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**Durability and low weight** – these are the main features of the frame profile (120×120×8 mm). The pantograph system used has allowed the centre of gravity to be moved closer to the tractor, making better use of the available power. The low lifting capacity of the three-point hitch is therefore not a limitation.

Two types of body protection are available – spring protection or breakaway bolts.

The spring protection is based on steel leaf springs which ensure effective pivoting and return to the set depth. Suitable for rocky conditions. Five leaf springs as standard, for light soils. Optionally equipped with 2 additional leaf springs for heavier soils.

The breakaway bolt protection allows the plough to be operated relatively inexpensively on heavy soils and soils free of stones. The bolt breaking force is as much as 1,750 kg at the end of the chisel.

Smooth rotation over many years – thanks to the fully bearing-mounted turntable axis. The arising slack can be easily removed by tightening the axle nut.

**Efficient operation under conditions of a large amount of crop residues** – thanks to the increased interbody clearance in the PLUS model (up to 100 cm).

Low resistance during work – thanks to the profiled LONG mouldboard. The pulling requirement under optimal conditions is only 20 HP per body. The way the furrow-slice is laid down causes it to crumble. For working on sticky soils, it can be equipped with openwork mouldboard.

#### Smooth operation of the rotation mechanism

- a side support wheel equipped with a shock absorber prevents any impact.

Easier tractor rotation with a three-point hitch system that lifts the arms low – the cylinder of frame leaning that allows this is included as standard equipment on the 4+ ploughs.

| IBIS L            | 3+      | 3+1     | 4+      | 4+1     |
|-------------------|---------|---------|---------|---------|
| Weight [kg]       | 990     | 1,180   | 1,190   | 1,380   |
| Power demand [HP] | 80÷90   | 90÷100  | 90÷120  | -       |
| IBIS L PLUS       | 3+      | 3+1     | 4+      | 4+1     |
| Weight [kg]       | 1,080   | 1,250   | 1,270   | 1,530   |
| Power demand [HP] | 90÷100  | 100÷110 | 120÷140 | 120÷160 |
| IBIS LS           | 3+      | 3+1     | 4+      | 4+1     |
| Weight [kg]       | 1,120   | 1,350   | 1,440   | 1,650   |
| Power demand [HP] | 80÷90   | 90÷110  | 90÷130  | 100÷150 |
| IBIS LS PLUS      | 3+      | 3+1     | 4+      | 4+1     |
| Weight [kg]       | 1,190   | 1,420   | 1,600   | 1,800   |
| Power demand [HP] | 100÷110 | 110÷120 | 120÷150 | 120÷160 |





**Smooth rotation over many years** – thanks to the fully bearing-mounted turntable axis. The arising slack can be easily removed by tightening the axle nut.

Two types of body protection are available – spring protection or breakaway bolts.

The spring protection is based on steel leaf springs which ensure effective pivoting and return to the set depth. Suitable for rocky conditions. Five leaf springs as standard, for light soils. Optionally equipped with 2 additional leaf springs for heavier soils.

The breakaway bolt protection allows the plough to be operated relatively inexpensively on heavy soils and soils free of stones. The bolt breaking force is as much as 1,750 kg at the end of the chisel.

**Low resistance during work** – thanks to the profiled LONG mouldboard. The pulling requirement under optimal conditions is only 20 HP per body. The way the furrow-slice is laid down causes it to crumble. For working on sticky soils, it can be equipped with openwork mouldboard.

**Well-proven solutions** – a frame with a turntable axle connected by a steel rail is a solution known from the XXL series of ploughs. This offers the possibility of using a side transport wheel. The plough frame has reinforcements at the points carrying the heaviest loads.

**Robust and lightweight construction** – the frame wall thickness (cross-section 120×120 mm) is 8 mm.

| 4+      | 4+1                             | PLUS 4+   | PLUS 4+1  |
|---------|---------------------------------|---|---|
| 1,340   | 1,510                           | 1,400   | 1,580   |
| 110÷140 | 100÷120                         | 120÷150   | 130÷160   |
|         |                                 |   |   |
| 4+      | 4+1                             | PLUS 4+   | PLUS 4+1  |
| 1,480   | 1,700                           | 1,560   | 1,790   |
| 120÷150 | 140÷160                         | 120÷170   | 140÷180   |
|         | 1,340<br>110÷140<br>4+<br>1,480 | 1,340 1,510<br>110÷140 100÷120<br>4+ 4+1<br>1,480 1,700 | 1,340 1,510 1,400 110÷140 100÷120 120÷150  4+ 4+1 PLUS 4+ 1,480 1,700 1,560 |





Solution even for the heaviest soils - the XXL model works well with high-powered tractors. Its frame ø 140×140×8 mm has been additionally reinforced at the points carrying the highest loads during ploughing.

#### Three types of body protection are available - spring protection, breakaway bolts, or hydraulic

protection.

The spring protection is based on steel leaf springs which ensure effective pivoting and return to the set depth. Suitable for rocky conditions. Seven leaf springs come as standard, allowing a pressure of 900 kg. Optionally equipped with 2 additional leaf springs which increases it to 1,050 kg.

The breakaway bolt protection allows the plough to be operated relatively inexpensively on heavy soils and soils free of stones. The bolt breaking force is as much as 1,750 kg at the end of the chisel.

Hydraulic protection is the solution for fields with varying conditions. Its force is easily adjusted by the tractor's external hydraulics between 90-150 bar. Lower pressure suitable for light soils - softer operation reduces stone pulling, and higher pressure for heavy soils - the body does not deflect under soil resistance.

Four plough bodies available - universal LONG, BIG LONG available on ploughs with increased body interclearance, openwork LONG for ploughing sticky and heavy soils, ZX for deep ploughing.

High level of road transport comfort – thanks to the optional fitting of a support and transport wheel to relieve the load on the tractor's three-point hitch.

Possibility to combine ploughing and consolidation in one pass – thanks to aggregation with the TERRA roller.

| IBIS XXL          | 3+      | 3+1     | 4+      | 4+1     |
|-------------------|---------|---------|---------|---------|
| Weight [kg]       | 1,180   | 1,370   | 1,390   | 1,560   |
| Power demand [HP] | 90÷110  | 120÷150 | 120÷150 | 140÷180 |
|                   |         |         |         |         |
| IBIS XXL PLUS     | 3+      | 3+1     | 4+      | 4+1     |
| Weight [kg]       | 1,290   | 1,430   | 1,450   | 1,640   |
| Power demand [HP] | 100÷120 | 110÷140 | 130÷160 | 150÷190 |
|                   |         |         |         |         |
| IBIS XXL S        | 3+      | 3+1     | 4+      | 4+1     |
| Weight [kg]       | 1,400   | 1,590   | 1,600   | 1,760   |
| Power demand [HP] | 110÷130 | 130÷160 | 130÷160 | 150÷200 |

| IBIS XXL S PLUS   | 3+      | 3+1     | 4+      | 4+1     |
|-------------------|---------|---------|---------|---------|
| Weight [kg]       | 1,520   | 1,690   | 1,700   | 1,880   |
| Power demand [HP] | 120÷140 | 140÷170 | 140÷170 | 160÷170 |
|                   |         |         |         |         |
| IBIS XXL H        | 3+      | 3+1     | 4+      | 4+1     |
| Weight [kg]       | 1,390   | 1,570   | 1,590   | 1,750   |
| Power demand [HP] | 110÷130 | 130÷160 | 130÷160 | 150÷200 |
|                   |         |         |         |         |
| IBIS XXL H PLUS   | 3+      | 3+1     | 4+      | 4+1     |
| Weight [kg]       | 1,510   | 1,680   | 1,690   | 1,870   |
| Power demand [HP] | 120÷140 | 140÷170 | 140÷170 | 160÷220 |





#### Good ratio of weight to pulling requirements -

thanks to a frame matching the number of bodies. For 4 bodies –  $120\times120\times8$  mm, for 5 –  $140\times140\times8$  mm. The minimum ploughing width is 35 cm and the maximum is as much as 50 cm.

**Smooth control** – allows 43% more productivity without leaving the tractor's cab.

#### Three types of body protection are available

– spring protection, safety bolts, or hydraulic protection. The spring protection is based on steel leaf springs which ensure effective pivoting and return to the set depth. Suitable for rocky conditions. Seven leaf springs come as standard, allowing a pressure of 900 kg. Optionally equipped with 2 additional leaf springs, which increases it to 1,050 kg.

Safety bolt protection for heavy soils free of stones. The bolt breaking force is as much as 1,750 kg at the end of the chisel.

Hydraulic protection is the solution for fields with varying conditions. Its force is easily adjusted by the tractor's external hydraulics between 90–150 bar. Lower pressure suitable for light soils – softer operation reduces stone pulling, and higher pressure for heavy soils – the body does not deflect under soil resistance.

**Four plough bodies available** – universal LONG, BIG LONG available on ploughs with increased body interclearance, openwork LONG for ploughing sticky and heavy soils, ZX for deep ploughing.

**High level of road transport comfort** – thanks to the optional fitting of a support and transport wheel to relieve the load on the tractor's three-point hitch.

Possibility to combine ploughing and consolidation in one pass – thanks to aggregation with the TERRA roller.

| IBIS VARIO        | 4       | 5       | PLUS 4  | PLUS 5  |
|-------------------|---------|---------|---------|---------|
| Weight [kg]       | 1,490   | 1,790   | 1,590   | 1,970   |
| Power demand [HP] | 120÷150 | 140÷180 | 130÷160 | 150÷200 |
|                   |         |         |         |         |
| IBIS VARIO S      | 4       | 5       | PLUS 4  | PLUS 5  |
| Weight [kg]       | 1,700   | 2,000   | 1,790   | 2,180   |
| Power demand [HP] | 130÷160 | 150÷200 | 140÷170 | 160÷210 |
|                   |         |         |         |         |

| IBIS VARIO H      | 4       | 5       | PLUS 4  | PLUS 5  |
|-------------------|---------|---------|---------|---------|
| Weight [kg]       | 1,680   | 1,980   | 1,770   | 2,160   |
| Power demand [HP] | 130÷160 | 150÷200 | 140÷170 | 160÷210 |





**Large support and transport wheel** 550/45 22.5 mounted with support on both sides ensures stability and low rolling resistance in all conditions. The wheel is fitted with two side scrapers as standard.

Two types of body protection are available – spring protection or breakaway bolts.

The spring protection is based on steel leaf springs which ensure effective pivoting and return to the set depth. Suitable for rocky conditions. Seven leaf springs come as standard, allowing a pressure of 900 kg. Optionally equipped with 2 additional leaf springs, which increases it to 1,050 kg.

The breakaway bolt protection allows the plough to be operated relatively inexpensively on heavy soils and soils free of stones. The bolt breaking force is as much as 1,750 kg at the end of the chisel.

**Three plough bodies available** – universal LONG, BIG LONG available on ploughs with increased body interclearance, and openwork LONG for ploughing sticky and heavy soils.

Possibility to combine ploughing and cultivation in one pass – by adding a hydraulic or mechanically operated arm to the tillage tool. The tool is unhooked at the headland and hooked up when starting the next pass.

For the toughest conditions – thanks to a frame made of extra-fine steel (180×180×8 mm).

**Easier manoeuvring on tight headlands** – the headstock is connected to the plough frame by a robust cross member.

**Stability during operation** – two Weber Hydraulik cylinders are responsible for the rotation. The telescopic design and single-sided operation ensure maximum stable manoeuvring and turning, and the lift is not affected by additional shocks.

| VIS XL            | 4+      | 4+1     | 5+      | 5+1     | 6+      | 6+1     | 7+      | 7+1     | 8+      |
|-------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Weight [kg]       | 2,700   | 2,950   | 2,980   | 3,230   | 3,260   | 3,510   | 3,630   | 3,890   | 3,600   |
| Power demand [HP] | 120÷140 | 140÷160 | 140÷170 | 160÷190 | 170÷230 | 190÷260 | 210÷290 | 250÷310 | 250÷310 |



# VIS ON LAND

REVERSIBLE PLOUGH, SEMI-MOUNTED

For ploughing "virgin soil" – the distance from the hitching point to the edge of the furrow allows operation with a tractor equipped with tracks or twin wheels. The plough bodies are mounted on a 160×160×10 mm frame. This profile has an increased strength class (Re – 500 and 700 MPa kN/mm²).

**Easier manoeuvring on tight headlands** – the headstock is connected to the plough frame by a robust cross member.

**Movement stability** – two Weber Hydraulik cylinders are responsible for the rotation. The telescopic design and single-sided operation ensure maximum stable manoeuvring and turning, and the lift is not affected by additional shocks.

Two types of body protection are available – spring protection or breakaway bolts.

The spring protection is based on steel leaf springs which ensure effective pivoting and return to the set depth. Suitable for rocky conditions. Seven leaf springs come as standard, allowing a pressure of 900 kg. Optionally equipped with 2 additional leaf springs, which increases it to 1,050 kg.

The breakaway bolt protection allows the plough to be operated relatively inexpensively on heavy soils and soils free of stones. The bolt breaking force is as much as 1,750 kg at the end of the chisel.

**Three plough bodies available** – universal LONG, BIG LONG available on ploughs with increased body interclearance, and openwork LONG for ploughing sticky and heavy soils.

**Extremely wide working width** – the maximum spacing between plough bodies is 55 cm, meaning that a plough equipped with eight bodies ploughs a 4.4-metre wide strip in a single pass.

**Cylinder shock absorption as standard** – any unevenness during transport is dampened; vibrations are not passed on to the machine frame and the tractor's three-point hitch system.

Possibility of working with tractors without an electro-hydraulic control system – when equipped with a depth-adjustable front support wheel.

| VIS ON LAND               | 5+              | 5+1          | 6+              | 6+1              | 7+              | 7+1              |
|---------------------------|-----------------|--------------|-----------------|------------------|-----------------|------------------|
| Weight [kg]               | 2,980           | 3,230        | 3,260           | 3,510            | 3,630           | 3,890            |
| Power demand [HP]         | 140÷170         | 160÷190      | 170÷230         | 190÷260          | 210÷290         | 250÷310          |
|                           |                 |              |                 |                  |                 |                  |
|                           |                 |              |                 |                  |                 |                  |
| VIS ON LAND S             | 5+              | 5+1          | 6+              | 6+1              | 7+              | 7+1              |
| VIS ON LAND S Weight [kg] | <b>5+</b> 2,980 | 5+1<br>3,230 | <b>6+</b> 3,260 | <b>6+1</b> 3,510 | <b>7+</b> 3,630 | <b>7+1</b> 3,890 |
|                           |                 |              | _               |                  |                 |                  |





#### Suitable for both small and medium-sized farms

– thanks to its lightweight construction and availability in four working widths.

Can be aggregated with any tractor – thanks to height adjustment of the headstock and suspension axle.

**Wide range of machine adaptability** – thanks to the number of available configurations. Three different tine sections available in three rows:

SU tines with double-sided 32 mm wide cultivator share. Their entry angle provides good mixing properties in the soil's top layer. The tine works best on light to medium soils.

SV spring tine is most useful on heavy soils. The rake angle does not allow soil lumps to be brought to the surface.

SK tines with 100 mm wide cultivator share. Evenly cultivates and crumbles the lumpy soil layer.

**Easy adaptation to field conditions** – by adjusting the spring tension. The spring clamp is located in the roller section.

A large number of specialised working elements responsible for different tasks – such a division ensures that each stage of soil breaking is carried out more precisely. The track openers lift the soil compacted by the tractor wheels (2 openers per wheel). They are followed by a string roller (Ø 320 mm) with tightly twisted strings, resulting in continuous rotation and high crushing quality. Further on, there is a tine section and a combination of two string rollers of different diameters for further soil crumbling.

Precise working on many levels – made possible by the use of two rollers with different diameters – the first (320 mm) with a lower rolling resistance crushes large clods and compacts deeper soil layers, while the second (280 mm) has a higher rotational speed, gives the soil a crumble structure and levels the surface.

| КОМВІ                 | XL 3.7 | XL 4.2 | XL 5.1  | XL 5.6  |
|-----------------------|--------|--------|---------|---------|
| Weight [kg]           | 1,280  | 1,360  | 1,640   | 1,720   |
| Power demand [HP]     | 70÷110 | 80÷120 | 100÷150 | 130÷180 |
| Number of tines [pcs] | 36     | 42     | 50      | 56      |





#### Compact design for demanding customers – pre-

pares the soil perfectly for sowing maize, beet, or potatoes. Each section has been centrally suspended from a robust frame, ensuring accurate ground following and uniform cultivation over many years.

**Suitable for all farm sizes** – thanks to five different widths. The 4.5-, 6-, 9-metre models have the option of adding a chassis.

#### Uniform work and adaptation to soil conditions

- thanks to four main working sections responsible for different tasks. The front string roller (400 mm) crushes large lumps and keeps the unit at the set working depth. The tine section crushes, shreds, and aerates the top soil layer. It is followed by an adjustable skid providing a preliminary levelling of the soil for the tillage rollers. The roller section consolidates the soil and gives the final structure.

**Three types of tine section available** – 4-row section of SV tines, 3-row section of SE tines, 2-row section of SX tines.

#### Easy working depth adjustment

- adjustment holes, based on a parallelogram.

#### Three rear roller sections available:

Double string roller – recommended for medium-heavy soils. The first (Ø 320 mm) compacts the soil and breaks up larger clods, while the second, with a higher rotational speed, shapes the right size and levels the field surface.

Double crosskill roller – a heavy combination of two rollers composed of rings ideal for heavy and compact soils. The rollers overlap, eliminating the problem of sticking. This version is fitted with a levelling skid as standard

Crosskill-string roller – a combination for medium-heavy soils. The front roller crushes and compacts the soil, while the rear roller gives a stable structure and levels the surface.

| MAX                                      | 3      | H 4     | H 4.5   | Н 6     | H 7.5   | Н 9     |
|--|--------|---------|---------|---------|---------|---------|
| Weight with double string roller [kg]    | 1,305  | 2,040   | 2,205   | 2,880   | 4,000   | 4,550   |
| Weight with crosskill/string roller [kg] | 1,510  | 2,290   | 2,510   | 3,280   | 4,500   | 5,150   |
| Weight with double croskill roller [kg]  | 1,555  | 2,325   | 2,585   | 3,380   | 4,620   | 5,300   |
| Power demand [HP]                        | 90÷110 | 120÷160 | 140÷180 | 170÷220 | 190÷260 | 230÷300 |
| Number of SV tines [pcs]                 | 32     | 36      | 48      | 64      | 80      | 96      |
| Number of SX/SZ tines [pcs]              | 12     | 18      | 20      | 24      | 30      | 36      |
| Number of SE tines [pcs]                 | 20     | 24      | 30      | 40      | 50      | 60      |





Three different machine versions available

– mounted ATLAS II with rigid frame, semi-mounted ATLAS II P with rigid frame and semi-mounted ATLAS II HP with hydraulically folding frame.

Perfect one-pass cultivation even on the heaviest soils – thanks to the machine's high weight.

A large number of specialised working elements responsible for various tasks – track openers, front levelling skid (with mechanical height adjustment) or spring-tooth harrow (perfect for preliminary levelling of surfaces and breaking up larger clods), string roller (400 mm), tine section, tillage rollers, and levelling bar.

**Three types of tine section available** – 4-row section of SV tines, 3-row section of SE tines, 2-row section of SX tines.

**Two rear roller sections available** – double string or double crosskill.

Double string roller – 400 mm, for light soils. The section consists of two string rollers with tightly twisted serrated flats. This section is ideal for light soils.

Double crosskill roller – 400 mm, with self-cleaning function. Heavy combination of two rollers composed of rings ideal for heavy and compact soils. In this version, the levelling skid can be replaced by a 300 mm string roller; it will level the surface and create a crumble structure on heavy soils.

**Operator comfort** – no need to leave the tractor cab thanks to the hydraulic transport locking system combined with the hydraulic cylinders.

| ATLAS II                       | 2.5    | 3       | 4       |
|--------------------------------|--------|---------|---------|
| Weight [kg]                    | 1,460  | 1,720   | 2,180   |
| Power demand [HP]              | 90÷110 | 110÷150 | 130÷170 |
| Number of SX or SZ tines [pcs] | 10     | 12      | 16      |
| Number of SV tines [pcs]       | 25     | 30      | 40      |
| Number of SE tines [pcs]       | 16     | 20      | 25      |
| Working depth [cm]             | 12     | 12      | 12      |

| ATLAS                          | IIP 3  | IIP 4  | II HP 4  | II HP 5 | II HP 6 | II HP 8 |
|--------------------------------|--------|--------|----------|---------|---------|---------|
| Weight [kg]                    | 2,250  | 2,600  | 3,200    | 3,750   | 4,450   | 5,700   |
| Power demand [HP]              | 80÷110 | 90÷130 | 120÷1600 | 140÷180 | 170÷210 | 190÷250 |
| Number of SX or SZ tines [pcs] | 12     | 16     | 16       | 20      | 24      | 32      |
| Number of SV tines [pcs]       | 30     | 40     | 40       | 54      | 64      | 94      |
| Number of SE tines [pcs]       | 20     | 25     | 26       | 32      | 40      | 54      |
| Working depth [cm]             | 12     | 12     | 12       | 12      | 12      | 12      |





Compact yet robust frame – allows operation with tractors with a power from 70 HP. The curved shape of the frame ensures adequate flow of crop residues and soil. The structure is based on a 100 x 200 mm profile and the tool beams are supported by 16 mm thick RAEX 500 steel brackets.

#### Clever design of disc coulters

 mounted on exchangeable maintenance-free hubs. Each disc is secured by four triangular shock absorbers. The plough-beam is made of high-quality HARDOX steel and moulded into the shape of the coulter. This avoids blockages in the cultivated material.

**Two types of ø 510 mm discs available** – CLASSIC discs allow intensive cultivation at shallow working depth. Recommended in shallow stubble field cultivation and field preparation for sowing. AGRESSIVE discs are adapted to work with more crop residues and on heavier soils.

Larger indentations of the outermost coulters – reduced displacement of soil beyond the working width of the machine, directing it inwards. Adjusting the working depth avoids deep unevenness along the crop.

#### High quality when working with seed drills

- the seeder coupler has a truss design, which increases the strength of the machine during aggregation.

**Quick and easy change of working depth**thanks to multi-hole regulators.

**ARES L DRIVE version** – semi-mounted machine running on a tyre roller. High-pressure Ø 670 mm wheels ensure safe transport and adequate consolidation in the field. Each wheel is equipped with a scraper. Mounting in pairs allows quick replacement in the event of tyre damage.

| TECHNICAL DATA                 |       | ARES L |         |         |        |  |  |  |
|--------------------------------|-------|--------|---------|---------|--------|--|--|--|
| TECHNICAL DATA                 | 2.5   | 3      | 3.5     | 4       | 3      |  |  |  |
| Weight [kg]*                   | 920   | 1,080  | 1,300   | 1,420   | 1,530  |  |  |  |
| Power demand [HP]              | 75÷90 | 80÷100 | 100÷120 | 110÷130 | 80÷100 |  |  |  |
| Number of discs [pcs]          | 20    | 24     | 28      | 32      | 24     |  |  |  |
| Spacing between disc rows [cm] | 64    | 64     | 64      | 64      | 64     |  |  |  |





**Versatility** – thanks to the high degree of modularity and the multitude of options at a surcharge. The model range starts with a 3- and ends with a 12-metre wide machine.

Clever design of disc coulters

- mounted on exchangeable maintenance-free hubs. Each disc is secured by four triangular shock absorbers. The plough-beam is made of high-quality HARDOX steel and moulded into the shape of the coulter. This avoids blockages in the cultivated material.

Two types of ø 560 mm discs available – CLASSIC discs allow intensive cultivation at shallow working depth. Recommended in shallow stubble field cultivation and field preparation for sowing. AGRESSIVE discs are adapted to work with more crop residues, on heavier soils.

Larger indentations of the outermost coulters – reduced displacement of soil beyond the working width of the machine, directing it inwards. Adjusting the working depth avoids deep unevenness along the crop.

Extensive roller configurator – available options include ø 600 mm spiral roller , ø 600 mm U-roller, ø 500 mm rubber roller (mounted version only), ø 500 mm packer roller and DRIVE system on tyre roller with ø 670 mm wheels. The U-roller, and spiral rollers come in double versions, with their rings cleaning each other as they rotate.

**Compatible with various tractors** – thanks to approved air or hydraulic brakes. The unit can be retrofitted with a transport chassis or used as a mounted machine.

| ARES XL                                       | 3       | 3.5     | 4       | H 4     | H 4.5   | H 6.0   | H 7.5   |
|---|---------|---------|---------|---------|---------|---------|---------|
| Weight with ø 600-millimetre pipe roller [kg] | 1,530   | 1,875   | 2,085   | 2,470   | 3,075   | 3,630   | 4,485   |
| Power demand [HP]                             | 110÷130 | 120÷140 | 120÷150 | 130÷160 | 150÷180 | 170÷210 | 190÷260 |
| Number of discs [pcs]                         | 24      | 28      | 32      | 32      | 36      | 48      | 60      |
| Spacing between disc rows [cm]                | 80      | 80      | 80      | 80      | 80      | 80      | 80      |





**Proven solutions** – a subsurface injector based on the proven disc harrow, the ARES XL. Thanks to its ability to operate without a roller, it can be aggregated with slurry tankers whose coupling does not have a high lifting capacity.

#### Reducing nitrogen loss and eliminating odours

– thanks to a unique way of applying slurry. The dispensers mounted on the front row of discs inject it directly into the furrow formed by the disc. A second row of discs covers it with a layer of soil.

#### Universal mounts suitable for VOGELSANG

– the 3-, 3.5-, and 4-metre versions are suitable for use with the VOGELSANG DOSIMAT. The hydraulically folded machines are equipped with a mount for the ExaCut ECL distributor.

**Can operate without a roller** – which allows connection to slurry tankers with low coupling capacity. No roller means it can be operated in wet conditions.

**Corrosion protection** – thanks to hot-dip galvanisation of the distributors located on the front row of discs.

**Stable working depth** – thanks to the front support wheels, which allow the working depth to be maintained while not shifting the centre of gravity to the rear of the machine.

| ARES XM                                       | 3       | 3.5     | 4       | H 4.5   | Н 6     | H 7.5   |
|---|---------|---------|---------|---------|---------|---------|
| Weight with ø 600-millimetre pipe roller [kg] | 1,100   | 1,370   | 1,520   | 2,480   | 2,920   | 3,480   |
| Power demand [HP]                             | 110÷130 | 120÷140 | 120÷150 | 150÷180 | 170÷210 | 190÷250 |
| Number of discs [pcs]                         | 24      | 28      | 32      | 36      | 48      | 60      |
| Spacing between disc rows [cm]                | 80      | 80      | 80      | 80      | 80      | 80      |





Stable construction – the chassis located between the second row of discs and the roller prevents resonance. The rollers are arranged offset so that the machine does not tend to rock sideways at high working speeds. Thanks to its clever design, it can operate at speeds higher than 15 km/h.

Wear-resistant disc coulters – made of boron steel. Mounted on maintenance-free exchangeable hubs. Each disc is secured by four triangular shock absorbers. The plough-beam is made of high-quality HARDOX steel and moulded into the shape of the coulter. This avoids blockages in the cultivated material.

**Two types of discs available** – CLASSIC discs allow intensive cultivation at shallow working depth. Recommended in shallow stubble field cultivation and field preparation for sowing. AGRESSIVE discs are adapted to work with more crop residues and on heavier soils.

**Greater ease of use** – thanks to the hydraulic transport lock integrated in the machine's folding system.

#### Reduced soil compaction even in wet conditions

- thanks to large 500/50-17 wheels.

Three different front-mounted tools
- hydraulically controlled levelling harrow, spring

tines for spreading straw, ø 400 mm blade roller.

**Extensive roller configurator** – available options include pipe roller, U-roller, spiral roller, double U-roller and double spiral roller. The double rollers ensure optimum consolidation and stable operation at higher speeds. Their self-cleaning design avoids sticking with wet soil.

| ARES XM                                       | 5       | 6       |
|---|---------|---------|
| Weight with ø 600-millimetre pipe roller [kg] | 4,700   | 5,100   |
| Power demand [HP]                             | 160÷190 | 170÷210 |
| Number of discs [pcs]                         | 40      | 48      |
| Spacing between disc rows [cm]                | 80      | 80      |





High machine weight for effective work under all conditions – 1,200 kg per metre of machine working width (depending on equipment).

**Adequate organic matter flow** – thanks to the distance between the disc rows (120 cm) and the high ground clearance (curved frame shape).

#### The machine is available in three versions

- XL: 560/6 mm discs with triangular rubber protection; XXL: 660/6 mm discs with triangular rubber protection; TX: 660/6 mm discs with spring protection. Regardless of the version chosen, the coulters are mounted on a  $100 \times 100 \times 8$  mm frame.

Wear-resistant disc coulters – made of boron steel. Mounted on maintenance-free exchangeable hubs. Each disc is secured by four triangular shock absorbers. The plough-beam is made of high-quality HARDOX steel and moulded into the shape of the coulter. This avoids blockages in the cultivated material.

**Two types of discs available** – CLASSIC discs allow intensive cultivation at shallow working depth. Recommended in shallow stubble field cultivation and field preparation for sowing. AGRESSIVE discs are adapted to work with more crop residues and on heavier soils.

#### Reduced soil compaction even in wet conditions

- thanks to large 550/45-22.5 wheels.

Three types of consolidating rollers: pipe roller, double U-roller, and spiral roller. The double compacting rollers ensure optimum consolidation, stable operation at higher speeds and their self-cleaning design avoids sticking with wet soil.

**Easy machine adjustment** – thanks to a drawbar adjustment cylinder with a ratchet system that allows the machine to be quickly levelled after changing the working depth. A hydraulic transport lock integrated into the machine's folding system improves operator comfort.

| ARES HP                        | 4       | 5       | 6       | 8       |
|--------------------------------|---------|---------|---------|---------|
| Weight XL [kg]                 | 5,560   | 6,160   | 6,530   | 8,030   |
| Weight XXL [kg]                | 5,660   | 6,260   | 6,730   | 8,210   |
| Weight TX [kg]                 | 6,120   | 6,700   | 7,220   | _       |
| Power demand [HP]              | 170÷220 | 220÷230 | 240÷260 | 260÷280 |
| Number of discs (XXL/TX) [pcs] | 32      | 40      | 48      | 64      |
| Spacing between disc rows [cm] | 120     | 120     | 120     | 120     |





Free flow of even poorly cut straw – ensured by the large clearance between the working elements. The tine spacing is 41 cm and the spacing between the tines in a single row is 82 cm.

**Two-stage adjustment of KX tines** – one step reduces the rake angle of the tine and allows shallow work with full undercut. The second proves useful when there is a problem with the machine digging in. The chisel is set at an aggressive angle.

**Full undercut even in shallow work** – thanks to the special arrangement. The width of the undercutter is 440 mm, which is 3 cm wider than the tine pitch, allowing the operation of partially worn coulters.

**Digging in even in very dry conditions** – made possible by the individual pressure on the tine coulter (320 kg) and one of two adjustment stages.

Works with older tractors with low lifting capacity of the three-point hitch – KOS H 6 is equipped with a chassis. The axle has air brakes as standard.

**Optional extras** – the optional harrow B with two rows of AGRESSIVE Ø 460 mm discs completes the work of the tines by mixing straw with the topsoil.

| TECHNICAL DATA   |        | KOS B / S |         |         |         | KOS B H / S H |         |         |  |
|--|--------|-----------|---------|---------|---------|---------------|---------|---------|--|
| I ECTIVICAL DATA   | 2.1    | 2.6       | 3       | 3.7     | 3.7     | 4.5           | 5.4     | 6       |  |
| Weight with bolt protection option (KOS B) [kg]              | 720    | 800       | 915     | 1,270   | 1,830   | 2,080         | 2,375   | 2,530   |  |
| Weight with spring protection option (KOS S) [kg]            | 930    | 1,050     | 1,200   | 1,650   | 2,360   | 2,560         | 2,950   | 3,080   |  |
| Power requirement with bolt protection option (KOS B) [HP]   | 65÷80  | 80÷100    | 100÷140 | 140÷160 | 130÷160 | 140÷190       | 160÷200 | 200÷260 |  |
| Power requirement with spring protection option (KOS B) [HP] | 75÷100 | 90÷120    | 115÷150 | 140÷180 | 150÷190 | 170÷220       | 190÷260 | 190÷260 |  |
| Number of tines [pcs]  | 5      | 6         | 7       | 9       | 9       | 11            | 13      | 13      |  |



# KOS PREMIUM / PREMIUM LONG

CULTIVATOR FOR SIMPLIFIED TILLAGE

**Efficient work at over 30 cm** – double-beam, intended for lower horsepower tractors that are unable to work efficiently with three-beam units.

**High machine weight for effective work in all conditions** – even in extremely dry conditions. The structure is based on a 120×120 profile and the wall thickness is 8 mm.

**Optimum flow of soil and crop residues** – the high positioned frame and the appropriate spacing between the tines ensure the correct flow of tilled soil.

**CX tines** – equipped with 70 mm wide chisels and mixing mouldboard, directed in two directions. The outer tines are fitted with special mouldboards that keep the soil within the working area of the machine. Narrow double-sided chisels with a width of 40 mm can be fitted. Their job is to loosen the soil without turning it over.

**Optional DURUM chisels with 8-fold increased strength** – reinforced with tungsten carbide inserts, ensure that the working depth is maintained uniform throughout the service life.

**Two disc harrows** – disc harrow A – one row of elliptical ø 460 mm discs with deep indentations. They are mounted on maintenance-free hubs and protected by rubber triangular shock absorbers. Harrow B – two rows of discs that mix and evenly distribute crop residues. More discs provide better surface levelling. In the case of cultivation on compact soils, these discs additionally crush the clods extracted by the tines.

**Extensive roller configurator**: pipe roller, U-roller, spiral roller, and sheet metal roller. To improve operator's comfort, the machine is equipped as standard with hydraulic working depth adjustment.

LONG version – semi-mounted, equipped with transport chassis with 340/55-16 wheels mounted in front of the roller. Allows work with tractors with smaller lifting capacities. Like the mounted version, the KOS PREMIUM LONG can be fitted with a double disc harrow.

| KOS PREMIUM LONG                                 | 3       |         | 4       |  |  |  |
|--|---------|---------|---------|--|--|--|
| Weight without roller [kg]                       | 3,000   |         | 3,640   |  |  |  |
| Power demand [HP]                                | 140÷170 |         | 180÷220 |  |  |  |
| Number of tines [pcs]                            | 8       |         | 12      |  |  |  |
| Underbeam clearance [cm]                         | 85      |         | 85      |  |  |  |
| Tines spacing [cm]                               | 37 37   |         |         |  |  |  |
| KOS PREMIUM                                      | 3       | 3.5     | 4       |  |  |  |
| Weight with ø 600-millimetre pipe<br>roller [kg] | 1,880   | 2,190   | 2,500   |  |  |  |
| Power demand [HP]                                | 120÷150 | 140÷170 | 160÷190 |  |  |  |
| Number of tines [pcs]                            | 8       | 10      | 12      |  |  |  |
| Number of discs (harrow A) [pcs]                 | 9       | 10      | 13      |  |  |  |
| Number of discs (harrow B) [pcs]                 | 16      | 20      | 24      |  |  |  |
| Tine spacing [cm]                                | 37      | 37      | 37      |  |  |  |
| Underbeam clearance [cm]                         | 85      | 85      | 85      |  |  |  |





**Versatility** – hydraulically foldable unit for use in all conditions. It has three beams 75 cm apart and the tine spacing is 30 cm.

**Good flow of organic matter between the working elements** – thanks to the spacing between the disc rows and the high positioned frame.

High machine weight for effective work in all conditions – even in extremely dry conditions. The structure is based on a 100×100 (CROSS S) or 120×120 (CROSS H) profile and the wall thickness is 8 mm.

**Effective spring protection** – releases the tine upwards when the force at the end of the chisel is 550 kilograms.

**CX tines** – equipped with 70 mm wide chisels and mixing mouldboard, directed in two directions. The outer tines are fitted with special mouldboards that keep the soil within the working area of the machine. Narrow double-sided chisels with a width of 40 mm can be fitted. Their job is to loosen the soil without turning it over.

**Optional DURUM chisels with 8-fold increased strength** – reinforced with tungsten carbide inserts, ensure that the working depth is maintained uniform throughout the service life.

**Levelling harrow** – fitted with AGRESSIVE Ø 460 mm discs mounted on maintenance-free exchangeable hubs. They are positioned offset so that they do not get blocked by soil and crop residues. The outer discs are foldable and have adjustable depth.

**Four types of rollers**: pipe roller, U-roller, spiral roller, and sheet metal roller. To improve operator's comfort, the machine is equipped as standard with hydraulic working depth adjustment.

| CROSS S                                       | 3       | 3.5     | 4       | DRIVE 3 | DRIVE 3.5 | DRIVE 4 | H 4      | H 4.5    | H 5      |
|---|---------|---------|---------|---------|-----------|---------|----------|----------|----------|
| Weight with ø 600-millimetre pipe roller [kg] | 2,260   | 2,460   | 2,620   | 2,760   | 3,080     | 3,240   | 3,550 kg | 3,850 kg | 4,300    |
| Power demand [HP]                             | 150÷180 | 160÷190 | 170÷200 | 140÷170 | 150÷180   | 170÷200 | >250 HP  | >300 HP  | > 400 HP |
| Number of tines [pcs]                         | 10      | 12      | 13      | 10      | 12        | 13      | 13       | 15       | 17       |
| Tine spacing in the machine [mm]              | 300     | 290     | 300     | 300     | 290       | 300     | 305      | 305      | 305      |
| Underbeam clearance [cm]                      | 85      | 85      | 85      | 85      | 85        | 85      | 80.5     | 80.5     | 80.5     |
| Beam spacing [cm]                             | 75      | 75      | 75      | 75      | 75        | 75      | 80       | 80       | 80       |
| Machine length [cm]                           | 397     | 397     | 397     | 430     | 430       | 430     | 427      | 427      | 427      |





**For the toughest conditions** – universal, with working widths of 4, 5, or 6 metres. The tines are arranged on 4 beams to ensure adequate mixing of the soil.

**Extensive roller configurator**: pipe roller, U-roller, spiral roller, or double U-roller and double spiral roller.

**CX tines** – equipped with 70 mm wide chisels and mixing mouldboard, directed in two directions. The outer tines are fitted with special mouldboards that keep the soil within the working area of the machine. Narrow double-sided chisels with a width of 40 mm can be fitted. Their job is to loosen the soil without turning it over.

**Optional DURUM chisels with 8-fold increased strength** – reinforced with tungsten carbide inserts, ensure that the working depth is maintained uniform throughout the service life.

**Traction improvement system** – thanks to a hydraulic cylinder mounted on weights on the drawbar. This helps to reduce tractor slippage in difficult conditions.

#### Reduced soil compaction even in wet conditions

- thanks to large 500/45-22.5 wheels.

**Hydraulic working depth adjustment as standard** – adjustable by means of clips, allows the desired working depth to be set precisely.

**Levelling harrow** – fitted with AGRESSIVE Ø 460 mm discs mounted on maintenance-free exchangeable hubs. The outer discs are foldable and have adjustable depth.

Good flow of organic matter between the working elements – thanks to the high positioned frame and the distance between the cultivation tines.

High machine weight for effective work in all conditions – even in extremely dry conditions. The structure is based on a  $120 \times 120$  profile and the wall thickness is 8 mm.

| CROSS HP                                      | 4       | 5       | 6       |
|---|---------|---------|---------|
| Weight with ø 600-millimetre pipe roller [kg] | 6,300   | 6,950   | 7,270   |
| Power demand [HP]                             | 180÷240 | 240÷280 | 280÷320 |
| Number of tines [pcs]                         | 13      | 17      | 19      |
| Tine spacing in the machine [mm]              | 300     | 290     | 305     |
| Underbeam clearance [cm]                      | 85      | 85      | 85      |
| Beam spacing [cm]                             | 75      | 75      | 75      |
| Machine length [cm]                           | 760     | 760     | 760     |





**Efficiency and versatility** – for stubble field cultivation and control of self-seeding of crops and weeds. It is used in all tillage systems. Work is carried out without interfering with the cultivation layer, to a depth of up to 30 mm.

**High durability at higher speeds** – thanks to robust frame construction. Front section based on two profiles. The tine profile brackets are made of RAEX 500 steel.

**Folding not in half, but in three parts** – the machine is folded by two cylinders into three parts, making it lower for transport. In addition, the frame is divided into three sections to ensure better terrain following.

**16x700 tines with adjustable rake angle** – mounted in 5 rows, are hydraulically adjustable, the two rear rows can be independently swivelled by means of a spindle. The angle of the tines is indicated by a scale visible from the tractor's cab.

#### ø 400 mm blade roller with boron steel blades -

intended for preliminary shredding of organic matter in the field. The use of boron steel ensures resistance to damage.

**Cutting discs ø 400 mm** – mounted on maintenance-free bearings suspended on a flexible spring. The specially shaped coulter surface lifts the soil, which is then mixed with the crop residues.

**Hydraulic plate harrow** – has 150 mm wide plates. This width ensures proper crushing and levelling of the terrain, while not putting undue strain on the individual springs. It is possible to mount the harrow plates and cutting discs on the same springs.

| BUZZARD                         | 7.5     | 9       |
|---------------------------------|---------|---------|
| Weight in standard version [kg] | 1,760   | 2,000   |
| Weight with cutting roller [kg] | 2,760   | 3,130   |
| Weight with cutting disc [kg]   | 2,510   | 2,730   |
| Weight with harrow [kg]         | 2,340   | 2,550   |
| Power demand [HP]               | 130÷170 | 170÷220 |
| Number of springs/tines [pcs]   | 60/120  | 75/150  |





**Good flow of organic matter between the working elements** – thanks to the deltoid shape of the frame and the high clearance.

**High-strength construction** – frame profile 200×100 mm. On a three-metre frame, three or five tines can be fitted, and on a four-metre frame – five or seven.

Adaptation to the width of tramlines on the farm – thanks to the design of the tine brackets, which allows the spacing to be adjusted.

**Precise working depth** – can be adjusted thanks to a 200/60-14.5 support wheel mounted on the edge of the frame. Adjustment is stepless and takes place via two spindles.

**Uniform soil loosening** – thanks to the tine design. The maximum working depth of the L-type tine is 50 cm. The 190 mm wide wings create a wave effect.

**Four rollers available**  $- \emptyset$  600-millimetre pipe roller,  $\emptyset$  600-millimetre spiral roller,  $\emptyset$  600-millimetre U-roller, or  $\emptyset$  600-millimetre sheet metal roller.

**NON-STOP protection for the S version** – each tine is protected by two springs consisting of 5 leaves.

| TECHNICAL DATA             |        |         | KRET B  |         |         |         |         | KRET S  |         |         |
|----------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| TECHNICAE DATA             | 3      | 3/5     | 5       | 5/7     | 7       | 3       | 3/5     | 5       | 5/7     | 7       |
| Weight without roller [kg] | 610    | 720     | 840     | 980     | 1,140   | 830     | 1,000   | 1,300   | 1,510   | 1,785   |
| Power demand [HP]          | 75÷110 | 100÷130 | 110÷150 | 150÷180 | 160÷210 | 100÷130 | 130÷160 | 150÷180 | 170÷230 | 180÷240 |
| Number of tines            | 3      | 3       | 5       | 5       | 7       | 3       | 3       | 5       | 5       | 7       |





**Effective mechanical weed control** – in the early growth stages of cereals and other crops.

**High quality components** – the five rows of 7 mm spring double tines are made of high-quality spring steel and zinc-coated to protect the surface against corrosion.

**Quick replacement of working elements** – the tines are fixed with pins, so replacement is a matter of unlocking the pin, sliding out the old tine and inserting the new one.

Precise adjustment of the tine rake angle with a single lever – the profiles with tines are mounted in a parallelogram. Their adjustment has five stages.

**Precise ground following** – thanks to the central mounting of each one-and-a-half-metre section. In addition, each section is suspended by clamps and chains, so it moves up and down when it encounters bumps.

**Precise steering of the machine** – thanks to 5.00x9 support wheels (AKCENT 9 and 12) with stepless height adjustment. The machine's transport chassis uses bearing hubs.

**Uniform folding of the machine** – thanks to a flow divider.

**Operator comfort** – thanks to the hydraulic transport lock, the operator does not have to leave the tractor cab to secure the machine for transport.

**Use for meadow maintenance** – when fitted with levelling bars. Tines remove moss, dead plant parts stimulate the grass to grow, and bars level the surface.

| AKCENT                   | 6      | 9      | 12      |
|--------------------------|--------|--------|---------|
| Weight [kg]              | 740    | 1,260  | 1,700   |
| Power demand [HP]        | 70÷100 | 90÷120 | 110÷140 |
| Number of sections [pcs] | 4      | 6      | 8       |
| Number of springs [pcs]  | 240    | 360    | 480     |



# **POZNANIAK**

MECHANICAL SEED DRILL

#### For working solo, but also with a combined unit -

thanks to its lightweight and compact design, it performs in solo operation as well as with a cultivator – especially with a mounted unit fitted with a coupling for the seed drill.

Uniform sowing of fine and coarse seeds – thanks to a precise stepless box. Working in difficult conditions with a large amount of crop residue is possible thanks to the modern SHELL 300 mm double-disc coulters with 250×50 mm ground following wheels. Seed coverage and field levelling is provided by a weeder harrow with individual springs.

**Large functional seed hopper** – with a capacity of 470 to 510 litres can be loaded mechanically. This is made possible by a 2-metre wide inspection platform with steps. The loading height does not exceed 1.5 m.

**Extensive optional equipment** – allows the machine to be equipped exactly to the customer's needs.

**Comfort and affordability** – thanks to a range of extraordinary solutions. A special system for lowering the beam with telescopic tubes makes it easier to carry out the drill adjustment. The STARTER SEED and PILOT SEED controllers allow convenient control of the seeder.

#### The 510/3 version can be driven on public roads

– thanks to the limitation of the transport width to 3 m.

| MODEL   | WORKING WIDTH (M) | HOPPER CAPACITY<br>(DM <sup>3</sup> ) | NUMBER OF COULTERS (PCS) | POWER DEMAND (HP) | WEIGHT (KG) |
|---------|-------------------|---------------------------------------|--------------------------|-------------------|-------------|
| 470/2.5 | 2.5               | 470                                   | 21                       | 45                | 540/660     |
| 470/2.7 | 2.7               | 470                                   | 23                       | 45                | 550/680     |
| 510/3   | 3.0               | 510                                   | 25                       | 60                | 620/770     |





**High-capacity seed hopper** – holds 550 litres, expandable with a 750 litre extension. The DUPLO version with a split fertiliser-seed hopper allows simultaneous seeding of seed and fertiliser with one coulter, the so-called around-seed fertilisation. For the version with an extension, wide 10.0/80-12 wheels are recommended for greater stability on light soils.

#### For working solo, but also with a combined unit

- the seed drill performs in solo operation as well as with a cultivator to form a combination seed drill.

**Comfort of use** – thanks to the control unit controlling the seed drill (STARTER SEED, PILOT SEED, or SUPERIOR).

# **Uniform sowing of fine and coarse seeds** – thanks to a precise stepless gearbox. Central clamping (mechanical or hydraulic) and individual clamping ensure good seed placement at the correct depth. Seed coverage and field levelling is provided by a weeder harrow with individual springs. For even better compaction after sowing, the machine can be extended by adding 250×50- or 330×50-millime-

#### A range of optional adaptations for demanding soils – for soils with crop residues, the modern V-TECH and SHELL disc coulters with ground following wheels are recommended. The PREMIUM version

tre ground following wheels.

of the seed drill, developed for the toughest soil conditions, incorporates massive Ø 350 millimetre SHELL alternating coulters and 35 kgf pressure.

| MODEL       | WORKING WIDTH (M) | HOPPER CAPACITY<br>(DM³) | NUMBER OF COULTERS<br>(PCS) | POWER DEMAND (HP) | WEIGHT (KG) |
|-------------|-------------------|--------------------------|-----------------------------|-------------------|-------------|
| 550         | 3.0               | 550 (750)                | 25                          | 80                | 710         |
| 550 D       | 3.0               | 550 (750)                | 25                          | 80                | 850         |
| 550 D DUPLO | 3.0               | 550 (750)                | 25                          | 80                | 900         |
| 550 PREMIUM | 3.0               | 550 (750)                | 25                          | 80                | 950         |





For simplified and conventional tillage – this mechanical, heavy-duty seed drill of trailed design has a low power requirement.

Seed sowing even under the most difficult condi-

tions – thanks to the massive, single-disc ø 400-millimetre coulter with 100 kgf pressure.

#### Uniform sowing of fine and coarse seeds

– carried out over the entire working width.

**A complementary process** – the front hitch Packer compacts the soil between the tractor wheels and levels the surface directly in front of the sowing coulters. The Ø 670 or 800 millimetre tyre roller does the same after sowing, guaranteeing proper water absorption.

**Efficiency** – the large hoppers have a capacity of 900 litres to 3,500 litres. Easy access allows loading from BIG-BAGs.

Simultaneous seeding of seed and fertiliser with

AMBER DUPLO – thanks to the split fertiliser-seed

hopper, which enables so-called around-seed fertilisation.

Can be extended with cultivation parts

– to create a combination seed drill. In such a case, the cultivator is equipped with 460 mm discs and a 670 mm tyre roller. This solution ensures thorough cultivation of the soil immediately before sowing (versions 3000 and 3500).

| MODEL      | WORKING WIDTH (M) | HOPPER CAPACITY<br>(DM³) | NUMBER OF COULTERS<br>(PCS) | WEIGHT (KG) | POWER DEMAND (HP) |
|------------|-------------------|--------------------------|-----------------------------|-------------|-------------------|
| 900        | 3.0               | 900                      | 24                          | 1,750       | 100÷120           |
| 900 DUPLO  | 3.0               | 900                      | 24                          | 1,900       | 100÷120           |
| 1200       | 4.0               | 1,200                    | 32                          | 3,100       | 120÷140           |
| 1200 DUPLO | 4.0               | 1,200                    | 32                          | 3,300       | 120÷140           |
| 3000       | 3.0               | 3,000                    | 24                          | 2,500       | 120-140           |
| 3000 DUPLO | 3.0               | 3,000                    | 24                          | 2,600       | 120-140           |
| 3500       | 4.0               | 3,500                    | 32                          | 3,100       | 140-160           |
| 3500 DUPLO | 4.0               | 3,500                    | 32                          | 3,250       | 140-160           |



# **USF**

PNEUMATIC SEED DRILL FOR THE FRONT OF THE TRACTOR

#### Seed drill for cooperation with other machines

– cultivators, weeders, potato planters, and other using fertiliser application. For mounting on the tractor's front three-point hitch.

**Easy loading from BIG-BAGs** – thanks to a special tarpaulin. The large 1,600 litre hopper is made of lacquered black sheet metal. A 600-litre extension is available as an option. The USF 1600/2 version has a hopper with a split and detachable partition, which allows the seeding of two different seed materials.

**Selectable drive option** – a mechanical drive of the seed sowing apparatus from the ground following wheel (spur wheel) is available as standard. Optional: electric drive of seed sowing apparatus with TOUCH 800 controller and GPS for speed reading.

**Reinforced seed sowing apparatus** – volumetric type, designed specifically for spreading fertiliser. The stepless adjustment of the spread rate is independent on both apparatus with blowing force control. The seed drills can be equipped with distributor heads with different numbers of outputs: 4, 6, 8, 12, 20, or 24.

**Driving comfort** – thanks to the ergonomically shaped hopper, which facilitates visibility for the tractor operator. Lighting and warning signs come as standard.

| USF                                   | 1600/1                          | 1600/2                          |  |
|---------------------------------------|---------------------------------|---------------------------------|--|
| Distributors [number of outputs]      | 4/6/8/12/20/24                  | 4/6/8/12/20/24                  |  |
| Hopper capacity [dm³]                 | 1600 (2200)                     | 1600 (2200)                     |  |
| Fan drive                             | Hydraulic (24 litres/minute)    | Hydraulic (24 litres/minute)    |  |
| Number of seed sowing apparatus [pcs] | 1                               | 2                               |  |
| Weight [kg]                           | 780 (810)                       | 800 (830)                       |  |
| Power demand [HP]                     | The same as cooperating machine | The same as cooperating machine |  |





**For strip till** – 4, 6, or 8 working sections can be mounted on a massive 3-metre wide monolithic frame. The spacing between sections is 75, 45, or 37.5 cm respectively.

#### Cultivation section consists of several parts

– the cutting disc, spreading discs, working tine, harrowing discs, and compacting roller. Each fulfils a different role and complements the work of the others, so that the process can be performed more accurately.

#### Combination with a seed drill or sowing ramp

 thanks to a coupling based on a single cylinder, on which a seed drill or sowing ramp weighing up to 1,600 kg can be mounted.

**Stable working depth** – thanks to ground following by means of a section suspended on a parallelogram.

**Tines** – each plough-beam has its own hydraulic protection and is finished with a 25-millimetre wide chisel and side undercutters with a total width of 150 mm. The maximum working depth of the tine is 35 cm, while the two outlets at the back of each tine allow fertiliser to be placed in the soil at levels 7 cm apart.

#### Easy expansion of the machine from 3 to 4 $\mbox{m}$

- thanks to a set of optional extensions, which allows the section spacing to be increased from 45 to 75.

**Adjustable working aggressiveness** – by spring clamp on the 240-millimetre wide and 300-millimetre diameter compaction rollers. These rollers are responsible for consolidation.

| HAWK                  | 3/4     | 3/6     | 3/8     |
|-----------------------|---------|---------|---------|
| Number of tines [pcs] | 4       | 6       | 8       |
| Section spacing [cm]  | 75      | 45      | 37.5    |
| Weight [kg]           | 1,700   | 2,200   | 2,650   |
| Power demand [HP]     | 170÷250 | 220÷270 | 250÷300 |



# **FP** 250 / 550

PNEUMATIC SEED DRILL FOR AFTERCROP

**Universal** – can be used to sow aftercrop, grass, or fertiliser.

Uniform spreading in all weather conditions over the entire working width – thanks to the pneumatic spreading system. The electric blower drive allows accurate seeding of different calibrations up to a working width of 6 m. Two sowing rollers as standard – for fine and coarse seeds, plus an additional roller for sowing fine seeds in small doses.

Hermetic, compact seed hopper – available in 250 litre or 550 litre capacities to match the size and shape of the seed drill with machines that are hydraulically folded for transport. The hoppers are tightly sealed and do not allow any dust generated during operation of the unit to enter, ensuring the purity of the material.

**Extension possibility** – e.g., increasing the number of seeding sections to 16 outputs by means of T-pieces and additional diffusers.

#### Quick calibration of the seed sowing apparatus

 enables a wide variety of seed to be sown in accordance with the machine's working width and drive speed.

**Control of the process** – STARTER FP and PILOT FP controllers with speed sensors control the seed drill. The control is also facilitated by speed sensors: for wheels, GPS, 7-pin selectable with PILOT FP controller.

**Dedicated mounting elements for UNIA ma- chines** – including mounting elements with platform and ladder, distributors, distributor mounting strips, and appropriate lengths of seed transport hoses.

| MODEL | FAN DRIVE | WORKING WIDTH (M) | HOPPER CAPACITY (DM³) | WEIGHT (KG) | ELECTRICAL PARAMETERS |
|-------|-----------|-------------------|-----------------------|-------------|-----------------------|
| 250   | Electric  | 0÷6               | 250                   | 60          | 12 V / 25 A           |
| 550   | Electric  | 0÷6               | 550                   | 75          | 12 V / 25 A           |



# FM 400/700

MECHANICAL
COMBINATION SEED DRILL

**Wide adaptability** – these compact units can be mounted on a passive, tine, disc or active unit. They are suitable for traditional or simplified technology. They can be equipped with lightweight shoe coulters or with universal single-disc coulters with ground following wheels, 250×50 mm, which are also recommended for mosaic soils.

**Mechanical seed sowing apparatus** – based on a stepless gearbox and universal seed sowing apparatus.

**Improved efficiency and fewer loadings** – thanks to large seed hoppers with a capacity of up to 700 dm<sup>3</sup>.

**Comfort of use** – thanks to the STARTER SEED or PILOT SEED controller which controls the operation of the seed drill.

Safetywhenloadingthehopper- thanks to a loading platform across the entire width

of the seed drill.

A complementary process – the massive Ø 500 millimetre packer or rubber compacting rollers crush and compact the soil immediately before sowing, allowing optimum conditions for the seed. A weeder harrow with individual springs covers the sown rows, levels the field, and follows any unevenness well.

| MODEL   | UNIT TYPE | WORKING WIDTH<br>(M) | HOPPER CAPACITY (DM <sup>3</sup> ) | COULTER TYPE | NUMBER OF<br>COULTERS (PCS) | WEIGHT (KG) | POWER DEMAND<br>(HP) |
|---------|-----------|----------------------|------------------------------------|--------------|-----------------------------|-------------|----------------------|
| 400     | Tine      | 3.0                  | 400                                | Shoe         | 25                          | 1,200       | 70÷80                |
| 400/D   | Tine      | 3.0                  | 400                                | Disc         | 25                          | 1,350       | 70÷80                |
| S 700   | Tine      | 3.0                  | 700                                | Shoe         | 25                          | 1,680       | 120                  |
| S 700/D | Tine      | 3.0                  | 700                                | Disc         | 25                          | 1,850       | 120                  |
| T 700/D | Disc      | 3.0                  | 700                                | Disc         | 25                          | 1,800       | 120                  |
| A 700   | Active    | 3.0                  | 700                                | Shoe         | 25                          | 2,100       | 140                  |
| A 700/D | Active    | 3.0                  | 700                                | Disc         | 25                          | 2,230       | 140                  |
|         |           |                      |                                    |              |                             |             |                      |



## FENIX G

PNEUMATIC SEED DRILL FOR SOWING GRASS

#### Precise uniform undersowing of grass seed into

**the turf** – thanks to the combination of pneumatic seeding and the massive coulter used. The seeds are placed in rows every 90 mm at the correct depth and the soil is compacted after sowing. A seed distributor inside the hopper ensures precision.

Quick and easy calibration of the seed sowing apparatus – its drive can be mechanical (spur wheel) or electric (electric motor). Electric motor allows the application rate to be changed on the move and quick calibration of the apparatus. Regardless of the drive, the machine allows seeding from 1.5 to 400 kg/ha. The electric drive uses a GPS sensor to read the speed

**Performance on a wide range of fields** – the large hopper has a capacity of 1,000 dm<sup>3</sup>, facilitating longer periods of uninterrupted work. The seeder fan does not need additional energy sources as it is driven directly from the tractor's hydraulics. The hydromotor requires a flow rate of min. 24 litres/minute.

Specialised, self-cleaning Ø 450/500 prismatic roller – compacts the soil after sowing and closes the coulter track.

**Rubber shock-absorbing protection for massive disc coulters** – with a pressure of min. 90 kgf.

| WORKING WIDTH (M)              | 3                           |
|--------------------------------|-----------------------------|
| HOPPER CAPACITY (DM³)          | 1,000                       |
| COULTER TYPE                   | single-disc, 405 mm         |
| NUMBER OF COULTERS (PCS)       | 32                          |
| COULTER PRESSURE (KGF/COULTER) | 90                          |
| STANDARD LOAD (KG)             | 420                         |
| ADDITIONAL LOAD (KG)           | 300                         |
| ROLLER TYPE                    | prismatic, 450/500 mm       |
| WEIGHT [KG] (STANDARD LOAD)    | 2,950                       |
| POWER DEMAND (HP)              | 140                         |
| FAN DRIVE                      | hydraulic, from the tractor |

of the vehicle.



### FENIX 1000

PNEUMATIC COMBINATION SEED DRILL

Accurate sowing of fine and coarse seeds without removing the seed roller

- thanks to the precise FX volumetric seed sowing apparatus. The unit is intended for traditional or simplified technology.

Efficient and well thought-out design – the seed drill fan is driven directly from the tractor's hydraulics. The hydromotor requires a flow rate of min. 24 litres/minute. The seed distributor is positioned above the sowing coulters so that the seed is distributed later and gravity directs it to the sowing coulters. The SHELL 480-millimetre universal alternating coulter with 25 kgf pressure ensures ideal seed-to-soil contact. Large 330×50-millimetre ground following wheels compact the soil after sowing and maintain the set depth. The precise key firmer levels the sown soil surface.

Can be installed on one of two units – disc or active, depending on soil conditions and sowing technology used. The disc unit is a parallel harrow with 460-millimetre diameter discs protected by rubber shock absorbers. The active unit is equipped with 12 rotors with 280-millimetre blades and is dedicated to particularly difficult soil conditions.

**Two pressing rollers available** – Ø 500-millimetre packer roller or Ø 500-millimetre rubber roller.

| MODEL  | UNIT TYPE | WORKING WIDTH (M) | HOPPER CAPACITY<br>(DM³) | NUMBER OF<br>COULTERS (PCS) | WEIGHT (KG) | POWER DEMAND<br>(HP) |
|--------|-----------|-------------------|--------------------------|-----------------------------|-------------|----------------------|
| T 1000 | Disc      | 3.0               | 1,000                    | 24                          | 1,980       | 140                  |
| A 1000 | Active    | 3.0               | 1,000                    | 24                          | 2,270       | 140                  |



### FENIX 3000

PNEUMATIC COMBINATION SEED DRILL

Accurate sowing of fine and coarse seeds without removing the seed roller

- thanks to the precise FX volumetric seed sowing apparatus. The unit is intended for traditional or simplified technology.

Efficient and well thought-out design – the seed drill fan is driven directly from the tractor's hydraulics. The hydromotor requires a flow rate of min. 24 litres/minute. Massive 350 mm V-TECH G coulter with individual pressure of up to 80 kgf ensures ideal seed-to-soil contact in all conditions. The large 330×50 mm ground following wheels compact the soil after sowing and maintain the set working depth even on soils with different textures (mosaic).

**Uniform seeding over the entire working length of the machine** – thanks to the pneumatic sowing system with the distributor located above the sowing coulters and the 485-millimetre diameter discs.

**Easier transport of the machine under difficult conditions** – by means of a stable transport system on four wide wheels.

**Oil supply from just one pair of hydraulics** – thanks to the extensive hydraulic block. All adjustments of the machine are made using hydraulic cylinders.

**The TOUCH 800 and ISOBUS computer** – it is responsible for the control of the seed drill and hydraulic systems and enables, among other things, quick calibration of seeding and application rate changes while driving.

**Simultaneous seeding of seed and fertiliser in the DUPLO version** – with additional Ø 400-millimetre fertiliser coulters with pressure of 100 kgf.

| MODEL        | WORKING WIDTH (M) | SEED HOPPER CAPACIT<br>(DM³) | Y NUMBER OF DISCS (PCS) | WEIGHT (KG) | POWER DEMAND (HP) |
|--------------|-------------------|------------------------------|-------------------------|-------------|-------------------|
| 3000/3       | 3.0               | 3,000                        | 18/24                   | 4,750÷4,900 | 120÷140           |
| 3000/4       | 4.0               | 3,000                        | 24/32                   | 5,900÷6,500 | 140÷160           |
| 3000/6       | 6.0               | 3,000                        | 40                      | 7,600÷8,200 | 190÷240           |
| 4000/6 duplo | 6.0               | 4,000                        | 40                      | 7,900÷8,500 | 220÷270           |



## FS T DRIVE

PNEUMATIC
COMBINATION SEED DRILL

**Mechanical-pneumatic sowing system** – dosing is carried out mechanically by means of a gearbox and the pin seed sowing apparatus, while the transport of the seed to the coulters is pneumatic.

Good performance – large hopper of 1,500 dm<sup>3</sup>.

**Two options for powering the fan** – directly from the tractor's hydraulics or independent hydraulics with its own hydraulic pump, oil tank and radiator.

**Excellent seed-to-soil contact even in difficult soil conditions** – thanks to massive SHELL 300-millimetre alternating coulters with pressure of 25 kgf or V-TECH G 350-millimetre with pressure of 80 kgf.

**High stability during work and transport** – guaranteed by the 800-millimetre tyre roller. In addition, it ensures good strip compaction before sowing.

**Precise cultivation** – the large 330×50 mm ground following wheels compact the soil after sowing and maintain the set depth, which is particularly important on mosaic soils. The disc unit with ø 460-millimetre discs ensures thorough cultivation over the entire working width. The 670-millimetre front packer roller provides good soil compaction between the tractor wheels.

**Low power requirements** – the semi-mounted system and relatively low unladen weight allow the machine to be aggregated with tractors with power from 100 HP.

| MODEL          | WORKING WIDTH (M) | SEED HOPPER<br>CAPACITY (DM³) | NUMBER OF COULTERS<br>(PCS) | WEIGHT (KG) | POWER DEMAND (HP) |
|----------------|-------------------|-------------------------------|-----------------------------|-------------|-------------------|
| 1500/3         | 3.0               | 1,500                         | 24                          | 2,850       | 100               |
| 1500/3 PREMIUM | 3.0               | 1,500                         | 20                          | 3,050       | 120               |





The fertiliser hopper and frame have been treated with a zinc primer – so that the spreader is additionally protected against corrosion.

LED road lighting as standard (does not apply to MX 850).

**Hydraulic double-sided system for closing dosing holes** – makes the machine easier to operate and more comfortable.

**Edge spreading** – possible by using a special disc or limiter fitted to the left or right side of the spreader.

**Spreading discs made of stainless steel** – ensure durability over many seasons.

Easy setting of the working width by means of adjustable vanes – allows efficient adjustment of the working parameters for the field.

**The hopper sieves and agitators** – enable clumped fertiliser to be crushed and ensure smooth spreading.

**Easy-to-read seeding rate chart** – facilitates quick calibration of the spreader before use.

**Easy adjustment of spreader settings** – thanks to easily accessible key components.

**The spreader's tilt indicator** – makes it easy to set up the machine for standard or additional spreading.

**Wide range of hopper capacities** – from 850 to 3,000 litres, depending on the needs of the farm and the power of the tractor.

The seed sowing apparatus, discs, and vanes made of stainless steel – ensure a long service life and simple adjustment of the working width and reduce set-up times to a minimum.

| MODEL                       | MX 850           | MX 1000          | MX 2500            |
|-----------------------------|------------------|------------------|--------------------|
| Hopper capacity [dm³]       | 850              | 1,000            | 2,500              |
| Working width [m]           | 10÷24            | 10÷24            | 10÷36              |
| Loading dimensions [L/W/H]. | 1.1 / 2.0 / 1.06 | 1.1 / 2.0 / 1.06 | 1.67 / 2.67 / 1.78 |
| Kerb weight [kg]            | 273              | 280              | 595                |





**Highest precision in fertiliser spreading** – provided by the unique Screw Distribution System (SDS).

**Convenient and simple operation and full rate control** – thanks to the hydraulic control of the spreading system. With the PILOT JOY controller, it is possible to maintain a constant spread rate, spread by halfwidth, and change the application rate while driving.

**Durability of spreader discs** – made of stainless steel, they can be used for many seasons.

**Operator safety when driving** – thanks to a rear boom with LED lighting installation. Ensures good visibility of the machine at night.

Both for small and narrow fields as well as large acreages – thanks to a working width of 10 to 36 m.

**Adaptation of machine parameters to specific needs** – thanks to capacious fertiliser hoppers ranging from 1,200 to 3,000 litres.

Accurate and efficient spreader calibration

- thanks to the seeding rate chart and setting chart, granulometer, and 3 sets of vanes as standard.

| MODEL                       | MXL 1200         | MXL 2100           |
|-----------------------------|------------------|--------------------|
| Hopper capacity [dm³]       | 1,200            | 2,100              |
| Working width [m]           | 10÷36            | 10÷36              |
| Loading dimensions [L/W/H]. | 1.5 / 2.2 / 1.25 | 1.67 / 2.67 / 1.42 |
| Kerb weight [kg]            | 382              | 580                |





SPREADER COMPATBILE WITH ISOBUS **Greater spreading precision** – thanks to compatibility with the ISOBUS system and precision farming functionality.

**Simple operation and full rate control** – thanks to the hydraulic control of the spreading system.

Ability to set different application rates for the left and right discs – provided by the Screw Distribution System (SDS). Driven by two independent hydraulic motors.

Constant application rate independent of driving speed – thanks to the TOUCH 800 computer.

**Longer machine life** – thanks to the stainless steel design of the seed sowing apparatus and discs.

**Operator safety while driving** – thanks to the LED lighting as standard. Increased visibility of the machine on the road.

**For both small and large farms** – thanks to the fertiliser hoppers which come in capacities from 1,200 to 3,000 litres.

Adjustable working widths from 10 to 36 m – thanks to three sets of spreading vanes.

Adaptation of the machine to the needs of the farm – thanks to a range of optional extras.

| MODEL                       | MXL 1200 PREMIUM | MXL 2100 PREMIUM   |
|-----------------------------|------------------|--------------------|
| Hopper capacity [dm³]       | 1,200            | 2,100              |
| Working width [m]           | 10÷36            | 10÷36              |
| Loading dimensions [L/W/H]. | 1.5 / 2.2 / 1.25 | 1.67 / 2.67 / 1.42 |
| Kerb weight [kg]            | 382              | 580                |



### **RCW**

SPREADER FOR LIME AND GRANULATED FERTILISER **Durability and high work quality** – thanks to the reinforced frame design and the steeper walls of the fertiliser hopper, which makes it easier for the material to fall onto the belt feeder.

**Proven solutions** – the machine uses a precise system for dosing fertiliser onto the discs by means of a belt conveyor.

#### Suitable for a wide range of farms

– thanks to a large number of models that differ, for example, in hitching (RCW 45-110 TD – top or bottom hitch, RCW 130 TD – spring bottom hitch), chassis (RCW 45-85 H – single axle, RCW 90-130 TD – on spring tandem) or fertiliser hopper capacity (from 4,500 to 13,000 litres).

**Choice of conveyor drive** – from the spur wheel or hydraulic drive.

**ISOBUS compatibility** – allows operation in precision farming standards.

**Safe working** – thanks to double-circuit brakes as standard. The machine has EU 167/2013 type-approval.

**Versatility** – for the application of both granular fertilisers and lime. With two, easily exchangeable sets of discs and a chute as standard.

**Reliable corrosion protection** – both the discs and the seed sowing apparatus are made of stainless steel.

|                      | MODEL                  | RCW 45      | RCW 60      | RCW 85      | RCW 60 H | RCW 85 H   | RCW 90 TD   | RCW 110 TD  | RCW 130 TD  |
|----------------------|------------------------|-------------|-------------|-------------|----------|------------|-------------|-------------|-------------|
| Hopper capa          | city [dm³]             | 4,500       | 6,000       | 8,500       | 6,000    | 8,500      | 9,000       | 11,000      | 13,000      |
| Working              | Granulated fertilisers | 10÷36       | 10÷36       | 10÷36       | 10÷36    | 10÷36      | 10÷36       | 10÷36       | 10÷36       |
| Working<br>width [m] | Lime                   | 8÷16        | 8÷16        | 8÷16        | 8÷16     | 8÷16       | 8÷16        | 8÷16        | 8÷16        |
| Kerb weight          | [kg]                   | 2,430       | 2,840       | 3,120       | 3,230    | 3,630      | 4,200       | 4,400       | 5,600       |
| Standard tyre        | es                     | 500/60-22.5 | 550/60-22.5 | 550/60-22.5 | 18.4 R38 | 520/85 R38 | 500/60-22.5 | 550/60-22.5 | 600/55-22.5 |



### RCW PLUS H

SINGLE-AXLE TRAILED SPREADER **Durability and high work quality** – thanks to the reinforced frame design and the steeper walls of the fertiliser hopper, which makes it easier for the material to fall onto the belt feeder.

**ISOBUS compatibility** – allows operation in precision farming standards.

**Versatility** – for the application of both granular fertilisers and lime. With two, easily exchangeable sets of discs and chutes as standard. Dosing of fertiliser onto the discs is carried out by a hydraulically driven belt conveyor.

Working width of up to 36 m – thanks to the placement of the spreading discs at a height of approx. 120 cm (depending on wheel size).

Easier fertiliser application at the field border – thanks to a special edge spreader disc or a mechanically or hydraulically foldable limiter.

Constant application of the set rate independent of driving speed – thanks to the PILOT JOY controller.

**Safe working** – thanks to dual-circuit air brakes as standard and road lighting that ensures the machine is visible on the road. The machine has EU 167/2013 type-approval.

**Extensive standard equipment** – including drawbar support, wheel mudguards, hopper sieves and a wide-angle roller.

**Reliable corrosion protection** – both the discs and the seed sowing apparatus are made of stainless steel.

**Spring lower hitch** – guarantees stability, driving safety and reduces the forces transmitted from the machine to the tractor.

| MO                       | DEL                    | RCW 100 PLUS H | RCW 120 PLUS H |
|--------------------------|------------------------|----------------|----------------|
| Hopper capacity [dm³]    |                        | 10,000         | 12,000         |
| Mandrin or middle [ma]   | Granulated fertilisers | 10÷36          | 10÷36          |
| Working width [m]        | Lime                   | 8÷16           | 8÷16           |
| Height of discs from the | ground [cm]            | 120            | 120            |
| Kerb weight [kg]         |                        | 4,450          | 4,750          |
| Standard tyres           |                        | 580/70 R38     | 650/75 R32     |





Precise application of powdered lime without fear of wind drift – thanks to the special beam for powder fertilisers.

**Durability and high work quality** – thanks to the reinforced frame design and the steeper walls of the fertiliser hopper, which makes it easier for the material to fall onto the belt feeder.

#### Operation of all hydraulic functions in one place

– thanks to the SUPERIOR computer, which is responsible, among other things, for maintaining a constant seed rate.

**ISOBUS compatibility** – allows operation in precision farming standards (option).

**Maintaining precise application rate** – thanks to hydraulically driven components: floor conveyor and spreader beam.

Hydraulically controlled cut-offs (left/right) and the possibility of half-folding the boom – allow the working width to be halved to avoid overlaps.

#### Efficient and comfortable manoeuvring of the ma-

**chine** – thanks to Boogie-type tandem suspension with rear steering axle. It makes it easier to pass very sharp corners. A longitudinal leaf spring located in the drawbar line reduces the load on the tractor hitch even on uneven ground.

**Extensive standard equipment** – drawbar support, lighting system, dual-circuit brake system, and hydraulically folded hopper cover.

**Safe working** – the machine has EU 167/2013 type-approval.

| MODEL                 | RCW 150 HELIX |
|-----------------------|---------------|
| Hopper capacity [dm³] | 15,000        |
| Working width [m]     | 12            |
| Power demand [HP]     | >200          |
| Kerb weight [kg]      | 7,100         |
| Standard tyres        | 600/55-22.5   |



## TITAN TD PREMIUM

SPREADER WITH
INTEGRATED AND
LIQUID-TIGHT BODY

#### Smooth transport of material towards the adapt-

**er** – thanks to the four-chain floor conveyor (11-millimetre diameter links). Hydraulically controlled.

**Hopper tailgate as standard** – separates the hopper from the adaptor so that the weight does not push against the rollers when starting the spreader.

**Liquid-tightness and comfort** – thanks to the tubular construction of the hopper.

**Smooth running even on difficult terrain** – thanks to spring axle suspension.

 $\label{eq:option} \textbf{Option of the hitch} - \text{top or bottom}.$ 

**Minimal soil compaction** – thanks to the tandem driving system which ensures that the weight is properly distributed over the soil surface.

#### Convenient control of the floor conveyor speed

 either by means of a potentiometer (standard) or the Starter Spread/Starter Spread Pro controller (optional).

**Extensive standard equipment** – pneumatic brake installation, mudguards, lighting installation, drawbar support, and wide-angle roller.

|                    | MODEL                       | TYTAN 8TD<br>PREMIUM | TYTAN 10TD<br>PREMIUM | TYTAN 11TD<br>PREMIUM | TYTAN 13TD<br>PREMIUM | TYTAN 18TD<br>PREMIUM |
|--------------------|-----------------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Load capacity [kg] | Nominal                     | 6,500                | 8,000                 | 9,000                 | 10,000                | 14,000                |
|                    | On the field                | 9,000                | 11,000                | 12,000                | 13,000                | 16,000                |
| Adapter width [m]  |                             | 1.8                  | 1.8                   | 2.0                   | 2.0                   | 2.0                   |
| PTO speed [rpm]    |                             | 540                  | 540                   | 540                   | 540                   | 540                   |
|                    | Vertical 4-roller adapter   | 4÷6                  | 4÷6                   | _                     | _                     | -                     |
| Working width [m]  | Vertical 2-shaft adapter    | 8÷12                 | 8÷12                  | 8÷12                  | 8÷12                  | 8÷12                  |
|                    | Horizontal/Shredder adapter | _                    | -                     | 12÷24                 | 12÷24                 | 12÷24                 |
| Standard tyres     |                             | 400/60-15.5          | 500/50-17             | 400/60-22.5           | 500/60-22.5           | 550/60-22.5           |



# TYTAN 20 / 24

SPREADER EFFECIENT AND ROBUST

#### Comfort and safety during work and transport

- thanks to the longitudinal leaf spring located in the drawbar line.

**Axles with follow-up control** – allow the wheels of the spreader to turn in line with the tractor's direction of travel when cornering.

**Good weight distribution** – through the use of two-axle spring suspension. This optimises the drawbar pressure on the hitch.

**Minimal soil compaction** – thanks to large wheel contact area.

**Simplified operator work** – thanks to convenient, stepless adjustment of the floor conveyor.

Four-chain conveyor (2 pairs) with 14 mm link diameter – ensures durability and a long service life.

**Large number of options** – the spreader can be equipped with one of three optional controllers and three different types of adaptor (2-shaft vertical, 2-shaft horizontal, shredder), or with a capacity attachment.

**Extensive standard equipment** – hydraulic tailgate, rear adapter cover, air brake system, road lights, drawbar support.

**ISOBUS compatibility** – allows operation in precision farming standards (option).

| MODEL               |                             | TYTAN 20    | TYTAN 24    |
|---------------------|-----------------------------|-------------|-------------|
| Lood consoity [kg]  | Nominal                     | 14,000      | 18,000      |
| Load capacity [kg]  | On the field                | 16,000      | 20,000      |
| Adapter width [m]   |                             | 2.0         | 2.0         |
| PTO speed [rpm]     |                             | 1,000       | 1,000       |
| Mandring width [ma] | Vertical 2-shaft adapter    | 8÷12        | 8÷12        |
| Working width [m]   | Horizontal/Shredder adapter | 12÷24       | 12÷24       |
| Standard tyres      |                             | 550/60-22.5 | 600/55-26.5 |



# **TYTAN** 30 / 36

THREE-AXLE SPREADER

**Good weight distribution of the machine** – through the use of a three-axle chassis. This reduces the drawbar pressure on the hitch and allows the use of capacious hoppers.

**Impressive load capacity** – can reach up to 24 t. The spreader is ideal for large-scale farms.

**Safe and trouble-free operation** – thanks to the liquid-tight, tubular body construction and robust chassis.

**Working and transport comfort** – thanks to the longitudinal leaf spring located in the drawbar line, which provides excellent vibration damping.

**Special gearbox for high loads** – supported by a hydraulic floor conveyor drive.

**High quality, long service life** – thanks to the manufacturing of the key working elements of the adapter from top-quality HARDOX steel.

**Large number of options** – the spreader can be equipped with one of three optional controllers and different types of adaptor: 2-shaft vertical, 2-shaft horizontal (TYTAN 30), 3-shaft horizontal (TYTAN 36), shredder or with a capacity attachment.

**Extensive standard equipment** – hydraulic tailgate, rear adapter cover, air brake system, road lights, drawbar support.

**ISOBUS compatibility** – allows operation in precision farming standards (option).

|                           | MODEL                       | TYTAN 30    | TYTAN 36    |
|---------------------------|-----------------------------|-------------|-------------|
| Load capacity [kg]        | Nominal                     | 20,000      | 22,000      |
|                           | On the field                | 22,000      | 24,000      |
| Adapter width [m]         |                             | 2.0         | 2.25        |
| PTO speed [rpm]           |                             | 1,000       | 1,000       |
| NAV- uldin un middel fund | Vertical 2-shaft adapter    | 8÷12        | 8÷12        |
| Working width [m]         | Horizontal/Shredder adapter | 12÷24       | 12÷24       |
| Standard tyres            |                             | 550/60-22.5 | 600/55-26.5 |





**Good load capacity and manoeuvrability** – thanks to large wheels that provide less rolling resistance.

**Liquid-tightness and comfort** – thanks to the tubular construction of the hopper.

**Mining grade conveyor chain links** – with a diameter of 14 mm to ensure durability and long service life.

**The large wheels of the spreader** – protect the soil structure and make it easier to manoeuvre and pass even in difficult working conditions.

**Reduced load on the tractor hitch** – even on uneven ground. This is provided by a longitudinal leaf spring located in the drawbar line.

A wide range of capacities – capacities up to 16 tonnes allow the spreader to be configured according to the needs of the farm.

**Various control options of the floor conveyor available** – via standard potentiometer or with one of 3 optional controllers: Spread, Starter Spread, Starter Spread Pro or SUPERIOR.

**Extensive standard equipment** – hydraulic tailgate, mechanical drawbar support, lighting system and air brake system.

**ISOBUS compatibility** – allows operation in precision farming standards in APOLLO 11-16 PREMIUM models (option).

|                             | MODEL                       | APOLLO 8<br>PREMIUM | APOLLO 10<br>PREMIUM | APOLLO 11<br>PREMIUM | APOLLO 13<br>PREMIUM | APOLLO 14<br>PREMIUM | APOLLO 16<br>PREMIUM |
|-----------------------------|-----------------------------|---------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Land compaint [led]         | Nominal                     | 6,500               | 8,000                | 9,000                | 10,000               | 11,000               | 13,000               |
| Load capacity [kg]          | On the field                | 9,000               | 11,000               | 12,000               | 13,000               | 14,000               | 16,000               |
| Adapter width [m]           |                             | 1.8                 | 1.8                  | 2.0                  | 2.0                  | 2.0                  | 2.0                  |
| PTO speed [rpm]             |                             | 540                 | 540                  | 540                  | 540                  | 1,000                | 1,000                |
| NA/- uldin an add lab final | Vertical 2-shaft adapter    | 8÷12                | 8÷12                 | 8÷12                 | 8÷12                 | 8÷12                 | 8÷12                 |
| Working width [m]           | Horizontal/Shredder adapter | 12÷24               | 12÷24                | 12÷24                | 12÷24                | 12÷24                | 12÷24                |
| Standard tyres              |                             | 18.4-34             | 18.4-38              | 23.1 R26             | 580/70 R38           | 28.1 R26             | 650/70 R32           |

# **BYK**

LOADER FOR BACK THREE-POINT HITCH, FOR EASY LOADING OF FERTILISER

**Robustness** – made with attention to standards.

**Convenience and safety** – the loader is equipped with a certified hook.

Telescopic boom - hydraulically controlled.

**Can be combined** – with a tractor and spreader or spreader chassis.

**Low requirements** – the RBS hydraulic distributor allows the loader to be operated with just one pair of hydraulic sockets.



| MODEL  | ВҮК      |
|--|----------|
| Max. load capacity [kg]  | 1,200    |
| Max. lifting height when the tractor's three-point hitch arms are raised [m] | 5.05     |
| Range in horizontal position [m]   | 1.5÷2.85 |
| Kerb weight [kg]   | 380      |





#### Easy loading of machinery and other materials

- thanks to the floor that is hydraulically lowered to the ground level.

**Two axle versions** – rigid or steering.

**Easy manoeuvrability** – a movable hitch on a Category II or III beam reduces the turning radius.

**Rated load capacity of over 6 tonnes** – thanks to its robust construction and 45-millimetre thick planks.

**Safe driving and loading** – thanks to a mechanical transport lock and air brake system.

#### Additional security for transported materials

- thanks to special strap anchors. They also increase the stability of the platform during operation.

**Ample space** – the standard loading area ( $6\times2.4$  m) can be optionally increased to  $6\times2.9$  m.

**Optionally equipped with straight or special barriers** – for transporting bales, which increases its range of use.

| MODEL                      |                | PL 6 (RIGID AXLE) | PL 6 (STEERING AXLE) |
|----------------------------|----------------|-------------------|----------------------|
| Load capacity [kg]         |                | 6,200             | 6,100                |
| Kerb weight [kg]           |                | 2,060             | 2,160                |
| Total length [mm]          |                | 9,000             | 9,000                |
| standard                   |                | 2,400             | 2,400                |
| Width of loading area [mm] | with extension | 2,900             | 2,900                |
| Standard tyres             |                | 400/60-15.5       | 400/60-15.5          |





**Transport convenience** – the two front position lamps have direction indicators. The tank also has a set of transport wheels for rolling.

Two pumps with different max. flow rates available – version H LUX: 85 l/min., version E LUX: 19 l/min.

**Two rotary washers** – H LUX and E LUX versions.

**Efficient tank** – made of polyethylene with a capacity of 1,350 litres. Has a suction filter.

**Health and safety** – the hand wash tank has a capacity of 25 litres.

| MODEL                            | TOP 1200 H LUX              | TOP 1200 E LUX                        | TOP 1200 H                  |
|----------------------------------|-----------------------------|---------------------------------------|-----------------------------|
| Hopper capacity [I]              | 1,350                       | 1,350                                 | 1,350                       |
| Control                          | hydraulic (1 pair of hoses) | electrical (3-pin, 12 V power socket) | hydraulic (1 pair of hoses) |
| Pump capacity                    | 85 l/min.                   | 19 l/min.                             | 85 l/min.                   |
| Transport dimensions: L/W/H [m]. | 1.8 / 2.1 / 1.4             | 1.8 / 2.1 / 1.3                       | 1.8 / 2.1 / 1.3             |
| Weight [kg]                      | 320                         | 285                                   | 300                         |





**Simple and convenient operation** – thanks to the hydraulically controlled boom, which rises to a height of 2.1 metres.

**Practical three-section tank** – shaped to ensure that it can be completely emptied on any terrain.

**Independent boom** – makes it possible to avoid obstacles in the field or its border (optional).

#### Convenient cleaning of the inside of the tank

– thanks to a rotary washer for rinsing the tank after spraying is completed.

**Robust liquid system** – made of acid-resistant tubing.

**Easy-to-operate constant pressure valve**with pressure compensation.

**Expandable with a solenoid valve and SPRAY control computer** – so that the correct spray rate is maintained regardless of driving speed (optional).

**Extensive standard equipment** – including: sectional filters, 5 working sections, diluter in the main tank filler, and hand wash tank.

| MODEL                  | LUX   |  |  |
|------------------------|---|--|--|
| Hopper capacity [I]    | 600 / 800 / 1,000                                 |  |  |
| Working width [m]      | 15  |  |  |
| Number of sections     | 5   |  |  |
| Boom lifting range [m] | 0.5÷1.7/0.5÷2.1                                   |  |  |
| Pump [capacity]        | ZETA 100 [100 l/min.] /<br>ZETA 140 [140 l/min.]* |  |  |

<sup>\*</sup> Applicable to models with 800 and 1,000 litre tanks





Trailed sprayers dedicated to small and medium-sized farms – with hydraulically controlled boom.

Tanks with capacities of 1,200, 1,500, and 1,600 litres – made of polyester, with two breakwaters to limit liquid movement.

**Boom pendulum stabilisation** – effectively nullifies any vibrations and unwanted movements.

**Thorough cleaning of the liquid system** – thanks to sectional filters mounted on the boom.

**Convenient operation of the liquid system from the tractor cab** – by means of a solenoid valve which can be upgraded with a SPRAY or RADION computer (optional).

Option to equip the sprayer with a precision farming package – parallel driving and automatic section control (optional).

Adjustable track width (1.35 – 1.80 m) and a wide range of tyre options – versatile use of the machine in a variety of crops.

A range of optional extras to choose from to adapt the machine's configuration to individual needs

– such as independent boom, tracking drawbar, mechanical axle suspension or boom night lights.

| MODEL                  | PLUS STANDARD         |  |  |
|------------------------|-----------------------|--|--|
| Hopper capacity [I]    | 1,200 / 1,500 / 1,600 |  |  |
| Working width [m]      | 15 / 18               |  |  |
| Number of sections     | 5÷9                   |  |  |
| Boom lifting range [m] | 0.5÷2.3               |  |  |
| Pump [capacity]        | ZETA 170 [170 l/min.] |  |  |





**The robust construction and compact body of the sprayer** – makes the machine compact and safe to drive.

**High-capacity spray tank** – made of polyester, with two breakwaters to limit the movement of the liquid.

**Stable independent boom as standard** – with shock absorbers that effectively absorb any vibrations and unwanted movements during operation.

**Easy and intuitive operation of the sprayer** – thanks to ergonomically arranged and clearly labelled valves.

**Convenient operation of the liquid system from the tractor cab** – thanks to the SPRAY control computer, which is standard equipment on the machine (RADION computer available as an option).

Option to equip the sprayer with a precision farming package – parallel driving and automatic section control (optional).

Versatile use of the machine in various crops
– thanks to an adjustable wheelbase (1.50 – 1.80 m)
and various wheel size options to choose from.

A range of optional extras to choose from to adapt the machine's configuration to individual needs – such as a larger 60-litre diluter, tracking drawbar, me-

chanical axle suspension, or boom night lights.

| MODEL                  | EGRET                 |
|------------------------|-----------------------|
| Hopper capacity [I]    | 2,000 / 2,500 / 3,000 |
| Working width [m]      | 18 / 20 / 21          |
| Number of sections     | 5÷9                   |
| Boom lifting range [m] | 0.5÷2.3               |
| Pump [capacity]        | ZETA 260 [260 l/min.] |





Medium and large trailed sprayers

- with hydraulically controlled, independent boom.

Tanks with capacities of 2,500, 3,000 and 4,000 litres – made of polyester, with two breakwaters to limit internal liquid movement.

**Reduction in vibrations and unwanted boom movements** – thanks to pendulum stabilisation with shock absorbers.

**Safe preparation of the spray liquid** – by using a standard 40-litre side diluter (60-litre diluter available as an option).

**Convenient operation of the liquid system from the tractor cab** – thanks to the SPRAY control computer, which is standard equipment on the machine (RADION computer available as an option).

The machine can be controlled via ISOBUS and the TOUCH terminal – this allows a range of additional precision farming options to be introduced to the farm (optional).

Adjustable wheelbase (1.80 – 2.25 m) and a wide range of tyre options – versatile use of the machine in a variety of crops.

A wide range of optional equipment to adapt the machine to individual needs – possible features such as navigation with automatic section control, DYSTANS CONTROL system, tracking drawbar, liquid circulation in the boom, or pneumatic axle suspension

| MODEL                  | EUROPA XL              |
|------------------------|------------------------|
| Hopper capacity [I]    | 2,500 / 3,000 / 4,000  |
| Working width [m]      | 21 / 24 / 27 / 28      |
| Number of sections     | 5÷13                   |
| Boom lifting range [m] | 0.5÷2.3                |
| Pump [capacity]        | POLY 2300 [300 l/min.] |





Large trailed sprayers dedicated to larger farms – with hydraulically controlled, independent boom.

#### Tanks with capacities: 4,200 and 5,000 litres

 made of polyester, with breakwaters to limit the movement of the liquid inside the tank.

**Reduction in vibrations and unwanted boom movements** – thanks to pendulum stabilisation with shock absorbers.

**Safe preparation of the spray liquid** – by using a standard side diluter with a high capacity of up to 60 litres.

**Conveniently located control valves** – concealed under a hinged cover that protects them from contamination during spraying in difficult field conditions.

**Convenient operation of the liquid system** – thanks to standard RADION control computer (ISOBUS control available as an option).

**Individual choice of drive axle** – rigid with adjustable wheelbase (1.80 - 2.25 m), or steering axle (2.00 or 2.25 m).

**Extensive standard equipment** – pneumatic axle suspension, boom night light, hydraulic support foot, sectional filters, tank filling connection, and shock-absorbing drawbar.

#### A range of optional equipment options to choose

**from** – solutions and systems, such as navigation with automatic section control, V-SYSTEM, DYSTANS CONTROL, EDS (where each head is a separate working section), or an autonomous hydraulic system.

| MODEL                  | HERON                  |
|------------------------|------------------------|
| Hopper capacity [I]    | 4,200 / 5,000          |
| Working width [m]      | 21 / 24 / 27 / 28 / 30 |
| Number of sections     | 5÷13                   |
| Boom lifting range [m] | 0.5÷2.3                |
| Pump [capacity]        | POLY 2300 [300 I/min.] |



### TWISTER E

TRAILED BALE WRAPPER WITH FRONT LOADING

#### Fully automatic working system

- operated by an electronic controller. Three modes to choose from:
- Fully automatic: the user's role in the machine is limited only to driving the wrapper correctly up to the bale and the whole process is automatic.
- Semi-automatic: the user has the option to switch on individual functions sequentially. Pressing the button activates the selected function, which continues to be performed automatically.
- Manual: the user must manually select the function they wish to perform.

#### Reliable planetary wrapping system

– consisting of a double wrapping arm (doubles the bale wrapping speed), film feeders (with automatic tension adjustment for 750-millimetre film), loading arm (with loading of bales with a diameter of 1.00 to 1.50 m and up to 1,200 kg) and a hydraulically adjustable drawbar (allows the machine to be unfolded and folded in automatic mode).

| TWISTER                       | E                    |
|-------------------------------|----------------------|
| Bale loading                  | front                |
| Diameter of wrapped bales [m] | 1.0 – 1.5            |
| Maximum bale weight [kg]      | max. 1,200           |
| Number of wrapping arms [pcs] | 2                    |
| Film width [mm]               | 750                  |
| Control                       | electrical           |
| Power demand [HP]             | 45                   |
| Oil pump output [I/min.]      | 20 – 45              |
| Weight [kg]                   | 1,400                |
| Length [m]                    | 4.65                 |
| Width [m]                     | 2.6                  |
| Height [m]                    | 2.83                 |
| Bale loading                  | front                |
| Required hydraulic system     | pressure-free return |



**DF 1,8**FIXED CHAMBER BALER,
CHAIN-ROLLER,
AND ROLLER

High performance even during long, intensive use – thanks to the design that takes into account the differences in working with specific types of plants. The combination of 8 rollers and chains in the DF 1.8 Vd will take care of the quality of friable and dry material (i.e. straw, hay) and ensure that the bale does not stop. The DF 1.8 Dd model, which is recommended for silage and for obtaining concentrated material, is equipped with 17 rollers and allows fodder to be quickly formed into a highly compacted bale.

Two types of tying system – net and string. The netting facilitates high efficiency; by comparison, it takes 2–2.5 turns to wrap a bale of the same diameter with netting and 12 to 14 turns with string, which takes an average of about one minute and about the same amount of time to re-fill the chamber. String, on the other hand, is an easier and cheaper solution.

Rotor for smooth operation – made of Hardox steel, which is characterised by high wear resistance. Mounted on large double-sealed bearings that ensure even and longer-lasting system operation. The spiral rotor design results in a more even operation of the machine and significantly reduces the load on the cutting unit.

| TECHNICAL SPECIFICATION            | DF 1.8 VD | DF 1.8 DD |
|------------------------------------|-----------|-----------|
| Diameter of bales [m]              | 1.2       | 1.2       |
| Width of pick-up [m]               | 2.1       | 2.1       |
| Number of pick-up tines rows [pcs] | 5         | 5         |
| Number of pick-up tines [pcs]      | 160       | 160       |
| Number of profile rollers [pcs.]   | 8         | 17        |
| Number of cutter blades [pcs]      | 14        | 14        |
| PTO speed [rpm]                    | 540       | 540       |
| Power demand for PTO [HP]          | 70-80     | 80-90     |
| Length [m]                         | 3.6       | 3.6       |
| Width [m]                          | 2.51      | 2.51      |
| Height [m]                         | 1.95      | 1.95      |
| Weight [kg]                        | 2,710     | 2,520     |
|                                    |           |           |



# MASTER V/D

FIXED CHAMBER BALER/WRAPPER **Two in one** – the MASTER is built as a set of two machines integrated on a common frame: a roller or chain-roller fixed chamber press with cutter and wrapper. This allows the bales to be picked, baled, and wrapped immediately without coming into contact with the ground, guaranteeing clean, high-quality hay-silage.

Wrapping the bale as the new bale is formed – thanks to a high-speed planetary wrapping system equipped with two 750-millimetre film feeders. Everything is done automatically, in one process cycle and with just one tractor. This saves time, labour and fuel.

**Highest crop throughput** – thanks to the triple-tine rotor which is distinguished by three rows of conveying tines. It allows even the most difficult materials to be collected with high efficiency without fear of the pick-up becoming clogged.

**High-quality components** – the rotor blades are made of the best wear-resistant steel – HARDOX.

**Bale unloader as standard** – gently positions the bale on the bottom during unloading, which protects the film from damage and facilitates transport and storage.

| TECHNICAL SPECIFICATION      | MASTER V             | MASTER D             |
|------------------------------|----------------------|----------------------|
| Pressing chamber             | chain-roller         | roller               |
| Number of rollers [pcs.]     | 8                    | 17                   |
| Implementation of pressure   | mechanical           | mechanical           |
| Diameter of bales [m]        | 1.2                  | 1.2                  |
| Width of pick-up [m]         | 2.1                  | 2.1                  |
| Number of pick-up tines rows | 5                    | 5                    |
| Film feeder                  | 2×750 mm             | 2×750 mm             |
| Power demand [HP]            | 100                  | 110                  |
| Weight [kg]                  | 4,340                | 4,150                |
| Speed [rpm]                  | 540                  | 540                  |
| Required hydraulic system    | pressure-free return | pressure-free return |





**Possibility of working without a tractor** – FALA E can be powered from the tractor or from a hydraulic unit. The declared power requirement is only 40 HP.

Wrapping system focused on performance and quality – the film feeder provides a constant film tension of 70% for optimum utilisation. Wrapping time for a single bale with one layer is approximately 80 s. It is possible to retrofit the wrapping machine with a second, optional feeder (Duo), which will allow the operation of two rolls of film. Then the time to wrap a bale with one layer is reduced to approx. 40 s. Supported film width: 500 mm or 750 mm.

**Two controllers as standard** – wired Pilot Wrap (allows initiating the start of the automatic bale wrapping and unloading process) and wireless Radio Wrap (allows operation without getting out of the loading tractor cab).

**Stand-alone, stationary** – designed to perform wrapping operations in any location designated by the user. The bale wrapping and unloading process is automatic.

| FALA                          | E          |
|-------------------------------|------------|
| Diameter of wrapped bales [m] | 1.2÷1.5    |
| Maximum bale weight [kg]      | 1,200      |
| Film width [mm]               | 500 / 750  |
| Power demand [HP]             | 40         |
| Control                       | electrical |



## **FORMA**

RIDGING PLOUGH WITH FORMING DEVICE

#### More growth space for large tuber nests

– by creating ridges with a large volume of soil. This facilitates post-planting maintenance and creates favourable harvesting conditions. This translates into a better quality crop, which determines the profitability of production.

**Greater crop security** – by reducing the number of stones and clods in the ploughed layer of soil, resulting in less damage to the tubers.

Creating the right soil structure – which promotes a better water and air balance in the tuber planting zone, increases aeration, and accelerates soil heating. It contributes to faster germination of the clusters and proper placement of the tubers in the prepared soil layer.

| FORMA               | 2     | 4     |
|---------------------|-------|-------|
| Interrow width [cm] | 70/75 | 70/75 |
| Weight [kg]         | 420   | 700   |
| Power demand [HP]   | 45    | 65    |



KORA 2/4 POTATO PLANTER

Adaptable to requirements – KORA is available in 2-row (mounted with hopper, capacity up to 400 kg) and 4-row (fixed hopper, capacity up to 840 kg) versions. It has a lot of additional options to create a machine adapted to suit the needs of the farm. Examples of extensions: fertiliser scatterer, hydraulically lifted hopper, sprouted potatoes planting kit, etc. It has the possibility of working at 70 / 75 or 75 / 70 cm spacing.

Can be retrofitted with mineral fertiliser scatterer – optional 100 litre plastic scatterer. Equipped with grooved mechanically adjustable seed sowing apparatus. **Precision sowing system** – consisting of a double belt, made of high-quality, weather-resistant rubber. Specially designed scoops ensure that individual seed potatoes between 30 and 60 mm in size are picked up, sorted into the appropriate fractions 30÷45 mm or 50÷60 mm. Each sowing unit is equipped with a feeding belt shaker.

| KORA                        | 2       | 2 W     | 4       | 4       | 4 W     | 4H    | 4H    |
|-----------------------------|---------|---------|---------|---------|---------|-------|-------|
| Number of rows              | 2       | 2       | 4       | 4       | 4       | 4     | 4     |
| Working width [m]           | 1.4÷1.5 | 1.4÷1.5 | 3.0     | 3.6     | 3.6     | 3.0   | 3.6   |
| Interrow width [cm]         | 70/75   | 75      | 70      | 75      | 75      | 75    | 90    |
| Potato hopper capacity [kg] | 400     | 400     | 840     | 900     | 900     | 1,000 | 1,200 |
| Sowing depth [cm]           | 4÷12    | 4÷12    | 4÷12    | 4÷12    | 4÷12    | 4÷12  | 4÷12  |
| Capacity [ha/h]             | 0.3÷0.5 | 0.3÷0.5 | 0.6÷1.1 | 0.6÷1.1 | 0.6÷1.1 | 1.3   | 1.5   |
| Weight [kg]                 | 440     | 520     | 895     | 920     | 1,050   | 1,340 | 1,390 |
| Power demand [HP]           | 50      | 50      | 75      | 75      | 75      | 75    | 90    |





**Low power requirement** – thanks to a compact and lightweight design. The power requirement is just 40 HP.

#### Exact copying of the shape and height of the ridg-

**es** – thanks to the large diameter of the ground following roller.

**Simple maintenance** – thanks to easy replacement of the three-section ploughshare.

**Process control** –by means of mechanical adjustment of the soil sifting on the sifter. Changing the shaking intensity of the sifter is controlled by a lever.

**Simplified manoeuvring** – the drawbar of the combine harvester is equipped with a hydraulic cylinder, which enables the combine harvester to be placed in the working position and improves the driving comfort.

**Convenient control** – the harvester's hydraulics are controlled from the tractor cab via a hydraulic distributor controlled by a block of solenoid valves.

|                     | TYPE       | вогко      | BOLKO S    |  |
|---------------------|------------|------------|------------|--|
| Working width [m]   |            | 0.625÷0.75 | 0.625÷0.75 |  |
| Number of rows      |            | 1          | 1          |  |
| Working speed [km,  | /h]        | 1.5÷5.0    | 1.5÷5.0    |  |
| Capacity [ha/h]     |            | up to 0.15 | up to 0.15 |  |
| Potato hopper capa  | acity [kg] | 1,250      | -          |  |
| Loading channel wi  | dth [mm]   | -          | -          |  |
| Platform load capa  | city [kg]  | -          | 500        |  |
|                     | length     | 5.95       | 5.95       |  |
| Dimensions [m]      | width      | 2.42       | 2.42       |  |
|                     | height     | 2.69       | 1.9        |  |
| Discharge height [n | n]         | 1.1÷2.5    | _          |  |
| Power demand [HP    | ]          | 40         | 30         |  |
| Weight [kg]         |            | 1,971      | 1,531      |  |
| Operation           |            | 2 persons  | 2 persons  |  |



# **PYRA** 1600

POTATO AND VEGETABLE HARVESTER **Advanced waste separation system** – a wide-pitch conveyor with large rubber tines that picks up potato haulm, weeds, and large stones.

**Adjustable material pick-up system** – a three-section shallow ploughshare system that allows the digger to work at depths of up to 25 cm.

**Process control** – by means of mechanical adjustment of the soil sifting on the sifter. Changing the shaking intensity of the sifter is adjusted mechanically by means of a lever.

**Comfortable work for two people** – thanks to a platform for operating the combine harvester.

**Convenient control** – the harvester's hydraulics is controlled from the tractor cab via a hydraulic distributor controlled by a block of solenoid valves.

Attention to quality – the belt conveyors are equipped with metal bars wrapped in rubber to avoid damage to the vegetables.

| PYRA                        |        | 1600<br>(WITH HOPPER) | 1600 S<br>(WITH PLATFORM AND BAGGING<br>MACHINE) |
|-----------------------------|--------|-----------------------|--|
| Working width [m]           |        | 0.75                  | 0.75   |
| Number of rows              |        | 1                     | 1  |
| Working speed [km/h]        |        | 1.5÷5.0               | 1.5÷5.0  |
| Capacity [ha/h]             |        | up to 0.16            | up to 0.16                                       |
| Potato hopper capacity [kg] |        | 1,600                 | _  |
| Platform load capacity [kg] |        | _                     | 1,000  |
| Dimensions [m]              | length | 7.47                  | 7.47   |
|                             | width  | 2.4                   | 2.4  |
|                             | height | 2.8                   | 2.8  |
| Discharge height [m]        |        | 1.35÷2.70             | _  |
| Tyres                       |        | 11.5/80-15.3-10PR     | 11.5/80-15.3-10PR                                |
| Power demand [HP]           |        | from 50               | from 50  |
| Weight [kg]                 |        | 2,900                 | 2,650  |
|                             |        |                       |  |





**Effective moisture removal** – thanks to roof vents. The floor consists of perforated panels made of galvanised sheet metal, covering the concrete ventilation channels. The ventilation inlet located there is used to connect a ventilation fan.

**High corrosion resistance** – thanks to the galvanised corrugated sheet metal used for the steel silo shell.

Easy to assemble, stable construction – the entire structure is stabilised by a system of vertical reinforcements. Individual elements of the side surface are connected with steel screws. Simplicity facilitates faster assembly and disassembly.

Safety- the conical silo roof has a balustrade.

**Versatility** – a wide range of models to suit the needs of both small and large farms.



#### Easy to assemble, stable construction

– the entire structure is stabilised by a system of vertical reinforcements. Individual elements of the side surface are connected with steel screws. Simplicity facilitates faster assembly and disassembly.

**Safety** – the conical silo roof has a balustrade.

**Gravitational emptying** – thanks to an inverted cone-shaped design with a 45° angle of inclination. It is terminated with Ø 200-millimetre outlet and made of smooth sheet metal. No additional support equipment is required.

**Guaranteed tank cleanliness** – thanks to the design that does not allow unwanted accumulation of grain, as is the case with flat-bottomed silos

**Effective moisture removal** – by means of an extraction head. The roof turbine vent is located on the silo roof.

**High corrosion resistance** – thanks to the galvanised corrugated sheet metal used for the steel silo shell.





Intended for temporary storage of ground grain and dry feed mixtures – granulated and loose, bran, chips, and pellets of various origin.

**No assembly required** – assembled and ready to use immediately after installation.

**Protection against overheating** – the cylindrical part made of corrugated sheet metal prevents excessive heating of the material stored in the silo.

**Deformation resistance** – thanks to the use of corrugated sheet metal in the cylindrical part of the silo.

**Exceptional functionality** – in addition to the discharge and vent pipe, the silo has an additional inlet in the roof as standard.

**Long service life** – the use of high-quality galvanised sheet metal significantly extends the service life of the silo.

**Functional discharge** – adapted for easy installation of a manual valve or collection auger.

**High corrosion resistance** – thanks to the galvanised corrugated sheet metal used for the steel silo shell.



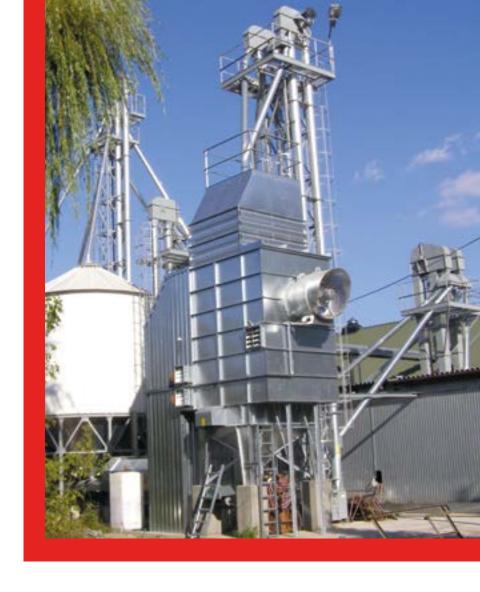


**Versatility** – for drying all types of cereal grains, rape, maize and sunflower seeds.

For the preparation of grain prior to further storage

– effectively and safely reduces the moisture content of the grain.

**Extensive standard equipment** – filling/buffer segment, drying segments with outlet duct, grain unloading system with mechanical speed control, exhaust fan, oven air duct (insulated), gas duct burner, control cabinet, filling sensor, roof with balustrade and ladder, and outlet duct with regulation.



# OBI PREMIUM SILO

**Versatility** – for drying all types of cereal grains, rape, maize and sunflower seeds.

For the preparation of grain prior to further storage – effectively and safely reduces the moisture content of the grain.

**Equipped with complete systems** – loading and unloading of grain.







**Comfortable handling and soil protection** – thanks to the three-axle chassis, spring system and wide tyres.

**Design to prevent grain accumulation** – thanks to sliders on the bottom of the box and a conveyor inspection window that helps empty the trailer to the last grain.

#### Controlling the quantity of transported material

– thanks to a weighing system based on eight weight sensors.

**High discharge capacity** –thanks to the use of two screw conveyors in the bottom of the box and a discharge conveyor with a diameter of 500 mm. The achieved capacity is 500 t/h.



UNIA Sp. z o.o. is a Polish manufacturer offering the largest comprehensive range of products for the agricultural market in Europe. Member of Chemirol Group since 2023.

We have 4 state-of-the-art factories equipped with world-class manufacturing equipment, and a history and expertise dating back nearly 141 years. It was in our factory that the world's first cultivator and rotary plough was developed.

Our products, through specialised trading partners, reach farmers in more than 60 countries worldwide, on every continent.

With this knowledge, we offer our customers not only state-of-the-art machinery, but also the best agronomic solutions used in the most demanding world markets.

We offer a comprehensive range of agricultural equipment:

- storage and drying equipment
- sprayers and potato harvesters
- seed drills and combined cultivators
- ploughs and cultivators
- spreaders and manure spreaders
- balers and wrappers





- Precision farming
- Autonomous agriculture
- Sustainable agriculture
- No-tillage system
- Product and technology excellence
- Optimisation of the cereal storage system









We work with 50 top distributors of agricultural machinery in Poland. This allows us to reach out to customers and meet even their most specific needs.

UNIA machines are present in more than 60 countries worldwide. We are successfully entering more and more global markets every year.



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