LEMKEN
The Agrovision Company

# PRODUCT RANGE

SOIL CULTIVATION
DRILLING
CROP PROTECTION

# CONTENT











# DISCOVER WHAT BLUE MEANS

LEMKEN is a leading international manufacturer of agricultural machinery for soil cultivation, seeding and crop protection. As a family business, we value close relationships with our partners. This includes our staff and distributors, but above all farmers and contract farming companies. Close collaboration with our partners plays a fundamental role in the development of our multi-award winning innovations. We subscribe to the vision of supporting the work of our partners as best we can in order to secure their financial success. Through our work, we also want to contribute to securing the global food supply sustainably by means of efficient technology. It is this vision that makes us the Agrovision Company.

## SUPERIOR QUALITY FOR ANY JOB

Our customers expect our products to provide superior quality. We use high-quality special steels and state-of-the-art production processes, from CNC-controlled processing centres and robotic welding systems, through to fully automated metal working and tempering systems, and the cathodic dip coating system that applies the trademark blue colour to LEMKEN implements. This approach produces implements that reflect our customers' needs, are easily integrated, and remain extremely flexible under a wide range of operating conditions.

## WE ARE THERE FOR YOU

This overview of our product range provides you with comprehensive information on both our latest innovations and on LEMKEN implements that have long proven their outstanding value on our

customers' fields. We are, of course, happy to provide additional information and answer any questions you may have: simply go to lemken.com, visit one of our branches for in-depth consultation and a genuine spare parts service, or contact a member of our extensive distribution and service network in more than 50 countries.

## LEMKEN at a glance

LEMKEN is a leading European manufacturer of professional arable farming technology.

- Founded in 1780, now a 6th and 7th-generation family business
- Over 1,200 employees worldwide
- Head office in Alpen near Düsseldorf, additional German location in Haren
- Production site in Nagpur/India, assembly sites in Detchino/Russia and Qingdao/China
- 25 branch offices in Europe, North America, Asia and Africa
- Production over 15,000 implements per year
- Export ratio of about 69%
- Numerous international awards

Nicola Lemken, partner, and Anthony van der Ley, Chief Executive Manager

# PLOUGHING

## A CLEAN PLOUGH LINE - A PREREQUISITE FOR GUARANTEED AND HIGH YIELDS

Through the expansion of maize cultivation in the past few years in particular, the plough has regained its importance as a primary cultivator. The reduction of plant diseases, mechanical pest control due to increasing resistance chemical resistance, and the fight against new pests, are among the most important tasks facing a plough today. Recent research has shown that loosening and aerating the root zone, with a plough, can improve the formation of rape roots, for example, thus laying the foundation for high and guaranteed yield. LEMKEN offers a suitable plough for every soil condition and every tractor over 30 kW. There are two to seven furrow mounted ploughs, five to nine furrow semi-mounted ploughs, and large wagon ploughs up to 14 furrows.

A key feature of the entire plough programme is the extensive range of equipment features and plough accessories. There is a model which perfectly suits the needs of every farmer and contractor. Mechanical and hydraulic auto-reset systems for stone protection, various interbody and under-beam clearances, and mechanical or hydraulic furrow width, are just a few of the choices available.

# Juwel


***Hydraulic ram for working width adjustment***

***Hydraulic support wheel***

## TREND-SETTING PLOUGHING TECHNOLOGY

The Juwel plough generation combines safe use, easy operation and work quality in an entirely new model. Initially available with three to seven furrows, and a 140 mm box section frame, the Juwel is suitable for medium to high HP tractors.

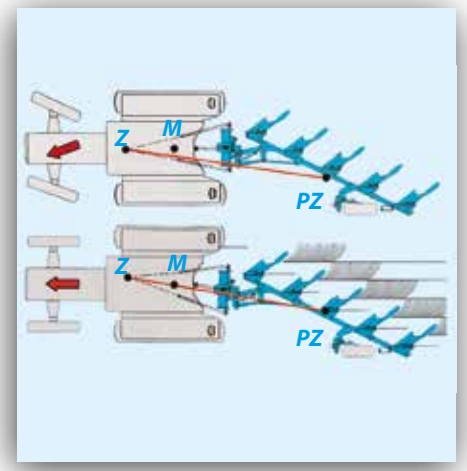
- The TurnControl system gives the operator increased control of plough rotation and pitch. Increased ground clearance of the land wheel is another important feature.
- The electro-hydraulic control of the turnover device means plough pitch can be set from the tractor seat, It can also be "overriden" for the first or last pass of the field.
- New skimmers with improved shape and new leg position guarantee blockage-free ploughing even under difficult conditions. Working depth and angle can be adjusted easily without tools.
- Equipped with DuraMaxx bodies, for which mouldboards and slats have been manufactured without any drill or punch holes. This allows the use of harder steels which provide added life time compared to normal steels.
- Also available versions M and MV with hydraulic turnover device.

# Optiquick

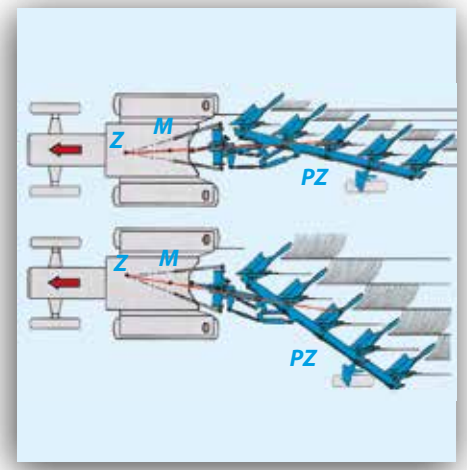
## PLOUGHING AT ANY WORKING WIDTH WITHOUT LATERAL FORCES

The precise plough adjustment is an important factor to minimise material wear and reduce fuel consumption. This is why LEMKEN has developed its unique Optiquick adjustment system. Optiquick allows for easy and efficient adjustment of front furrow width, and tractor/plough pull line, independently of each other. Time and money are saved as a result.

- The plough is perfectly adjusted if the tractor/plough pull line – in this case the line between Z and PZ – runs through the middle of the tractor's rear axle M. Z is the point, where the imaginary extension lines of the lower links cross, PZ is the centre of the plough.
- Firstly, the front furrow width is adjusted. This is done by means of the outer turnbuckle. The tractor/plough pull line is not yet ideal, because the line between Z and PZ does not go through the middle of the rear axle. The plough will pull the tractor to one side.
- Lateral forces are eliminated by adjusting the inner turnbuckle until the tractor/plough pull line crosses the tractor's rear axle in point M. The width of the front furrow remains unchanged despite the pull point correction.
- Once set, the front furrow and the tractor/plough pull line are adjusted automatically for all Vari models with hydraulic working width adjustment..




*Adjustment of front furrow width and tractor/plough line for EurOpal and Juwel*




*VariOpal and Juwel V working width adjustment*

# EurOpal

## PERFECT TECHNOLOGY FOR IMPROVED WORK QUALITY

The two to seven furrow EurOpal mounted ploughs are characterised by high strength at low weight. They are easy to pull and consequently very efficient to use.

- The Optiquick adjustment centre allows the independent adjustment of front furrow width and pull point for precise ploughing without lateral forces.
- The adjusting brackets are bolted to the thick box section made from alloy fine grain steel resulting in high stability, reliable endurance strength, and fitting accuracy.
- The skimmers can be adjusted without tools and are therefore easy to use.
- The height-adjustable cross shaft can be adjusted to any conditions and thus guarantees the perfect position of the tractor lower links.
- The short and strong turnover axle, in the headstock, is not compromised by welded joints and can therefore withstand the highest impact and permanent loads.

*Optiquick adjustment centre*


*Working width adjustment*

*Skimmer*

# VariOpal

## FOR WIDE AND NARROW PLOUGHING, WIDE FURROWS FOR WIDE WHEELS

The VariOpal perfectly fulfils all requirements for ploughing. Good ploughing performance relies heavily on the working width and working depth of the different bodies.

- Once basic parameters have been set via the Optiquick adjustment centre, front furrow width and pull point are automatically adjusted whenever the working width is changed. This ensures optimum ploughing performance at every working width without lateral forces.
- All bearings have wear-resistant bushes. Hardened bolts are greasable thus guaranteeing highest stability and long durability.
- The frame plates for the pivot bracket connection are screwed to the frame. Increased durability and high fitting accuracy guarantee a long lifespan.
- The long body distance, the lateral attachment of plough bodies on the frame, and the shape of the legs, result in increased clearance thus avoiding blockages even at shallow working depths.
- The position of the land wheel on the frame allows for direct ploughing right up to ditches, fences and boundaries, depending on the number of furrows and the working width used.

*Optiquick adjustment centre*

*Vari connection*

# MOUNTED PLOUGH WITH ISOBUS CONTROL

**In agricultural machinery, work processes are being increasingly linked, and more and more implements are controlled electronically. The ISOBUS standard allows solutions to be implemented across several machines. It makes sense to offer this for ploughs as well. With TurnControlPro, LEMKEN is offering ISOBUS plough control for the Juwel mounted reversible plough for the first time.**

While LEMKEN has extensive experience with electronic plough control, the ISOBUS standard has been used primarily in seeding technology and crop protection machines. The TurnControl system on the Juwel mounted reversible plough, with electro-hydraulic swing gear and hydraulic angle adjustment, creates an ideal environment for ISOBUS operation. TurnControlPro now allows these functions to be controlled easily via the CCI-200 terminal or the ISOBUS system on the tractor, without needing to operate the spool valves. The user interface on the display is intuitive and clear, making it easy to adjust any plough settings as needed. The ease of using the system can be increased even further by integrating additional elements operating under the ISOBUS IL4 standard such as joysticks and the tractor's multifunction lever.


As standard, the TurnControl Pro system in the Juwel 8 controls plough rotation and the settings for working angle, width and depth via the hydraulic support wheel. GPS-controlled working width adjustment has also been integrated. Additional functions such as front furrow width adjustment, packer operation or settings for the Hydromatik overload protection are available as options.

The TurnControl Pro on-board computer allows operating functions to be combined, saved and activated for up to four different scenarios, for example for ploughing on slopes and ploughing out surfaces. To prepare a shallow end furrow, a scenario with a shortened top link and a shallower support wheel setting would, for example, be activated. This novel feature finally allows the ISOBUS functionalities of tractors to be utilised in mounted ploughs as well.

# Overload protection

## FAILURE-FREE OPERATION UNDER ANY CONDITION

All LEMKEN overload protection systems protect against damage when the plough point encounters an obstacle. Shear-bolt or auto-reset options are available. LEMKEN auto-reset systems use a roller mechanism which provides smooth tripping with high trip and re-entry forces when the plough makes contact with an obstacle. Plough and tractor are protected from shock loads.

- The mechanical tandem auto-reset with beams and legs made from spring steel provides large lateral tripping.
- The HydriX hydraulic auto-reset provides adjustment of trip force between 50 and 140 bar. Users can select a low trip force in light soil conditions so that stones remain in the soil. In heavy or hard conditions, high trip forces ensure the plough bodies resist the tough soil, only moving when they contact a large stone or similar obstacle.
- The Hydromatic auto-reset protection, with its firm connection of the plough bodies to the supporting point, allows horizontal and lateral movement at the same time. The protection element is completely maintenance-free.

*Tandem-auto-rest*

*HydriX*

*Hydromatic*

# SAFE TO USE AND COST-EFFECTIVE ON ALL SOILS

***Wearing parts from extremely hard steel are fastened without drill holes and punch holes. Slats or mouldboards are simply hooked on allowing replacement in as little as one minute.***

**The DuraMaxx bodies are a completely new plough body concept which enables the service lives to be increased by 150 % and the set-up time to be reduced by up to 80%.**

The Duramaxx parts are manufactured from much harder steel than before. This is made possible as the material is no longer weakened by drilling and punching. Mouldboards and slats are supported fully by the frog and other support structures. They are no longer a load-bearing part of the plough body. This means they can be worn much thinner without risk of snapping due to the soil forces on them.

The DuraMaxx plough bodies are designed in such a way that mouldboards, slatts, and shins can be changed quickly without tools. The shin is held in place by a lynch pin. Pulling the pin allows the shin to be removed. The shin, in turn, holds the mouldboard or slatts in place. Once the shin is off, these slide forwards and out without the need for any tools. Even the share point, which is attached with a single bolt only, can be changed much more quickly than on conventional systems.

The DuraMaxx plough body is available with mouldboards or slats. The mouldboard and the slats are attached with only two hooks. In the case of the slatted bodies the clearance between the slats and supports is greatly increased. Supports are set in line with slats, which reduces the possibility of blockages from soil running through the slats.

Plastic slats are also available for the DuraMaxx plough body. These are ideal for use on extremely sticky soils and in soil conditions in which little pressure is applied to the mouldboard.The best sliding properties are achieved by using plastic slats at the top and bottom of areas of the plough body susceptible to adhesion. The DuraMaxx body therefore works without “adhesion problems” even under extreme conditions.

***LEMKEN DuraMaxx parts can be changed quickly without tools***

***LEMKEN DuraMaxx mouldboards and slats are attached with only two hooks***

***LEMKEN DuraMaxx Hybrid body with plastic slats in the upper and lower areas***

NEW

# DIAMANT SEMI-MOUNTED PLOUGHS NOW WITH OPTILINE ADJUSTMENT


**LEMKEN recently introduced an adjustment system for semi-mounted ploughs to improve lateral plough guidance and thus reduce fuel consumption. This is achieved via an additional hydraulic cylinder provided at the plough pivot point.**

***Semi-mounted reversible Diamant plough with OptiLine adjustment system***

While adjustment systems such as LEMKEN's Optiquick adjustment centre are commonly available for mounted reversible ploughs, lateral pull is systemic and therefore unavoidable in conventional semi-mounted reversible ploughs. The traction points of the tractor and semi-mounted reversible plough are fixed. An additional, pressure-controlled cylinder serves to transfer additional torque to the tractor to compensate for lateral pull. This shifts the tractor/plough traction line further towards the centre of the rear axle and thus reduces lateral pull in the Diamant. Measurements have confirmed that the new OptiLine adjustment system allows fuel savings of up to 10% to be achieved. Ploughing without lateral pull also means considerably less strain for operators, as they do not need to counter-steer. Operators are able to optimise the plough's landside pressure and the tractor's lateral pull by adjusting the hydraulic pressure.

Optimum landside pressure additionally achieves consistent front furrow widths and even results, while allowing the depth and intensity of seedbed preparation to be reduced.

***Diamant traction point adjustment***

# Diamant 11

*Diamant 11 on the headland*

*Working quality of the Diamant 11*

## SIMPLE HANDLING AND HIGH EFFICIENCY

With the Diamant 11 range of semimounted ploughs. LEMKEN fulfils the modern day ploughing needs of large farms.

- Equipped with DuraMaxx plough bodies for a particularly long service life.
- The long clearance between the headstock and the tractor makes the plough particularly manoeuvrable on narrow headlands.
- Available with four different working widths from 33 to 50 cm per body or steplessly hydraulically adjustable working width allowing for a range of applications in different soil and weather conditions.
- Two hydraulic cylinders turn the plough smoothly without loss of power by 180 degrees. Precise pitch is adjusted separately for each side with adjuster screws.
- Skimmers with improved shape and new leg position guarantee blockage-free ploughing even under difficult conditions. Working depth and angle can be adjusted easily without tools.
- Also available with the Hydromatic auto-reset system. This ensures that the tripping body is always returned to the ideal working position even under difficult conditions.
- Optionally available with traction increase unit to reduce slip and save fuel.

# Diamant 12

## PERFECT PLOUGHING- COMFORTABLE AND EFFICIENT

Perfect ploughing means a positive balance between working quality, area performance, fuel consumption and the driver's strain. There ar many intelligent features added to the proven qualities of the Diamant 11 that make the Diamant 12 meet these requirements optimally.

- Eqipped as standard with a the traction increase unit. It ensures that weight is shifted from the plough and tractor front axle to the tractor rear axle thereby reducing wheel-slip on the tractor. Reduced wheel-slip translates directly to increased output and reduced fuel consumption for the user.

- With TurnControl electronic regulation, of all important plough functions, can be adjusted from the tractor seat thus easing the driver's work.

- The plough inclination is set and stored without mechanical stops by pressing a button on the operating terminal. The two double-acting turnover device cylinders hold the plough exactly in the pre-set position. The set inclination can also be "overridden"when ploughing the first or last more shallow furrows.

- With TurnControl, the pressure of the traction assistance is automatically reduced when turning, thus increasing the tractor's stability A sensor on the plough headstock measures the steering angle between the tractor and plough. .

- Steplessly hydraulic working width adjustment provides continuous adaptation to all working conditions.

*Traction increase unit of the Diamant 12*


*The operation terminal*

# EuroTitan

*The rear plough part*

*Turning manoeuvre*

## DESIGNED FOR USE WITH HIGH HP TRACTORS

Tractor manufacturers continue to develop ever bigger tractors. Such tractors place enormous loads on the implements placed behind them. The EuroTitan plough, with nine to twelve furrows, has been designed for use with some of the largest tractors on the market today. High quality steel, and the latest CAD design processes, ensure the EuroTitan will provide years of reliable service on the largest farms.

- The large clearance between the headstock and the tractor allows for tractors up to 4 metres large turns of up to 90 degrees. This results in better manoeuvrability on the headland and facilitates ploughing with dual wheel tractors if preferred.
- EuroTitan ploughs can be reconfigured quickly and easily for on-land or in-furrow ploughing. Therefore, they can be used behind crawlers, multi-wheel tractors, or standard tractors.
- The cross-shaft can be height-adjusted by moving a bolt allowing for targeted loading of the tractor's rear axle.
- The greasable frame joint between the front and rear plough assembly allows movement in terms of working depth as well as driving direction. This ensures perfect ground adjustment even on sloping ground.
- After loosening the central screw, four different working widths from 30 to 50 cm can be chosen.

# VariTitan

## HIGH EFFICIENCY AND PERFECT PLOUGHING

Different ground and weather conditions demand an easy to adjust working width, if ecological and economical situations are to be fully exploited. With nine to twelve furrow versions, and working widths of up to 660 cm, the VariTitan offers the best possible output in the prevailing conditions.

- Control of turning and lifting functions via electric turn control allow for safe manoeuvring and speedy turning.
- The working width can be steplessly adjusted via a double acting hydraulic cylinder for the front and rear part of the plough.
- The exact working depth can be adjusted in fine steps without tools on the chassis and the rear support wheel via pins. This ensures constant working depths.
- In difficult conditions the Titan ploughs can work without being adapted with their front part only and the rear part remaining lifted. In this position the plough can also be returned.
- The rear part of the titan ploughs can move up-, down- or sideward. The patented automatic draw point shift keeps it in the desired working depth without any further adjustment, even in difficult conditions.
- The LEMKEN EuroTitan and VariTitan ploughs are also available with a coupling carriage for tractors without hydraulic tree point linkage.

***Front support wheel inside the plough frame***

***Coupling carriage for tractors without hydraulic three point linkage***

NEW

## New Titan for ultimate acreage performance

# LEMKEN SEMI-MOUNTED PLOUGHS NOW WITH UP TO 14 FURROWS

*The new LEMKEN Titan 11 with Hydromatic hydraulic overload protection*

**This new series, which will supersede the current range of EuroTitan and VariTitan ploughs, will for the first time include a 14-furrow semi-mounted reversible plough in LEMKEN's extensive plough programme.**

The versions with 4-fold mechanically adjustable working width or hydraulic working width adjustment with 9-14 furrows enables working widths of up to 770 cm.

The Titan 11 ploughs feature the innovative DuraMaxx plough bodies as standard. The mouldboards and slats are made from extra-hard steel without punched or drilled holes to ensure high durability and a particularly long service life. As these are not screwed on, but rather clipped on without requiring tools, they can additionally be changed quickly and easily. Individual slats are also available in plastic to allow for optimal ploughing even in very sticky soils.

For rocky soils, the LEMKEN Titan 11 ploughs are also available with automatic Hydromatic overload protection to ensure that deflecting plough bodies are always returned precisely to their working position even under difficult conditions. A generously dimensioned deflection range of 38 cm vertically and 20 cm laterally ensures consistency of work without disruption even when ploughing deeply. This is also supported by the high trigger forces, which can be easily adjusted to changing soil conditions from the comfort of the tractor seat.

Another innovation is the optional traction enhancement, which transfers weight from the plough and the tractor's front axle to the tractor's rear axle and thus reduces tractor slip. This establishes optimal conditions for higher working speeds and reduced fuel consumption.

As the approach of combining integrated furrow presses with mounted ploughs has proven so successful in reconsolidating light to medium soils, LEMKEN now offers the FlexPack for semi-mounted ploughs for the first time. This makes transporting furrow presses more convenient and saves time, especially with ploughs with large working widths, which are often problematic. Furrow presses no longer need to be transported separately. A special feature of the LEMKEN FlexPack is the automatic adjustment to variable working widths in Titan 11 semi-mounted reversible ploughs.

***LEMKEN Titan 11 with FlexPack***

# Technical data

| | | | | | |
|---|---|---|---|---|---|
| **Juwel 7 (Box section frame 120 x 120 x 10 mm)** | | | | | |
| Number of furrows | 3 | 3+1 / 4 | 4+1 | | |
| Working width (cm)[1] | 90-150 | 120-200 | 150-200 | | |
| Weight (kg)[1] | 801 | 1.023 / 1.013 | 1.235 | | |
| kW/HP (from - to) | 51/70-74/100 | 59/80-96/130 | 66/90-118/160 | | |
| **Juwel 7 V (Box section frame 120 x 120 x 10 mm)** | | | | | |
| Number of furrows | 3 | 3+1 | 4 | 4+1 | |
| Working width (cm)[1] | 90-165 [3] | 120-220 [3] | 120-200 | 150-250 | |
| Weight (kg)[1] | 912 [3] | 1.198 [3] | 1.171 | 1.453 | |
| kW/HP (from - to) | 51/70-74/100 | 59/80-96/130 | 59/80-96/130 | 66/90-118/160 | |
| **Juwel 7 M (Box section frame 120 x 120 x 10 mm)** | | | | | |
| Number of furrows | 3 | 3+1 / 4 | 4+1 | | |
| Working width (cm) [2] | 90-150 | 120-200 | 150-200 | | |
| Weight (kg)[2] | 796 | 1.018 / 1.008 | 1.230 | | |
| kW/HP (from - to) | 51/70-74/100 | 59/80-96/130 | 66/90-118/160 | | |
| **Juwel 7 MV (Box section frame 120 x 120 x 10 mm)** | | | | | |
| Number of furrows | 3 | 3+1 | 4 | 4+1 | |
| Working width (cm) [2] | 90-165 [3] | 120-220 [3] | 120-200 | 150-250 | |
| Weight (kg)[2] | 907 | 1.193 [3] | 1.166 | 1.448 | |
| kW/HP (from - to) | 51/70-74/100 | 59/80-96/130 | 59/80-96/130 | 66/90-118/160 | |
| **Juwel 8 (Box section frame 140 x 140 x 10mm)** | | | | | |
| Number of furrows | 3 | 3+1 / 4 | 4+1 / 5 | 5+1 / 6 | 6+1 |
| Working width (cm) [2] | 90-135 | 120-180 | 150-225 | 180-270 | 210-315 |
| Weight (kg)[2] | 1.058 | 1.289 / 1.274 | 1.505 / 1.490 | 1.721 / 1.706 | 1.937 |
| kW/HP (from - to) | 66/90-99/135 | 81/110-132/180 | 96/130-165/225 | 103/140-199/270 | 118/160-232/315 |
| **Juwel 8 V (Box section frame 140 x 140 x 10mm)** | | | | | |
| Number of furrows | 3 | 3+1 / 4 | 4+1 / 5 | 5+1 / 6 | 6+1 |
| Working width (cm) [2] | 90-150 | 120-200 | 150-250 | 180-300 | 210-350 |
| Weight (kg) [2] | 1.172 | 1.463 / 1.442 | 1.733 / 1.708 | 1.999 / 1.974 | 2.269 |
| kW/HP (from - to) | 66/90-99/135 | 81/110-132/180 | 96/130-165/225 | 103/140-199/270 | 118/160-232/315 |
| **Juwel 8 M (Box section frame 140 x 140 x 10mm)** | | | | | |
| Number of furrows | 3 | 3+1 / 4 | 4+1 / 5 | 5+1 / 6 | 6+1 |
| Working width (cm) [2] | 90-135 | 120-180 | 150-225 | 180-270 | 210-315 |
| Weight (kg)[2] | 1.098 | 1.329 / 1.314 | 1.545 / 1.530 | 1.761 / 1.746 | 1.977 |
| kW/HP (from - to) | 66/90-99/135 | 81/110-132/180 | 96/130-165/225 | 103/140-199/270 | 118/160-232/315 |
| **Juwel 8 M V (Box section frame 140 x 140 x 10mm)** | | | | | |
| Number of furrows | 3 | 3+1 / 4 | 4+1 / 5 | 5+1 / 6 | 6+1 |
| Working width (cm) [2] | 90-150 | 120-200 | 150-250 | 180-300 | 210-350 |
| Weight (kg) [2] | 1.212 | 1.503 / 1.482 | 1.773 / 1.748 | 2.039 / 2.014 | 2.309 |
| kW/HP (from - to) | 66/90-99/135 | 81/110-132/180 | 96/130-165/225 | 103/140-199/270 | 118/160-232/315 |

| | | | | |
|---|---|---|---|---|
| **EurOpal 5 (Box section frame 110x110 x 8 mm)** | | | | |
| Number of furrows | 2 | 2+1 / 3 | | |
| Working width (cm)[1] | 60-100 | 90-150 | | |
| Weight (kg)[1] | 552 | 715/707 | | |
| kW/HP (from - to) | 29/40-44/60 | 37/50-59/80 | | |
| **EurOpal 6 (reinforced box section frame 110 x 110 x 8 mm)** | | | | |
| Number of furrows | 4 | 4+1 | | |
| Working width (cm)[1] | 120-200 | 150-250 | | |
| Weight (kg)[1] | 870/ 907 | 1.070 | | |
| kW/HP (from - to) | 44/70-74/110 | 59/80-96/130 | | |
| **EurOpal 9 (Box section frame 160 x 160 x 10mm)** | | | | |
| Number of furrows | 4 | 4+1 / 5 | 5+1 / 6 | 6+1 |
| Working width (cm)[2] | 120-240 | 150-300 | 180-300 | 210-315 |
| Weight (kg) [2] | 1.280 | 1.510 / 1.495 | 1.725 / 1.710 | 1.940 |
| kW/HP (from - to) | 88/120-132/180 | 103/140-162/220 | 118/160-199/270 | 132/180-228/310 |
| **VariOpal 5 (Box section frame 110 x 110 x 8 mm)** | | | | |
| Number of furrows | 3 | 3+1 | | |
| Working width (cm) [1] | 66-150 | 88-200 | | |
| Weight (kg) [1] | 727 | 950 | | |
| kW/HP (from - to) | 37/50-59/80 | 44/60-74/100 | | |
| **VariOpal 6 (reinforced box section frame 110 x 110 x 8 mm)** | | | | |
| Number of furrows | 4 | 4+1 | | |
| Working width (cm) [1] | 88-200 | 110-250 | | |
| Weight (kg) [1] | 1.067 | 1.290 | | |
| kW/HP (from - to) | 51/70-81/110 | 59/80-96/130 | | |
| **VariOpal 9 (Box section frame 160 x 160 x 10 mm)** | | | | |
| Number of furrows | 3 | 3+1 / 4 | 4+1 / 5 | 5+1 |
| Working width (cm) [2] | 75-180 | 100-240 | 125-300 | 150-360 |
| Weight (kg) [2] | 1.253 | 1.543 / 1.510 | 1.800 / 1.767 | 2.057 |
| kW/HP (from - to) | 74/100-110/150 | 88/120-132/180 | 103/140-162/220 | 118/160-199/270 |
| **Opal 090 (Box section frame 90 x 90 x 7 mm)** | | | | |
| Number of furrows | 2 | 2+1 | 3 | |
| Working width (cm)[1] | 25 - 35 | 25 - 35 | 25 - 35 | |
| Weight (kg)[1] | 340 | 465 | 460 | |
| kW/HP (from - to) | 22/30-33/45 | 33/45-44/60 | 40/55-51/70 | |

| | | | | | |
|---|---|---|---|---|---|
| **Diamant 11 (Box section frame 160 x 160 x 10 mm)** | | | | | |
| Number of furrows | 5 | 5+1 / 6 | 6+1 / 7 | 7+1 / 8 | 8+1 |
| Working width (cm) [3] | 165-250 | 198-300 | 231-350 | 264-400 | 297-450 |
| Weight (kg) [3] | 2.580 | 2.830 / 2.826 | 3.076 / 3.072 | 3.322 / 3.318 | 3.568 |
| from kW/HP | 110/150 | 110/150 | 110/150 | 132/180 | 132/180 |
| **Diamant 11 V (Box section frame 160 x 160 x 10 mm)** | | | | | |
| Number of furrows | 5 | 5+1 / 6 | 6+1 / 7 | 7+1 / 8 | 8+1 |
| Working width (cm) [3] | 150-275 | 180-330 | 210-385 | 240-440 | 270-495 |
| Weight (kg) [3] | 2.755 | 3.065 / 3.036 | 3.346 / 3.317 | 3.627 / 3.598 | 3.908 |
| from kW/HP | 110/150 | 110/150 | 110/150 | 132/180 | 132/180 |
| **Diamant 12 V (Box section frame 160 x 160 x 10 mm)** | | | | | |
| Number of furrows | 7 | 7+1 / 8 | 8+1 | | |
| Working width (cm) | 210-385 | 240-440 | 270-495 | | |
| Weight (kg) | 3.433 | 3.727 / 3.698 | 3.994 | | |
| from kW/HP | 147/200 | 147/200 | 147/200 | | |
| **EuroTitan 10 (Box section frame 180 x 180 x 10 mm)** | | | | | |
| Number of furrows | 6+3 | 6+3 + 1 / 7+3 | 7+3 + 1 / 8+3 | 8+3+1 | |
| Working width (cm) | 297-450 | 330-500 | 363-550 | 396-600 | |
| Weight (kg ) | 4.593 | 4.842 / 4.810 | 5.059 / 5.027 | 5.276 | |
| from kW/HP | 132/180 | 132/180 | 132/180 | 132/180 | |
| **VariTitan 10 (Box section frame 180 x 180 x 10 mm)** | | | | | |
| Number of furrows | 6+3 | 6+3 + 1 / 7+3 | 7+3 + 1 / 8+3 | 8+3 + 1 | |
| Working width (cm) | 270-495 | 300-550 | 330-605 | 360-660 | |
| Weight (kg) | 5.070 | 5.379 / 5.340 | 5.649 / 5.590 | 5.899 | |
| from kW/HP | 132/180 | 132/180 | 132/180 | 132/180 | |

[1] for body spacing 90 cm, further body spacings available 100 and 120 cm, depending on plough model and number of furrows,
[2] for body spacing 90 cm, further body spacing available 100 cm
[3] for body spacing 100 cm, further body spacing available 120 cm, depending on model

# **RECONSOLIDATION**
PRESSES FOR LARGE
SOIL PORES

The action of ploughing loosens the ground, and turns it over to leave the surface residues buried, and clean soil at the top. The loosening action lets air and warmth into the soil (a positive action) but also breaks soil capillaries, and leaves primarily large soil pores which will aid drainage, but hinder the necessary moisture retention. Water drains from below, and evaporates from above. To avoid excessive moisture loss, and subsequent germination inefficiency, soil should be reconsolidated as soon as possible after ploughing.

LEMKEN presses offer the opportunity to reconsolidate, immediately after ploughing. As the press is pulled by the plough, moisture loss through evaporation is avoided, and there is a large time, and cost, saving compared to that with a separate machine pass later. Additionally, surface clods are broken, saving further expensive operations at a later date.

# FixPack

*Fixpack with star roller*

*FixPack in transport position*

## THE PERMANENT CONNECTION OF PLOUGH AND PRESS

The integrated FixPack furrow press remains connected to the plough at all times. The press remains with the plough during road transport or on the headland saving valuable time. It can be used with three, four and five furrow mounted reversible ploughs with up to 2,5 m working width.

- Depending on the soil type and the desired work effect, the FixPack can be used with plastic ring, or star, rollers for a perfect crumble effect and reconsolidation.
- The FixPack's pressure can be quickly and easily adjusted to suit the soil conditions, between 400 and 800 kg, via a series of holes.
- For road transport, the FixPack and the plough are lifted, rotated by 90° and mechanically locked. The press arm is then hydraulically folded in parallel to the plough. This guarantees safe road transport whilst allowing quick and easy reactivation of the plough for the first furrow.

# FlexPack

## PLOUGH FURROW PRESS WITH FLEXIBLE WORKING WIDTH

Distance from farm to field, often increases with farm size. This means furrow presses fully-mounted on the plough, offer a practical and time-saving solution by avoiding the need for a separate transport tractor. The FlexPack can also deal with variable working widths for mounted ploughs.

- The packer frame runs parallel to the plough frame. This avoids strips of land being double pressed when the plough does not utilise its maximum working width. Thus the FlexPack guarantees uniform reconsolidation of the soil.
- The FlexPack is also used during ploughing of the first furrow, and the packer can be used both at the headland and side edges of the field.
- Packer ring arrangements offset in pairs, with a diameter of 60 cm V-profile, ensure that work is performed without any clogging. This ensures an excellent pressing effect whilst preventing them sinking too deeply into the soil.
- The load, transferred to the FlexPack, can be adjusted hydraulically to provide the optimum level of consolidation for the conditions.

*Parallel to the plough frame*

*Hydraulically adjustable load*

# VarioPack

*VarioPack with following implement*

*Front mounted VarioPack*

## HIGH EFFICIENCY FOR EVERY SOIL

Plough press or as front furrow press, single- or double-row, with 700 mm or 900 mm ring diameter, with 30° or 45° ring profile, LEMKEN has the right solution for any condition.

- Thanks to the ring construction without individual hub, the working width of the VarioPack furrow press can be easily adjusted by adding or removing rings. The ring shape, ring profile and special attachment method guarantee highest reliability, durability and minimum wear.
- The press arm made from highly elastic, tempered steel is resistant to accidental damage from the tractor.
- The use of a following roller ensures additional crumbling of cloddy soil and good levelling. On light to medium soils, your field can be made ready for sowing in one pass.
- A pushing device allows the press to be used in a front-mounted situation. A simple steering mechanism allows for exact, continuous coverage and easy turns.
- On folding front furrow presses, the separate sections are free to follow the ground contours providing uniform work quality.

# Technical data

| FixPack | | | | |
|---|---|---|---|---|
| Equipment | Roller diameter (mm) | Working width (cm) | Weight (kg) | |
| Synthetic roller with scrapers | 500 | 200 | 376 | |
| Synthetic roller with scrapers | 500 | 250 | 417 | |
| Star roller | 330 | 200 | 327 | |
| Star roller | 330 | 250 | 349 | |
| **FlexPack** | **JR 5-100** | **JR 6-100** | | |
| Ring diameter (mm) | 600 | 600 | | |
| Working width (cm) | 275 | 330 | | |
| Weight (kg) | 510 | 590 | | |
| Number of rings | 20 | 24 | | |
| **VarioPack** | **110 WDP 70 (double row)** | **S 110 WDP 70 (double row)** | **110 WDP 90 (double row)** | **110 WEP 90 (single row)** |
| Ring diameter (mm) | 700 | 700 | 900 | 900 |
| Working width (cm) | 100-300 | 250-440 | 162-400 | 100-400 |
| Weight (kg) | 590-1,452 | 1,242-2,040 | 1,390-3,005 | 572-1,847 |
| Central frame (mm) | 110 x 110 x 8 | 110 x 110 x 8 | 110 x 110 x 8 | 110 x 110 x 8 |
| Number of rings | 10-30 | 25-44 | 13-32 | 5-20 |
| Line distance (cm) | 10 | 10 | 12,5 | 20 |
| **VarioPack 110 FEP** | **250-90** | **300-90** | **350-90** | **400-90** |
| Ring diameter (mm) | 900 | 900 | 900 | 900 |
| Working width (cm) | 250 | 300 | 350 | 400 |
| Weight (kg) | 1,121 | 1,291 | 1,461 | 1,801 |
| Number of rings | 12 | 14 | 16 | 20 |
| Line distance (cm) | 20 | 20 | 20 | 20 |
| **VarioPack 110 FEP K** | **400-70** | **450-70** | **500-70** | **600-70** |
| Ring diameter (mm) | 700 | 700 | 700 | 700 |
| Working width (cm) | 400 | 450 | 500 | 600 |
| Weight (kg) | 1,226 | 1,326 | 1,426 | 1,726 |
| Number of rings | 20 | 22 | 24 | 30 |
| Line distance (cm) | 20 | 20 | 21 | 20 |
| **VarioPack 110 FEP K** | **400-90** | **450-90** | **500-90** | **600-90** |
| Ring diameter (mm) | 900 | 900 | 900 | 90 |
| Working width (cm) | 400 | 450 | 500 | 600 |
| Weight (kg) | 2,476 | 2,676 | 2,876 | 3,476 |
| Number of rings | 20 | 22 | 24 | 30 |
| Line distance (cm) | 20 | 20 | 21 | 20 |


50
Zirkon 12

# Rollers

## VERSATILE AND ESSENTIAL

The rollers on a unit play a varied role in terms of stubble cultivation and seedbed preparation as well as with conventional cultivation methods and mulch seeding. They are used to crumble, reconsolidate and level various soils. LEMKEN offers an extensive roller range with a model to suit every situation. LEMKEN rollers control the equipment precisely at the required depth and are equipped with a reliable support bearing. They are resistant to stones and sticking of soil and they cope with light, medium and heavy soil.

| | Diameter approx. mm | Diameter approx. mm | Weight (3 m large, app. kg) | Combinations | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | VarioPack | Zirkon 8/10 | Zirkon 12 KA | Korund | System-Kompaktor | Heliodor 9 | Rubin 9 | Rubin 12 | Kristall 9 | Kristall 9 K/KA | Karat 9 | Karat 9 K | Karat 9 KA |
| **Description** | **Roller** | **Tube** | | | | | | | | | | | | | | |
| Tube bar roller RSW 400 | 400 | | 203 | | • | | | | • | • | | | | | | |
| Tube bar roller RSW 540 | 540 | | 246 | | • | • | | | • | • | • | • | • | • | | |
| Tube bar roller RSW 600 | 600 | | 372 | | | | | | •[1] | • | • | • | •[5] | | | • |
| Double roller DRF 400/400 tube/flat | 400/400 | | 381 | | | | | | • | • | • | • | • | • | | • |
| Double roller DRR 400 tube/tube | 400/400 | | 404 | | | | | | • | • | • | • | • | • | | • |
| Double roller DRF 400/400 tube/flat | 540/400 | | 451 | | | | | | • | •[3,4] | • | • | • | | | • |
| Double roller DRR 540/400 tube/tube | 540/400 | | 474 | | | | | | • | •[3,4] | • | • | • | | | • |
| Knife roller MSW 600 | 600 | | 515 | | | | | | • | •[3] | • | • | • | • | | • |
| Rubber ring roller GRW 590 | 590 | 406 | 551 | | | • | | | • | • | • | • | •[5] | | | • |
| Toothed packer roller ZPW 550 | 550 | 406 | 499 | | • | • | | | • | | | | | | | |
| Double profile ring roller DPW 540/540 | 540/540 | | 467 | | | | | | •[2] | •[2] | • | • | •[5] | | | • |
| Packer profile roller PPW 600/540 | 600/540 | | 984 | | | | | | | | • | | | | | • |
| Packer double roller PDW 600/600 | 600/600 | | 984 | | | | | | | | • | | | | | • |
| Trapeze ring roller TRW 500 | 500 | | 499 | | | | | • | | | | | | | | |
| Trapeze packer roller TPW 500 | 500 | 406 | 656 | | • | • | | | • | • | • | | • | | | |
| Trapeze packer roller TPW 600 | 600 | 506 | 683 | | | • | | | • | | | | | | | |
| Trapeze disc roller TSW 500 | 500 | 323 | 458 | | • | • | | | • | • | | | | | | |
| Flex ring roller FRW 540 | 540 | | 387 | | | | | | • | • | • | • | • | • | • | • |
| Crosskill roller | 400 | | 470 | • | | | | • | | | | | | | | |
| Nockenring crumbler | 450 | | 506 | • | | | | | | | | | | | | |
| Tooth bar crumbler | 330/270 | | 242 | | | | • | | | | | | | | | |
| Tube-Tooth bar crumbler | 330/270 | | 250 | | | | • | | | | | | | | | |

[1] not for Gigant 10/1000 n, 1200 Heliodor • [2] not for Gigant• [3] not for Gigant 10 S/800 Rubin • [4] not for Gigant 12 S/1200 Rubin • [5] only Kristall KA

# Reconsolidation

*Tube bar roller RSW 400*

*Tube bar roller RSW 540*

*Tube bar roller RSW 600*

*Double roller tube/flat DRF 400/400*

*Double roller tube/tube DRR 400*

*Double roller tube/flat DRF 540/400*

*Double roller tube/tube DRR 540/400*

*Knife roller MSW 600*

*Rubber ring roller GRW 590*

*Toothed packer roller ZPW 550*

*Double profile ring roller DPW 540/540*

*Packer profile roller PPW 600/540*

*Packer double roller PDW 600/600*

*Trapeze disk roller TRW 500*

*Trapeze packer roller TPW 500*

*Trapeze packer roller TPW 600*


*Trapeze disk roller TSW 500*

*Flex ring roller FRW 540*


*Crosskill roller*


*Nockenring crumbler*

*Tooth bar crumbler*

*Tube-Tooth bar crumbler*

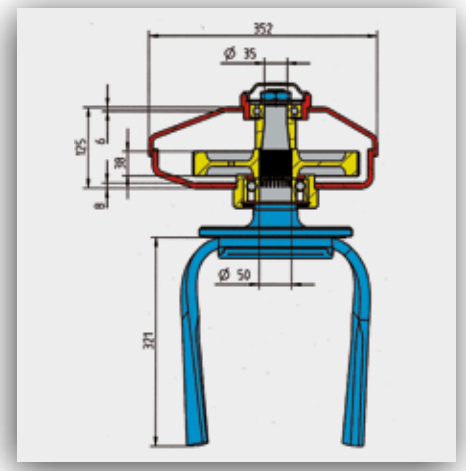
# SEEDBED PREPARATION

## PERFECT SEEDBED AS A BASIS FOR OPTIMUM PLANT CANOPIES

A perfect seedbed forms the basis for a succesful crop. Prepared soil should be level, firm, and free from compaction, across the entire width and working depth of the seedbed preparation machine. LEMKEN seedbed cultivators guarantee an optimum size distribution of soil aggregates, to provide a balance between good drainage and optimum moisture retention. Following rollers provide optimum consolidation without compaction. This is a critical factor in the germination efficiency of the crop. Efficient machines, which prepare a perfect seedbed, at the minimum operating cost, increase the profitability of the business.

In addition to the Zirkon PTO driven rotary harrows, non-powered seedbed combinations are also significant in the area of secondary soil preparation for cereal, rape seed, and fruits planted in rows. With the System-Kompaktor and Korund seedbed combinations. LEMKEN offers machines with versatile equipment possibilities to meet all agricultural requirements for perfect seedbed preparation.

# Zirkon 8




*Sloping pan profile of the Zirkon 8*

*Change gear transmission*

## THE VERSATILE ROTARY HARROW FOR OPTIMUM SEEDBED PREPARATION

The Zirkon 8 is the rotary harrow model for tractors with 60 to 175 HP. Various additional equipment options enable to adapt the rotary harrow to suit your operational conditions.

- The new sloping pan profile increases overall strength, provides more space for rotor and bearings, and encourages dirt to fall away.
- Base (8 mm) and cover (6 mm) are welded firmly together, and guarantee a long operational life.
- Bolt-on tines with a length of 300 mm as standard, quick-change tines with a length of 320 mm as option.
- The height of optional levelling bar can be easily and centrally adjusted from the side, using a spanner.
- The Zirkon 8 can be combined with the Saphir or Solitair seed drills. A three-point linkage for attachment of further equipment combinations is available as an option.
- The Zirkon 8 can be specified for use at the front or rear of the tractor.
- The DUAL-Shift transmission (option) allows selection of rotor speed from 300 to 400 revolutions per minute by means of a simple gear lever and changing their rotational direction by shifting the transmission from „Grip“ to „Drag“ according to requirements.

# Zirkon 12

## THE ROTARY HARROW FOR MAXIMUM CONSTANT LOAD IN ALL TILLING PROCEDURES

The Zirkon 12 is suitable for maximum constant load both in conventional and conservation-tillage procedures. The active tools of the Zirkon 12 prepare an optimum seedbed in almost all soil conditions. The intensity of preparation can be specifically adjusted by selecting appropriate combinations of forward travel speed, PTO speed, and the transmission setting of the rotary harrow.

- The permanently welded gear trough made from hardened, thick-walled steel, ensures the smooth and quiet running of all gears, shafts and bearings. This, in turn, guarantees a long operational life.
- The DUAL-Shift transmission enables simple adjustment of the tine speed from 330 to 440 rotor revolutions per minute. In addition, the rotational direction of the tines can be changed simply by shifting the transmission from “Grip” to “Drag”. As such, the machine is easy to adjust to all usage conditions.
- The quick-change tine with a length of 340 mm, and a thickness of 20 mm, guarantees maximum life span. The quick-change system ensures easy replacement of the tines with no tools required (option).
- For folding implements, the centrally located swing axles enable optimum adaptation to the ground contours.

*Quick-change tines*

*Change of rotational direction*


FENDT
LEMKEN

# Korund

*Application of the Korund*

*Working action of the levelling bar*

## POWERFUL ALTERNATIVE IN SEEDBED PREPARATION WITH VARIOUS EQUIPMENT OPTIONS

The Korund seedbed combination is characterised by particularly good levelling, loosening and grubbing with a high degree of surface coverage. It capacity, due to its various tine options, is demonstrated in professional potato or maize cultivation.

- Its short and compact design provides a favourable centre of gravity and thus enables the use of tractors with lower lifting power. Due to its light weight, the machine can be used in large working widths on the tractor three-point hitch.
- The flexible support arms made from massive spring steel can absorb high impact loads and thus protect the tractor and appliance.
- To achieve an even loosening effect, tine sections with marathon or gamma tines for deep seedbed preparation are available, and for the flatter seedbed preparation duckfoot tines are recommended.
- The planing effect of the spring loaded multi-bar means an optimum seedbed is produced, even under difficult conditions such as deep tractor ruts or uneven ploughed surfaces. Thus the tine sections can work less deep which saves fuel.
- Toothed bar crumblers with maintenance free ball bearings provide precise depth guidance as well as optimal crumbling and levelling.

# System-Kompaktor


## SEEDBED COMBINATION FOR OPTIMUM WORK RESULTS AFTER ONLY ONE PASS

The Kompaktor is the ideal machine for preparing a finely cultivated, well reconsolidated seedbed with an even depth. This provides the basis for an even establishment, particularly of fine seeds like sugar beet and rape seed, and thus achieving high yields.

- Multiple combinations of tools and rollers provide optimum cultivation and reconsolidation of the seedbed.
- There is a choice of duck foot or gamma tines, and hollow tube or flat bar rollers can be selected according to preference.
- The suspension of the tine sections in a parallelogram ensures precise guidance and thus even working depth.
- The feeding of earth into the rollers is controlled via the hydraulically adjustable levelling bar for changing soil conditions. The leading levelling bar levels the surface.
- All foldable System-Kompaktor with working withs from 4 metres are hydraulically folded to a transport width of less than 3 metres. The semi-mounted system from 5 metres working width provides fast and safe road transport.
- Equipped with a combination axle (option) the semi-mounted System-Kompaktor can be combined with the pneumatic seed drill Solitair.

*Hydraulic adjustment of the levelling bar*

*Tool arrangement*

# Technical data

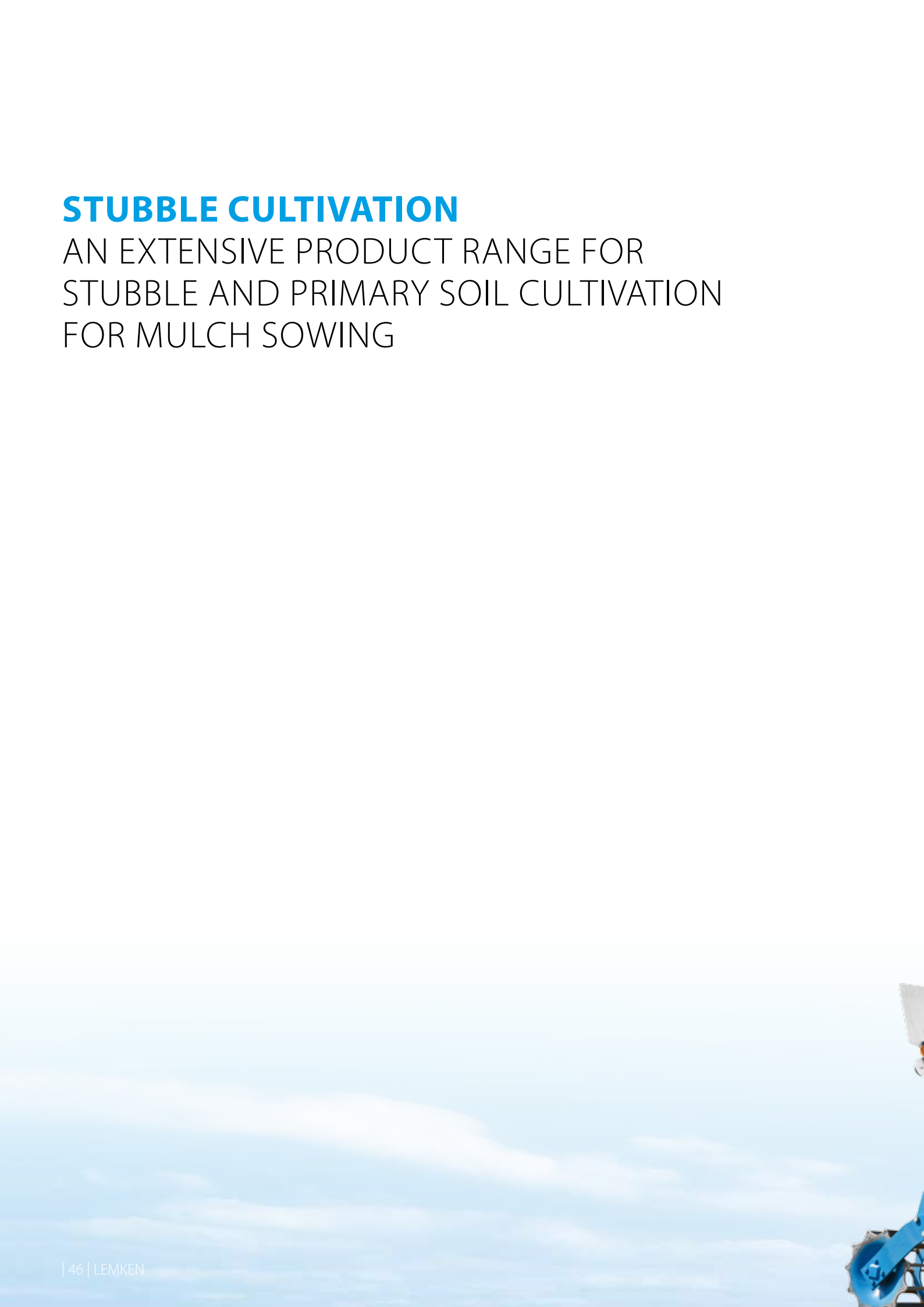
| Zirkon 8 | mounted, rigid | | | |
|---|---|---|---|---|
| Type | 8/250 | 8/300 | 8/350 | 8/400 |
| Working width (cm) | 250 | 300 | 350 | 400 |
| Weight (kg)[1] | 701 | 785 | 946 | 1.015 |
| kW/HP (from - to) | 44/60-103/140 | 55/75-118/160 | 62/85-125/170 | 66/90-129/175 |
| Up to PTO rpm ($min^{-1}$) | 1.000 | 1.000 | 1.000 | 1.000 |
| Rotor speed ($min^{-1}$) at 1,000 $min^{-1}$ | 300/400 | 300/400 | 300/400 | 300/400 |
| **Zirkon 12** | **mounted, rigid** | | | |
| Type | 12/300 | 12/350 | 12/400 | 12/450 |
| Working width (cm) | 300 | 350 | 400 | 450 |
| Weight (kg)[1] | 922 | 1.035 | 1.149 | 1.261 |
| kW/HP (from - to) | 66/90-154/210 | 77/105-165/225 | 88/120-176/240 | 88/120-176/240 |
| Up to PTO rpm ($min^{-1}$) | 1.000 | 1.000 | 1.000 | 1.000 |
| Rotor speed ($min^{-1}$) at 1,000 $min^{-1}$ | 230/330/440 | 230/330/440 | 230/330/440 | 230/330/440 |
| **Zirkon 12** | **hydraulic folding** | | | |
| Type | 12/400 K | 12/450 K | 12/500K | 12/600 K |
| Working width (cm) | 400 | 450 | 500 | 600 |
| Weight (kg)[1] | 1.762 | 1.896 | 2.066 | 2.452 |
| kW/HP (from - to) | 88/120-199/270 | 99/135-199/270 | 121/165-221/300 | 132/180-235/320 |
| Up to PTO rpm ($min^{-1}$) | 1.000 | 1.000 | 1.000 | 1.000 |
| Rotor speed ($min^{-1}$) at 1,000 $min^{-1}$ | 230/330/440 | 230/330/440 | 230/330/440 | 230/330/440 |
| **Zirkon 12** | **semi-mounted, hydraulic folding** | | | |
| Type | 12/400 KA | 12/450 KA | 12/500 KA | 12/600 KA |
| Working width (cm) | 400 | 450 | 500 | 600 |
| Weight (kg)[1] | 3.531 | 3.734 | 3.923 | 4.447 |
| kW/PS | 88/120-199/270 | 99/135-199/270 | 121/165-221/300 | 132/180-235/320 |
| Up to PTO rpm ($min^{-1}$) | 1.000 | 1.000 | 1.000 | 1.000 |
| Rotor speed ($min^{-1}$) at 1,000 $min^{-1}$ | 230/330/440 | 230/330/440 | 230/330/440 | 230/330/440 |

| Korund 8 | mounted, rigid | mounted, hydraulic folding | | | |
|---|---|---|---|---|---|
| Type | 300 | 450 K | 600 K | 750 K | 900 K |
| Working width (cm) | 300 | 450 | 600 | 750 | 900 |
| Weight (kg) from | 872 | 1.410 | 1.952 | 2.860 | 3.268 |
| kW/HP (from - to) | 48/65-85/115 | 70/95-107/145 | 77/105-129/175 | 92/125-158/215 | 107/145-180/245 |
| Number + width of harrow sections | 2 x 150 cm | 3 x 150 cm | 4 x 150 cm | 5 x 150 cm | 6 x 150 cm |
| **System-Kompaktor** | **mounted, rigid** | | **mounted, hydraulic folding** | | |
| Type | 300 S | 400 S | 400 K | 500 K | 600 K |
| Working width (cm) | 300 | 400 | 400 | 500 | 600 |
| Weight (kg)[2] | 1.430 | 1.650 | 1.850 | 2.103 | 2.703 |
| kW/HP (from - to) | 55/75-85/115 | 70/95-114/155 | 70/95-114/155 | 107/145-158/215 | 121/165-180/245 |
| Number + width of harrow sections | 2 x 150 cm | 2 x 200 cm | 2 x 200 cm | 2 x 150, 1 x 200 cm | 4 x 150 cm |
| **System-Kompaktor** | **semi-mounted, hydraulic folding** | | | | |
| Type | 500 KA | 600 KA | | | |
| Working width (cm) | 500 | 600 | | | |
| Weight (kg)[2] | 3.670 | 4.270 | | | |
| kW/HP (from - to) | 100/136-158/215 | 114/155-180/245 | | | |
| Number + width of harrow sections | 2 x 150, 1 x 200 cm | 4 x 150 cm | | | |
| **System-Kompaktor** | **trailed, hydraulic folding** | | | | |
| Type | Gigant 10/800 | Gigant 10/1000 | Gigant 12/1200 | | |
| Working width (cm) | 800 | 1000 | 1.200 | | |
| Weight (kg) | 2.630 | 2.830 | 4.740 | | |
| kW/HP (from - to) | 158/215-232/315 | 202/275-346/470 | 246/335-404/550 | | |
| Number + width of harrow sections | 4 x 200 cm | 4 x 150, 2 x 200 cm | 6 x 200 | | |

[1] weight without roller
[2] weight with Crosskill roller

# STUBBLE CULTIVATION

## AN EXTENSIVE PRODUCT RANGE FOR STUBBLE AND PRIMARY SOIL CULTIVATION FOR MULCH SOWING



In many places the purpose of stubble cultivation has changed over recent years. Whereas stubble cultivation used to be an operation preceding ploughing, many farmers now use efficient stubble cultivation machines, followed by a cultivator drill, as a means of reduced-cost crop establishment.

Modern combine harvesters with wide headers have to handle large volumes of straw. Often the chopper cannot cut it properly, or distribute it over the full working width. However, these large volumes of organic matter and volunteer cereals must be uniformly incorporated if the following crop is to be established without ploughing. The first stubble cultivation must break the capillaries, in order to prevent soil moisture loss, as soon as possible after harvest. If the next crop is to be mulch drilled, the soil will need to be cultivated again later after emergence of weeds and volunteers. This operation will be at a greater depth to remove compaction, and mix the chopped straw throughout the soil profile.

LEMKEN offers an extensive range of compact disc harrows and cultivators to provide for the needs outlined above. The primary cultivation, to break soil capillaries and encourage seed germination, can be done with Heliodor or Rubin compact disc harrows, Kristall and Karat cultivators, can be used for deeper work to remove compaction and mix chopped straw.

NEW

Stubble cultivation

# Heliodor 9

*Hydraulic working depth adjustment*


*Separately adjustable discs in the tractor track*

## COMPACT, MULTIPLE AND EASY TO PULL

The Heliodor compact disc harrow can be used for shallow stubble cultivation on light and medium soils, and for seedbed preparation before mulch sowing, or after ploughing. This means the Heliodor can be used in both conventional and mulch sowing systems. High working speeds and a low power requirement give high-performance tillage.

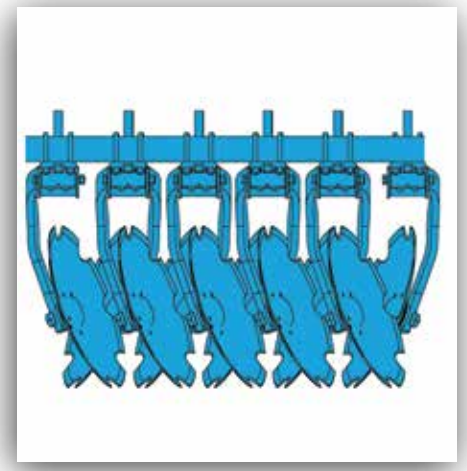
- With its robust leaf spring elements, the Heliodor operates continuously and without blockage.
- The 510 mm diameter, concave discs are protected from dust, dirt and water penetration, in maintenance-free axial angular ball bearings with a special labyrinth sealing ring.
- The Heliodor is lightweight so that implements, from 2,50 to 7 metres working width, can be handled on the tractor three-point linkage.
- The 3 and 4 metre mounted and the 4 to 6 metre semi-mounted versions, of the Heliodor, can be combined with the Solitair pneumatic seed drill if required.
- For the large farm, the Gigant system carrier allows working widths of 8 to 16 metres to guarantee fast stubble cultivation and seedbed preparation.

# Rubin 9

## SHALLOW, FAST AND INTENSIVE

The Rubin compact disc harrow guarantees intensive, uniform mixing of organic matter and soil to a depth of approximately 12 cm, Its high weight guarantees penetration, even under hard conditions, and therefore reduces moisture loss from evaporation. This makes the Rubin highly suitable for shallow, reliable stubble cultivation at high working speeds.

- The open frame design with large clearances guarantees blockage-free operation even in high amounts of organic mass.
- The 620 mm diameter concave discs overlap between rows to ensure that all soil is moved even at shallow working depths.
- Legs are mounted on strong hinges, with overload protection via robust spiral springs, to ensure the discs stay on track even in difficult conditions.
- Each row of the notched discs has height and angle adjustable rebound harrows, controlling the soil flow from the discs and, when working diagonally across the rows, helping to complete a thorough straw distribution.
- In working widths of 4 to 6 metres, the semi-mounted Rubin can be fitted with a light, transport axle, or with a combination axle for use together with the Solitair pneumatic seed drill.



*Disc arrangement*

*Robust overload protection*

# Rubin 12

*Intensive mixing and crumbling*

*Rubin 12 with 3 metres working width*

## COMPACT DISC HARROW WITH IN-DEPTH EFFECT

With Rubin 12, LEMKEN introduces a compact disc harrow that enables deeper cultivation comparable to a tined cultivator up to a depth of 20 cm. The Rubin 12 is suitable both for stubble cultivation and for primary soil tillage, even under the heaviest soil conditions.

- Two rows of serrated concave discs with a diameter of 736 mm let the Rubin 12 mix and crumbl intensively.
- The symmetrical arrangement of the discs in each row enables working without lateral pull, even at high driving speeds.
- The angle of the discs of 20° to the soil and the inclined position to the direction of travel by 16° provide optimum penetration and enable cultivation over the whole width from a working depth of 7 cm.
- Specially curved and coiled legs ensure maximum clearance between the discs. This prevents clogging, along with the slight offset of the middle discs.
- High forward speed with lower slipping provide higher acreage performance with lower fuel consumption.
- An impact harrow behind the first row of discs provides intensive mixing and crumbling, while a levelling harrow behind the second row ensures optimal soil distribution and perfect levelling.
- In the mounted version, the Rubin 12 can be equipped with a depth and transport wheel, which loads the front tractor axle when the implement is lifted. Here, a new semi-mounted system is used that requires no additional control unit.
- Now also available in up to 7 metres working width. NEW

# MOUNTED AND YET SEMI-MOUNTED

**Until now, the selection of a roller for a mounted implement depended particularly on the lifting ability of the tractor and the required wheel load on the front axle during transport. For this reason, especially heavy and long mounted implements could not be equipped with a heavy roller for better reconsolidation. LEMKEN offers a solution for this problem with its special implement mounting design.**

*Rubin 12 with the semi-mounted concept in the field*

LEMKEN's mounted version of the Rubin 12 features a new semi-mounting system, which transfers weight to the star wheel when the implement is raised, without requiring an additional control unit. To do so, the position of the turning point on the carriage and the connection with the roller frame were designed such that the wheel is lowered when the implement is lifted using the tractor's linkage, causing the roller to be mechanically lifted. Here, the lifting takes place solely using the rear hydraulic linkage of the tractor. The transfer of up to 650 kg of vertical load onto the machines land wheel unloads the rear axle and ensures that the front axle is sufficiently loaded for road transport.

The semi-mounted system provides several decisive advantages for the farmer. He can now equip his mounted implements with a heavy roller to achieve better reconsolidation. At the same time, the driver's workload is relieved at the headlands, because he no longer has to operate an additional control unit, and he enjoys the manoeuvrability of a mounted implement. Furthermore, now tractive force is more decisive for the tractor selection as the lifting power.

The semi-mounted concept is available as an option for the Rubin 12 compact disc harrow. In the future, this concept will be implemented in other cultivator and compact disc harrow series. This cost-effective concept offers further opportunities to reduce the lift requirement of mounted machines without need to resort to a traditional semi-mounted format.

*Rubin 12 with the semi-mounted concept on the road*

# Kristall



*TriMix wing shares*


*Exchanging TriMix with DuoMix shares*

## TOP QUALITY WORK AND COMPACT DESIGN

The Kristall cultivator combines the proven advantages of a twin-beam cultivator with the added benefits of a cultivator with three or more tine rows.

- 47 cm wide TriMix shares with curved guide plates on the wings provides an unprecedented level of mixing compared to previous share designs,.
- The short, compact frame design gives better depth control than in multi-beam cultivators.
- The low lifting power enables three-point linkage mounting, on the tractor, up to working width of 6 metres.
- The semi-mounted versions can be equipped with the LEMKEN combination axle that enables the combination with the Solitair seed drill.
- The tines and concave levelling discs are arranged to guarantee blockage-free work without producing an unwanted “ridge effect”.
- If the working depth of the Kristall compact cultivator is changed, the concave discs adapt to the new working depth without further adjustment.
- For light soils, the Kristall compact cultivator can also be equipped with the DuoMix shares, which - in contrast to the TriMix shares - are fitted with straight wings.
- The Kristall can be fitted as option with LEMKEN’s innovative quick-change system which enables the shares to be adjusted to individual requirements without tools.

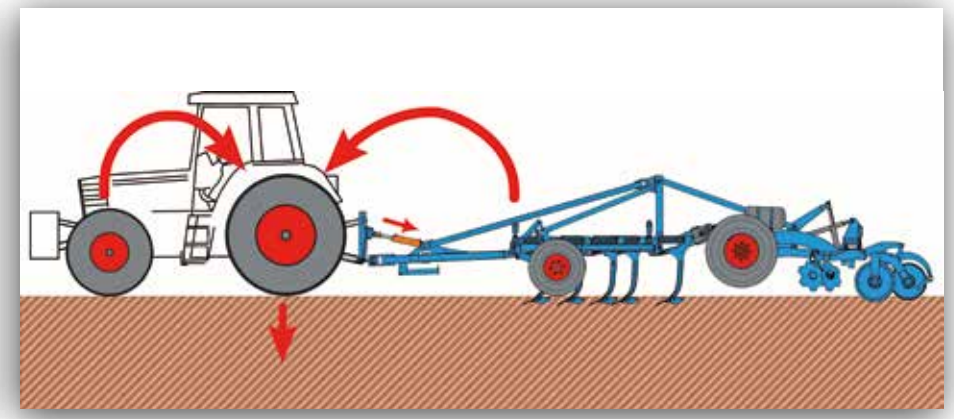
# Karat


## INTENSIVE WORK IN DEEP AND SHALLOW STUBBLE CULTIVATION

The Karat intensive cultivator is suitable for initial shallow, all-over stubble cultivation after combining, as well as deep, intensive mixing to incorporate straw at a later date.

- With the innovative quick-change system (option), the shares can be changed quickly and easily without tools so that the cultivator can be tailored to the different requirements of shallow or deep mixing cultivation.
- The tractor-mounted Karat has an easily accessible depth adjustment system to set working depth in small increments between 5 and 30 cm without using tools. The semi-mounted Karat is fitted with hydraulic working depth adjustment as standard.
- When the working depth is changed, the automatic disc adjustment system ensures that the maintenance-free concave discs compensate for the new working depth with no further adjustment.
- Hydraulic traction assistance ensures that the weight is transferred from the cultivator to the tractor rear axle, thus increasing the tractor's traction power and reducing the fuel consumption.
- In the semi-mounted version the axle is integrated within the cultivator frame to provide greater manoeuvrability.
- The maintenance-free automatic overload safety device (option) allows the tines to move upwards and backwards when they hit an obstruction.

*Quick and easy tool change*



*The mode of operation of the hydraulic traction assistance*

NEW

## Karat 12 for intensive stubble cultivation

# LEMKEN WITH NEW FOUR-BAR CULTIVATOR


*Karat 12 in the field*

**LEMKEN has developed the new Karat 12 for both shallow and deep no-tillage cultivation up to 30 cm depth, especially in heavier soils. Four rows of tines with a line distance of about 23 cm deliver the desired loosening effect as well as effective mixing, depending on share type. With eight available share types, there will always be the perfect combination of tools for any working conditions. An optional quick-change system ensures that shares can be easily and quickly swapped. The use of the new, carbide-coated K8H share points is recommended for superior acreage performance.**

An underframe clearance of 80 cm and an interbody clearance of 90/80/90 cm makes easy work even of large volumes of organic materials.

The Karat 12 features concave discs for optimal levelling, as do LEMKEN's other cultivator models, the Kristall and Karat 9. The discs and trailing roller are designed as a single unit to ensure that the discs do not need to be adjusted even when the working depth is changed.

The carriage of LEMKEN's new cultivator is integrated between the tines and concave discs, resulting in a highly compact and stable cultivator that is at the same time extremely agile at the headlands and during road transport. The favourable weight distribution allows the use of heavy trailing rollers to achieve good re-consolidation.

The standard equipment of the Karat 12 includes maintenance-free automatic overload protection. The tines are able to deflect vertically by up to 20 cm, providing for confident, disruption-free work even in stony soils. Trigger forces in excess of 550 kg ensure that the tines remain firmly engaged with the soil.

The hydraulic depth adjustment allows operators to adjust the working depth continuously via the trailing rollers, all from the comfort of the tractor cabin during operation. Each roller/concave disc unit is equipped with a self-levelling system for precise and constant depth control and smooth operation.

Hydraulic traction enhancement is available as an option for the Karat 12 to reduce slip and thus reduce fuel consumption.

The ContourTrack option, which provides electro-hydraulic adaptation to surface contours via depth control wheels, is recommended to ensure consistent working depths, which can often be problematic in hilly terrain. This ensures optimum working results even with longer cultivators.

*4 rows of tines for intensive mixing*

# Traction increase to be combined with constant working depth ContourTrack


## ALWAYS CULTIVATING AT THE SAME DEPTH

**Farmers in hilly regions often face the problem that their semi-mounted cultivator doesn't work deep enough in a hollow and too deep over ridges. Manual adjustment is difficult for the driver and requires a great deal of sensitivity. With the rotation point in the frame behind the working section and an additional hydraulic ram LEMKEN has found a simple remedy for their semi-mounted Karat cultivator.**

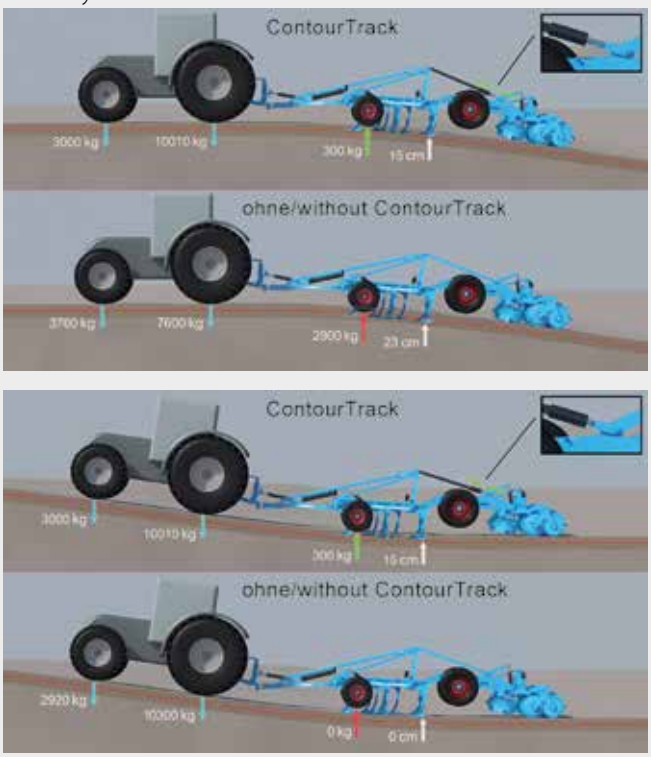
*Karat cultivator with working depth control ContourTrack*

The simple but effective system is available as an option for the semi-mounted Karat cultivator from LEMKEN. The customer takes double profit. He saves fuel due to the standard traction increase unit and receives an optimal cultivation result in hilly areas as the machine provides optimal terrain adaption.

If you presume that a certain load on the support wheels corresponds to the working depth desired, the support wheel load has to be maintained even in a hilly area. At a length of eight metres for a semi-mounted Karat, up to now it could not be kept automatically while working in a valley or on a hilltop. In the low spots the cultivator works shallower than desired if it is not re-adjusted, and on the hilltop deeper. The traction power requirement strongly increases as a result.

The additional hydraulic ram in the semi-mounted frame behind the tine section now controls the position of the disc/roller unit via the rotation point thus enabling it to follow the contours of the land. The load of the support wheels right next to the tine section and thus the working depth therefore remains constant.. The standard hydraulic depth adjustment is not affected. The remaining support loads which are caused by the weight of the machine and tines entering the soil are completely transferred to the tractor.

The hydraulic ram is controlled by an electronic device which receives a continuous signal from force measurement bolts at each support wheel. If the pressure changes the length of the ram is automatically adjusted. The driver has to adjust his working depth only once prior to work in order to calibrate the system and can be sure of a regular working quality.



# Topas / Dolomit / Labrador

## TOPAS
## PRE-CULTIVATOR

The versatile Topas pre-cultivator is the big all-rounder for many farms. Farmers using non-plough tillage value its input using interchangeable wing shares when front-mounted or with suitable flat shares when rear-mounted for deeper loosening without mixing.

- The Topas can be front or rear-mounted on the tractor and used in combination with a power harrow.
- The short, compact design provides an optimum centre of gravity.
- The symmetrical tine arrangement, with 5 to 9 tines, provides good implement control, The outer tines are infinitely adjustable.

## DOLOMIT
## PRE-LOOSENER

The extremely versatile Dolomit pre-loosener is suitable for all-over soil loosening, particularly before power-harrow/drill combinations. This allows mulch drilling for sowing in a single pass.

- Extremely short, only 50 cm, design with optimum coupling point spacing.
- Working depth can be adjusted during work independently of any mounted tillage combination
- The 60 cm wide, one-piece wing shares with hardened tips loosen the soil across the full working width.


## LABRADOR
## SUBSOILER

The reliable Labrador subsoiler is most suitable for loosening tramlines or breaking up compacted soil.

- Optimum loosening and drainage of impermeable soil layers using two or three tines at working depths of up to 65 cm,.
- The legs can be adjusted to any tractor track width for tramline,.

# Gigant

## ONE SYSTEM FOR EVERYTHING

The two system carriers, Gigant 10 and Gigant 12, offer the unique opportunity of using different LEMKEN implements with a single chassis. Both system carriers have two hydraulic three-point linkage systems to take the Heliodor or Rubin compact disc harrows, the Smaragd disc cultivator, or the System-Kompaktor seedbed combination, depending on the type of work to be done. This versatility saves on investment costs for chassis, braking systems and hydraulic implement folding. It also provides the option of using the individual implements separately without the system carrier with smaller standard tractors.

- The two three-point linkages and the individual working units provide unbeatable ground following which guarantees a uniform cultivation depth and lower fuel consumption.
- The cultivated area remains free of wheel tracks because the wheels on the Gigant system carrier run in front of the implements.
- Road transport of the Gigant 10 is simple and safe with 3 m transport width possible in every implement combination.
- The Gigant 12 can be fitted with a support wheel for fast, convenient use at the headland and safe implement transport.

*Gigant System-Kompaktor in the field*

*Gigant Smaragd*

NEW

## Gigant Heliodor system carrier now with 16 metres working width

# LARGEST COMPACT DISC HARROW

*System Trac Gigant 12 S/1600 Heliodor 9*

**With a working width of 16 metres and an acreage performance of up to 25 hectares per hour, the Heliodor 9 combined with the Gigant 12 S system carrier provides enormous efficacy on large-scale farms.**

The implement's disc diameter has been enlarged from 465 to 510 mm to ensure a long disc service life commensurate with the high acreage performance. The larger discs also allow the working depth to be increased by 2 cm to up to 14 cm.

The new Heliodor Gigant is attached to the tractor's double-clip drawbar via a drawbar eye. The two 4-metre sections of the Heliodor 9, which combine to form 8-metre units, are attached to the two three-point linkages of the Gigant system carrier. The self-levelling lower links ensure that the two 8-metre sections independently adjust to surface contours. The self-levelling suspension provided for all of the four 4-metre sections achieves an optimum adjustment over the implement's full working width and results in consistently precise depth control uneven terrain.

*Serrated concave discs for intensive mixing*

The three-point linkages are connected to double-acting control units to ensure that weight can be transferred from the system carrier to the Heliodor sections, especially in hard soils. As a result, the Heliodor consistently delivers optimum quality of work, despite its large working width. Large-volume, 800 mm wide tyres reduce soil compaction to a minimum and, together with compact transport dimensions (3.50 metres width, 4 metres height) provide for good road handling of the Gigant Heliodor.

# Technical data

| Heliodor 9 | mounted, rigid | | | | mounted, hydraulic folding | | | |
|---|---|---|---|---|---|---|---|---|
| Type | 9/250 | 9/300 | 9/350 | 9/400 | 9/400 K | 9/500 K | 9/600 K | 9/700 K |
| Working width (cm) | 250 | 300 | 350 | 400 | 400 | 500 | 600 | 700 |
| Weight (kg)[1] | 672 | 805 | 912 | 1,020 | 1,727 | 1,848 | 2,110 | 2,460 |
| kW/HP (from - to) | 46/63-74/100 | 55/75-88/120 | 65/88-103/140 | 74/100-118/160 | 74/100-118/160 | 92/125-147/200 | 110/150-176/240 | 128/206-175/280 |
| Discs (number Ø mm) | 20/510 | 24/510 | 28/510 | 32/510 | 32/510 | 40/510 | 48/510 | 56/510 |

| Heliodor 9 | semi-mounted, hydraulic folding | | | | trailed, hydraulic folding | | | |
|---|---|---|---|---|---|---|---|---|
| Type | 9/400 KA | 9/500 KA | 9/600 KA | 9/700 KA | Gigant 10/900 | Gigant 10/1000 | Gigant 10/1200 | Gigant 12/1600 |
| Working width (cm) | 400 | 500 | 600 | 700 | 800 | 1.000 | 1.200 | 1.600 |
| Weight (kg)[1] | 2,437 | 2,626 | 2,794 | 3,260 | 4,650 | 5,296 | 6,452 | 10,746 |
| kW/HP (from - to) | 74/100-118/160 | 92/125-147/200 | 110/150-176/240 | 128/206-175/280 | 174/235-118/320 | 184/250-294/400 | 221/300-353/480 | 345/470-445/605 |
| Discs (number Ø mm) | 32/510 | 40/510 | 48/510 | 56/510 | 64/510 | 80/510 | 96/510 | 128/510 |

| Rubin 9 | mounted, rigid folding outer discs | | | | mounted, hydraulic folding | | | |
|---|---|---|---|---|---|---|---|---|
| Type | 9/250 U | 9/300 U | 9/350 U | 9/400 U | 9/400 KU | 9/450 KU | 9/500 KU | 9/600 KU |
| Working width (cm) | 250 | 300 | 350 | 400 | 400 | 450 | 500 | 600 |
| Weight (kg)[1] | 1,480 | 1,640 | 1,800 | 1,960 | 2,890 | 3,111 | 3,331 | 3,785 |
| kW/HP (from - to) | 63/85-92/125 | 77/105-110/150 | 90/105-120/175 | 103/140-147/200 | 103/140-147/200 | 115/157-165/225 | 129/175-184/250 | 154/210-221/300 |
| Discs (number Ø mm) | 20/620 | 24/620 | 28/620 | 32/620 | 32/620 | 36/620 | 40/620 | 48/620 |

| Rubin 9 | semi-mounted, hydraulic folding | | | | trailed, hydraulic folding | | |
|---|---|---|---|---|---|---|---|
| Type | 9/400 KUA | 9/450 KUA | 9/500 KUA | 9/600 KUA | Gigant 10 S/800 | Gigant 12 S/1000 | Gigant 12 S/1200 |
| Working width (cm) | 400 | 450 | 500 | 600 | 800 | 1,000 | 1,200 |
| Weight (kg)[1] | 4,690 | 4,910 | 5,131 | 5,585 | 9,966 | 10,936 | 12,382 |
| kW/HP (from - to) | 103/140-147/200 | 115/157-165/225 | 129/175-184/250 | 154/210-221/300 | 206/280-294/400 | 257/350-368/500 | 309/420-441/600 |
| Discs (number Ø mm) | 32/620 | 36/620 | 40/620 | 48/620 | 64/620 | 80/620 | 96/620 |

| Rubin 12 | mounted, rigid | | | semi-mounted, hydraulic folding | | | |
|---|---|---|---|---|---|---|---|
| Type | 12/300 U | 12/350 U | 12/400 U | 12/400 KUA | 12/500 KUA | 12/600 KUA | 12/700 KUA |
| Working width (cm) | 300 | 350 | 400 | 400 | 500 | 600 | 700 |
| Weight (kg)[1] | 2,046 | 2,141 | 2,616 | 4,402 | 5,284 | 5,732 | 6,630 |
| kW/HP (from - to) | 99/135-177/240 | 116/158-206/280 | 132/180-235/320 | 132/180-235/320 | 165/225-294/400 | 199/270-353/480 | 231/315-410/560 |
| Discs (number Ø mm) | 18/736 | 18/736 | 22/736 | 22/736 | 30/736 | 34/736 | 42/736 |

| Kristall 9 | mounted, rigid | | | mounted, hydraulic folding | | |
|---|---|---|---|---|---|---|
| Type | 9/300 | 9/350 | 9/400 | 9/400 K | 9/500 K | 9/600 K |
| Working width (cm) | 300 | 350 | 400 | 400 | 500 | 600 |
| Weight (kg)[1] | 772 | 871 | 990 | 1,445 | 1,543 | 1,861 |
| kW/HP (from - to) | 66/90-99/135 | 77/105-116/158 | 88/120-132/180 | 88/120-132/180 | 110/150-165/225 | 132/180-199/270 |
| Tines/ pairs of discs | 7/3 | 7/3 | 9/4 | 9/4 | 11/5 | 13/6 |

| Kristall 9 | semi-mounted, hydraulic folding | | |
|---|---|---|---|
| Type | 9/400 KA | 9/500 KA | 9/600 KA |
| Working width (cm) | 400 | 500 | 600 |
| Weight (kg)[1] | 3,030 | 3,128 | 3,446 |
| kW/HP (from - to) | 88/120-132/180 | 110/150-165/225 | 132/180-199/270 |
| Tines/ pairs of discs | 9/4 | 11/5 | 13/6 |

| Karat 9 | mounted, rigid | | | mounted, hydraulic folding | |
|---|---|---|---|---|---|
| Type | 9/300 | 9/350 | 9/400 | 9/400 K | 9/500 K |
| Working width (cm) | 300 | 350 | 400 | 400 | 500 |
| Weight (kg)[1] | 850 | 950 | 1,050 | 1,665 | 1,855 |
| kW/HP (from - to) | 77/105-110/150 | 90/122-129/175 | 103/140-147/200 | 103/140-147/200 | 129/175-184/250 |
| Tines/ pairs of discs | 11/2 + 2 St, | 12/3+1 St, | 14/4 + 1 St, | 14/4 + 1 St, | 18/5 + 1 St, |

| Karat 9 | semi-mounted, hydraulic folding | | | | light transport carriage, hydraulic folding | | | |
|---|---|---|---|---|---|---|---|---|
| Type | 9/400 KA | 9/500 KA | 9/600 KA | 9/700 KA | 9/400 KTA | 9/500 KTA | 9/400 KUTA | 9/500 KUTA |
| Working width (cm) | 400 | 500 | 600 | 700 | 400 | 500 | 400 | 500 |
| Weight (kg)[1] | 3,747 | 4,157 | 4,557 | 5,067 | 3.165 | 3.355 | 3.625 | 3.965 |
| kW/HP (from - to) | 103/140-176/240 | 129/175-221/300 | 154/210-265/360 | 180/245-309/420 | 103/140-147/200 | 129/175-184/250 | 103/140-147/200 | 129/175-184/250 |
| Tines/ pairs of discs | 14/4 + 1 St, | 18/5 + 1 St, | 21/6 + 1 St, | 25/8 | 14/4 | 17/5 | 14/4 | 17/5 |

| Smaragd 9 | trailed, hydraulic folding | | |
|---|---|---|---|
| Type | Gigant 10/800 | Gigant 10/1000 [2] | Gigant 12/1200 [2] |
| Working width (cm) | 800 | 1,000 | 1,200 |
| Weight (kg)[1] | 5,419 | 6,975 | 9,355 |
| kW/HP (from - to) | 147/200-265/360 | 184/250-331/450 | 221/300-397/540 |
| Tines/ pairs of discs | 18/8 +1 St, | 22/10 + 1 St, | 26/12 + 1 St, |

| Topas 140 | mounted, rigid | | |
|---|---|---|---|
| Type | 140-5 | 140-7 | 140-9 |
| Working width (cm) | 250 | 300 | 400 |
| Weight (kg) | 381 | 415 | 540 |
| kW/HP (from - to) | 51/70-99/135 | 66/90-110/150 | 74/100-125/170 |
| Number of tines | 5 | 7 | 9 |

| Dolomit 9 | mounted, rigid | |
|---|---|---|
| Type | 9/300 | 9/400 |
| Max, working depth (cm) | 35 | 35 |
| Weight (kg) | 430 | 550 |
| kW/HP (from - to) | 59/80-125/170 | 74/100-147/200 |
| Line distance | 75 | 75 |
| Number of chisels | 4 | 6 |

| Labrador 160 | mounted, rigid |
|---|---|
| Max, working depth (cm) | 65 |
| Weight (kg) | 485 |
| kW/HP (from - to) | 55/75-129/175 |
| Line distance | 100-225 |
| Number of chisels | 2 |

[1] weight without roller

[2] Gigant 10/1000 and 12/1200 Smaragd only available with mechanical Non-Stop overload safety device

# DRILLING
## ACCURATE DRILLING FOR RELIABLE YIELDS

Modern arable farms need high performance equipment, a versatile combination of different functions within an implement, and fast, simple road transport. And all this without compromise to good consolidation and perfect seed placement. The most important feature of a modern drill is that it will work flawlessly in both conventional and conservation tillage. The preferred tillage method will vary according to previous crop, soil type, weather and harvest conditions. LEMKEN drills meet every requirement for blockage-free work and precise seed placement in conventional and conservation tillage.

LEMKEN seed drills can be combined with suitable cultivation tools to optimise overall seeding performance. They can be mounted, trailed, or semi-mounted depending on type. Working widths of 2,5 to 12 metres provide the flexibility for cost-effective use in all farm structures. The 650 to 5,800 litre hopper ensures the seed volume carried is in proportion to the sowing width.

# Saphir 7


*Transport*

*Hexagonal seeding shaft*

## HIGH PERFORMANCE MECHANICAL DRILLING FOR ALL WORKING CONDITIONS

The Saphir 7 mechanical seed drill offers medium-sized farms a reliable, high performance drill to meet high work demands during busy periods. The Saphir is versatile and can be combined with a variety of implements, such as the Zirkon power harrow, to gain optimum operating efficiency.

- A spiked land wheel, maintenance-free cardan drive, and continuously variable oil bath gearbox guarantee simple, accurate seed metering. Precise adjustment for seed rates of 0,5 to 500 kg/ha is possible. The smooth running seeding shaft ensures accurate seed distribution in the row.
- The new hexagonal seeding shaft with quick-change device makes it easy to change the seed wheel, providing optimum metering over a range of seed types.
- Precise seed depth is achieved by the parallelogram-mounted double disc coulter with depth control wheel, or the Suffolk coulter with bolt-on tip.
- The standard Easytronic implement control system allows reliable, convenient control and monitoring of tramline function.
- Available for mounting directly on a cultivator, or as Saphir AutoLoad for three point linkage mounting, the Saphir has hopper volumes of 650 to 1,100 litres.

# Saphir 8


## RELIABLE VARIABLE SEED METERING WITH ELECTRIC SEEDING SHAFT DRIVE

The Saphir 8 is identical to the Saphir 7 mechanical seed drill except that the seeding shaft is electrically driven giving in-cab control of seed rate.

- The electric seeding shaft drive provides accurate metering of a wide range of seed from 0,5 to 500 kg/ha. The seed rate is easily set by a single calibration procedure.
- The electric motor and job computer are located safely at the front of the drill. After initial calibration, seed rate can be easily adjusted, at the touch of a button on the Solitronic control box in the tractor cab.
- The Solitronic controls the rotation of the electrically driven seeding shaft. Additionally, it provides a warning when seed level is low, displays the forward speed, and records the area sown. An integral diagnostics system for troubleshooting, and ISOBUS compatibility, complete the standard equipment.
- With Saphir 8 the spiked wheel is replaced by a rubber pulse wheel. As there is no need to transfer drive torque, this gives slip-free, accurate measurement of speed and distance travelled.

*The electric seeding shaft drive*

*The pulse wheel*

# Solitair 8

*The spiked wheel at work*


*The hydraulically driven fan*

## THE PNEUMATIC SEED DRILL FOR MEDIUM-SIZED FARMS

The Solitair 8 is optimally configured for medium-sized farms that want accurate pneumatic drills for conventional and conservation tillage at low cost. With working widths of 3, 3,5 and 4 metres, it can be combined with a variety of powered and non-powered tillage implements making it extremely versatile.

- The metering system is mechanically driven by a maintenance-free cardan shaft and a continuously variable gearbox. This provides smooth movement of the cell wheels in the metering unit and guarantees accurate seed distribution in the row.
- The seed hopper has a capacity of up to 1,850 litres, a forward position of centre of gravity, and a large opening for easy filling.
- The continuously variable hydraulic fan provides a constant air flow for seed delivery with uniform metering and drilling.
- The standard Easytronic electronic control system makes it easy to insert tramlines and monitor hectare performance.

# Solitair 9

## THE VERSATILE PNEUMATIC SEED DRILL

The Solitair 9 pneumatic seed drill is available in a mounted rigid, or folding, version, or a semi-mounted folding version, in working widths of 3 to 6 metres. The potential for use solo, or in combination with a wide range of tillage implements creates, a versatile machine that can be used in a number of establishment situations.

- The 6 cell wheels in the central metering unit can be easily adjusted using the tool provided, Seeding rates of 1,5 to 300 kg/ha, over a range of seed types, are possible.
- The Solitronic system takes care of all the control and monitoring functions for the electric seeding shaft drive. The easy-to-read colour display provides simple operator guidance.
- The seed distributors are located outside the seed hopper, immediately above the coulter bar. The seed tubes between the distributor and the coulter are as short as possible and all the same length to give accurate seed distribution.
- The parallelogram-mounted double disc coulters with rubber-tyred depth wheels place the seed accurately at a uniform depth even in variable soils. Depth control is maintained even at high forward speeds.

***Seed distributor***

***Double disc coulter***

# Solitair 9 semi-mounted


## SOLITAIR SEMI-MOUNTED – SOLO OR IN COMBINATION

The semi-mounting system of the Solitair pneumatic seed drill provides flexible switching between different tillage methods and makes it possible to select the right implement combination at to cope with current conditions. The combination of two implements saves a pass, enabling more cost-effective work.

Furthermore, from an agronomic point of view, a combination offers the possibility to correctly align cultivation and pressing action, with the seed row.

- Folding, semi-mounted seedbed preparation implements are easily combined with the Solitair pneumatic seed drill using universal couplings.
- The Solitair can be combined with a wide range of tillage implements such as compact disc harrows (Rubin, Heliodor), power harrows (Zirkon), cultivators (Kristall) or seedbed combinations (Kompaktor).
- With the optional drawbar and axle, this LEMKEN pneumatic drill can also be used solo on the three-point linkage or with a drawbar.


*The universal couplings*

*Solo mode with additional chassis*

*Solitair combined with Zirkon*

# Solitair 12


## MAXIMUM FIELD PERFORMANCE FOR DRILLING

With Solitair 12, LEMKEN offers trailed pneumatic seed drills in working widths of 8 to 12 metres for maximum field performance and cost-effectiveness.

- The large, 5,800 litre seed hopper allows work for long periods without interruption and minimises downtime.
- The large volume tyres protect the soil and make transport safe.
- The seeding shafts in the metering unit are driven by a high-performance electric motor and controlled electronically. The metering devices provide uniform seed flow and good lateral distribution.
- The coulter bar of the Solitair 12 is in two parts. An innovative hydraulic system provides the ground following that is particularly important with large working widths. Mounted on four hydraulic cylinders, coulter sections can float independently of the main folding parts of the drill.

*Road transport of Solitair 12*

*High performance in minimum tillage*

NEW

## New-generation Solitair

# SOLITAIR 25 – FOLDING AND SEMI-MOUNTED VERSION

**The pneumatic Solitair is the flagship among LEMKEN's seed drills and synonymous with high-precision, high-efficacy seeding. It has recently been comprehensively updated and will be launched on the market in a folding, semi-mounted version under the name of Solitair 25.**

*Solitair 25 at mulch seeding*

The most striking external difference in the Solitair 25 is the new plastic tank, which holds 3,000 litres and features an extra-wide inlet. However, there are also numerous innovations inside the new Solitair: each metering unit features a separate electrical drive, for example. Also, the volume delivered by the cell wheels can be continuously adjusted for optimal seed flow for all types of seeds. When the seed hopper is used for fertiliser, the direction of cell wheel rotation is reversed to prevent seed scraper wear. The upgraded blower fan comprises a stainless steel gear, requires considerably less hydraulic power and operates substantially quieter As regards seed placement, LEMKEN has opted for the proven OptiDisc and OptiDisc M double disc coulter systems with depth control roller to ensure even placement depths.

As the individual part width sections of the LEMKEN Solitair 25 have their own metering units, they can be easily switched off via the respective electric motors, and sectional deactivation is therefore standard. Separate volume adjustments can additionally be performed for each part width section.

The redesigned distribution system allows different tramline rhythms to be activated without making physical adjustments to the machine. The system is hydraulically controlled and requires no seed return at all. Consistently symmetric seed distribution combined with electronically controlled metering unit speeds reliably ensure even transverse distribution. Simple cartridge changes in the distributor moreover allow track widths and tramline row numbers to be adjusted with ease.

With all of the above changes, the upgraded LEMKEN Solitair still offers its trademark versatility. The Solitair 25 can be used in five different drill combinations on the chassis of the LEMKEN soil cultivation implements. Single-seed drills such as the LEMKEN Azurit can be mounted instead of a coulter bar via a three-point linkage. This remarkable versatility also makes the Solitair an excellent choice from a financial perspective.

Together with the Solitair 25, LEMKEN also launches two new electronic control systems for seed drills. The EcoDrill baseline version, which transmits data via a CAN bus system, is operated via a high-resolution 4.8" touchscreen terminal and can be used to control all necessary Solitair 25 functions. The MegaDrill system is LEMKEN's optional control unit for ISOBUS operation via the proven CCI-200 terminal.

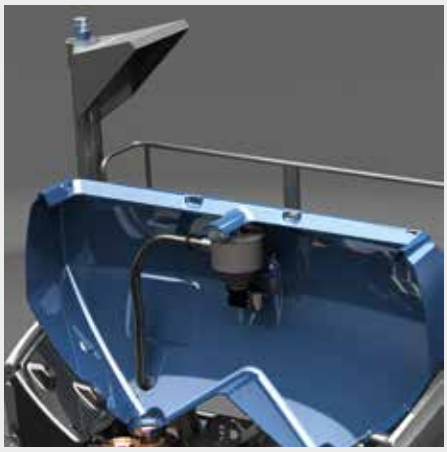
*Solitair 25 with Zirkon 12*


NEW

# AUTOMATIC CALIBRATION FOR THE SOLITAIR 25

**LEMKEN will introduce the Solitair 25, the first model of its new generation of Solitair pneumatic seed drills, at Agritechnica 2015. LEMKEN has developed an automated calibration process for this machine, which can be easily launched from the tractor cabin by the operator, who only needs to enter core parameters such as thousand-grain weight, seeding rate and maximum working speed at the terminal. The control system then runs the full calibration process automatically as soon as it has been activated.**

The calibration process is started by the newly developed vertically arranged metering units. Seeds are transported to a weighing unit in the machine's seed hopper by a blower fan via a seed turn-out. When the calibration sample has been weighed the results are transmitted to the job computer. The weigher automatically discharges the seed sample into the hopper. After that, the operator only needs to confirm the weighed result and the possible working speed before starting the seeding process.



***Automatic calibration***

The metering units, which are individually driven by an integrated electric motor, allow the seeding rate to be variably modified by adjusting the motor speed and the stepless cell wheel. This ensures that an optimum seed flow is maintained in any situation.

The automated calibration process makes drilling preparation more efficient and faster and avoids errors. The adjusted seed quantity can be easily checked with another calibration process. A more detailed calibration or check can be performed by calibrating individual width sections via their respective metering units.

# LEMKEN HeadlandCommand and TramlineControl

*Zirkon-Solitair drill combination with GPS tramline mechanism*

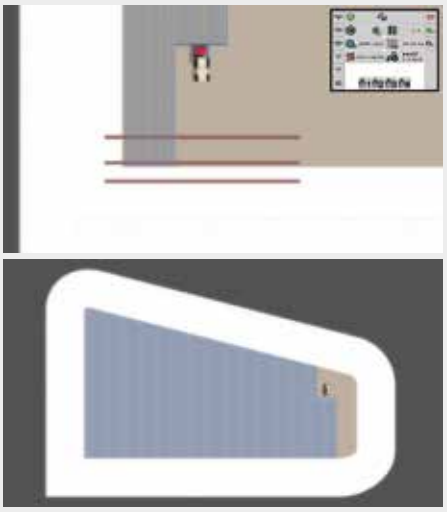
**The correct preparation of tramlines and precise activation at headlands requires operators to be particularly attentive during seeding. LEMKEN's two Fieldtronic electronic modules, TramlineControl and HeadlandCommand, make this task easier.**

LEMKEN's TramlineControl allows tramlines to be prepared via GPS, independently of the seed drill's track rhythm. The system uses only the very first track driven as its basis for calculating all further tramlines. This not only allows operators to drive any tramline and drill in beds, for example, but also saves time, protects the soil and makes turning at the headland substantially easier.

Creating evenly wide headlands without overlaps or gaps constitutes another challenge, for which LEMKEN has again developed a GPS-based solution called HeadlandCommand. The CCI-200 terminal with ISOBUS control sets the part width sections for the seed drill based on the tractor's RTK GPS signal to ensure that the deactivation and reactivation points at the headland remain absolutely consistent. Signal areas are defined for this purpose as part of headland preparation. The operator must not change the speed after these points if the calculated remaining seed volume is to be optimally placed.

This function can be combined with the Tractor Implement Management System or TIM through a system extension, resulting in the tractor receiving corresponding signals from the seed drill and then adjusting its speed automatically. The HeadlandCommand and TramlineControl functions were developed by LEMKEN's electronics department to improve both the quality of seeding and operator comfort. All LEMKEN seed drills with ISOBUS can be retrofitted with these systems.


*TramlineControl*



*HeadlandCommand*

# Compact-Solitair 9 H

## THE FAST, TRAILED PNEUMATIC TILLAGE COMBINATION

High performance is becoming ever more important when sowing with modern drills - with no compromises, good reconsolidation, and perfect seed placement. The drill combination must also be versatile for use in mulch drilling and conventional ploughing and drilling.

- The big seed hopper is easy to fill and meets all the requirements for high performance.
- The depth of the cultivation section, with two rows of notched hollow discs, can be adjusted hydraulically.
- The spring-loaded levelling tines are essential for levelling ploughed land. The large volume, AS profile, tyre packer reduces the draft requirement and provides good reconsolidation and safe road transport.
- The maintenance-free OptiDisc double disc coulters with rubber-tyred depth control wheels prevent blockages and provide uniform seed placement and ideal depth control even at high forward speeds.

*The double disc coulter OptiDisc hydraulical up to 70 kg coulter pressure*

*The double disc coulter OptiDisc mechanical up to 45 kg coulter pressure*

# Compact-Solitair 9 HD


*The tools of the Compact-Solitair HD*

*The hopper of the Compact-Solitair HD*

## COMPACT-SOLITAIR WITH SIMULTANEOUS FERTILISING

With summer cereals in regions with brief vegetation periods, in particular, significant increases in profits can be realised with drill combinations that place grain and fertiliser simultaneously. In both conventional and minimum tillage cultivation, a speedy seedling development is achieved. .

- The two-part, variable hopper can be used for both seed and fertiliser.
- Heliodor compact disc harrow tools are used for seedbed preparation.
- 400 mm diameter double disc coulters place fertiliser, behind the cultivation section, and allow depth to be adjusted independently of other parts of the machine. Their coulter pressure can be increased to a maximum of 200 kilogram.
- The large tyre packer wheels guarantee optimum reconsolidation of the seedbed
- The low-maintenance OptiDisc double disc coulters, with depth control wheel and row distance of 167 mm, guarantee exact seed delivery with uniform seed depth.
- The arrangement of the tools, and the delivery of the fertiliser between the seed rows, ensure that all the plants receive an optimum amount of fertiliser while also helping to reliably avoid any cauterisation of the plant roots - thereby providing the ideal conditions for speedy growth.
- Easy operation of all functions with the Solitronic machine control vial the LEMKEN graphic terminal LVT 50 or an ISOBUS terminal (option).
- A integrated trapeze packer roller for the pre-reconsolidation of the seed rows is available .

# Compact-Solitair 9 Z and KK


## SEEDING WITH ADAPTED INTENSITY

For efficient seeding in varying conditions LEMKEN offers the Compact-Solitair drill combination combined with the Zirkon power harrow.

- Soil cultivation can be optimised due to indiviual adaptation of working parameters such as working depth, rotor speed, tine position and driving speed.
- The power harrow creates an optimum seedbed, both in conventional as well as in minimum tillage methods, whatever the soil conditions.
- The tyre packer roller ensures precise power harrow depth guidance
- Due to a standardised rear three-point linkage the coulter bar can be removed and replaced by a precision drill for maize. When sowing maize, the Compact-Solitair hopper is used as a fertiliser hopper. The drill combination can be fully utilised, which in turn makes it particularly interesting for biogas operation.
- The Compact-Solitair is available in three, four and six metres working width.


*The Compact-Solitair KK with power harrow and six metres working width*

*Quick coupling to a precision drill*

# Technical data

| Saphir 7 | mounted, rigid | | | mounted, rigid | | |
|---|---|---|---|---|---|---|
| Type | 7/250 | 7/300 | 7/400 | 7/250 AutoLoad | 7/300 AutoLoad | 7/400 AutoLoad |
| Working width (cm) | 250 | 300 | 400 | 250 | 300 | 400 |
| Number of rows | 20/17 | 24/20 | 32/27 | 20/17 | 24/20 | 32/27 |
| Row distance (mm) | 125 | 125 | 125 | 125 | 125 | 125 |
| Dead weight (kg) | 838 | 927 | 1,136 | 810 | 900 | 1,070 |
| Hopper capacity (l) | 650 | 800 | 1,050 | 650 | 800 | 1,050 |

| Saphir 8 | mounted, rigid | | mounted, rigid | |
|---|---|---|---|---|
| Type | 8/300 | 8/400 | 8/300 AutoLoad | 8/400 AutoLoad |
| Working width (cm) | 300 | 400 | 300 | 400 |
| Number of rows | 24/20 | 32/27 | 24/20 | 32/27 |
| Row distance (mm) | 125/150 | 125/150 | 125/150 | 125/150 |
| Dead weight (kg)[1] | 927/867 | 1,136/1,061 | 900/840 | 1,070/995 |
| Hopper capacity (l) | 800 | 1,050 | 800 | 1,050 |

| Solitair 8 | mounted, rigid | | |
|---|---|---|---|
| Type | 8/300 | 8/350 | 8/400 |
| Working width (cm) | 300 | 350 | 400 |
| Number of rows | 24/20 | 28/23 | 32/27 |
| Row distance (mm) | 125/150 | 125/150 | 125/150 |
| Dead weight (kg)[1] | 910/850 | 964/896 | 1,018/943 |
| Hopper capacity (l) | 1,100 | 1,100 | 1,850 |

| Solitair 9 | mounted, rigid | | | mounted, hydraulic folding | | | |
|---|---|---|---|---|---|---|---|
| Type | 9/300 | 9/350 | 9/400 | 9/400 K | 9/450 K | 9/500 K | 9/600K |
| Working width (cm) | 300 | 350 | 400 | 400 | 450 | 500 | 600 |
| Number of rows | 24/20 | 28/23 | 32/27 | 32/27 | 36/30 | 40/34 | 48/40 |
| Row distance (mm) | 125/150 | 125/150 | 125/150 | 125/150 | 125/150 | 125/150 | 125/150 |
| Dead weight (kg)[1] | 1,041/981 | 1,104/1,035 | 1,158/1,083 | 1,202/1,127 | 1,274/1,184 | 1,354/1,264 | 1.514/1.394 |
| Hopper capacity (l) | 1,100 | 1,100 | 1,850 | 1,850 | 1,850 | 1,850 | 1.850 |

| Solitair 9 | semi-mounted, hydraulic folding | | | |
|---|---|---|---|---|
| Type | 9/400 KA | 9/450 KA | 9/500 KA | 9/600 KA |
| Working width (cm) | 400 | 450 | 500 | 600 |
| Number of rows | 32/27 | 36/30 | 40/34 | 48/40 |
| Row distance (mm) | 125/150 | 125/150 | 125/150 | 125/150 |
| Dead weight (kg)[1] | 1,274/1,199 | 1,364/1,274 | 1,504/1,414 | 1,684/1,564 |
| Hopper capacity (l) | 2,300 | 2,300 | 2,300 | 2,300 |

| Solitair 12 | trailed, hydraulic folding | | | |
|---|---|---|---|---|
| Type | 12/800 K | 12/900 K | 12/1000 K | 12/1200 K |
| Working width (cm) | 800 | 900 | 1,000 | 1,200 |
| Number of rows | 64/54 | 72/60 | 80/68 | 96/80 |
| Row distance (mm) | 125/150 | 125/150 | 125/150 | 125/150 |
| Dead weight (kg)[2] | 4,545/4,395 | 4,725/4,545 | 4,905/4,725 | 5,315/5,075 |
| Hopper capacity (l) | 5,800 | 5,800 | 5,800 | 5,800 |

| Compact - Solitair 9 H | trailed, rigid | | trailed, hydraulic folding |
|---|---|---|---|
| Type | 9/300 H | 9/400 H | 9/600 HK |
| Working width (cm) | 300 | 400 | 600 |
| kW/HP | 88/120-147/200 | 103/140-176/240 | 132/180-221/300 |
| Discs (number) | 24 | 32 | 48 |
| Number of rows | 24/18 | 32/24 | 48/36 |
| Row distance (mm) [3] | 125/167 | 125/167 | 125/167 |
| Dead weight (kg)[3] | 3,503/3,431 | 4,039/3,943 | 8,821/8,677 |
| Hopper capacity (l) | 3,500 | 3,500 | 4,500 |

| Compact - Solitair 9 Z and KK | trailed, rigid | | trailed, hydraulic folding |
|---|---|---|---|
| Type | 9/300 Z | 9/400 Z | 9/600 K K |
| Working width (cm) | 300 | 400 | 600 |
| kW/HP | 88/120-147/200 | 103/140-176/240 | 147/200-232/315 |
| Up to PTO rpm ($min^{-1}$) | 1,000 | 1,000 | 1,000 |
| Rotor speed ($min^{-1}$) at 1,000 $min^{-1}$ | 330/440 | 330/440 | 330/440 |
| Number of rows [3] | 24/18 | 32/24 | 48/36 |
| Row distance (mm) | 125/167 | 125/167 | 125/167 |
| Dead weight (kg)[3] | 3,644/3,572 | 4,231/4,135 | 9,444/9,298 |
| Hopper capacity (l) | 3,500 | 3,500 | 4,500 |

| Compact - Solitair 9 HD | trailed, rigid | trailed, hydraulic folding |
|---|---|---|
| Type | 9/400 HD | 9/600 HDK |
| Working width (cm) | 400 | 600 |
| kW/HP | 103/140-140/240 | 132/180-221/300 |
| Discs (number) | 32 | 48 |
| Number of rows seed coulters/fertiliser coulters | 24/12 | 36/18 |
| Row distance seed coulters/fertiliser coulters (mm) | 167/334 | 167/334 |
| Dead weight (kg) | 4,283 | 9,485 |
| Hopper capacity (l) | 3,500 (variable division) | 5,000 (variable division) |

[1] row distance 125 mm/150mm
[2] row distance 125 mm/150mm
[3] row distance 125mm/167mm

# CROP PROTECTION

## NATURALLY HIGH PERFORMANCE – SPRAYING TECHNOLOGY FROM LEMKEN

Modern agriculture relies on efficient production systems. Inputs are kept to a minimum and applied in a way, and time, which provide the maximum economic return. Plant variety is critical, but so is the application machinery selected. Successful control of crop pests is one of the most important factors leading to crop yield and quality. Therefore, sprayers are arguably the single most important machine used on farms today. The sprayer must be easy to use, and able to apply pesticides and liquid fertilisers accurately and efficiently,.Output must be sufficient to allow timely application. Machine design must maximise the percentage of chemical hitting the target, combining pesticide savings with protection of the environment.

LEMKEN offers the suitable field sprayer for every requirement. Every model is designed to be easy to use and precise in its application. Tank volumes range from 900 to 6,000 litres and boom widths from 12 to 39 metres,. LEMKEN offers the market one of the most comprehensive ranges of mounted and trailed sprayers available.

# Sirius

*Sirius 8 with HE boom*

*Sirius 10 with rear folded SEH boom*

## THE HIGH PERFORMANCE SPRAYER FOR THE PROFESSIONAL FARMER

The Sirius field sprayer offers a high capacity for the larger farmer or contractor. A close-coupled design means large tank volumes can be used in a mounted format. In this way, Sirius combines the output of a trailed machine, with the convenience of a mounted machine.

- The Sirius is available with tank volumes of 900 to 1,900 litres. An integrated baffle ensures a high degree of safety whilst driving on the road and simple cleaning of the system.
- The compact design with an optimised centre of gravity provides stability and convenient road transport.
- The HE (HorizontalExtend) boom with package folding is available in 12 and 15 metres working width.
- For working widths from 15 to 24 metres the Sirius 10 can be equipped with the new fully hydraulic SEH (SectionExtend) rear-folding boom. The new rectangular profile provides more stability and sufficient space for larger nozzle bodies. With a width of less than 2,50 metres when folded, the machine is safe and easy to transport on the road.
- The QuickConnect top link coupling system enables safe and quick attachment of the Sirius field sprayers to the tractor.
- The Sirius 8 is operated with the electrical remote control LEMKEN EasySpray. The Sirius 10 sprayer is controlled with the LEMKEN EcoSpray computer. IT's functions can be widele expanded by additional components such as Teejet Matrix Automatic for the automatic switching of width sections or EcoControl with joysticks.

# COMFORT AND SAFETY

**QuickConnect, the automatic top link coupling system from LEMKEN, combines two important benefits, which have been mutually exclusive with all tractor coupling systems in the past. Firstly, QuickConnect provides enough space between tractor and machine for the easy and safe connection of services such as PTO shaft, pipes, cables and top links. Secondly, the innovative coupling system moves the machine closer to the tractor, than has been possible before, allowing larger machines to be lifted by lighter tractors, without loss of stability.**

## SIMPLE, FAST AND SAFELY CONNECTED

With QuickConnect, the tractor is first reversed to the machine leaving enough space for the driver to dismount and connect hoses, cables and PTO shaft. Other connection procedures are then completed from the safety of the tractor seat. As the tractor is reversed fully toward the machine, the intelligent coupling system automatically locks the top link into place, leaving the driver to focus on attaching the lower lift hooks.

The equipment is disconnected from the tractor just as easily by following the above steps in reverse order. The driver unlocks the top and bottom link from his seat and then drives the tractor forward to allow enough space to disconnect all connecting elements quickly and easily from the ground.

## SHORTER CONNECTION AND DISCONNECTION TIMES

Thanks to the QuickConnect system, the operator no longer has to lift heavy parts such as A-frames onto the tractor's three-point linkage system. Furthermore, the driver does not have to leave the cabin after connecting the equipment, for example to raise the attachment for transport, resulting in reduced connection and disconnection times.

LEMKEN's innovative top link coupling system is particularly useful for field sprayers, which require a close connection due to their high weight. The result is a more stable tractor even with reduced front ballast.

*With QuickConnect, the tractor is reversed leaving adequate space to dismount and connect all except the lower link arms.*

*In the operating position, the machine is positioned close to the tractor to optimise centre of gravity - ideal for field sprayers and fertiliser distributors, which require "close coupling" to the tractor due to their high weight.*

# Gemini

*Gemini front tank with 1,100 l capacity*

*Special mounting frame, shallow design*

## FRONT TANK FOR OUTSTANDING EFFICACY

The Gemini front tank allows the capacity of the Sirius mounted field sprayer to be increased to up to 3,000 litres for higher acreage performance and more balanced tractor ballasting.

- Up to 1000 litres of water or spraying fluid and 100 litres clean water can be transported in the front tank on the hydraulic linkage of the tractor, giving an additional reach of at least 50% per pass.
- The hydraulically operated pump in the Gemini 7 can be used to drive the agitator and internal tank cleaning system. An optional electric selector valve in the Sirius allows spray fluid to be drawn directly from the front tank.
- A 2" filling connection is provided for external filling without backflow. A manual selector valve is provided on the suction side of the Gemini 7 for switching between the main tank and clean water tank.
- The compact, clear design of the combination makes it very agile on narrow tracks and in hilly terrain, despite the large tank volume. A smooth substructure and special mounted frame provide large ground clearance and are gentle to existing crops.


LEMKEN

# Primus

*Close coupling ensures sprayer wheels follow tractor wheels as closely as possible*

*Safe position, even for long nozzles*

## THE PERFECT ENTRY INTO TRAILED SPRAYER TECHNOLOGY

Primus uses high quality components in a high output trailed format. Efficient application and high work rates make it the first choice for many arable farms, Its simple design ensures the machine easy to use and minimises maintenance requirement.

- A compact trailed field sprayer with narrow transport width and height ensures simple and safe movement between fields, even in confined spaces.
- Ergonomically arranged layout makes the machine easy to use.
- The tough GRP tank is available in three sizes from 2,400 to 4,400 litres.
- The strong Z-profile boom, with standard suspension is available in widths from 15 to 33 metres.
- A Teejet 844 E series computer is fitted as standard with Müller Spraydos and circulation lines optional.
- Simple attachment to the tractor via a fixed drawbar with interchangeable end, to suit the tractor hitch type.

# Albatros

## THE PROFESSIONAL TRAILED SPRAYER FOR THE LARGER USER

A high standard specification, and many options, makes the Albatros first choice for the world's largest and most professional users. Whether you require a large but simple sprayer, or a highly sophisticated machine which adopts the latest in sprayer technology. Albatros can be configured to meet your needs.

- Compact design and low centre of gravity, achieved by incorporating the fresh water tank in the main tank, provide good stability and safe road transportation.
- The innovative GFK tank, with smooth inner walls and integrated fresh water tank, is available from 2,000 to 6,000 litres volume. The shape provides an optimum weight distribution regardless of filling level.
- A large chemical induction hopper provides for fast, safe, and efficient input of chemicals. The standard mixing nozzle helps chemicals to dissolve before entering the main sprayer tank. A foldable cleaning nozzle ensures containers can be cleaned quickly and efficiently.
- The strong Z-profile boom is available in working widths of 15 to 39 metres. Hoses are neatly routed through the frame profile.
- The universal drawbar, with optional steering, is easily adapted to suit the tractor hitch type.

***Compact design for optimum manoeuvrability***

***Accurate tracking***

# Vega

*Low centre of gravity due to compact, rear-folding SEH boom*


*Optimally integrated inductor with electronic operating centre*

## THE INNOVATIVE TRAILED FIELD SPRAYER FOR PROFESSIONAL CROP PROTECTION

The carefully considered design of the Vega meets even the most demanding crop protection requirements

- With its rear-folding SEH boom and integration of tank and frame, the Vega offers a compact design with large ground clearance, generously dimensioned tyres and low centre of gravity.
- The Vega is available with tank volumes of 3,000, 4,000 and 5,000 litres and boom widths of 15 to 24 metres.
- The inductor and electronic operating panel are optimally integrated with the modern plastic tank. The combination of electric valves directly integrated with the pipe system and the optimised suction filters reduces the technical residue remaining in the pipe system to the very minimum.
- A true circulation pipe routed inside the aluminium boom keeps spray fluid circulating continuously throughout the pipe system, without inactive sections. Combined with the Eltec Pro true single-nozzle control, this system provides highly precise nozzle control with no delay.
- The Vega drawbar is available in a top-mounted and bottom-mounted version; steering and suspension are optional. The axle comes in a rigid, mechanical or pneumatically suspended version. Possible track widths range from 1.50 m to 2.25 m.

# Technical data

| | | | | | |
|---|---|---|---|---|---|
| **Sirius 8** | | | | | |
| Type | 900 | 1300 | 1600 | 1900 | |
| Tank capacity (approx. l) | 950 | 1,370 | 1,680 | 2,000 | |
| Dead weight (approx. kg) with boom | 915 with HE 15 | 930 with HE 15 | 995 with HE 15 | 1,010 with HE 15 | |
| Maximum pump capacity (l/min) | 200 | 200 | 200 | 200 | |
| Working widths (m) | 12 and 15 | 12 and 15 | 12 and 15 | 12 and 15 | |
| Boom types | HE | HE | HE | HE | |
| **Sirius 10** | | | | | |
| Type | 900 | 1300 | 1600 | 1900 | |
| Tank capacity (approx. l) | 950 | 1,370 | 1,680 | 2,000 | |
| Dead weight (approx. kg) with boom | 1,240 with SEH 15 | 1,255 with SEH 15 | 1,435 with SEH 21/17 | 1,450 with SEH 21/17 | |
| Maximum pump capacity (l/min) | 200/250 (option for SEH) | 200/250 (option for SEH) | 200/250 (option for SEH) | 200/250 (option for SEH) | |
| Working widths (m) | 12 to 24 | 12 to 24 | 12 to 24 | 12 to 24 | |
| Boom types | HE SEH | HE SEH | HE SEH | HE SEH | |
| **Primus** | | | | | |
| Type | 25 | 35 | 45 | | |
| Tank capacity (approx. l) | 2,400 | 3,300 | 4,400 | | |
| Dead weight (approx. kg) with boom | 2,470 with B27 15 | 2,740 with B27 21 | 3,090 with B30 30 | | |
| Maximum pump capacity (l/min) | 250 | 1x250 | 2x250 | | |
| Working widths (m) | 15 to 28 | 15 to 28 | 15 to 33 | | |
| Boom types | B21 B27 | B21 B27 | B21 B27 B30 B33 | | |
| **Albatros** | | | | | |
| Type | 9/2000 | 9/3000 | 9/4000 | 9/5000 | 9/6000 |
| Tank capacity (approx. l) | 2,200 | 3,000 | 4,000 | 5,000 | 6,200 |
| Dead weight (approx. kg) with boom | 2,670 with B27 15 | 2,850 with B27 15 | 3,260 with B27 27 | 3,630 with B30 27 | 4,950 with B36 36 |
| Maximum pump capacity (l/min) | 250 | 2x250 | 2x250 | 2x250 | 2x250 |
| Working widths (m) | 15 to 28 | 15 to 28 | 15 to 33 | 15 to 39 | 15 to 39 |
| Boom types | B21 B27 B30 | B21 B27 B30 | B21 B27 B33 | B21 B27 B33 B36 B39 | B21 B27 B33 B36 B39 |
| **Vega** | | | | | |
| Type | 3000 | 4000 | 5000 | | |
| Tank capacity (approx. l) | 3,100 | 4,400 | 5,500 | | |
| Dead weight (approx. kg) without boom | 3,100 | 3,250 | 3,300 | | |
| Maximum pump capacity (l/min) | 2x260 | 2x260 | 2x260 | | |
| Working widths (m) | 15-24 | 15-24 | 15-24 | | |
| Boom types | SEH | SEH | SEH | | |

# Operating terminals for field sprayers


## VERSATILE AND USER-FRIENDLY

In addition to the electrically remote-controlled control units with LEMKEN EasySpray, the range also includes the Spraydos Teejet 844 E and LEMKEN EcoSpray computers. These allow application rates to be controlled independently of the speed.

The CCI-200 terminal gives operators access to ISOBUS control. This terminal offers intuitive operation and a high degree of compatibility. Part width sections can be switched automatically and comfortably by integrating a GPS receiver.

| | Type | ISOBUS | Sirius 8 | Sirius 10 | Primus | Albatros |
|---|---|---|---|---|---|---|
|  | LEMKEN EasySpray | | • | | | |
|  | Teejet 844 E | | | | • | |
|  | Spraydos | | | | ○ | • |
|  | LEMKEN EcoSpray | | | • | | |
|  | LEMKEN CCI-200 | yes | | ○ | ○ | ○ |

• series ○ option


LEMKEN
Vega 12

# ISOBUS IN LEMKEN SYSTEMS TECHNOLOGY

**Electronic tools have become an essential part of agricultural technology, as they make workflows more efficient and enable better monitoring. The interaction between humans and machines takes place via terminals, which form the interface for input, control and communication functions, and ISOBUS has been the standard for communication between tractors and agricultural implements, and between various implements, for about 10 years. The CCI-200 terminal, which was developed in collaboration with LEMKEN and is ideally matched to the functionalities of LEMKEN technology, has been on the market since 2009.**

As implement functions are becoming more and more sophisticated, the CCI terminal too is being continually developed to ensure that it remains easy, safe and comfortable to operate. The most recent version of the terminal has been thoroughly updated: Its hardware offers high processing speeds plus memory for additional applications, and the interface and USB port arrangement has been optimised. A range of apps serves to adapt the CCI terminal to individual requirements and to exchange job data more efficiently between different implements and the farm computer, thus supporting digital information management.

The CCI.Control app makes it easy for users to complete documentation and job management tasks quickly, allowing job results to be documented and shared, and jobs to be received and coordinated. In LEMKEN implements, CCI.Control is used both to manage and document field sprayer and seed drill jobs, and to coordinate soil cultivation and seeding jobs. This software allows seed and crop protection products to be precisely applied in keeping with site-specific needs and environmentally friendly farming practices.

CCI.Control features a GPS receiver to receive site-specific data, and the additional FieldNav navigation software ensures that drivers reliably locate the correct field. CCI.Courier is an entry-level solution that relies on a WLAN or mobile connection for the straightforward, wireless exchange of job data via e-mail, Dropbox or an FTP server. The farmpilot app gives access to comprehensive scheduling and fleet management functions via an external data portal that can also be used to transmit implement data by ISOBUS communication.


*CCI.Control*

CCI.Command provides a clear GPS system for agricultural guidance and part width section control that continually displays the correct track to the driver, automatically switches implements on and off at headlands, activates the correct part width sections in crop protection sprayers and also manages seed drill tramlines. As this obviously requires utmost precision, the terminal relies on ISOBUS to communicate with the electronic system of the implement, and therefore only few parameters need to be set manually.


*FieldNav*

The CCI.Cam visual monitoring function is particularly useful for large implements


*CCI.Command*

where visibility around the machine is limited. CCI.Cam displays images from up to two monitoring cameras on the terminal and thus ensures that drivers keep a clear view at all times.

Older tractors with signal sockets rather than ISOBUS functionality can now be integrated into the communications system as well. The CCI.Tecu app collects tractor data such as tractor speed, pto shaft speed and lifting gear position and transmits these to the implement. The data can then be used for the hectare counter or to control application rates dependent on speed.

Given the sharp increase in the use of tablet computers and smartphones, enabling these tools to control ISOBUS devices is, of course, a priority. An iPad app which will allow implement data to be visualised and loaded on, and transmitted to an iPad via an ISOBUS to WLAN adapter is already under development. Drivers will thus be able to use two display options simultaneously during operation: a terminal for implement control functionalities, and an iPad for job data.


***The CCI ISOBUS terminal in the tractor cabin***


***iPad with CCI App***

# Sales partners

## Germany

**1** Stefan Wieck
0171 9912749
wieck@lemken.com

**2** Bernd Mienits
0171 9924999
mienits@lemken.com

**3** Heiko Breitsprecher
0172 2931199
breitsprecher@lemken.com

**4** Malte Petersen
0172 2931205
m.petersen@lemken.com

**5** Wolfgang Schröter
0160 90543437
schroeter@lemken.com

**6** Frank Gleitsmann
01520 4910543
f.gleitsmann@lemken.com

**7** Steffen Seiger
0171 7729263
seiger@lemken.com

**8** Ludger Paaßen
0172 2931198
paassen@lemken.com

**9** Alexander Kuprat
0152 04908134
a.kuprat@lemken.com

**10** Fritz Rappe
0175 1851357
rappe@lemken.com

**11** Jörg Uhlig
0171 7770995
uhlig@lemken.com

**12** Heinrich Schneider
0171 9906892
schneider@lemken.com

**13** Maik Peppler
0172 2627926
peppler@lemken.com

**14** Norbert Hümmer
0173 2656263
huemmer@lemken.com

**15** Jörg Markus Kreher
0173 7187115
kreher@lemken.com

**16** Hubert Karl
0171 9915264
karl@lemken.com

**17** Hans Kloh
0172 2931196
kloh@lemken.com

**18** Karl-Dieter Heisner
0173 6505485
heisner@lemken.com


## Great Britain and Ireland

**LEMKEN UK Ltd.**
46 Fuller Road
Harleston Industrial Park
Harleston
Norfolk IP20 9EA
**Tel** +44 1379 855449
**Fax** +44 1379 855452
**Mail** uksales@lemken.com
**Web** www.lemken.co.uk

General Manager:
Paul Creasy
**Mob** +44 7860 455711
**Mail** p.creasy@lemken.com

**Southeast England**
Aaron Graves
**Mob** +44 7770 224 204
**Mail** a.graves@lemken.com

**Southwest England**
Richard Relph
**Mob** +44 7866 507 262
**Mail** r.relph@lemken.com

**North England**
Craig Brown
**Mob** +44 7860 633807
**Mail** c.brown@lemken.com

**Ireland**
Diarmuid Claridge
**Mob** +353 860286844
**Mail** d.claridge@lemken.com

**Scotland**
Kevin Rennie
**Mob** +44 7860 642338
**Mail** k.rennie@lemken.com

## Russia

**OOO „LEMKEN-RUS"**
Pavel Altukhov
249080, Kaluzhskaja oblast
Malojaroslavezkij r-n, s. Dettschino
ul. Industrialnaja, d. 2
**Tel** +7 48431 57 001
**Fax** +7 48431 57 004
**Mob** +7 910 912 08 70
**Mail** p.altukhov@lemken.ru
**Internet** www.lemken.ru

**North West Russia**
Sergey Vysokikh
**Mob** +7 911 130 83 65
**Mail** s.vysokikh@lemken.ru

**Central Russia**
Artem Andreev
**Mob** +7 987 670 06 51
**Mail** a.andreev@lemken.ru

**West Russia**
Andrey Usenko
**Mob** +7 910 223 23 00
**Mail** a.usenko@lemken.ru

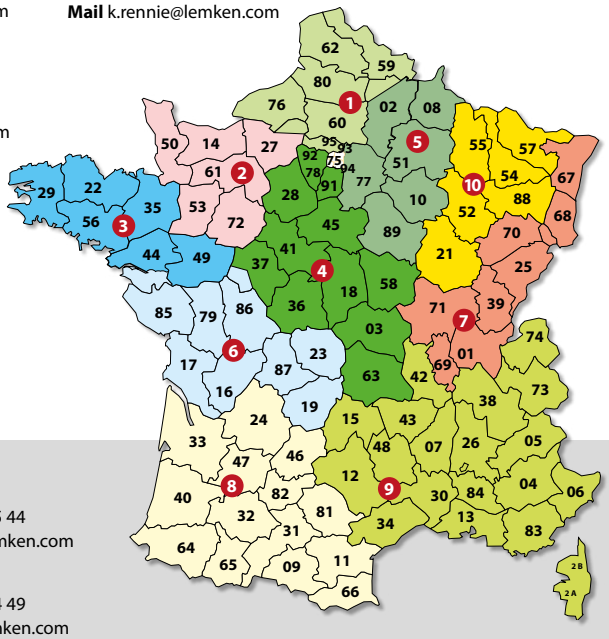
**Moskau Region**
Pavel Nikonorov
**Mob** +7 910 863 55 36
**Mail** p.nikonorov@lemken.ru

**South Russia**
Vladimir Bugaev
347760 Russland, Rostowskaja oblast
p. Zelina, ul. Prodolnaja, d.4, off.3
**Tel**. +7 86371 91 788
**Fax** +7 86371 91 788
**Mob** +7 918 899 20 61
**Mail** v.bugaev@lemken.ru

**Russia Ural**
Petr Trofimenko
**Mob** +7 919 030 27 67
**Mail** p.trofimenko@lemken.ru

**Sibiria**
Stephan Peters
**Mob** +7 913 379 84 96
**Mail** s.peters@lemken.ru

**Wolga Region**
Dmitriy Kulikov
**Mob** +7 910 860 93 43
**Mail** d.kulikov@lemken.ru



## France

**LEMKEN France sarl**
**Jean-Christophe Régnier**
94, avenue Denis Papin · BP 50032
F-45801 St. Jean de Braye Cedex
**Tel** +33 238611112
**Fax** +33 238840356
**Mail** france@lemken.com

**Magasin :**
**Tel** +33 2 38 61 99 81
**Fax** +33 2 38 83 12 15

**1** **David Wartelle**
**Mob** +33 6 86 05 35 44
**Mail** d.wartelle@lemken.com

**2** **Bruno Mortier**
**Mob** +33 6 82 57 24 49
**Mail** b.mortier@lemken.com

**3** **Frédéric Phelippeau**
**Mob** +33 6 86 05 35 70
**Mail** f.phelippeau@lemken.com

**4** **Sébastien Defaix**
**Mob** +33 6 07 57 24 88
**Mail** s.defaix@lemken.com

**5** **Christophe Steiner**
**Mob** +33 6 86 05 36 17
**Mail** c.steiner@lemken.com

**6** **Thomas Roger**
**Mob** +33 6 86 05 36 35
**Mail** t.roger@lemken.com

**7** **Nicolas Soehnlen**
**Mob** +33 6 89 93 58 14
**Mail** n.soehnlen@ lemken.com

**8** **Philippe Gavaud**
**Mob** +33 6 07 66 42 82
**Mail** p.gavaud@ lemken.com

**9** **Damien Dumoulin**
**Mob** +33 6 86 05 36 18
**Mail** d.dumoulin@lemken.com

**10** **Jérôme Boucquemont**
**Mob** +33 6 08 96 24 57
**Mail** j.boucquemont@lemken.com

# Sales partners

## (A) Austria

**LEMKEN Austria GmbH**
Wiener Str. 132
2020 Hollabrunn
**Tel** +43 2952 20221
**Fax** +43 2952 2022110
**Mail** hollabrunn@lemken.com

Herbert Bittenauer
**Mob** ++43 664 821 57 38
**Mail** h.bittenauer@lemken.com

Franz Hofbauer
**Mob** +43 664 88 38 67 37
**Mail** hofbauer@lemken.com

Reinhold Kogler
**Mob** +43 664 8 21 57 36
**Mail** kogler@lemken.com

## (AUS) Australia

**William Adams Pty. Ltd.**
Jamie Palmer
Bass Highway
Somerset, Tas 7322, Austria
**Tel** +61 3 6433 8888
**Fax** +61 3 6433 8874
**Mob** +61 417 549490
**Mail** jamiepalmer@wadams.com.au

## (AZ) Azerbaijan

**Original Motors**
Samir Ibadullayev
52A, A. Aliyev str.
1052 Baku
**Tel** +994 12 564 65 01
**Fax** +994 50 271 70 00
**Web** www.originalmotors.az

## (B) Belgium

**LEMKEN Belgium BVBA**
Varendonk 10
9940 Sleidinge
**Fax** + 32 9 328 65 69

Stijn Vercauteren
**Mob** + 32 474 97 46 22
**Mail** vercauteren@lemken.com

Francois Dumonceau
**Mob** + 32 468 16 58 51
**Mail** f.dumonceau@lemken.com

## (BG) Bulgaria

**LEMKEN BULGARIA Ltd.**
Nikolay Kolev
42 G. S. Rakovski Str.
1202 Sofia
**Mob** +359 878 911333
**Mail** n.kolev@lemken.com

## (BIH) Bosnia and Herzegowina

**Milan Slavkovic**
Bul. Iovana Ducica 2
21000 Novi Sad
Serbia
**Tel** +381 21 402 940
**Fax** +381 21 402 940
**Mob** +381 69 780 345
**Mail** slavkovic@lemken.com

## (BY) Belarus

**Polymya Agro Ltd**
Sergey Maksimuk
ul. Krasnosnamennja, 64
222518 Borisov
**Tel** +375 177 736009
**Fax** +375 177 732289
**Mail** polymya@polymya.ru
**Web** www.polymya.ru

## (CDN) Canada

**LEMKEN CANADA INC.**
Laurent Letzter
1500 Ste Catherine Ouest
PO Box 55119
Montréal (Québec) H3G 2W5
**Mob** +1 514 443 6828
**Mail** letzter@lemken.com

## (CH) Switzerland

**LEMKEN branch Swiss**
Andreas Rutsch
**Mob** +41 796 060005
**Mail** a.rutsch@lemken.com
**Web** www.lemken.ch

**LEMKEN branch Swiss West**
Karl Bühler
**Mob** +41 7 98 24 32 80
**Mail** k.buehler@lemken.com
**Web** www.lemken.ch

## (CN) China

**LEMKEN Agricultural Machinery (Qingdao) Co. Ltd.**
Peter Zhao
No. 766, Huadong Road
National High-Tech Zone
Qingdao 266111, P. R. China
**Tel** +86 532 55 67 95 88
**Fax** +86 532 85 75 53 21
**Mob** +86 139 1151 3034
**Mail** p.zhao@lemken.com

## (CY) Cyprus

**Kakkis agrifuture products ltd**
Philippos Kakkis
5 Kimonos Str. Xylotymbou
7510 Larnaka
**Tel** +357 24 724428
**Fax** +357 24 724411
**Mob** +357 99 622053
**Mail** info@kakkisagrifuture.com
**Web** www.kakkisagrifuture.com

## (CZ) Czech Republic

**LEMKEN CZECH, s.r.o.**
Veselská 34/290
Popuvky
664 41 Troubsko
**Fax** +420 547 214898

Ing. Lubomír Klička
**Mob** +420 724 151797
**Mail** klicka@lemken.com

Ing. Miloš Novák
**Mob** +420 725 775588
**Mail** novak@lemken.com

## (D) Germany

**LEMKEN GmbH & Co. KG**
Norbert Reimer-Thiemann
Weseler Straße 5
46519 Alpen
**Tel** +49 2802 81-191
**Fax** +49 2802 81-394
**Mob** +49 172 2931200
**Mail** n.reimer-thiemann@lemken.com

## (DK) Denmark

**LEMKEN Skandinavien ApS**
Nis Peter Albrechtsen
Varnæsvej 568 Felstedskov
6200 Aabenraa
**Mob** +45 30 52 52 57
**Mail** albrechtsen@lemken.com

## (E) Spain

**LEMKEN IBERIA S.L**
Apartado correos 62031
28042 Madrid

José Antonio Pita París
**Mob** +34 673 566 259
**Mail** pita@lemken.com

Alberto Piñero Panadero
**Mob** +34 673 566 255
**Mail** pinero@lemken.com

## (EST) Estonia

**Konekesko Eesti AS**
Valdek Küppas
Mäeküla
Paide vald
72602 Järva maakond
**Tel** +372 38 49508
**Fax** +372 38 49501
**Mob** +372 53 311741
**Mail** valdek.kuppas@kesko.ee
**Web** www. konekesko.ee

## (ETH) Äthiopien

**Kaleb Services Farmers House**
Akaki-Kality
Sub-city, Kebele-10, House No. 9999/1
Addis Ababa
Michael Tesfaye
**Tel** +251 11 4 39 14 59
**Fax** +251 11 4 39 36 74
**Mob** +251 920 49 79 38
**Mail** michael@kalebservice.com
**Web** kalebservice.com

## (F) Frankreich

**LEMKEN France sarl**
Jean Christophe Regnier
353, Le Grand Bouland
45760 Boigny-sur-Bionne
**Tel** +33 2 38 61 11 12
**Fax** +33 2 38 84 03 56
**Mail** france@lemken.com

## (FIN) Finland

**Rautakesko Ltd**
Torsten Bergstrom
Tikkurilantie 10
01301 Vantaa
**Tel** +358 1 05320345
**Fax** +358 1 05320409
**Mobil** +358 5 03872539
**Mail** torsten.bergstrom@kesko.fi
**Web** www.k-maatalous.fi

## (GB) Great Britain

**LEMKEN UK Ltd.**
46 Fuller Road
Harleston Industrial Park, Harleston
UK-Norfolk, IP20 9EA
**Tel** +44 1379 855 449
**Fax** +44 1379 855 452
**Mail** uksales@lemken.com
**Web** www.lemken.co.uk

Paul Creasy
**Mob** +44 7860 455 711
**Mail** p.creasy@lemken.com

# Sales partners

## (GE) Georgia

**NOBLEX LTD**
Otar Kakhiashvili
7, Telavi Str.
Tbilisi, 0103
**Tel** +995 32 247 30 03, 05
**Fax** +995 32 247 30 15
**Mob** +995 599 044722
**Mail** otar.kakhiashvili@noblex.ge

## (GR) Greece

**Tsikos OE**
Manufacture-Retail farming Machiner
3rd km Giannitsa Alexandria Rd
58100 Giannitsa
**Tel** +30 238 202 5175
**Fax** +30 238 202 5175
**Mail** tsikosanastasios@yahoo.gr

**STASINOS S.A.**
Stergios Stasinos
Agricultural Machinery – Cereals trader
– agricultural supplies – plant protection
MESORRACHI –SERRES
P.C GR62042 NEA ZICHNI
**Tel** +30 23240 22508
**Fax** +30 23240 22545
**Mail** info@stasinos.com.gr
**Web** www.stasinos.com.gr

## (H) Hungary

**LEMKEN HUNGARIA Kft.**
Hrsz 058/66.
PF. 53
2351 Alsónémedi
**Tel** +36 29 53720
**Fax** +36 29 537202
**Mail** office-ungarn@lemken.com

Balazs Poczik
**Mob** +36 30 7485380
**Mail** poczik@lemken.com

Péter Szrnka
**Mob** +36 30 8525787
**Mail** p.szrnka@lemken.com

## (HR) Croatia

**Slavko Kralj**
Cresnjevci 215
9250 Gornja Radgona
**Tel** +386 2 5691314
**Fax** +386 2 5698319
**Mob** +386 41 682314
**Mail** s.kralj@lemken.com

## (I) Italy

**LEMKEN ITALIA s.r.l.**
Giovanni Ravelli
Corso Porto Nuova, 11
37122 Verona
**Mob** +39 335 8121111
**Fax** +39 051 841558
**Mail** ravelli@lemken.com

## (IND) India

**LEMKEN India Agro Equipment Pvt Ltd.**
Vijay Rawal
Plot No. D59, MIDC, Buli Bori
Nagpur, Maharashtra - 441108
**Tel** +91 71 04 30 54 06
**Fax** +91 20 267 41001
**Mob** +91 95 45 08 66 76
**Mail** v.rawal@lemken.com
**Web** www.lemken.in

## (IR) Iran

**Azhar Saba Co.**
Mohamed Khoram
5th unit, 3rd floor, No. 2
4th Rahnamayi St.
Mashhad-Iran
**Tel** +98 511 8413955
**Fax** +98 511 8447424
**Mail** Azharsabaco@yahoo.ca

## (IRL) Ireland

**LEMKEN UK Ltd.**
Derek Delahunty
46, Fuller Road
Harleston Industrial Park, Harleston
UK-Norfolk, IP20 9EA
**Fax** +44 1379 855 452
**Mob** +353 86 020 3886
**Mail** d.delahunty@lemken.com
**Web** www.lemken.co.uk

## (J) Japan

**LMJ Co. Ltd.**
Naoto Toyabe
37-16 Tsuishikari Tobetsu-Cho Ishikari-Gun
Hokkaido 061-0215
**Tel** +81 133 276 464
**Fax** +81 133 223 830
**Mob** +81 8018894003
**Mail** toyabe@lemken.com
**Web** www.lemken-japan.com

## (KS) Kyrgyzstan

**000 Agroleasing**
Jyldyz Makeyeva
162, Bokonbaeva str.,
Bishkek, Kyrgyz Republic
**Tel** +996 550 114115
**Mail** jyldyz_makeyeva@gmail.com

## (KZ) Kazakhstan

**TOO LEMKEN KAZ**
Dmitriy Sokulskiy
141, Begeldinov str.
Akkol, 020100 Kazakhstan
**Tel** +7 716 38 5 06 28
**Mob** +7 705 749 44 77
**Mail** d.sokulskiy@lemken.kz
**Web** www.lemken.kz

## (L) Luxemburg

**Agri-Center S.A.**
Roger Thiesen
15, Op der Haart
9999 Wemperhardt
**Tel** +352 23637500
**Fax** +352 23637599
**Mob** +352 621 326061
**Mail** r.thiesen@wowey.eu
**Web** www.agri-center.lu

## (LT) Lithuania

**UAB Konekesko Lietuva**
Vilius Sventkauskas
Molėtų g. 13
Didžiosios Riešės k.
LT-14262 Vilniaus r. sav.
Lithuania
**Tel** +370 37 302282
**Fax** +370 37 377547
**Mob** +370 61 841021
**Mail** vilius.sventkauskas@kesko.lt
**Web** www.konekesko.lt

## (LV) Latvia

**Konekesko Latvia SIA**
Aivars Metla-Rozentāls
Rubenu cels 46C
3002 Jelgava
**Tel** +371 63001729
**Fax** +371 63001702
**Mob** +371 26477181
**Mail** aivars.metla-rozentals@kesko.lv
**Web** www.konekesko.lv

## (MEX) Mexico

**ANSA • Agroservicios del Norte**
Luis F. Morales Reyes
Perif. Torreón-Gómez-Lerdo KM.3.5
Gomez Palacio
EX-DGO. C. P. 35078
**Tel** +52 87 17152466
**Fax** +52 87 17157844
**Mob** +52 87 17279049
**Mail** lfmorales@ansamex.com
**Web** www.ansamex.com

## (MNG) Mongolia

**Ammac GmbH**
Marie Gottschalk
Lagerstr. 3
23966 Wismar
Deutschland
**Tel** +49 3841 223 2810
**Fax**+49 3841 223 2819
**Mail** info@ammac.de
**Mail** gottschalk@ammac.de
**Web** www.ammac.de

## (N) Norway

**Norwegian Agro Machinery AS**
Jens Skifter
Hensmoveien 30
3516 Honefoss
**Tel** +45 88 87 46 62
**Mob** +45 27 80 01 06
**Mail** jesk@danishagro.com

## (NL) Netherlands

**LEMKEN Nederland B. V.**
Zeilmaker 11
3894 CL Zeewolde
**Web** www.lemken.nl

Hans Hoogland
**Mob** +31 653 527135
**Mail** hoogland@lemken.com

Stijn Vercauteren
**Mob** +32 474974622
**Mail** vercauteren@lemken.com

# Sales partners

## (NZ) New Zealand

**C.B. Norwood Distr. Ltd.**
Paul Collins
888 Tremaine Avenue
P.O. Box 1265
Palmerston North
**Tel** +64 6 3564920
**Fax** +64 6 3564939
**Mail** collinsp@norwood.co.nz
**Web** www.norwood.co.nz

## (P) Portugal

**LEMKEN IBERIA S.L**
Apartado correos 62031
28042 Madrid

José Antonio Pita París
**Mob** +34 673 566 259
**Mail** pita@lemken.com

Alberto Piñero Panadero
**Mob** +34 673 566 255
**Mail** pinero@lemken.com

## (PL) Poland

**LEMKEN Polska Sp.z o.o.**
Zalecino 21
73-115 Dolice
**Tel** +48 91 5637646
**Fax** +48 91 5637604
**Mail** biuro@lemken.com.pl

Mikolaj Szembek (PL-North)
**Mob** +48 601 626215
**Mail** m.szembek@lemken.com.pl

Marek Zielinski (PL-East)
**Mob** +48 722 097877
**Mail** m.zielinski@lemken.com.pl

Michal Adamowicz (PL-South)
**Mob** +48 601 802511
**Mail** m.adamowicz@lemken.com.pl

Krzysztof Mrula (PL-West)
**Mob** +48 601 984918
**Mail** k.mrula@lemken.com.pl

## (RCH) Chili

**Sargent Agricola**
Av. Gral. Velásquez 5720,
San Bernardo, Santiago
**Tel** +56 2 5103028
**Fax** +56 2 6983989
**Mob** +56 9 9884 5150
**Mail** fgesche@sargent.biz
**Web** www.sargent.biz

## (RO) Rumania

**LEMKEN ROMANIA SRL**
Kreis Ilfov
29 Soseaua de Centura
077120 Jilava

Franz Jakoby
**Mob** +40 722 536 001
**Mail** f.jakoby@lemken.com

Heinz Anton Prainer
**Mob** +40 734 536 536
**Mail** h.prainer@lemken.com

## (RUS) Russia

**OOO LEMKEN-RUS**
Alexander Ladygin
Oblast Kaluga
Maloyaroslawezky r-n
p. Detschino, 249080
ul. Industrialnaya, 2
**Tel** +7 48431 57000
**Fax** +7 4843157004
**Mob** +7 919 0310849
**Mail** a.ladygin@lemken.ru
**Web** www.lemken.ru

## (S) Sweden

**LEMKEN Skandinavien ApS**
Mats Jönsson
Karlslunds Gard, Vallby
SE-276 56 Hammenhög
**Mob** +46 70 655 01 10
**Mail** m.jonsson@lemken.com

## (SK) Slovak Republic

**LEMKEN SLOVAKIA s.r.o.**
Robert Pecko
Nitrianska cesta 5
91701 Trnava
**Tel** +421 335 353798
**Fax** +421 335 353799
**Mob** +421 905 787796
**Mail** pecko@lemken.com

## (SLO) Slovenia

**Slavko Kralj**
Cresnjevci 215
9250 Gornja Radgona
**Tel** +386 2 5691314
**Fax** +386 2 5698319
**Mob** +386 41 682314
**Mail** s.kralj@lemken.com

## (SRB) Serbia

**Milan Slavkovic**
Bul. Iovana Ducica 2
21000 Novi Sad
Serbia
**Tel** +381 21 402 940
**Fax** +381 21 402 940
**Mob** +381 69 780 345
**Mail** slavkovic@lemken.com

## (TMN) Turkmenistan

**ERDEM Economic Society**
Sary Atayev
1944 (Zahmet) str., 101
744015 Turkmenistan, Ashgabat
**Tel** +993 12 282 708
**Fax** +993 12 282712
**Mail** sary.atayev@turkmenagro.com
**Web** www.turkmenagro.com

## (TR) Turkey

**Artiklar**
Agricultural Machinery
Nihat Kaya
Özel Organize Bölgesi 5. Sk. No: 25
Bogaz Köyü / Nevsehir
**Tel** +90 549 265 00 50
**Fax** +90 384 212 54 40
**Mob** +90 532 212 54 40
**Mail** n.kaya@artiklartarim.com.tr
**Web** www.artiklartarim.com.tr

## (UA) Ukraine/ Moldova

**LEMKEN-Ukraina**
Artem Kalashnik
ul. Akademika Zabolotnogo, 150-A, of 112
03680, Kiev
**Tel** +38 044 593 2772
**Fax** +38 044 593 0708
**Mob** +38 067 216 8695
**Mail** a.kalashnik@lemken.com.ua

## (USA) United States of America

**LEMKEN GmbH & Co. KG**
Jim Balstad
1920 Queensbury Street
West Fargo, ND 58078
**Fax** +1 701 360 9154
**Mob** +1 701 205 1052
**Mail** balstad@lemken.com

## (UZ) Uzbekistan

**JV Lemken Chirchiq LLC**
Alischer Khudayberdiev
Ravnaq Str. 1a
100170 Taskent
**Tel** +998 71 268 0346
**Fax** +998 71 268 0384
**Mob** +998 90 351 3536
**Mail** a.khudayberdiev@
lemkenchirchiq.uz
**Web** http://lemkenchirchiq.uz

## (ZA) South Africa

**LEMKEN South Africa pty. Ltd.**
Karel Munnik
Unit 6
Garsfontein Office Park
645 Jacqueline Drive
Garsfontein
Pretoria
**Mob** +27 82 412 2577
**Fax** +27 86 636 9969
**Mail** k.munnik@lemken.com

# Better stick to the original: LEMKEN spare parts!


When you have bought a machine from LEMKEN, the well-known, almost proverbial LEMKEN service starts. 18 customer-oriented factory branches and outdoor storage areas in Germany as well as our own sales companies and importers in more than 50 countries, and a strong dealer network, ensure that machines and spare parts are supplied quickly. If a part is not in stock, it can be delivered to the customer within 24 hours via the LEMKEN logistics centre which is manned round-the-clock 365 days a year.

## Original spare parts for maximum service lives

LEMKEN wearing parts are designed for a maximum service life. Highquality steels, the latest production methods, and an intensive quality control ensure a long service life. Therefore, all original spare parts bear a unique identification with the registered LEMKEN trademark. Original spare parts can be ordered at any time online on the Internet via the LEMKEN information and ordering system.

### Knowledge from the LEMKEN specialist

Well trained customer service technicians are available to farmers, contractors and trade, who are using machinery for the first time, as well as for professional maintenance and repairs. Thanks to regular training courses, LEMKEN customer service is always up to date with the latest LEMKEN technology.

LEMKEN

The Agrovision Company

LEMKEN GmbH & Co. KG
Weseler Straße 5
46519 Alpen, Germany
Phone +49 2802 81-0
info@lemken.com
lemken.com