacing of tines	cm	31	31
Total weight**	kg	5900	6300
Recommended output*	HP	230–290	290–360

\* depends on soil conditions \*\* acc. to the equipment

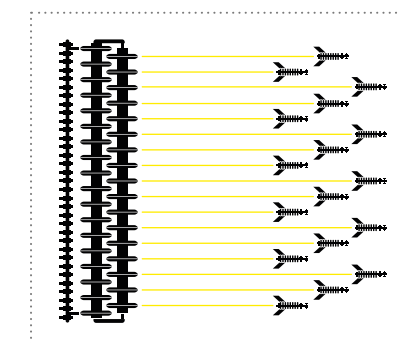
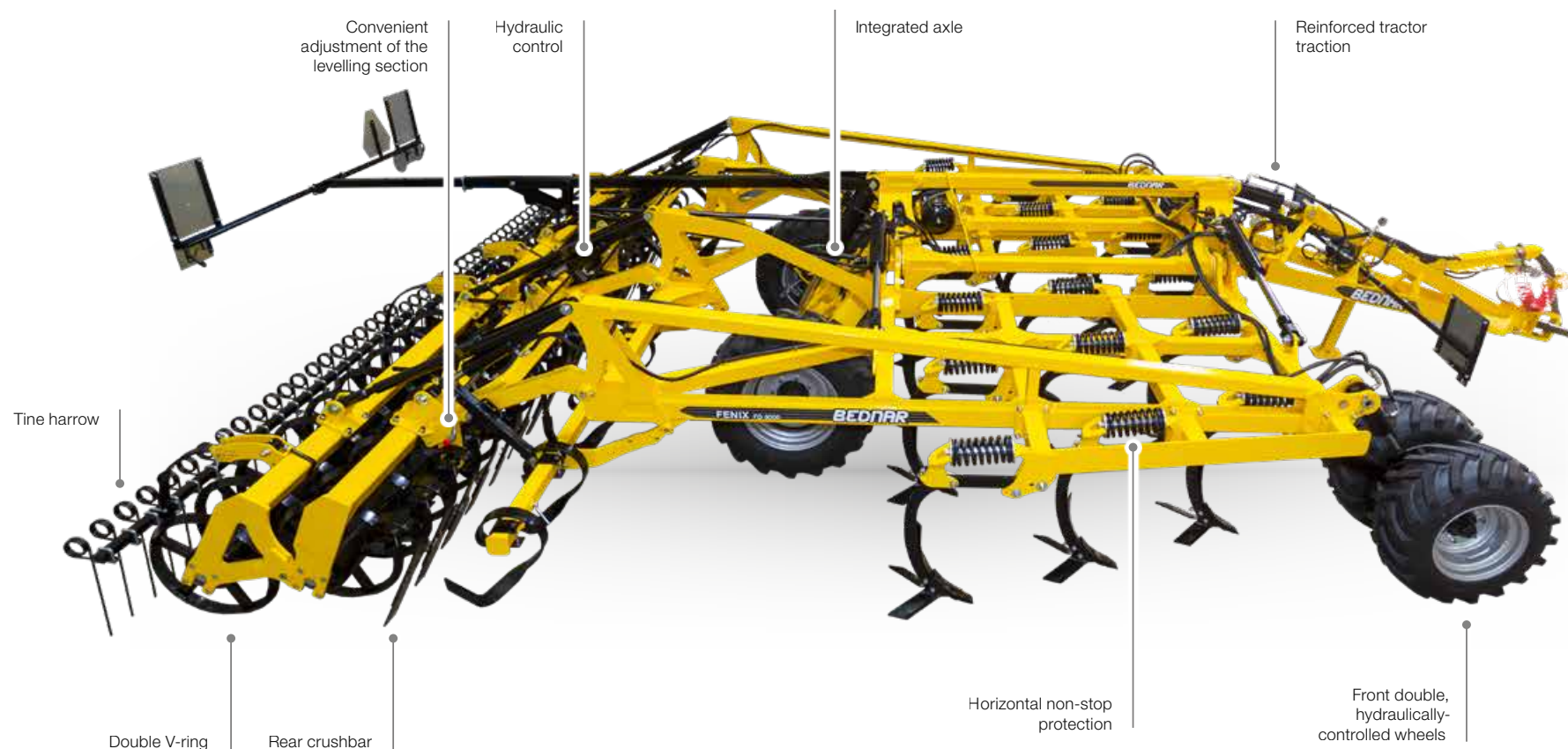
# FENIX FO

universal cultivator

## INTENSE AND PRECISE STUBBLE CULTIVATION AND DEEP LOOSENING UP TO 35 CM

The FENIX FO is a 3row universal cultivator with an integrated axle that substantially reduces the turning radius at headlands. The last row of shares is arranged in a single line, which increases the quality of work of the FENIX machine by multiple times. The loosened material is spread uniformly in front of the rear compacting packer.

The constant geometry of each tine ensures easy soil penetration. The machine is equipped with reinforced tractor traction thanks to the hydraulic cylinder with an accumulator on the tow bar of the machine. The FENIX can also be connected to tractors in a lower output class, while still achieving excellent work and mixing quality.



The tines work in the same line as the rear packer rings

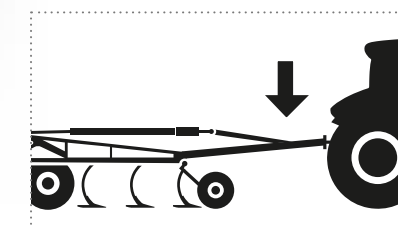


Diagram of strengthening tractor traction thanks to hydraulic cylinder on drawbar.

- ⚙️ Synchronized hydraulic depth adjustment on the front support wheels and rear packer.
- ⬇️ Possibility of continuous change of working depth during machine operation.

- ⚙️ Reinforced tractor traction thanks to a hydraulic cylinder and accumulator on the tractor tow bar.
- 🛡️ Non-stop protection of each unit against overload.

- 🌿 A single last row of shares = increased work quality.
- ⬆️ High frame clearance – 86 cm.
- 🕒 Long Life chisels (40mm/80mm).





		ZN 8R/75
Working width	m	6.0
Transport width	m	3.0
Transport length	m	3,4
Working depth	cm	20–55
Number of tines	pcs	8
Spacing of tines	cm	75 (70/80)
Total weight	kg	4,720–4,950
Recommended output	HP	300–400

# TERRASTRIP ZN 8R/75

## chisel plough

### DEEP LOOSENING WITH INTENSIVE MIXING OF PLANT RESIDUES IN THE STRIPS

TERRASTRIP ZN 8R/75 is a chisel plough which processes the soil in the strips where broad-row crops such as corn, sunflowers, etc. are subsequently growing. An interesting possibility is the use of deep strip processing of the soil by the machine TERRASTRIP ZN for the establishment of winter rape stands in the so-called double-rows.

Thanks to the geometry of the shares, the TERRASTRIP ZN machine penetrates even deeper soil profiles easily and loosens them so as to make them accessible to groundwater.

We recommend adding profile fertilisation to loosening directly into the root zone of plants. The TERRASTRIP ZN 8R/75 tines are equipped with application tips for adding profile fertilisation from the COMBO SYSTEM or FERTI-CART hopper. The loosened and fertilized strips create an ideal environment for a rich root system. Effective and target-oriented soil tillage, which reduces the costs while increasing the yield of the individual row crops.



- ≡ Intensive deep tillage of strips for growing row crops.
- Ⓐ Alform high-strength steel design.
- ↓ Deep cultivation down to 55 cm.

- ↻ Possibility to replace spiky roller with V-Ring or Cuttpack.
- ↘ Disruption of compacted layers directly in the plant root growth zone.
- Ⓛ Long Life tines 40 mm and 70 mm.

### ACTIVE-MIX TINES



### DEEP AERATION

- Deep aeration with active mixing of soil with crop residue up to 45 cm.
- Undercutting the soil profile thanks to the side wings of the tines.
- 100-% share overlapping.
- Mounting 80-mm or 40-mm chisels to the Active-Mix tines for deep work.
- The Active-Mix tines can be replaced with the Zero-Mix tines.

### ZERO-MIX TINES



### UNDERCUTTING

- Undercutting the soil profile without mixing. The tines have a negative angle.
- Disrupting compacted layers.
- Mounting flat wings and tips onto the Zero-Mix tines.
- The Zero-Mix tines can be replaced with the Active-Mix tines.



# New Agronomic Opportunities

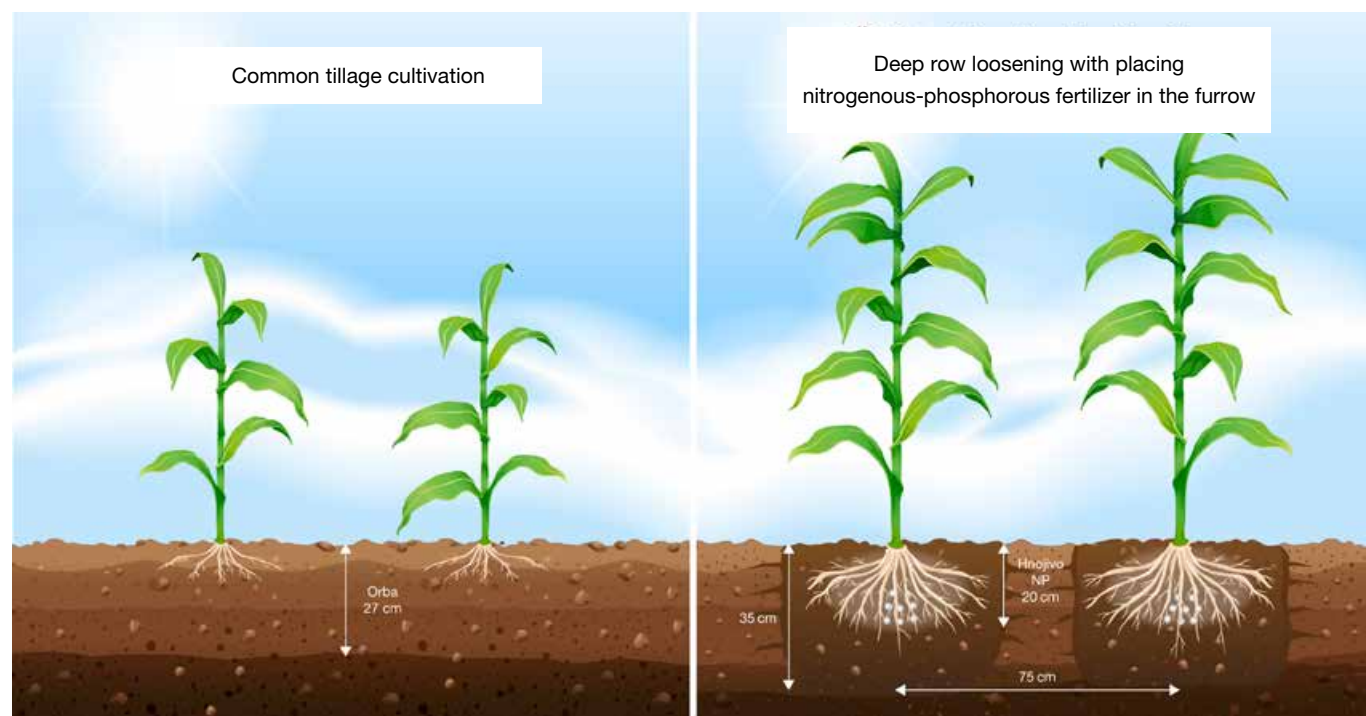
## DEEP ROW LOOSENING AND SOIL FERTILIZATION FOR CORN

Corn-growing systems require crop establishment innovations in order to reduce the negative effect of short-term droughts and long dry seasons, together with the rising legislative demands on anti-erosion soil protection. The use of the new deep row cultivation technology with local fertilizer application directly at the points (depots) of follow-up seeding is a suitable innovation of intense corn growing systems. All of that is provided by BEDNAR machines. In particular, farmers can use the FERTI-CART hopper or the COMBO SYSTEM in aggregation with the TERRASTRIP chisel plough. The outcomes of soil cultivation using the aforesaid machines indicate a substantial increase in the corn vegetation comfort, with faster growth and development in consequence of localizing the entry of water into the soil profile. This is ensured by the wider profile of the cultivated strip, especially at the foot of the strip. Fertilizers applied to the bottom of the cultivated rows are more efficient thanks to their higher dissolving capacity and use by the nearby developing root systems, usually from the beginning of the developed 4th or 5th corn leaf. The technology of local soil cultivation and fertilization brings significant savings in phosphorous fertilizers and medium savings in nitrogenous fertilizers. When the soil has a good supply of phosphorus, i.e. with the average need for fertilization according to the crop sample norm and the need of slight replenishment of the soil supply, it is possible to achieve savings of EUR 15–25 per hectare, and even EUR 20–40 per hectare when NP fertilizers (Amofos) are used as the source of phosphorus. With regular nitrogen batches for corn, it is possible to save from EUR 20 to 30 per hectare in fertilizers thanks to the local application.

The basic procedure of the new technology is to prepare soil by stubble cultivation after the intercrop is harvested and then to perform autumn row cultivation in optimal moisture conditions, however, with a better

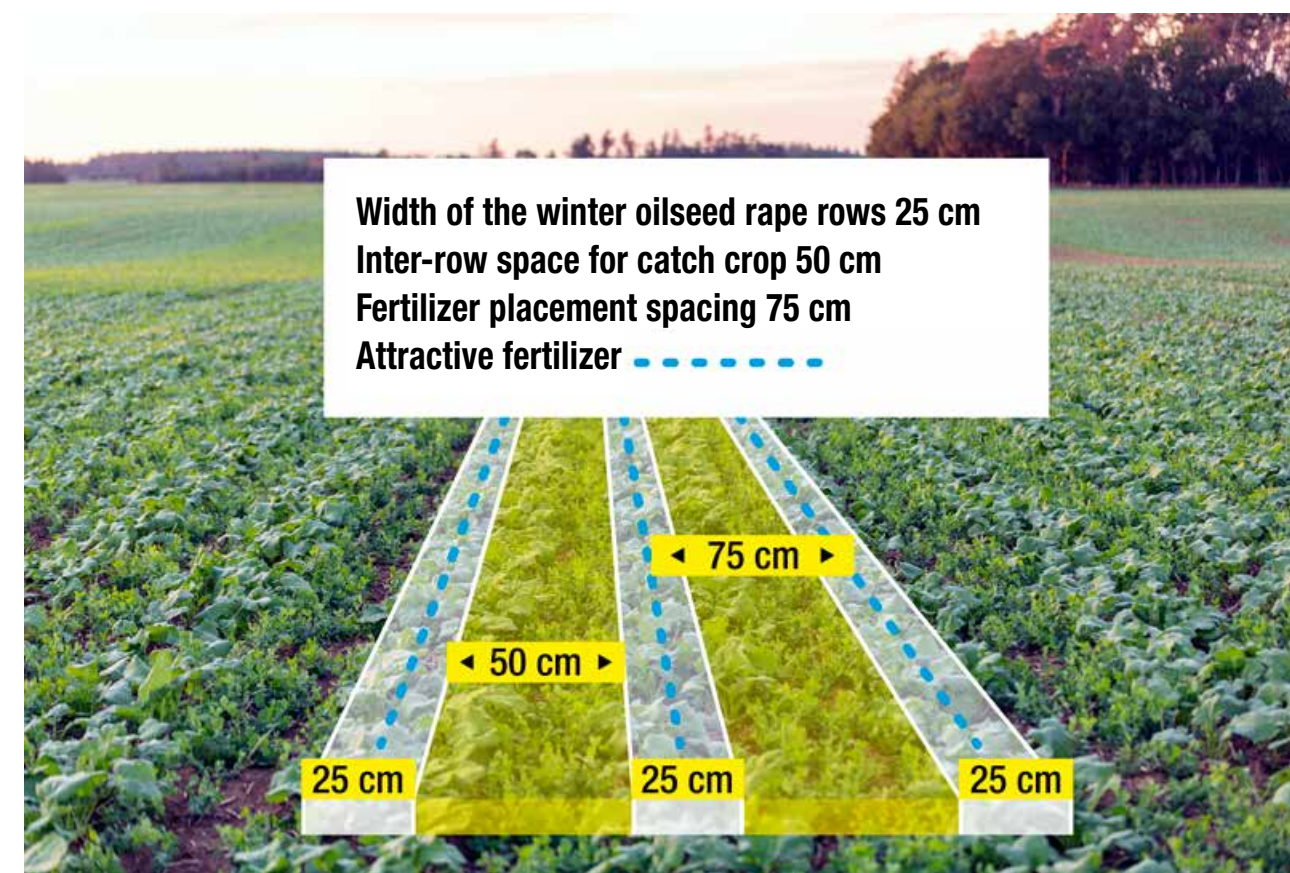
effect of cultivating aerated strips under the conditions of a slight short-term drought than when the soil is saturated with water. The row cultivation can also be executed after summer intercrop. Optimally, the technology requires a cultivation depth of up to 35 cm (the bottom of the cultivated strip) and up to 35 cm at least in more shallow soil. The recommended depth for placing fertilizer is 20 cm, however, not less than 15 cm. For the main autumn version of the technology, it is recommended to only apply phosphorous or potassium, or combined PK fertilizers, or when the soil has a low pH, together in mixtures with granulated limestones that locally improve pH and phosphorus availability in soil. The nutrient batch is determined on the basis of the analysis of the available nutrients in soil, preferably using the standard soil supply maps for the application of a variable batch of nutrients in the field according to soil heterogeneity. The spring version of the technology is suitable for the application of nitrogenous fertilizers (preferably urea). It is possible to apply the whole nitrogen batch to the depot, except in moister areas. It is recommended to add phosphorous fertilizer to the nitrogenous one in the spring. At the same time, it is possible to apply fertilizer under the seeds by the seed drill in well-supplied soils. It is not possible to perform deep spring row aeration in soils that contain more than 35% of clay particles (<0.01 mm), i.e. outside heavier clay soils and heavy clay-loam soils, where this should only be done in autumn. The technology is a suitable innovation for the stabilization of the production and quality of corn silages under the conditions of drought and soil erosion exposure provided that the basic recommendations have been met.

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AGROEKO Žamberk spol. s r.o.*



## DEEP ROW LOOSENING AND SOIL FERTILIZATION FOR WINTER RAPE

The double-row seeding technology is an interesting alternative for establishing the winter oilseed rape stands. This technology is based on two basic steps. The first procedure is deep cultivation with the placement of attractive fertilizer into the soil profile, using combination of FERTI-CART FC 3500 and TERRASTRIP ZN 8/75 machines. It is a chisel plough designed for strip-till soil cultivation with working parts spaced at 75 cm.





NOVELTY

soil cultivation



		RO 3000	RO 4000 R
Max. disc working depth	cm	12	12
Disc spacing	cm	42,5	42,5
Disc diameter	cm	66	66
Max. share working depth	cm	35	35

# ACTROS RO

combined cultivator

## INTENSE SOIL CULTIVATION IN A SINGLE PASS

ACTROS RO is a robust combined (disc-tine) machine that is capable of cutting and processing a large quantity of crop residue in a single pass and mix the crop residue effectively with loosened soil, up to a depth of 35 cm (Active-Mix tines), and disrupt soil layers using the Zero-Mix tines.

The machine can work without rear packers, there are shares behind the transport wheels. An ideal solution in extreme conditions.

The transport axle is located in the middle of the machine, which reduces the turning radius at headlands.



↓ Intense soil cultivation up to a working depth of 35 cm using two rows of shares with vertical non-stop protection (Active-Mix tines).

- ⚙️ Excellent cutting and incorporation of crop residue using two rows of discs, 660 × 6 mm.
- ⚒️ Disruption of compacted layers without mixing (Zero-Mix tines).

- ⚙️ Integrated axle = smaller turning radius, possibility to work without packers. Aeration in extreme conditions.
- ⚙️ Various types of packers available for different soil conditions.



product line extension



		OO 4000 FL
Working width	m	4
Transport width	m	3
Transport length*	m	9,2
Inter-row distance	cm	12,5/16,7
Number of discs	pcs	32
Disc spacing	cm	25
Disc diameter	cm	46
Hopper capacity (ratio)	l	4000
Total weight*	kg	5300-7600
Recommended output**	HP	130-180

\* acc. to the equipment \*\* depends on soil conditions

# OMEGA OO\_FL

## seed drill

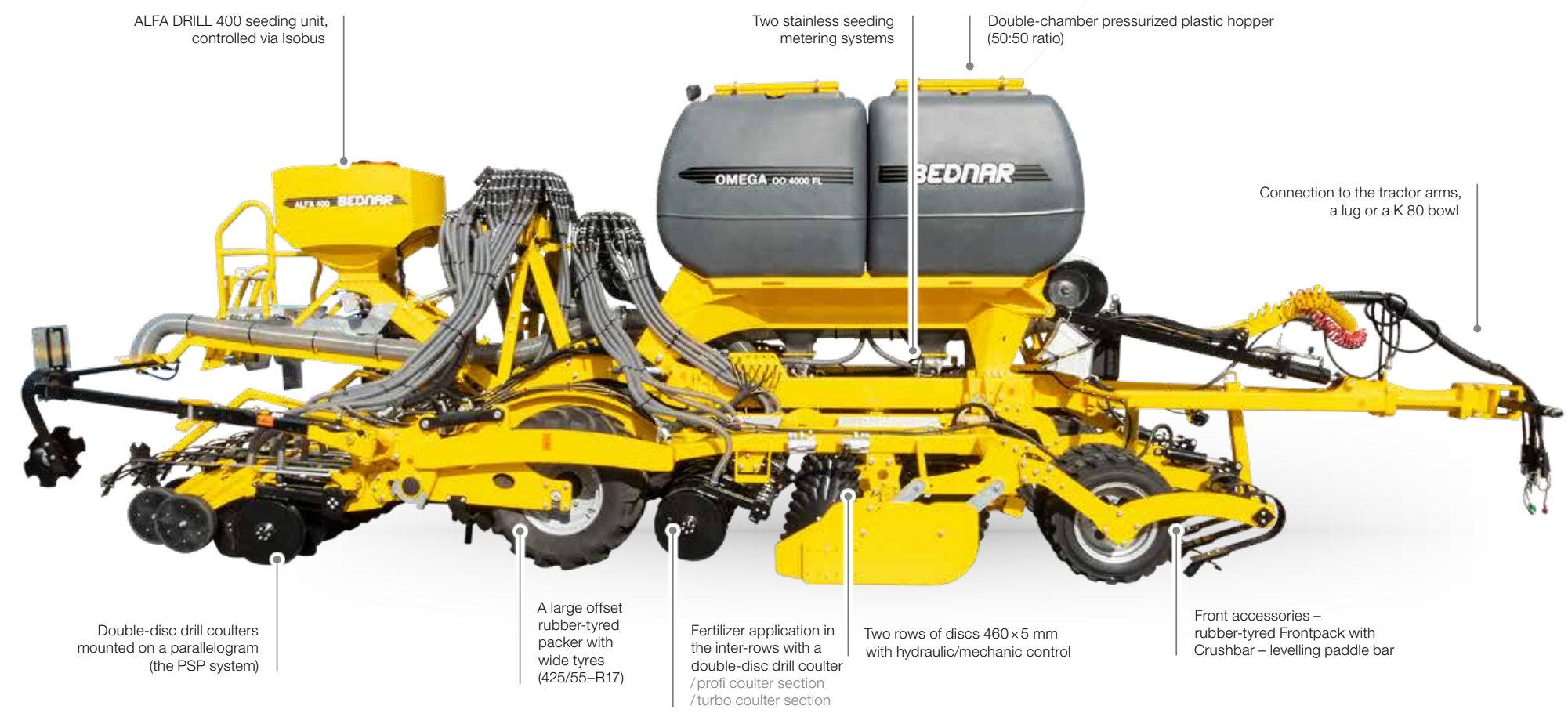
**PRECISE SEED PLACEMENT WITH FERTILIZER, LOW WEIGHT, SIMPLE ADJUSTMENT**

OMEGA OO\_FL is a robust seed drill capable of precise seeding and fertilizer application. OMEGA OO\_FL is recommended for demanding conditions with a large ratio of spring crop in the seeding procedure (inter-row spacing of 12.5 cm or 16.7 cm).

The crops established in spring respond to precise inter-row fertilization very positively. It substantially increases the crop growth acceleration and the overall vitality of the plants. Precise fertilizer batching is important, provided by the pressurized hopper which is capable of precise, as well as high batches of the fertilizer thanks to the positive pressure.

Disc sections arranged in the shape of X so that the machine works exactly behind the tractor.

Thanks to the PSP system (Precise Seed Placement), the seed coulters place the seeds into an identical sowing depth across the entire machine width and perfectly contour the uneven terrain in both the longitudinal and lateral direction.



ALFA DRILL 400 seeding unit, controlled via Isobus

Two stainless seeding metering systems

Double-chamber pressurized plastic hopper (50:50 ratio)

Connection to the tractor arms, a lug or a K 80 bowl

Double-disc drill coulters mounted on a parallelogram (the PSP system)

A large offset rubber-tyred packer with wide tyres (425/55-R17)

Fertilizer application in the inter-rows with a double-disc drill coulters /profi coulters section /turbo coulters section

Two rows of discs 460x5 mm with hydraulic/mechanic control

Front accessories – rubber-tyred Frontpack with Crushbar – levelling paddle bar

- A robust seed drill prepared for highly demanding conditions. Robust main and side frames.
- Working discs with a diameter of 460x5 mm, capable of processing larger quantities of crop residue.

- Possibility of application of fertilizer in the inter-row between the seed or together with the seed.
- Quality seeding into dry soils thanks to high downforce on the seeding coulters (up to 130 kg).

- Optional row distance 12.5 cm or 16.5 cm according to humidity conditions and crop type.
- Comfortable calibration and emptying of the hopper in the rear of the seed drill.



# New Agronomic Opportunities

## secondary crops

### SOWING THE MAIN CROP TOGETHER WITH THE SECONDARY CROP IN ONE PASS

Secondary crops are crops that support the development of the main crop, either directly or indirectly. At the same time, their long term effect can improve the condition of the soil environment, increase the ratio of organic mass, and thus better work with the limiting factors of the crop, such as moisture and nutrition of the main crop.



Stand of breadseed poppy with spring barley as a secondary crop—early phase (planted in every other row by OMEGA OO\_FL)



Stand of breadseed poppy with spring barley as a secondary crop—later phase



Entry of water into the soil profile in a field without barley seeds as secondary crop



Entry of water into the soil profile in a field with barley seeds as secondary crop

When the seed drill is equipped with the additional Alfa seeding unit, it is possible to establish stands combined of up to three crops with the possibility to use drill coulters for seeding, or to do a target seed dispersal, either broad or in strips.

The expert public is starting to demand catch crop establishment in a wide-row culture as it helps to fight erosion, increases the number of harvests on an area unit, or increases the limit load of the field for the autumn harvest for practical reasons.



Mixture of wheat and peas—seeded every other line



Mixture of grass and rye—seeded every other line + clover seeded everywhere



Winter rape seeded into double row after TERRASTRIP soil preparation and fertiliser placement together with vetch intercrop seeded between double rows



Mixture of mustard and phacelia seeded in 25 cm rows—in one operation sown clover in 12,5 rows—every 75 cm omitted two lines of clover for spring maize seeding



NOVELTY



		CN 6000	CN 8000	CN 9000
Working width	m	6	8	9
Transport width	m	3	3	3
Inter-row distance	cm	12.5/16.7	12.5/16.7	12.5/16.7
Number of drill coulters	pcs	48/36	64/48	72/54
Total weight*	kg	2,200–3,000	2,600–3,600	2,800–3,800
Recommended output**	HP	150–200	180–230	200–250

\* acc. to the equipment \*\* depends on soil conditions

# CORSA CN

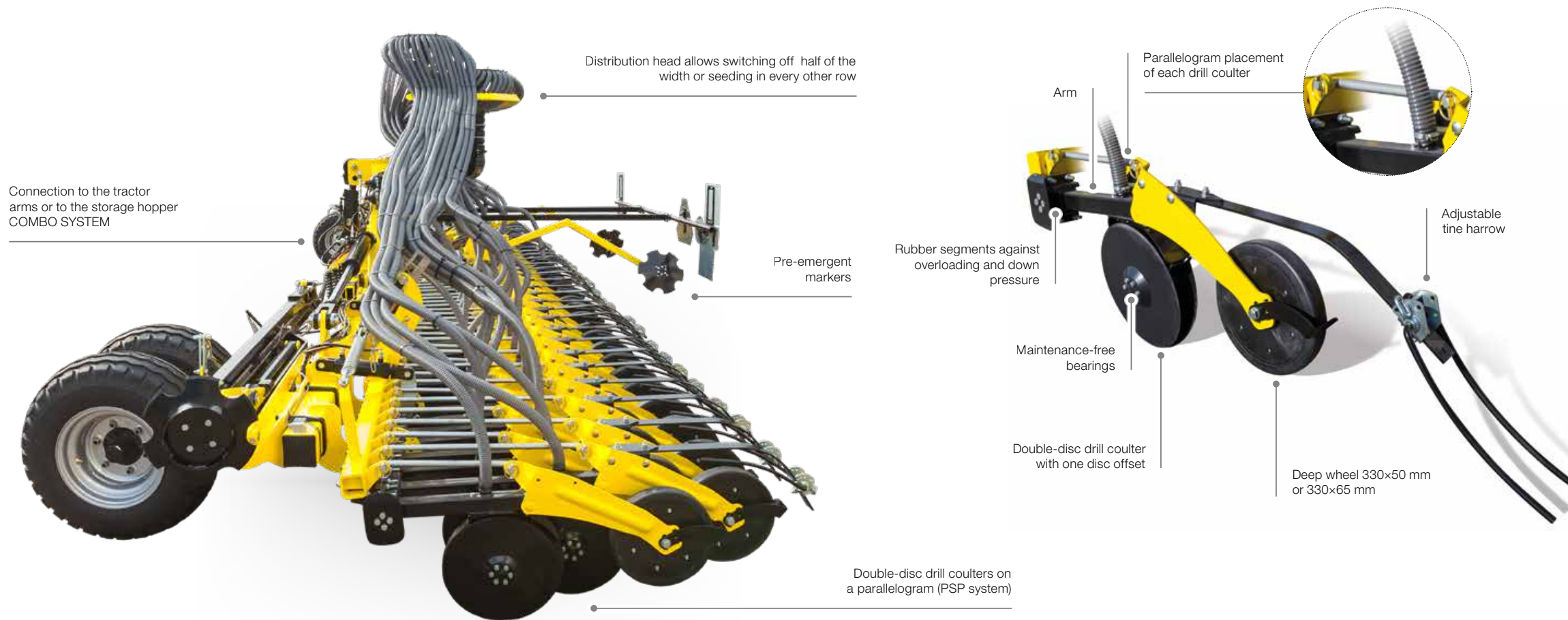
## seeding bar

### FAST CROP ESTABLISHMENT

The CORSA CN is a mounted seeding bar that can be aggregated with the COMBO SYSTEM CS 5000 storage hopper, or directly to the three-point hitch of the tractor. When the bar is aggregated with the tractor, it can be connected to the front seed hopper, SEED-BOX SB 1600.

The seeding bar consists of double-disc drill coulters that work on a parallelogram (PSP system). The available inter-row spacing is 12.5 cm and 16.7 cm, with the option to plant seeds in every other row at 25 cm, or 33 cm.

The CORSA seeding bar can be equipped with side and pre-emergent markers.



- Parallelogram-mounted double-disc drill coulters.
- Inter-row spacing of 12.5 cm and 16.7 cm.
- Quality seed placement thanks to the high pressure on the drill coulters of up to 130 kg.

- Option of hydraulic setting of the pressure and working depth of the drill coulters.
- Option to deactivate half of the working width.





	CS 5000	
Capacity	l	5000
Number of metering devices	pcs	2
Total weight *	kg	6000

\* Weight without ballast.

# COMBO SYSTEM CS 5000

## storage hopper

### PRECISE DOSING OF FERTILIZERS EASY HANDLING

The COMBO SYSTEM CS is a pressurized storage hopper designed for various operations in plant production. It is especially suitable for aggregation with TERRASTRIP or and TERRALAND chisel ploughs and the CORSA CN seeding bar for quick crop establishment.

The COMBO SYSTEM is equipped with large flotation tyres with minimum pressure of 0.8 bar and max. 4 bar. This solution means a lower pressure on soil, which is especially important when establishing crop.

The COMBO SYSTEM storage hopper is pressurized! This solution increases the batch accuracy, especially in fertilizers that are more difficult to distribute.

Connection of mounted machines via standardised three-point hitch of category IV.



☞ Pressurized, double-chamber storage hopper for precise batching of fertilizer and seeds.

🔗 Possibility to connect various types of tools, including the CORSA CN seeding bar.

⚙️ Two stainless metering systems with electric drives that enable changing the batches according to the agronomic needs.

✓ Batching controlled via ISOBUS.

🛞 Large flotation tyres 650/65-30.5.